

**THE SANCTUARY OF DEMETER AT PERGAMON:
ARCHITECTURE AND DYNASTY IN THE EARLY
ATTALID CAPITAL**

by

Cornelie Piok Zanon

Dipl. Ing. Arch. Fachhochschule München, 1997

M.A. University of Pittsburgh, 2000

Submitted to the Graduate Faculty of
the Department of the History of Art and Architecture, FAS in
partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

University of Pittsburgh

2009

UNIVERSITY OF PITTSBURGH
DEPARTMENT OF THE HISTORY OF ART AND ARCHITECTURE, FAS

This dissertation was presented

by

Cornelie Piok Zanon

It was defended on

17 April, 2009

and approved by

H. Anne Weis, Ph. D., Associate Professor

Katheryn M. Linduff, Ph. D., Professor

Barbara McCloskey, Ph. D., Associate Professor

C. Drew Armstrong, Ph. D., Assistant Professor

Kai K. Gutschow, Ph. D., Associate Professor, Carnegie Mellon University

Dissertation Director: H. Anne Weis, Ph. D., Associate Professor

Copyright © by Cornelia Piok Zanon

2009

**THE SANCTUARY OF DEMETER AT PERGAMON:
ARCHITECTURE AND DYNASTY IN THE EARLY ATTALID CAPITAL**

Cornelie Piok Zanon, PhD

University of Pittsburgh, 2009

The Sanctuary of Demeter at Pergamon, capital of the Attalid kingdom in Asia Minor (283-133 BCE), is among the city's oldest, largest, and best-preserved monuments, and it affords a unique view into its development. The cult-site was established in the fourth century BCE and renovated twice in the Hellenistic period — by Philetairos (283-263 BCE), founder of the Attalid dynasty, and by Queen Apollonis, wife of Attalos I (241-197 BCE) — and again in Roman times. Despite its well-documented history, the sanctuary still awaits analysis as an architectural, ritual, and dynastic space, along with integration into the scholarship on Pergamon.

This dissertation reexamines the precincts of Philetairos and Apollonis with the aim of reconstructing a context for the sanctuary in the Attalid capital. The investigation proceeds from a reassessment of the archaeological remains, formal and comparative analysis of the monuments, and consideration of cultic requirements. It offers a revised picture of the

precinct's development by proposing new reconstructions for the pre-Attalid temenos and the building phases of Philetairos and Apollonis. It presents new evidence for narrowing the time-frame of Apollonis' dedication, making it one of the most precisely dated monuments at Pergamon. Although the lack of precise information on the cult prevents ritual identification of all structures on the site, an attempt is made to explain the precinct's ceremonial use. A focal point of the dissertation is the contextualization of the sanctuary's architectural detail. My analysis shows that the monuments of the Demeter Sanctuary were rooted in an Anatolian building tradition and that the style(s) of Apollonis' buildings elaborated on the architectural language of Philetairos' designs, conveying both unity and continuity.

My reevaluation of the Demeter Sanctuary as an architectural and ritual space lays the groundwork for my future, broader investigations into the role of this cult-site in the Attalid capital — studies that address the intersection of gender, cult, dynasty, and building style in this space.

TABLE OF CONTENTS

PREFACE	x
1.0 INTRODUCTION	1
2.0 THE SANCTUARY OF PHILETAIROS	21
2.1 The Pre-Attalid Precinct	22
2.2 The Architecture of Philetairos	26
2.2.1 The Main Altar (Altar A)	28
2.2.2 The Temple	42
2.2.3 The Temenos	68
2.2.3.1 The Lower North Stoa.	70
2.2.3.2 The Theatron.	78
3.0 THE SANCTUARY OF APOLLONIS	85
3.1 The Architecture of Apollonis	86
3.1.1 The Propylon	91
3.1.1.1 The Propylon East Elevation.	93
3.1.1.2 The Propylon West Elevation.	103
3.1.2 The Theatron	106
3.1.3 The West Stoa Complex	109
3.1.3.1 The West Stoa.	110
3.1.3.2 The Rooms.	111
3.1.4 The South Stoa	112
3.1.4.1 The Basement.	114
3.1.4.2 The Porticos on Temenos Level.	118

3.1.5	The Upper North Stoa	122
3.1.6	The Lower North Stoa Complex	127
3.1.7	The Temenos of Apollonis	131
3.1.8	The Forecourt and Service Rooms	134
3.2	The Date of Apollonis' Project	136
4.0	FINAL REMARKS	145
	APPENDIX. ORTHOSTATE BLOCKS OF THE DEMETER TEMPLE	153
	Bibliography	155

LIST OF TABLES

1	Temple Orthostates: First Orthostate Row. Measured August 2004.	154
2	Temple Orthostates: Second Orthostate Row. Measured August 2004.	154
3	Temple Orthostates: Third Orthostate Row. Measured August 2004.	154

LIST OF FIGURES

1	View of the Demeter Sanctuary in its current state (2004).	2
2	Proposed plan of the Demeter Sanctuary of Apollonis.	20

PREFACE

This project originated when I first set foot into the office of my (then future) academic advisor, H. Anne Weis. On her desk sat a book on Pergamon, a subject that stayed with me ever since and will probably do so for a long time to come. This manuscript would not have been completed without Prof. Weis' steady guidance and her enduring and tireless support. It developed its form in long hours of discussions — in her office, over dinner, and by email or phone — and through her critical reading and editing of drafts. Her eye for the detail and her demand for precision have been invaluable for formulating my ideas and for putting them into writing. Her probing questions and willingness to go against the grain time and again have shaped my thinking in the most profound ways. I owe her more than one can put into words and I will never cease to be inspired by her.

Many others have contributed to the advancement and completion of this project. I am greatly indebted to my dissertation committee, Profs. Drew Armstrong, Katheryn Linduff, Barbara McCloskey, and David Wilkins at the University of Pittsburgh, and Prof. Kai Gutschow at Carnegie Mellon University, for their ongoing support and guidance, helpful comments on drafts, and above all their patience with the often slow pace of my progress.

I would also like to express my gratitude to the University of Pittsburgh community, foremost the Department of the History of Art and Architecture: to the faculty and fellow graduate students for superb lectures, inspiring discussions, and friendship; to the staff, especially Linda Hicks and Emily Lilly, for their help with administrative matters, and in the library to Margaret McGill, Marcia Rostek, and Ray Anne Lockard for maintaining a first-rate research environment. In the Department of Classics, I should like to thank Prof. Edwin Floyd for introducing me to the Greek language, and Prof. Harry Avery for his help with translations, his guidance in approaching and using ancient literature, and his continued

interest in my work. I am also tremendously grateful for the financial assistance in the form of both research and teaching fellowships and travel grants the University has so generously provided.

The observations and ideas put forth in this manuscript have to a large extent been shaped by travel and research abroad and I am indebted to many for having turned my travels into productive and memorable endeavors. My thanks go to the American School of Classical Studies at Athens, especially to Dr. Robert Bridges and Prof. Stephen Tracy, and to Prof. Mark Fullerton, director of the summer program in 2001, and from the Agora Excavation team, to director Prof. John Camp and to architect Richard Anderson for a private tour of the Stoa of Attalos. This project could not have come about without the enormous support of the *Deutsches Archäologisches Institut* (DAI): my heartfelt thanks go to Dr. Heinz Beste for patiently introducing me to the silent but powerful language of the ashlar block. I am greatly indebted to Prof. Wolfgang Radt, his wife Barbara Radt, and the Pergamon excavation team of the summers 2003 and 2004, especially Martin Bachmann, Corinna Brückener, and Ulrich Mania, for providing help and expertise on Pergamene matters and for allowing me to explore the Pergamene landscape and territory with them. My time at Pergamon has contributed much to my understanding of living and building in this rugged but intensely beautiful landscape. Marianne Schmitz kindly assisted my research at the DAI library in Berlin. Dr. Volker Kästner at the Pergamon Museum in Berlin has been most accommodating while I was conducting research in the museum archives. Financial support for my travels was provided by a generous grant from the Samuel H. Kress Foundation.

The present project also profited from scholarly exchange. Sincere thanks go to the following for sharing manuscripts and engaging in scholarly discussions on subjects related to my dissertation: Prof. Boris Dreyer (Universität Göttingen), Prof. Mary Hollinshead (University of Rhode Island Kingston), Prof. Susan Kane (Oberlin College), Prof. Elizabeth Kosmetatou (University of Illinois Springfield), Prof. W. Raeck (Universität Frankfurt), Prof. K. Rheidt (Technische Universität Cottbus), Prof. Peter Schultz (Concordia College), Prof. Jean Sorabella (Adelphi University), Prof. Allaire B. Stallsmith (Towson University), Prof. Gretchen Umholtz (University of Massachusetts Boston). Andrea Zurl (Freiburg) and

Thomas Cramer (Technische Universität Berlin) have kindly volunteered their respective expertise on plaster and paint and building materials and quarries.

Special thanks are due to Prof. Dr.-Ing. Hansgeorg Bankel at the Fachhochschule München who first instilled in me the love for ancient architecture and who, out of the kindness of his heart, has served me as a mentor and advocate on many occasions. The present project would not have been possible without his commitment and action on my behalf.

My family — both here and abroad — has been my pillar of strength during many moments of doubt and struggle and it is to them that I am indebted the most. I thank my parents for fostering my inquisitive mind, for encouraging me to excel, and for quietly accepting the distance that the pursuit of my studies has put between us. My husband Thomas helped this project along in more ways than I can describe and I owe him forever for his patience during long periods of travel, for his technical advise in the formatting of the manuscript, and above all for his encouragement and companionship in the writing process. Our son Laurin has been the most wonderful reminder of the joy and pleasure one gains from learning and exploring.

1.0 INTRODUCTION

The Sanctuary of Demeter at Pergamon (*Figure 1*), capital of the Attalid kingdom (283-133 BCE) in Asia Minor, is one of the largest, oldest, longest-lived, and best preserved public spaces of the ancient city.¹ Yet, considering its size, age and excellent state of preservation, it has received comparatively little discussion. It is situated on a natural terrace on the Pergamene hill, halfway between the lower city and the acropolis, but it is part of neither area and, for this reason, perhaps, it is often forgotten in discussions of the city's building program.² Apart from its location, other factors may have contributed to its disregard in scholarship. First, its construction date: the Demeter Sanctuary received its final form in the third century BCE — well before the city's second-century heyday as the capital of a major Hellenistic power, the period that has consumed most scholarly attention.³ Second, its aesthetics: the building material used in the Demeter Sanctuary was andesite, a local volcanic rock of less value and attractiveness, in the eye of the modern beholder, than the fine (imported) marbles used in the second-century monuments.⁴ Third, the cult: the rituals of Demeter — especially in her capacity as *Thesmophoros* — were mostly restricted to women and were kept secret; although Demeter's cult played a vital role in the ritual life of all Greek cities, its nature is still far from understood. Despite much recent work on the role of women in Greek religious practice, women's cults remain underexplored and undervalued pieces of the fabric of ancient life and await integration into the discussion of how cult and ritual

¹For a map of the Pergamene acropolis and a model reconstruction of the Demeter Sanctuary, see [Bohtz \[1981\]](#) fig. 1 and pl. 5.1.

²For the location of the Demeter Sanctuary at Pergamon, see [Bohtz \[1981\]](#) pl. 5.1.

³Pergamon is especially well known for its second-century monuments, like the Great Altar, Theater, and Sanctuary of Athena.

⁴Thus, for example, [Hoepfner \[1996\]](#) 25, notes that the area around Pergamon “does not offer good building material” and that andesite “does not lend itself to large building projects and the fashioning of architectural details.”

shaped the ancient community. Thus, uncertainty and preconceptions about the nature and importance of the cult may also account for the unwillingness to engage with this cult site and to discuss its implications for the urban and ideological development of Pergamon as a Hellenistic capital.

The history of the Demeter Sanctuary, however, is probably better documented than that of other, better known monuments at Pergamon. Established as a cult site in the late fifth or early fourth century BCE, a first attempt to formalize the precinct occurred sometime in the later fourth century BCE.⁵ Around 270-260 BCE, the sanctuary was enlarged

⁵The origins of the cult of Demeter at Pergamon, like much of the earliest history of the site, are unknown, but it seems likely that it was established at about the same time as that of Athena, when the Persian satrap Orontes allowed the people of Pergamon to resettle the acropolis, sometime around 350 BCE. *IvP* 613 (= *OGIS* 264). The best summary of the data on the city's early history is still [Hansen \[1971\]](#) 8-13. See now



Figure 1: View of the Demeter Sanctuary in its current state (2004).

and embellished with an altar, a temple, and other cult furniture by the founder of the Attalid dynasty, Philetairos. Two generations later, Queen Apollonis, wife of the first Attalid king, Attalos I, expanded the precinct, surrounding it with stoas and other buildings. Her additions and those of Philetairos are both documented through inscriptions.⁶ In Roman times, the sanctuary was renovated twice, first in the early imperial period (first century BCE to first century CE) and again in the second half of the second century CE, a project that was sponsored at least in part by the prytanis Claudius Silianus Aesimus, as indicated by inscriptions. At that point, some of the andesite structures were either replaced with marble ones or clad in marble revetments, and the Demeter Temple received a marble porch. The use of the sanctuary as a cult site of Demeter ended with the collapse of the Roman Empire, but few sanctuaries in the city enjoyed a comparable history of continuous ritual use.⁷ In the Byzantine period, the precinct seems to have been converted into a residential area with small, hastily built houses replacing the large Hellenistic and Roman stoas.⁸

The excavation and publication history of the precinct is quickly recounted: the sanctuary was excavated in the years leading up to WWI by German archaeologist Wilhelm Dörpfeld, and reexamined in the 1960s by Carl Helmut Bohtz who authored its 1981 publication as volume 13 of the Pergamon series, *Altertümer von Pergamon*.⁹ Sandor Kasper's study of the Demeter Altar (Altar A) appeared as a separate article in 1972 in the secondary Pergamon series, *Pergamenische Forschungen*.¹⁰ It may seem from this that the sanctuary is adequately published, but, in fact, adverse circumstances in the sanctuary's excavation

also [Hoepfner \[1996\]](#) 23. [Pedersen \[2004\]](#) 414.

⁶The genealogy of the Attalid family and history of the kingdom have been explored in detail in earlier scholarship and the reader should refer to these studies for more detail on these issues. [Hansen \[1971\]](#). [Allen \[1983\]](#). [Hopp \[1977\]](#). [Radt \[1999\]](#).

⁷The sanctuary functioned as a cult site of Demeter for nearly 700 years. Only the Sanctuary of Athena on the Acropolis and the Sanctuary of Asklepios in the Selinous valley seem to have enjoyed a similarly lasting importance. See the discussions in [Radt \[1999\]](#).

⁸For the history of the sanctuary, see [Bohtz \[1981\]](#) 56-59. For the cultic development, see [Ohlemutz \[1968\]](#) 203-224 and [Thomas \[1998\]](#).

⁹Excavation reports: [Dörpfeld \[1910\]](#). [Dörpfeld \[1912\]](#). [Bohtz and Albert \[1970\]](#). Final publication: [Bohtz \[1981\]](#). As part of his final publication Bohtz also commissioned sculptor E. Simon to produce a model of the reconstructed precinct. Pls. 4-5.

¹⁰[Kasper \[1972\]](#). The altar had been examined in a 1938 campaign by H. Hanson, but his finds were never published.

history affected its publications: first, the director of the initial excavations, Dörpfeld, did not return to Pergamon after WWI, but condensed his findings in two preliminary excavation reports. Almost three quarters of a century passed between his excavation of the precinct and the appearance of the final publication on the Demeter Sanctuary, during which time crucial archaeological data — both material from the site and excavation records — disappeared.¹¹ Second, the precinct’s small finds and sculpture were never systematically recorded or published; a publication on this subject is still outstanding and most likely will never appear.¹² Finally, Bohtz’s rapidly failing health forced him to sketch out the manuscript on the precinct architecture in haste, unable to devote much attention to the study of the individual monuments, their ritual function or their place at Pergamon and within a broader Hellenistic context. In many instances, his descriptions did not move beyond the suggestions and interpretations Dörpfeld had offered in his preliminary reports.¹³ Since then, work on the Demeter Sanctuary has mostly been peripheral. Although occasional reference is made to the sanctuary in studies of Hellenistic architecture, religion, and culture,¹⁴ they are usually vague or concerned with specific details, and only few attempts have been made to engage more thoroughly with the precinct as either cult place or architecture.¹⁵ Without a comprehensive publication of the sanctuary and a detailed discussion of its individual components, it remains largely inaccessible as both a cultic and civic space. Put simply, the Demeter Sanctuary remains largely unknown, even among scholars of the period.

¹¹Nilsson [1960] 199, n. 48, cites a letter by H. Hepding (one of the excavators working with Dörpfeld), dated to 28 September 1950, that describes a number of small finds from the Demeter Sanctuary, including a piglet made of rock crystal, that were never recorded in either excavation diaries or preliminary reports.

¹²Some material was published in the preliminary excavation reports. Hepding [1910b]. Ippel [1912]. W.-D. Albert was in charge of the publication of the sanctuary’s small finds in the 1960s, but this work was never completed. Some additional data is collected in Töpperwein [1976], but inherent structural problems in this study make it difficult to extract the material of the Demeter Sanctuary, and there is little or no context offered that would allow me to develop a mental picture of the role and quality of Pergamene terracottas in a Hellenistic, or even regional, setting.

¹³Bohtz died in 1979; the publication of the Demeter Sanctuary came about posthumously two years after his passing. It is a great tribute to his determination and that of his wife that it appeared at all, and it is safe to say that without this work, despite its many shortcomings, much valuable data on this precinct would have been lost forever. For a review of Bohtz [1981], see Raeck [1983].

¹⁴E.g., von Hesberg [1981]. Bingöl [1990]. Coulton [1976]. Börker [1965]. Umholtz [1994]. Sfameni-Gasparro [1986]. Savalli-Lestrade [1994]. Most recently, Leybold [2008] no. 30.

¹⁵Schalles [1985] 22-26, 146-147. Thomas [1998]. Umholtz [1998] and forthcoming.

This dissertation seeks to fill some of these gaps by offering a more detailed reexamination of the precinct architecture and a preliminary discussion of its position in the history of Hellenistic architecture. The focus is on the sanctuary's Hellenistic building phases, specifically, the reorganization of the precinct by Philetairos, and the enlargement of the cult terrace by Queen Apollonis.¹⁶ As part of this enterprise the by now accepted reconstructions of the sanctuary in its different construction stages must be revisited and their evidence must be scrutinized anew; the archaeological remains must be studied against the functional requirements of the site — its topography, building sequence, and ritual use.¹⁷ At the same time, however, this project does not seek to replace previous studies on the precinct; rather, it aims to attract and refocus attention on this monument, by studying it as a product of its specific setting at Pergamon in the early Hellenistic period. In this way, the study draws from and builds upon the foundational work laid by generations of Pergamon scholars with the goal of adding knowledge about the cult site and its role in the development of Pergamon as a Hellenistic capital and cultural hub.¹⁸

The present project is an architectural study; its primary aim is to reconstruct the Demeter Sanctuary as an architectural and ritual space, and to describe its individual components as part of a larger spatial concept and in terms of its details. Hence, in the discussion of the precinct architecture, two aspects emerge as important: the layout of the sanctuary as a discrete space, and the treatment of the individual monument. Both contributed to the character of the cult site and to the image the sacred space was to convey as a whole. Ultimately, however, spatial configuration and architectural detail must be studied together and against each other in order to reconstruct successfully the sanctuary as a three-dimensional space. The precinct also needs to be brought into relation with its surroundings. An essen-

¹⁶There are many unanswered questions regarding the format and use of the Demeter Sanctuary in Roman times as well, but such an investigation would go much beyond the scope of the present undertaking and must be dealt with in a separate, perhaps future, project. Similarly, the dissertation cannot discuss the small finds and non-architectural sculpture from the sanctuary, a renewed study of which may produce new insights into the nature of the rituals celebrated on the cult terrace.

¹⁷Bohtz's publication also included several "slips", missed building parts, inconsistencies in the reconstruction drawings, structurally unsound reconstructions, etc., that this project attempts to rectify, although this is not its central objective.

¹⁸Since my own field research was limited to ground survey and recording of visible blocks left at the site (a good number of which are still in situ), the present project is greatly indebted to the archaeological work conducted by both Dörpfeld and Bohtz.

tial part of my architectural analysis, therefore, is devoted to the contextualization of the architectural vocabulary employed in the design of the Demeter Sanctuary.

The main method of analysis employed in the present project is that of looking, describing, and comparing, following the traditional approaches of formal analysis. Although the interpretation of the archaeological remains is indebted to critical theory, most notably Lefebvre's notion of urban space as a social product,¹⁹ it is imperative to begin my reexamination of the Demeter Sanctuary with a thorough dissection of the space and its individual components. In doing so, my study is particularly inspired by L. Shoe Merritt's method of scrutinizing each monument down to its smallest (decorative) detail in order to assign it a place within its time and space.²⁰ Although I am less convinced that small details, like moldings, can be used to accurately date monuments on the basis of an evolutionary model, I follow Merritt's suggestion that moldings and other decorative elements can be used to identify regional schools, trace shifts in design attitude, detect new decorative approaches or revivals of established ones, and identify relationships among regions, even distant ones, on the Mediterranean map. The study of architectural detail from the Demeter Sanctuary is hence not an introverted project with an end in itself, but it involves broader issues of regional identity, the economy of building, and notions of trading, travelling, and migrating. At Pergamon, for example, a close reading of the moldings of the Demeter Temple affects the way we can discuss the temple's place in the Attalid building program and its contribution to the shaping of Attalid identity.²¹

The organizational model developed for the dissertation is conditioned by the goal of offering revised reconstructions of the sacred space in its two Hellenistic building phases. Hence, the architectural analysis is broken down into two chapters that describe two specific moments in the history of the Sanctuary. Chapter 2 is devoted to the precinct of Philetairos, with a brief look at the sanctuary in its pre-Attalid phase. A central aspect of this section forms the reexamination and characterization of Philetairos' altar and temple, albeit without

¹⁹Lefebvre [1991].

²⁰Shoe [1936]. Recently, this method was also employed by Rumscheid [1994] in his study of the decorative vocabulary of Hellenistic and Roman architecture from Asia Minor.

²¹See the exceptional model set forth by Umholtz [1998].

a new reconstruction of the temple's east facade which was rebuilt in the Roman period.²² The temple facade is a problem that requires its own space and more time than I was able to devote to it within the limits of this dissertation.²³ The architectural reexamination of the temple remains is important for my long-term goal of reconstructing the temple in its entirety and, even without a new reconstruction of the elevations, analysis of the architectural detail enables contextualization of the temple design and reconstruction of its contribution to the Attalid capital.

Chapter 3 focuses on the expansion of the temenos by Queen Apollonis. The majority of the chapter is devoted to the architectural analysis of the individual monuments within the precinct; a brief section at the end reexamines the evidence for the date of her project. As in Chapter 2, each structure is studied to its smallest detail and the analysis of the individual buildings is bracketed by discussions of the precinct's spatial configuration and the formal interplay of monuments. Whenever possible, the architecture is brought in relation to the cult ritual, both to explain its purpose in the precinct and to make suggestions about its ritual use. A central focus of this section is the relationship between Philetairos' and Apollonis' monuments — the extent to which Apollonis' additions were inspired by and at the same time modified the design of the existing structures.

The decision to adopt a chronological rather than thematic frame for my discussion of the Demeter Sanctuary was motivated by the desire to produce a narrative and to emphasize diachronic relationships between these two moments and spaces while at the same time communicating their discrete characters.²⁴ Albeit divided by time, common themes bind the two chapters together: the cult, specifically the civic festival of the Thesmophoria; the Attalid family showcased throughout the cult site in selectively placed inscriptions; and,

²²The present reconstruction in [Bohtz \[1981\]](#) pl. 53 is incorrect. [Rumscheid \[1992\]](#). [Rheidt \[1996\]](#). See the discussion in Chapter 2.

²³The question of the elevations of the Hellenistic temple is intimately tied to the reconstruction of the building in its Roman phase when it received a second, marble, porch that was in some (yet to be reconstructed) way connected to the Philetaiorean structure. Thus, reconstruction of the Hellenistic temple cannot be severed from its Roman additions.

²⁴By comparison, [Bohtz \[1981\]](#) decided on a monument-by-monument approach, starting with the forecourt in the east and ending with the altars in the center. Because every monument was studied in isolation and apart from its construction date, this method made it impossible to envision the space in its successive phases.

from an architectural vantage point, the manipulation of the ritual space and the reliance upon an eclectic architectural vocabulary for the decorative styles of the monuments.

At the core of the architectural analysis presented in the subsequent chapters is the premise that architectural monuments, their individual designs and aesthetics, their urban locations and settings, are products of social process and social structures and, as such, they provide insights into issues of patronage and ownership, of ideologies of state, kingship, and self-presentation, of cult, religion, and cultural values, and into questions of economic and political interaction with other entities.²⁵ Architectural monuments, like the Sanctuary of Demeter, offer a portal into a period or its moments so, while the focus of the dissertation is the architecture, the architectural analysis offered in this manuscript is only the spring board for what will ultimately be a broader, more complex investigation into the relationship between cult and cult building at early Hellenistic Pergamon and into the formulation of a public image for the Attalid dynasty. In reconstructing the function of the Demeter Sanctuary at third-century Pergamon, two aspects emerge as central: first, the notion of how the third-century Attalids conceived of themselves, the struggles they faced and the aspirations they pursued as they were solidifying their rule, building their seat at Pergamon, and crafting a public identity for themselves; and second, the cult of Demeter, specifically that of Demeter (and Kore) Thesmophoros, its role in the nascent capital and in the Attalid mission to put themselves on the Hellenistic map. Due to its breadth, this project must be dealt with separately from the architectural study presented in the chapters to follow, but it is important to describe its parameters in order to explain the need for a renewed examination of the Demeter Sanctuary as a ritual and civic space. The remainder of this introduction is therefore devoted to describing the larger picture into which the discussion of the precinct architecture of Chapters 2 and 3 must be placed.

As the only monument at Pergamon that can be securely linked to the respective reigns of Philetairos and Attalos I,²⁶ the Sanctuary of Demeter affords a unique window into the

²⁵Following H. Lefebvre's notion of space as a social product. See [Lefebvre \[1991\]](#).

²⁶The Temple of Zeus (also known as the Market Temple) in the city's Upper Agora is now also attributed to Attalos I on the basis of associated finds, but no dedicatory inscriptions for this building have survived that specifically identify him as the building's patron. [Rheidt \[1992\]](#).

earliest chapter of Attalid history — the formation of the kingdom and the conversion of Pergamon from a military fort into a veritable Hellenistic capital.²⁷ This process has been studied from an historical perspective,²⁸ but comparatively little has been said about the early Attalids' attempts to forge a dynastic, and later a royal, identity for themselves through the use of cult and architecture. H.-J. Schalles' seminal 1985 study on this subject is now outdated:²⁹ its focus is on the Sanctuary of Athena and the sculptural monuments of Attalos I — the Sanctuary of Demeter and other early monuments within the city receive comparatively little attention;³⁰ there is no discussion of how these early monuments functioned in the Attalid quest to build a new Hellenistic capital at Pergamon; and new information about third-century Pergamon has come forward since his publication along with much comparative data for the cultural strategies of contemporary kingdoms, like the Ptolemies of Egypt and the Seleukids of Syria. The amount of data now available allows for a more nuanced interpretation of the Attalids' use of architecture and religion in the formative years of their kingdom.³¹ Perhaps the most important development in recent scholarship, however, is the tendency to study Pergamene monuments as part of an Anatolian (or Asia Minor) building tradition, rather than as products of a Greek cultural idiom.³² This approach, which takes into account the cultural locale out of which Pergamon and its rulers emerged, is inherently more convincing, and is therefore adopted in the present study.

A lot was at stake, when in 283 BCE, Philetairos, then governor of Pergamon, seized an opportune moment to disassociate himself from his suzerain, Lysimachos of Thrace, and establish himself as autonomous overlord of Pergamon.³³ Attalos' claim to kingship two generations later must have been perceived as an equally bold move by both allies and rivals. There is no doubt that the plentiful and generous dedications, gifts, and donations

²⁷Strabo, 13.4.1-2.

²⁸See among others, Hansen [1971] 14-21. Allen [1983] 159-170. McShane [1964] 30-42.

²⁹Schalles [1985].

³⁰Schalles [1985]. On the sanctuary of Demeter, see 22-26 and 146-147.

³¹More recent studies of Attalid cultural policies and image-making efforts include Gruen [2000] and Kosmetatou [2003]. Although both papers vividly capture the issues that drove the Attalids, neither author pays much attention to the place of the Demeter Sanctuary in the Attalid efforts to build a royal capital.

³²Pedersen [2004]. Kästner [2004]. Hoepfner [1996]. Ridgway [2001]. Kuttner [2005].

³³Strabo 13.4.1. Lysimachos was one of the *diadochoi*, Alexander's generals who divided Alexander's realm after his death in 323 BCE. On the history of events leading to Philetairos' claim to power, see Allen [1983] 9-13. Hansen [1971] 15-17. Lund [1992] 184-206.

made by Philetairos and Attalos to Aegean cities and sanctuaries were intended to boost their rule and to help them gain acceptance as an emerging Hellenistic power.³⁴ Their investments in building a capital were driven by the same ambitions and the attention the first generations of Attalids devoted to the embellishment and expansion of the cult site of Demeter can therefore hardly be overestimated.

Although Philetairos was not able to bolster his newly gained autonomy with a claim of noble lineage,³⁵ his assertion of sovereignty at Pergamon followed a history of dynastic rule at that site³⁶ and at other sites in western Asia Minor.³⁷ By presenting himself as part of this tradition, Philetairos found justification for his move towards independence and models for both managing his new realm and for developing Pergamon.³⁸ Philetairos' financial situation in the early third century is not entirely understood and, although he seems to have had considerable resources, he had to choose his investments wisely, for the task of solidifying his rule was tremendous:³⁹ it involved building up an army — or hiring mercenaries — to

³⁴On Attalid foreign policies and their donations, see [McShane \[1964\]](#). Also [Schalles \[1985\]](#). [Bringmann and von Steuben \[1995\]](#). Philetairos' immediate successor, Eumenes I, also gave generously to cities and sanctuaries outside the kingdom. [Schaaf \[1992\]](#) 112-120. [Hinzen-Bohlen \[1992\]](#).

³⁵Philetairos' origins are murky; of his father, nothing but the name, Attalos, is known. Philetairos' mother, Boa, was said by some ancient authors (Athen. 13.577b, Luc. *Macr.* 12.7) to have been a courtesan and flute player but this is unlikely considering the prominent display of her name in the inscriptions of the Demeter sanctuary (see Chapter 2). It is more likely that Boa's name, and hence Philetairos' origin, was called into question by the anti-Attalid campaigns of late Republican Rome. Thus also [Magie \[1950\]](#) 728 n. 7. On the family's origins, see [Hansen \[1971\]](#) 15. [Billows \[1995\]](#) 104, n. 67. [Kosmetatou \[2003\]](#) 159-161.

³⁶The earliest known reference to dynastic rule at Pergamon comes from Xenophon (*Hell.* 3.1.6), who notes that around 490 BCE, the Gongylids, a family from Eretria, ruled at Pergamon, presumably in some kind of satrapal dependency to the Persian king. [Hansen \[1971\]](#) 9. In the fourth century BCE, Hermias of Atarneus (a town in the Aeolis region of Asia Minor), with the help of Philip II of Macedon, enjoyed a brief rule as dynast over parts of Mysia before being executed by the Persians. [Kosmetatou \[2003\]](#) 160. [Chroust \[1972\]](#) 171.

³⁷Comparably sized, contemporary dynasties or kingdoms include the kingdom of Bithynia in northwestern Asia Minor and the kingdom of Pontus in the Black Sea area, and in Phrygia, the dynasty of Lysias and Philomelos. [Magie \[1950\]](#) 5. [Allen \[1983\]](#) 12-13. [Billows \[1995\]](#) 104-110. Among the most visible dynasties of the region were the Hecatomnids of Caria who, in the fourth century BCE, laid out a model for the use of cult and architecture as dynastic propaganda tools — in developing Halicarnassos as their new capital and in sponsoring the Sanctuary of Zeus at Labraunda. They also developed a number of other sites in Caria but these are less preserved. The bibliography on the Hecatomnids is extensive. The most comprehensive accounts are [Hornblower \[1982\]](#). [Ruzicka \[1992\]](#). The most recent scholarly work on Labraunda is listed at http://www.labraunda.org/Labraunda.org/bibliography_other_eng.html (12 January, 2009).

³⁸Philetairos never seems to have made advances to be more than a dynast and this finds confirmation in Strabo 13.4.1, who refers to Philetairos as *kyrios*, lord.

³⁹As governor of Pergamon, Philetairos was the keeper of Lysimachos' large silver treasure of 9,000 talents. Strabo 13.4.1. According to [Radt \[1999\]](#) 27, one talent of silver weighed approximately 20 kilograms, but it is not clear how much this would buy. [Hansen \[1971\]](#) 15-20. [Allen \[1983\]](#) 14. [McShane \[1964\]](#) 30, notes that Philetairos taxed goods travelling to and from Pergamon and collected tithes from “non-Greeks” in his

defend his territory, creating allies by befriending neighboring cities and kingdoms,⁴⁰ and developing a capital at Pergamon.⁴¹ Thus, any building activity he sponsored at Pergamon must have been essential to his project of advancing his independence and promoting his recognition as a Hellenistic dynast.⁴²

Of the pre-Attalid city very little remains, so it is difficult to assess what Philetairos found upon his arrival at Pergamon.⁴³ Whatever evidence exists, however, points to a permanent or semi-permanent settlement of Greek character:⁴⁴ there is evidence for a cult of Apollo as early as the fifth century BCE,⁴⁵ and in the late fourth century BCE, Athena received a temple on the acropolis.⁴⁶ The cults of Demeter and Asklepios may have been established around that time as well. Greek civic institutions, like the office of the *prytanis* (president of the council), are also recorded for the pre-Attalid city.⁴⁷ At the same time, however, ancient authors, like Strabo (13.4.1), describe the pre-Attalid site as “treasure-hold” (*gazophylakion*), “strong-hold” (*phylaken tou erumatos*), and “fortress” (*tou phroriou*), suggesting a military

territory.

⁴⁰Philetairos provided financial assistance to Kyzikos after the Gauls marauded the city and in turn the Kyzikenes installed a festival, the Philetairaea, in his honor. *OGIS* 748. Allen [1983] 14-45 and 137. McShane [1964] 37. At Aigai, he dedicated land to Apollo and with Temnos he signed a treaty of *isopoliteia*. Allen [1983] 16-18. The term *isopoliteia* implies a reciprocal acknowledgment of each city’s institutions by the partner city, but the exact parameters of such a treaty are still disputed. See the recent discussion by Saba [2004]. Philetairos was particularly invested in befriending the Seleukids: he married his nephew Attalos to a Seleukid princess, and following Seleukos’ assassination in 280 BCE, he bought the king’s corpse, burned it, and returned the ashes to Seleukos’ son Antiochos, presumably as a gesture of friendship and deference. App. *Syr.* 10.63. See also Allen [1983] 13-21, esp. p. 14. Philetairos minted coins with the image of Seleukos, though they carried his own name. Westermarck [1961]. Allen [1983] 9-20 and 159-160, argues that, throughout his rule at Pergamon, Philetairos was never fully independent from the Seleukids. Magie [1950] 728, n. 8, suggests that he may have gained more independence after 274 BCE, when the Seleukids were preoccupied with Ptolemaic invasions of Syria.

⁴¹On Philetairos’ strategies, Gruen [2000] 21 and Kosmetatou [2003] 159-161.

⁴²It is unclear how much Philetairos built at Pergamon. Apart from his additions to the Demeter Sanctuary, the only project that can be securely linked to his reign is the Sanctuary of Meter at Mamurt Kale, ca. 50 km southeast of Pergamon.

⁴³Remains from pre-Attalid Pergamon are scant. Long-time excavation director at Pergamon, W. Radt, noted that “building activity at the time of the Pergamene dynasty and in the Roman period was so comprehensive that it often seems to have obliterated almost all traces of the city before the time of Philetairos.” Thus paraphrased in Pedersen [2004] 415.

⁴⁴There is some evidence to suggest that there was some disruption in the settlement of the site in the fifth and fourth centuries BCE. Hansen [1971] 10-11.

⁴⁵Ohlemutz [1968] 4-6 and 123-124.

⁴⁶The date of the Athena Temple is disputed in scholarship, but the most thorough analysis of the evidence by Schalles [1985] 5-22, points — convincingly — to a date in the years 330-325 BCE.

⁴⁷*IvP* 613 (= *OGIS* 264.). Hansen [1971] 10. For pre-Attalid remains on the acropolis, see Hoepfner [1996] 23-24. Pedersen [2004] 414-415.

fort rather than a city, and it may well be that the pre-Attalid settlement was small and heavily fortified.⁴⁸ The evidence for Philetairos' reign is similarly scant, but the layout of a residential area on a regular plan on the hill's south slope is now securely dated to him,⁴⁹ suggesting that the settlement grew under his rule. His elaborate renovation of the Sanctuary of Demeter — the only monument attributable to him within the city of Pergamon — may be indicative of a desire to imprint the settlement with his personal mark and to identify Pergamon as his dynastic seat.

Although the political climate was much different at the end of the third century, Attalos' task was not so different from that of Philetairos, and the building (and rebuilding) of the capital must have remained a major concern of his reign.⁵⁰ His famous victory over the Gauls put Pergamon firmly on the political map — demonstrating Attalos' strengths as a leader — and it put his kingdom on a solid financial footing as well.⁵¹ His consequent assumption of the title *basileos* (king) with all its ideological implications found its visual expression in the many statuary monuments he erected in the city and in Greek sanctuaries.⁵² Whereas it seems that Philetairos used the city to introduce the new dynasty, Attalos' dedications suggest that the capital had become a place to showcase his accomplishments on the battlefield and to create a brand for himself and his dynasty. Although Attalos' building activity at Pergamon is not well documented, the monuments that can be attributed to him point to an investment in building an image of royalty in the city through selectively placed, conspicuous displays, be they sculptural monuments, like those in the Sanctuary of Athena or architectural dedications, like the Temple of Zeus in the Upper Agora.⁵³ His wife's

⁴⁸The so-called Philetaiorean fortification walls are now dated to the pre-Attalid period. [Raeck \[2004\]](#) 28.

⁴⁹[Wulf \[1999a\]](#). [Wulf \[1999b\]](#).

⁵⁰The importance of the capital as the physical and ideological seat of power is made clear by a passage in Polyb. 16.1, that describes how the Macedonian king Philip V, in an effort to defeat Attalos I, vandalized as much of Pergamon as he could and, unable to take the acropolis, razed to the ground any of the city's sanctuaries that lay outside the city wall.

⁵¹[Allen \[1983\]](#) 28-33 and 140-141.

⁵²[Schalles \[1985\]](#). [Allen \[1983\]](#) 65-75.

⁵³On the statuary monuments, see [Schalles \[1985\]](#). [Pollitt \[1986\]](#) 83-97. [Marszal \[1991\]](#). [Marszal \[1998\]](#) [Marszal \[2000\]](#). [Mitchell \[2003\]](#). The Temple of Zeus (also known as the Market-Temple), was a small but ornate tetraprostylos and the first known marble temple from Pergamon. It is particularly noteworthy for its idiosyncratic decorative detail that includes elements suggestive of its royal patron. [Schrammen \[1896\]](#). [Rheidt \[1992\]](#). [Rheidt \[1996\]](#). [Rumscheid \[1994\]](#) vol. 1, 118-124. Two structures similar in plan, the Megalesion near the Sanctuary of Demeter and the so-called Heroon of the Ruler Cult near the acropolis, are also dated to Attalos' reign but these attributions are less secure and the function of these monuments is far from understood.

enlargement of the Demeter Sanctuary must be viewed as part of his effort to turn every part of the city into a space worthy of a royal capital.⁵⁴ Since Attalos' own contributions to Pergamon by and large cannot be retraced due to lack of material remains, the architectural dedications of Apollonis in the Demeter Sanctuary are key to reconstructing Attalos' vision for his capital.⁵⁵

Although the Attalids' continued patronage of Demeter suggests a strong investment in her cult, it remains to be determined to what extent sponsorship of Demeter, and in particular the Thesmophoria, contributed to the shaping of Attalid identity.⁵⁶ In the Greek city, the Thesmophoria were celebrated by the city's women and with the exclusion of men.⁵⁷ Their rites were secret, so information on the Thesmophoric rituals is sparse and difficult to interpret: most references to the festival are anecdotal or second-hand, and they are generally filtered through a male, and occasionally, a Christian lens.⁵⁸ Moreover, given the widespread popularity of the cult, its ritual protocols may also have been subject to regional variation.⁵⁹

Nevertheless, some elements of the Thesmophoria appear to have been common to all Greek cities: the festival took place in the fall, around the time of sowing,⁶⁰ and it lasted for several days, during which time the women lived in the Demeter sanctuary.⁶¹ To ensure the purity of the sacred space and the privacy of the ritual, most Demeter sanctuaries were removed from the community they served.⁶² Apart from location, however, there seem to

⁵⁴Comparable efforts to build the image of the dynasty as a couple will be discussed below 1 on page 17.

⁵⁵Allen [1983] 170, claims that only the Treaty of Apameia in 188 BCE provided the political conditions for the development of a "true" kingdom at Pergamon, a stance that is challenged in the present project.

⁵⁶Apollonis' inscription on the propylon identifies the precinct as a Thesmophorion.

⁵⁷For an excellent summary of what is known about the Thesmophoria, see Kron [1992] 615-620.

⁵⁸Dahl [1976] 104-145, lists 110 references, most of which include only a few lines. The most precise information about the rituals is provided in the scholion to Lucian, *Dial. Meret.* 2.1, but it is both late and convoluted. See the discussion in Kron [1992] 616, n. 24. The literature on the Thesmophoria is vast. For a recent discussion of the problem and literature, see Stehle [2007]. Also useful are Kron [1992], esp. 615-623, and Dahl [1976]. The later is somewhat outdated in terms of methodology but remains the best collection of sources on the subject. See also the bibliography in Dillon [2002] 324, n. 6.

⁵⁹Kron [1992] 616 n. 22. The timing of the festival varied from city to city and, of the many Demeter sanctuaries preserved, no two seem to have been identical; even their place within or in relation to the city differed to some extent. Sfameni-Gasparro [1986] 224-225. Cole [1994].

⁶⁰Sfameni-Gasparro [1986] 224-225.

⁶¹The number of days may have varied among cities. Sfameni-Gasparro [1986] 248-250, points out that in several places it lasted for three days. In Athens, two additional days preceded the three. Brumfield [1981] 79.

⁶²Cole [1994] 216.

have been few requirements to govern the Thesmophorion as an architectural space and in some communities, like Athens, the women used civic structures that had another, secular purpose. At Athens, they may have gathered in the Pnyx which was normally the seat of the *ekklesia* (assembly).⁶³ Even dedicated Thesmophoric sanctuaries were often only loosely defined from an architectural perspective and were normally devoid of ornate structures. The cult ritual did not demand a temple, and few precincts had one. Ritual activity involved (both vegetal and animal) sacrifices and libations and hence centered on altars, *bothroi* (offering pits), and fountains; these have been consistently recovered in Demeter sanctuaries across Greece.⁶⁴

Some kind of theatrical performances, or initiation rituals, may also have been part of the festival, especially in later times, because several sanctuaries include an open space with an adjacent seating area.⁶⁵ Universally important was the consumption of communal meals, as indicated by both textual evidence and by the cooking and dining utensils found in many Demeter sanctuaries; only few precincts, however, had distinct and permanent banqueting facilities.⁶⁶ Likewise, although the women spent several days (and nights) inside the sanctuary, sleeping quarters consisted most often of temporary huts and tents (*skennai*) put up for the duration of the festival.⁶⁷

Viewed against this picture of the civic provisions made for the cult in most cities, the effort invested at Pergamon is enormous and demands further scrutiny. The Attalids created a permanent Thesmophorion, designed on a formal plan that defined the ritual space in a precise way. The precinct was furnished with visually articulated structures, a gatehouse, temple, multiple altars, dining rooms, theater, and large halls that provided shade during

⁶³Thompson [1936]. Broneer [1942a]. Dillon [2002] 119, questions the identification of the Pnyx with the city Thesmophorion, but he notes that, according to Xenophon (*Hell.* 5.2.29), at Thebes, the women met in the Kadmeia, the meeting place of the *boule* (council).

⁶⁴On fountains, Cole [1994]. On altars and *bothroi* in Sicilian Demeter sanctuaries, see Hinz [1998]. Altars, offering pits, and a fountain are also present in the Pergamene temenos.

⁶⁵Aside from Pergamon, theatrical arrangements are known from the Demeter Sanctuaries at Priene, Corinth, and Cyrene. The Sanctuary of Despoina at Lykosoura (Arkadia), a cult similar to Demeter, also had a large theater. Nielsen [2000] 119-120. On the performative element of the Thesmophoria, see Tzanetou [2002].

⁶⁶On banqueting structures in Greek sanctuaries, see Leypold [2008].

⁶⁷Kron [1992] 620-623.

the day and shelter at night.⁶⁸ What significance did the Thesmophoria hold for the Attalids in the third century BCE that drove them to such expense? In order to answer this question, we must look at the function of the cult in the Greek city and relate it to the Attalids' needs as they were consolidating their rule.⁶⁹

To the extent that we can reconstruct the underpinnings of the festival today, the Thesmophoria symbolized the annual renewal of divine order on earth, assuring growth and reproduction, and hence prosperity and continuity.⁷⁰ Yet, its ritual implications were more complex: performance of the Thesmophoric rituals seems to have both questioned and reaffirmed the traditional order of civic life, renegotiating on an annual basis the relationship between human and divine and male and female, and this may explain its importance in the ritual calendar of the Greek city.⁷¹ The celebration of the Thesmophoria epitomized the annual reaffirmation of sedentary life and civilization for the Greek people. As such, its rites, despite their exclusiveness to women, were performed for the benefit of the community as a whole and commemorated the basic institutions of the Greek city, farming and family. At Philetairian Pergamon, therefore, the creation of a formal precinct for the Thesmophoria may have signified, among other things, the (completed) transformation of the site from a military post into a (Greek) city, a move that Philetairos may have deemed essential to his plan of setting up his capital at this site.⁷² With his expensive additions to the Thesmophoric sanctuary, Philetairos may have intended to both commemorate and claim ownership of Pergamon's promotion to a fully functional city — and dynastic seat — and to suggest its longevity and prosperity as a Greek community under Attalid rule.⁷³

⁶⁸Few other Demeter sanctuaries exhibit a similar degree of planning and effort from an architectural point of view. Cf. Selinous, Corinth, Cyrene, Knidos, Priene.

⁶⁹It is impossible within the context of the present undertaking to go into the complexities of the Thesmophoric cult and to explore in detail the meaning it held for the community that celebrated it. In recent years, attitudes about the way we approach and interpret the Thesmophoria have changed considerably, and the cult demands a broader examination as an institution of the Greek city.

⁷⁰Stallsmith [2007].

⁷¹Detienne [1989]. Stehle [2007]. Nixon [1995].

⁷²On the crucial role of Demeter sanctuaries in the formation of the Greek city, see de Polignac [1995]. Hölscher [1998].

⁷³On the importance of the Thesmophoria to the nascent city, see de Polignac [1995] 72-73. It is not clear when the Thesmophoria were first celebrated at Pergamon; this may well precede the arrival of the Attalids, but the construction of a permanent and festive precinct through Attalid patronage underscores the key role this cult assumed in the formation of the Attalid capital. More work is needed to reconstruct

Perhaps more importantly, patronage of Demeter provided Philetairos with an opportunity to showcase his family and to introduce the Attalid dynasty. Philetairos, apparently a eunuch, lacked both a family of his own and a pedigree upon which to draw.⁷⁴ He made his dedications in the Demeter Sanctuary together with his brother Eumenes and on behalf of their mother Boa, deflecting attention therefore from his family's lack of lineage and emphasizing familial harmony and mutual support.⁷⁵ Dedications to Demeter by men were not uncommon, but they were often made as family dedications, that is, on behalf of one's mother or children, as husband and wife, or as a family.⁷⁶ Philetairos' dedication thus followed standard practice for male participation in female cults and, as a family dedication, it conveyed a sense of dynasty with its implications of unity and stability within the Attalid house.⁷⁷ Without reference to his brother and mother, Philetairos' gift to the city Thesmophorion would likely have been out of place, but as sponsor of his mother's contribution to the precinct and festival, he acted within the traditional parameters of Greek cult practice and euergetism.⁷⁸ While Philetairos may have been appropriating the Thesmophorion for his dynastic agenda, he did so subtly and within the framework provided by the cult.⁷⁹ Philetairos' generosity toward Demeter was for the benefit of the Pergamene community. It was intended to suggest his benevolence toward his subjects and to hint at his considerable personal resources. Both wealth and largesse were essential to maintain, if not advance, his position at Pergamon.⁸⁰

the character of the pre-Attalid precinct with more accuracy.

⁷⁴Strabo 14.1.39. Athen. 13.577. [Westermarck \[1961\]](#). [Scheer \[2003\]](#) 221. [Kosmetatou \[2003\]](#) 166-167. Philetairos' eunuchism is generally accepted in scholarship.

⁷⁵For the full inscription, see Chapter 2.

⁷⁶[Löhr \[2000\]](#) esp. 58-60, ns. 64-65, 101-102, n. 119. Most dedications in Demeter Sanctuaries were made by women.

⁷⁷The Attalids continued the practice of family dedications into the second century: at Kyzikos, Eumenes II and his brother Attalos II erected a temple on behalf of their mother Apollonis that had the loving mother-son(s) relationship as its theme. [Stupperich \[1990\]](#). At Pergamon, Attalos II dedicated a statue in honor of Apollonis. *IvP* 169 (= *OGIS* 307). [Hopp \[1977\]](#) 32 n. 92.

⁷⁸In the Greek city, husbands and sons were expected to financially support their wives' and mothers' religious activities, and especially at the Thesmophoria. [Foxhall \[1995\]](#). [Löhr \[2000\]](#).

⁷⁹In fact, few other cults would have offered a similarly natural context for a dedication of this kind. In his dedicatory inscriptions in the Demeter Sanctuary, Philetairos adopted the standard formula for dedications of this kind. For similar dedications, see [Löhr \[2000\]](#) 44-45, n. 47.

⁸⁰Philetairos' quest of autonomy was measured and he was careful not to step on anyone's toes. He was generous toward his subjects and neighboring cities and deferential toward those more powerful than he. [McShane \[1964\]](#). [Gruen \[2000\]](#). [Kosmetatou \[2003\]](#), esp. 160-161.

Apollonis' sponsorship of the Demeter Sanctuary developed these ideas further and in a different way. As I explain in Chapter 3, the queen's expansion of the precinct must be understood as the public celebration of her personal achievement as mother of sons.⁸¹ Although her dedication may seem to have been motivated by private concerns, as queen of Pergamon her accomplishments as mother ensured the well-being and continuation of the Attalid kingdom. As a cult observed to ensure the continuity of civilized life and one traditionally sponsored by women, the cult of Demeter Thesmophoros offered a fitting frame for Apollonis' patronage. In contrast to Philetairos' mother Boa, Apollonis made the dedication in her own name — presumably using her personal resources to finance the project — and claimed sole ownership of the enlarged precinct.⁸² As Pergamon's first lady, Apollonis' patronage of the Demeter Sanctuary may seem like a natural choice, and indeed it may even have been expected of her, for the financial burden of the Thesmophoria often fell on wealthy citizen-wives (or their husbands).⁸³ Other queens are known to have financed large building projects, so Apollonis' contribution to the city Thesmophorion was not a unique case of queenly architectural patronage.⁸⁴ Yet, Apollonis' association with Demeter was not coincidental but a choice, one that reflected upon the king and the dynasty, and her building project must therefore be viewed as part of Attalos' image-making strategies. Apollonis' patronage of the Thesmophoria, with its emphasis on procreation and prosperity, matched Attalos' image of the savior-king who had liberated much of Asia from Gallic oppression, and together their dedications evoked an image of strength, continuity, and affluence for the Pergamene kingdom.⁸⁵

The joint representation of the kingdom by king and queen was not an Attalid invention. Rather, Attalos and Apollonis followed a tradition of shared responsibilities by the royal couple in the crafting of a dynastic image. In fourth-century BCE Hecatomnid Caria, for example, both Artemisia, wife of Mausolus, and Ada, wife of Idrieus, assumed promi-

⁸¹Looy [1976].

⁸²van Bremen [1996]. Kron [1996].

⁸³Athenian men paid for the costs involved in the Thesmophoria. Isaeus 3.80. Tzanetou [2002].

⁸⁴Kron [1996]. Savalli-Lestrade [1994]. Specific comparanda are discussed in Chapter 3.

⁸⁵Attalos focused his patronage on the cults of Athena Nikephoros (Athena, the bearer of victory) and on Zeus. At least since Alexander the Great, these two cults were intimately associated with kingship. Apollonis' rebuilding of the sanctuary associated her with Philetairos and Boa, emphasizing both Attalid and feminine continuity at the site.

ment public roles, as suggested by their involvement in monuments sponsored at home and abroad.⁸⁶ The third-century Ptolemaic couple Ptolemy II and Arsinoe II frequently appeared together as patrons of cults, cities, and festivals: in the Sanctuary of the Great Gods on Samothrace, Arsinoe dedicated a rotunda and Ptolemy sponsored a propylon;⁸⁷ at Olympia, their statues crowned a monument opposite the Temple of Zeus;⁸⁸ and at Limyra, the so-called Ptolemaion honored both Ptolemy and Arsinoe, presumably in gratitude for their benefactions to the city.⁸⁹ In their capital at Alexandria, they sponsored sumptuous festivals, and Arsinoe is known to have hosted on her own account the Adonia, a women's cult, and perhaps also the Thesmophoria.⁹⁰ The contemporaries of Attalos and Apollonis, Antiochos III and his wife Laodike III were jointly honored by the Teans for their generosity toward the city in a decree dated to 204 BCE, and Laodike independently presented herself as benefactress of other cities as well.⁹¹

Viewed against this history of queenly participation in public life, Apollonis' patronage of the Thesmophoria provided the perfect place for making her liturgical contribution to the Pergamene community and for raising her public profile. As a space traditionally used by women to participate in public life, her support of the cult presented her as tradition-conscious, Greek wife, while the scale of her gift underscored her persona as Attalid queen, putting her newly reconfigured Demeter Sanctuary on par with the building projects financed by other Hellenistic queens (and kings).⁹² Her project thus assisted Attalos' efforts to consolidate his position as Hellenistic king and to build a royal capital at Pergamon.

It is not possible here to go further into the complexities of the Thesmophoric cult and to analyze in greater detail the political challenges and ideological struggles that preoccupied the Attalids in the formative years of their kingdom. Nevertheless, this brief sketch of the

⁸⁶Among other things, Artemisia completed on her own Maussolos' funerary monument at Halicarnassos, and Ada joined Idrieus as patroness of the Sanctuary of Athena Alea at Tegea. [Hornblower \[1982\]](#). [Ruzicka \[1992\]](#). [Carney \[2005\]](#). [Waywell \[1993\]](#). [Nourse \[2002\]](#) 91-123.

⁸⁷[McCredie, e.a. \[1992\]](#). [Frazer \[1992\]](#).

⁸⁸[Hoepfner \[1971\]](#). [Hauben \[1970\]](#). The monument was sponsored by the admiral Callicrates of Samos.

⁸⁹[Borchhardt and Stanzl \[1990\]](#). [Stanzl \[1993\]](#).

⁹⁰[Bell \[2004\]](#). [Burton \[1995\]](#). [Reed \[2000\]](#).

⁹¹[Savalli-Lestrade \[1994\]](#) 421-422 and 426.

⁹²E.g., Arsinoe's rotunda at Samothrace (see above), or Laodike's aqueduct for the city of Miletos (see Chapter 3).

cult and of the Attalids' continued investment in it has pointed to the potential that the cult of Demeter — and its Pergamene sanctuary — has for reconstructing the strategies pursued by Philetairos and Attalos I (and Apollonis) in putting their realm on the Hellenistic map. Much work needs to be done to refine these ideas and to account for the nuances of the cult, the implications of royal patronage of a civic festival, and the ambitions, challenges, and limits of the Attalid dynasty at any given time. Although this broader project must be dealt with elsewhere, it is nevertheless important to keep it in mind as a frame for the architectural analysis of the precinct that is the subject of the subsequent chapters (*Figure 2*).

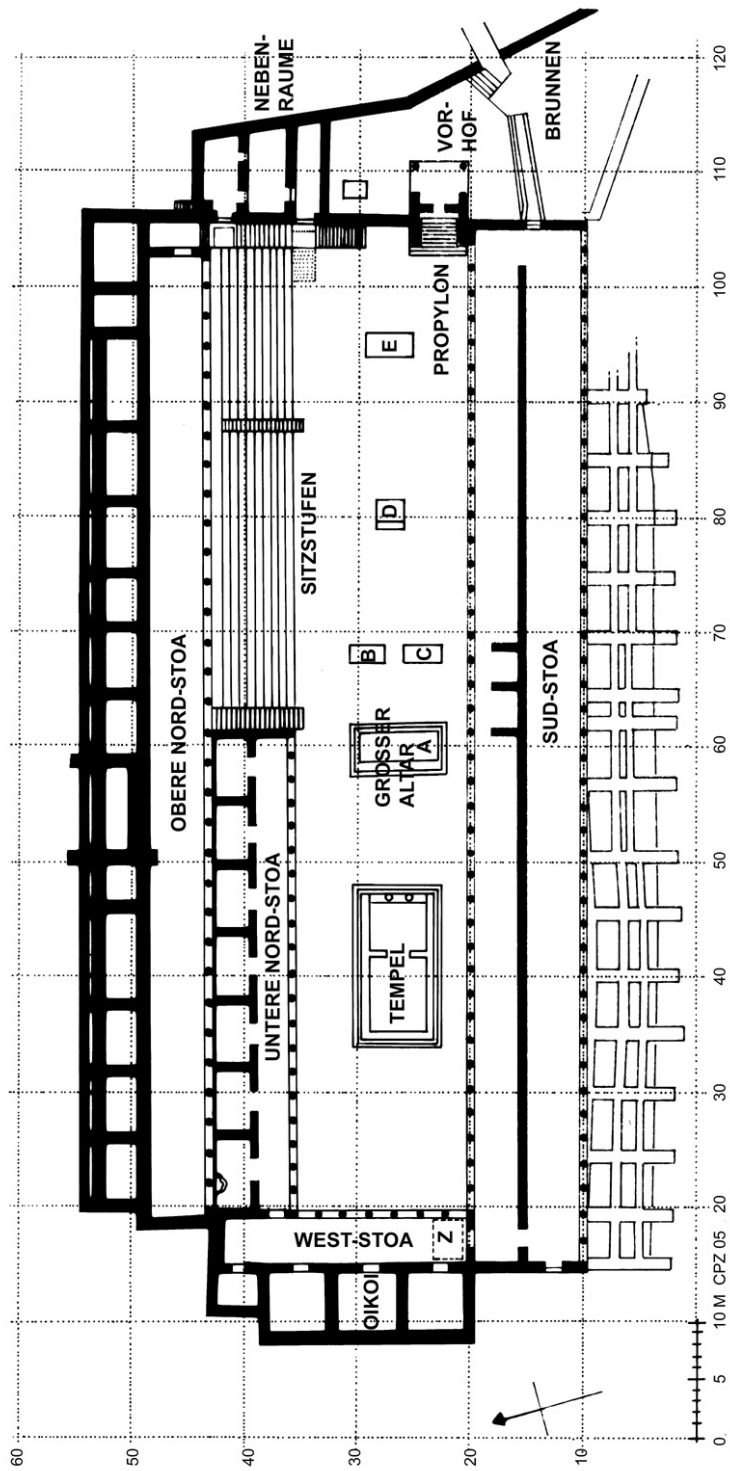


Figure 2: Proposed plan of the Demeter Sanctuary of Apollonis.

2.0 THE SANCTUARY OF PHILETAIROS

Φιλέταιρος καὶ Ἐυμενῆς ὑπὲρ τῆς μητρὸς Βόας Δήμητρι

Philetairos and Eumenes dedicate [this] to Demeter on behalf of their mother Boa.¹

Thus reads the inscription on both the temple architrave and the altar front in the Sanctuary of Demeter. It identifies Philetairos, the founder of the Attalid dynasty, and his family as patrons of these structures, and it makes the Demeter Sanctuary the only monument at Pergamon that can be securely attributed to the reign of Philetairos.² The cult site itself predates Philetairos' arrival at Pergamon, but his reconfiguration of the temenos and its embellishment with altar and temple, the most ornate structures in the precinct, turned an inconspicuous cult site into a state sanctuary.

The effort and expenditure with which Philetairos undertook the remodelling of the Demeter Sanctuary suggests that the cult was essential to his establishment of a dynastic seat at Pergamon. Considering the lavishness of the monuments and their dedication at a moment when Philetairos' position in the citadel was not yet entirely consolidated, it is surprising that his patronage has not attracted more attention.³ To this day, Philetairos' building project on the Demeter terrace has not been examined within the development of Pergamon as a Hellenistic capital, and there is little discussion as to the meaning of his

¹Inscriptions from the Demeter sanctuary. [Dörpfeld \[1910\]](#) Nr. 22 (temple) and [Dörpfeld \[1912\]](#) Nr. 5 (altar).

²Although it is likely that he also added other structures to Pergamon, none of these have preserved or can be attributed to him with any certainty. Among the buildings attributed to Philetairos is an apsidal structure (known as the "Apsidenbau") beneath the remains of the Great Altar on the Pergamene acropolis. [Schwarzer \[1999\]](#) 278-286. Remains of an early Hellenistic temple in the Asklepieion have sometimes also been assigned to Philetairos, though more recently scholars have favored a date in the reign of Attalos I. Attribution to Philetairos in [Hoepfner \[1996\]](#) 34; to Attalos I, [Rheidt \[1992\]](#) and [Rheidt \[1996\]](#) 162. The only other secured attribution of a monument to Philetairos is the Temple of Meter at Mamurt Kale, ca. 50 km southeast of Pergamon. [Conze and Schazmann \[1911\]](#).

³[Bohtz \[1981\]](#) did not include the inscriptions in either text or drawings.

dedication in its broader historical context. Yet, the monuments Philetairos added to the precinct remained the sanctuary's focus after Apollonis' grand overhaul of the space and his altar and temple set the tone for the architectural style of her additions. In antiquity, as now, Philetairos' altar and temple were probably never considered "must-see" monuments, but their refined and creative detail most likely attracted the interest of many an architect. Their role in the development of Hellenistic architecture is thus not to be underestimated.⁴

A key objective of this chapter is to describe first, the architectural language Philetairos adopted for his monuments in the Demeter Sanctuary and second, the spatial configuration in which these structures were displayed. In the absence of a detailed description of the architectural ornament of altar and temple, a close study of the monuments must precede an analysis of their compositions and their place in the study of Hellenistic architecture. In the following section, therefore, Philetairos' monuments will be discussed in detail and the archaeological evidence will be revisited in order to determine the accuracy of the published temenos plan.⁵ Philetairos' additions to the Demeter precinct cannot be fully explained without considering the structures that were already in place at the time he assumed patronage of the cult site. I shall therefore begin with a characterization of the sacred space prior to Attalid control of Pergamon.

2.1 THE PRE-ATTALID PRECINCT

There is no literary evidence for a cult of Demeter at Pergamon prior to the Attalid period, and it is not known when the natural terrace on Pergamon's southwestern slope became the focus of cult veneration.⁶ It is likely, however, that the resettlement of the acropolis in the

⁴By comparison, some of Philetairos' dedications elsewhere that are attested only by historical record or an inscription at best but lack any archaeological remains, have been scrutinized much more for their significance on early Attalid self-promotion than this lavish and well preserved building project at Pergamon. [Allen \[1983\]](#) 14-20 and 146. Tellingly, perhaps, the Demeter Sanctuary is not mentioned in Allen's discussion of the "royal cults." Even recent studies that have focused specifically on the image-making policies of the Attalids, do not find Philetairos' dedications in the Demeter sanctuary particularly noteworthy. See especially [Kosmetatou \[2003\]](#) and [Gruen \[2000\]](#).

⁵[Bohtz \[1981\]](#) pl. 42.

⁶[Bohtz \[1981\]](#) 8. [Radt \[1999\]](#) 180-181. It is similarly unknown whether the cult site was sacred to Demeter from the beginning, but considering both the consistent use of the space as a Demeter sanctuary

mid fourth century BCE resulted in the establishment of a Greek community and that spaces were created for the worship of Greek deities, such as Demeter.⁷ Independent evidence from the same period also attests to the establishment of a precinct of Athena on the Pergamene acropolis and a cult of Asklepios near the Selinus river, confirming the effort to establish (or re-establish) a city of Greek character.⁸

In his publication of the Demeter Sanctuary, Bohtz distinguished three building periods predating the Attalid arrival at Pergamon, recorded as phases 1, 2A and 2B.⁹ Considering the meagre evidence for any cult activity at the site prior to the reign of Philetairos, however, such a precisely stratified reconstruction of the early history of the site, must be conjectural. In fact, phase 1 (dated to the fifth or early fourth century BCE) is discussed in less than eight lines and there is no evidence to confirm the cultic use of this area at such an early date.¹⁰

For these reasons, it is more likely that cult activity commenced in the mid fourth century BCE and this is supported by the archaeological record — both architectural remains and terracotta fragments.¹¹ In its earliest architecturally tangible form, the precinct consisted of a series of altars (Altars B-E) distributed across a cult terrace measuring approximately 56 m by 21 m, and a wall enclosing the sacred space. If a temple preceded Philetairos', it was

in the Hellenistic and Roman periods and its peri-urban location it likely was. On the location of Demeter sanctuaries, see [Cole \[1994\]](#) and [de Polignac \[1995\]](#) 72-75. It has sometimes been suggested that prior to the establishment of Demeter, the cult site was sacred to Meter or Kybele (the Great Mother of Asia Minor), but there is no evidence for this and the presence of separate cult sites devoted to the Great Mother in and around Pergamon — the Megalesion near the Demeter Sanctuary, the Sanctuary of Kybele at Kapıkaya, and the Sanctuary of Meter at Mamurt Kale — make it unlikely. [Hansen \[1971\]](#) 394. [Rostovtzeff \[1964\]](#) 611. [Harmansah \[1996\]](#) 183-184.

⁷The evidence for this is a Roman inscription from Pergamon, known as the *Pergamene Chronicle*, that dates from the time of the Emperor Hadrian and commemorates the early history of Pergamon. After an early “expulsion,” of which neither the date nor the reason are known, the Pergamenes were allowed to return to their hillside settlements following the Revolts of Orontes in 362-54 and 351 BCE. The early history of Pergamon is not well understood. Some information is provided by an inscription from the reign of Hadrian that describes the establishment of a settlement at the site: *IvP* 613 (= *OGIS* 264). The best account is still that of [Hansen \[1971\]](#) 8-12. More recently [Pedersen \[2004\]](#) has researched select (architectural) aspects of the pre-Attalid site. On the revolts of Orontes, see [Weiskopf \[1989\]](#).

⁸On the foundation of the Athena Sanctuary, see [Ohlemutz \[1968\]](#) 16-17. [Schalles \[1985\]](#) 5-22. [Pedersen \[2004\]](#) 415-427. [Kästner \[2004\]](#) 141. For Asklepios, see [Ohlemutz \[1968\]](#) 123-124. That the city was envisioned as a Greek polis is suggested not only by Greek cults but also by evidence for Greek civic offices from this period. *IvP* 613 (= *OGIS* 264) mentions a *prytanis* (president of the council) at fourth-century Pergamon.

⁹[Bohtz \[1981\]](#) 10-12, 56-57, and pl. 42.1.

¹⁰[Bohtz \[1981\]](#) 56, tentatively dated this building period to the late fifth or early fourth century BCE.

¹¹[Bohtz \[1981\]](#) 57, 49.

nothing more than a small shrine.¹² The four pre-Philetairean altars are not well preserved and their remains are briefly described by Bohtz.¹³ They were block altars and most likely built of andesite.¹⁴ Reconstruction of the altars in their pre-Attalid form is complicated by their systematic renovation at some later date (see below and Chapter 3), but their position in the precinct can be approximated by the placement of their successor monuments. It seems that the altars' position was chosen at random, or at least with no attempt to create visual relationships among them.¹⁵ The westernmost altars, Altar B and Altar C, were in close proximity to each other but probably not aligned. Altar B was 1.70 m wide and 2.40 m long and thus considerably bigger than Altar C which measured 1.42 m by 1.80 m.¹⁶ On the east side of Altar B, Dörpfeld noted a pit of 1.00 m by 0.90 m whose sides were lined with slabs. Based on its fill — charcoal and ash — he identified it as either offering pit (*bothros*) or foundation for a small altar.¹⁷ Approximately at center line between Altars B and C but 10 m further east stood another altar, Altar D, which measured 1.92 m by 2.55 m in its original form. Altar E was the easternmost altar in the pre-Philetairean sanctuary and it may even have been located outside the temenos.¹⁸ In its renovated form it measured 5.10 m by 2.13 m; its original size is not recorded but it was apparently smaller.¹⁹ Dörpfeld suggested that Altar E may have been older than the other altars because its foundation sat on a level lower than that of Altars B-D and was built in a different construction technique (a frame of carefully cut andesite blocks filled with soil at its core),²⁰ but it is equally possible that the lower level was determined by its position east of the elevation in the temenos center where the other altars stood and that its different construction technique was a result of its larger

¹²Bohtz [1981] 57, argued on the basis of a course of blocks that an earlier temple had occupied the site of the Philetairean temple. In fact, there is no evidence for this: the stone course seems merely to attest an earlier wall and does not necessarily imply the existence of a temple at that spot; it could also have formed part of an earlier *peribolos*.

¹³Bohtz [1981] 54-55.

¹⁴Bohtz [1981] pl. 32.1-4.

¹⁵Bohtz's description of the pre-Philetairean altars is vague and not supported by drawings. More detail is provided in Dörpfeld [1912] 247-248, but he only included a drawing for Altar B.

¹⁶Dörpfeld [1912]. Bohtz [1981] 54-55.

¹⁷Dörpfeld [1912] 247. By the time of Bohtz's reexamination of the precinct, the pit and its contents had disappeared. Bohtz [1981] 54.

¹⁸Bohtz [1981] 55.

¹⁹Dörpfeld [1912] 248, notes that the altar was enlarged at some point. The size and position of the altars in Bohtz [1981] pl. 42.1, is that of their successor monuments, since their original form and place cannot be reconstructed.

²⁰Dörpfeld [1912] 248.

size.²¹ All of the pre-Attalid altars were rebuilt as part of either Philetairos' or Apollonis' renovation of the sanctuary in such a way to form a visual unit with Philetairos' altar and temple.²²

The precise layout of the pre-Attalid temenos cannot be determined with certainty. In the limited time he worked in the Demeter Sanctuary, Dörpfeld did not manage to excavate down to the lower strata of the precinct, but he made note of some wall stretches underneath the theatron, which he identified as pre-Philetairean.²³ According to Bohtz, "it was one of the tasks of the 1971 and 1973 campaigns, to further examine the earlier building periods in order to gain a better understanding of the sanctuary's development."²⁴ It is clear from his account, however, that Bohtz did not reconsider the building phases reconstructed by Dörpfeld, but took Dörpfeld's proposals as facts and as a point of departure for his own investigation. Bohtz's publication of the sanctuary includes numerous cross-sections of the lower lying walls that document their course and character. Unfortunately, due to the sparse textual description and a lack of photographic documentation, the reliability of his reconstructions of the sanctuary's earliest architectural phases remains uncertain.²⁵ Bohtz's dating of these lower lying wall remains was based mostly on the character of their masonry and their position in relation to structures built over them at a later time; all of the associated finds were examined separately by W.-D. Albert and not considered in Bohtz's account.²⁶ Bohtz never describes the masonry technique, however, nor does he compare it with other, better dated walls on the Pergamene acropolis. Thus, all that can be said with some degree of confidence is that these lower lying walls are different in character from the later walls.²⁷ This establishes only a relative chronology for them, one that is dependent upon the dating of the structures that were built on top of them.

²¹Bohtz [1981] 55, identifies this elevated area as "kultische Bodenerhebung" (cultic elevation of the ground); it was apparently man-made and yielded a large amount of shards and terracottas (which seem to have been discarded in the excavations). Bohtz suggested that this area was used for the ritual deposit of offerings, but it is also possible that the material was simply discarded and reused as fill in one of the renovation projects.

²²To be discussed below.

²³Dörpfeld [1912] 250-251.

²⁴Bohtz [1981] 48 (my translation).

²⁵Bohtz [1981] 48-50 and pl. 42, left, "Baustufen 1 u. 2".

²⁶These finds have not been published. See Chapter 1.

²⁷The photographic documentation of these walls is extremely poor, and the plans and sections are often too sketchy to take them as face value of the masonry techniques employed.

As I will argue below, this observation has important implications for the reconstruction of the Philetairean temenos, and it opens up new possibilities for envisioning Philetairos' plan of the sanctuary. Some of the walls Bohtz dated to the fourth century may have been part of Philetairos' project, and this shall be considered as a possibility in what follows. Naturally, re-attribution of any walls that Bohtz assigned to periods 1 and 2 to a later construction period affects the reconstruction of the pre-Attalid precinct. I will return to this problem after discussing Philetairos' sanctuary.

2.2 THE ARCHITECTURE OF PHILETAIROS

By the time Philetairos arrived at Pergamon, the Sanctuary of Demeter may have been fully developed in terms of its ritual protocol, but it seems to have lacked architectural distinction. The cult furniture consisted of a few simple altars, and a wall set the sacred space apart from its surrounding environment. This enclosure may have afforded cult attendants a certain level of comfort and privacy, but it is not known whether the walls closed off the cult space from onlookers or provided only a psychological barrier. Under Philetairos' patronage the sanctuary's appearance changed dramatically and by the time of his death, it was likely the talk of the town and known beyond Pergamon as well. He increased the sanctuary's size by extending the terrace to the south, and he furnished it with a small but ornate temple and a large and equally ornate altar. On the northern perimeter, he may have added a stoa and a series of seating steps. In this reorganized form, the sanctuary was defined by retaining walls on four sides, and the cult furniture was arranged in such a way that visual axes and alignments between old and new assumed regulating properties in the space.²⁸ The precinct, although still located outside the city walls, thus, became an urban space through its architectural articulation, and, to judge from the character of the architecture and the prominence of the Attalid names, a place for dynastic display.²⁹

²⁸The earlier altars may not have been precisely aligned with the axis established by Philetairos' altar and temple, but there seem to have been visual correspondences among the pre-Attalid and Philetairean structures. These correspondences were further intensified in Apollonis' renovation of the sanctuary. See below Chapter 3.

²⁹It is unclear to what extent Philetairos viewed himself as the founder of a new family of independent rulers (a dynasty) at Pergamon, or whether he simply followed the Asia Minor tradition of usurping power at an opportune moment without a long-term plan for the new realm. It may well be that initially, Philetairos' idea

Philetairos' most immediately recognizable (and clearly documented) additions to the temenos were Altar A and a temple which, together, formed the new core of the sanctuary and the backdrop for the rites performed on the terrace in front. That Altar A and temple were conceived as a unit is indicated by their spatial proximity, matching scales, precise alignment, choice of material and decorative vocabulary, and by identical dedicatory inscriptions.³⁰ they were also similar in the simplicity of their basic shapes, the altar an oblong rectangular block, the temple a plain anta-structure. Surprisingly, the relationship between these two monuments has not yet been explored, either in the publication of the altar or in the discussion of the precinct's architecture.³¹ Since one goal of this chapter is to characterize the spatial concept underlying the Philetairean precinct, the visual interaction between altar and temple is a critical element. Visual analysis of the two monuments thus serves to elucidate the methods used by the architect to tie altar and temple together. Once the relationship between these two monuments is established, an attempt can be made to reconstruct the arrangement of the other buildings in the precinct and to describe the spatial qualities they produced.

The ritual space of the Demeter Sanctuary was shaped by the monuments inside, the rites performed, and by the cult officials and celebrants who occupied the sacred space.³² Thus, rather than simply describing the monuments, an attempt shall be made to characterize the effect of the cult architecture on ritual and its interaction with it.

of dynasty followed the notion of the "strong man" (from *dunamai*, to be strong) who presented himself as the new keeper of the 9,000 talents stored at Pergamon. Only gradually, as his establishment at Pergamon became more solidified, may he have envisioned the possibility of turning this overlordship into a family enterprise. It is unknown precisely when Philetairos undertook the renovation of the Demeter Sanctuary, but it is more likely to have taken place in the second half of his rule, after ca. 270 BCE, when his position at Pergamon was stabilized. If so, the Demeter Sanctuary would have served both to advertise his successful taking of the site and to introduce the Attalid family as the new Pergamene dynasty.

³⁰The floor of the temenos consisted of packed earth, but the space between the temple and Altar A was paved, underscoring the unity of the two structures. In the second century CE, temple and altar were "updated" with a marble revetment, maintaining both their material and stylistic unity.

³¹For Altar A, see Kasper [1972]. Bohtz [1981] 51-53, provides another short description of the altar structure but does not relate it in any way to the architecture of the temple.

³²I am adopting here Lefebvre's notion of "architecture as embedded in a social context" and space as a product of the different agents at work in its creation and use. Lefebvre [1991]. The quote comes from p. 42.

2.2.1 The Main Altar (Altar A)

For Bohtz, the temple was the most important monument in the precinct of Demeter, but, in antiquity, this was probably the altar.³³ As many Demeter sanctuaries across Greece demonstrate, her cult did not require a temple and many of her precincts did not yield at all the type of building we typically associate with a Greek temple — that is a freestanding building of megaron plan.³⁴ An altar, on the other hand, seems to have been essential to the performance of cult ritual, and many Demeter sanctuaries have produced large and unusual sacrificial tables.³⁵

Altar A is much larger than any of the earlier altars in the sanctuary and slightly wider on its front than the small anta-temple. Its size and central position in the temenos suggest that it, more than any other structure in the precinct, constituted the center of ritual activity.³⁶ Altar A is also the best-preserved monument in the precinct, allowing a full restoration in the 1960s.³⁷

In its basic outline, Altar A consists of a simple rectangular block, 7.21 m wide, 2.61 m deep and 0.992 m tall.³⁸ Its plain, box-like shape belongs to the category of block altars or table altars that are characterized as “rectangular, occasionally square or round table blocks without side walls, parapets, or antae, with base and crown moldings, [and] resting on one or more steps, with or without *prothysis* [enlarged step for the cult official], sometimes

³³Bohtz [1981] 40, describes the temple as “the most critical monument for the cult” (“das für den Kult wesentlichste Gebäude”). This just goes to show how ill-informed Bohtz was on the cult of Demeter. Dining facilities seem to have been more common building types and hence likely more important in most Demeter precincts than temples.

³⁴Even in the Hellenistic period, Demeter Sanctuaries did not always have a freestanding temple, as the case of Priene illustrates. Rumscheid [1998] 229. Aktsele [1996] 26, notes that in Greek vase painting, Demeter is often depicted standing near an altar, suggesting that the altar was of central importance to her cult. More on the cultic use of the space below in the discussion of the precinct layout.

³⁵This is best illustrated for Sicily and Magna Graecia. See Hinz [1998] for a discussion and illustration.

³⁶Considering the importance of the burnt offering in ancient Greek ritual practice, this is not surprising or even unusual. Étienne [1992]. For the altar as ritual center in the Greek sanctuary, see Ohnesorg [2005] 1, esp. n. 6. Comparatively small temples paired with large altars are known also from other places, like Epidauros or Kos to give but two examples.

³⁷The rebuilding of the altar, although recreating an excellent picture of its original scale, is also problematic. The material used to recreate the lost parts is the same andesite that was used for the original monument, making it difficult for the layman to distinguish between ancient remains and modern additions. Unfortunately, the decorative elements on the table top have not been recreated, so that the altar lacks an essential, perhaps its most characteristic, element.

³⁸For an illustration of the altar’s form, see Kasper [1972] figs. 1 and 26.

with a frieze.”³⁹ The altar block is raised from the ground by a two-stepped platform, measuring approximately 4.50 m by 8.625 m on the foundation and raising the block ca. 0.44 m off the temenos ground. The offering table is about 1.432 m above ground, and once supported elaborate corner acroteria.⁴⁰ Despite its simple layout, the altar plan is not entirely symmetrical: the altar-block is pushed to the east on the stylobate, creating an approximately 0.78 m wide ledge (*prothysis*) on the western side for the cult officiant to stand behind the altar.⁴¹

The altar’s simplicity and monumentality of plan are balanced by finely crafted, almost playful details from bottom to top that categorize it stylistically as an Ionic altar.⁴² On the two-stepped krepidoma, a carefully detailed, continuous Ionic base molding marks the transition from stylobate to altar block: a tall plinth is followed by a fillet, cavetto, cyma reversa, and another fillet, making the entire molding approximately 0.19 m tall. The 0.52 m tall orthostate blocks are enhanced on bottom and top with identical cavetto and fillet, a repetition that contributes to the fluidity of the overall altar design. The base molding finds a similar corresponding element in an Ionic molding around the altar top that consists of a fillet, followed by ovolo,⁴³ cyma reversa, widely projecting narrow fillet, cavetto, and crowning fillet. Thus, the dedicatory inscription on the east front is framed by the base and top moldings like a sign or a scroll that has been untied. It is likely that in antiquity, these letters were colored to lift them off the background, making the inscription seem to hover over the surface of the altar front like a modern neon sign.⁴⁴

Clearly the most striking element of the altar was the table top which was not recreated in the restoration of the monument. Its surface was made of a series of approximately 0.08 m thick slabs and the four corners were articulated as approximately 0.43 m tall and 0.20 m wide volutes that extended upward and outward from the table top.⁴⁵ The precise relationship

³⁹Ohnesorg [2005] 3. The term *prothysis* literally translates as “preliminary sacrifice,” i.e., the offering that was made on the first step of the altar. See Petropolou [1991].

⁴⁰Kasper [1972] 89.

⁴¹Kasper [1972] 87.

⁴²The Ionic altar type is known across the Greek world, from Sicily to Asia Minor, but it seems to have been most popular in the eastern Mediterranean. On this altar type and its distribution in the eastern Aegean, see most recently Ohnesorg [2005]. For the details of Altar A, see Bohtz [1981] pl. 55.

⁴³On the ovolo type, see below the discussion of the Temple. 2.2.2 on page 51.

⁴⁴On the use of color to accentuate select details of the altar decoration see below.

⁴⁵Because of their upward movement on either end of the table, they have also been termed altar horns.

between the table slabs and corner volutes indicate a pre-established plan for the altar top decoration. In design, these volutes are articulated in the visual language of the Ionic volute capital.⁴⁶

The design of the table decoration is the element that lends the altar its distinct character and at the same time helps to situate it stylistically; it therefore deserves closer scrutiny. On the top molding, a 0.03 m tall fillet, slightly inset from the corner, provides a base for the roundel-framed canalis of the volute. The outer (or lower) canalis border lines up with the edge of the fillet but pulls back immediately into a cavetto and then surges upward and outward to describe the volute in a perfect circle of about 0.20 m in diameter. At the three-quarters-point of the circle's circumference, the canalis divides, with one strand framing the upper line of the altar top and the other continuing to form the volute's spiral. At the completion of the circle, this last strand proceeds into the lower roundel and spirals toward the center. The volute center is occupied by a large semicircular eye (ca. 0.045 m in diameter) which may have been adorned by a metal ornament, perhaps a rosette or button, as suggested by a shallow depression at its center.⁴⁷ Sensitivity to the small detail is demonstrated by the balance between the convex roundels and the flat or slightly concave canalis, and by the articulation of the roundel itself: the use of fillets to frame the roundel makes the line of the canalis appear even more graceful and adds plasticity to the overall composition. The care taken in the execution of the fine detail thus underscores the dynamic movement of the volute.

The canalis increases from the flat part of the altar top towards the volutes, imitating the shape of a trumpet. A drooping, four-stranded palmette or honeysuckle fills the empty space

[Kasper \[1972\]](#) 89 and figs. 16-17. On the altar horn, see below [2.2.1](#) on page [33](#). Neither term, acroterion or horn, is entirely correct: the volutes are not horn-shaped, and they also do not outline the corner like the traditional corner acroterion. In absence of more fitting characterizations, however, this terminology will be adopted here nevertheless. In the center of the altar top, the excavators noted a shallow depression which must have marked the spot for the placement of the cult offerings. [Kasper \[1972\]](#) 87. [Bohtz \[1981\]](#) 51, also pl. 55.4.

⁴⁶It should be noted here that I have not been able to inspect the acroteria myself. Fragments are preserved but locked away in the storerooms of the archaeological museum in Bergama. The only publication of photographs is in [Kasper \[1972\]](#) figs. 16 and 17 and [Rumscheid \[1994\]](#) vol.2, pl. 119. 3 (200). The visual analysis below is based exclusively on these images and the few clues provided in the altar descriptions in [Kasper \[1972\]](#) and [Bohtz \[1981\]](#) 52-53. Although the photographs are of good quality and allow detailed study of the decor, select aspects may not be adequately reproduced.

⁴⁷The center of the eye is slightly damaged which suggests that it may have been covered by a metal ornament that was later pried out.

of the canalis at the point where it meets the volute spiral. The design again draws attention to the detail and to the thin, pointed leaves of the honeysuckle. A panicle articulated as a shallow central depression imitates real botanical forms. The leaves are actually much larger than the space afforded to them in the trumpet-shaped canalis, forcing them to bend and overlap in their fan-shaped arrangement. They do not seem cramped, however, but turn with the elasticity and grace of newly opened leaves that are still malleable.⁴⁸

Communication between the volute's front and top is established by the repetition of motifs — the spiral and the palmette — and by unifying elements that continue throughout the composition — the canalis roundels and the central balteus. The honeysuckle or half-palmette on the canalis actually echoes the full version of the same motif on the top of the altar horn, just below the springing of the volute. This palmette consists of nine evenly spaced leaves that increase in length from flank to center. Like the half-palmette on the side, these leaves bend over at the tips but without touching each other. The spear-like shape of the central leaf gives the arrangement direction and symmetry.⁴⁹

The base of the honeysuckle is articulated according to the design principles of the Ionic order: the leaves of the half-palmette spring from a triangular base that is typically associated with the honeysuckle in Ionic and Corinthian capitals,⁵⁰ the leaves of the full palmette originate from an arrow-shaped base. Similar articulations of the honeysuckle base, as either arrow-tip or leaf, appear frequently on Ionic simas and cornices. The spirals, on the other hand, originate from the roundels that frame the altar horn on either flank, and tie the palmette into the overall composition of the altar. Since the spirals also reproduce the rotating dynamic of the volute, they reinforce the visual connection between side and top and thus help unify the horn's composition as a whole. The symmetry of the palmette is reinforced by the central balteus that springs between the spirals of the top palmette and continues down the back of the volute to the point where the horn meets the flat surface of

⁴⁸Rumscheid [1994] 71, calls this type of palmette a “flame palmette” (“Flammenpalmette”) because of the leaves' resemblance to flames.

⁴⁹The terminus of the central leaf is not preserved, but it is evident from the symmetrical placement of the other leaves that it was straight.

⁵⁰This base is often articulated as a leaf with serrated edges and ribs, as in the Corinthian capitals from the Rotunda of Arsinoe II at Samothrace. McCredie, e.a. [1992] fig. 90. It is not uncommon, however, for this base to be designed as a plain triangular cover, like in the Temple of Apollo Smintheos at Chryse. Rumscheid [1994] 130-131 and pl. 20. See also Hoepfner [1971] pl. 13.

the altar table. The central balteus thus emphasizes both the symmetry of the decoration on the top of the horn and the symmetrical ornamentation of the canalis: the decoration of the volute is identical on the front and back of the horn.

The articulation of the altar horn was labor intensive and would have required considerable skill. The table top decoration, like the rest of the altar, was carved of locally quarried andesite, a dense volcanic rock whose rough texture makes it difficult to work. The plasticity and detail of the palmettes, spirals, and volutes and the articulation of the free-spiraling, slender volutes required well-trained masons and a creative architect.

Traces of white paint on the volutes suggest that they were once painted, probably in multiple colors, to accentuate the design and to heighten the interplay of positive and negative space throughout. A layer of paint may also account for the excellent preservation of the fine detail on the preserved acroterion fragments. The paint was probably applied directly onto the andesite without a priming base,⁵¹ and it was most likely thin to avoid obscuring the delicate carving beneath. Color may also have been used to articulate the moldings of the altar base; there may have been, for example, a palmette decoration on the cyma reversa and an egg-and-dart on the cyma recta, although it is equally possible that the body of the altar was kept plain in order not to compete with its dramatic top. However this may have been, it is likely that the entire altar block was covered with at least a thin coat of paint to achieve an homogenous background for the display of Philetairos' dedicatory inscription.⁵²

Altars with decorative tops and an emphasis on the corners were common in antiquity and are known from the Near East, Greece, and Italy, but the decorative elements of Altar A have not yet been studied to any great extent.⁵³ In the 1960s, S. Kasper produced a

⁵¹Traces of paint have also been found on the temple's entablature where it was applied without washcoat. See below the discussion of the temple.

⁵²It has already been noted above that the individual letters are likely to have been colored as well to make the inscription more apparent on the altar front. An inscription from Delos recommends the coating of altars with a fire-resistant stucco (*koiniasis* or *aloiphe*). Étienne and Le Dinahet [1991] 316-317, M.-Chr. Hellmann (discussion).

⁵³For Near Eastern examples of horned altars, see http://www.lightplanet.com/mormons/images/Basic_BOM_Near_Eastern_1.jpg. and http://courses.missouristate.edu/VictorMatthews/DCP_1404.jpg (10 February, 2009). See also Aharoni [1974].

detailed survey of the altar which included photographs of the volutes and a reconstruction of the altar as a whole. There is, however, little discussion of the altar's style and ornamental language.⁵⁴ Bohtz provides a detailed description of the altar, but no attempt has been made to situate the altar's style within the development of Hellenistic architecture or within the architecture of the Demeter Sanctuary.⁵⁵ Therefore in the following, the decorative elements of the altar will be examined comparatively in order to anchor this monument in its time and place and to evaluate Philetairos' choice of style.

Altars of this general type seem to have originated in the Near East. Assyrian altars with corner acroteria (or horns) may have been produced as early as the ninth century BCE, and the Old Testament makes frequent reference to horned altars.⁵⁶ The initial purpose of the horns may have been to tie sacrificial animals to the altar,⁵⁷ but, in spite of its name, the altar horn assumed different forms and did not have to be horn-shaped.⁵⁸

In the early Archaic period, the corner volute (uni-directional) or volute acroterion (bi-directional) became a common variant of the altar horn in Asia Minor and the Aegean.⁵⁹ The

⁵⁴Kasper [1972] figs. 16-18, 89. It should be noted, however, that his characterization of the altar's aesthetics, brief as it may be, bespeaks a great sensitivity to and appreciation for the altar's discreet decor.

⁵⁵Bohtz [1981] 51-52, pl. 55, 1-5. The isometric rendering in fig. 4 provides a useful reconstruction of the altar's former appearance. Unfortunately, the decorative elements of the altar are also not included in Rumscheid's study on the ornament of the Hellenistic architecture of Asia Minor. Rumscheid [1994]. On pp. 33-34, he briefly discusses the dating of the temple and altar of Philetairos in the Demeter Sanctuary without engaging, however, in any analysis of their stylistic features. Yet, curiously, he includes an illustration of the altar horn. Rumscheid [1994] vol. 2, pl. 119. 3 (200). It is also not included in Ohnesorg's recent examination of the Ionic altar type. Ohnesorg [2005]. Brief references only on p. 122, 193, 217, 225, 230, 243.

⁵⁶E.g., Exodus 27.2; 38.2. I am not venturing into the question whether and to what extent the Minoan "Horns of Consecration" may have served as prototypes to the horned altar. Suffice it to say that there is evidence for Bronze Age horned objects in Anatolia. For an in-depth discussion of the possible Cretan connections in the formulation of this design, see Diamant and Rutter [1969].

⁵⁷This is suggested by select Bible passages, e.g., Psalm 118:27: "God [is] the Lord, which hath showed us light: bind the sacrifice with cords, [even] unto the horns of the altar."

⁵⁸This is at least suggested by the early examples from Be'er Sheva and Syria (both ninth century BCE), where the corners are raised upward as simple triangular acroteria.

⁵⁹Bakalakis [1955] 19, argued that the volute developed in Ionia in reference to spiraling decorations popular in the Near East. See also Koenigs [1980] 85. A large number of volute acroteria, that have been identified as decoration of altars, come from sites along the Ionian coast line. Although since the Classical period, altars with volute acroteria occasionally appear also in Attica and Italy, scholars seem to agree that the type developed and remained most popular in Asia Minor. Thus Bakalakis [1955]. Koenigs [1980]. Ohnesorg [2005] 3-4. There was at least one other (marble) altar with volute acroteria at Pergamon, fragments of which are preserved in the Pergamon Museum in Berlin and at Pergamon. Koenigs [1980] 87, n. 53. Like with the volutes of the Demeter Altar, I have not been able to study these remains either.

first altars with volute acroteria are known from sixth century BCE Miletos,⁶⁰ Didyma,⁶¹ and Monodendri on the Ionian Coast,⁶² and from Myus⁶³ and Kyzikos in northern Anatolia.⁶⁴ They likely developed in tandem with the volute capital of the Ionic order.⁶⁵ Similar examples of Archaic or Early Classical acroteria come from the Delphinion at Miletos,⁶⁶ from Maroneia in Thrace (dated 470-460 BCE),⁶⁷ and from Siphnos in the Cyclades (ca. 450-400 BCE).⁶⁸ Fifth century BCE altars with projecting volutes are known from Delphi and Chios,⁶⁹ and in the Hellenistic period, from Pergamon (Altar of Demeter) and Kos (Altar of Asklepios).⁷⁰

The Ionian Altar type can be divided into two sub-types, one that W. Koenigs termed the “Milesian volute acroterion” type⁷¹ that is characterized by volutes articulated as corner acroteria, and the other, which I call the “Northern Ionian” type,⁷² in which the volutes project upward and outward from the altar surface like horns but are developed in only one direction. Because both types seem to have inspired the volute-design of Altar A, their forms

⁶⁰Koenigs [1980] 62-65, pl. 30.2-4, app. 5, fig. 7.

⁶¹Koenigs [1980] 73-74, pl. 34.3-5, fig. 9.

⁶²Koenigs [1980] 65-67, fig. 8 and app. 6.1

⁶³Koenigs [1980] 59-62, fig. 6, pls. 29.3-4 and 30.1 and app. 4.

⁶⁴Koenigs [1981] 122-126 and figs. 1 and 2. Ohnesorg [2005] 3, 192-193, fig. 101. A small volute of bronze sheet from Samos, dated to the late seventh or early sixth century BCE, may perhaps be an even earlier precursor to this type of acroterion decoration, although it cannot be determined whether it was, in fact, part of an altar in its original context. Kyrieleis [1988] 282-285, figs. 3-4. See also Ohnesorg [2005] 4, n. 24, 145-146, fig. 73. Volute altars also first appear in vase paintings in the mid sixth century. Aktseli [1996] 88. Kyzikos was a Milesian foundation which would explain the use of a common architectural language. It remains unclear, however, whether the idea of the volute altar acroterion was imported into Kyzikos from Miletos or whether it was the other way around. See Koenigs [1980] 86, with additional bibliography.

⁶⁵On the sixth century development of the Ionic order: Barletta [2001] 84-124. Koenigs [1980] 85, views altars as “simplified, ‘shortened’ models of large-scale buildings” (“vereinfachte, ‘abgekürzte’ Modelle von großen Bauten”) and hence suggests that the altar volute may have been modelled after roof acroteria. Koenigs [1981] 124-125, also notes similarities on some of the volute acroteria to Aeolic capitals, especially in the treatment of the detail. A variant of the altar with volute acroteria is the so-called pillow altar in which the volutes, instead of rising from the table top, are nestled underneath it and thus form pillows at either end. See Ohnesorg [2005] 4-5, esp. fig. 3. Their appearance is roughly contemporary with the altars with volute acroteria. Koenigs [1980] 87-88.

⁶⁶Koenigs [1980] 69-72, pl. 32. 1-4, 33, 34. 1-2, add. 9-13. and 75-77, pl. 35 1-3. Ohnesorg [2005] fig. 101.

⁶⁷Bakalakis [1955]. Koenigs [1980] 79. Ohnesorg [2005] fig. 85.

⁶⁸Ohnesorg [2005] 121-123, fig. 61.

⁶⁹The volute-decorated Altar of Apollo at Delphi was a Chian dedication. Ohnesorg [2005] 4, 127-133, esp. figs. 67 (Delphi) and 68 (Chios). On the altar at Delphi, see also Laroche [1991].

⁷⁰On the Koan altar, see Herzog and Schazmann [1932] 27, figs. 20-21 and pls. 12.1-4.

⁷¹Koenigs [1980] 89.

⁷²Ohnesorg [2005] 169, calls it the “Chiotan-Thasian” type, referring essentially to the same geographical area.

and development shall be examined briefly. Some examples will be discussed in more detail to showcase individual features and to provide a sense of the models Philetairos' architect may have considered in the formulation of his own design.

As the name suggests, the Milesian volute acroterion seems to have developed in the area of Miletos.⁷³ The Milesian acroterion is developed in two directions, defining the perimeter of the altar table with a precise edge but without extending it visually. In this type, the corner acroteria are fully attached to the table top and the volutes form shallow, pillow-like terminations at either end of the altar. In most cases, the canalis continues along the entire width of the altar and rolls up into volutes at the table end without projecting beyond the table top. The space behind the volute is usually filled by a palmette to make a clearly defined, closed border around the corner, although occasionally it is also left open.⁷⁴ In all acroteria of the Milesian type, a triangular palmette marks the spot where the volute meets the canalis. This palmette is designed as a fan-shaped flower with multiple petals with rounded or slightly pointed tips. The leaves in the palmette number between five and seven. In the earliest Milesian acroteria the petals are abstract and separated by a single straight line; in later examples, the petals are carved individually and with more distinction, including a central panicle and a dynamic outward motion.⁷⁵ In some of the early acroteria, the eye is undefined; in later ones it is marked by a simple omphalos or a more ornate rosette.

As a group, the Northern Ionian volute acroteria are not entirely homogeneous but they share enough characteristics to be studied together. They also bear some resemblance to the Milesian type. The most clearly articulated acroteria of this type are the late Archaic to early Classical volutes from Chios and Delos and the Hellenistic examples from Pergamon and Kos. In each case, the volutes are supported by a widely projecting, slender canalis arm that emerges from the altar surface in a dynamic outward and upward swing. The canalis and surface of the altar horn are decorated, usually with a floral motif and central balteus.

⁷³Examples come from Miletos, Didyma, and Monodendri.

⁷⁴See, e.g., the volutes from Monodendri. The precise termination of the volute cannot always be determined due to the fragmentary condition of some. My observations are based on the drawings and photographs published in Koenigs [1980]. An exception to this is the Archaic example from Miletos that was part of a circular structure, n.1 in Koenigs' list of volute acroteria. Because of this unusual context, its requirements seem to have differed from those of the other Milesian acroteria which may explain its shape. Its design is in fact closer to the second type of upward spiraling volute acroteria that will be discussed below.

⁷⁵E.g., the two late Archaic volutes from Miletos (nos. 4a and 4b in Koenigs).

These examples will be studied in more detail below after a look at the origins of this class of altar acroteria.

Two Archaic volute acroteria from Kyzikos are the earliest known examples of this Northern type.⁷⁶ They are carved as individual elements to be dowelled onto an altar table. Their shape, with a large outer volute swirling into a small inner spiral or loop, is different from the single-volute acroteria of the Northern Ionian type, but they nevertheless bear some of its characteristics. The transition between the volute and table top is similar to the fillet in the Altar of Demeter at Pergamon: the fillet lifts the volute off the table top and pulls in at the corners before the volute projects outward. Although in the early types from Kyzikos the volutes themselves are not fully separated from the altar table, the volute would probably have extended beyond the edge of the base to enlarge the visual sense of the altar space to either side. The more ornate example from Kyzikos,⁷⁷ with its regularly spaced, roundel-like protrusions on the outer surface of the canalis, seems related to the peculiarly “spiked” volutes from Delphi as well.⁷⁸

Somewhere between the Milesian and the Northern Ionian type is an Archaic acroterion from Myus.⁷⁹ Like the examples from Miletos, it is designed as a corner piece with two volutes meeting at a 90 degree angle and palmettes outlining the corner. Its canalis, however, does not continue along the altar front but terminates in a downward curve. Like the examples from Northern Ionia, the volute of the Myus acroterion is raised from the table surface and describes an upward movement. At the point where the volute meets the altar surface, the outer canalis rim bends and returns to the outer edge of the altar. In the triangular space between these two roundels, a four-petaled palmette cleverly fills the empty space. The design of this acroterion thus shows an early attempt to expand the space of the altar upward. Still, the composition remains attached to the altar table by means of the palmette. Finally, the corner acroterion from Maroneia (early Classical) combines the Kyzikene form,

⁷⁶Koenigs [1981] figs. 1 and 2.

⁷⁷Koenigs [1981] fig. 1.

⁷⁸A late Archaic volute fragment from Siphnos is close to the Milesian type in its pillow-like formulation of the volute and in its strong adherence to the altar top; nevertheless, like the other examples of the Northern Ionian type, it is developed in only one direction and its surface decoration has more in common with the Kyzikene example than the Milesian ones. See Ohnesorg [2005] 121, fig. 61 and pl. 66.4, for illustrations of this volute.

⁷⁹Koenigs [1980] 59-62, fig. 6, pls. 29.3-4 and 30.1 and app. 4.

with small inner volute and ascending outer volute, with the clearly defined corner and palmettes of the Milesian type. Like the example from Myus, it is attached to the altar top and probably had palmettes to fill the void between volute and table.

The earliest known acroterion with an unsupported extension of the volute is an early Classical marble piece from Chios (500-450 BCE).⁸⁰ Although the horn is only approximately 0.165 m tall, it experiments with new forms and with the possibilities of the material. The canalis rises upward and away from the altar surface, swirling into a volute with plain, unarticulated eye. It is unclear from the surviving fragment whether the canalis continued horizontally along the altar table or moved downward toward the altar surface, as in the example from Myus. Above the canalis, a second band helps to support the volute and provides a counterweight to the unsupported part of the acroterion. At the point where it meets the volute, the band is decorated with a seven-leaved palmette; a single leaf or drop adorns the area where the volute touches the canalis. On the side, the 0.42 m wide balteus is carved with two roundels framing a shallow groove. On either side of the roundels, the surface of the canalis rim is decorated with regularly spaced protrusions, like the early Archaic example from Kyzikos. Those spikes are less pronounced, however, than in the Kyzikene piece.

The same accentuation of the volute surface can be observed in the Altar of Apollo at Delphi, which was a Chian dedication.⁸¹ Although the volutes from Delphi, at 1.80 m in height and 0.49 m in width, are taller and more graceful than the piece from Chios, they are remarkably similar in style.⁸² The Delphi volutes describe the same upward motion noted in the Chian acroterion, and the canalis is similarly reinforced with a second bracket on top. As at Chios, a palmette fills the space where the bracket runs up to the volute, but because of its larger size, nine petals are needed instead of seven. A single large leaf occupies the same space on the other side, so the Delphi volutes have a clearly defined inside and outside. Like the Chian type, the Delphic volutes have a plain balteus that may have been articulated as a shallow groove and that was outlined with moldings. On either side of the

⁸⁰Ohnesorg [2005] 123-124 and fig. 68.

⁸¹Ohnesorg [2005] 127-132, figs. 66-67, pls. 32, 67-68.

⁸²Ohnesorg [2005] 132, thinks that the two altars are also roughly contemporary. Considering the higher degree of elaboration both in design and technique, the Delphi volutes may be slightly later. The altar was renovated sometime in the third century BCE.

balteus, the volute surfaces are decorated with protruding horizontal bars, adding texture and rhythm to the volute surface. From the remains it appears that in the Delphi acroterion, the canalis continued along the altar until it formed another volute at the other end. It can also be established that the volutes adorned the short ends of the altar table. Considering the stylistic similarities between the volute fragments from Chios and Delphi, it is likely that the Chian acroterion connected with another volute at the other end and was similarly placed on the short side of the altar, creating a lateral terminus to the offering bench.⁸³

To sum up this discussion, in the Northern Ionian altar type, two different arrangements of the acroteria seem to have existed: first, altars with volutes projecting from the short lateral sides, as at Delphi and probably Chios,⁸⁴ and second, altars in which the volutes visually extended the table top on the long front and back, as seen in the altars at Pergamon and Kos. The difference in the arrangement of the altar horns is important, effecting an entirely different relationship between altar and temenos. At Delphi, the laterally attached altar horns produce a self-contained altar space that separates the ritual activity on the altar from the surrounding area. The volutes create a kind of visually defined space around the sacred core of the temenos, and a physical barrier between the cult official who conducts the sacrifice and the gathering crowd. By comparison, in the Altar of Demeter at Pergamon, the laterally projecting volutes extend the altar space onto both sides of the cult terrace; they mimic the gesture of welcoming arms and psychologically draw the cult attendees closer to the ritual ceremony.⁸⁵ Despite variations in altar form, the design of the Demeter Altar was embedded in the monumental building traditions of Asia Minor and was conceived within this regional tradition.⁸⁶

⁸³A late Classical example of the Northern Ionian volute acroterion can be found in the volute fragment from Schapla-dere, Thrace (dated to ca. 400 BCE): the volute is lifted off the altar table and seems to slightly project outward from the border of the altar, though not yet nearly as pronounced as in the Pergamene and Koan examples. [Ohnesorg \[2005\]](#) 166-168, esp. fig. 86. Because it is a relief rather than a fully sculpted piece, it will not be discussed in any detail. Its precise architectural context in an altar is unknown.

⁸⁴[Ohnesorg \[2005\]](#) 130, fig. 67.

⁸⁵More on the ritual importance of this design below.

⁸⁶Another famous Hellenistic example of a volute altar is the Altar of Asklepios on the island of Kos (second century BCE, with an earlier altar dating to the third century BCE), which is said to have been modelled after the Great Altar of Pergamon. [Herzog and Schazmann \[1932\]](#) 73. It may well be that other Pergamene monuments, like the Altar of Demeter, also affected its design. [Ohnesorg \[2005\]](#) 4, n. 24. On the Pergamene influence and possible Attalid patronage of the Koan Asklepieion in the second century, see

The adherence to a regional building tradition manifests itself in both the altar's grand scheme and small detail, especially in the articulation of the volute. Thus, the palmette with flamelike leaves that decorates the volutes of Altar A is found predominantly in the Eastern Mediterranean. W. Koenigs noted its earliest occurrence in some finely detailed marble altar volutes from Milas (Beçin Kalesi), dated by him to the late fifth or early fourth century BCE.⁸⁷ Similar articulations of the honeysuckle palmette appear in two Ionic capitals from Ptolemaic Alexandria dated to the early third century BCE,⁸⁸ in the Ptolemaion at Limyra (Lycia, also early third century),⁸⁹ in the Mausoleum of Belevi,⁹⁰ and in the Corinthian corner capitals in the Temple of Apollo at Didyma;⁹¹ they are repeated on the canalis decoration of the Ionic Temple of Apollo Smintheus at Chryse (late second century BCE).⁹² The full version of the flame palmette is more commonly found in the context of the sima, antefix, or epikranitis of Ionic buildings where it is paired with other floral elements — lotuses or leaves — to produce a tendril motif. Particularly close to the Pergamene palmette leaf are the epikranitis details from the Rotunda of Arsinoe at Samothrace⁹³ and the frieze of the Temple of Dionysos at Miletos (both early third century BCE).⁹⁴ The connecting spirals that bind the flame palmettes together have parallels in the (contemporary) Mausoleum at Belevi, the Temple of Apollo at Didyma, the Temple of Dionysos at Miletos, and the Temple of Zeus at Labraunda.⁹⁵

Not all of the elements of Altar A, however, have precise parallels in the architecture of Asia Minor: the altar's base and crown moldings, to my knowledge, are not found in

[Herzog and Schazmann \[1932\]](#) 72. Also [Gruben \[1986\]](#) 404-407 and [Ridgway \[2001\]](#) 163-164.

⁸⁷[Koenigs \[1980\]](#) 84, pls. 38.1-3. In the final decades of the fifth century, the flame palmette also appears on Athenian grave stelai. Flame palmettes, though somewhat different in design from the Demeter Altar type, appear also in the Temple of Zeus and the Andrones at Labraunda, all of which date to the mid fourth century BCE. [Rumscheid \[1994\]](#) pls. 64.6 and 65.1-2, 5-6. Also seen on the echinus of the Ionic capitals in the Temple of Asklepios on Kos that is roughly contemporary with the buildings of Philetairos on the Demeter Terrace.

⁸⁸[Hoepfner \[1971\]](#) pl. 13.

⁸⁹[Radt \[1993\]](#) 177.

⁹⁰[Rumscheid \[1994\]](#) vol. 1, 72 and vol 2., pl. 13, 28.6a-b.

⁹¹[Rumscheid \[1994\]](#) vol. 2, pl. 25, 32.28.

⁹²[Rumscheid \[1994\]](#) vol. 2, pl.16. [Frazer \[1992\]](#) fig. 106.

⁹³[McCredie, e.a. \[1992\]](#) 112, fig. 76.3

⁹⁴[Rumscheid \[1994\]](#) vol. 2, pl. 97, n. 149.5-6.

⁹⁵[Rumscheid \[1994\]](#) vol. 2, pls. 14, 28.8 (Belevi); 30, 33.5 (Didyma); 97, 149.5-6 (Miletos); and 64, 115.10 (Labraunda). The motif can, of course, already be found in the Athenian Erechtheion (421-405 BCE), but one needs to keep in mind that this temple was developed with clear references to the architectural language of Ionia.

this configuration in any other monument of the area. The moldings are themselves orthodox and the use of a base and top molding appears in many Ionic altars from the eastern Mediterranean and the Cyclades.⁹⁶ Nevertheless, they are rarely articulated as gracefully as they are in Altar A. The sequence of cavetto and cyma reversa on the bottom produce a fluid transition from krepidoma to orthostates, and the same movement is echoed on the top in the cyma recta and cyma reversa of the crown molding. The narrow fillet on the top aligns almost precisely with the tall plinth at the bottom, balancing the width of the table against the width of the altar base; it also divides the top molding into a distinct upper and lower half, visually reducing its top-heaviness. The top element of the altar table retreats toward the center in a shallow cavetto only to explode outward again in the two gigantic altar horns on either end. In Altar A, dynamism and plasticity are produced not so much through the addition of carved decorative detail but through a carefully orchestrated and organic sequence of receding and protruding elements that subtly prepare the eye for the ultimate tour de force, the widely projecting and intricately detailed volute acroteria. Such a dynamic use of plain moldings is rarely achieved in any other Asia Minor monument.

Although the composition as a whole — block altar on two-stepped krepidoma with base and top moldings and corner acroteria in the shape of Ionic volutes — is reminiscent of the monumental building traditions of Asia Minor, the altar's individual features were manipulated to produce a new, original design. This suggests that with this altar, Philetairos' architect sought both adherence to a regional building mentality and distinction for the Attalid design. Despite its allegiance to local building traditions, the overall design of Altar A bespeaks great inventiveness, drive for individuality, and ingenuity on the part of the architect and presumably his patron, particularly in the details of the unsupported altar horns and their refined volute detail. The use of recurring motifs reinforces a sense of unity and harmony within the overall composition. Although the monument uses the stylistic vocabulary of the region, the architect's combination of individual details and experimentation with the capabilities of the material lend this altar an air of originality that places it on par with some of the finest monuments of the time. The dedicatory inscription on the front

⁹⁶See [Ohnesorg \[2005\]](#) for an overview.

ensured that no one would overlook the fact that this bold design was the gift of the Attalids to both community and deity.

Although the peculiarities of the altar's design and style may have been prompted by the patron's desire to create a presence for himself and his family in early Hellenistic Asia Minor, one should at least consider the possibility that its forms were influenced by the ritual activities intended to take place on and around it. The entire altar design seems to have been conceived to increase the monumentality of the ritual: thus, for example, the two-stepped krepidoma raised the offering bench about 0.45 m from the ground, setting it apart from its surroundings.⁹⁷ The steps added a sense of solemnity to the monument: cult attendants and sacrificial animals were kept at a respectful distance from the offering table, and the officiant's arrival at the altar was made more dramatic by her ascent onto the stylobate. The wide steps forced her to pause, turning her approach to the altar into a processional performance. The superstructure of the altar was itself low, measuring a mere 0.992 m from stylobate to altar top. The high podium of the krepidoma in combination with the low table top served to increase the visibility of the cult official and to make her appearance more commanding. Her upper body would have been fully visible behind the altar block, and, raised from the ground along with the altar table, she would have appeared much taller than the average cult attendant. The altar design thus reinforced the centrality of the ritual performed upon it and enhanced the officiant's mediating role between human and divine by providing her with a space that was higher but fully integrated into the precinct design. The volute decoration may have been similarly devised in response to the cult ritual by creating a festive frame around the most important ritual performed in the sanctuary.⁹⁸ The acroteria may have served a practical purpose as well: A. Ohnesorg has observed that elements projecting from altar tops may have served to protect the sacrificial table from wind, and it is conceivable that the projecting volutes functioned as wind breakers as well.⁹⁹

⁹⁷The temenos floor was not paved but consisted merely of stamped earth.

⁹⁸I have noted above that altar horns may have been used to tie the sacrificial animal to the altar; this does not seem to have been the case at Pergamon; instead, the excavators recovered a block near the altar to which at some point a metal ring had been fastened, apparently for keeping the beast in place. [Kasper \[1972\]](#) 84-85.

⁹⁹[Ohnesorg \[2005\]](#) xiv. The extinction of the burnt sacrifice by wind may well have been read as a bad omen or as the deity's refusal to accept the gift.

Because of its dedicatory inscription, Altar A can be securely attributed to the reign of Philetairos, but the archaeological remains indicate that it was built in two phases, with the *prothysis* on the west side of the altar as an afterthought to the original plan. This was first noted by Dörpfeld who observed that the initial design of the altar was smaller, measuring only 3.80 by 4.70 m on the foundation, and that it did not include a standing platform on its western side.¹⁰⁰ Dörpfeld took this as evidence for a pre-Attalid altar preceding Philetairos' Altar A.¹⁰¹ In his 1972 study of Altar A, S. Kasper found, however, that the altar superstructure, including the orthostates on the east with Philetairos' dedicatory inscription, had been completed by the time the stylobate was extended to the west. While Kasper confirmed Dörpfeld's observation that the addition of the *prothysis* was an afterthought to the original design, he concluded that it was a change to the Philetairean altar — not an earlier one — that took place not long after the initial construction, probably still during the reign of Philetairos or at the latest during that of his successor Eumenes I.¹⁰² Thus, Altar A was not a refurbishment of an earlier structure but was Philetairos' original addition to the sanctuary.¹⁰³ This is an important observation because, as we will note, Altar A became the focal point of the precinct and all other monuments — both earlier and later ones — were built or rebuilt in relation to this structure.¹⁰⁴

2.2.2 The Temple

Altar A stood approximately 9.50 m in front of the Temple to Demeter and it was aligned with it on its central axis. While most of the sanctuary floor consisted of rammed earth, the area between altar and temple seems to have been paved with andesite slabs,¹⁰⁵ further emphasizing the unity of the two Philetairean monuments. The temple's superstructure is also well preserved, but some of its most important elements, the column capitals, were not

¹⁰⁰Dörpfeld [1910] 378. See also Bohtz [1981] 52.

¹⁰¹Dörpfeld [1912] 253.

¹⁰²Kasper [1972] 87-89.

¹⁰³Dörpfeld's argument of a pre-Attalid predecessor altar is repeated in Bohtz [1981] 52, but Kasper's careful analysis of the altar remains refutes this theory convincingly.

¹⁰⁴As will be discussed in the subsequent section, Philetairos' altar and temple formed a unit, but, following what we know about standard Greek cult practice, the altar formed the ritual center.

¹⁰⁵Bohtz [1981] pl. 33.

recovered in the excavations.¹⁰⁶ As a result, the reconstruction of the temple elevations is more problematic than that of the altar and the close relationship between altar and temple assumes a critical role in establishing the temple's facades. Ultimately, the question of the temple's order will have to be revisited in the discussion of its architecture.¹⁰⁷

The temple shares the altar's simplicity of plan and refinement of decoration.¹⁰⁸ It was conceived as a small anta-temple with two columns between the antae and it measured 14.14 m x 7.975 m on the foundation.¹⁰⁹ Like the altar, it stood on a two-stepped krepidoma in the Ionic tradition. The naos was divided into two almost equally sized parts, a large pronaos (4.45 m deep) and a comparatively small, almost square, cella (5.355 m wide by 6.49 m long).¹¹⁰ An approximately 1.40 m wide door, probably two-leafed, with a threshold articulated in the form of a step connected the two rooms. Deep pronaoi seem to have been a characteristic of Asia Minor since the Archaic period and can be seen in the old temples of Artemis at Ephesos, of Apollo at Didyma, and in the Hellenistic temples of Athena at Priene and of Artemis at Magnesia.¹¹¹

On its north side, the Philetairean temple was placed directly on the bedrock which seems to have been cut back to produce a level surface. The southern part of the temple needed artificial support and a few wall courses still attest to its extensive foundation on that side.¹¹² It is unclear whether the interior floor of cella and pronaos was paved. Bohtz's reconstruction of the temple suggests that it was, and he even proposed different patterns for the respective pronaos and naos floors, but there is no discussion of a pavement in the

¹⁰⁶The column capitals are especially important for the temple's stylistic classification.

¹⁰⁷The absence of the column capitals is critical to the reconstruction of the temple elevations and will be discussed in detail below 2.2.2 on page 65.

¹⁰⁸Dörpfeld [1910] fig. 8.

¹⁰⁹Dörpfeld [1910] 381.

¹¹⁰Measurements taken from Bohtz [1981] pl. 52. In the Roman period, the temple was enlarged with the addition of yet another front porch (of marble), thus doubling the size of the pronaos and making it considerably larger than the temple's cella.

¹¹¹See also Winter [2006] 7. Philetairos' temple of Meter at Mamurt Kale had a similarly deep pronaos. Conze and Schazmann [1911].

¹¹²On the south, the terrain sloped downward from west to east, requiring considerable substructures for the pronaos walls. Because there the terrain seems to have been much softer than beneath other sections of the temple, this is also the area that suffered the most damage and that the excavators found almost completely destroyed. Dörpfeld rebuilt part of the southeastern corner of the pronaos to convey a sense of the overall temple dimensions.

text¹¹³ and Dörpfeld states that nothing of the interior was recovered.¹¹⁴ If the interior was paved — which is likely considering the temple’s neatness overall — the floor slabs were surely among the first blocks to find reuse in the later buildings since they were small and easy to carry away.¹¹⁵

Like the altar, the temple followed the Ionic tradition of Asia Minor.¹¹⁶ This is most apparent in its use of Ionic moldings to divide the facade elevation into horizontal sections: a base or socle, a wall zone with epikranitis (crown molding), entablature, and roof. In the roof, additional moldings separated a three-banded architrave from a bucranion-garland frieze and a dentiled geison. Although the moldings — and even their sequence — are typical of the Ionic order, particularly striking is the use of plain moldings and the avoidance of any decorative treatment of their surfaces.¹¹⁷ Normally in Ionic architecture, every molding carries a specific decorative pattern, e.g., a lesbian leaf-and-dart on the cyma reversa, an egg-and-dart on the ovolo, palmettes across the sima, a bead-and-reel on the roundels. In Philetairos’ monuments, no ornamental treatment of the profiles is present and this plainness becomes characteristic of the architecture of both the Demeter Sanctuary and of later Hellenistic Pergamon.¹¹⁸ Since the later, marble buildings in the city exhibit the same preference for the unadorned molding, it cannot be argued that the andesite used in the Demeter Sanctuary would not have allowed a more detailed treatment of the surface. In fact, some recently published andesite fragments from the Pergamene acropolis demonstrate that intricate carving of this material was possible and adopted when desired.¹¹⁹ One may also

¹¹³Bohtz [1981] pl. 52.1.

¹¹⁴Dörpfeld [1910] 381: “Im Innern der Cella ist von der Basis des Cultbildes [sic] nichts mehr in situ und bisher auch noch kein Stein nachgewiesen.”

¹¹⁵From Dörpfeld’s description of the state of the sanctuary upon his arrival, it is clear that the sanctuary had been overbuilt heavily in late antique and medieval times, and that for that purpose most of the Hellenistic and Roman structures had been dismantled. As with many other sites, also here the ancient monuments served as “quarries” to the later buildings.

¹¹⁶For the temple east elevation, see the different facades proposed by Bohtz [1981] pl. 53 and Rheidt [1996] fig. 11.

¹¹⁷I have noted the same quality in the moldings of the Philetaiorean altar.

¹¹⁸As we will see in Chapter 3, also the moldings of the buildings Apollonis added to the precinct were left plain. Also the moldings in later Pergamene monuments, like the propylon to the Athena Sanctuary or the Great Altar did not carry ornamental patterns.

¹¹⁹Kästner [2004] 136-145, cat. nos. 4-11. The author dated the fragments to the pre-Attalid period (second half of the fourth century BCE). Note also the highly detailed carving of the volutes of the Demeter Altar.

suppose that the ornament was applied in paint; traces of red paint have been found on the temple's dentils and part of the temple was once covered with a wash of paint. Nevertheless, it is unlikely that this coating extended over the entire building: the traces of paint found in the dentil spacings are thin and not the complex layers of ground wash and overcoat which would have been required for a lasting application of painted patterns.¹²⁰ Moreover, if the ornamental décor had been painted on, the dedicatory inscription would probably have been painted rather than carved. Since its letters were chiselled on the temple architrave and altar orthostates, painted profiles seem highly unlikely. Finally, the paint would have been heavily exposed to water on the bottom and would have required renewal on an annual basis. If a profile pattern had been desired, a carved decoration would have been more economical in the long run.

Thus, only two possibilities for the plain surface of these moldings come to mind: first that they were left unadorned to conserve resources, perhaps because Philetairos' architects and masons were busy with the construction of other monuments on the acropolis,¹²¹ or second, that it was a design choice. The unadorned molding allowed for the play of light and shadow and the forceful interplay of positive and negative spaces. This lent more body to the monument, streamlined it, and allowed ornament to become an integral part of the design — not applied décor. The plainness of the profiles avoided competition with more decorative elements, allowing the eye to be drawn automatically to the volutes of the altar and the bucranium frieze of the temple. Ultimately, it remains impossible to know what motivated the plainness of the profiles in the Demeter Sanctuary, and it is possible that economic and aesthetic considerations affected Philetairos' designs at the same time.¹²²

Whereas the temple plan can be reconstructed with comparative accuracy, its height can be approximated only by reading the preserved wall blocks. The temple walls seem to have alternated courses of orthostates and binders, with the orthostates not cut of a single

¹²⁰Most likely only select elements of the entablature were painted.

¹²¹This would also accord with Shoe's observation on the need for a "shortcut" profile in the development of the straight ovolo. See above 151 on page 52. One of Philetairos' major concerns was the securing of his position and the reinforcement and expansion of existing fortifications must have consumed a considerable part of his financial and labor resources.

¹²²It is possible that decorative patterns were applied in paint, as an illusion, like we know it from Macedonian tombs from the period. Miller [1971]. Rumscheid [1994] vol. 1, 334.

but of two separate blocks snug against each other in the clam-shell technique to facilitate transportation and lifting.¹²³ The binder courses were between 0.21 m and 0.23 m tall, and the orthostates varied between 0.505 m and 0.575 m in height.¹²⁴ Bohtz reconstructed the temple with binders running between every other orthostate course.¹²⁵ Yet, the slender proportion of the orthostate slabs — between 0.19 m and 0.27 m thick — and the remarkable difference in the width of the remaining binder blocks make it more likely that a row of binders was inserted after each orthostate course.

My measurements have identified six different orthostate courses, varying in height between 0.565 m at the bottom and 0.505 m at the top, which were separated by five layers of binders (see Appendix 1). The binders varied in width from 0.536 m at the bottom to 0.41 m at the top, suggesting a slight tapering of the wall towards the top.¹²⁶ The entire wall height can thus be reconstructed as follows: on the stylobate sat a 0.195 m tall socle followed by the first orthostate course (identified by an apophyge and fillet at the bottom), 0.565 m tall, and a binder 0.23 m tall. The second orthostate course measured 0.555 m, and its adjoining binder course 0.22 m. These were followed by orthostates rising 0.545 m tall and binders of 0.22 m in height. The fourth riser measured 0.525 m and the subsequent stretcher 0.21 m, while the fifth orthostate course was 0.515 m tall, followed by a binder course of 0.22 m. The final orthostate course was, with 0.505 m, the shortest of all. If one adds to this an epikranitis course of 0.20 m, the entire wall measured 4.705 m, that is, 0.615 m lower than the wall reconstructed by Bohtz.¹²⁷

¹²³Walls built in the clam-shell technique consist of two outer layers of (thinly) cut ashlar blocks and a space in between that is filled with loose rubble that was, at least in Roman times, fortified with mortar. Binders at regular intervals connect the two layers and add stability. The advantage of this technique is that the individual blocks are lighter than in solid ashlar masonry, i.e., easier to cut, transport, and assemble and hence more economical.

¹²⁴These numbers are based on the blocks that could be identified as part of the temple walls. I measured a total of 46 wall blocks in the summer campaign of 2004. Because of the comparatively small size of the wall blocks, many of them were reused in the Byzantine overbuilding of the sanctuary. It is likely that many, especially the smaller binder blocks were reused multiple times throughout history. Today, they are likely scattered all over the city of Bergama.

¹²⁵Bohtz [1981] 41 and pl. 53.

¹²⁶A block, O19 in Appendix 1 and 0.575 m tall, was likely not part of the temple's exterior wall. It may have been used for the wall separating pronaos from cella instead.

¹²⁷Bohtz [1981] pl. 53. The remaining column drums and antae blocks are only of limited use in the reconstruction of the temple height since they are not preserved in their entirety. Note that also Rheidt [1996] 171 and fig. 11, questioned Bohtz's reconstruction of the Demeter Temple and proposed a considerably lower height.

The entablature was designed in Ionic fashion with a three-banded architrave (0.303 m),¹²⁸ followed by a sculpted frieze (0.37 m) and a geison with dentil course (0.17 m and 0.22 m).¹²⁹ Dentils were also applied to the raking geison of the pediment which was otherwise unadorned. At its highest point, the pediment measured approximately 0.65 m.¹³⁰ Thus, the temple height can be reconstructed as ca. 6.45 m at the center and 5.55 m on the sides. The temple was therefore stouter in proportion than previously assumed, but still within the proportional variance of the traditional Ionic order.¹³¹

At the same time, a closer look at the Temple's details suggests that, like Altar A, it departed from and elaborated on the Ionic canon to develop a highly individualized temple design, and, in so doing, the articulation of its superstructure echoed that of the altar: on the bottom a continuous base molding, similar though not identical to that of the altar, marked the transition from horizontal stylobate to vertical wall surface. This molding followed the outer perimeter of the temple walls and continued into the pronaos, framing the inner walls of that space. The base molding thus assured a smooth transition from outside to inside and from stylobate to wall. Base moldings like these are typical for the Ionic architecture of Asia Minor, but in the Hellenistic period, they were often limited to the antae, while the rest of the wall remained plain, as in the slightly earlier Temple of Athena at Priene or the contemporary Temple of Asklepios on Kos.¹³²

Compared with other structures of the Ionic order — and especially those of Asia Minor — the base molding of the Demeter Temple is unique, not the least in its plainness.¹³³ Effects are achieved by a series of projecting and receding curves that are interrupted by thin fillets or astragals. The entire molding measures 0.20 m; it starts at the bottom with a plinth segment 0.069 m tall. A sloped cutting of the plinth-top prevents moisture from collecting

¹²⁸In the pronaos, the fasciae were articulated on both sides of the architrave, but the inner course was slightly lower (0.282 m).

¹²⁹The horizontal geison is lower in height than the raking geison.

¹³⁰The preserved central blocks of the pediment are too damaged to provide an exact figure but the slope of the roof can be determined from them which allows a fairly accurate reconstruction of the pediment height. The number also corresponds with Bohtz's reconstruction of the pediment.

¹³¹The column height corresponds to approximately 8.8 times the lower column diameter. Since the columns are not preserved in their entirety, this number must remain conjectural.

¹³²Herzog and Schazmann [1932] 35.

¹³³Bohtz [1981] pl. 26.3. The epikranitis molding is not recorded in Bohtz's study.

in the shadow gap and makes it bigger at the front; it thus enhances the horizontal divide without compromising the stability of the profile.¹³⁴ The plinth is followed by a 0.045 tall torus that approximates the shape of an ellipse segment rather than the more typical half circle. At about 0.023 m from the front, the upward swing of the torus is interrupted by a 0.004 m tall fillet that may mark the beginning of a new molding element, the cavetto; nevertheless, the curve continues the angle of the torus before it again turns outward, ending about 0.042 m from the front in a 0.008 m tall semicircular lip. Just behind that, the base ends in a shallow cyma reversa (0.038 m). Above the base molding, the first orthostate block is not flush with the edge of the cyma but recessed about 0.03-0.035 m. On the first orthostate course, an approximately 0.02 m tall fillet with apophyge smoothes the transition from the curved base to the vertical surface of the wall.¹³⁵

Although select parts of the temple were once painted, it seems unlikely that the base molding was painted to conceal its plainness.¹³⁶ At this low level in the building close to the ground, it would have been necessary to renew the paint every spring, and this would have required the presence of a specialist. If visual effects like bead-and-reel or Lesbian leaf had been desired, a permanent carving would have been much more cost-efficient. Since considerations of “efficiency” seem to have guided the temple design in other places, we can exclude the possibility of a painted base profile.

The base molding of the Demeter Temple is reminiscent of the Attic Ionic temple foot, but it articulates its components into a new whole. Direct models are not readily identified, but in the following an attempt shall be made to discuss the base profile within a broader context and to illustrate its individual character. In the Attic Ionic base, the torus rests directly on the stylobate, but in the Demeter Temple a plinth is inserted beneath the torus to raise it from the ground, a feature typical of Asia Minor Ionic. A comparable mixture of the two Ionic traditions can be noted in several sarcophagi from Sidon (Lebanon) that date from the mid-fifth to the late fourth century BCE, especially the so-called Alexander-Sarcophagus

¹³⁴A slanted cutting also seems to be easier to produce from a technical point of view.

¹³⁵A similar apophyge can also be observed on the lowest column drums of the two respective column shafts. Since these were the only andesite column drums in the sanctuary that were carved with an apophyge, they need to be associated with the temple.

¹³⁶Traces of paint are preserved in some of the dentils of the temple’s entablature.

(ca. 312 BCE) and a number of unnamed sarcophagi found in the same crypt:¹³⁷ in these sarcophagi a tall plinth separates the torus from the ground, and the torus itself is conceived in the Attic Ionic tradition as one solid piece. In contrast to the torus of the Demeter Temple, however, the tori of the sarcophagi are articulated as traditional half-rounds and they are decorated with a braid-pattern like that on the base tori of the Athenian Erechtheion. In these bases, a cavetto again follows the torus, but the two elements are separated by a fillet that is more pronounced than the “interruption” in the Demeter Temple, and the cavetto is also less pronounced. Whereas in the Pergamene base the cavetto almost assumes the shape of a scotia, in the sarcophagi (with the exception of the Alexander-Sarcophagus) it is articulated with a shallow inward bend. All of the sarcophagi exhibit a cyma reversa at the top, though it is steeper than the profile of the Demeter Temple base and it is usually enhanced with a decorative motif, most often a Lesbian leaf.

The astragal-like lip below the cyma on the Pergamene base is articulated as a plain fillet in the sarcophagi, if it is present at all. One could also interpret the astragal as a reduced second torus, perhaps in imitation of the double-torus of the traditional Attic Ionic base.¹³⁸ Whatever the case, the comparison shows that, in his articulation of the base of the Demeter Temple, the Pergamene architect did not follow a standard form but remained faithful to a general idea of the Ionic base. In this form it communicated with the base of the altar and signaled the temple’s adherence to the tradition of Ionic temples in their broadest sense. The individual details within this scheme, however, were treated with great liberty and without regard for an established canon — if such a thing existed at all in the architecture of Asia Minor. The result was a highly individualized wall base that, like other architectural details of this building, helped to set it apart from any other building in the Aegean. Thus, although the base was simpler in both material and design than the elaborate marble bases of other area monuments, its forms nevertheless lent the building an air of refinement.

¹³⁷All sarcophagi from Sidon are in the archaeological museum in Istanbul. The unnamed sarcophagi are known as “Theken Sarkophage” (bench sarcophagi) and are consecutively numbered 72-74. They are unnamed because their sides do not bear any reliefs and their patrons/occupants are unknown. Although these sarcophagi are not actual buildings, their decorative vocabulary is clearly derived from architecture and therefore makes them suitable comparanda for stylistic developments in the architecture of the period. von Graeve [1970] pl. 9.

¹³⁸See, for example, the second torus above the scotia in the Alexander-Sarcophagus or in the antae of the Temple of Apollo at Didyma.

The distinctive base molding of the Philetairean temple finds its corresponding element in the carefully articulated epikranitis (crown molding) and entablature.¹³⁹ Like the base, the crown molding continues around the temple as a simple band — a series of plain profiles that effect a horizontal structuring of the block. This and its height of 0.20 m emphasize the epikranitis' relationship with the base molding. At the bottom of the block a 0.013 m tall fillet with curved terminus picks up the apophyge of the bottom orthostate, but in the orthostate this motif continues the curviness of the base while in the epikranitis it is used to demarcate the end of the vertical wall surface and to anticipate the complex moldings of the entablature. From the bottom fillet, a 0.078 m tall band rises and curves outward towards the top. It is followed by two horizontal strings separated by a shallow groove and a 0.04 m tall ovolo. A curved band (0.045 m tall) with upper lip finishes the epikranitis profile at the top. Considering its position high on the wall and protected by the overhanging geison, it is possible that this temple element was painted. A bead-and-reel-motif on the strings and an egg-and-dart on the ovolo would fit the respective profiles, but no color is preserved on any of the epikranitis blocks to support this suggestion.¹⁴⁰

The epikranitis provided the base for the temple's architrave, a ca. 0.30 m tall section that was broken into three horizontal bands, or fasciae, and topped by an ovolo and fillet.¹⁴¹ On the front and sides of the pronaos, the fasciae are articulated on both sides of the architrave faces, whereas around the cella, they decorate only the outside. The fasciae are not equal in dimension, but increase in height from bottom to top with the topmost band carrying the dedicatory inscription.¹⁴² The letters of the inscription are 0.075 m tall, almost filling the band and making the inscription look squeezed into it. By comparison, the inscription in the South Propylaea at Labraunda (ca. 350 BCE) also occupies the top fascia but the letters are

¹³⁹Note that in Bohtz's reconstruction of the temple the epikranitis was completely omitted. The reasons for this omission are not known. For the entablature, see [Bohtz \[1981\]](#) pl. 27.11.

¹⁴⁰I measured a total of 12 epikranitis blocks.

¹⁴¹[Bohtz \[1981\]](#) pl. 27.11. [Dörpfeld \[1910\]](#) pl. XX.4. The emergence of the banded architrave in Greek architecture has not received any detailed treatment to my knowledge. According to [Barletta \[2001\]](#) 115, the earliest occurrence of a banded architrave is the Oikos of the Naxians on Delos (ca. 560 BCE), but the motif seems to have been fully developed in Achaemenid architectural vocabulary by the mid sixth century, as is illustrated by the Tomb of Darius I at Naqsh-e Rostam. See [Schmidt \[1953\]](#) vol. 3, pl. 3. An investigation of the emergence and development of this decorative feature of the Ionic architrave would be much desired.

¹⁴²The bottom fascia measures 0.055 m, the middle 0.075 m, and the top 0.095 m. The individual bands also slightly tilt inward from bottom to top.

better suited to the size of the band leaving empty space around them.¹⁴³ From a calligraphic point of view, the letter forms of the Philetairean inscriptions — on both altar and temple — look somewhat clumsy. The characters are not all of the same height, and their spacing is not regular. Certainly, the material must have posed some difficulty for the carving of the dedication: the local andesite, a tough volcanic rock, is difficult to work and requires some skill.¹⁴⁴ On the other hand, the dedicatory inscription on Queen Apollonis' gatehouse was much more regularly laid out despite being carved in the same material. Early-third-century masons had the skills to produce regular inscriptions, as the examples from the Sanctuary of Zeus at Labraunda illustrate.¹⁴⁵ So, the “clumsiness” of the Philetairean inscriptions resulted from either a poorly trained craftsman, or what seems more likely, a deliberate choice. The peculiar letter forms of the dedications make them easily recognizable and, together with the architectural design, would have enhanced the individualized character of the ensemble.¹⁴⁶ As suggested for the altar, this dedicatory inscription was probably once highlighted in color which would have heightened its presence and underscored the peculiar character of its letter forms.¹⁴⁷

Unlike traditional Ionic practice, in the Demeter Temple the top fascia of the architrave was not crowned by a bead-and-reel molding. Instead, it finishes with what L. Shoe termed the “Pergamene ovolo,” a straight-sided ovolo in which the ovolo is not articulated as a curve but cut short to a straight line.¹⁴⁸ Shoe explains this rendering as “a shorthand method of cutting an ovolo,” and, if her observations are correct, it was invented at Pergamon and employed there in almost every building on the Hellenistic citadel.¹⁴⁹ In the architrave of the Demeter Temple, the ovolo ends in a horizontal at the bottom that is combined with a simple astragal and topped by a plain band above.¹⁵⁰ This articulation of epistyle crown

¹⁴³Jeppesen [1955] pl. 21.

¹⁴⁴See also the earlier remark in relation to the intricate carving of the altar horns.

¹⁴⁵Jeppesen [1955] 26-27 and pl. XXI.

¹⁴⁶A certain “roughness” in the execution of the detail can also be noted in Apollonis' buildings on the Demeter terrace, to be discussed in Chapter 3, and in later Attalid monuments as well.

¹⁴⁷An example of colored letters is provided in the semicircular base Attalos II dedicated in honor of his mother Apollonis some time in the second century BCE. The base is now in the Pergamon Museum in Berlin.

¹⁴⁸Shoe [1936] pl. XV.1.

¹⁴⁹Shoe [1936] 22.

¹⁵⁰Again, it is possible that the astragal was painted to imitate a bead-and-reel decor, but no traces of color have been preserved.

with straight-sided ovolo became a standard element of Pergamene architecture, but it is attested for the first time in this temple. The temple offered other design elements that were picked up again in later Attalid monuments, like the bucranium-and-garland frieze or dentil course to be discussed below. This suggests that the Demeter Temple and/or other buildings from this period may have served as models for later Pergamene buildings.¹⁵¹

As noted, temple and altar were built of local andesite, but, whereas the altar's most decorative element, the altar horns, were carved in the local material, the temple's most ornate feature, the garland-and-bucranion frieze, used gleaming white marble imported from the Proconessos. This is the earliest known temple at Pergamon to have employed marble.¹⁵² The frieze course was approximately 0.37 m tall. In order to make the most out of the imported material, the slabs were thin — between 0.23 and 0.16 m — and attached to backer blocks of andesite to keep them in place. That marble was a rarity at this time in Pergamon is suggested by the varying lengths of the frieze blocks, between 0.95 and 1.125 m. Apparently as little as possible was wasted.¹⁵³

It is generally assumed that the frieze wrapped around the entire circumference of the temple,¹⁵⁴ and this assertion will be accepted in this dissertation.¹⁵⁵ The carving of the frieze

¹⁵¹The Pergamene ovolo also appears in the table profile of the Altar of Demeter. In her discussion of the Pergamene ovolo, Shoe distinguishes three different types which suggests a development and variation of the same motif over time. The creation of this more simplified molding in her view was necessitated by “the problem of constructing a tremendous number of buildings in an incredibly short time.” Shoe [1936] 22.

¹⁵²Bohtz [1981] figs. 8-9, pl. 27.1-11. Marble fragments of a third-century temple have also been found in the Asklepieion, but it is not clear to which temple they once belonged and too little is preserved for even a tentative reconstruction of the temple plan. The date of these fragments is disputed as well and they could come from either the early or the late part of the third century. Ziegenaus and de Luca [1968] 79. Rheidt [1996] 173-174. For information on the derivation of the marble used in the Demeter Temple, I thank Dr. V. Kästner and T. Cramer. Their findings were presented in the 7th International Conference of the Association for the Study of Marble and Other Stones used in Antiquity (= ASMOSIA); proceedings of the conference are in preparation. See http://www.eescience.utoledo.edu/ASMOSIA/Proceedings/Trans_List.htm (05 September 2006).

¹⁵³Note that Stephan [1931] 28, suggests that the frieze of the Demeter Temple must date to the reign of Eumenes II because it is only at that time that Pergamon began to build in marble. Stylistically she sees close correspondences between the friezes of the Demeter Temple and the Monument of Prusias at Delphi (182 BCE). This view has not found much acceptance in scholarship, since it is difficult to imagine that the marble frieze of the temple could have been a “later addition.”

¹⁵⁴Dörpfeld [1910] 382.

¹⁵⁵It should be noted, however, that no corner blocks have been recovered and it, therefore, remains unclear how the corner would have been articulated. Since, according to Bohtz [1981] 45, fig. 9, the total length of preserved frieze elements measures only 8.22 m, it is also possible that only front and back carried marble frieze elements and this would resolve the corner problem. Considering the rarity of marble at Pergamon,

is of exceptional craftsmanship, with great attention to detail. Its most striking decorative element are the bucrania, or bull-skulls, set at intervals of about 0.94 m.¹⁵⁶ The skulls have the shape of an elongated triangle; apart from a slight bulge around the eye sockets, the skull is flat and not articulated in any way. From the top of the skull emerge two horns carved to project upward and outward from the frieze ground.¹⁵⁷ Around the horns and across the skull's forehead a beaded cord (a *taenia*, *stemma*, or *vitta*) is wrapped and draped down the sides of the skull, terminating in lotus-shaped tassels.¹⁵⁸ The verticality of the cords enhances the elongated shape of the skulls and adds body and elegance to an otherwise plain form. In addition to the taeniae, tube-like garlands swing from skull to skull, draping behind the horns and resting on top of the skulls. These garlands are decorated with pointed leaves applied like fish scales to the underlying structure.¹⁵⁹ At regular intervals bands are wrapped around the garlands to suggest an interlacing of the leaves with ribbons. This ribbon is also decorated with a leaf pattern but these leaves are perpendicular to the direction of the leaves of the garlands. The garland leaves resemble those of the ribwort plant; the leaves on the ribbons seem to imitate laurels.¹⁶⁰ The garland leaves are articulated with greater plasticity in an attempt to approximate the vegetal model as closely as possible; the ribbon leaves are modelled in a two-dimensional, abstract pattern, like fish-scales. The alternation of “horizontal” and “vertical” and plastic and flat leaf patterns enhances the festivity of the garlands and precludes monotony in its appearance.¹⁶¹

At center point between two skulls, where the garland curve reaches its lowest point, an offering bowl (*patera* or *phiale*) fills the empty space. It is articulated as a plain circular plate, approximately 0.22 m in diameter, set off from the frieze ground by a broad, roundel-shaped rim. At its center is a small circular element like a button, a feature typical of

the restriction of the carved frieze elements to the front and back only is equally plausible.

¹⁵⁶On the definition of the bucranium and its distinction from the bucephalion (bull's head), see [Börker \[1975\]](#).

¹⁵⁷Because the horns were the most vulnerable part of the frieze, their tips are all damaged.

¹⁵⁸According to [Stephan \[1931\]](#) 5, the taenia marked the bucranium and garlands as a sacred offering.

¹⁵⁹As [Strocka \[1978\]](#) 891, noted, the leaves of the garlands on the Demeter Temple all run in the same direction — from left to right — which may perhaps be taken as an indication that the frieze indeed continued around the entire temple perimeter.

¹⁶⁰[Napp \[1933\]](#) 4, describes all the leaves of the garland as laurels, but the two types actually show some marked differences.

¹⁶¹Again, I disagree with [Napp \[1933\]](#) 4, who suggests that these bands hamper the flow of the garlands' left-to-right movement.

ritual vessels of this kind. One such example appears in the hands of a female figure, usually interpreted as a priestess of Demeter, in a Roman marble relief from the Pergamene Demeter Sanctuary.¹⁶² The patera's simple shape does not compete with the more elaborate patterning of the garlands or the figurative qualities of the skulls. Their location in the festoons underscores the garlands' sway and produces counterbalance to the oval features of the bucrania. All three elements — skull, festoon, and bowl — are abstracted to some extent, probably to facilitate the carving process and to enhance the ornamental character of the frieze. It is this subtle degree of abstraction that pulls the frieze elements together and ensures a harmonious whole. Great care was taken to create a uniform layout of the frieze's components: bucrania, paterae, and leaf patterns are identical throughout the facades, the garlands dip consistently at the center-point between two skulls, and this axis is picked up by the bowls. The regular flow of the garlands guides the eye from bucranium to bucranium and the phialai are suspended in mid air as if they had just bounced off the swags. The architect thus created an ornament without a beginning or end and one that seems to be in constant undulating motion. High up on the temple facades, the frieze became a gleaming white "crown" that tied all of the building's parts together — like a lavish cesura between the upward motion of the walls and the weightiness of the lowly pitched roof.

The decorative elements of the frieze — the bucranium, garland, and bowl — all reflect the cult ritual: the bucranium symbolized the sacrificial offering of bull or ram that accompanied the rituals of Demeter and other religious practice.¹⁶³ As G. Umholtz noted, displaying the skull of the sacrificial animal was common practice in Greek cities and illustrated the benevolence and wealth of the citizen(s) who sponsored the sacrifice.¹⁶⁴ In the case of the Demeter Temple, with over forty skulls, this adornment must have put Philetairos and his family in a favorable light with the citizens of Pergamon.¹⁶⁵ The permanence of the frieze may also have indicated the royal family's willingness to commit to the regular provision of

¹⁶²Kasper [1972] fig. 20.

¹⁶³Considering the small horns of the bucrania, they could also represent ovine skulls.

¹⁶⁴Umholtz [1998]. I would like to use this opportunity to express my thanks to Gretchen Umholtz for kindly sharing her paper with me. Now also Umholtz [2008].

¹⁶⁵With an axial distance of 0.936 m between skulls, the temple had eight bucrania across the front and back and thirteen on the sides. Note that Bohtz [1981] pls. 52 and 53 reconstructed the temple with seven bucrania across the front and fourteen across the side.

sacrificial animals for the cult rituals in the sanctuary. Garlands made of leaves and flowers were used throughout the ancient world to add an aura of festiveness to a ritual setting,¹⁶⁶ but they may have been most popular in areas that were heavily vegetated such as Asia Minor, Thrace, Macedonia, Lower Egypt, and Southern Italy. It is perhaps for this reason that garlands first appear in the visual arts of these areas.¹⁶⁷ Again, the transformation of a transitory element into a permanent feature of the temple decoration served as a lasting reminder of the cult rituals performed in the precinct and as a guarantee that the festivity of the rites would not be compromised in the future. The paterae similarly alluded to the pouring of libations during the cult ceremonies, which may have been part of the Thesmophoric rituals as well.¹⁶⁸ The designer of the temple frieze seems to have chosen these three motifs for both their decorative qualities and their allusions to cult.¹⁶⁹ The combination of ritually significant objects in a decorative pattern was possibly responsible for the popularity of these motifs in the visual language of the period.¹⁷⁰ Since the bucranion-garland frieze of the Demeter Temple seems to stand at the beginning of this development — at least in architecture —, its origins and parallels deserve closer attention.

Although a familiar decorative motif in the later Hellenistic and Roman Republican periods, especially on altars and sarcophagi, in the third century BCE, the bucranion appears only rarely in an architectural context.¹⁷¹ The use of the bull's head or skull as architectural ornament may have its origin in Achaemenid architecture where bull's head protoma are attested in numerous buildings throughout the empire.¹⁷² Those capitals consisted of bull's

¹⁶⁶Pl., *Symp.* 212 e. Pliny, *NH* 21.4. See also [Stephan \[1931\]](#) 12-13.

¹⁶⁷Garlands are still used for festive occasions in western Turkey today.

¹⁶⁸Libations are not specifically attested for the Thesmophoria, but they constituted an elemental feature of many Greek cults. Evidence for libations has been recovered at Pergamon in the bothros next to Altar A. [Kasper \[1972\]](#) 78-79.

¹⁶⁹This can even be understood in the Benjaminian sense as the “auratic” value of the object.

¹⁷⁰On the history and development of the garland frieze in Greek and Roman visual arts, see the following; [Napp \[1933\]](#). [Stephan \[1931\]](#). [Strocka \[1978\]](#). [Honroth \[1971\]](#). [von Hesberg \[1981\]](#). [Matz et al. \[1997\]](#).

¹⁷¹Its first occurrence in vase painting dates to the fourth century, which has been taken as a sign that it may have become an architectural feature also around that time. [Frazer \[1992\]](#) 198-200, n. 134. [Napp \[1933\]](#) 2, knows of terracotta altars from the Archaic period that carry a bucranion decor. [de Luca \[1990\]](#) argues for Hellenistic Pergamon that the decoration of vessels frequently borrows its motifs from contemporary architectural sculpture.

¹⁷²The bulls were occasionally replaced by griffins as examples from Persepolis show. http://traumwerk.stanford.edu/archaeolog/2008/10/achaemenid_sculptural_stone_te.html (14 February, 2009).

heads and torsos arranged back to back on a horizontal block. In conventional reconstructions, the architrave is shown resting on the bulls' heads with a wooden(?) block filling the open space between them, but in a recent article, U. Seidl proposed a different composition of the protoma that finally gives meaning to the peculiar shape of this capital and that may have a bearing on the development of the Greek bucranian frieze.¹⁷³ She points out that a wooden block could not have withstood the pressure of the stone entablature above and that the weight would have rested entirely on the bulls' heads. These, however, were already weakened by the lack of support between them and would likely have buckled under the pressure. Thus, she proposes to place the architrave in the gap between the heads so that the animal heads would bracket the architrave block like a clamp. The architrave, she suggests, would have been composed of multiple layers that became gradually wider, following the widening of the gap between the bull's heads toward the top. This proposal makes sense from both a structural point of view, providing a rationale for the odd shape of this capital type with its deep rectangular recess between the two animal heads, and it visualizes an arrangement of the entablature that may have inspired Greek architects on a number of different levels: first, the staggered architrave would explain the emergence of the banded architrave in Ionic temple design, a feature that has not yet been adequately addressed in the study of Greek architecture,¹⁷⁴ but that is suggestive of a layering of horizontal elements.¹⁷⁵ More important for our discussion is the observation that the rearrangement of the bull's heads along the face of the architrave created a regular rhythm of heads across the facade, colonnade, or wall; it would only have been a small step to decorate these with garlands swinging from animal to animal. Thus it may well be that the Achaemenid bull protoma inspired the Greek bucranian-and-garland frieze.

Since, in Achaemenid architecture, bull capitals were primarily used in interior spaces, it is perhaps not surprising that the earliest recorded appearance of the bucranian in Greek

¹⁷³Seidl [2003], esp. fig. 4.

¹⁷⁴See the brief discussion in Barletta [2001] 115-117.

¹⁷⁵I agree with Barletta [2001] 117, that the Ionic fascia-architrave should not be taken as a direct translation of wooden architecture into stone as previously assumed, but I prefer the structural explanation postulated by Seidl over Barletta's aesthetic consideration that "with larger buildings, and thus epistyles, the architect may have felt the need to enliven the surface" by dividing it into multiple horizontal layers.

architecture is also in an interior space, the North Propylaea in the Sanctuary of Asklepios at Epidauros which is dated between the late fourth and the first decades of the third century BCE.¹⁷⁶ In this building, bucrania decorated an interior frieze in a pattern alternating with rosettes and the frieze on which they sat consisted of two fasciae.¹⁷⁷ Both skull and flower are highly stylized and sterile; the suggestion of hair on the bucranium forehead seems oddly misplaced. Somewhat later the motif is found in two monuments on Samothrace, the Rotunda of Arsinoe II and the Propylon of her husband Ptolemy II, queen and king of Egypt. Both monuments date to the first decades of the third century, with the Rotunda of Arsinoe dating perhaps as early as 300 BCE.¹⁷⁸ In the Rotunda, bucrania appeared on both interior and exterior, between the columns of the blind colonnade and above the orthostate course (Doric on the outside, Corinthian on the inside). On the inside, the bucrania are combined with offering bowls decorated with a floral pattern (“Blütenkelchphialen”).¹⁷⁹ Balustrades in the shape of low pedestals placed between the columns alternately hold pairs of bucrania and phialai. On the outside, the intercolumniations are wider and the pedestals are decorated with bucrania separated by a rosette. The bucrania of the interior and exterior are identical in form: the skull describes an elongated triangle; a thin layer of skin is suggested, but there is no flesh beneath it to cover the bone. The eye sockets are articulated, much like those in the bucrania of the Demeter Temple, but in contrast with the plain Pergamene skulls, the ones from the Arsinoeion have a triangular “forelock” suggested by a series of undulating lines. A beaded cord wraps around the horns and hangs down the sides of the skull to terminate in bell-shaped tassels, like those on the frieze of the Demeter Temple.¹⁸⁰

In the Propylon of Ptolemy, the bucrania are for the first time integrated into a continuous frieze where they alternate with eight-petaled rosettes.¹⁸¹ The articulation of the heads is

¹⁷⁶Frazer [1992] 198 and fig. 155.

¹⁷⁷Note that the Achaemenid bulls’ head protoma also sat against a banded frieze or architrave.

¹⁷⁸The date of the Rotunda is disputed. Prior to becoming queen of Egypt, Arsinoe had been married to Lysimachos, king of Thrace. Because of the proximity of Samothrace to Thrace and Lysimachos’ known sponsorship of the sanctuary, it has sometimes been suggested that Arsinoe gave her monument when she was queen of Thrace. For a full discussion of the argument, see G. Roux in McCredie, e.a. [1992] 231-239.

¹⁷⁹Frazer [1992] 200, with figs. 156-157 and 162.

¹⁸⁰According to Stephan [1931] 48, the beaded cord, or *stemma*, is first attested in a tomb (painting?) from Capua where it appears, however, without bucrania or rosettes.

¹⁸¹Two different types of rosettes were apparently developed for the different elevations of the gatehouse: the side facing the temenos was designed in the more florid Corinthian order and carried the more detailed flowers in the frieze; the opposite side was designed in the Ionic order and carried a somewhat plainer rosette.

clearly inspired by those of the Arsinoeion with which they show close affinity in shape and detail.¹⁸² They are somewhat more delicate in their carving, however, and in the execution of individual details. Thus, the overall contours appear sharper, and the beads of the cord are less oval and more circular. The forelock has been omitted in favor of a plain furrow that separates the bull's horns and the cords terminate in a lotus-shaped tassel like those of the Arsinoeion and the Demeter Temple. There is also a higher degree of plasticity in the Propylon frieze than in the parapets of the Arsinoeion: the relief is deeper and there is some attempt at undercutting, particularly in the horns, tassels, and rosette-petals. Stylistically, the bucrania of the Propylon fall between those of the Arsinoeion and those of the Demeter Temple, which fits with the chronology of the three monuments.

A. Frazer also discusses a bucranion-phialai frieze from Eresos (Lesbos) whose original use and date are not known. Because of the bucrania's similarity to those of the Propylon of Ptolemy and the bowls' similarity to those of the Arsinoeion, he suggests a date for the Eresos-frieze between the two Samothracian monuments, though it is possible that it borrowed selectively from the two structures at a later date.¹⁸³

Several frieze-blocks with a bucranion-and-phiale motif from the Lycian city of Limyra have been dated to roughly the same time period, the first half of the third century BCE.¹⁸⁴ Its phialai are similar in shape to those of Samothrace (Arsinoeion) and Eresos, with oval depressions surrounding the central button.¹⁸⁵ The bucrania also resemble those of the Arsinoeion in that they display a pronounced forelock, although it is larger there than in the Samothracian example. Overall, the shape of the Limyra skulls is more elongated and less soft in its modelling than those of the Rotunda. A novel feature of the Limyra frieze is the garland-like use of the beaded taenia: instead of swinging across the skull, it runs from head to head, finding additional support in the bowls. It then drapes around the horns and hangs down the sides of the skull as a flat band. This band terminates in flaring tassels like the cords on the Arsinoeion bucrania.¹⁸⁶

¹⁸²Frazer [1992] 206, with figs. 12 and 162.

¹⁸³Frazer [1992] 209 and fig. 165.

¹⁸⁴Dinstl [1993] 167 and pl. 2.1. As with the example from Eresos, a context for the blocks is not known.

¹⁸⁵They are therefore also known as "Eierschalen" (egg-bowls). Dinstl [1993] 166-167.

¹⁸⁶The oval shape of the taenia beads is also similar to those of the Rotunda.

A remarkable chamber tomb from Sveštari (Thrace) featured a bucranium-and-garland frieze on the lintel above the tomb entrance.¹⁸⁷ The preliminary publication of the tomb does not provide a good illustration of the frieze and makes little attempt to describe it. Nevertheless, its similarity to the frieze of the Demeter Temple is stunning and demands attention. It is a short frieze consisting of only four bucrania. They have a fairly high degree of plasticity, but do not wear beaded taeniae. The skulls are separated by rosettes inserted into bowls and are connected to one another by garlands that swing from head to head, as in the Demeter Temple. The articulation of the garlands is not as finely detailed as at Pergamon — in fact, they look more like a hose draped around the bucrania than an array of leaves and/or flowers, but it is important to note that they are there at all. The distribution of the garlands on the frieze is also not uniform — the radii of the arcs vary considerably and this gives the entire composition a sense of imbalance. This also may indicate that, at the time this tomb was constructed, the bucranium-garland motif was not yet an established motif, but it is equally possible that the artist was not familiar with the motif or working in haste. The tomb has been dated to the early third century BCE, and this accords well with the frieze's somewhat experimental design and it may be earlier than the one from the Pergamene Demeter Temple.¹⁸⁸ Although the architect(s) of the Demeter Temple may not have known this structure, it suggests that the motif was around for some time before its adoption in Pergamene monuments.¹⁸⁹ Moreover, it confirms what was already noted for the altar, that the design of the Demeter precinct was firmly rooted in the architectural tradition of the Northeastern Aegean and Western Anatolia.¹⁹⁰

¹⁸⁷Zazoff, e. a. [1985] 629-632 and fig. 27. Fol, e. a. [1986]. The tomb is particularly remarkable for its interior decoration, a floor-to-ceiling marble relief that features highly unusual caryatids.

¹⁸⁸Zazoff, e. a. [1985] 631, n. 161, note that the frieze may have been a spolia from an earlier structure, since the corners of the frieze show signs of previous use. Stephan [1931] 24, argues that the garland motif originated in Alexandria. Although this may be the case, the Ptolemaic monuments at Samothrace do not include garlands which suggests that the motif may have developed, perhaps simultaneously, in different parts of the Mediterranean. As Stephan [1931] 19, also points out, remains of bronze nails on the Erechtheion have been interpreted to have served for hanging real leaf garlands. Painted garlands appear in Macedonian tombs as early as the fourth century BCE.

¹⁸⁹Fragments of another bucranium-garland frieze, perhaps dating to approximately the same time, were found in the Pergamene Asklepieion. The fragments have not been identified with any building. Ziegenaus and de Luca [1968] pls. 34 and 81.

¹⁹⁰A dome-shaped painted chamber tomb in Kasanlak (Thrace) also includes the depiction of a bucranium-and-rosette decoration on a three-banded Ionic architrave. The bucrania are outlined with few, skillfully placed brush strokes in a brownish color and are decorated with plain red vittae that are tied around the horns and hang down the sides of the skulls. Other painted elements, such as kymation, astragal, and dentil

Finally, from the Pergamene Asklepieion come fragments of a marble bucranium-and-garland frieze that is again strikingly similar to that of the Demeter Temple.¹⁹¹ The garlands run from left to right and show the same ribbon-leaf pattern. The bull's heads are decorated with beaded taeniae like those of the Demeter Temple, but the skulls are not as sterile and display a well articulated forelock. Because this feature is paralleled on the bucrania of the Arsinoeion, O. Ziegenaus wanted to date the Asklepieion frieze earlier than that of the Demeter Temple. Nevertheless, since maned bucrania are known from both before and after the Demeter frieze, such a precise differentiation does not seem warranted for dating purposes. It is notable, however, that in the early third century, Pergamon produced at least two temples with marble bucranium friezes. This suggests that the motif was popular in Northeastern Anatolia by the early Hellenistic period and, perhaps, that Philetairos financed more than one building project in the city. The fact that the same decorative motifs recur may also be indicative of an attempt to coin a personal style, one that was rooted in the building traditions native to this region.

Unlike most bucranium-and-garland friezes, the epistyle crown of the frieze in the Demeter Temple was not decorated with a bead-and-reel followed by an egg-and dart.¹⁹² Instead it terminated in a plain cyma reversa topped by a narrow, unadorned band.¹⁹³ The resulting crown is characterized by striking simplicity and severity and has nothing of the playfulness of most Ionic frieze crowns. Yet, it accords well with the plain character of the bucranium skulls and the simple shape of the paterae, and it avoids competition with other decorative elements in the frieze. The eye rests on the bucranium-and-garland relief and is not distracted by any other pattern. This treatment of the frieze crown presents the first appearance of what Shoe termed the “regular Pergamene crown,” characterized by plainness and a cyma reversa with an upper curve smaller than the lower.¹⁹⁴

course suggest that the motifs for the tomb's decorative program were directly borrowed from contemporary architecture. The tomb has been dated to the late fourth century BCE. [Shivkova \[1973\]](#).

¹⁹¹[Ziegenaus and de Luca \[1968\]](#) 79 and pls. 34 b-c, 81.

¹⁹²See for example, the frieze on the Propylon of Ptolemy II. [Frazer \[1992\]](#) figs. 161-162.

¹⁹³See [Shoe \[1936\]](#) 60 and pl. 27.17. Note the molding's similarity to the frieze crown on the outside of the North Propylaea at Epidauros, however!

¹⁹⁴[Shoe \[1936\]](#) 60. Although this may be a more economical approach, it is also a sensible one: tucked underneath the overhanging cornice a delicate bead-and-reel and egg-and-dart decor would probably not have had much visual effect. The “regular Pergamene crown”, much like the “Pergamene ovolo” discussed above (see [151](#) on page [52](#)), became a standard of Pergamene architecture in the second century BCE.

The stark horizontal crown of the marble frieze serves as a firm marker of the frieze's upper terminus and helps to set off the whiteness and smoothness of the marble against the reddish, coarse-textured andesite of the cornice. The temple's cornice, or geison, was conceived in the Ionic tradition with a dentil course at the bottom followed by a soffit, fascia, ovolo, astragal and long cyma recta.¹⁹⁵ A flat band serves as the geison crown.¹⁹⁶ Bingöl is probably correct to observe that dentil courses are not known from any Archaic monument in Asia Minor (or anywhere else in the Greek world, for that matter),¹⁹⁷ but several Archaic house models from Samos, just off the coast of Asia Minor, have decorative roof features that have been interpreted as dentils.¹⁹⁸ If these miniature houses are indeed imitations of buildings and their rafter-like roof elements are rightly interpreted as dentils, they document the presence of the dentil course in the Ionic architecture of Asia Minor and the Cyclades since the early Archaic period. This would be the first tangible evidence for the emergence of the Ionic order in this area.¹⁹⁹

Yet, as Bingöl points out, dentils are not attested in any actual Asia Minor monument until the end of the fifth century BCE.²⁰⁰ He notes that they appear first on a funerary stele from Sinope dated to 460-450 BCE that shows a building with Ionic columns and dentils in the entablature.²⁰¹ Although he may be right to state that this relief did not serve as a model for later Ionic temples, the relief was most certainly modelled after existing structures of this design. One need only look at the numerous renderings of buildings and altars on ancient

¹⁹⁵Bohtz [1981] pl. 27.11.

¹⁹⁶There are two types of geison blocks for the temple, one, what I call the "tall geison" because it is taller in height than the other one, for the horizontal cornice, and the so-called raking geison for the slanted sides of the pediment at front and back.

¹⁹⁷Bingöl [1990] 103-104.

¹⁹⁸A series of house models from Samos show features that have been interpreted as dentils or precursors of a dentil course but because of their poor preservation and their abstract rendering, it is impossible to determine whether their dentils refer to structural or decorative elements of the Samian house. Schattner [1990] cat. nos. 19, 24-26, 32. Gruben [1957] 61 and pl. 84.1-2. The Samian house models range in date from the late seventh to the early sixth century BCE, and, if they are indeed representations of the dentils, they would document their presence in East Greek architecture in the Orientalizing period. This makes it all the more surprising to find no traces of dentils in the monumental architecture of Asia Minor until the end of the fifth century BCE. Barletta [2001] 119-120.

¹⁹⁹Barletta [2001] 52.

²⁰⁰Bingöl [1990] 104. Barletta [2001] 119, notes that "in Asia Minor, the dentil course is rarely attested in Archaic architecture," but she does not provide any examples. There is no evidence for dentils in the giant Archaic temples at Ephesos, Samos, and Didyma, although they are often reconstructed with a dentil course.

²⁰¹Bingöl [1990] 104 and pl. 18.1.

Greek vases to see that the vase painters took their inspiration from real-life structures. This suggests that, by the mid fifth century BCE at the latest, the dentil course had become a firm part of the Ionic order in Asia Minor. According to Bingöl, the first appearance of the dentil course in the monumental architecture of Asia Minor is in the Nereid monument at Xanthos in Lycia (ca. 400 BCE).²⁰² Before that, dentils are known from Persian architecture, like the Tomb of Darius I (d. 486) where they appear integrated into a three-banded architrave.²⁰³ In Greek architecture, the first appearance of dentils in a monumental structure are attested in Temple D at Metaponto (480-475 BCE), where they are combined with a decorative palmette frieze,²⁰⁴ and from the Athenian Erechtheion, where they appear as a crown molding on the caryatid porch.²⁰⁵

It is perhaps noteworthy that the early sarcophagi from Sidon — the Satrap Sarcophagus (450-400 BCE) and the Lycian Sarcophagus (400-390 BCE) — do not include the dentil as a decorative motif, but limit themselves to the use of Ionic moldings, such as egg-and-dart and lesbian-leaf. This may suggest that, in the fifth century, the dentil course was not yet a common feature of the Eastern Ionic tradition. The first of the Sidonian sarcophagi to feature dentils is the Mourning Women Sarcophagus dated to about 375-358 BCE, a half century after the Erechtheion. Both the publisher of the sarcophagus and the excavators of the Nereid Monument note a heavy dependence on the Erechtheion, which suggests that the Athenian shrine may have been, in one way or another, a ground-breaking monument for the advancement of the Ionian building tradition in late Classical and Hellenistic Asia Minor.²⁰⁶

²⁰²Bingöl [1990] 104. For a reconstruction of the monument, see Borchhardt, e.a. editors [1990] p. 171.

²⁰³Seidl [2003] 68, fig. 1.

²⁰⁴Mertens [1977] 157, fig. 9, who suggests that there may be Asia Minor prototypes for such a temple design. Also Barletta [2001] 120-121, fig. 72. Such Asia Minor models have yet to be identified.

²⁰⁵There it is combined with a three-banded frieze and Ionic moldings.

²⁰⁶Fleischer [1985]. For an illustration, see pl. 1. Coupel and Demargne [1969]. The Erechtheion architecture presents in itself an interesting case that needs further study: the building is without parallels in Athens and the Greek mainland, and it is generally thought to have taken its inspiration from the playful and decorative architecture of Ionic Asia Minor. One should at least consider the possibility that the Erechtheion architect was trained in Asia Minor or had spent some time studying East Greek monuments. Might he perhaps have left Athens and returned to his homeland after completion of the work on the Erechtheion and the outbreak of the Peloponnesian war? It seems that Athens had not much to offer in terms of building commissions after the Periclean Golden Age, whereas Asia Minor brought forth a number of aspiring dynasts in the early fourth century who all sought distinction and recognition by means of architecture. Hence, it would have been the perfect place for a renowned but unemployed architect like Mnesicles. Little is known about Mnesicles apart from his responsibility for the designs of the Propylaea and the Erechtheion. Plut. *Pericles* 13. Vitruvius (*De arch.*) 10. Now Stucky [2005] 76-77, also notes close resemblances between the

To return to the Demeter Temple, however, it is important to note that by the time this dedication was made, the dentil course was an established part of the Eastern Ionic canon. Perhaps (re-)introduced to the area with the Nereid Monument, dentils became characteristic of Lycian architecture where they are attested in numerous fourth-century tombs, in the later Sidonian sarcophagi mentioned above, and in more conspicuous monuments like the Heroon of Perikle (375-350 BCE) and the Rotunda of Ptolemy II, both at Limyra (Zêmuri).²⁰⁷ Dentils were also part of the design of the Mausoleum of Halicarnassos and the Hecatomnid buildings in the Sanctuary of Zeus at Labraunda.²⁰⁸ Closer to Pergamon, the Temple of Athena at Priene is known for its dentils.²⁰⁹ At Samothrace, both the Propylon of Ptolemy and the Propylon to the Temenos featured dentil courses, although the Rotunda of Arsinoe, Doric on its exterior, did not.²¹⁰ Philetairos' inclusion of a dentil course in his temple was thus not unusual in Asia Minor and even its combination with a sculpted frieze, though less common in this area, had precedents in earlier monuments. What is striking about the dentils in the Demeter Temple, however, is their small scale: they are only 0.0475 m tall and 0.025-0.026 m wide with intervals between them of 0.016-0.017 m.²¹¹ The resulting "frieze" thus loses much of the angularity typical of dentil courses with larger teeth and instead becomes a decorative band that is more reminiscent of an egg-and-dart crown than a dentil course. Because of its succession of teeth and voids, it acts like a fissure between the marble frieze and geison and helps to tie together the temple entablature as a whole. The minuteness of the dentils also picks up the small-scale detail of the frieze and, because of this assimilation, the two continuous bands — frieze and dentil course — harmonize rather than compete against each

buildings in the Sanctuary of Eschmun at Sidon and the Erechtheion.

²⁰⁷Lycian tombs: [Kjeldsen and Zahle \[1975\]](#). Heroon of Perikle: [Borchhardt \[1976\]](#), esp. fig. 23. [Borchhardt, e.a. editors \[1990\]](#) 75-78. Rotunda of Ptolemy II: [Borchhardt, e.a. editors \[1990\]](#) 79-84 and 183. It seems that the popularity of dentils in Lycian (tomb) architecture was less inspired by the Ionic tradition, but was a more direct translation of wooden design practices into stone. On this subject, see now [Mühlbauer \[2002\]](#). It may be that the abundant use of dentils in the Hellenistic architecture of Asia Minor took its models from fourth century Lycian tombs.

²⁰⁸On the Mausoleum, see [Jeppesen \[2002\]](#), esp. fig. 25b. On the buildings at Labraunda, see [Jeppesen \[1955\]](#). [Hellström and Thieme \[1982\]](#). [Hellström and Thieme \[1981\]](#).

²⁰⁹[Koenigs \[1983\]](#). For a detail, see [Lawrence \[1996\]](#) 228. The Temple of Apollo at Didyma had dentils, but it is doubtful whether work on the temple had reached the entablature by the time Philetairos commissioned his monuments on the Demeter terrace. On Didyma, see [Rumscheid \[1994\]](#) 247, with additional bibliography.

²¹⁰The Philippeion at Olympia also had dentils. Numerous other examples could be listed.

²¹¹By comparison, the dentils of the propylon to the sanctuary are 0.084 m tall and 0.055 m wide, hence about double the size of those of the temple.

other. Moreover, because of their small size, the dentils do not produce a rhythm that would interfere with the rhythm of the bucrania, phialai and garlands in the frieze below. It literally becomes the crown of the marble frieze.²¹²

In addition to the horizontal dentil course, in the Demeter Temple dentils frame the slanted sides of the pediment, a treatment that only emerges with the Hellenistic period, and which, as Bingöl noted, is first attested in the Pergamene Demeter Temple.²¹³ Unlike in later monuments where the dentils are designed to hang perpendicular to the ground, in the Demeter Temple they hang perpendicular to the geison and to the slope of the roof. This would be awkward in a structure with large dentils, but in the Temple of Demeter, with its very shallow dentils and narrow spacing of the teeth, such an arrangement is not disturbing at all. The small pattern underscores the decorative qualities of the dentils and ties horizontal and raking geison together.

The preserved corner blocks of the geison show shallow circular recesses for the attachment of acroteria and, because they also show a dowel hole, it is certain that acroteria were part of the finished temple.²¹⁴ No acroterion fragments have been preserved, however, and Bohtz did not include any in his temple reconstruction, although he marked their position with horizontal slabs.²¹⁵ Considering the size of the cutting on the geison block and the temple's Ionic order, acroteria in the form of palmettes and scrolls or other vegetal décor, like those of the Sidonian sarcophagi, are most likely.²¹⁶ These would have harmonized with the palmette decorations of the altar volutes and reaffirmed the unity of altar and temple.

After analyzing the temple's plan, wall and epistyle it remains to discuss the two central columns on the east front and the problem of the temple's order.²¹⁷ Despite the excellent

²¹²A similar treatment of the dentils can be noted in the Erechtheion, although there it is not combined with a sculpted frieze but sits directly on the architrave.

²¹³Bingöl [1990] 106. It is also a feature of the Temple of Asklepios on Kos which is probably contemporary with the Demeter Temple, but whose dating is based solely on style. Gruben [1986] 404, suggests that the Temple of Asklepios was either finished or renovated in the early second century BCE; if so, its geison would be decidedly later than the one of the Temple of Demeter.

²¹⁴The iron dowel and lead grouting have been robbed which can be taken as proof that the dowel was used to fasten a separately worked element to the geison block. Because of its position and the circular depression, this can only have been an acroterion.

²¹⁵See Bohtz [1981] pl. 53.

²¹⁶E.g., the Satrap Sarcophagus, Kleemann [1958] pl. 2 or Sarcophagus No. 74(A), von Graeve [1970] pl. 2. The temple front of the Roman extension of the Demeter Temple also featured palmette-acroteria.

²¹⁷For two different reconstruction proposals of the temple's east elevation, see Bohtz [1981] pl. 53 and

preservation of the many parts of the temple, some key elements of the east front have not been recovered, most notably the column bases and capitals. Without these elements the order of the columns of the Demeter Temple cannot be reconstructed with certainty. Parts of the column shafts are preserved. They consist of multiple drums, measuring ca. 1.10 m.²¹⁸ The shafts are smooth and not fluted.²¹⁹ The columns' slenderness — the lower column diameter is approximately 0.535 m and the shafts were probably around 4.00 m tall — suggests that they were Ionic, Corinthian, or some other variant of the Ionic order. Bohtz reconstructed the temple with an Ionic front, including Attic Ionic bases and Ionic volute capitals,²²⁰ but the Attic base he used to support his reconstruction has now been shown not to belong to the temple architecture.²²¹ F. Rumscheid's examination of the base revealed an inconsistency in the dowel holes between base and stylobate, rendering their connection impossible.²²² Thus, although it is certain that the column shafts did not sit directly on the krepidoma, but were connected to it via a base, the shape of this base remains unknown.²²³ Whatever its form, it is likely that the column base was of the same height as the wall base molding, 0.20 m.

Since no trace of an Ionic capital has been found in the sanctuary, Bohtz's reconstruction of the temple columns as Ionic is also conjectural and demands reconsideration: K. Rheidt recently reconstructed the columns with wreath capitals similar to the ones used in Apollonis' remodelling of the precinct, but none of the surviving wreath capitals from the Demeter Sanctuary seem to fit the temple.²²⁴ Still, the idea of a column capital of less traditional form should also be considered. In a recent article, V. Kästner pointed to a series of capital

Rheidt [1996] fig. 11.

²¹⁸It seems that for each column, the topmost drum is missing. As noted above, the column drums are for this reason of little use in reconstructing the temple's height.

²¹⁹Since the column shafts are identified by their apophyge on the bottom drum as part of the temple architecture, a recent proposal by K. Rheidt of the temple with fluted columns has to be dismissed: considering their smooth finish, an application of flutings in plaster, as Rheidt may have had in mind, is highly unlikely. Rheidt [1996] 172-173.

²²⁰Bohtz [1981] 40-48 and pl. 53.

²²¹The identification of the base as one of the temple's column bases was first proposed by Dörpfeld. Excavation diary, 13.-19. Sept. 1909 (P.A. 12). Dörpfeld moved the base to its presumed original location on the temple stylobate.

²²²Rumscheid [1992].

²²³The original location and diameter of the base can still be seen on the stylobate.

²²⁴Although there are at least two slightly different versions of the wreath capitals of Apollonis, their craftsmanship suggests that they were all produced at the same time and for the same project.

fragments of a leafy character, which had been recovered during the first years of excavation on the Pergamene hill.²²⁵ The precise origin of the fragments is not known, and Kästner proposed the area of the Great Altar as their findspot but, as he notes, two pieces were labelled “vom Gymnasium?” (from the gymnasium?).²²⁶ Considering the proximity of the Demeter Sanctuary to the gymnasia and the initial uncertainty about the ancient use of the former space,²²⁷ it is possible that they came from the area of the Demeter Sanctuary or from one of its structures. Kästner placed the fragments stylistically between those of Apollonis and the capitals of the Athena Sanctuary that date to the reign of Eumenes II,²²⁸ but it is equally likely that they are earlier than Apollonis’ project. Kästner also suggested that the fragments belonged to a capital with a lower diameter of 0.46-0.47 m; this would fit the columns of the Demeter Temple perfectly and the fragments suggest that the original capital was rather low, which would also accord well with the dimensions of the column shafts and the low profile of the epikranitis.²²⁹

This is not to say that Bohtz’s reconstruction of the temple columns as Ionic must be wrong. On the contrary, the temple’s overall indebtedness to the Ionic tradition, especially in the articulation of the base molding and the configuration of the epistyle, would support an Ionic capital on the front columns. At the same time, the multiple deviations we have noted from “normal” Ionic temple design — the unusual base molding with its lack of sculpted treatment, the inscription across the front architrave, the “invention” of a straight ovolo for the epikranitis and plain crown for the frieze, the unusual marble frieze, the narrow dentils on both horizontal and raking geison — bear witness to the architect’s willingness to depart from the standard canon of forms. Therefore, a rather different, perhaps less conventional column capital may not be surprising either. As we will see in Chapter 3, the wreath capital had a long tradition in Western Asia Minor and its inclusion in the Demeter Temple would

²²⁵Kästner [1996], esp. fig. 3.

²²⁶Kästner [1996] 156, n. 11.

²²⁷Dörpfeld, Excavation Diaries 1908.

²²⁸Kästner [1996] 156.

²²⁹The preserved column shafts measure between 0.925 and 1.115 m: for column 1 three shafts are preserved, measuring 1.109 m, 1.115 m, and 1.094 m respectively, adding up to 3.318 m total; the three retrieved shafts for column 2 respectively measure 0.925 m, 1.104 m, and 0.993 m, yielding a total preserved length of 3.022 m. Subtracting the preserved column shaft lengths from the total wall height of 4.705 minus the 0.20 m of the base and the 0.20 m of the epikranitis (or capital) leaves shafts of 0.987 m for column 1 and 1.283 m for column 2.

fit with the architect's tendency to revive older forms — a tendency displayed already in his treatment of the altar. Finally, a wreath-like capital would also provide a rationale for Apollonis' extensive use of the same or a similar capital type in her rearticulation of the precinct.

The analysis of the temple has indicated that, throughout its design, Philetairos emphasized forms that would make his dedication recognizable as a monument of Western Asia Minor: continuous base moldings and epikranitis were features typical of the Ionic temples of Asia Minor, and so were the temple's small size and anta-plan. The garland-bucranion motif of the marble frieze and the dentil course of the geison placed the design of the Demeter Temple firmly in the area of the Northeastern Aegean and Western Anatolia. Thus, like the volute acroteria of the altar, the temple's most striking elements were rooted in a locally defined tradition. There are differences, however, in the assemblage of these regional elements. The volute had been part of the decorative vocabulary of Western Asia Minor since Archaic times, while the bucranion-and-garland frieze and the dentiled geison seem to have been more recent developments. The placing of large, billboard-like dedicatory inscriptions on a building's front was also a recent trend that may have originated in Asia Minor.²³⁰ By the early third century BCE all of these features had become part of a common and familiar design repertoire. Thus, Philetairos' architect showed himself to be conservative and aware of age-old traditions in the design of the altar, and progressive, even trend-setting in his use of dentils and moldings in the decorative articulation of the temple. In either case, however, he paid close attention to the architectural design-customs of the surrounding region, and his employment of familiar forms placed the new city-architecture of Pergamon into an established regional canon.

As a result, the forms of Demeter Temple and Altar are simultaneously familiar and surprising. Their respective designs make reference to the established building traditions and, at the same time, advance these traditions into a new style by combining familiar forms in a new way, as in the dentil course and garland-bucranion frieze of the temple, or the flame-palmette decorated volutes of the altar. If the temple columns were indeed crowned by

²³⁰The first attested dedicatory inscriptions on temple architraves come from the Hecatomnid Sanctuary of Zeus at Labraunda whose monuments date to the mid fourth century BCE.

wreath capitals, as suggested above, this would have added additional novelty to an already unusual design. Several architectural elements of the Demeter Temple and Altar A became part of the standard repertoire of later Hellenistic architecture and they should therefore be viewed as key monuments in the development of the architectural style(s) of the Hellenistic and succeeding periods: the straight ovolo became a hallmark of Pergamene architecture, but it was also employed in the buildings of other cities, especially in Asia Minor; the dentils on the raking geison of the pediment also appear in later Pergamene monuments and in other buildings of the area;²³¹ the combination of bucranium (or bull's heads) and garlands in a frieze-like arrangement becomes a favorite motif on altars and sarcophagi and remains a popular decorative motif on temples.²³² Whereas the use of plain moldings remains largely a feature peculiar to Pergamene architecture,²³³ the use of inscriptions along the temple front becomes a standard means of identifying both deity (or deities) and patron. Many of these features appear in the Demeter Sanctuary for the first time but become enduring elements of Eastern Mediterranean architecture in Hellenistic and Roman times.

2.2.3 The Temenos

In a recent study of the relationship between altar and sacrifice, R. Étienne examined the components crucial to understanding the role of altars in the Greek sanctuary, “leur forme, leur place dans l’espace, leur lien, leur utilisation, les mythes qui y sont liés, les rituels sanglants ou non dont ils sont le siège.”²³⁴ The significance of his paper lies in the recognition that the altar cannot be studied in isolation, but, for understanding its ritual function, its relationships with the cult and other precinct elements need to be examined. Hence, study of an altar — and/or temple — would not be complete without examining the ritual setting and the broader context of the dedication. Although in the Pergamene Demeter Sanctuary altar and temple constituted without a doubt the visual and ritual center pieces of the

²³¹Dentiled raking geison at Pergamon: propylon to the Demeter Sanctuary, propylon to the Athena Sanctuary; outside of Pergamon: Temple of Artemis and Temple of Zeus Sosipolis, both at Magnesia, Temple of Asklepios, Kos, to give a few examples that are close in date. See also Bingöl [1990] for an expanded list.

²³²Altars: Berges [1986]. Sarcophagi: Strocka [1978]. von Hesberg [1981]. Matz et al. [1997]. Also more generally Stephan [1931]. Napp [1933].

²³³Also to be seen, however, in the altar and temple in the Sanctuary of Asklepios on Kos.

²³⁴Étienne [1992] 297.

temenos, they were parts of a larger architectural arrangement — a sacred space — that was planned to heighten the ritual experience by focusing attention on the central cult furniture and on the actions performed around it. Analysis of the sacred space as a whole, therefore, affords one a view of the broader architectural and ritual concept of which altar and temple formed a part. Shrine and offering table communicated both with each other and with the structures that surrounded them as backdrop. Only by studying the spatial arrangement as a whole one can appreciate the care taken to coordinate the designs of altar and temple and to reconstruct the value and meaning of the sanctuary for worshippers and patrons.

In Bohtz's reconstruction of Philetairos' temenos, altar and temple were contained within an elongated peribolos measuring approximately 87.5 m east-west and 24 m north-south.²³⁵ According to Bohtz, the northern temenos wall was bordered by a stoa with chambers on the West (the Lower North Stoa) and, adjacent to it on the East, a series of steps that were presumably used for seating and the observation of rituals conducted on the open cult terrace (the Theatron).²³⁶ Bohtz conjectured that a gatehouse must have been located in the east wall.²³⁷ Remains of stoa and seating steps are still visible on the site today, but nothing of the propylon is preserved. As noted, Bohtz's proposal was based on Dörpfeld's preliminary sketch of the sanctuary and did not reconsider the evidence on the ground.²³⁸ It is therefore necessary to revisit the argument for the dates of Lower North Stoa and Theatron and to test their relationship to Philetairos' temple and altar. Ultimately, this investigation will firm up the building sequence in the Demeter Sanctuary and, more importantly, create a better picture of the ritual use of the space between the reigns of Philetairos and Attalos I. Since most of the ritual artifacts from the Demeter Sanctuary are lost and/or poorly published, the architectural evidence becomes all the more important for reconstructing the cultic activities that once took place inside the temenos and for tracing the changes these rituals may have undergone over time.

²³⁵Bohtz [1981] pl. 42.2.

²³⁶The seating steps are also referred to as "theatron" or bleachers because of their theater-like character.

²³⁷Bohtz [1981] pl. 42.2 (Baustufe 3).

²³⁸Dörpfeld [1910] pl. XV and Dörpfeld [1912] pl. XVI.

2.2.3.1 The Lower North Stoa. The Lower North Stoa was a single-storied, single-aisled hall, approximately 42 m in length with a row of seven, roughly identical chambers in the back.²³⁹ Aisle and chambers were both about 3.50 m deep allowing for a flexible use of the space. As is customary for this building type, the front opened towards the cult terrace with a colonnade. The stoa's elevation was as simple as its plan but it was not boring or blunt. Smooth slender column shafts²⁴⁰ supported capitals in the form of a truncated cone that can be reminiscent of the Doric order: at the bottom a plain band replaced the anuli and the cone-shaped echinus was executed without a curve. The abacus was almost as tall as the echinus and was carved from the same block as the rest of the capital.²⁴¹ In the entablature, architrave and frieze were worked from a single block and separated from each other by a plain horizontal molding. The frieze lacked the triglyph-and-metope decoration of standard Doric design and was left plain, but regularly spaced regulae with two rows of six guttae on each recalled the stoa's inherent Doric rhythm. The sima was plain and unadorned without any decorative treatment of the soffit. Thus, the order of the Lower North Stoa can be perhaps termed Doricizing.²⁴²

Dörpfeld proposed a date for the stoa in the time of Philetairos on the following grounds: the stoa's Doricizing style did not go with the buildings of Apollonis, which were characterized by their use of a common capital of leafy design; the stoa was located below the Upper North Stoa which can be securely dated to the building period of Apollonis; and the stoa's roof line does not match that of Apollonis' West Stoa. Since the seating steps are not explicitly mentioned in Apollonis' inscription on the gatehouse, he dated the Theatron to the reign of Philetairos as well.²⁴³ The following discussion aims to reexamine these arguments and to ask whether the Lower North Stoa and Theatron should indeed be associated with the Philetairean temenos.²⁴⁴

²³⁹Bohtz [1981] pls. 21.1 and 33.

²⁴⁰Column spacing: 2.08 m. The proportions of the columns are closer to the Ionic than the Doric.

²⁴¹To my knowledge, there is no precise precedent for this capital type in Greek architecture, but it seems to have been derived from the canonical Doric capital.

²⁴²More on the stoa's order below.

²⁴³Dörpfeld [1912] 243. Bohtz [1981] 34.

²⁴⁴As I will demonstrate below, this analysis has important bearings on the reconstruction of the sanctuary in its pre-Attalid, Philetairean, and Apollonian phases.

To begin with the height of the Lower North Stoa and the adjacent West Stoa: Dörpfeld and Bohtz argued that the two buildings could not have been contemporary because the roof-line of the West Stoa was 0.70 m higher than that of the Lower North Stoa. In order to test this hypothesis, it is instructive to briefly consider the relationship between West Stoa and South Stoa, both of which can be securely attributed to the remodelling of the sanctuary by Queen Apollonis, and to draw conclusions from that relationship for the Lower North Stoa. Bohtz reconstructed the South and West Stoas as identical in the heights of their columns and roof-lines, but this is not necessarily confirmed by the archaeological record. As he noted, the columns of the South Stoa are only preserved in fragments and their height had to be determined on the basis of the shaft height of the West Stoa. Apparently, the preserved column elements of the South Stoa did not contradict this reconstruction, but it also means that the exact height of the columns of the South Stoa could not be determined from the remains and may well have differed from those of the West Stoa.²⁴⁵ Although the stoas surrounding the cult terrace were probably similar in height, producing an homogeneous ritual environment, a similar sense of intimacy could have been achieved if their roof lines were not on precisely the same level. Close comparison between the West Stoa and South Stoa indicates that they were not identical in every respect: they varied in aisle width and the West Stoa had additional chambers in back. The height of their architraves differed and, whereas the column shafts in the South Stoa were faceted, those of the West Stoa were smooth. Considering that both aisle width and architrave height have an impact on a building's overall height, it is quite likely that the eave lines of the two porticos did not match precisely. It is, moreover, likely that all of the porticos were separated from each other by partition walls and that each roof was treated individually without interconnections. This would have eased construction and allowed for work on the stoas to progress simultaneously and independently of each other. It would have avoided overly complicated framing of the roofs and presented a more economical solution overall. Thus, given that the stoas would

²⁴⁵It is important here to look at the precise formulation. Bohtz [1981] 25, writes: “Die Säulenhöhe ist durch die Kombination passender Trommeln an der West-Stoa ermittelt und *auch aus den kannelierten Säulenbruchstücken an der Südseite zusammensetzbar* (my emphasis). This obviously has to be taken as a concession that the South Stoa did not yield enough evidence to conclusively reconstruct the height of its columns, but whatever remains there were, they at least did not contradict the column height determined for the West Stoa.

not have been connected to one another, slight differences in the eaves height would not have presented an issue. I conclude that the difference in height of the West Stoa and the Lower North Stoa does not seem a sufficient reason for assigning them to separate construction periods.²⁴⁶

Dörpfeld and Bohtz also cited the Lower North Stoa's architectural style and proportions as an argument against its inclusion in the building project of Apollonis. On the other hand, the Lower North Stoa is the only building in the Demeter Sanctuary that shows marked affinities with the Doric order, and the stoa's Doricizing style is matched neither in Apollonis' gatehouse and porticos nor in Philetairos' altar and temple. In fact, the buildings of both Philetairos and Apollonis show a clear predilection for the Ionic order in the articulation of their epistyles and moldings: Philetairos' altar combined Ionic base and top moldings with altar horns in the form of an Ionic volute. His temple included Ionic moldings on wall base and epikranitis, and an Ionic entablature with three-banded architrave, sculpted frieze, and dentil course. Apollonis' propylon was decorated with Ionic moldings on the base and dentils in the entablature. Thus, from a stylistic point of view, the lower North Stoa matches neither building period and could belong to either one of them. Although Apollonis' stoas surrounding the temenos on the south, west, and north all oriented themselves on the style of her gatehouse, it is possible that the Lower North Stoa was also part of her project. Since the Lower North Stoa needed to have a lower eaves-line than the surrounding North, South, and West Stoas to avoid interference with the Upper North Stoa behind, Apollonis' standard leaf capital (0.42 m tall) and entablature (0.52-0.57 m tall) would not have worked with the markedly different proportions of the Lower North Stoa. Therefore, a Doricizing design was a better fit for the low height of the stoa, although it did not precisely match the design of the other porticos built by Apollonis.²⁴⁷ To sum up, the stoa's style does not argue against its inclusion in Apollonis' project. Because of its peculiarity and its unique style within the Demeter Sanctuary great caution should be used in exploiting the stoa's architectural

²⁴⁶This also precludes the necessity of a later modification of the western terminus of the Lower North Stoa in order to create a connecting door to the West Stoa, as [Bohtz \[1981\]](#) 34, had suggested.

²⁴⁷It should also be noted that in the Lower North Stoa, like in the propylon and other stoas of Apollonis, architrave and frieze were carved from one single block. In contrast, in the Demeter Temple architrave and frieze were worked from two separate blocks and in different materials.

order for dating purposes. Instead we should turn our attention to other markers that can provide a more technical basis for reconstructing the different building phases in the Demeter Sanctuary.

As already noted, dedicatory inscriptions provide essential clues to the reconstruction of the precinct's history. Philetairos' temple and altar were identified by their dedicatory inscriptions; the Lower North Stoa, however, was not inscribed.²⁴⁸ Given that the inscriptions on altar and temple were identical in their formulation, Philetairos and his family must have been eager to advertise their gifts to the deity and to have them forever associated with their names. I think that, had they also been the patrons of the Lower North Stoa, they would have placed the same dedicatory inscription in the epistyle.²⁴⁹ On the other hand, Apollonis briefly sketched out the extent of her additions to the sanctuary in a few words on her propylon front. While making sure that she would be credited with the extensive rebuilding of the cult-terrace, it saved her from having to put her name on every single building that she dedicated in the precinct. Thus, the generic reference to the stoas (*tas stoas*) in her dedicatory inscription may have included the Lower North Stoa and this would explain the absence of a separate dedication on its front.

A different kind of epigraphic evidence is provided by a series of mason's marks that can be found in great number in the Demeter Sanctuary.²⁵⁰ These roughly 0.10-0.15 m tall letters of the Greek alphabet are incised in the masonry block faces of the retaining walls. They are particularly common on earlier Pergamene monuments (third and early second centuries BCE) and have caused some controversy: although some Pergamon scholars believe that they can be helpful for dating purposes, most agree that they were probably used over an extended period and are therefore of only limited use in establishing a building

²⁴⁸A large enough number of the Lower North Stoa's entablature blocks have been preserved to assert with certainty that it did not bear an inscription.

²⁴⁹The first known cult-site in which dedicatory inscriptions adorned the faces of almost every building was the Sanctuary of Zeus at Labraunda in Caria which was sponsored by the Hecatomnid family. [Crampa \[1969\]](#) and [Crampa \[1972\]](#). Multiple monuments were dedicated by a single person.

²⁵⁰[Bohtz \[1981\]](#) fig. 7. These mason's marks are typical not only for the Demeter Sanctuary but can also be seen on other monuments throughout the Pergamene acropolis. [Boehringer and Krauss \[1937\]](#) 78-79 and pl. 2. [Schazmann \[1923\]](#) 17. [Conze, e.a. \[1912\]](#) 213. [Schwarzer \[1999\]](#) 274-275. M. Bachmann has begun cataloging the Pergamene mason's marks. A preliminary summary of his findings is printed in [Bachmann \[2006\]](#).

sequence for the monuments of the citadel. Since the marks appear on some blocks and some monuments but not on others, their purpose is disputed, but it is generally agreed that they represent some system of record-keeping for accounting purposes. It is likely that they identified individual masons, shops or quarries, and less likely that they marked a specific block sequence. Their precise role in the ancient building process remains to be determined.

In the Demeter Sanctuary, mason's marks are found in the retaining walls that surround Apollonis' temenos on all four sides, on the dividing wall in the basement of the South Stoa, and on the back wall of the Lower North Stoa. All of these walls show roughly the same letters: Π, Τ, Α (with straight or curved bridge and sometimes combined with a P), a doubled P. Since it is likely that different marks were used simultaneously and over a longer period of time, their presence on the walls of the Lower North Stoa and on Apollonis' peribolos does not make these walls contemporary. Yet, they do not speak against a construction date for the Stoa during the time of Apollonis and the similarity of the mason's marks throughout the sanctuary favors the notion that it was indeed part of the queen's project.²⁵¹ Thus, both inscriptions and mason's marks seem to support a construction date for the Lower North Stoa in the latter part of the third century BCE.

Important information about the Lower North Stoa's construction date can also be gained by studying the techniques employed in its construction and by comparing them to those of Philetairos' temple and altar, on the one hand, and Apollonis' gatehouse, stoas and oikoi on the other. In his brief study of the order of the Demeter Temple, F. Rumscheid pointed to the unusually heavy use of iron clamps and dowels in Philetairos' temple stereobate:²⁵² each krepidoma block was fastened to its adjacent blocks with two brackets of about 0.20 m in length on either side. Moreover, each block of the wall base was tied to the stylobate with at least four dowels. Likewise, the orthostates and binders of the temple wall and the epistyle blocks show a large number of dowel holes and cuttings for clamps and similarly attest to the excessive use of metal throughout the temple. This is particularly surprising considering

²⁵¹Similar marks are not to be found on Philetairos' altar and temple; though, admittedly, there are also no marks on Apollonis' gatehouse. I am not aware of any retaining walls or city walls at Pergamon that can be securely dated to Philetairos' reign.

²⁵²Rumscheid [1992] 348-349.

the small size of the Demeter Temple; a much smaller number of fastening elements would have provided sufficient stability.²⁵³ The same observations can be made of the altar whose steps were fastened together by 0.20 m long clamps. Considering the low height of the altar and its compact, block-like structure, the large amount of metal in its construction is even more surprising than that of the temple: from a structural point of view, the only place where dowels were really needed was for the attachment of the projecting altar horns. On both altar and temple stereobate these clamps would have been visible and it almost seems as if they were a formal rather than structural addition to their designs, an element that was perhaps intended to allude to the expense of the sanctuary's construction.²⁵⁴

In stark contrast with the temple, the Lower North Stoa contained very little metal. The tall column shafts of about 1.20 m were attached to the stylobate by a single central dowel, while the temple bases, only 0.20 m tall, were fastened to the stylobate with four(!) dowels.²⁵⁵ The central dowel holes on the temple shafts were cut oblong (up to 0.135 m) and deep (up to 0.11 m), while those of the stoa were square (0.06-0.07 m) and shallow (0.04-0.05 m). In the Lower North Stoa the use of iron hardware also decreases towards the top, so much so in fact, that some of the capitals do not even have a dowel cutting but were held in place by pressure from the epistyle and roof load. There are few dowel and clamp holes in the entablature and they do not resemble those of the temple. The wall blocks from the rooms in the rear of the Lower North Stoa did not contain metal parts at all.²⁵⁶

A similar attitude towards the use of metal fastenings characterizes Apollonis' buildings in the Demeter Sanctuary and the dowel holes and clamp marks on her structures closely resemble those of the Lower North Stoa. For example, the stylobate treatment of the Lower North Stoa is similar to that of the Upper North Stoa, both in terms of the number and shape of the dowel holes and pouring channels and in the surface treatment of the individual

²⁵³Considering the fairly precise workmanship of the krepidoma, it likely would not have required any clamps at all.

²⁵⁴Pedersen [2004] 423-424, notes a similar aesthetic use of clamps in the krepidoma of the Pergamene Athena Temple and he traces it back to Hecatomnid architecture.

²⁵⁵The columns of the Lower North Stoa consisted of three shaft-elements crowned by a shallow capital and were about 3.20 m tall.

²⁵⁶The walls were executed in the clam-shell technique with alternating orthostate and binder courses. In their overall composition, they closely resemble Apollonis' retaining walls. Thus, overall, the Lower North Stoa displays a much more efficient and economic attitude in relation to the use of fastening tools.

building blocks: the stylobate blocks of both porticos were only smoothed on the front and sides while the backs were left untreated and rough; they probably ran into a stamped earth floor and did not require a precise edge. The top surfaces of the stylobate blocks of both stoas were also finished hastily with a pointed chisel, whereas in the temple all surfaces were smoothed with great care, probably with a flat bar. Overall, the building technique employed in the construction of the Lower North Stoa resembles that of Apollonis' monuments rather than that of Philetairos': this applies to the limited use of metal fastenings, the size and shape of the dowel holes and clamp marks, the treatment of the surfaces, and to the kind of subsidiary lines employed in these structures for the positioning of the columns. Apollonis' buildings show regular use of subsidiary lines, while these are absent from the temple.²⁵⁷ The rectangular shape of the wall blocks of the Lower North Stoa and the modest dimension of the east wall that separated the stoa from the theatron would also fit better with Apollonis' buildings, since her architect must have approached his project with some experience in managing the difficult Pergamene terrain.²⁵⁸ Overall, building technique and masonry style do not support a construction date for the Lower North Stoa during the reign of Philetairos.

Perhaps the most important evidence for the date of the Lower North Stoa is provided by the construction sequence of the individual buildings in the precinct. The Upper North Stoa could not have been constructed without causing damage to the Lower North Stoa. The sheer size of the upper portico, stretching the entire length of the temenos,²⁵⁹ required a solid foundation and could not simply be placed on the rear wall of the Lower North Stoa, as Bohtz proposed.²⁶⁰ Had this been the case, the back wall of the Lower North Stoa would

²⁵⁷Subsidiary lines are shallow lines incised into building blocks for alignment purposes, e.g., the spacing of columns on the stylobate. They were regularly used in ancient monuments. Occasionally, they were left visible, but usually, they were covered over by the subsequent building block. [Coulton \[1977\]](#) 49.

²⁵⁸Philetairos' temple walls had been rather heavy with a width of 0.568 m at the bottom, especially considering the small size of the temple.

²⁵⁹The dimension of the Upper North Stoa has been disputed, and in his preliminary report of his survey of the Demeter Sanctuary, Bohtz weighed the possibility that it may not have extended all the way to the western terminus of the temenos. [Bohtz and Albert \[1970\]](#) 410. In the final publication, however, he did not pursue this idea any further and returned to Dörpfeld's idea of extending the stoa all the way to the West wall. It is, in my view, an aspect of the sanctuary that still awaits further investigation.

²⁶⁰[Bohtz \[1981\]](#) 35, suggested that the colonnade of the Upper North Stoa was placed "on top of the rear wall of the oikoi," and that the roof of the Lower North Stoa "could have been attached to the balustrade of the Upper North Stoa without major alterations."

have to have been extremely heavy to withstand the pressure from the soil behind and the load of the upper portico. Had the stoa been built by Philetairos, it would not have been designed to these requirements. The construction of the Upper North Stoa would also have involved considerable movement of soil which in turn would have impacted the stability of the building below. In order to assure the stability of the Lower North Stoa during the construction of the Upper North Stoa, the entire building would have to have been filled with earth, or an enormous timber frame would have to have been built to stabilize the walls. Both solutions would have been as expensive and as time consuming as rebuilding the stoa from ground up.²⁶¹

Had the Lower North Stoa preceded construction of the Upper North Stoa, its roof would have been exposed to damage and it would likely have been necessary to be replaced to assure a waterproof joining of the two porticos. The terrain on the north side of the temenos is very steep and must have been very challenging to shape architecturally. Nor should one forget that the building process involved the lifting and shifting of heavy stone blocks, a task that did not go smoothly and easily. Had the Lower North Stoa been standing prior to construction of the Upper North Stoa, it would almost certainly have suffered badly.

Related to the problem of the building sequence is the question of the form of the Lower North Stoa's roof. Dörpfeld proposed a flat roof, probably because a pent roof would not have been steep enough to assure proper drainage in the winter months.²⁶² With a column height of 3.20 m and an epistyle of ca. 0.60 m, a pent roof would have had a slope of merely 8.5 degrees. A tiled roof, as Bohtz proposed, would not have been possible with such a low pitch.²⁶³ Thus, a flat roof seems more likely, though it is questionable whether it was accessible as a viewing veranda as Dörpfeld had proposed. Regardless of its form, however, some solution must have been developed to assure both the drainage of the water

²⁶¹That the Lower North Stoa was not dismantled and rebuilt during Apollonis' expansion of the sanctuary is apparent from the dowel cuttings. If the blocks had been taken down and reassembled they would show clear signs of multiple dowelling.

²⁶²Dörpfeld [1912] 240. He does not provide a rationale for his proposal of a flat roof. Note also that a tiled roof needs to be sloped at a higher angle for weight distribution purposes.

²⁶³Bohtz [1981] 410 and pls. 4 and 5. Although in his reconstruction of the roof he achieved a somewhat steeper slope of about 11 degrees by pulling the roof of the Lower North Stoa up to the upper end of the balustrade of the Upper North Stoa, this still would not have sufficed to adequately drain the roof. Ideally, a tiled roof should have a slope of about 30 degrees, and definitely not less than 20.

that accumulated on the roof and a waterproof transition between Lower North Stoa and the upper portico.²⁶⁴

To sum up, it is almost certain that the Lower North Stoa dates to the time of Apollonis and that it was not part of Philetairos' building project as Bohtz and others have assumed. Inscriptions and mason's marks, building style, construction technique and building sequence all suggest a stronger relationship to the buildings of Apollonis than to those of Philetairos.

2.2.3.2 The Theatron. Since the Lower North Stoa was probably built by Apollonis, the question of dating arises for the adjoining Theatron.²⁶⁵ The seating steps do not provide as much evidence as the stoa: there are no mason's marks, stylistic features, dowel holes and clamps, or other technical details that can help establish the Theatron's construction date, but there are other diagnostic elements. In order to place these in context, I will begin with a brief description of the Theatron's plan.

In length, the Theatron measured about 44 m and extended from the Lower North Stoa to the eastern peribolos wall. The seating steps were raised about 1.05 m above the level of the temenos to provide for better viewing on the lowest tiers, and then rose in nine flights of steps to the level of the Upper North Stoa. The individual steps consisted of two separate blocks, a step tread of 0.70-0.71 m and a riser of 0.21 m; together with the 0.17 m thick step tread each step was 0.38 m tall. Although this was too high a step to climb comfortably, it created a comfortable position for sitting. Three staircases were used to access the Theatron: one on the west side, where the Theatron met the Lower North Stoa, a second on the east, before it ran into the peribolos wall, and a central staircase that divided the Theatron into two unequal parts, a western section, approximately 23.5 m wide, and a 15.0 m wide eastern one.

The western part of the Theatron is almost completely destroyed and the excavators noted that the eastern part had been extensively repaired, which makes its dating difficult. Moreover, the eastern end of the theatron — where it met the peribolos — was completely

²⁶⁴Precisely how such a transition may have looked like is not apparent from Bohtz's reconstruction drawings and he also avoids this issue in the text. The proposal presented in [Bohtz \[1981\]](#) pl. 34, makes little sense since it would never have been a tight fit.

²⁶⁵[Bohtz \[1981\]](#) pls. 22-23.

remodelled in Roman times, which further complicates the reconstruction of its original appearance in the Hellenistic period.

Like the Lower North Stoa, the Theatron is not specifically mentioned in Apollonis' inscription on the sanctuary's gatehouse and Dörpfeld took this to mean that the seating steps were not part of the queen's project. He assumed that she surely would have mentioned such a prominent feature of the sanctuary in her dedication and concluded, therefore, that the Theatron was built by Philetairos.²⁶⁶ Yet, there may be reasons for the Theatron's absence from the dedicatory inscription: the Greek term *oikos* is a very general one and could refer to either a single room or a larger complex. Thus, the reference in Apollonis' inscription to *oikoi* could refer to the large rooms behind the West Stoa, the smaller chambers in the back of the Lower North Stoa, and the rooms on the east side of the temenos, *and* to the Theatron. Since the seating steps were also surrounded by structures built by Apollonis, a direct reference to the Theatron in the dedication may have seemed redundant.

A crucial aspect of the Theatron's placement within the sanctuary is the transition from the seating steps to the eastern temenos wall. Bohtz argued that the east wall was originally built by Philetairos and rebuilt by Apollonis during her remodelling of the precinct.²⁶⁷ His argument was based on the observation that the lower strata of the wall consisted of "smaller, irregularly cut blocks," which he interpreted as the Philetaiorean phase, with the upper part of the wall being built of "well-hewn blocks in the clam-shell technique." On the other hand, neither the photographs nor Bohtz's plans show this difference in masonry technique and I was unable to verify it during my work on the site. It seems more likely to me that the eastern wall was built in its entirety by Apollonis, a conclusion that is supported by the fact that it bonds with the temenos north wall which can be attributed securely to the queen. There are three openings in the east wall that lead to the forecourt and rooms outside the sanctuary: the passageway through the propylon, another door, half-way between the gatehouse and the northern peribolos, and a third door close to the north wall. All of these passageways were part of the original plan for the east wall because they are clearly integrated into it, their embrasures bonding with the wall masonry. Thus, all of these openings were part of

²⁶⁶Dörpfeld [1912] 243-245.

²⁶⁷Bohtz [1981] 17.

Apollonis' concept. It is important to keep this in mind when we examine the transition from Theatron to the East Wall.

On the southeastern corner of the Theatron are preserved the remains of a staircase (referred to here as Staircase B1) which rose from west to east, parallel to the seating steps, and terminated at a door in the East Wall.²⁶⁸ The remains of a second staircase are preserved in the northeastern corner of the sanctuary, this one connecting the service rooms outside the temenos with the Upper North Stoa and Theatron (Staircase A). Staircase A then continued down the side of the theater and onto the temenos floor. According to Dörpfeld, the fact that there are two staircases on the east side of the sanctuary can only mean that staircase B1 was built after Staircase A, because it blocked the latter's access to the temenos terrace. Since Staircase B1 terminated in a door in the east temenos wall that was built by Apollonis, and since that door was part of the original wall design, he concluded first, that Staircase B1 was built after the Theatron and second, that Staircase B1 was built by Apollonis while the Theatron was built by Philetairos.²⁶⁹ Although I would agree that Staircase B1 was built after the Theatron, I do not think that the staircase was part of Apollonis' project. Instead, I suggest that Staircase B1 was built in Roman times to replace an older Hellenistic staircase (Staircase B). Staircase B1 was probably part of the remodelling of the eastern part of the temenos and forecourt in the second century CE when a number of rooms were added to that area (Rooms 29, 29 A-C, and 27).²⁷⁰ This is suggested both by the position of the staircase along the Theatron and by its complete integration into this new set of rooms. In the Hellenistic sanctuary, Staircase B1 would have closed off the eastern access route to the Theatron and blocked the view from the Theatron onto the cult terrace.²⁷¹ As far as the eastern end of the Theatron is concerned, a straight staircase running along the east temenos wall makes better sense. This staircase would have continued the direction established by

²⁶⁸Piok Zanon [2007] fig. 9.

²⁶⁹Dörpfeld [1912] 244.

²⁷⁰For the Roman history of the sanctuary, see Bohtz [1981] 14, 58-59, pl. 43.2.

²⁷¹According to Bohtz's measurements, Staircase B1 was approximately 5.00 m long and had to climb to a level of 3.125 m above temenos ground. Bohtz [1981] pl. 33. Estimating a riser of 0.15-0.16 m, the staircase would have consisted of about 20 steps with a tread width of ca. 0.25 m. Since the Theatron sat on top of a 1.05 m tall parapet, the staircase ran along this wall and reached the level of the Theatron with step seven, that is about 1.75 m east of the staircase's starting point. Exactly at that point also sits the west wall of Room 27, which suggests that Staircase B1 was planned in tandem with the new rooms on the temenos east side.

Staircase A, stopped at a platform in front of the passageway to the forecourt, and then proceeded down to the cult terrace (Staircase B). Bohtz's plan shows traces of a wall in Room 29 A, which is aligned with the east end of the Theatron and could represent the foundation of Staircase B.²⁷² Since the staircase likely served to connect the service rooms outside the sanctuary with the temenos floor, a staircase running along the east wall would have been less intrusive than one that cut directly in front of the viewing arena.²⁷³ It would have allowed for the preparation of the ritual banquet in the South Stoa and North Stoa without disturbing or interrupting the cult activities taking place in front of the temple.

Although this establishes that Staircase B1 was probably built in the Roman period to replace Hellenistic Staircase B, it does not establish whether the Theatron was built by Philetairos or by Apollonis. A closer look at the Theatron itself may be instructive in this regard. As noted above, an eccentric staircase divided the Theatron into two unequal halves, a larger western section and a smaller eastern one. Dörpfeld thought that this division was perhaps demanded by cult and suggested that it denoted two separate seating areas for "two classes" of initiated persons, or *mystai*.²⁷⁴ Since there is no evidence for such a division of the initiates at Pergamon, a technical explanation for this design feature seems more likely.²⁷⁵ Bohtz's survey of the sanctuary's blocks indicates that the eastern end of the central staircase coincided with the remains of an earlier wall that, at some point, had marked the eastern limit of the peribolos.²⁷⁶ Bohtz attributed these walls to a pre-Philetairean temenos (Period 2 B) arguing that, with Philetairos' addition of altar and temple, the entire temenos was laid out anew and its axis was shifted by 2 degrees to align everything with the axis of altar and temple.²⁷⁷ Although altar and temple were aligned with each other, it is by no means established that this unit demanded an overhaul of the precinct and it is possible that the peribolos, independently of the cult furniture, continued to follow the lay of the land.²⁷⁸ The

²⁷²Bohtz [1981] pl. 33, section XXVI / G-F.

²⁷³More on the function of the rooms outside the peribolos in Chapter 3.

²⁷⁴Dörpfeld [1912] 240.

²⁷⁵The only place for which different classes of initiates are attested in the cult of Demeter is at the Eleusinian Mysteries. Since this festival was, however, markedly different in nature from the Demeter festivals celebrated in the Greek city, such a differentiation cannot be assumed outside of that specific context.

²⁷⁶Bohtz [1981] pls. 33 and 42.

²⁷⁷The temenos walls of the earlier periods had followed the course of the sloping hillside in the rear of the terrace.

²⁷⁸Temple and altar form a visual unit with the other (older) altars in the sanctuary. It seems that all of the

shifting of the main axis in the sanctuary could thus have taken place under Apollonis and the scale of her reformulation of the cult space suggests this as well.

Thus, much of what Bohtz attributed to Philetairos now seems to have been built by Apollonis, or later:²⁷⁹ the Lower North Stoa was probably part of her project, the eastern peribolos wall was built in its entirety by her, and Staircase B1 was part of the Roman remodelling of the sanctuary. It is likely that the axis-shift in the sanctuary took place during Apollonis' renovation of the precinct as well. This helps to explain the uneven division of the Theatron: considering that the eastern temenos wall was built in its entirety by Apollonis, Philetairos' sanctuary probably did not extend as far east as Bohtz suggested and I would like to propose that the wall that coincides with the Theatron's eccentric (central) staircase formed the eastern temenos wall of Philetairos' precinct. This would explain the unusual placement of the staircase within the seating area (see below) and it would provide a clear rationale for this wall, doing away altogether with Bohtz's unsupported suggestion of multiple pre-Attalid remodellings of the sanctuary.

If my observations are correct, Philetairos' sanctuary would have looked as follows: the temenos was enclosed by walls on all four sides in order to ensure the privacy of the cult ritual.²⁸⁰ This ritual space measured about 64 m by 22 m, and opened on the East to a forecourt with Altar E (pre-Attalid). In the sanctuary proper, Philetairos' altar and temple occupied their own discrete space at the western end of the cult terrace: this set the new monuments apart from the older Altars B-D on the eastern side and, at the same time, left intact the precinct's pre-existing arrangement. By putting his new additions behind the older altars, Philetairos paid respect to an established cult arrangement and expressed sensibility for a pre-existing order. In their scale and décor, the Philetairean monuments clearly constituted the focal elements of the new temenos and they produced a dramatic

older altars were rebuilt at one point and enlarged in such a way that they would align with the temple and altar Philetairos added to the sanctuary. Whether this took place under Philetairos or Apollonis cannot be established at this point, though perhaps a careful reexamination of all of the altars may yield information regarding their date.

²⁷⁹It is not known whether Eumenes I dedicated any buildings in the Demeter Sanctuary, but none of the monuments bear his name.

²⁸⁰Piok Zanon [2007] fig. 10. The walls I assign to this period are the walls marked in Bohtz [1981] pl. 42.1 as building periods 2A and 2B. It is likely that the Demeter Sanctuary was used as a Thesmophorion already under Philetairos.

backdrop for the cult rituals that took place in the open space on the sanctuary's east side. In order for the cult participants to observe the ritual acts, a seating area, or Theatron, was provided on the northern side of that open space and it was accessed by means of two staircases, each about 1.00-1.50 m wide and located at either end of the seating rows.²⁸¹ Immediately adjacent to the Theatron in the West was a simple, one-aisled stoa which may have been used for the consumption of the ritual meal and perhaps also for lodging.²⁸² Foundations for such a portico were discovered during Bohtz's re-excavation of the sanctuary, which he, however, attributed, together with the walls, to a pre-Attalid building period on the terrace.²⁸³

Philetairos' sanctuary was thus simpler than Bohtz reconstructed it, but it was suited to the needs of the cult ritual and even contained a hint of spectacle with the dramatic articulation of altar and temple. Layout and organization of the temenos were clear and straightforward, the arrangement of the cult furniture was simple but planned and cleverly integrated old and new; while Stoa and Theatron fulfilled the practical aspects of the cult, Temple and Altar lent an aura of upscale piety to the ritual space. The size of the precinct was probably determined by the terrain, but the individual elements within it were designed in such a way that the buildings seemed neither too small nor too big for the space and there was ample space to move around freely without losing sight of the arrangement as a whole. The cult furniture was arranged to demarcate different areas of ritual activity, and in doing so, the architect took advantage of the natural features offered by the site, with the Theatron climbing the hill and altars and Temple stretched out on the elongated cult terrace. This creative exploitation of the terrace parallels the ingenious use of materials and the conscious placement of the cult installations for maximum visual effect. Approaching the ritual space from the east side, one would have encountered Altar E outside the temenos. Judging from the size of its remains, the altar was probably fairly elaborate even before its remodelling and it would have pointed to the monuments inside the temenos court. Proceeding through a gate in the east wall, a larger, sparsely furnished court would have opened up in front of

²⁸¹In the remodelling of the sanctuary under Apollonis, the Theatron was probably dismantled and then reassembled and extended to the new length of the temenos. Thus, the staircase was maintained at its place even though the entire Theatron experienced an axis-shift of 2 degrees.

²⁸²Some Demeter festivals lasted several days and included communal feasting.

²⁸³Bohtz [1981] 35 and pl. 21.2.

the visitor with Philetairos' Altar and Temple at the far end and the eye would have been pulled past the older altars to the gleaming brightness of the temple frieze. This element must have drawn the visitor into the sanctuary like a magnet. While crossing the open court, she would have taken notice of the elaborate Theatron and the colonnade of the adjacent Stoa. Arriving at Philetairos' Altar, she would have been captured by both the intricacy of the altar horns and temple frieze and the subtle unity of Altar and Temple achieved through corresponding detail. Clearly, the cult ritual in Philetairos' sanctuary was heightened and multiplied by the architect's articulation of the sacred space. It is this establishment of an intimate ritual space in its broader topographical environment that Apollonis' architect recognized and chose to develop further.

Before turning to Apollonis' project, however, we must take a moment to consider the implications of the new reconstruction of Philetairos' temenos plan on the pre-Attalid sanctuary. With most of the wall stretches that Bohtz identified as pre-Philetairean assigned to Philetairos' project, it now seems more likely that there was only one building period pre-dating that of Philetairos. The pre-Attalid temenos was defined by walls on at least three sides that described an oblong rectangle, measuring approximately 60 m east-west by 20 m north-south.²⁸⁴ It is unclear whether an eastern wall existed at all, or whether the terrain provided a natural barrier on that side. Within this space Altars B-E were distributed evenly but without any apparent axial relationship to each other. A temple was most likely not part of this arrangement, and nothing can be said about any other cult installations at this time. It is perhaps important to note, however, that even in this earliest form, the sanctuary would have fulfilled the basic requirements of a Thesmophorion and it may well have functioned as such at this time. It provided an enclosed, sheltered area and altars (and *bothroi*) for sacrifices, and there was ample space for the temporary installation of huts or tents as we know them from other cities.²⁸⁵ In fact, in its simple plan, the pre-Attalid sanctuary may have resembled the layout of Thesmophoric sanctuaries in many other cities. Only the Attalids' grand rebuilding turned the Pergamene precinct into one of the most spectacular Demeter sanctuaries known from the ancient world.

²⁸⁴Piok Zanon [2007] fig. 14.1.

²⁸⁵E.g., Athens. Aristoph. Thesm. 658. Deubner [1966] 54-55.

3.0 THE SANCTUARY OF APOLLONIS

Βασιλίσα Ἀπολλωνίς Δήμητρι κ[α]ὶ Κόρηι Θεσμοφόροις
καριστήριον τὰς στοὰς καὶ τοὺς οἴκους

Queen Apollonis [dedicates] these stoas and these structures as a thank-offering to Demeter and Kore Thesmophoros.¹

The inscription on the Propylon to the Sanctuary of Demeter outlines Apollonis' large-scale remodelling of the precinct; yet, as I have suggested in Chapter 2, not each structure she added to the temenos may have been named individually. This chapter picks up where the previous left off: with a new plan established for Philetairos' precinct, it now remains to be studied how this space was modified, enhanced and reinvented by Apollonis' architect. Her expansion of the sanctuary turned this cult-site into the largest civic space on the citadel and it created one of the most spectacular ritual spaces in the Hellenistic world. The Queen's renovation did not touch the main structures of the temenos, Philetairos' altar and temple, but her additions affected the appearance and visual effects of the older monuments in a profound way. This chapter attempts to reconstruct the character and ritual use of Apollonis' sanctuary by scrutinizing each building in detail and examining the precinct as a spatial and social construct. As in the previous chapter, Apollonis' (reinvented) Demeter Sanctuary must be studied within a broader architectural and socio-cultural framework in order to determine its place in the development of Hellenistic architecture and culture. Key to evaluating the role of the Demeter Sanctuary in the formation of Pergamon as a Hellenistic capital is the monument's date. Although the inscription identifies the project as that of Queen Apollonis, it does not specify a date and scholars have debated whether it was built as the wife of Attalos I or as his widow. The propylon inscription suggests a rationale for her

¹Hepding [1910a] 439-442, n. 24. I would like to thank Prof. H. C. Avery for his help with the translation.

dedication and is key to a more precise dating of her additions to the sanctuary. One section of this chapter therefore will reexamine the dating arguments and propose a narrower date for her renovation.

3.1 THE ARCHITECTURE OF APOLLONIS

Apollonis' remodelling of the Demeter Sanctuary was in the first place an achievement in engineering: she expanded the cult terrace to a size of 120 m east-west by 40 m north-south, increasing its area by more than three times the size of Philetairos' sanctuary.² The creation of this larger space was possible only with the construction of an elaborate system of retaining walls on all four sides. These walls provided the structural support for stoas and rooms along the temenos perimeter and ensured a private, secluded setting for the cult ceremonial at a time when the city's habitation areas were drawing closer to the Demeter Sanctuary.³ The construction of these walls required an understanding of the Pergamene topography, wall-building techniques, and a large labor force, and it was at least as expensive as the construction of the buildings Apollonis added to the precinct. Although fortification walls had been a part of the architecture of the Pergamene acropolis since at least the fourth century BCE, they mostly followed the natural terrain, taking advantage of the site's topographical features. Walls as sophisticated as those of the Demeter Sanctuary, especially the southern retaining wall with its regularly spaced buttresses, were a new feature in the Pergamene landscape, and one that created new possibilities in the architectural use of the hillside.⁴ Although these walls proved difficult to build and required additional reinforcements at the time of construction and corrective measures soon thereafter, they were masterpieces of engineering that must have found recognition far beyond Pergamon. These were most likely

²Philetairos' temenos measured ca. 64 m east-west and 22 m north-south. For a reconstruction of Apollonis' temenos, see [Bohtz \[1981\]](#) pl. 43.1.

³[Wulf \[1999a\]](#). As noted, the rituals of Demeter were secret and required initiation. The creation of a secluded temenos was imperative to the secrecy and purity of the cult.

⁴The structural issues of the retaining walls have been studied by Bohtz and his publication provides a good description and detailed illustrations of their composition. [Bohtz \[1981\]](#) 28-30, pls. 17.1-3 and 35-38. For this project it therefore suffices to reemphasize the vision and achievement Apollonis and her architect demonstrated in the use of new engineering methods to produce a much larger cult terrace.

the first walls of this kind built at Pergamon, and Apollonis probably called in an architect from the outside, perhaps from a Carian town or from Priene, sites that offered similar topographical challenges.⁵

While retaining walls and stoas ensured the privacy of the cult ritual in the ever expanding city, they also served to provide an outward face to the sanctuary and announce it from afar. Most notably, the long South Stoa and buttressed retaining wall became a marker in the Pergamene landscape and advertised Apollonis' grand rebuilding of the Demeter Sanctuary to anyone passing through the valleys below. Such a monumental gesture added considerably to the visibility of Pergamon in the Asia Minor landscape and must have stirred interest not only in this cult site but in the city (and dynasty) as a whole. In that respect, the ingeniously engineered retaining walls and majestic stoas provided structural support and a visual frame for the precinct proper and communicated the idea of a Capital emergent on the Pergamene acropolis.

Apollonis' sanctuary was developed according to a preconceived plan that was characterized by clarity of form and an understanding of the possibilities of the terrain, one that was mindful of the site's history and preexisting order. Her new precinct consisted of two contrasting spaces, a narrow, cramped forecourt of irregular shape that accommodated service rooms and cult installations — fountain, altar, and bothros — and an expansive, open court of rectangular form that housed altars and temple and that was lined by multi-purpose structures — stoas, oikoi, and theater. A modest gatehouse pierced the east peribolos wall, mediating between the two spaces and controlling access to the sanctum.

Instead of making her own additions the focal point of the remodelled sanctuary, however, Apollonis deliberately toned down the design of her buildings so that they would not compete with the central monuments of the space, Philetairos' altar and temple. In fact, a salient design feature of the new precinct was the decision to employ the new buildings as “framing

⁵The Carian sites of Labraunda and Alinda were developed in the fourth century BCE by the Hecatomnid dynasty: in each case, a series of terraces were cut into a fairly steep slope and secured with retaining walls. The city of Priene was laid out between the fourth and second centuries BCE on the slopes of Mount Mykale at the mouth of the Meander river. According to [Schipporeit \[1998\]](#), Carian architects/engineers were involved in the building of Priene as well, and possibly under Hecatomnid patronage. On Carian fortifications and city walls and their importance for Pergamon, see [Pedersen \[2004\]](#).

devices” for the preexisting monuments: all of the new structures bordered the cult terrace, maintaining the hierarchy of the space in which the Philetairean altar and temple, along with the older altars, formed the sanctuary’s ritual core.⁶ Underscoring the sanctuary’s history was the decision to adopt as an ordering line the axis established by Philetairos’ altar and temple. In order to emphasize the unity of the earlier structures in the precinct, several of the pre-Attalid altars were rebuilt, moved, or expanded to line up with the axis of the Philetairean monuments.⁷ Thus, in the new precinct, the old monuments occupied a defined space of their own. Although technically it would have been possible to precisely center the older monuments on Apollonis’ new cult terrace, their axis was ca. 3.50 m off south, adding an air of casualness and elasticity to an otherwise rigid space.⁸ Considering the expense of the terrace levelling and expansion, the construction of the retaining walls and the buildings Apollonis added to the sanctuary, and the alignment of all older monuments, the construction of a new altar and temple would have added comparatively little to the overall budget. It is therefore all the more noteworthy that she chose to preserve the Philetairean monuments and to make them the centerpiece of her reshaped, grand precinct.

The natural shape of the terrace conditioned the precinct layout of Apollonis’ sanctuary to some extent, but, as Phyllis Lehmann noted long ago, “the shape of the sanctuary [...] cannot be explained solely by the necessities of the terrain.”⁹ Instead, she notes, there was a will to develop a controlled space, an “autocratic environment,” in which the topography of the site merely served as a spring board for the production of a more sophisticated spatial construct.¹⁰ Indeed, the regularity of Apollonis’ precinct suggests a marked desire to develop

⁶Bohtz [1981] pl. 4.

⁷It has been argued that the reorientation of the sanctuary according to the axes established by altar and temple and the alignment of the pre-Attalid altars with these two monuments was the doing of Philetairos’ architect. Bohtz [1981] 12-13. See also Chapter 2. I think, however, that this shift of axis was part of Apollonis’ reorganization of the space, since this axis is parallel to the alignment system adopted for the queen’s project. Moreover, it is under her aegis that one first notices a sensibility for the precinct as a unit, in which the different parts — old and new — come together to form a cohesive space.

⁸Apollonis’ sanctuary was not developed along a central axis; on the contrary, there seems to have been a deliberate effort to deemphasize the center and none of her buildings were planned with a central precinct axis in mind. Instead, a regular grid may have served as basis for its layout.

⁹Lehmann [1954] 16.

¹⁰Lehmann [1954] 15. She notes the desire to build clear, architecturally defined spaces as a trait of Hellenistic architecture, an observation that has since become a hallmark in the definition of Hellenistic architectural design.

a controlled ritual setting, in which movement through the space, usage of the space, and performance of the ritual actions were prescribed in a very specific way. Adherence to a regular, clear plan with plain forms allowed Apollonis' architect to both master and exploit the hillside location, to produce, within the temenos, spaces with varying degrees of visibility, openness, and privacy, and to guide the visitor through this environment — both visually and physically — in very precise ways. Yet, despite this emphasis on regularity, the temenos design was not without spark: adding an element of surprise to this straightforward, seemingly transparent precinct layout was the inclusion of “hidden” spaces — rooms opening off of stoas, or basement areas — that were not readily discernible as one entered the sanctuary. This juxtaposition of clarity and the unexpected considerably added to the vitality and of the ritual space. Although the cult may have required a more private setting for some areas within the precinct, they were skillfully integrated into the overall design and did not break with the regularity of the temenos plan.¹¹

One of the objectives of the temenos design seems to have been the creation of a ritual theater. Theatrical performances most likely played a central role in the Thesmophoria at Pergamon, and the architecture suggests that their celebration was a spectacle, devised for the entertainment of the cult attendants as much as the goddesses. A dramatic element had already been introduced to the cult site by Philetairos whose elaborate designs for altar and temple created a stage-like frame for the rituals performed in the precinct. In Apollonis' sanctuary, these structures, along with the other altars, became stage props skillfully arranged on the stage that was the center court. Draped around this theater court like curtains, the stoas created a semitransparent backdrop for the ritual, heightening the sense of intimacy and privacy already suggested by the peribolos walls. Cult officials may have filed in and out of the porticos' shadows, while cult attendees observed the spectacle on center stage from the theatron above the terrace.¹²

¹¹The regularity of the temenos layout was at least in part concealed by the topography, which added much to the character of the sacred space and deemphasized the severity of the plan.

¹²It is not clear whether the Thesmophoric ritual included dancing, singing, and the playing of instruments. Terracotta dedications in the Pergamene Demeter Sanctuary in the form of dancers and musicians suggest that musical performances were part of the celebrations there. Other Demeter sanctuaries, like at Corinth or Priene, similarly had seating areas and “stages”. On the sanctuary as ritual theater, see [Nielsen \[2000\]](#). [Nielsen \[2002\]](#).

Yet, the spectacle was most likely not confined to dramatic performances and included other activities, such as dining and feasting. Since the liturgy of the Thesmophoric rituals remains largely unknown, we can only speculate about the precise use of the Demeter Sanctuary and its monuments, but one important quality of Apollonis' temenos was its flexibility in use, whether serving as stage, banqueting hall, or dormitory.¹³ Other uses of the space — (political) assemblies, for instance — seem possible, although it is not known whether the Demeter Sanctuary did in fact host such events.¹⁴ Thus, the space altered its meaning depending on its usage and it must be read as a space produced by the activities taking place in it.¹⁵ The architecture provided a clearly defined frame for different activities, but the space, its atmosphere and ambiance was formed by the people appropriating the sanctuary and by the actions they performed within.

Examination of the individual structures Apollonis added to the precinct serves to determine its place within the sanctuary and to describe the monuments' visual and functional relationships to each another. Since the function of some monuments is more readily discernible than of others, I will first discuss those spaces whose use can be determined with a greater degree of confidence.¹⁶ Since this organization does not follow the traditional approach of studying monuments in topographical proximity to each other,¹⁷ it may be useful to briefly name the structures Apollonis added to the precinct, starting in the east and moving in clockwise direction: Forecourt, Propylon, South Stoa with Basement, West Stoa Complex, Lower North Stoa, Theatron, Upper North Stoa.¹⁸

¹³Stoas are among the most flexible building types, but they were also expensive to produce. Although they required less material than rooms with closed walls, the carving of the colonnades with smooth or faceted shafts and elaborate capitals was much more labor intense than the construction of plain walls. Moreover, a solid wall construction would have provided more stability and hence would have forestalled some of the structural issues of the stoas. The fact that Apollonis' architect chose stoas over other building types suggests a desire to create spaces that were open and flexible in use.

¹⁴Inscriptions found near and inside the Demeter Sanctuary indicate that it lay in close proximity to the city prytaneion, which makes one wonder whether certain duties of that office, like the distribution of honorary meals, may not have been performed in the precinct of Demeter. For the Pergamene prytaneion, see Dörpfeld's excavation diaries P 93-97 (1908-1912) 50-52. For the prytaneion as an institution, see [Miller \[1978\]](#), esp. Chapter I: The Function of the Prytaneion, 4-24.

¹⁵Thus following Lefebvre's notion of space as a social product.

¹⁶The term "function" is understood as both the immediate physical use of a space and its secondary metaphysical value as an element of ideological purpose.

¹⁷E.g., [Bohtz \[1981\]](#).

¹⁸[Bohtz \[1981\]](#) pl. 43.1.

3.1.1 The Propylon

The most easily explainable of Apollonis' monuments was her gatehouse, or propylon, that provided access to the temenos and served as a billboard for the queen's contribution to the cult site.¹⁹ In the ancient Greek sanctuary, the propylon fulfilled a number of different requirements: its immediate purpose was to separate the secular from the sacred and to provide a single access point to the precinct that could easily be controlled and supervised. Traditionally, the propylon's function as the entrance to the sanctuary was underscored visually by an elaborate design. Beginning with the Hellenistic period, propyla were frequently inscribed with the name(s) of both the deity(ies) worshiped in the sanctuary and the patron(s) who commissioned the building or precinct; sometimes a rationale for the dedication was also included.²⁰

In the Pergamene Demeter Sanctuary, the propylon fulfilled all these functions: situated in the southeastern corner of the peribolos, it was immediately visible to anyone entering the forecourt. The propylon was modest in form but graceful in articulation, adding a sense of outward ceremony to Apollonis' precinct. Ornate on the east and plain on the west, it did not compete with the architectural hierarchies inside the temenos, but subtly asserted Apollonis' contribution to the Demeter Sanctuary as a whole. It was designed to attract the attention of the visitor, with a decorative facade that stood out among the other structures of the forecourt. The inscription identified the sanctuary as sacred to Demeter and Kore Thesmophoros and Queen Apollonis as the benefactress of the precinct. It outlined the extent of her dedication (*tas stoas kai tous oikous*) and established a relationship with Philetairos' monuments inside the temenos, since these also carried dedicatory inscriptions across their fronts.²¹ Although the propylon inscription may have followed established conventions for dedicatory inscriptions, the similarity in wording between Apollonis' inscription on the gatehouse and Philetairos' inscriptions on altar and temple initiated a dialogue between

¹⁹Bohltz [1981] pl. 3.1.

²⁰On the propylon as a building type, see Carpenter [1971]. On the type in Asia Minor, see the recent dissertation by Ortac [2001] and the forthcoming talk by Umholtz [2009]. On occasion, as on the Athenian Acropolis or the Sanctuary of Athena Lindia on Rhodes, the sacred gate consisted of more than one building. The first known inscribed propyla come from the Sanctuary of Zeus at Labraunda in Caria (mid fourth century BCE.)

²¹See Chapter 2.

Philetairos' buildings and the newly added structures of Apollonis. In much the same way as the inscription served to establish a relationship between inside and outside, the propylon's design introduced the monuments Apollonis added to the sanctuary: its form announced the scale of the buildings inside the temenos and its décor anticipated the architectural style used for most of Apollonis' buildings. Moreover, its style emulated the formal vocabulary of Philetairos' altar and temple, underscoring the dialogue established by the inscriptions. Thus, the propylon introduced the decorative language of *all* monuments inside the peribolos and became a vital link between old and new, inside and outside.

In plan, the gatehouse followed a traditional, H-shaped layout:²² two plain walls cut into the peribolos at a right angle, forming the north and south walls of the propylon. They sat on a stylobate of 8.28 m by 5.04 m.²³ These walls terminated in antae on either side, but they extended further on the west than on the east. On the east, where the propylon pushed into the forecourt, the lateral walls were cut short to make room for two prostyle columns in front. The actual gate to the sanctuary was not aligned with the peribolos, but pushed about 1.00 m to the east: there, a plain wall connected the two lateral walls and an opening in the center, once framing a double-leaf door, provided the only access to the sanctuary.²⁴ Since forecourt and temenos sat on different levels, the gatehouse served to overcome this difference and the lateral walls west of the gate framed a staircase of ten steps that led down onto the cult terrace. The last two steps extended past the lateral walls to stretch the width of the euthynteria.

Despite its simplicity in plan, great care was taken in the design of the propylon and every line was planned for maximum effect: for example, the creation of an euthynteria of evenly cut slabs provided a level surface for the construction of the propylon and visually set it apart from the unpaved surrounds in forecourt and cult terrace. The combination of short lateral walls and prostyle columns on the gate's east side added an air of transparency and

²²Bohtz [1981] pl. 45.2.

²³Bohtz [1981] 17.

²⁴Cuttings and impressions in the stylobate confirm that the gate itself consisted of two leaves. The reconstruction of the passageway as proposed in Bohtz [1981] pl. 45.1 and 2, is not warranted, however. Considering the marked abrasion of the floor in the door area, it is unlikely that there was a threshold block, as presented in his reconstruction.

weightlessness to the gatehouse and made it less massive and commanding in the already cramped forecourt. It also introduced the column as an essential design element in Apollonis' precinct. Conversely, the extension of the last two steps on the western facade created a podium or temple-like *krepidoma* for the superstructure that lifted the entire building off the ground and defined its place in the wide *temenos*. By moving the central wall further to the east, the two halves of the propylon were evened out so that the staircase cut only minimally into the cult terrace, where it otherwise would have interfered with the South Stoa.

The same combination of simplicity and ingenuity informs the design of the propylon's elevations. Both facades were conceived in a predominantly Ionic style, but they also incorporated elements from other architectural traditions. East and west elevations were decidedly different in their appearance and for that reason must be studied individually in order to explain the propylon's design and place in Apollonis' precinct.

3.1.1.1 The Propylon East Elevation. In the propylon's east facade, columns of a Doricizing design with smooth round shafts and a marked entasis rose from the stylobate.²⁵ They supported unusual capitals in the shape of a wreath of sixteen upright leaves. In the entablature, the low architrave consisted of two rather than the three bands (*fasciae*) typical of the Ionic order. The tall frieze was not sculpted but carried the dedicatory inscription across its front like an ornament. A dentil course provided the upper terminus of the entablature and followed the slope of the roof in the pediment. On the east, the propylon measured ca. 5.20 m from top to bottom on the eaves, and a little over 6 m at its highest point.²⁶

Despite its seemingly simple and straightforward composition, the design of the east elevation is complex and replete with elements that defy easy classification of the monument within the traditional parameters of Greek architecture. A closer look at the details of the east facade is therefore warranted. At first glance, the two prostyle columns seem to be conceived in the Doric tradition: they are bulky in proportions and sit directly on the

²⁵Dörpfeld [1910] fig. 5. Bohtz [1981] pl. 45.1. Piok Zanon [2007] fig. 11.1.

²⁶These measurements are approximate and have been derived from Bohtz's reconstruction drawings (Bohtz [1981] pl. 45.1; he did not describe the reconstruction of the propylon height in the text, but since the respective heights of columns, capitals, entablature, and pediment are given, and since the slope of the pediment is known as well, his reconstruction seems reliable.

stereobate without a base. With a lower diameter of 0.65 m and a height of 4.58 m (including the capital) and a resulting ratio of approximately 1:7 they were tall for Doric columns. On the other hand, when one considers the unusual height of the capital (0.42 m), the shafts were only 4.16 m tall and hence more in line with the Doric standard. The marked entasis at about one third of the shaft height contributed to the Doric feel of the shafts, but their surfaces are smooth and not fluted as in the traditional Doric style. At the bottom, the transition from the horizontal to the vertical is marked by a band, approximately 0.10 m tall, of twenty facets. Since there are no corresponding facets on the opposite end of the shaft, the columns were not originally intended to be fluted or faceted. On the contrary, it is clear that this faceted band was intended to convey the notion of a base — a feature that is typically not present in the Doric order.²⁷

The shafts were smoothed with a flat chisel to produce an even surface. Although smooth column shafts are found in other Doric or Ionic buildings, especially those of the Hellenistic period, they are actually typical of Pergamon. The Doric columns of the Athena temple (late fourth century BCE) had smooth shafts and so did the Doric Temple of Meter at Mamurt Kale, a Philetairan dedication.²⁸ The columns of Philetairos' temple on the Demeter terrace were also smooth. Pergamene columns of the second century were sometimes fluted, but more often faceted or smooth.²⁹ I am not aware of any other ancient building that accented the column foot with a faceted band, like those of Apollonis' propylon, but the Athena Temple on the Pergamene Acropolis has a similar faceted ring on the necking of the Doric capitals; this may thus be a Pergamene trait as well.³⁰

Throughout the facade, simple horizontal elements break the overall verticality of the design and tie the different parts of the facade together, producing a balanced whole. A narrow fillet and pronounced roundel marks the upper termination of the column shaft and provides a base for the vertical leaves of the capital.³¹ Although subtle, this horizontal

²⁷Hoepfner [1996] 32, points out that in order to produce a fluted or faceted column shaft, both foot and neck of the column were faceted in order to assure a precisely vertical line from top to bottom.

²⁸Athena Temple: Pedersen [2004] fig. 3. Mamurt Kale: Conze and Schazmann [1911] pl. V.

²⁹See, for example, the columns in the Stoa of Attalos II on the Athenian Agora.

³⁰No faceting is present at the column foot of the Athena Temple, which once again confirms that the faceted band was not used to establish a guideline for the fluting of the column shafts but was employed as an autonomous decorative element.

³¹Bohtz [1981] fig. 4. Piok Zanon [2007] fig. 12.

element momentarily halts the upward dynamic of the column and directs attention to its most decorative feature, a wreath of sixteen carefully molded, fleshy leaves. The capital measures 0.42 m in height, with a lower diameter of 0.52 m and an abacus of 0.69 m square. Although the capitals are not particularly tall — especially when compared to the standard Corinthian capital — they are taller than the traditional Doric or Ionic capital and visually stretch the columns' height. The capital's leaves are upright, bending slightly at their tips as if depressed by the weight of the abacus; they are carved with three panicles to give them plasticity and naturalism.³² Behind the main row of leaves appears a second row of identical leaves suggesting a tightly wrought wreath. Since the wreath is topped by a square abacus, the tips of the “corner” leaves were elongated towards the corners of the abacus, smoothing the transition from circular capital to square abacus.

The capital's upper terminus was a square abacus, ca. 0.09 m tall and 0.69 m wide on the side. Like the wreath of leaves, the abacus was designed with care and attention to detail. It consisted of three parts, a lower section 0.06 m tall that fit snugly with the diameter of the wreath below, a 0.02 m tall middle section that projected outward with a bevel to line up with the outer edges of the depressed leaves, and a narrow (0.01-0.015 m) band at the top that provided a wider surface for the architrave on top. This staggered design echoed the composition of the capital base with narrow fillet and projecting roundel and created a frame for the wreath itself. By choosing a “composite” abacus over a solid square block, the architect ensured a gradual, more refined and subtle transition from the verticality of the column shaft to the horizontality of the entablature.

Architrave and frieze of the propylon were carved from a single block, roughly 0.57 m tall. The bottom part consisted of a low, two-banded architrave, with the upper band slightly taller than the lower (0.105 m versus 0.09 m). The frieze above was framed by two moldings: an ovolo and fillet separated the frieze from the architrave and a cavetto, fillet, and plinth created the upper terminus. Both moldings were plain and uncarved.³³ The

³²The central panicle was more pronounced than the lateral ones. Although the leaves are stylized, they nevertheless also suggest an attempt at reproducing a specific botanical feature.

³³Shoe [1936]. It is unclear whether the propylon had been painted in antiquity to create the illusion of carved moldings.

frieze was not decorated with elaborate reliefs in the Greek tradition, but carried across its entirety Apollonis' dedicatory inscription. The dedication was spread over two lines in letters approximately 0.06 m tall. Thus, the dedicatory inscription became a decorative element of the propylon design, and, along with the wreath capital, the main attraction on its front.³⁴ The decorative carving of architrave and frieze was continued along the side elevations, though it is not clear whether it continued past the end of the architrave-frieze block all the way to the west facade.³⁵

The architrave was crowned by a dentil course that was part of the horizontal geison block. By comparison with the dentils of Philetairos' temple, those of the propylon were larger, measuring ca. 0.055 m (width) by 0.078 m (height), with a depth of 0.078 m and an interval of ca. 0.035 m.³⁶ Like architrave and frieze, the dentil course continued around the corner; the corner was emphasized with a short cylinder that filled the gap between the two dentils that met at that angle.³⁷ As in Philetairos' temple, the dentils in the propylon continued into the pediment, creating a visual tie between horizontal and raking geisa.³⁸ The pediment seems to have been blank, or at least not further accentuated by carvings.³⁹ The dentil course was crowned by a simple sima, carved from the same block as the geison. It consisted of a drip molding, followed by a roundel, cyma recta and narrow fillet.⁴⁰

The most decorative, and perhaps also the most conspicuous element of the propylon's east elevation was the wreath capital.⁴¹ Its shape and proportion are unusual and not known

³⁴Regardless of whether the propylon was painted or not, the letters of the inscription were most likely emphasized in color to make them easily discernible on the rather rough surface of the andesite. Similar attempts to highlight inscriptions can be noted on the propylon to the Sanctuary of Athena or the circular statue base Attalos II dedicated in honor of his mother, both at Pergamon and now in the Pergamon Museum in Berlin.

³⁵As indicated in [Bohtz \[1981\]](#) pl. 46.3. To my knowledge, there are no architrave blocks that would support this reconstruction.

³⁶Because of their considerable size, the dentils of the Demeter propylon were discussed as a precursor to the console geisa and brackets that became popular in Roman architecture. [von Hesberg \[1980\]](#) 25.

³⁷This accentuation of the corner is unusual for a dentil course and bespeaks the architect's devotion to detail; in most cases, the space was left blank.

³⁸The dentils of the propylon, like the ones of the temple, had been arranged perpendicular to the slope of the roof line, and not perpendicular to the ground, as suggested in Bohtz's reconstruction. [Bohtz \[1981\]](#) pl. 45.1. See also [Bingöl \[1990\]](#) 106, n. 44. The slope of the roof was ca. 12 degrees.

³⁹Since it is unclear whether parts of the propylon had once been painted, one cannot exclude the possibility of a painted pediment.

⁴⁰See [Shoe \[1936\]](#) 26 and pl. XV.1.

⁴¹[Bohtz \[1981\]](#) fig. 4 and pl. 12.1-2.

from any other building at Pergamon or in the ancient world, but in Apollonis' project this capital decorated both the propylon and, with some variation, the stoas that bordered the temenos on the north, south, and west. In order to contextualize Apollonis' project and to explain her choice of this distinctive form, close analysis of the column capital seems therefore warranted.

Pergamene architecture is known for its use of innovative capitals, especially leaf capitals, from the fourth to the second centuries BCE, but none resemble the ones from the Demeter Sanctuary in all its details.⁴² The precise origin of the wreath capitals from the Demeter Sanctuary remains unclear, and it is possible that it was even invented specifically for Apollonis' buildings on the Demeter terrace.⁴³ These capitals appear only in the Demeter Sanctuary and to distinguish them from other types of wreath capitals, I will refer to them here as the "Demeter capitals." To further distinguish the two types of wreath capital used in the Demeter Sanctuary, those of the propylon will be named (Demeter) capitals of type A and a second type, used only in the Upper North Stoa, will be referred to as type B.⁴⁴

Although it may be impossible to establish an exact prototype or model for this unusual capital, scholars seem to agree on an origin for it in the eastern Mediterranean or the Near East. As a type, the wreath-capital seems to be old and rare, or at least infrequently preserved, which may explain why its use in Pergamene monuments has often been characterized as exotic and/or historicizing. Dörpfeld defined the Demeter capitals as Corinthian-Aeolic, relating them to the so-called Aeolic capital, a name that reflects its most frequent occurrence in Aeolia (northwestern Anatolia). He argued that Apollonis introduced this capital type to Pergamon from her native Kyzikos, a town in the Propontis that was close to Aeolis.⁴⁵ This characterization is erroneous on two accounts: first, Pergamon is geographically closer to Aeolia than Kyzikos and any architect working at Pergamon would likely have been

⁴²Unusual leaf capitals are also known from Pergamene monuments of the second century, and appear in Attalid dedications or Attalid-inspired monuments outside of Pergamon as well. In fact, they are so typically Pergamene that they are also known as "Pergamene capitals." Coulton [1976] 67 and fig. 31. Winzor [1996] 243- 246, refers to them as "Pergamene palm capitals." A fourth-century wreath capital from Pergamon is discussed by Kästner [1996] 155-156 and fig. 3.

⁴³The same capital was also used for the South Stoa, the West Stoa, and the Upper North Stoa.

⁴⁴The differences of the two capital types are subtle and will be discussed in the section dealing with the Upper North Stoa.

⁴⁵Dörpfeld [1910] 359. Also Hansen [1971] 259. The Corinthian component most likely stems from the wreath of leaves in the Demeter capitals that is also a characteristic of the traditional Corinthian capital.

familiar with the formal vocabulary from that area. Moreover, no wreath capitals of Aeolic or Pergamene type are known from Kyzikos, so there is no evidence to suggest that Apollonis imported this capital type from her hometown. Second, the Aeolic capital is very different in design from the Demeter capitals.⁴⁶ Whereas the Demeter capitals consist of a wreath of sixteen leaves organized in a double layer, the Aeolic capital is composed of two distinct elements, a ring of leaves at the bottom,⁴⁷ which creates the terminus of the column shaft, and two tall volutes that are reminiscent of the Ionic volute capital.⁴⁸ Unlike the Demeter capital, the wreath of leaves in the lower section of the Aeolic capital does not form the capital's main visual focus. Attention is called instead to the upward projecting volutes and the wreath is just an elaborate base. The two-tiered arrangement of wreath(s) and volutes makes the Aeolic capital taller and more slender than the Demeter capital with its bulky proportions. Thus, although both capital types feature a ring of leaves, they are different in their attitude and appearance.⁴⁹ It seems likely that the Aeolic capital, like the Demeter capital, owes its design to a predilection for botanical forms and that this predilection was a feature of the architecture of western Asia Minor from its earliest appearance.

Because of their leaf design, the Demeter capitals have often been lumped together with the Pergamene leaf capitals from the second century and a common origin has been suggested for them.⁵⁰ Although both capital types are characterized by a wreath of vertical leaves, they differ considerably in their articulation of the leaves. Whereas the Demeter capitals are characterized by carefully detailed, lance-shaped leaves with pointy tips, which are organized in a double layer, in the second century Pergamene leaf capitals, the leaves are concave in

⁴⁶Barletta [2001] fig. 56.

⁴⁷Sometimes, as in the example from Neandria, this takes the form of a double ring of leaves, with the one on top somewhat smaller than the one below and separated from one another by a roundel.

⁴⁸The Aeolic capital has often been considered a precursor to the Ionic volute capital. For a detailed study of the Aeolic order and its relationship to the Ionic order, see Betancourt [1977]. Also Barletta [2001] 98-101.

⁴⁹Contrary to my suggestion in my MA thesis (Piok Zanon [2000]), I now doubt that the wreath capitals in Apollonis' project were merely a cheap substitute for a Corinthian capital. First, the leaf capital has a long tradition in Asia Minor; second, the Corinthian capital, although known and used throughout the Aegean, was not yet as established as a canon by the late third century, and third, and perhaps most importantly, the design of the wreath capitals from the Demeter terrace exhibits too much attention to detail and individuality than to be a mere substitute for some other capital type. Clearly, the architect was invested in making a unique statement with this capital design.

⁵⁰Dörpfeld [1910] 261. Coulton [1976] 121-122. Onians [1979] 79-80.

shape, separated by shallow grooves, and bound in a single layer; they terminate in rounded, drooping tips. These differences suggest that they did not originate from the same model. In fact, in his study of the leaf capital, B. Wesenberg proposed that the Pergamene leaf capitals of the second century were based on the so-called “Arkades type” capital, named after its earliest known example from Arkades (Afrati, Crete, ca. 700 BCE).⁵¹ Other capitals in this group include the Archaic leaf capitals from the Temple of Athena at Phokaia (550-500 BCE, from the Treasury of Massalia (ca. 530 BCE), a Phokaian colony, and from the Treasury of Klazomenai (ca. 550-540 BCE), both at Delphi.⁵² It is important to note that Wesenberg did not include the Demeter capitals in this group, suggesting that he viewed them as a type separate from that of the second century Pergamene leaf capitals. Thus, while for the second century Pergamene leaf capitals a model seems readily available in Archaic Anatolia, the origins of the Demeter capitals are not as easily traceable in the immediate vicinity.

Other scholars have considered the Egyptian palm capital to be the inspiration for the leafy capitals of western Asia Minor, because they are both based on real botanical forms and because, in both capitals, vertical leaves create a horizontal support for the entablature.⁵³ There is a remote resemblance to the palm capitals from the Temple of Amun at Tanis in the articulation of a central panicle, but the similarities end there.⁵⁴ The Demeter capitals are low, measuring only 0.42 m in height with a lower diameter of 0.52 m, resulting in a ratio of roughly 1:0.8; Egyptian palm and lotus capitals are tall and slender.⁵⁵ As a norm, the Egyptian palm capital also has fewer leaves than the Demeter capitals or other wreath capitals from Asia Minor and these leaves are usually arranged in a single layer. Thus, while

⁵¹Wesenberg [1971] 43-49.

⁵²Coulton [1976] fig. 31.

⁵³C. Winzor, following a suggestion raised by J. Coulton, specifically argues for an Egyptian source for the Pergamene wreath capitals and suggests that the design travelled to Pergamon via Cyprus: she cites a capital from Vouni, Cyprus (fourth century BCE, see Munro and Tubbs [1889] fig. 4) as a direct model for the Pergamene type. Winzor [1996] 244-246 and 251-257. Coulton [1976] 121-122. Although this capital bears some resemblance to the Demeter capitals in its pointed articulation of the leaves, its elongated proportions follow those of the Egyptian palm capital and do not at all resemble the Demeter capitals. Wesenberg [1971] 43 and 48-49, rejects this line of thinking, pointing to distinct differences in proportions and articulation of the abacus and capital neck. Whereas an Egyptian influence on the Pergamene capitals of the second century BCE should not entirely be discounted, I cannot see any Egyptianizing traits in the Demeter capitals.

⁵⁴Phillips [2002] 144 and fig. 286. The temple dates to the reign of Rameses II (1279 BC to 1213 BCE). This capital type seems to have been fairly common in Egyptian architecture as it appears in other monuments of the region as well.

⁵⁵Lotus capitals are generally somewhat stouter than palm capitals which are characterized by long, upward rising leaves.

the idea of a leaf capital could first have developed in Egypt, the design for the Demeter capitals was not based on any known Egyptian model.⁵⁶

A different relationship between the Demeter capitals and Egyptian models has been suggested by C. Winzor: she proposed that the Demeter capitals were based on the design of the so-called Megarian cups, fancily decorated cups of various, often precious materials (fine metals, earthenware, or glass), that seem to have originated in Hellenistic Alexandria.⁵⁷ There may be some similarity in the articulation of the leaf patterns on Megarian bowls and Demeter capitals, but bowls with similar leaf decorations are known from Achaemenid Persia before the Hellenistic period, and the motifs used to decorate Alexandrian Megarian bowls may have been borrowed from Persian designs.⁵⁸ Considering, however, the long history and distribution of leafy capitals of all kinds in the Eastern Mediterranean, it is unlikely that a minor arts form would have served as a model.⁵⁹

An Achaemenid model for the wreath capitals of the Demeter terrace has not yet been proposed but, since the Attalid territory was long subject to Persian influence,⁶⁰ the possibility should be considered. Artistic interaction between the cities of the Ionian coast and the Persian empire has long been noted,⁶¹ but scholarly discussion of a "Persizing" design attitude in the architecture of Asia Minor has not progressed very far.⁶² Persian columns, like the ones at Persepolis, employ palm capitals similar to the ones from Egypt and were probably inspired by the pharaonic type. As such, they present no different model and are as unlikely a source of inspiration for the wreath capitals of the Demeter Sanctuary as the Egyptian palm capitals. On the other hand, Achaemenid columns had elaborate bases, bell-shaped and carved with wreaths of leaves that resemble the Demeter capitals in a number

⁵⁶The earliest leaf capitals in Egyptian architecture are from the funerary complex of Djoser at Saqqara (ca. 2600 BCE.)

⁵⁷Winzor [1996] 254-256. For Megarian bowls from Pergamon with leaf decoration, see de Luca [1990] pl. 28.6.

⁵⁸In the fifth and early fourth centuries BCE, Egypt was briefly part of the Achaemenid empire.

⁵⁹Winzor does suggest that the design patterns on the Megarian bowls were inspired by architectural forms current in Alexandria at the time, but no architectural elements with this design – in either stone or paint – have been preserved. Her proposal for the origin of the design of Apollonis' capitals, therefore, remains highly hypothetical.

⁶⁰Hansen [1971] 6-10

⁶¹Among the earliest, see Root [1979]. Now also Dusinberre [2003]. Boardman [2000].

⁶²A noteworthy exception is Cahill [1988]. On Achaemenid and Anatolian influence in Pergamene art, now Kuttner [2005].

of features: the articulation of the leaves with detailed panicles, the arrangement of the leaves in two layers, and, most importantly perhaps, the proportions.⁶³ These bases lack the plasticity of the Demeter capitals, and, despite their similarities, Achaemenid architecture cannot provide a direct model for the Demeter capitals either.

It has thus far not been noted that, whereas most other wreath type capitals of Asia Minor (including the Pergamene wreath capitals of the second century BCE), appear stylized and removed from any actual plant, the leaves of the Demeter capitals are surprisingly naturalistic and seem to imitate real botanical forms. In fact, the Demeter capitals bear a striking resemblance to the ribwort (*Plantago Lanceolata L.*), a plant native to the Mediterranean and Middle Europe and one that is found frequently in Western Anatolia.⁶⁴ The ribwort is known since antiquity for its medicinal use: according to Pliny the Elder, ribwort solutions and bandages were used to cure cough, chest pains, and chills; they were also, and more importantly in this context, effective remedies against infections, specifically snake bites and scorpion stings.⁶⁵ In the rituals of Demeter, medicinal plants played an important role, especially those known for their obstetrical and gynaecological potency,⁶⁶ and although I am not aware of any specific gynaecological use of the ribwort, its antibiotic qualities, especially in connection with snake bites, suggest that it may also have been used in the context of the Demeter cult.⁶⁷

The leaves of the ribwort are lance-shaped and, as the name implies, are characterized by pronounced, multiple ribs, usually five, that run parallel to the central spine of the leaf. The leaves are thin and pointed, although another version of the same family has broader leaves that are stouter in proportion. In each case, they are organized in the shape of a rosette around the central root. The similarities to the leaves of the Demeter wreath capitals are striking: the leaves on the capital also seem to sprout from a central root at the

⁶³Persepolis, Hall of Hundred Columns, British Museum
<http://www.thebritishmuseum.ac.uk/forgottenempire/objects/cat009.html>
(April 12, 2007).

⁶⁴For an illustration, see <http://www.substrali.at/Bilder/Pflanzen/spitzwegerich.jpg> (12 March, 2008).

⁶⁵Pliny, *NH* 25.63.

⁶⁶See the detailed discussion in Nixon [1995].

⁶⁷There is some indication of its use for urinary and stomach infections. The rituals of Demeter, especially the Thesmophoria, involved the shooing away of snakes with noises. Brumfield [1981] 160. It is conceivable, therefore, that the occasional snake bite was not uncommon during the women's stay at the sanctuary.

bottom, and they spread out like the leaves of the ribworth plant. The leaves themselves are characterized by pronounced ribs, usually five, with the central and outer two slightly more pronounced than the ones between. Like their real-life models, the leaves retain their even, broad shape for most of their length before terminating in sharply pointed tips. In the capitals, the weight of the abacus seems to cause the leaf-tips to bend at the top, adding a marked degree of naturalism and plasticity to the capital as a whole.⁶⁸

It is possible that Apollonis' architect deliberately chose this botanical model in reference to the Thesmophoric cult. Yet, even if it were agreed that the botanical form of the ribworth had meaning for the cult ritual, it was primarily an aesthetic choice that the leaves of the ribworth inspired. Apollonis and/or her architect may simply have been attracted by this form and by the opportunity it presented to create a graceful, new capital design that was both structurally sound and fairly easy to produce. The capital's leafy design tied it to a tradition of wreath capitals in Asia Minor, while its particular form made it unique to Pergamon.⁶⁹ If so, the propylon's wreath capital would have combined a sense of tradition with innovation and distinction, an attitude that we have already noted for Philetairos' altar and temple a generation earlier.

Theoretically all of these capital types and bases and plants could have informed the design of the Demeter capitals, and it is possible that they all did to some extent. Nevertheless, the Demeter capital is unique in both its overall form and its detail and there is no precise model or prototype for it extant. It is perhaps safest to conclude that, as a type, the leaf capital and base had a long history in the Near East, and that Apollonis and her architect took inspiration from this general tradition — not a specific type. It is also noteworthy, perhaps, that in the architecture of Pharaonic Egypt and Achaemenid Persia, leaf capitals and bases seem to have been associated with royal building, and I wonder if it was not this general sense of royalty that Apollonis found attractive in adopting this element for her buildings. If so, the use of any leaf capital would have been inscribed with the semantics of

⁶⁸This plasticity exaggerates the leaves' fleshiness over those of the ribworth plant.

⁶⁹Kästner [1996] 155-156 and fig. 3, discusses another wreath capital from Pergamon whose design bears some resemblance to Apollonis' capitals on the Demeter terrace. The original location and use of the capital is not known, though it is possible that it came from the Demeter Sanctuary as well where it could have been used for the columns of the Philetaiorean temple (see Chapter 2).

royalty, while the particular shape of the Demeter capitals made them unique to Apollonis' project. The Demeter capitals' archaizing qualities and the choice of an old-established type may have had a similar resonance, implying a revival and continuation of an ancient — royal or noble — building tradition. The precise articulation of the capital hence may not have mattered and direct association with specific prototypes was not required.

3.1.1.2 The Propylon West Elevation. The gate's western elevation was developed in close association with both the east facade of the propylon and the monuments inside the temenos.⁷⁰ It was not identical to the east facade of the gatehouse but developed in accordance with the different requirements of the "inner" side of the gate: it had to be taller and to visually "manage" the staircase that led from the higher level of the forecourt down to that of the temenos. As a part of the temenos architecture, it had to communicate with the other monuments within this space, a bigger task than that given to the propylon's east elevation, contained within its own little space in the sanctuary's forecourt.⁷¹

Perhaps the most striking difference between the two facades is the slenderness of the west elevation by comparison with the squat appearance of the east face. The west elevation was almost one third taller than its eastern counterpart (7.91 m vs. 6.06 m, measured at the central axis), a slenderness achieved by incorporating a flight of ten steps into the design of the west facade. On the west side, however, the gate was not simply placed on top of the steps; instead, the staircase became an integral part of the design and the propylon's antae were extended to tie the gatehouse to the steps.⁷²

Obviously, the staircase would not have necessitated a different facade for the inner face of the gatehouse, so this was a design choice, and one that was carefully planned in every detail. On the east side the anta walls were short and the actual facade consisted of two

⁷⁰Bohtz [1981] pl. 46.1.

⁷¹A reconstruction of the west elevation is included in Bohtz [1981] pl. 46, but it is not discussed at all in the text which focuses exclusively on the propylon's east facade.

⁷²This design feature anticipates the way the grand staircase of the Great Altar was incorporated into its design, with the two risalits creating a decorative frame for the central steps. It may have taken its inspiration from the stepped monuments that were popular in Asia Minor in the pre-Hellenistic period, such as the Mausoleum of Halikarnassos, the Belevi Tomb, the Nereid Monument, or the Heroon of Limyra, but it should be noted that in all of these monuments the stepped base was visually separated from the peripteral structure above. In its successful merger of both staircase and gate-building, the propylon to the Demeter Sanctuary thus went beyond these fourth-century designs.

freestanding columns that supported entablature and pediment; on the west side, the lateral walls continued out to the third step of the staircase where they terminated in plain antae pillars. The antae did not sit directly on the staircase but were separated from the steps by orthostates that were molded on base and top and, when viewed from the front, created an illusion of pedestals for the anta pillars. The orthostates provided a solid structural base for the lateral walls and served as a mediator between the narrow gatehouse above and the widening staircase below. The orthostate moldings were not elaborate — a plinth, followed by a cavetto, ovolo and fillet on the bottom and fillet, ovolo and kymation on the top, but they were critical in the overall composition of the propylon facade in that they marked the juncture between gate building and staircase. The top molding also functioned as a shallow base for the antae.

The anta pillars appear slender by comparison with the bulky column shafts of the propylon's east facade, but their width did match the diameter of the eastern columns. Two elements contributed to this impression: first, the “pedestals” visually elongated the antae towards the level of the temenos and the slightly wider base they created at the bottom contributed to this effect; and second, the antae had very shallow capitals which made the pillar shafts longer and more graceful. Since they were undecorated they did not break the pillars' vertical momentum. Instead, the upper terminus of the anta pillars was marked by a plain series of moldings – fillet, cyma recta and shallow plinth –, almost too short to be considered a capital. This “denial” of a regular capital for the anta pillar on the west face created a stark contrast to the elaborate wreath capitals that stood as the focal elements on the east face and added to the broader sense of difference between the two facades. Perhaps to alleviate some of the tension between the two elevations and to create balance across the gatehouse as a whole, the entablature on the west was identical to that on the east, with a two-banded architrave below and an unadorned frieze above, separated by a plain molding. The dentil course and plain pediment are also repeated on the west.⁷³

⁷³According to [Bohtz \[1981\]](#) pl. 46.1, on the west elevation the dentil course appeared only on the horizontal geison and was not continued on the raking geison, but it is not discussed in the text. I can neither confirm nor challenge this reconstruction through personal observation. Both versions seem plausible: on the one hand, one would expect the same treatment of the entablature to be continued also on the raking geison; on the other hand, the absence of dentils on the raking geison fits with the overall serenity of the west facade. I have not noted any geison elements without articulated dentils, however.

The west facade was characterized first, then, by its slenderness and second, by its severity of design in which the dentil course — in itself a rather rigid design with its precise rectangular cuttings — and a few inconspicuous moldings were its only “fancy” attributes. This created a striking contrast with the squat proportions and playful busyness of the east elevation in which, despite the simplicity of the overall design, every architectural element was individually articulated and enhanced for added effect — the column base, capital, frieze. Whereas the propylon demanded attention on the east and in this way served as an effective marker of the transition from the secular realm to the sacred, on the west it seems to have been deliberately toned down, perhaps to subordinate it to the important monuments inside the temenos, altar and temple, and to allude to the elegance of the older monuments without attempting to overpower them. Although it was not uncommon in ancient Greek architecture to furnish a gatehouse with two different facades, to produce such a difference in attitude on the two fronts without compromising the overall coherence and homogeneity of the design is a remarkable and noteworthy accomplishment.⁷⁴

To sum up the analysis of the propylon, the design was not overly ornate but quite sophisticated. The propylon’s functional plan was exploited in the elevations to heighten the visual and ritual experience as one approached and passed through the gate, and its aesthetics became part of the ceremonial aspect of the sanctuary: as one entered the sacred space, the gatehouse anticipated and mediated what was to be experienced on the other side of the peribolos. In the articulation of the facades, the architect experimented with the formal vocabularies of different regions and traditions, so that from a Greek point of view the end result was neither foreign nor traditional but combined familiar forms with unusual, perhaps even an “exotic” feel.⁷⁵ The main achievement of Apollonis’ architect, then, was the

⁷⁴The Propylon of Ptolemy II in the Sanctuary of the Great Gods on Samothrace, for example, had an outer Ionic facade and an inner Corinthian one. Apart from the column capitals, however, much of the rest of the architectural detail was identical on both sides. For this monument, see Frazer [1992]. The two facades of the Propylaea on the Athenian Acropolis were not identical either, but they were equally not as disparate as the two elevations in the gatehouse discussed here.

⁷⁵The term “exotic” is here understood as an element “introduced from another country: not native to the place where found.” From Merriam-Webster’s Online Dictionary: <http://www.merriam-webster.com/dictionary/exotic> (04 March 2008). It is here used in reference to a Greek vantage point. Ultimately, the reception of the propylon will need to be revisited to include an Anatolian sensibility that may have differed from a Greek perspective. This problem is too complex to be dealt with adequately in

creation of a distinctive and memorable propylon design. It had remarkably few and simple details that were efficient and economic in production, allowing the use, even showcasing, of a fairly inexpensive and readily available local building material and it did not compromise the functionality of the plan.

The design of the propylon set the tone for the other monuments Apollonis added to the Demeter sanctuary: the South Stoa, West Stoa, and Upper North Stoa all repeated elements of the propylon's Ionic design — the faceted base, wreath capital and its entablature composition, which easily identified them as part of Apollonis' building project. The Lower North Stoa was conceived in a Doricizing order but also showed affinities to the gatehouse design. It seems that, in each structure, a common “theme” was varied slightly to maintain an individual character for that building and to avoid sterile repetition and boredom.

3.1.2 The Theatron

Although the rituals of the Thesmophoria are not well known, the archaeological evidence from Pergamon and elsewhere suggests that the observation of sacred rites played an important role in the festival.⁷⁶ Thus, although the actions performed on the cult terrace remain unknown, it is clear that the Theatron served as a viewing platform, a place for the observation of some kind of spectacle.⁷⁷ In her study of the development of the Pergamene Demeter Sanctuary throughout antiquity, C. Thomas claimed that “the theatron does not appear to be a central element of the building program, since it is not mentioned in either of the Hellenistic building inscriptions [i.e., neither on the temple nor on the propylon].”⁷⁸ As I have argued in Chapter 2, however, the absence of the term “Theatron” in the dedicatory inscription implies neither that this monument was built by Philetairos, nor that it was of secondary importance. Rather, the Theatron, like so many other structures the queen added to the sanctuary, was covered by her inscription's reference to “*oikoi*”. Clearly, the sheer size of the theater platform and its prominent placement in the sanctuary are indicative of its

this dissertation.

⁷⁶Cultic theaters are known from other Thesmophoric sites as well, e.g., Corinth. [Bookidis and Stroud \[1997\]](#).

⁷⁷[Bohtz \[1981\]](#) pls. 5, 22-23.

⁷⁸[Thomas \[1998\]](#) 286.

central role in both the precinct architecture and the cult ritual: nestled between east wall, Lower North Stoa, and Upper North Stoa, it was completely integrated into the architectural plan of the sanctuary. Situated above the open cult terrace on the precinct's east side, it communicated directly with the large open space in front of it, the space in which important ritual activities would have taken place.

The Theatron rose above a socle of 1.20 m in nine rows of seating steps that were accessed by three staircases, one at each end and a central one that divided the theater into two unequal parts, a western section, approximately 23.50 m wide, and an eastern area of ca. 15.00 m width. I have argued above that the division of the seating arena into two uneven halves reflects the initial extension of the sanctuary under Philetairos and that the shorter eastern part was added during the renovation of the temenos under Apollonis. Due to the slight reorientation of the sanctuary during the latter construction period it is likely, however, that the entire Theatron had to be rebuilt. Based on the argument set forth in Chapter 2, it is here assumed that the Theatron, like the Lower North Stoa, was (re)built by Apollonis.

Each of the seating rows was approximately 0.80 m deep⁷⁹ and 0.38 m tall. Each step consisted of two elements, a riser step (0.21 m tall) and a step tread (0.17 m tall) that overlapped the one below by about 0.08 m. Some of the steps seem to have been fastened against each other with clamps; dowels kept the risers in place.⁸⁰ In its entirety, the Theatron was 4.55 m tall, 7.31 m deep, and 43.90 m wide and seated between 800 and 850 persons. It assumed a commanding presence in Apollonis' precinct.⁸¹

Dörpfeld compared the Theatron to the Telesterion at Eleusis (Attica),⁸² a comparison that is both ill-founded and misleading. The Eleusinian precinct was sacred to Demeter and it was, in fact, the most important sanctuary of Demeter (and Kore) in the ancient

⁷⁹Becker [2003] 249, distinguishes a seating area of ca. 0.39 m depth and a foot area of 0.408 m.

⁸⁰Becker [2003] 249. It is not clear whether these clamps and dowels were part of the original construction or added as part of later repairs to the structure. Neither Dörpfeld [1912] nor Bohtz [1981] make mention of any metal fastening devices.

⁸¹Becker [2003] 250. Nielsen [2002] 340.

⁸²Dörpfeld [1912] 239. Bohtz and Albert [1970] 393, also refer to the seating area in the Pergamene sanctuary as a "Telesterion", a terminology that is both wrong and confusing. For the meaning of "telesterion", see Clinton [1992] 126-132. Also Kosmetatou [2002]. For an illustration, see Gruben [1986] fig. 185.

Greek world. One characteristic of its architecture was the inclusion of seating steps in the Telesterion (initiation hall), a roofed, square hall whose four sides were lined with seating steps.⁸³ The central space towards which the seating steps were directed was crowded with columns (6 rows of 7 columns) that supported the roof. It must have been a dark and confusing room that was lit with torches.⁸⁴ In contrast, the Theatron in the Sanctuary of Demeter at Pergamon was part of an open-air setting, well lit and well ventilated and fully exposed to the sky and the elements, a feature that must have impacted the cult ritual. Although it, too, was secluded and concealed to anyone outside the peribolos, it was also part of a larger architectural setting (the temenos) and did not constitute an introverted, autonomous unit, like the Telesterion in the Eleusinian precinct.⁸⁵

Although to suggest a direct and immediate relationship between the two precincts seems far fetched, it is important to note that the creation of a seating area for cult participants to observe some ritual performance seems to have played a decisive role in the architectural design of both settings and that other Demeter sanctuaries had designated viewing areas as well, characterized by the creation of permanent seating.⁸⁶ Cultic theatra are known, for example, from the large Sanctuary of Demeter at Corinth,⁸⁷ and the Sanctuary of Despoina at Lykosoura (Arkadia).⁸⁸ Other Demeter sanctuaries probably had similar installations, but

⁸³On the east, a colonnaded porch had been added. The present discussion is based on the Periclean plan. At least two earlier phases of the building are known but are not considered here. [Gruben \[1986\]](#) 225, figs. 180-185.

⁸⁴Apparently, there was some provision in the roof (*opaion*) to allow sunlight into the room as well, but it is not clear how large this opening was and how much illumination it would have provided. [Gruben \[1986\]](#) 222.

⁸⁵The cult of Demeter celebrated at Eleusis differed from that celebrated in the Greek city in many respects and thus its architectural setting cannot and should not be compared to poliadic Demeter sanctuaries. For the Eleusinian cult and related mystery cults, see the collection of articles in [Cosmopoulos \[2003\]](#). Against the interpretation of the Pergamene Demeter Sanctuary as a place for the celebration of Mysteries, see [Thomas \[1998\]](#). On the differences between Eleusinian Mysteries and the Thesmophoria, see now [Stehle \[2007\]](#).

⁸⁶As numerous examples in [Becker \[2003\]](#) and [Nielsen \[2002\]](#) attest, the notion of the cultic theater was not limited to the cult of Demeter alone but can be found in connection with other ritual settings and with other deities as well. One needs further to keep in mind that the provision of a permanent (stone) theater probably was the exception rather than the norm, and that many sanctuaries may have had temporary bleachers and other makeshift arrangements to accommodate a larger crowd during the performance of ritual productions. Seen in that light, the installation of a theater of the magnitude as the one in the Pergamene Demeter Sanctuary must have been truly spectacular.

⁸⁷[Bookidis and Stroud \[1997\]](#), with plan 5, and [Bookidis \[1993\]](#).

⁸⁸The cult of Despoina is similar to that of Demeter and Kore, with Despoina (“The Mistress”) being a half-sister to Kore (Persephone), born from a union between Demeter and Poseidon. [Rose \[1959\]](#). Despoina could also stand as an alternate name for either Demeter or Kore. [von Ranke-Graves \[1960\]](#) 52. The Sanctuary of Demeter at Priene also contained provisions for seating near the precinct’s bothros from early

they may have been in less permanent materials and did not survive. Ritual productions and performances seem to have played a central role in the cult of Demeter throughout the Mediterranean, at least in large cities, and the inclusion of a permanent theater may have been a desirable element in any sanctuary devoted to the goddess. The architectural form this theater took varied from setting to setting and was probably subject to variations in cult ceremonial, different topographical preconditions, and the financial means of individual communities. At Pergamon, as at Eleusis, elite patronage of the Demeter cult enabled the construction of the most elaborate seating arrangements known for this cult.⁸⁹

The composition of the seating steps in the Pergamene Demeter Sanctuary followed the conventions of the Greek theater or stadium, both in the precise articulation of its steps and in the use of an elevated podium from which the steps rose and which separated it from the cult stage.⁹⁰ This confirms that the seating steps were conceived as an actual theater, and it means that, for the cult of Demeter at Pergamon, dramatic performances, perhaps similar to Greek theatrical productions, were a fixed part of the ritual protocol.

3.1.3 The West Stoa Complex

The purpose of the sanctuary's stoas is less easily discernible and they probably served a number of different functions. In fact, the popularity of the stoa as a building type throughout antiquity was due to its flexibility in use and adaptability to different situations. By comparison to the South Stoa, Upper North Stoa and Lower North Stoa, the architecture of the West Stoa complex provides more information regarding its function and therefore will be discussed first. The West Stoa complex created the precinct's western terminus and sat between South Stoa and Lower North Stoa.⁹¹ The structure consisted of a stoa (known as

on, although the benches were on a much smaller scale than the theater in the Pergamene sanctuary. [Raeck \[2003\]](#) 400 (A. von Kienlin).

⁸⁹The cult of Demeter at Eleusis was a state cult and patronized by some of the wealthiest Athenian families. The cult ceremonial is reported to have been extremely lavish and this is also suggested by the precinct's architecture.

⁹⁰[Becker \[2003\]](#) 248. Although permanent seating arrangements in sanctuaries are not uncommon, a similar treatment of a cultic theater is only known from Knidos. For cultic theaters, see also [Nielsen \[2002\]](#) and [Hollinshead \[1992\]](#). A new study on the subject by her is forthcoming.

⁹¹The transition to the Lower North Stoa and the South Stoa is not articulated in [Bohtz's](#) reconstructions. [Bohtz \[1981\]](#) 32 and pl. 42.1.

the West Stoa) and four rooms behind that portico that identify the building as a banqueting structure.⁹²

3.1.3.1 The West Stoa. With only 21.55 m in length, the West Stoa was the shortest of the four porticos, but its depth of approximately 4.60 m was similar to those of the other stoas.⁹³ Bohtz reconstructs the facade with six columns of an approximate height of 4.00 m and an intercolumniation of 2.25 m.⁹⁴ The columns were designed as smooth shafts topped with wreath capitals. As in the propylon, architrave and frieze of the West Stoa were cut from one single block and articulated with the same sequence of moldings, but the blocks were not as tall (0.52 m in the West Stoa vs. 0.57 m in the propylon). The colonnade's architectural style substantiates beyond doubt that the West Stoa complex was also part of Apollonis' project.

Bohtz reconstructed the West Stoa with a shed roof sloping from the east wall of the rooms down towards the colonnade, and this seems to be correct. The wall between stoa and rooms was most likely raised to allow for the inclusion of windows above the level of the stoa's roof, which would have added both light and air to the large rooms. Bohtz reconstructed the roof of the West Stoa to be on the same level with and connected to both the South Stoa and the Lower North Stoa,⁹⁵ a proposal that would have made construction of all three buildings extremely and unnecessarily difficult. It makes more sense, from both a structural point of view and the perspective of building sequences, that each building was treated as a discrete unit, with its own independent construction from foundations to roof. It is thus more likely that, on its south side, where it met the South Stoa, the West Stoa terminated in a wall that was placed against the South Stoa but was not structurally connected to it.⁹⁶ Thus, the roofs of the two buildings did not require a complicated, mitered connection at the corner and they did not have to slope at the same angle. The two colonnades could also be of differing heights without posing major structural problems.⁹⁷

⁹²More on the monument's function below in the discussion of the back rooms.

⁹³South Stoa: 4.875 m and 5.475 m. Bohtz [1981] 32-33.

⁹⁴Bohtz [1981] 33.

⁹⁵Bohtz [1981] 33-34 and pls. 4-5 and 56.

⁹⁶Similar considerations also apply to the transition between West Stoa and Lower North Stoa, as will be discussed below.

⁹⁷As noted above, the entablature height of the West Stoa differed from that of the South Stoa.

3.1.3.2 The Rooms. The West Stoa led to four rooms, three of which were nearly square in plan and almost identical in size, measuring ca. 5.20-5.25 m on the side.⁹⁸ The fourth, and northernmost room was considerably smaller than the others (2.95 m by 3.75 m) and it seems likely that its reduced size was conditioned by the difficult terrain in this area. Each room was accessed through a door from the West Stoa, so that each room had direct access to the cult terrace. The rooms were not connected to each another. No traces of windows have been found in the preserved parts of the walls, but the rooms were probably lit and vented by windows high up on the stoa's back wall.⁹⁹

The back wall of the rooms — the west wall of the sanctuary — and the transverse walls are still fairly well preserved and they are characterized by sophisticated craftsmanship and skillful execution.¹⁰⁰ Bohtz notes that these walls were built of regularly cut blocks and executed in the clam-shell technique; they measured between 0.85 m and 0.95 m.¹⁰¹ The floors in the three southern rooms were most likely paved in some way, and Bohtz considers the possibility of a tiled floor.¹⁰²

Bohtz reconstructed the rooms of the west wing with a gabled roof, and this seems to be correct. Although a slanted roof would have been possible, a gabled roof seems to be the most efficient and most economical solution.

Neither Dörpfeld nor Bohtz discussed the function of the rooms within the context of the Demeter Sanctuary, but their square plan with each entrance off axis identifies the three larger rooms as dining rooms.¹⁰³ Each of these three large rooms would have held either

⁹⁸Bohtz [1981] 32.

⁹⁹See above. The absence of windows in the east wall is explained by the function of the rooms, which will be discussed below.

¹⁰⁰At the time of the initial excavation, the walls in this area of the sanctuary were still preserved up to a height of 6 m (!). Dörpfeld [1912] 242. Today, the northernmost wall is still preserved to that level although it is deformed from the mounting pressure of the slope behind.

¹⁰¹Bohtz [1981] 33. For a discussion of this building technique, see 123 on page 46.

¹⁰²This is corroborated by the fact that the present surface lies ca. 0.20 m below the level of the threshold. In verbal communication, Pergamon veteran D. Salzmann mentioned traces of a mosaic (most likely of Roman date) in one of the West rooms he had noted on one of the Dörpfeld photographs. I have not yet been able to confirm this, but if it is true, it could mean that the west rooms may have had elaborate floors already in Hellenistic times.

¹⁰³First identified as such in Börker [1983] 14 and n. 43. The problem of identifying ritual dining rooms has been revisited recently in Leybold [2008]. For the West rooms of the Demeter Sanctuary, see no. 30. As noted above, the consumption of a communal meal was an important element in the rituals of Demeter.

seven large (1.00 m by 2.00 m) or eleven small (0.70 m by 1.40 m) dining couches, so they would have seated between 21 and 99 diners.¹⁰⁴ Within the context of a sanctuary sacred to Demeter this observation must be expanded to identify the west rooms as both dining and sleeping space, since spending the night inside the temenos was also part of the ritual.

The small north room must have fulfilled a different function and one more difficult to identify: its floor consisted of bedrock that rose up along the walls to a level of 0.90 m above the threshold, so only a small area of the room was actually walkable. Dörpfeld suggested that this section of the building was left unfinished,¹⁰⁵ but it is more likely that the integration of the bedrock into the layout of this room was deliberate.¹⁰⁶ It is unclear how this room was used, since there are no records of any specific finds within. The possibilities range from a place of ritual importance to a storage and service room for the adjacent banqueting halls.¹⁰⁷

Within the sanctuary, the square banqueting rooms assumed an elite status and they were likely reserved for cult participants of status. This is suggested by their large size, careful execution, and secluded location at the far west end of the temenos. One might imagine that these spaces were created for the queen, her entourage and most important guests, and perhaps for the priestess(es) of Demeter and other cult officials. Tucked away behind the temple and further protected by the West Stoa, these rooms would have afforded a greater degree of privacy and intimacy than the stoas on the sanctuary's north and south where presumably the majority of the devotees dined and slept. Thus, the queen could partake in, and in fact preside over, the important rituals of Demeter, even spend the night inside the temenos, without surrendering her status as first lady of the city and the kingdom.

3.1.4 The South Stoa

The South Stoa was the largest and undoubtedly the most impressive building Apollonis added to the Demeter sanctuary. Its scale and bold engineering surpassed most of the

¹⁰⁴Leybold [2008]. The number of possible diners depends on the size of the couch and the number of persons seated on one. It was customary to seat two persons on a large couch, but two small women could have fit onto a small couch as well. Given that the Theatron seated up to 850 persons, only a small fraction of the total number of cult participants could have been accommodated in these dining rooms.

¹⁰⁵Dörpfeld [1912] 242.

¹⁰⁶Thus also Bohtz [1981] 33.

¹⁰⁷Because of its rustic interior the interpretation of the room as deeply connected to the cult ritual has generally been favored.

area's monuments and it must be considered the starting point for the large-scale Pergamene building projects of the second century BCE, like the gymnasia and theater at Pergamon and the Attalid stoas at Athens.¹⁰⁸

A large double portico, the South Stoa measured 91.70 m by 10.35 m (east) to 10.80 m (west).¹⁰⁹ The two porticos were separated by a central wall or colonnade and designed in such a way that one opened onto the temenos while the other overlooked the valley below, giving the sanctuary an outward face.¹¹⁰ In the temenos plan, the South Stoa was pushed to the outermost edge of the cult terrace so that the southern portico required support in the form of a basement over the entire length of the stoa. On the exterior, the basement wall was reinforced both structurally and visually by a heavy, buttressed retaining wall. This wall gave the Demeter Sanctuary an unusually strong presence in the Pergamene landscape (and it still does so today) and it extended the precinct towards the south, adding a considerable amount of useable space to the cult terrace. With the addition of the South Stoa, therefore, the Sanctuary of Demeter became an important node in the Pergamene cityscape.

The South Stoa thus consisted of two discrete spaces, a double portico on temenos level and an long hall in the basement beneath the outward portico. The special design of the South Stoa with its two-levelled arrangement suggested to the excavators that its form had been determined by cultic/ritual requirements,¹¹¹ but the precise use of the space remains yet to be determined.¹¹² Especially puzzling is the format of the room in the basement and its connection to the portico above and the sanctuary overall. The architecture suggests that both of the stoa's levels were used in the Hellenistic period and that their layout was critical

¹⁰⁸Comparable retaining walls from the fourth century: Labraunda, Herakleia, Halicarnassos, Amyzon. Pedersen [2004] 427-431. For the Pergamene structures, see Schazmann [1923]. Bohn [1896].

¹⁰⁹Bohtz [1981] 20-31, provides a good description of the building's archaeological remains. The present study builds upon his observations to further explain the ritual use of the structure and to analyze the monument's architectural detail in relation to the other buildings of the sanctuary. The focus will be on the stoa's key design features and its place in the overall design of the temenos. According to Dörpfeld [1912] 236, the length of the South Stoa was 91.50 m. Coulton [1976] 79, questions the existence of a double portico in the building's Hellenistic phase, but it seems now certain that the South Stoa was conceived from the beginning with two colonnaded facades.

¹¹⁰Dörpfeld [1912] pl. XVI, suggested a central colonnade but the proposal of a central wall in Bohtz [1981] 21, makes more sense from a structural point of view.

¹¹¹Bohtz [1981] 24-25.

¹¹²It is unlikely that the site will yield any more evidence regarding the basement's function, but comparative study with other Demeter sanctuaries may aid in the reconstruction of the space's use.

to the cult ritual.¹¹³ Examination of the two levels may shed some light on the building's use.

3.1.4.1 The Basement. Bohtz provides the basic dimensions for the basement, an uninterrupted oblong room, 89.86 m long and 4.05-4.30 m wide and ca. 3.45 m high.¹¹⁴ At the western termination, a door connected to a smaller room of 5.30 m by 3.80 m. Several doors in the south wall provided access to the basement hall, one near the west end, and three in the east. They were designed as large portals, with the west door measuring 1.45 m in width and the east gates 2.03 m each.¹¹⁵ The portal openings seem to have been designed to attract attention, with a taper towards the top and a carved door frame crowned by plain capitals, like the anta capitals of the propylon's west facade. The door leaves are not preserved but one can assume that they were similar to the wooden ones reconstructed inside Building Z, adjacent to the Demeter Sanctuary on the east.¹¹⁶ At the eastern end of the south wall was another gate, wider than the other two, which was not visually articulated and may have served a different purpose.¹¹⁷

The basement's south wall was also pierced by windows at regular intervals, rectangular openings of 0.45 m by 0.60 m, high up on the wall just below the wooden ceiling and spaced approximately 4.50 m apart.¹¹⁸ Like the doors, these windows were precisely articulated, with clear cut intrados and a soffit that sloped at an angle towards the interior. Judging from the size of the windows and their location near the ceiling, Bohtz suggested that they were inserted primarily for ventilation and not for illumination.¹¹⁹ While this may be true, they nevertheless would have allowed a considerable amount of daylight into an otherwise completely dark interior and would have added considerably to the usability of the room. Although the small scale of the openings did in all likelihood not affect the stability of the basement's south wall, the creation of windows was an extra effort, and one that would have

¹¹³Thus also Bohtz [1981] 25.

¹¹⁴Bohtz [1981] 22, gives length and width of the room. The height is not mentioned at all in his description but is approximated from his reconstruction section of the South Stoa in pl. 48.2. See also pl. 12.4.

¹¹⁵Bohtz [1981] pl. 13.1-2.

¹¹⁶For the reconstruction of this door, see Bachmann and Schwarting [2005].

¹¹⁷Bohtz [1981] 24, does not give the width of this door. He notes that it was "wider and lower" than the other two gates, but he does not provide the height of the opening for any of the portals.

¹¹⁸Bohtz [1981] pl. 13.4.

¹¹⁹Bohtz [1981] 24.

been avoided had they not been demanded by the space itself. Windows provided both air and light; the fact that they were high up in the wall protected the basement from unwanted intruders, both human and animal.

As the remains of the basement's north wall document, the basement walls were executed with care, although the sizes and shapes of the blocks varied considerably; as a result of this variation in ashlar size, the masonry lines were not straight horizontals but uneven lines that zigged up and down; still, there were no gaps in the masonry and the blocks fit snug against each other.¹²⁰ The exterior south wall, by comparison, was more regular and with fewer offsets. The only decorative elements preserved for the basement walls, apart from the windows, were molded brackets that once supported the ceiling beams. Carved from single blocks they consisted of a pillow in the shape of a Doric echinus followed by a plinth that resembled a Doric abacus.¹²¹ Their articulation and regular spacing across the walls of the hall,¹²² along with the regular placement of the windows in the south wall, added an aesthetic dimension to what was otherwise probably a very plain space: it invoked a rhythm and a sense of measurement in this oblong space and it hinted at the idea of a "blind" colonnade in which the columns had become consumed by the wall and only parts of the capitals remained articulated in the round.¹²³

The careful articulation of door frames, windows, and ceiling brackets suggests that the basement was part of the sanctuary's ritual space and an integral part of its design. Although plain and modest, the care taken in the execution of these details indicates that the basement gallery was a place of visual, and thus probably of ritual, importance.¹²⁴ The basement's plan seems to confirm this as well: a basement sectioned into multiple rooms would have provided more structural stability for the exterior wall and the porticos above; the fact that the architect decided against transverse walls must be taken as an indicator that an uninterrupted space in the basement was required.

¹²⁰This seems to be a characteristic of later Pergamene walls, see [Radt \[1999\]](#) 56, esp. fig. 10.

¹²¹They were ca. 0.52 m wide and extended from the wall to ca. 0.40 m. [Bohtz \[1981\]](#) 23.

¹²²Intervals of 3.12 to 3.20 m. [Bohtz \[1981\]](#) 23.

¹²³The brackets protruded about 0.40 m from the walls.

¹²⁴By comparison, the frames of the doors in the east wall that connected the precinct to the service areas east of the temenos were not in any way architecturally emphasized.

It is not known how the basement was connected to the porticos above, a problem related to the function of the underground chambers within the precinct.¹²⁵ Due to the absence of any foundations for stairs, Bohtz suggested that access between basement and temenos level of the South Stoa was only possible from the outside; as a result, he reconstructed two staircases on the building's east and west sides respectively, *outside* the sanctuary.¹²⁶ Wooden staircases are not considered in his reconstruction, although he makes mention of them in the text. Although it is possible that trap doors in the floor of the South Stoa and wooden staircases, running east to west, connected the basement to the porticos above, there exists no evidence for them on either the temenos or basement level.¹²⁷

Dörpfeld suggested that the space was used for the storage of cult-related objects.¹²⁸ He did not specify what kind of objects he had in mind, however, and to my knowledge the cult of Demeter did not demand large or many objects that would have required such an extensive space.¹²⁹ Thus, Dörpfeld's interpretation of the basement as a storage space is probably incorrect. Bohtz speculated that the stoa may have served ritual processions that began outside the basement and ended on the temenos level, with cult participants moving in and out of the sanctuary's sacred halls.¹³⁰ I find this interpretation troublesome from a ritual point of view, since it would have required cult attendants to leave and reenter the purified space of the sanctuary and it would have entailed the pollution of both the ritual and the sacred space. It would also have made at least part of the ritual visible to the outside world, which may have constituted a violation of protocol since most of the Thesmophoric rites were secret.¹³¹

¹²⁵This is particularly difficult to establish due to extensive alterations of the basement in Roman times.

¹²⁶Bohtz [1981] 24 and pl. 43.1.

¹²⁷Since staircases would have been wooden, they would not have preserved had they existed.

¹²⁸Dörpfeld [1912] 237. He compared it to the basement beneath the Telesterion in the Sanctuary of Demeter at Eleusis, but there the basement was small and dark and its function was probably different. For Eleusis, see Mylonas [1961].

¹²⁹Ritual objects needed in the cult of Demeter and which were also recovered at Pergamon included votive statuettes, mostly small terracotta figurines, (terracotta) lamps, perhaps some bells and rattles (the latter have not been recorded for Pergamon) to ward off snakes, and pots and tableware for the preparation and consumption of the ritual meal. Apart from the cooking utensils and votives, I would think few other items were kept within the sanctuary at all times; the votives were most likely deposited in the temple, rooms, or sacred pits (*bothroi*); pots and dishes could have been stored in the service rooms outside the temenos.

¹³⁰See also above.

¹³¹These seem to me to be critical observations: since the cult of Demeter was a mystery cult, the performance of part of the ritual outside the temenos seems contrary to its nature. It also goes against ancient Greek ritual practice in general, as one would have moved between profane and sacred space, which would

Although the space would have been able to accommodate processions, parades inside the sanctuary are not recorded for the Thesmophoria.¹³² At present, it is impossible to reconstruct the precise use of the South Stoa basement, but comparison with other Thesmophoric sites suggests that it may have been integrated into the performative element of the Thesmophoric rites and vital to the ritual protocol. Underground spaces, although usually much smaller in scale, figure prominently at other Thesmophoric sanctuaries: in Attica, women are said to have scooped up the rotten remains of piglets from pits as part of the ritual,¹³³ and Pausanias (9.8.1) notes that the women of Thebes drove pigs into *megara*, a term that is traditionally taken to mean pits. Yet, the standard Greek word for pit is *bothros* and pits in Thesmophoric precincts are normally known by this name.¹³⁴ Pausanias' use of the term *megara* thus may refer to rooms of some sort and the context of his discussion indicates that they must have been underground.¹³⁵ Whether pigs were part of the Thesmophoric ritual at Pergamon is not secured, and in any case it is hard to imagine piglets to be thrown into or driven through this space.¹³⁶ What seems more important to me is that both these references to the Thesmophoria emphasize a performative element that involves an underground space, and it would make sense for the basement in the Pergamene precinct to have been used in a way related to the cult ritual.¹³⁷

It is also possible that the South Stoa basement was used as a gathering space for the women on the second day — *nesteia* (“fast”) — of the Thesmophoria, a day characterized by fasting, mourning and cursing (*aischrologia*).¹³⁸ It is known from other places (e.g., Athens)

have required renewed purification prior to reentering the sanctuary. From this point of view, Bohtz's reconstruction seems highly unpractical and unlikely. On Greek mystery cults and their rituals, see [Cosmopoulos \[2003\]](#). For the cult equipment in the rituals of Demeter, see [Brumfield \[1981\]](#).

¹³²The only procession associated with the Thesmophoria is the one leading from the city to the sanctuary on the first day of the festival. [Deubner \[1966\]](#) 54.

¹³³Lucian, *Dial. Meret.* 2.1. [Lowe \[1998\]](#). [Stehle \[2007\]](#) 168-169. Apparently, this mix was distributed to the cult participants to add to the grain on sowing. It is unclear — and much disputed — at what point the piglets were thrown into the pits.

¹³⁴See [Stehle \[2007\]](#) 169 and 181 n. 24, for a discussion of this problem and further bibliography. [Kron \[1992\]](#) 616, identifies the *megara* as “underground caves.” See also [Sfameni-Gasparro \[1986\]](#) 270-274.

¹³⁵According to his account, the pigs released in the Theban sanctuary were recovered a year later at Dodona, suggesting an underground passage.

¹³⁶At Pergamon, *bothroi* were found near Altar A, east of Altar C and northwest of Altar D, and outside the temenos near the propylon, but none yielded animal remains. [Kasper \[1972\]](#) 78-79.

¹³⁷Regional variations in the ritual protocol of the Thesmophoria are both documented and discussed. [Kron \[1992\]](#). [Stehle \[2007\]](#). [Cole \[1994\]](#).

¹³⁸[Deubner \[1966\]](#) 53. [Brumfield \[1981\]](#) 81. [Stallsmith \[1999\]](#). [Sfameni-Gasparro \[1986\]](#) 247-251. The *ais-*

that on this day, the women retreated into huts or chambers and sat on the ground, sometimes on a bed of twigs and herbs,¹³⁹ presumably in imitation of Demeter’s mourning for the loss of her daughter Kore.¹⁴⁰ While the South Stoa basement would not have been a comfortable space, it would have been suitable to the purpose of the *nesteia*: the stretched hall could have accommodated a large crowd of women; the windows ensured proper ventilation and provided some light for orientation, but their placement high up on the walls maintained the sanctuary’s inward focus and the secrecy of the rites. The poorly lit underground space would have provided the perfect setting for the *aischrologia*: the darkish, enclosed space would have fit the notion of somberness associated with the *nesteia* and it would have put a metaphorical cover over the cursing and obscene gestures the women performed on this day, so that they could neither be heard outside nor fully see each other.¹⁴¹ The identification of the basement as the space used for the *nesteia* would also help explain the absence of staircases: if the underground gallery was used for ritual gatherings, interior staircases may have been impractical: they would have been difficult to climb and interrupted the spatial flow; on temenos level, they would have required openings in the South Stoa floor, affecting the usability of that space as well. The women used the large doors on the south to enter and exit the basement, and as they returned to the temenos, they may have performed acts of ritual cleansing on fountain and altar in the forecourt. At the very least, the integration of the cult ritual would provide a rationale for its — albeit modest — refinement in the treatment of the walls and articulation of architectural details, like windows, door frames, and ceiling beam consoles.

3.1.4.2 The Porticos on Temenos Level. On temenos level, the South Stoa consisted of two porticos, one facing the cult terrace, the other overlooking the Selinous valley and the lower city; the two porches were separated by a central wall, an element needed to

chrologia involved the shouting of profanities and obscene jesting. For the ritual purpose of the *aischrologia*, see Stehle [2007] 169-172.

¹³⁹Nixon [1995].

¹⁴⁰Ar. *Thesm.* Farnell [1907] 103-104. Stehle [2007] 168, 170-171.

¹⁴¹Stehle [2007] 170, stresses the communal aspect of this “mourning” ritual, and a large, uninterrupted hall would have reinforced this notion of *communitas*.

ensure the stability of the building and to help support the roof.¹⁴² It was not precisely at midpoint, so the south aisle was slightly wider than the north aisle (5.475 m vs. 4.875 m). Both porticos extended the entire length of the basement, well beyond the Philetairean altar and temple, and on ground level the building measured 91.70 m.¹⁴³ Bohtz reconstructed the intercolumniations with a length of 2.10-2.20 m,¹⁴⁴ resulting in 40 or more columns per aisle!¹⁴⁵ The stoa most likely carried a gabled roof and terracotta roof tiles. It is not known whether the roof structure was a truss or consisted of a simple beam frame, as reconstructed in the main publication.¹⁴⁶ This reconstruction seems questionable, however: the stoa was 10.3 m wide, which Bohtz spans with a single beam. Although this is technically possible, it is not economical and practical — since the central wall provided additional support, it would have been easy to span the hall with two smaller beams instead of one long one and this would have had the added benefit of reducing the stress of the roof load on that single beam. The dead load of the roof must have been considerable — with its tile cover and exposure to the strong south-west winds. Some kind of truss would have been more efficient in distributing the weight, even if it was only a very simple one. The different depths of the two porticos may have necessitated the use of a truss as well.

Stylistically, the South Stoa modelled itself after the design of the propylon: the columns were short and squat and sat directly on the stylobate without a base.¹⁴⁷ They were topped by wreath capitals like those used in the propylon and they supported an Ionic entablature

¹⁴²The archaeological remains of the South Stoa that form the basis of this analysis are discussed in [Bohtz \[1981\]](#) 21-22.

¹⁴³[Bohtz \[1981\]](#) 21.

¹⁴⁴[Bohtz \[1981\]](#) 26, gives the intercolumniation as 1.66 m, but this does not find correspondence in any of the plans and must be incorrect.

¹⁴⁵By comparison, the Temple of Olympian Zeus at Athens, by far the city's largest temple, measured only slightly more on the stylobate (107.8 m) and had 20 columns on the long side. Some Athenian Stoas, like the ones on the Pnyx may have exceeded the length of the South Stoa but little is known about them. Probably not very many buildings in the eastern Aegean compared to the size and complexity of the South Stoa in the Pergamene Demeter Sanctuary. Even the stoas in the Sanctuary of Zeus at Labraunda were small by comparison.

¹⁴⁶[Bohtz \[1981\]](#) pl. 48.3.

¹⁴⁷[Bohtz \[1981\]](#) 25, suggests a height of ca. 4.00 m for the columns of the South Stoa, but this height is only derived by inference with the West Stoa whose columns are better preserved. I consider it more likely, however, that the height of the two stoas differed to some extent to avoid interferences at the eaves. For the detailed argument, see [Piok Zanon \[2007\]](#). Also [Coulton \[1976\]](#) 66, who notes that “Pergamene stoas generally do tend to be more discrete units...” Nevertheless, a height around 4.00 m seems not unlikely.

with two-banded architrave and plain frieze like the one on the gatehouse. Unlike in the propylon, however, the frieze seems not to have been inscribed or decorated in any other way. Geison and sima matched those of the gatehouse as well.¹⁴⁸

In contrast with the column shafts of the propylon, which were smooth, some if not all of the columns of the South Stoa were faceted.¹⁴⁹ This faceting has been viewed by some scholars as a “shortcut” to the fluting traditional of Doric and Ionic columns, but it was more likely a deliberate variation on the traditional Greek orders instead.¹⁵⁰ Perhaps the faceted column shafts were only employed on the buildings’ south facade, facing the valley: the faceting would have added additional structure and texture to the colonnade and would have reinforced the repetition of the 40+ columns.¹⁵¹ The use of faceted columns on one side but not the other would have added yet another twist to the acanonical character of the stoa’s elevations; it emulated the design of the propylon with its two different facades, a slightly fancier one facing outward, and a more restrained but no less elegant elevation facing the cult terrace.¹⁵²

As in the basement, transverse walls or shops would have provided more stability for the South Stoa on temenos level, but here a continuous open space seems to have been desired as well. By maintaining an open floor plan, the area afforded the greatest flexibility for use: it could function as a space for casual gatherings in the shade; it could be used as a

¹⁴⁸Apart from some small details (see below), it is assumed that both inner and outer colonnade followed the same design. In Roman times, the andesite colonnades were replaced with marble ones and the order was changed to Corinthian, the standard order for Roman temples and porticos.

¹⁴⁹It is not entirely clear whether the faceted column drums found in the sanctuary belong to the South Stoa but most were recovered in this general area. Therefore, Bohtz reconstructed them on the South Stoa and this seems to be correct.

¹⁵⁰The faceting of the column drums in the Demeter Sanctuary is generally understood as an alternative to or variation of the fluting of the Doric column, since there are no fillets between the facets. It should be noted that the faceted column reappears in Pergamene architecture of the second century, such as in the lower (Doricizing) order of the gatehouse and stoas to the Athena Sanctuary and in the gymnasia, in both marble and andesite buildings. This reinforces the notion that the faceting of the column drum was not a cheap alternative but an aesthetic choice. The fact that it was easier to produce may, however, have been an added bonus.

¹⁵¹I reconstruct the South Stoa with two slightly different facades because smooth column drums were also found in the area of the South Stoa; the facade facing the valley would also have carried balustrades of some sort in the intercolumniations.

¹⁵²Since the South Stoa provided the visual backdrop for Philetairos’ altar and temple, a plain and unpretentious design would have been more appropriate, so not to compete with the decorativeness of the designs of the central and older (preexisting) cult furniture. Smooth column shafts in the interior are also attested for the West Stoa colonnade. See above.

large banqueting hall for the consumption of the ritual meal;¹⁵³ and it could even become a dormitory.¹⁵⁴ In fact, it was probably used for all of the above, since it provided shelter from the sun and protection from the winds and the occasional rain shower; its columns could be fitted with swags and flowers, or torches at night, to create a festive atmosphere. The central wall aided in the stability of the building, protected the temenos from fierce south winds, and ensured the privacy of the ritual. Roof and stylobate defined the South Stoa as a distinct and self-contained space while the transparency of the colonnade ensured a dialogue between the stoa and cult terrace.

In the history of Greek architecture, the South Stoa deserves a special place for its bold engineering and the possibilities it opened for the management of steep hillside settings. From an engineering point of view, the addition of the South Stoa at the “edge” of the cult terrace presented an enormous challenge, and it stands today as a model of Hellenistic engineering: although parts of its retaining wall shifted out of their original position and required repair in antiquity, the wall is still standing and announces the sacred precinct of Demeter to the visitor from afar. That in itself bears witness to the remarkable engineering efforts undertaken in the construction of this structure. The use of buttresses to reinforce the south wall was a clever way of assuring the stoa’s stability. Such an engineered structure is unusual in the sacred architecture of Ancient Greece: although buttressed walls were used prior to the Hellenistic period, they were normally a part of fortification systems; to find such a fortified structure within a sacred context must have been impressive and memorable and probably lent the Demeter sanctuary an air of impregnability and potency as a cult space within the city that made it competitive with other precincts, like that of Athena on the acropolis. From an ideological point of view, this wall must have added considerably to the precinct’s regal qualities and associations. Bohtz argues that the buttressed retaining wall was an afterthought — an addition made due to the instability of the South Stoa’s basement wall — and not part of Apollonis’ original plan. He does concede, however, that it must

¹⁵³Communal dining was an important element in the cult procedures of Demeter. See among others, [Bookidis \[1993\]](#).

¹⁵⁴During the Thesmophoria, the women of the city remained in the sanctuary for several days and also slept there. [Waldner \[2004\]](#) 27-28.

have been added soon after the completion of the stoa. From a construction standpoint, it seems more logical to assume that the retaining wall was built after completion of the outer wall of the South Stoa, and from a structural point of view it also makes sense for the two systems not to be connected. This does not imply, however, that they were not conceived together (i.e., by Apollonis' architect) or that they were not built as one project. I suggest that the buttressing was part of Apollonis' plan from the beginning, and that its purpose was both to provide stability to the South Stoa and the expanded cult terrace and to *suggest* stability — and steadfastness — of both cult and the Attalid family at Pergamon.

The stoa with substructure and multi-storied stoa became widely used at Pergamon and in cities under Pergamene influence. Further examples at Pergamon are the stoas in Athena Sanctuary, in the Upper and Lower Agora, the West Stoa by the Theater, and the Gymnasium. Outside of Pergamon, double-storied stoas are known from Athens, Assos, and Aigai. All of these stoas were built during the reign of Eumenes II or later;¹⁵⁵ in fact, the double-storied stoa is considered a hallmark of Pergamene architecture and one of the Attalids' main contributions to Hellenistic building. With the construction of the South Stoa, Apollonis' architect may thus have set a precedent in exploiting the topographical conditions of the site for maximum visual effect, an approach that was readily adopted and advanced by the city's second-century builders.

3.1.5 The Upper North Stoa

The Upper North Stoa is not well preserved and it is therefore difficult to determine its purpose within the sanctuary; as with the South Stoa and the West Stoa, the portico format was most likely adopted for its flexible plan. The Upper North Stoa bordered the sanctuary on its north side along the upper terminus of the Theatron and replicated the frame of the cult terrace on the south with a colonnade opening onto the temenos. Situated roughly 5.13 m above the level of the cult terrace, it was a single-aisled building with a portico approximately 5.60 m deep. The sanctuary's northern retaining wall also formed the stoa's back wall. With intercolumniations measuring approximately 2.60 m, those of the Upper

¹⁵⁵Bohtz [1981] 24. Coulton [1976] 91, n.6.

North Stoa were considerably wider than those of the West and South Stoas respectively.¹⁵⁶ The height of the Upper North Stoa cannot be reconstructed any more. Bohtz suggested a column height of 4.58 m, but that is purely conjectural and has no archaeological basis.¹⁵⁷ No fragments of a stone architrave or frieze were found, and both Dörpfeld and Bohtz proposed a wooden epistyle.¹⁵⁸ The wider intercolumniations suggest a wooden entablature as well. A somewhat lighter and more flexible roof structure may have been desired, given the location of the building — more than 5 m above the level of the cult terrace and beneath an ever shifting, steep slope. Bohtz reconstructs the Upper North Stoa with a ridged roof, but a pent roof is equally possible.

The stylobate and several column drums are still preserved on the east side, but it is not certain how far the stoa extended to the west. In his excavation report, Dörpfeld suggested that it reached across the entire width of the sanctuary and ended in line with the west wall of the Lower North Stoa.¹⁵⁹ Bohtz's 1960 preliminary excavation report questioned this and proposed that the Upper North Stoa extended only the length of the Theatron, noting first, that there is no evidence for a stylobate in the area above the Lower North Stoa and second, that the northern retaining wall projected differently in the western part of the sanctuary.¹⁶⁰ He suggested that the area above the Lower North Stoa may have held a different structure as a second, offset, level to the Lower North Stoa. In the final publication of the sanctuary, however, Bohtz returned to Dörpfeld's view that the stoa extended the entire length of the sanctuary, from the peribolos in the east to the western end of the Lower North Stoa, citing as a rationale the continuous line formed by the back walls of the Lower North Stoa and the Theatron and two blocks that were dressed to receive beams and that still sit firmly in the sanctuary's west wall.¹⁶¹ In fact, the continuation of the northern retaining wall only makes sense if the Upper North Stoa also extended the entire width of the precinct, and although

¹⁵⁶The intercolumniations of the South and West Stoas were 2.10-2.20 m and 2.25 m respectively. For the argument concerning different building heights of the South and West Stoa, see above.

¹⁵⁷Bohtz [1981] 39. Note that he uses faceted column drums "found at the south side of the [cult] terrace" as basis for his reconstruction.

¹⁵⁸Dörpfeld [1912] 239. Bohtz [1981] 39.

¹⁵⁹Dörpfeld [1912] 238. He notes: "The few preserved remains are just sufficient to confirm our earlier assumption that the stoa once extended to the precinct's western terminus." (my translation). Unfortunately, he did not describe what kind of evidence led him to this conclusion.

¹⁶⁰Bohtz and Albert [1970] 410.

¹⁶¹Bohtz [1981] 38-39 and pl. 43a.

I consider it less likely that the roof of the Lower North Stoa was constructed as a viewing platform as proposed by Dörpfeld,¹⁶² it is unlikely that the space between the Lower North Stoa and the sanctuary's back wall was not used at all. Finally, the two dressed blocks in the northwest corner wall seem to have been fitted to support the roof beams of a building and thus confirm the presence of a structure in the sanctuary's western section. In the absence of any evidence for a building of a different type, I concur that the Upper North Stoa stretched the full width of the temenos, although the idea of a structure related to the portico below should not be discounted altogether.

For the Upper North Stoa's architectural style, it is generally assumed that it replicated the style of the South and West Stoas, and it has been reconstructed with faceted columns and wreath capitals, but this may not be correct.¹⁶³ The remains of the order consist of two elements, column drums and wreath capitals.

At least two column drums can be assigned with certainty to the Upper North Stoa. They were both bottom drums as indicated by an approximately 0.12 m tall faceted ring at the bottom, identical to that on the propylon columns. Above the faceted ring, the column shafts were not cut down to their smooth finish, as in the propylon, but instead were dressed sketchily and their surface was left rough, projecting ca. 0.02 m from the surface of the faceted ring at the bottom.¹⁶⁴ This treatment of the column drums, when compared with that of columns from other buildings in the sanctuary, suggested to some that they were left unfinished,¹⁶⁵ but I think that the columns' "unfinished" look was an intentional aesthetic choice. It was not uncommon in antiquity to leave parts of buildings unfinished and this was often deliberate.¹⁶⁶ Thus, for example, the back (east) wall of the Propylaea on the Athenian Acropolis still shows "lifting" bosses, normally chiselled off in the last stage of construction, and it is now widely accepted that this was not the result of a sudden abandonment of work at the monument.¹⁶⁷ Similar instances of unfinished surfaces can be

¹⁶²Dörpfeld [1912] 240.

¹⁶³Thus, Dörpfeld [1912] 239. Bohtz [1981] 38-39.

¹⁶⁴See the column drums in Bohtz [1981] pl. 23.1-2.

¹⁶⁵Dörpfeld [1912] 239.

¹⁶⁶On this subject, see Kalpaxis [1986]. Lauter [1983].

¹⁶⁷Trevor Hodge [2005].

found throughout Greece,¹⁶⁸ and the feature is also found in Attalid terrain, in the Archaic Temple of Athena at Assos and Philetairos' Temple of Meter at Mamurt Kale. In both of these temples, the bosses were left visible in the krepidoma, and in each case this seems to have been intentional, for other details were fully finished.¹⁶⁹

Thus, it seems possible that the unfinished look of the Upper North Stoa was planned. As noted, the West Stoa and South Stoa were not identical in their designs, and it would not be surprising to find another variation of the same architectural theme in the design of the north portico. The “unfinished” surface of the columns of the Upper North Stoa lent the building a rustic and antiquated feel. Although I am not sure about the rationale for this look, at the very least it added another dimension of aesthetics to the sanctuary, giving the Upper North Stoa its own “flavor” and making it an interesting structure in its own right that was competitive with the other structures in the precinct, like the engineered South Stoa with its double facade and basement halls, or the West Stoa Complex with its elaborate dining rooms.¹⁷⁰

The stoa's column capitals added to the building's distinction: the columns carried wreath capitals that were similar but not entirely identical to the wreath capitals used in other parts of the sanctuary. As noted in the discussion of the Propylon, two different types of “Demeter capitals” were used for Apollonis' project. The capitals of type A were employed in the Propylon, the South Stoa, and the West Stoa, whereas the columns of the Upper North Stoa were crowned by capitals of type B. Type B capitals are slightly taller and fleshier in the articulation of the leaves, especially those in front. Their leaves are more slender than those of type A and have larger gaps between them so that the leaves of the second row

¹⁶⁸Among the most prominent structures to exhibit intentionally unfinished surfaces are the Temple of Zeus at Olympia, the Temple of Hera II at Paestum, the Olympieion at Agrigento, the Temple of Apollo on Delos, the Telesterion at Eleusis, and on the Athenian Acropolis the Propylaea and the Erechtheion. For a discussion of these and other monuments with unfinished details, see [Kalpaxis \[1986\]](#).

¹⁶⁹Bosses appear frequently in Hellenistic and Roman Second Style wall paintings, like at Boscoreale. “Fresco wall painting in a cubiculum (bedroom) from the Villa of P. Fannius Synistor at Boscoreale [Roman] (03.14.13a-g)”. In *Heilbrunn Timeline of Art History*. New York: The Metropolitan Museum of Art, 2000-. http://www.metmuseum.org/toah/ho/04/eust/ho_03.14.13a-g.htm (10 April 2007). They are purely aesthetic additions and suggest that similar features must have been commonly found on real buildings.

¹⁷⁰Deliberate archaisms in Pergamene art and architecture are well known and are usually explained as an attempt to link Pergamon to a mythical past. [Scheer \[1993\]](#). [Scheer \[2003\]](#). [Kosmetatou \[2003\]](#). [Kuttner \[2005\]](#). This seems to be an unlikely rationale for the rustic look of the Upper North Stoa; if such a link had been desired, it probably would have been inscribed into all buildings.

come through more clearly. Whereas the leaves of type A capitals were designed with five projecting panicles, of which the two outermost delineate the leaf's form, the leaves in type B capitals have only three panicles, one at the center and the other two outlining the leaf. The area between the central and outer panicle is raised and thin gaps separate it from the panicles on either side. This detail contributes to a fuller appearance of the leaves of type B. It is unlikely that the capitals of type B represent an unfinished stage of type A: differences in the capital height and the width of the leaves could not have been altered and the capitals of type B are on par in their refinement with those of type A. As with the column shafts, the architect produced an air of individuality in the Upper North Stoa, and squelched any potential for monotony that the sanctuary's footprint may have had. Thus, the vocabulary of the Upper North Stoa conformed to the aesthetic scheme developed for the precinct as a whole, but it maintained its own character through subtle alteration of select details.

The architectural remains are of limited use in explaining the function of the Upper North Stoa. Bohtz notes that the structure considerably increased the usable space of the sanctuary but does not suggest a purpose. It may perhaps be important to note several transverse walls along the back of the stoa. They are not discussed by the excavators and it is unclear whether they were part of the Hellenistic structure or whether they constitute later, Roman or Byzantine, additions. If they were part of the Hellenistic phase, they would suggest a partitioning of the long hall into smaller, more private cubicles that could have been used for sleeping and dining. They would not have compromised the continuous flow of the portico since the walls did not extend all the way to the front of the building but stopped at about midpoint. Thus, they also did not need to line up with the intercolumniations of the colonnade on the building's front.¹⁷¹ In spite of meagre evidence, the North Stoa, like the South Stoa, seems to have been flexible in its plan and designed to serve a number of different purposes. Unlike the South Stoa which was connected to the cult terrace over its entire length, however, access to the Upper North Stoa was limited to the east staircase located between the Theatron and the eastern peribolos wall. Because of its proximity to

¹⁷¹If the transverse walls were Roman additions, which is less likely judging from their construction technique, they may have been built as stabilizers to an already buckling retaining wall; they may have served a structural purpose in a Hellenistic context as well.

and accessibility from the service rooms outside the sanctuary, an identification of the Upper North Stoa as a banqueting facility seems most logical.

3.1.6 The Lower North Stoa Complex

As I have argued in Chapter 2, the Lower North Stoa was part of Apollonis' remodelling of the sanctuary and I therefore will discuss it here as part of her project. The Lower North Stoa consisted of a portico, approximately 41.50 m long and 3.40-3.50 m deep, with seven rooms in the back that were between 2.95 m and 3.30 m deep and between ca. 5.00 m and 5.80 m wide.¹⁷² It was located north of the temple between the West Stoa and the Theatron, and below the Upper North Stoa. A door or passageway connected the Lower North Stoa to the West Stoa,¹⁷³ while a wall separated it from the Theatron on the east.

In some of the rooms, natural bedrock extended from the back wall into the area of the room (like in the small, northernmost room behind the West Stoa), though they all seem to have had laid floors. The purpose of the stoa and rooms is less clear than in the West Stoa. The rooms are much smaller and rectangular in layout, and the doors are off center. Although they could have been used as smaller dining rooms, Leypold does not include them in her list of banqueting halls.¹⁷⁴ On the other hand, it is unlikely that they were used as storage rooms — rooms of secondary nature were located outside the temenos and the stoa's refined design suggests its importance within the sanctuary. The proximity to the temple and the small size of the rooms may indicate that they were used for the deposition of votive offerings. Apparently, the rooms yielded large numbers of votives, and considering the large number of cult attendees, it is likely that the temple did not offer enough space for the women to deposit their offerings inside the naos.¹⁷⁵

¹⁷²Dörpfeld [1912] 240. Bohtz [1981] 34-35 and pls. 21, 50. There were seven rooms altogether.

¹⁷³Dörpfeld [1912]. It seems from the way the two stoas connect to one another that they were not built at the same time, but it is impossible to determine which building was constructed first. Since this area was subject to heavy rebuilding in Roman times, it is moreover difficult to know how the original connection between the two porticos looked. In any case, this does not exclude the possibility that they were both part of Apollonis' project.

¹⁷⁴Leypold [2008].

¹⁷⁵On the finds in the North Stoa, Nilsson [1960].

The stoa's stylobate is still preserved and it has cuttings for 13 columns which were spaced approximately 2.10 m apart.¹⁷⁶ Shafts for several columns are preserved but their lengths differ, making reconstruction of the exact column height difficult. My measurements suggest a height between 3.15 m and 3.19 m.¹⁷⁷ The walls were executed in the clam-shell technique, but they were neither as strong nor as carefully executed as the walls of the West Stoa, which may have to do with the lower height of the Lower North Stoa. No metal was used in the wall construction and the space between the shells was filled with rubble.¹⁷⁸

The design of the Lower North Stoa did not follow the Ionicizing scheme that Apollonis adopted for her other stoas and for the propylon's east facade.¹⁷⁹ It took its inspiration primarily from the Doric order, but Ionic influences can be noted as well: the column shafts are smooth and show a slight entasis at the center. They are slender, however, and widely spaced.¹⁸⁰ The shafts support capitals of a Doricizing design: only about 0.155 m tall, they consist of a plain neck and an equally plain, very low echinus.¹⁸¹ The echinus has an almost imperceptible curve; at the bottom, a raised band is "wrapped" around the echinus, as if to tie it to its neck, and that was clearly meant as a variation to the annulets typical of the Doric capital. At the top, a small reentrant groove creates a shadow line between echinus and abacus that sets the two elements apart.

On the stoa's wall ends, anta capitals must have replaced the Doricizing column capitals, but these have not been recovered.¹⁸² Preserved, however, are fragments of an epikranitis block that may well have been part of the stoa architecture. It is not included in Bohtz's reconstruction of the stoa, but it is not part of the temple architecture or the design of the other stoas.¹⁸³ The plain profile consisted of a sequence of cyma recta and cyma reversa

¹⁷⁶It seems that, like in the other stoas, the stylobate consisted of a single front row of blocks only whose function it was to create a smooth, even surface and solid support for the front colonnade.

¹⁷⁷My measurements could not confirm Bohtz's reconstruction of the column height with 3.267 m. [Bohtz \[1981\]](#) 35 and pl. 50.

¹⁷⁸At least some columns seem to have had metal dowels.

¹⁷⁹See the respective discussions above. Analysis of the Upper North Stoa follows below.

¹⁸⁰The lower column diameter is 0.505 m; with a height of 3.19 m the aspect ratio of lower column diameter to height is approximately 1:6.3. The intercolumniation is 2.10 m which is considerable for the size of the columns.

¹⁸¹The echinus only measures ca. 0.055 m.

¹⁸²Anta capitals are not mentioned in [Bohtz \[1981\]](#).

¹⁸³The epikranitis profile of the temple is discussed in Chapter 2.

moldings that were separated by fillets; it fits visually therefore with the restrained character of the Lower North Stoa. The most compelling argument for its attribution to the Lower North Stoa is, however, its dimension: the block is 0.225 m tall and measures between 0.58 m (top) and 0.48 m (bottom) across the front, which would fit the stoa walls of ca. 0.45-0.49 m. The preserved block is molded on three sides, indicating that it crowned a wall end and this further supports its attribution to the Lower North Stoa.

Columns and antae supported an entablature that was equally liberal in its interpretation of the Doric canon. Architrave and frieze were carved from a single block, 0.413 m tall and 0.23 m deep. A backer block of approximately the same dimensions was likely installed to keep it in place.¹⁸⁴ The slightly taller architrave was unadorned and most likely did not carry a dedicatory inscription.¹⁸⁵ The frieze was also plain and did not display the triglyph-and-metope décor typical of Doric monuments. Instead, regulae were attached at regular intervals (three per intercolumniation) to the fillet that separated architrave and frieze, each with a single row of six guttae. This reduced reference to the Doric frieze is unique in the architecture of both Pergamon and the Hellenistic world.¹⁸⁶

A Doric geison completed the stoa's entablature. The mutule on the geison's soffit were left plain and did not have the traditional guttae, but all other moldings were carefully executed, so the plain mutule must be viewed once again as a choice rather than as laziness or shortcuts. It is doubtful that the stoa's entablature included a traditional sima as suggested in Bohtz's reconstruction. No such fragments have been noted by the excavators and, considering the location of the Lower North Stoa in relation to the Upper North Stoa, it seems unlikely that the roof pitch would have allowed for a tiled roof, precluding the need for terracotta revetments at the eaves. In fact, a flat or slightly slanted roof is most likely and Dörpfeld's suggestion of a terraced flat roof sounds convincing.¹⁸⁷

¹⁸⁴As reconstructed in [Bohtz \[1981\]](#) pl. 50. Cuttings on the surface of the blocks confirm the use of backers.

¹⁸⁵Enough blocks are preserved to confirm this.

¹⁸⁶Although no evidence for this has come forth, it is nevertheless possible that in the frieze, triglyphs would have been added in paint or plaster. The uneven cutting of the column drums would speak in favor of a plaster-coating of the entire structure. This was common practice in Hellenistic building and is recorded, for instance, for the Temple of Athena Lindia on Rhodes. [Dyggve \[1960\]](#).

¹⁸⁷[Dörpfeld \[1912\]](#) 240. He also dismissed the possibility of a slanted roof. Bohtz's reconstruction of the stoa with a tiled roof does not work, because a tiled roof requires a slope of at least 20 degrees (30 degrees

Why did Apollonis' architect choose a different order for the Lower North Stoa, electing not to apply the same decorative scheme he had developed for the other buildings added to the precinct? In fact, the difference in style is so remarkable that scholars have found it impossible to assign this monument to Apollonis' project.¹⁸⁸ A closer look at the monument reveals, however, that the design of the Lower North Stoa was closely related to the other monuments added to the sanctuary by Apollonis. First, the Doricizing order chosen for the stoa was as free in its adaptation of the Doric canon as the other stoas and propylon were in their interpretation of the Ionic: the column shafts were smooth and slender, not fluted and bulky; the capitals were small, cone-shaped, and without the typical anulets; the architrave was low and the frieze left undivided; only the *regulae* (plus *guttae*) conveyed a Doric rhythm in the entablature. B. Kidd describes the order of the Lower North Stoa as "a somewhat abbreviated version of the Doric."¹⁸⁹ Although this is not an incorrect characterization of the stoa's architectural style — after all, many of the details characteristic for this order have been omitted or reduced —, I would prefer to call it an Ionicized version of the Doric: while the overall impression is that of a Doric building, its details are infused with an Ionic spirit so that it is actually a hybrid structure. Ionic influence can be seen in the slender column shafts, wide intercolumniations,¹⁹⁰ and in the low architrave and unadorned frieze;¹⁹¹ the elongated columns and squat capitals recall the decorative detail of the propylon's west facade.

The Lower North Stoa thus engages in a discourse with the other monuments of Apollonis, and its visual language, though different in order, was developed according to the same principles. Its design, although based on a different canon, is part of the same attitude towards style and the way the order was interpreted in this building resembles the loose adherence to the Ionic order seen in the facades of the propylon and the other stoas of Apollonis' project.

are ideal) but the roof of the Lower North Stoa could only reach a maximum slope of 11 degrees. Thus, since a tiled roof was impossible, a flat roof seems the most likely solution. As noted above, I am less convinced that the roof of the Lower North Stoa was used as a viewing platform since this would have added to the complexity of the roof structure. With the Upper North Stoa in the back, such a platform was also not needed.

¹⁸⁸Thus, Dörpfeld [1912] 243-24. Bohtz [1981] 34. See also the discussion in Chapter 2.

¹⁸⁹Kidd [2003] 37.

¹⁹⁰A similar approach to the Doric column can already be noted in the Athena Temple on the Pergamene acropolis that is dated to the late fourth century BCE.

¹⁹¹The friezes in the stoas to the south, west, and north were unadorned as well.

The different order in the Lower North Stoa was probably necessitated by its location within the precinct, immediately beneath the Upper North Stoa.¹⁹² The columns of the Lower North Stoa had to be considerably shorter than those of the other stoas and, as a result, the wreath capitals used in the other stoas would have looked out of proportion on these columns. It must have seemed easier to devise a new order for the Lower North Stoa, one developed in accordance with its predetermined height and proportions, than to adapt an already complex mix of details (as seen in the east facade of the Propylon, for example) to such an unpromising situation. Moreover, the design of the Lower North Stoa seems to have been related to the facade of the Upper North Stoa. Since the Upper North Stoa replicated the design of the South Stoa along the temenos' north wall, a different design for the Lower North Stoa may have seemed more appropriate and with double-storied arrangements, it was already customary to have the Doric below and the Ionic above.¹⁹³ Of course, in the Sanctuary of Demeter, the Ionicizing portico above, with its bulky columns and tall entablature, was heavier than the slender Doricizing colonnade below, disregarding once more the conventional arrangement of the orders. In any case, the stoa's architectural style seems to point to a date for its construction during the time of Apollonis, as I have suggested in the previous chapter.¹⁹⁴

3.1.7 The Temenos of Apollonis

Up to this point, the structures Apollonis added to the Demeter Sanctuary have been discussed as individual monuments with little relation to each other. This fragmented analysis has been important in understanding their individual layout, design, and function and it is essential for reconstructing the monuments within the precinct, but it inhibits understanding of the sanctuary as a unit. It must not be overlooked, however, that in remodelling the Sanctuary of Demeter, Apollonis' architect succeeded in creating an intimate, secluded, and introverted space, as required by the cult, without making it intimidating or oppressive.¹⁹⁵

¹⁹²The stylobate of the Upper North Stoa was ca. 5 m above the level of the cult terrace.

¹⁹³Since the end of the fourth century BCE, it was customary to have two different orders for double-storied stoas, usually a Doric colonnade below and an Ionic above. Coulton [1976] 106-107.

¹⁹⁴For the argument concerning the construction date of the Lower North Stoa, see Chapter 2.

¹⁹⁵Bohtz [1981] pl. 5.

Although enclosed it was airy and light with little spatial segregation; only select areas, like the South Stoa basement, would have been dark and separated from the cult terrace. Despite the sanctuary's large scale — the precinct measured approximately 110 m by 50 m and covered over 26 m in height — its buildings were conceived on a human scale and proportioned in accordance with the central elements on the cult terrace, Philetairos' finely detailed altar and temple.¹⁹⁶

Apollonis' choice of building type in her remodelling of the sanctuary was the stoa. Her architect demonstrated great skill and creativity in his adaptation of this building type to the different requirements of the cult and the site, making it a model for the stoa's use and flexibility: one finds stoas in both single-aisled and double-aisled format, with rooms in the back or underneath, or stacked on top of each other, as isolated halls or part of a building complex.¹⁹⁷ Although the reliance upon a single building type in the definition of the new precinct ensured the creation of an homogenous cult space, it also carried with it the danger of producing a monotonous and boring environment. In order to prevent any sense of dullness, Apollonis' architect introduced variations in the decorative vocabulary — different types of wreath capitals, different textures for the column shafts, varying heights and materials of entablatures — without, however, undercutting the overarching theme that identified all of these stoas as Apollonis' contributions to the sanctuary.

By pushing the new structures to the perimeter and using them as a backdrop for the pre-existing monuments, Apollonis exhibited great sensitivity for the history of both the precinct and the family into which she had married. Rather than foregrounding herself and her own additions to the sanctuary, she took this as an opportunity to build upon the monuments of Attalos' ancestors, emphasizing tradition and continuity. The same approach guided the formulation of a building style for her new additions. While Apollonis' structures promoted their own distinct language, it was one developed in reference to the style of Philetairos' altar and temple and one that respected the hierarchies within the precinct. Thus, in her monuments, Apollonis continued the theme of an Ionic architecture that inspired the de-

¹⁹⁶The consciousness of this undertaking becomes especially clear when compared, for instance, with the roughly contemporary Temple of Apollo at Didyma, a masterwork in exceeding any sense of human scale.

¹⁹⁷Later architects, both at Pergamon and elsewhere, must have taken inspiration from the Demeter Sanctuary for the range of possibilities the stoa offered to different urban situations.

signs of altar and temple — in the profiles and placement of moldings, in the incorporation of inscriptions on the frieze, in the use of dentils to accentuate the geison. Even the “Doric” order of the Lower North Stoa was infused with Ionic detail. She continued the trend of mixing traditional with unusual, and perhaps locally inspired, Asian, forms that characterized Philetairos’ monuments, but the decorative vocabulary of her buildings also included details, like the wreath capitals, that may have been new in her sanctuary — and at Pergamon¹⁹⁸ — and that set her monuments apart from the older structures. Like the earlier monuments, all of Apollonis’ additions were constructed of locally quarried, pink andesite. Although this may have been an economic choice, I am convinced that it was first and foremost a design decision, motivated by the desire to create an homogenous space.¹⁹⁹ In fact, it seems, that throughout the precinct, Apollonis deliberately chose less intricate designs in order not to undermine the hierarchies of the ritual space. Unlike Philetairos’ temple, her monuments did not include details in marble or other imported materials. Some individual elements, like the capitals, could have been added in marble, which would have allowed a fancier and more intricate design for them. The fact, however, that this was not done further attests to the queen’s intention to understate the grandness of her renovation by comparison with the Philetairean monuments. By using andesite as the only building material for her structures, the temple’s frieze stood out as the only marble element in the Hellenistic precinct.

In summation, Apollonis’ project is important for its creation of a ritual space that was both private and grand through skillful arrangement of the cult furniture and emphasis on the precinct’s history. In her monuments, only subtly placed details identify them as the queen’s contributions to the sanctuary, an approach that stands in stark contrast to her bold claim of ownership in the dedicatory inscription; an approach, however, that is sensitive to the idea of creating a unified ritual space.

¹⁹⁸If, as I tentatively suggested in Chapter 2, Philetairos’ temple also used wreath capitals, Apollonis’ use of capitals of similar type would have been another reference to the building program of her ancestor.

¹⁹⁹Kuttner [2005] 168-171, also argues for a deliberate choice of andesite as building material.

3.1.8 The Forecourt and Service Rooms

Within Apollonis' sanctuary, the forecourt assumed an identity separate from that of the temenos, both in terms of its function and its architectural form.²⁰⁰ The basic function of the forecourt is readily explained: for practical reasons and in order to preserve the purity of the sacred space, certain aspects of the Thesmophoria had to be carried out outside the peribolos. These included purification rituals and the preparation of the cult ceremonial, like the ritual meal or the slaughtering of sacrificial animals.²⁰¹ The forecourt of the Pergamene sanctuary included a number of installations for cult function in a very compact space.²⁰² Since it constituted the area of the sanctuary that was open to the public, it was also the perfect space for Apollonis to introduce herself as a member of the Attalid family.

Whereas the temenos was laid out as a severely ordered space with all structures following a precise and regular plan, the forecourt assumed an irregular shape, most likely determined by the terrain, in which the various structures were seemingly scattered at random.²⁰³ The floor of the forecourt was uneven, so its installations were divided into three discrete areas, each at a separate level and organized around the different functions needed outside the sacred space: in the south, at the lowest level, where the court was wider, was a bathing area with a fountain and small altar. From the few remains, it seems that the fountain consisted of a simple rectangular basin; whether it was decorated in any way cannot be reconstructed.²⁰⁴ A flight of wide steps connected this level with the second area of the forecourt that holds the remains of a cistern,²⁰⁵ but its focal point was the adjacent propylon.

²⁰⁰See [Bohtz \[1981\]](#) pl. 43.1.

²⁰¹On purification, see [Cole \[1994\]](#). On animal sacrifices in the context of the Thesmophoria, see [Detienne \[1989\]](#).

²⁰²Most Demeter Sanctuaries did not have a clearly defined forecourt, making the complex one at Pergamon even more noteworthy.

²⁰³Two pathways led into this forecourt, one from the lower city and another one from the acropolis, assuring that everyone on his way to or from the citadel had to pass by the Demeter Sanctuary. The intersection of these paths in the forecourt may have influenced the arrangement of the cult installations to some extent.

²⁰⁴[Bohtz \[1981\]](#) 1, calls it a *nymphaion*, a term that suggests an elaborately designed structure, which it may not have been in its Hellenistic form. In Roman times, the fountain was converted into a more lavish structure with an elongated trapezoidal basin and a semicircular back wall that was pierced by three openings through which the water cascaded into the basin below. See [Bohtz \[1981\]](#) 15-16, and the reconstruction on pl. 44. It seems that, at least in the sanctuary's Roman period, the level of the *nymphaion* was paved.

²⁰⁵[Bohtz \[1981\]](#) 15 and no. 41 in pl. 43.1. At Pergamon, springs did not provide water all year round and the Attalids built an elaborate system of cisterns to maintain a steady water supply for the city. For the use of cisterns for water supply at Pergamon, see also [Garbrecht, e.a. \[2001\]](#).

Ample space around the propylon provided the ideal backdrop — or breathing space — to showcase its unusual design and to highlight Apollonis' dedicatory inscription. North of the propylon, a plain ash altar and offering pit (*bothros*) may have been used for purification rituals before entering the sacred space.²⁰⁶ The third level was higher than the second and apparently not accessible from the forecourt. It consisted of three interconnected rooms two of which also opened onto the temenos. From the topmost room, a staircase ran up the hill to the road leading to the acropolis. To judge from the small size of these rooms and their location outside the temenos, they probably functioned as service rooms — perhaps for the preparation of meals to be distributed to the cult participants during the ceremonies — or as storage rooms for ritual objects and for the preparation of the cult ritual.²⁰⁷

Thus, the forecourt was first, a practical space, providing an area for the prearrangement of the ceremonial, such as the preparation of food, storage of equipment, and provision of water, and second, a ritual space of the second order, one intimately connected to the activities taking place inside the temenos, that hosted rites, like purification and offerings, that could not be performed inside the temenos. In addition to these functional aspects, the forecourt was an important element in the experience of the sanctuary: its narrow space, confined on three sides by massive walls, made it impossible to anticipate the enormous expanse of the sanctuary on the other side of the peribolos and thus contributed decisively to the element of surprise one experienced when passing through the sacred gate. Only the architecture of the gatehouse itself, and perhaps the enormous retaining walls, hinted at the precinct's scale. The cramped forecourt thus created an effective counter-space to the open court of the temenos, and its layout contributed to a heightening of the ritual experience: its funnel-shaped form and emphasis on the gatehouse as the focal point of this space and only access to the temenos reinforced a sense of secrecy and impending revelation that was a key component of the Thesmophoria.²⁰⁸

²⁰⁶Bohtz [1981] 16-17 and no. 35 in pl. 43.1.

²⁰⁷Bohtz [1981] did not comment on the use of these rooms and he does not describe any objects found in them.

²⁰⁸Although the shape of the forecourt may partially have been preconditioned by the difficult terrain, the precinct's architect nevertheless understood how to use this space as a means to reinforce the hierarchies dictated by both the cult and Pergamene court structure. In this sense, the forecourt is also a social space in Lefebvre's sense. I disagree with the observation in Becker [2003] 97, that the shape of the forecourt was entirely conditioned by the site and added no dimension to the cult experience.

3.2 THE DATE OF APOLLONIS' PROJECT

The final section of this chapter is devoted to the question of the date of Apollonis' renovation of the Demeter Sanctuary, an issue of some controversy in the scholarship on the site. Three dates figure central in this debate and they are all secured by the historical record: Apollonis married Attalos I in ca. 223 BCE; Attalos I died in 197 BCE; Apollonis survived her husband by almost 40 years and died in 159 BCE.²⁰⁹

Initially, Dörpfeld suggested a date late in the reign of Attalos I for Apollonis' expansion of the Demeter terrace, primarily on the basis of the use of andesite as building material²¹⁰ and her reliance upon "local" elements in the architectural detail.²¹¹ Subsequently, however, he dismissed this early date in favor of a date after the death of Attalos I, arguing that mason's marks found on some of Apollonis' retaining walls also appear on monuments that are securely attributed to Eumenes II.²¹² In the 1940s, A. Schober also argued for a date in the reign of Eumenes II based on the sanctuary's impressive scale and the understanding that all major Pergamene monuments, apart from the temples of Athena and Demeter, which are clearly older, are to be attributed to this second-century king.²¹³ After all, according to Strabo it was Eumenes II who built Pergamon into a splendid capital.²¹⁴

Bohtz favored the notion that the project was begun late in the reign of Attalos I and completed during that of Eumenes II. He did not offer an explanation for this dating, but presumably thought that the project was conceived prior to Attalos' death.²¹⁵ Also H.-J. Schalles argued for the commencement of work on the Demeter terrace in the final years of Attalos' I reign, specifically after 199 BCE when Attalos returned to Pergamon following his initiation into the Eleusinian Mysteries.²¹⁶ Thus, he, too, dated the bulk of construction to the time of Eumenes II. In recent years, both A. F. Wensler and H. Schwarzer, in their studies

²⁰⁹For the evidence on these dates, see Looy [1976].

²¹⁰Dörpfeld [1910] 360-361: "...weil das Propylon und die Stoen aus Trachyt gebaut sind und noch nicht aus weissem Marmor, der später bei den Bauten Eumenes' II. und Attalos' II. allmählich üblich wurde."

²¹¹Dörpfeld [1910] 361.

²¹²Dörpfeld [1912] 254. Hansen [1971] 259, accepts Dörpfeld's argument.

²¹³Schober [1940] 151.

²¹⁴Strabo 13.4.2. For Ohlemutz [1968] 208, any date between 240 and 166 BCE seems possible, but he specifically dismisses Dörpfeld's argument of dating the structures on the basis of their building material.

²¹⁵Bohtz [1981] 58.

²¹⁶Schalles [1985] 147.

of the Temenos of the Ruler Cult on the Pergamene acropolis, suggested that Apollonis' buildings of the Demeter sanctuary were contemporaneous with both the Gymnasium on the middle terrace and the main structures of the Temenos of the Ruler Cult, since the masonry of these monuments carried identical mason's marks, a revival of Dörpfeld's argument. They dated all three structures to the reign of Eumenes II.²¹⁷ G. Umholtz also suggests a dedication date in the 160s,²¹⁸ while for F. Rumscheid, any date between ca. 222 and 159 BCE seems possible.²¹⁹

To sum up this brief resumé, most scholars think that Apollonis renovated the Demeter Sanctuary as a widow, i.e., during the reign of Eumenes II, although a few suggest that she conceived of the project — or began it — while her husband Attalos I was still alive. Regardless of the date, however, most scholars look for events in the life of the “current” Attalid king, be it Attalos' I initiation into the Eleusinian mysteries or Eumenes' II building activities at Pergamon, to justify attribution of Apollonis' building project to an earlier or later date respectively. In truth, however, neither king is mentioned in the dedicatory inscription on the sanctuary's gatehouse. It is Apollonis alone who claims ownership of the building project, and it is into her life, therefore, that we need to look for a motivation to sponsor the cult. Doing so will also help firm up the date of her project.

A closer look at the dedicatory inscription is helpful. Its translation reads: “Queen Apollonis [dedicates] these stoas and these buildings to Demeter and Kore Thesmophoros as a thank-offering.” It is clear from this that Apollonis made the dedication as queen, that is, after her marriage to Attalos I, which, as noted earlier, took place around 223 BCE, but it does not say whether she made it as Attalos' wife or as his widow. In fact, the absence of any male name in the inscription, Attalos I or Eumenes II, suggests that it did not matter, because she sponsored the Demeter Sanctuary in her own right and, presumably, with her own means.

²¹⁷Wensler [1989]. Schwarzer [1999]. The use of these mason's marks for dating purposes is highly questionable since they were used over longer periods of time and presumably by more than one king. Boehringer and Krauss [1937] 78-79, and attachment 2. Schazmann [1923] 17. The precise meaning and purpose of these letters remains unknown. See most recently, Bachmann [2006].

²¹⁸Umholtz [1994] 106. There, too, is little discussion of the reasons for this late date.

²¹⁹Rumscheid [1994] vol.1, 34-35. Winzor [1996] 101, lists a date prior to 186 BCE but well after the death of Attalos I, without, however, engaging in an argument for this late date.

It was not at all uncommon in ancient Greece for women to make dedications on their own, and this is especially true for aristocratic women in the Hellenistic age. At least from the second century onward,²²⁰ upper class women were expected to participate actively in the city, through financial contributions and/or the assumption of public office. Liturgical offices, like priesthoods and the care of sanctuaries and cults, now often became the responsibility of women, who, as numerous examples attest, often gave freely and generously. In the second century BCE, Archippe from Kyme financed the construction of a temple, altar, rooms, and a stoa in the Sanctuary of Homonoia²²¹ and a century later, Epie from Thasos presented rich dedications to both Artemis and Aphrodite; she was also priestess of Athena and of Zeus Eubouleos.²²²

Especially in cults with a strong female or kourotrophic component, like those of Demeter and Kore, Artemis, or Aphrodite, women frequently assumed office as priestesses and as benefactresses of the cult and its sanctuary, and they did so on their own account and often without the (financial and moral) support of their husbands and/or fathers. Among these is the mid-fourth century BCE dedication of a building (*oikos*) and a statue (*agalma*) to Demeter and Kore by Chrysina at Knidos, who describes herself as the founder of a sanctuary.²²³ Also from Knidos is a lavish female statue, dedicated by Nikokleia, perhaps a priestess to Demeter and Kore (ca. 250-225 BCE), and which depicted Nikokleia in lavish garments with heavy chiton and himation, indicative of her elite status.²²⁴ Dedications

²²⁰It became especially customary for women in the later part of the Hellenistic period to participate as *euergetai* in public life, but numerous earlier examples show that already in the fourth century, women made donations on their own accounts. [van Bremen \[1996\]](#).

²²¹[Savalli-Lestrade \[1993\]](#).

²²²[van Bremen \[1996\]](#). For the long list of civic benefactions by women, see [van Bremen \[1996\]](#) esp. 2-40.

²²³[Newton \[1862\]](#) 380 and pl. 89 n. 15. The inscription recording the dedication was carved on a base of blue marble and reads: “To Kore and Demeter dedicated this building and this statue, the mother of Chrysogone [and] the wife of Hippokrates, Chrysina, after seeing a holy vision in the night, for Hermes commanded her to be a priest to the goddesses at [the place called] Tathne.” Translation by [Dillon \[2002\]](#) 24. [Kron \[1996\]](#) 150-153. U. Kron has interpreted the *oikos* as temple and the *agalma* as cult-statue, and proposed that Chrysina was the founder of the Demeter Sanctuary at Knidos. [Dillon \[2002\]](#) 24, proposes that the *oikos* may have been a place for Chrysina to stay while serving as priestess to Demeter and Kore. [Damaskos \[1999\]](#) 221-222, on the other hand, observes that “*ton naon kai to agalma*” is an established dedicatory formula, in which *naon* refers to the temple and *agalma* to the cult-statue: “Der enge Zusammenhang zwischen Tempel und Statue innerhalb dieses Ausdrucks läßt vermuten, da es sich dort nicht um irgendeine Statue im Tempel handelt, sondern um das Tempelkultbild.”

²²⁴The inscription on the base reads: “Nikokleia, [daughter] of Nikochoros, wife of Apollophanes, to Demeter and Kore and the other gods besides Demeter, according to a vow.” [Kron \[1996\]](#) 148-149. The statue is now in the British Museum in London. On her questionable reconstruction in the museum and against her

similar in character are known from the Demeter sanctuary at Priene. The statue of Nikeso, priestess of Demeter, was recovered near the entrance to the sacred precinct. It shows Nikeso as a wealthy citizen-wife, dressed in a pleated chiton and double himation of an unusually vivid texture, presumably replicating a highly expensive garment.²²⁵ Nikeso was paired with another priestess to Demeter, Timonassa, whose bronze image is lost, but whose base is still standing in the sanctuary's forecourt.²²⁶ Timonassa must have been well known at Priene, for her dedicatory inscription included neither a patronymic nor the name of her husband. The placement of two elaborate statues of benefactresses to the cult at either side of the entrance to the Demeter sanctuary suggests moreover that the precinct was visited by many. Although the rationale for these statue dedications is not known, they illustrate that expensive gifts were made to the cult of Demeter at other places as well, and especially in Asia Minor.

Apollonis' dedication in the Demeter Sanctuary was also not a unique case of female architectural patronage; on the contrary, this kind of participation in public life and generosity toward the city was likely expected of a woman of her status. Already before her time, queens and aristocratic ladies showcased themselves as benefactresses of cults and cult sites independently from their husbands: in the mid fourth century BCE, Artemisia, the sister-wife of Hecatomnid dynast Maussolos of Caria, is reported to have completed on her own account Maussolos' funerary monument at Halicarnassos.²²⁷ At around the same time, Eurydike, wife of Amyntas of Macedon and grandmother to Alexander the Great, donated a statue and temple in the Sanctuary of Eukleia at Vergina.²²⁸ Hellenistic queens followed

identification as priestess, see [Connelly \[2007\]](#) 328, n. 100.

²²⁵The inscription on the base reads: "Nikeso, [daughter] of Hipposthenes, wife of Eukritos, priestess of Demeter and Kore." On the basis of style and inscription it has been dated to the early third century BCE. [Kron \[1996\]](#) 146-149. [Connelly \[2007\]](#) 137-139.

²²⁶[Kron \[1996\]](#) 148. The dedication of a bronze statue is even more remarkable than the marble statue of Nikeso and bespeaks Timonassa's great wealth.

²²⁷Some ancient authors, like Strabo 14.2.16, attribute the construction of the Mausoleum in its entirety to Artemisia. Modern scholarship has rejected this claim, since first, Artemisia survived her husband only by two years (apparently dying from sorrow over his demise), and second, the city plan for Halicarnassos developed by Maussolos already included the large square on which the Mausoleum was then built. Among others, [Jeppesen \[1986\]](#) 103-4. [Hornblower \[1982\]](#) 238-251. [Ruzicka \[1992\]](#) 46-55. For a refreshingly new approach to the traditional interpretation of Artemisia's subordinate role in the construction of the Mausoleum, see [Carney \[2005\]](#) 65-91. For a recent reconstruction of the Mausoleum, see [Jeppesen \[2002\]](#) fig. 25.5b.

²²⁸Note that in the inscription, Eurydike identifies herself as daughter of Sirras (*Euridika Sirra Eukleiai*) but not as wife of Amyntas. [Saatsoglou-Paliadeli \[2000\]](#). [Andronikos \[1984\]](#) 49-51. [Carney \[2000\]](#) 44-46. [Le Bohec-Bouhet \[2006\]](#) 190-191.

suit: in the third century BCE, the city (*demos*) of Miletos dedicated a fountain house on the agora to Seleukid Queen Laodike, most likely in gratitude for her support in the construction of an aqueduct.²²⁹ Around 280 BCE, Queen Arsinoe II built a large rotunda in the Sanctuary of the Great Gods on Samothrace, a monument that stood out for its unusual form and elaborate décor and that is perhaps the best-known architectural dedication by a Hellenistic queen.²³⁰ Although it is unclear whether she gave it as Queen of Thrace (i.e., as wife of Lysimachos) or as Queen of Egypt (i.e., as sibling-wife of Ptolemy II), the dedicatory inscription leaves no doubt that she was the sole sponsor of this building project.

At Samothrace, remote from her capital, Arsinoe identified herself as wife of the king — be that Lysimachos or Ptolemy —, but U. Kron has shown that Hellenistic women could appear as public benefactresses without including the patronymic, that is, without referring to their male line of descent, or without naming their husband in their dedicatory inscriptions.²³¹ If women chose to include references to male relatives — as in the case of Arsinoe — it was a way of making their status and social standing recognizable and to show that they acted within a family context.²³² In Apollonis' case, neither the patronymic nor a reference to her husband or sons was necessary. The title *basilissa* (queen) clearly indicated her position at Pergamon. Detached from her hometown of Kyzikos, she was not

²²⁹Knackfuß and Rehm [1924] 263-278, 282. On Laodike's reliance upon dedications and gifts to foreground her own persona, see Mattingly [1997] 123. It is not clear whether the Laodike referred to in the inscription was the wife of Antiochos II or Antiochos III. See Kron [1996] 172-174. On Laodike (wife of Antiochos III), see also Savalli-Lestrade [1994].

²³⁰McCredie, e.a. [1992] with fig. 31. Kron [1996] 171-173.

²³¹Kron [1996]. Löhr [2000] discusses a number of dedications by mothers in honor of their children, and the mother's name is not always connected to a male family member. The absence of the patronymic does not mean that they acted without their husbands' or fathers' consent; on the contrary, women's contribution to civic life was expected, reflected positively on their families, and was therefore approved of by spouses and parents.

²³²Thus, for example, the dedication of Stratonike, wife of Eumenes II, in the Pergamene Demeter Sanctuary. The inscription reads: "*O demos bassilissan Stratonike basileos Ariarathou aretes eneken kai eunoias tes eis eauton.*" Thus, Stratonike defines herself solely as daughter of Ariarathes and not as wife of Eumenes II. On account of this particular formulation and the absence of Eumenes' name in the inscription, Allen [1983] 200, argued that Stratonike and Eumenes had not yet been married at the time of her dedication, and he suggested that she had assumed the title *basilissa* in reference to their impending wedding. Could it not also be, however, that Stratonike was already queen of Pergamon at the time she made this dedication — the title *basilissa* sufficed to define her position at Pergamon — and that she presented herself as daughter of Ariarathes to honor her own (aristocratic) descent? A dedication to Demeter would certainly have been more appropriate as wife of Eumenes; as his bride, a dedication to Artemis or Aphrodite may have seemed more fitting.

continuing a tradition of her paternal family; in fact, the way her monuments embraced, highlighted and reflected upon the earlier structures in the sanctuary suggests that her patronage of Demeter emphasized Attalid or Pergamene traditions rather than those of her family in Kyzikos.²³³ Little is known about Apollonis' upbringing and social status prior to her marriage to Attalos, but she came without doubt from a well-endowed and influential family and it is likely that she brought a considerable dowry to the marriage — which she used to finance her personal building project in the city of Pergamon.²³⁴ The absence of Attalos' name in the dedicatory inscription suggests that as well.²³⁵ One can conclude from this that the absence of any male name in the dedicatory inscription cannot be used as an argument for dating Apollonis' project.²³⁶

A better indication of date is provided by another detail of the dedicatory inscription, which states that Apollonis' renovation was a thank-offering, as implied by the term *charisterion*. N. J. Lowe has shown that *charisterion* ('thank-offering') "is a widespread and well-formed technical term [...] used [...] to describe an offering made to a god for a particular purpose."²³⁷ I suggest that the reason for Apollonis' generous dedication was the birth of four sons, a gift that ensured the continuation of the Attalid dynasty and promised prosperity to the kingdom as a whole. The expression of gratitude to Demeter and Kore Thesmophoros for successful pregnancies through offerings is a common gesture among Greek women and, although women usually made smaller gifts of votive terracotta figurines and vessels, the

²³³It has been suggested that Apollonis imported the cult of Kore to Pergamon, who had been the chief deity of her hometown. [Hepding \[1910a\]](#) 440-441. It was the Attalid line, however, that was showcased in the Demeter Sanctuary in both the monuments of Philetairos and those of Apollonis.

²³⁴Apollonis' social status was probably inferior to that of Attalos, but she was most certainly not "a simple girl from Kyzikos." [Kosmetatou \[2003\]](#) 168. On the contrary, her lavish donation to the Demeter precinct suggests that she came from a wealthy household and her family was likely part of Kyzikos' elite. Even if Attalos married her for love — as emphatically portrayed by the ancient authors and frequently repeated in the modern literature on the Attalids —, this union most certainly also served a political purpose. Kyzikos was an important trading center on the Propontis and served as a key port to Pergamon. The maintenance of friendly relations between the two cities was crucial for ensuring a continued flow of goods both to and from Pergamon. A relationship of co-dependency between the two cities is already attested for the reign of Philetairos who showered the Kyzikenes with lavish gifts and supported them in times of hardship. [McShane \[1964\]](#) 37-41. [Allen \[1983\]](#) 14-15, 58, 137. *OGIS* 748 records donations by Philetairos to Kyzikos between 280/79 to 276/5 BCE and the installation of a festival in honor of Philetairos (the *Philetairiea*) as a result.

²³⁵Thus also [Kron \[1996\]](#) 173.

²³⁶On Apollonis' role in the Attalid family, see now [Bielman Sánchez \[2003\]](#). On royal cult patronage as an act of economical and political nature, see [Dignas \[2002\]](#).

²³⁷[Lowe \[1998\]](#)155.

practice is paralleled at many Demeter sanctuaries throughout the Greek world.²³⁸ From the Sanctuary of Demeter and Kore at Knidos survive a number of dedicatory inscriptions by women that describe a variety of different gifts to the goddesses dedicated for various reasons and with various motivations.²³⁹ A certain Plathainis, who identified herself as wife of Plato, made a dedication, most likely a stele judging from the cuttings in the inscribed base, to Demeter and Kore “as a thank-offering and atonement.”²⁴⁰ In the dedication by Chrysina discussed earlier,²⁴¹ the reference to her daughter Chrysogone equally suggests gratitude for her offspring, even though the inscription is not specifically identified as a thank-offering.²⁴²

A dedication similar in motivation to that of Apollonis, although perhaps smaller in scale, comes from fifth-century Athens: there, the Athenian Xenokrateia gave a votive relief to the river god Kephisos and other gods in gratitude for her son Xeniadēs. A pillar supporting the relief carried the dedicatory inscription, which gave the name of Xenokrateia — without any reference to her husband — and described her as founder of a sanctuary.²⁴³ Autonomous and expensive dedications by women were hence not uncommon in the Hellenistic world and they were particularly appropriate as gifts to Demeter or other *kourotrophic* deities. Apollonis’ dedication to Demeter and Kore at Pergamon was hence not an isolated case but was paralleled by similar donations throughout the Greek world.²⁴⁴

²³⁸Töpferweir [1976], e.g., fig. 243. For the Demeter sanctuary near Kyparissi on Kos, Kron [1996] 149-150, lists “eight under-life-size votive statues of fine quality [...], dated in the fourth and third centuries. Six of these statuettes were dedicated by women,” including two priestesses. There were, however, also other forms of expressing devotion to the goddesses: Cole [1994] 216, cites an inscription from Tanagra which states that ninety-eight women made monetary contributions (about five drachmas each) for the construction of a temple to Demeter and Kore.

²³⁹Newton [1862]. The dedications in the sanctuary of Demeter and Kore at Knidos are truly exceptional. Newton lists at least 15 dedicatory inscriptions that describe various gifts, all given by women! Connelly [2007] 328, n. 100, notes “some thirty statue bases of women” recovered at Knidos.

²⁴⁰Newton [1862] 380-381 and 715-716, no. 18 and pl. LXXXIX. The inscription does not specify the reason for Plathainis’ gratitude, but given that she made the dedication in honor of Demeter and Kore, it was likely related to her children.

²⁴¹See 223 on page 138.

²⁴²While the inclusion of her husband’s name in the inscription may have served to identify her position as wife of a respected citizen, the reference to her daughter did not underscore Chrysina’s status and must have had some other rationale. The dedication was inspired by a dream. See also Kron [1996] 150-153.

²⁴³Kron [1996] 166-168 and fig. 17. See also now Dillon [2002] 24-25. Dillon translates the dedication as follows: “Xenokrateia has founded the sanctuary of Kephisos, and has dedicated this gift to him and the gods who share his altar, for the upbringing of her son; [Xenokrateia] daughter and mother of Xeniadēs, from Cholleidai.” Xenokrateia hence defined herself through her own family rather than that of her husband.

²⁴⁴Löhr [2000] lists a number of dedications by women made in honor of their children and presented to various deities.

The birth of four sons — Eumenes (222-159 BCE), Attalos (220-138 BCE), Philetairos, and Athenaios (born before or 215 BCE) — would be cause for thanksgiving in even normal circumstances, but at Pergamon where there had been difficulty securing the line of succession, it was a striking accomplishment. In his reconstruction of the history of the Pergamene dynasty, Schober demonstrated that Attalos I was not the son of the previous ruler, Eumenes I, but his nephew, so Eumenes I appears not to have fathered any children.²⁴⁵ Eumenes I was also the nephew of his predecessor, Philetairos, who was nicknamed, meaningfully, the eunuch. Given this historical background, it is unlikely that Apollonis would have waited until Attalos' death to express her gratitude to Demeter and Kore, and such a dedication seems not likely to have been made after his death in any case. If the renovation was carried out at a later date, when her sons were grown, Apollonis would likely not have given it as a thank-offering but, perhaps, in memory of her late husband or as a gift to the city of Pergamon. Conversely, her sons might then also have dedicated the buildings in her honor, as Philetairos I and Eumenes I did a generation earlier or as Eumenes II and Attalos II themselves did at Cyzicus.²⁴⁶

An early date for Apollonis' reconstruction of the sanctuary is also supported by a series of votive altars dedicated by Attalos I in the sanctuary of Demeter, the Upper Agora, and the orchestra of the city Theater.²⁴⁷ The altars are not dated, but they were probably dedicated sometime after Attalos' victory over the Gauls (ca. 227 BCE). The inscription on the altar from the Demeter temenos reads "*Basileos Attalou Soteris*" (King Attalos, the Savior), with Soteris being the title assumed after the victory over the Gauls. If these altars were dedicated after Attalos' death, the title *theos* (god) would have been used instead.²⁴⁸ The dedication of one of these votive altars in the Demeter sanctuary suggests that the king considered the sanctuary an important cult place and that he approved of and supported his wife's renovation.²⁴⁹ After all, a public benefaction of this size, though given by the

²⁴⁵Schober [1951] 29.

²⁴⁶Polyb. 22.20, reports that Attalos II and his brother, presumably Eumenes II, built a temple in her honor of their mother at Cyzicus. This later dedication follows the practice of Philetairos and his brother Eumenes, but contrasts the benefaction by Apollonis. For the Kyzikene dedication, see Webb [1998] 250. Stupperich [1990].

²⁴⁷Fränkel [1890] fig. 45.

²⁴⁸Fränkel [1890] 38-39.

²⁴⁹van Bremen [1996] 11-40, notes that even though women of status may often have brought rich dowries

queen, likely also meant an increase of popularity for the king. J. Roy interprets the role of the Hellenistic queen as “protectress within the kingdom of fecundity within marriage, of agricultural work, of crops and of peace.”²⁵⁰ Thus, the queen could participate in public life “without compromising the king’s masculine rule.”²⁵¹ Apollonis’ dedication to the Demeter sanctuary, with its striking emphasis on femininity, would have been perceived as complementary to Attalos’ own royal activities.²⁵² If I am correct therefore, the sanctuary was renovated between ca. 222 BCE, the birth of Apollonis’ first son Eumenes, and 197 BCE, the year of her husband’s death. By narrowing the time-frame for the dedication down to ca. 25 years, Apollonis’ intervention becomes one of the most precisely dateable structures at Pergamon and her buildings become key-elements in the re-evaluation of the development of Hellenistic architecture at this site.

into marriage, which they may have been able to use on their own behalf, their husbands usually had to approve the purpose of the spending. The presence of the king’s name on the votive altar and its absence on the propylon suggests that Apollonis used her dowry to finance the building project and that the king gave this public support.

²⁵⁰Roy [1998]. 121. In antiquity, women’s participation in public life was for the most part confined to a religious context, and Apollonis’ benefaction was carried out within these limits. Kron [1996]. Simms [1997].

²⁵¹Roy [1998] 121.

²⁵²The attitude towards style noted for Apollonis’ buildings on the Demeter terrace finds a close parallel in the architectural language developed for the Temple of Zeus in the city’s Upper Agora that is now attributed to Attalos I. The precise stylistic similarities of the two projects cannot be discussed here but are explored to some extent in Piok Zanon [2007] 351-359. The concept of “paired building” is not unique to Pergamon but seems to have become standard practice by the Hellenistic period: I have already discussed above the Mausoleum of Halicarnassos, a project directed jointly by Maussolos and Artemisia and which showcased them in elaborate statues. Ptolemy II and Arsinoe II shared a number of projects: at Olympia, they were displayed side by side in a statuary monument dedicated by the admiral Kallikrates. Hoepfner [1971]. Hauben [1970]. At Samothrace, Arsinoe’s Rotunda was complemented by a gatehouse built by Ptolemy II that incorporated some of the architectural detail found on the Rotunda. McCredie, e.a. [1992]. Frazer [1992]. They also received an honorary structure at Limyra in Lycia. Borchhardt and Stanzl [1990].

4.0 FINAL REMARKS

The architectural analysis presented in this thesis highlights the potential the Sanctuary of Demeter holds for the study of (early) Attalid Pergamon. Examination of the precinct's building periods indicates that Philetairos and Apollonis each had a clear vision for their project, borne out in the precision of the precinct layout, the careful selection of its decorative detail, and the programmatic exploitation of the terrain for maximum effect. Philetairos and Apollonis used patronage of the Demeter cult to showcase themselves and the Attalid family, to communicate order and prosperity, and to suggest continuity and stability at the site. Manipulation of the ritual space through skillful arrangement of the cult furniture and development of a distinct decorative vocabulary — one might even call it a building style — were two key components in this endeavor.¹

The notion of cult patronage as program is illustrated by the principles that guided Philetairos' and Apollonis' designs: emphasis on tradition and continuity, a marked sense of order and regularity, a dramatic arrangement of the ritual space, and a predilection for grand gestures and unusual details. Their respective projects embraced rather than erased earlier monuments in the precinct, thus forging a connection to an earlier time and firmly tying themselves to the history of the site.² Due to the meagre archaeological assessment of the pre-Attalid sanctuary, this must remain tentative, but my new reconstructions suggest that Philetairos' restructuring of the temenos paid tribute to some pre-existing order. His plan for the precinct maintained the older altars and his theatron reinforced their centrality in the

¹It has not been possible to explore the implications of the cult patronage in detail within the limits of the present manuscript. This is a separate project that would complement the architectural analysis presented here.

²On the power of the past in Hellenistic royal behavior, see [Scheer \[2003\]](#); for the Attalids, see esp. 220-226. [Kuttner \[2005\]](#).

cult ritual. Although his temple and altar became the sanctuary's new focus, their placement at the rear of the temenos set them apart from the smaller, history-imbued, structures in front and gave each unit its own space. Likewise, Apollonis' stoas were conceived as a new layer around the sacred space that took its departure from the order and aesthetics of the earlier structures by altering not them but their surroundings. Although her additions were enormous when compared with Philetairos' buildings, they did not overpower the earlier monuments but functioned as a frame for the older structures. Her subtle realignment of the pre-Attalid altars with the Philetairean monuments reinforced the centrality of the earlier structures within the precinct. Her buildings echoed the formal vocabulary of Philetairos' monuments, engaging in a dialogue with them and creating an impression of a continuous effort. The queen's precinct thus put on display the history of the Demeter Sanctuary, to which she added the concluding chapter. So skillful and sensitive was her approach that, if it were not for the inscriptions, one would have thought the entire precinct had been conceived at once.³

The spatial configuration of the Demeter Sanctuary under Philetairos and Apollonis stands out for its regularity and clarity, qualities that make it readily accessible as an urban text and lend it an air of nobility. Although this layout may have been conditioned in part by the topography of the site, it is apparent that the creation of an ordered, clearly defined temenos was part of the Attalids' program for the space. The temenos was developed as a controlled space in which movement and performance of the ritual were precisely prescribed. This imposed discipline in the arrangement of the cult furniture, I suggest, was intended to communicate a sense of order and to identify the Demeter Sanctuary as a space owned and controlled by the Attalid family.⁴ Inspiration for this approach likely came from neighboring

³Nevertheless, the precinct's different layers were also inscribed with subtle hierarchies that suggest an awareness of the Attalids' increasing involvement in Hellenistic power dynamics: the projects on the Demeter terrace became steadily more ambitious and more expensive and each new patron put his or her most important building at the sanctuary's rear, be it Philetairos' temple or Apollonis' dining rooms.

⁴The application of such a strict order to the Demeter Sanctuary at Pergamon stands in stark opposition to most other Thesmophoric cult sites, which were only loosely defined from an architectural point of view. This may indicate that at Pergamon the rituals followed a more rigid, prescribed protocol by comparison to other cities, or it may mean that the space was simply more formal due to its Attalid patronage. It is likely that the Attalid women presided over the festivals in some way and had some influence over the course of the rituals. It is not possible here to elaborate on the implications of this precise temenos plan for

cities and dynasties. The Sanctuary of Zeus at Labraunda, developed by the Hecatomnids of Caria in the mid fourth century BCE, also dictated movement through the sacred space in a precise way, although its layout was not as rigidly contained as that of the Demeter Sanctuary.⁵ Within the precinct, Andron B, a dining hall with temple-like facade, opened onto a large terrace, an arrangement similar to the layout of the Pergamene temenos.⁶ In the Sanctuary of Athena at Lindos (Rhodes, third century BCE), a small temple faced a court enclosed by stoas, an arrangement similar to that of the stoas in the Demeter Sanctuary, albeit on a smaller scale.⁷

In fact, the arrangement of the cult furniture around an open court was key to the force of the Demeter Sanctuary as an architectural space. This approach seems to have been guided by the desire to create a dramatic cult environment, a stage that served the celebration of both the ritual and the Attalid family. To this effect, the precinct was conceived as a ritual theater, with a large seating area accompanying the open terrace.⁸ On this court, the pre-Attalid altars and Philetairos' monuments assumed center stage while Apollonis' stoas provided a fitting frame; her propylon provided a platform from which to overlook the sacred space and outlined the play performed on the stage — the celebration of the Thesmophoria in honor of Demeter and Kore under the aegis of the Attalid family.⁹ In this sense, the open court functioned as a stage for both the performance of the cult ritual and, in a metaphorical sense, the display of the Attalid family. Through the placement of inscriptions within the precinct, Philetairos and Apollonis claimed ownership of the sanctuary along with Demeter, assuming at once the role of celebrant and celebrated.¹⁰ Once again, the Hecatomnids may

the celebration of the Thesmophoria at Pergamon, but it seems to hold potential for the reconstruction of the festival. Considering the demands on the sanctuary and the enormity of Apollonis' project especially, a regular, linear layout was, of course, also more practical and helped meet the functional requirements of the space more easily.

⁵<http://www.srii.org/images/lab042.jpg> (19 February, 2009).

⁶Hellström [2007]. Also http://www.labraunda.org/Labraunda.org/Welcome_to_Labraunda.html. For illustrations of Andron B, see http://www.labraunda.org/Labraunda.org/Photo_albums_1/Pages/Andron_B.html#0 and http://www.labraunda.org/Labraunda.org/Photo_albums_1/Pages/Andron_B.html#5 (19 February, 2009)

⁷Dyggve [1960]. Charbonneaux et al. [1971] fig. 419.

⁸On the notion of the sanctuary as a cultic theater, see Nielsen [2000]. Nielsen [2002]. Hollinshead [1992]. Sturgeon [2000].

⁹The hillside location provided opportunities to develop the temenos over multiple levels, adding volume and useable space and creating different vantage points from which to experience the temenos.

¹⁰Philetairos' dedications were made together with his brother and on behalf of their mother, so his was a family enterprise whereas Apollonis' sponsored the cult in her own right.

have provided the model: at Labraunda, the sacred space was developed over five levels and similarly emphasized drama and theatricality, with monuments placed strategically as decorative frames for open terraces and as markers of the path to the temple on the uppermost terrace. Although the sanctuary at Labraunda did not have a formal theater and its rituals may not have included theatrical performances, it still functioned as a stage for the Hecatomnids to showcase themselves as the sanctuary's patrons: most, if not all, of the Hecatomnid monuments within the precinct carried dedicatory inscriptions and they may, in fact, have been the first to use architecture as dynastic statement in such a bold and straightforward way.¹¹

This conflation of ritual and patronage in the architecture of the sacred space added a dynastic dimension to the civic character of the Thesmophoria and turned its celebration into a royal spectacle, increasing its visibility and importance far beyond Pergamon.¹² Such an inflation of a civic cult was not without precedent: at Labraunda, the Hecatomnids turned the festival of Zeus, formerly a local, one-day event, into a spectacle that lasted for five days and opened it to “other Carians” and presumably to invited guests from all of Asia Minor and beyond.¹³ An example closer in character to the Attalids' patronage of the Thesmophoria comes from third-century BCE Alexandria where Ptolemaic queen Arsinoe II transformed the Adonia, normally a private and unadorned women's festival, into a sumptuous public feast.¹⁴ Although the precise course of the Thesmophoria at Pergamon remains unknown, the permanent and extravagant setting the Attalids created for it, with its emphasis on drama and theatricality, suggests that this was not an unassuming women's festival but a grand event, financed generously and in perpetuity by the royal family. The elaborate precinct architecture was intended to provide a festive setting for the spectacle and a reminder of the Attalids' euergetism. Thus the Demeter Sanctuary was envisioned as a space in which celebration of both the Thesmophoria and the Attalid dynasty went hand in hand.¹⁵

¹¹The idea of claiming ownership of a building through inscription emerges in the fourth century and is first known from the Hecatomnid monuments at Labraunda.

¹²On the dramatic element in the Thesmophoria, see [Tzanetou \[2002\]](#). [Stehle \[2007\]](#).

¹³[Crampa \[1972\]](#) 85-86. [Ruzicka \[1992\]](#) 48.

¹⁴Theocritus, Idyll 15. [Burton \[1995\]](#) and [Reed \[2000\]](#). The Adonia were more private and with less emphasis on civic structures than the Thesmophoria. [Simms \[1997\]](#). [Winkler \[1990\]](#) 188-209. Ptolemaic Alexandria is famous for all kinds of extravagant displays of the power and wealth. [Bell \[2004\]](#), esp. ch. 4. [Rice \[1983\]](#).

¹⁵The notion of the city as a stage for the Hellenistic king/queen is explored in [von Hesberg \[1999\]](#) and

The decorative vocabulary of the sanctuary's monuments — the altar horns and garland-and-bucranion frieze in Philetairos' monuments, the wreath capitals in Apollonis' stoas and gatehouse, the plain, Ionicizing moldings throughout — was intended to reinforce the notions of continuity and prosperity, distinction and drama suggested by the spatial layout. Reexamination of the precinct's building styles has yielded that the design of Apollonis' structures was developed in close correspondence to Philetairos' altar and temple, and intended to produce a coherent whole that suggested tradition, continuity, and unity through visual form. Apollonis' structures referenced the language of the earlier monuments without compromising their centrality and only a few, subtly placed details, like the wreath capitals or the large dentils, identified her new additions. The forms Philetairos and Apollonis chose for their monuments were simple but carefully selected: moldings were plain and modest, usually consisting of a series of concave and convex projections separated by fillets and bands. No bead-and-reel, egg-and-dart, or Lesbian leaf, adorned the monuments on the Demeter terrace.¹⁶ Columns were smooth or faceted and generally executed without distinct bases.¹⁷ At the same time, within each monument, individual components were given an extraordinary amount of attention: the marble bucranium-and-garland frieze in Philetairos' temple and the horns on his altar, the wreath capitals in Apollonis' gatehouse and stoas, the detailed, inscribed entablatures in both temple and propylon. The forms chosen for these building parts were both unconventional and eye-catching; whether elaborate, like the temple frieze, or minimalist, like the propylon bases, they added distinction and sophistication to an otherwise unpretentious design. The infusion of these otherwise plain monuments with “unorthodox” elements gave them character and individuality, surprise and drama. The consistency with which this approach was taken to all the structures of the temenos suggests both a program and the intent to forge a distinct architectural style for the Attalid sanctuary.¹⁸

[Kuttner \[1999\]](#). As P. Veyne notes, the hosting of spectacles formed an integral part of royal euergetism. [Veyne \[1990 \(orig. 1976\)\]](#), esp. ch. 1.

¹⁶As noted, these details may have been applied in paint, but that would have been rather unconventional in itself.

¹⁷Only Philetairos' temple seems to have included individually carved bases. In Apollonis' monuments, bases were only hinted at with faceted bands at the bottom of the column shafts. A similarly minimalist approach has been noted for capitals and entablature of the Lower North Stoa.

¹⁸This style was also applied to other Attalid buildings of the third century, like Philetairos' Temple of Meter at Mamurt Kale or Attalos I's Temple of Zeus in Pergamon's Upper Agora. For a brief discussion of the architectural language shared by these monuments, see [Rheidt \[1996\]](#).

The classification of the architectural style(s) presented by the monuments on the Demeter terrace raises challenging questions.¹⁹ It does not fit the conventional framework of Greek architecture with its Doric, Ionic and Corinthian canons. In fact, some decorative elements employed in the Demeter Sanctuary can only loosely be associated with classical Greek forms: the wreath capitals of Apollonis' project show closer affinities to Achaemenid column bases than to the Corinthian capitals of the Greek tradition, and the temple's bucranion frieze and the altar's volute horns find their closest parallels in the architecture of Northwestern Anatolia. Thus, the architectural style(s) chosen for the Demeter Sanctuary seems to have been indebted to and inspired by many traditions at once.

In fact, analysis of the building detail has yielded that the decorative vocabulary of Philetairos' and Apollonis' monuments was first and foremost rooted in the building traditions of western Asia Minor — the area out of which the Attalids emerged — whose art is known for its fusion and reinterpretation of multiple cultural idioms. This regional tradition, I suggest, provided the inspiration and building blocks for the Attalid architectural style, a style that was characterized by juxtapositions of details from different formal traditions. The Attalids' reliance upon their immediate surroundings for the visual language of their dynastic monuments seems natural and logical. This was the vocabulary which they knew and whose messages they clearly understood. Continuation of this local building tradition provided another opportunity to communicate a sense of history and rootedness and to forge a sense of (regional) identity.²⁰ The great variety of forms and seeming lack of prescribed canons in the architectural tradition of Anatolia may have added to the region's attractiveness as a sourcebook for the creation of an Attalid style. An area with a long history of dynastic rule, Asia Minor also offered models on how to effectively use architectural form for the promotion of a court image.²¹ Attalid participation in the architectural tradition of

¹⁹Nothing is known about the decorative language of the pre-Attalid monuments in the Demeter Sanctuary to make any observations regarding their contribution to the development of a distinct architectural vocabulary for this space.

²⁰Regional identity seems to have been a key concept in the public profiles of other Hellenistic dynasties as well, as is suggested by the Ptolemies emphasis on pharaonic tradition or the Argeads' and Antigonids' effort to maintain a distinctly Macedonian vocabulary. Ptolemaic architecture is not well preserved, but similar observations have been made for its literature and sculpture. [Stephens \[2003\]](#). [Albersmeier \[2002\]](#). [Stanwick \[2002\]](#). For Macedonia, see [Miller \[1971\]](#).

²¹This eclectic attitude at Pergamon seems to be part of a broader trend that emerges in the fourth century and is perhaps best documented in the Hecatomnid monuments at Labraunda and Halicarnassos.

the region thus suggests an indirect, mediated engagement with the broader visual traditions of the Mediterranean and the Near East in the monuments of the Demeter Sanctuary, filtered through centuries of cultural amalgamation in the building traditions of Asia Minor. Hence, assessment of the architectural style of Philetairos' and Apollonis' monuments on the Demeter terrace, is ultimately dependent upon characterization of an "Anatolian Style" of architecture. Such a project requires a thorough review and cross-examination of the visual traditions coalescing in this region and the formulation of a new vocabulary that bypasses the traditional approach of classifying ancient buildings exclusively on the basis of the classical Greek canons.

What does this new assessment of the Demeter Sanctuary hold for the study of Attalid Pergamon? I have argued that the precinct of Demeter assumed an essential role in the image-making efforts of the third-century Attalids. To this effect, the sanctuary was conceived as a precisely defined and ordered space that was both regal and dramatic; its individual structures were embossed with a unique architectural style to brand them as distinctly Pergamene. Layout and décor of the sacred space were developed around notions of continuity, unity, and prosperity.

A similarly programmatic approach toward cult patronage, and architectural patronage in general, has long been noted for the Attalid kings of the second-century BCE.²² Monuments like the Sanctuary of Athena and the Great Altar at Pergamon, or the Stoa of Attalos II at Athens have been discussed as representatives of a new, *Pergamene*, building style — first formulated in the second century and with the intent to advance the dynasty and to communicate notions of royalty and prosperity, history and longevity.²³ The most conspicuous characteristics of this Pergamene Style are: an emphasis on scale and grand architectural forms in plan and elevation, a dramatic conception of space, combinations of different building materials, sculptural enrichment of the architecture, references to the history of the site and the dynasty — both written on and into the architectural fabric —, and

Labraunda: [Hellström and Thieme \[1981\]](#). Halicarnassos: [Jeppesen \[2002\]](#). It is anticipated in such idiosyncratic monuments as the Nereid Monument at Xanthos (ca. 400 BCE) or the Heroon at Limyra (ca. 375-350 BCE).

²²[Pollitt \[1986\]](#). [Coulton \[1976\]](#). [Lauter \[1986\]](#).

²³For the Stoa of Attalos II at Athens, see [Thompson \[1992\]](#).

a carefree interpretation of the traditional canons of style and admixture of unusual decorative detail. My study of the Demeter Sanctuary suggests that many of the visual strategies characteristic of second-century Pergamene monuments were already part of Philetairos' and Apollonis' building programs in the third century BCE and that the monuments from the Demeter Sanctuary stand at the beginning of the visual tradition that we have come to understand as the Pergamene Architectural Style.²⁴ This observation reframes the discussion of Attalid architecture: it takes the second-century monuments out of their timeless "bubble" and places them within a broader architectural development; it provides a rationale for their designs by making them part of a larger, multi-generational effort of building a notion of capital at Pergamon; and it identifies the Pergamene Style of Architecture as part of an Anatolian building tradition thus opening a new point of entry for the study of this unusual and yet to be defined building style.²⁵ Moreover, reconstruction of the Demeter Sanctuary as a royal and political space in addition to an architectural space has provided visual confirmation of what has often been suggested by the study of Attalid cult patronage and cultural policy,²⁶ namely that the dynastic image so successfully promoted by the second-century kings built upon earlier generations of Attalid crafting.²⁷

²⁴The visual language developed by Philetairos' and Apollonis' architects finds parallels in attitude in the sculptural dedications of her husband Attalos I and especially in the Temple of Zeus in Pergamon's Upper Agora that is now also attributed to him. [Rheidt \[1992\]](#). [Rheidt \[1996\]](#). [Rumscheid \[1994\]](#) vol. 1, 118-124. [Schalles \[1985\]](#). The notion of a gradual development of a Pergamene building style with its roots in the third century is now emerging in scholarship. [Deubner \[1990\]](#). [Hoepfner \[1996\]](#). [Rheidt \[1996\]](#). [Kidd \[2003\]](#). [Kuttner \[2005\]](#).

²⁵The opportunities, goals and ambitions of each generation of Attalids may have differed, but their architectural monuments share a common language that suggests an attempt to convey continuity through the use of a distinct formal vocabulary.

²⁶[Schalles \[1985\]](#). [Gruen \[2000\]](#). [Kosmetatou \[2003\]](#). [Rheidt \[1996\]](#) also identifies a visual program in the early Pergamene monuments.

²⁷The notion of a Pergamene architectural style is not new, but the idea has mostly been applied to the second-century monuments and its specific traits, origin, and meaning have not yet received full treatment. E.g., [Pollitt \[1986\]](#). [Coulton \[1976\]](#). Only in recent years have scholars begun to include the third-century monuments into this discourse. E.g., [Rheidt \[1996\]](#). [Winzor \[1996\]](#) 226-265, attempts to define an Attalid architectural style, but hers is a preliminary attempt and more work is needed to describe the nuances of the style and its relation to the architectural style of Anatolia.

APPENDIX

ORTHOSTATE BLOCKS OF THE DEMETER TEMPLE

Table 1: Temple Orthostates: First Orthostate Row. Measured August 2004.

N°	Height (cm)	Length (cm)	Width (cm)	Characteristics
O1	56.5	75.7	25-21	apophyge
O7	56.8	72.7	28.5	apophyge
O12	56.6	73.5	23	
O25	56.5	96.5	22.3	
O26	56.5	105	25	H variance 1 cm

Table 2: Temple Orthostates: Second Orthostate Row. Measured August 2004.

N°	Height (cm)	Length (cm)	Width (cm)	Characteristics
O2	55.3	122.3	21	
O6	55.5	84.6	23	
O23	55.5	79.5	21	

Table 3: Temple Orthostates: Third Orthostate Row. Measured August 2004.

N°	Height (cm)	Length (cm)	Width (cm)	Characteristics
O5	54.5	124	23	
O13	54.1	75.5	23.5	
O18	54.5	105.5	23	
O31	54.5	77	23.5	H variance 1 cm

BIBLIOGRAPHY

- Y. Aharoni. The Horned Altar of Beer-sheba. *The Biblical Archaeologist*, 37:2–6, 1974.
- D. Aktsele. *Altäre in der archaischen und klassischen Kunst: Untersuchungen zu Typologie und Ikonographie*. Marie Leidorf, Espelkamp, 1996.
- E. Akurgal. Kyzikos. In R. Stillwell, W. MacDonald, and M. H. Mc. Allister, editors, *The Princeton Encyclopedia of Classical Sites*, pages 473–474. Princeton University Press, Princeton, NJ, 1976.
- S. Albersmeier. *Untersuchungen zu den Frauenstatuen des ptolemäischen Ägypten*. P. von Zabern, Mainz, 2002.
- R. E. Allen. *The Attalid Kingdom: A Constitutional History*. Clarendon Press, Oxford, 1983.
- M. Andronikos. *Vergina: The Royal Tombs and the Ancient City*. Ekdotike Athenon, Athens, 1984.
- N. Asgari. The Stages of Workmanship of the Corinthian Capital in Proconnesus and its Export Form. In N. Herz and M. Waelkens, editors, *Classical Marble: Geochemistry, Technology, Trade*, pages 115–125. Kluwer, Dordrecht, 1988.
- A. Avangianou. *Sacred Marriage in the Rituals of Greek Religion*. Peter Lang, Bern, 1991.
- M. Bachmann. Geheimnisvolle Zeichen. *DAI Istanbul*, 4:15, 2006. http://www.dainst.org/medien/de/istanbul2006_dt.pdf.
- M. Bachmann and A. Schwarting. *Pergamon Bau Z. Schutzbau über römischen Mosaiken*. Thelem Universitätsverlag, Dresden, 2005.
- G. Bakalakis. Goniako akroterio apo te Maroneia. *Hellenika*, 14:3–22, 1955.
- B. A. Barletta. *The Origins of the Greek Architectural Orders*. Cambridge University Press, Cambridge, 2001.
- T. Becker. *Griechische Stufenanlagen: Untersuchungen zur Architektur, Entwicklungsgeschichte, Funktion und Repräsentation*. Scriptorium, Münster, 2003.

- A. Bell. *Spectacular Power in the Greek and Roman City*. Oxford University Press, Oxford and New York, 2004.
- D. Berges. *Hellenistische Rundaltäre Kleinasiens*. D. Berges, Freiburg i. Br., 1986.
- B. Bergquist. *The Archaic Greek Temenos*. Glerup, Lund, 1967.
- P. Betancourt. *The Aeolic Style in Architecture*. Princeton University Press, Princeton, NJ, 1977.
- A. Bielman Sánchez. Régner au féminin. Réflexions sur les reines attalides et séleucides. *Pallas*, 62:41–61, 2003.
- R. A. Billows. *Kings and Colonists: Aspects of Macedonian Imperialism*. E. J. Brill, Leiden, New York, and Cologne, 1995.
- O. Bingöl. Überlegungen zum ionischen Gebälk. *IstMitt*, 40:101–108, 1990.
- J. P. Boardman. *Persia and the West: An Archaeological Investigation of the Genesis of Achaemenid Persian Art*. Thames and Hudson, London and New York, 2000.
- E. Boehringer and F. Krauss. *Altertümer von Pergamon IX. Das Temenos für den Herrscherkult (Prinzessinnen Palais)*. W. de Gruyter, Berlin, 1937.
- R. Bohn. *Altertümer von Pergamon IV. Die Theater-Terrasse*. W. Spemann, Berlin, 1896.
- C. H. Bohtz. *Altertümer von Pergamon XIII. Das Demeter Heiligtum*. W. de Gruyter, Berlin, 1981.
- C. H. Bohtz and W.-D. Albert. Die Untersuchungen am Demeterheiligtum in Pergamon. *AA*, pages 391–412, 1970.
- N. Bookidis. Ritual Dining at Corinth. In N. Marinatos and R. Hägg, editors, *Greek Sanctuaries: New Approaches*, pages 45–61. Routledge, London and New York, NY, 1993.
- N. Bookidis and R. S. Stroud. *Corinth XVIII.3. The Sanctuary of Demeter and Kore: Topography and Architecture*. Princeton University Press, Princeton, NJ, 1997.
- J. Borchhardt. *Die Bauskulptur des Heroons von Limyra. Das Grabmal des lykischen Königs Perikles*. Gebr. Mann, Berlin, 1976.
- J. Borchhardt and G. Stanzl. Ein hellenistischer Bau des Herrscherkultes: Das Ptolemaion von Limyra. In J. Borchhardt, e.a., editor, *Götter, Heroen, Herrscher in Lykien*, pages 79–84. Anton Schroll & Co., Vienna and Munich, 1990.
- J. Borchhardt, e.a. editors. *Götter, Heroen, Herrscher in Lykien*. Anton Schroll & Co., Vienna and Munich, 1990.
- C. Börker. *Blattkelchkapitelle*. PhD thesis, Freie Universität Berlin, 1965.

- C. Börker. Bukranion und Bukephalion. *AA*, pages 244–250, 1975.
- C. Börker. Festbankett und griechische Architektur. *Xenia*, 14, 1983.
- K. Bringmann and H. von Steuben. *Schenkungen hellenistischer Herrscher an griechische Städte und Heiligtümer. Teil I. Zeugnisse und Kommentare.* Akademie Verlag, Berlin, 1995.
- O. Broneer. Pnyx and Thesmophorion. *Hesperia*, 11:250–274, 1942a.
- O. Broneer. The Thesmophorion in Athens. *Hesperia*, 11:250–264, 1942b.
- A. C. Brumfield. *The Attic Festivals to Demeter and Their Relation to the Agricultural Year.* Ayer Co., Salem, NH, 1981.
- W. Burkert. *Homo Necans.* W. de Gruyter, Berlin and New York, 1972.
- W. Burkert. *Ancient Mystery Cults.* Harvard University Press, Cambridge, MA, 1987.
- W. Burkert. *Greek Religion.* Blackwell, Oxford, 1985.
- S. M. Burstein. Arsinoe II Philadelphos: A Revisionist View. In W. L. Adams and E. N. Borza, editors, *Philip II, Alexander the Great and the Macedonian Heritage*, pages 197–212. University Press of America, Lanham, MD and London, 1982.
- J. Burton. *Theocritus's Urban Mimes: Mobility, Gender and Patronage.* University of California Press, Berkeley, CA, 1995.
- N. Cahill. Taş Kule: A Persian-Period Tomb near Phokaia. *AJA*, 92:481–501, 1988.
- E. D. Carney. Women and *Dunasteia* in Caria. *AJP*, 126:65–91, 2005.
- E. D. Carney. *Women and Monarchy in Macedonia.* University of Oklahoma Press, Norman, OK, 2000.
- J. R. Carpenter. *The Propylon in Greek and Hellenistic Architecture.* PhD thesis, University of Pennsylvania, 1971.
- M. B. Cavanaugh. *Eleusis and Athens: Documents in Finance, Religion and Politics in the Fifth Century.* Scholars Press, Atlanta, GA, 1996.
- J. Charbonneaux, R. Martin, and F. Villard. *Das Hellenistische Griechenland, 330-350 v. Chr.* C. H. Beck, Munich, 1971.
- A.-H. Chroust. Aristotle's Sojourn in Assos. *Historia: Zeitschrift für alte Geschichte*, 21: 170–176, 1972.
- K. Clinton. *Myth and Cult: The Iconography of the Eleusinian Mysteries.* Svenska Institutet i Athen, Stockholm, 1992.

- K. Clinton. The Sanctuary of Demeter and Kore at Eleusis. In N. Marinatos and R. Hägg, editors, *Greek Sanctuaries: New Approaches*, pages 110–124. Routledge, London and New York, NY, 1993.
- K. Clinton. Stages of Initiation in the Eleusinian and Samothracian Mysteries. In M. B. Cosmopoulos, editor, *Greek Mysteries*, pages 50–78. Routledge, London and New York, NY, 2003.
- K. Clinton. The Thesmophorion in central Athens and the celebration of the Thesmophoria in Attica. In R. Hägg, editor, *The Role of Religion in the Early Greek Polis*, pages 111–125. Paul Åströms, Stockholm, 1996.
- D. Cohen. Seclusion, Separation, and the Status of Women in Classical Athens. *G&R*, 36.1: 3–15, 1989.
- S. G. Cole. Demeter in the Ancient Greek City and its Countryside. In S. E. Alcock and R. Osborne, editors, *Placing the Gods: Sanctuaries and Sacred Space in Ancient Greece*, pages 199–216. Clarendon Press, Oxford, 1994.
- S. G. Cole. *Landscapes, Gender, and Ritual Space*. University of California Press, Berkeley and Los Angeles, CA, 2004.
- J. B. Connelly. *Portrait of a Priestess: Women and Ritual in Ancient Greece*. Princeton University Press, Princeton, NJ, 2007.
- A. Conze and P. Schazmann. Mamurt Kaleh. Ein Tempel der Göttermutter unweit Pergamon. *JdI*, 9, 1911. Supplement.
- A. Conze, e.a. *Altertümer von Pergamon I. Stadt und Landschaft*. Reimer, Berlin, 1912.
- C. Corrado-Goulet. The Telesterion at Eleusis and its Position in Greek Architectural Tradition. Paper delivered at the 103rd AIA Meetings, 2002.
- M. B. Cosmopoulos. Mycenaean religion at Eleusis: the architecture and stratigraphy of Megraron B. In M. B. Cosmopoulos, editor, *Greek Mysteries*, pages 1–24. Routledge, London and New York, 2003.
- J. J. Coulton. *Ancient Greek Architects at Work: Problems of Structure and Design*. Cornell University Press, Ithaca, NY, 1977.
- J. J. Coulton. *The Architectural Development of the Greek Stoa*. Clarendon Press, Oxford, 1976.
- P. Coupel and P. Demargne. *Fouilles de Xanthos 3. Le monument des Nereids. L'Architecture*. Klincksieck, Paris, 1969. 2 vols.
- J. Crampa. *Labraunda III, The Greek Inscriptions*, volume 1. The Swedish Institute in Athens, Lund, 1969.

- J. Crampa. *Labraunda III, The Greek Inscriptions*, volume 2. The Swedish Institute in Athens, Stockholm, 1972.
- K. Dahl. *Thesmophoria. En græsk kvindefest*. Museum Tusculanum, Copenhagen, 1976.
- D. Damaskos. *Untersuchungen zu hellenistischen Kultbildern*. F. Steiner, Stuttgart, 1999.
- G. de Luca. Hellenistische Kunst in Pergamon im Spiegel der Megarischen Becher. *IstMitt*, 40:157–166, 1990.
- F. de Polignac. *Cults, Territory, and the Origins of the Greek City-State*. Chicago University Press, Chicago, IL, 1995. Originally published as *La naissance de la cité grecque*, Paris 1984.
- G. E. M. de Ste. Croix. Some Observations on the Property Rights of Athenian Women. *CR*, 20:273–278, 1970.
- M. Detienne. The Violence of Wellborn Ladies: Women in the Thesmophoria. In M. Detienne and J.-P. Vernant, editors, *The Cuisine of Sacrifice among the Greeks*, pages 129–147. University of Chicago Press, Chicago, IL, 1989.
- L. Deubner. *Attische Feste*. G. Olm, Hildesheim, second edition, 1966.
- S. Diamant and J. Rutter. Horned Objects in Anatolia and the Near East and Possible Connexions with the Minoan ‘Horns of Consecration’. *AnatSt*, 19:147–177, 1969.
- B. Dignas. *The Economy of the sacred in Hellenistic and Roman Asia Minor*. Oxford University Press, Oxford and New York, NY, 2002.
- M. Dillon. *Girls and Women in Classical Greek Religion*. Routledge, London and New York, NY, 2002.
- A. Dinstl. Ein Bukranienfries aus Limyra. In J. Borchhardt and G. Dobesch, editors, *Akten des II. Internationalen Lykien-Symposions, Wien, 6.-12. Mai 1990*, pages 161–167. Österreichische Akademie der Wissenschaften, Vienna, 1993.
- W. Dörpfeld. Die Arbeiten zu Pergamon 1908-1909: I. Die Bauwerke. *AM*, 35:355–385, 1910.
- W. Dörpfeld. Die Arbeiten zu Pergamon 1910-1911: I. Die Bauwerke. *AM*, 37:235–256, 1912.
- E. Dusinberre. *Aspects of Empire in Achaemenid Sardis*. Cambridge University Press, Cambridge, 2003.
- E. Dyggve. *Lindos, vol. III: Le sanctuaire d’Athéna Lindia et l’architecture lindienne, Fouilles et Recherches 1902-1914 et 1952*. W. de Gruyter, Berlin, 1960.

- R. Étienne. Autels et sacrifices. In A. Schachter, editor, *Le Sanctuaire grec*, pages 291–312. Fondation Hardt, Geneva, 1992.
- R. Étienne and M.-T. Le Dinahet. *L'espace sacrificiel dans les civilisations méditerranéennes de l'antiquité*. Bibliothèque Salomon-Reinach, Paris, 1991.
- L. R. Farnell. *The Cults of the Greek States*, volume 3. Clarendon Press, Oxford, 1907.
- R. Fleischer. *Der Klagefrauen-Sarkophag aus Sidon*. Istanbuler Forschungen 34. Gebr. Mann, Berlin, 1985.
- A. Fol, e. a. *The Thracian Tomb near the Village of Sveshtari*. Syvat Publishers, Sofia, 1986.
- L. Foxhall. Women's Ritual and Men's Work in Ancient Athens. In R. Hawley and B. Levick, editors, *Women in Antiquity. New Assessments*, pages 97–110. Routledge, London, 1995.
- M. Fränkel. *Altertümer von Pergamon VIII.1. Die Inschriften von Pergamon*. W. Speman, Berlin, 1890.
- A. Frazer. *Samothrace 10: The Propylon of Ptolemy II*. Princeton University Press, Princeton NJ, 1992. 2 vols.
- G. Garbrecht, e.a. *Altertümer von Pergamon I.4. Stadt und Landschaft. Die Wasserversorgung von Pergamon*. W. de Gruyter, Berlin and New York, 2001.
- G. Gruben. *Die Tempel der Griechen*. Hirmer, Munich, fourth edition, 1986.
- G. Gruben. Die Südhalle. *AM*, 72:52–64, 1957.
- E. S. Gruen. Culture as Policy: The Attalids of Pergamon. In B. S. Ridgway and N. T. de Grummond, editors, *From Pergamon to Sperlonga*, pages 17–31. University of California Press, Berkeley, Los Angeles, and London, 2000.
- E. V. Hansen. *The Attalids of Pergamon*. Cornell University Press, Ithaca, NY and London, second edition, 1971.
- Ö. Harmansah. Drama Marginality Space: Architecture of Ritual Action in Archaic Greece. A Hellenistic Paradigm: Pergamum. Master's thesis, Middle East Technical University (Ankara), 1996. <http://proteus.brown.edu/harmansah/1405>.
- H. Hauben. *Callicrates of Samos. A Contribution to the Study of the Ptolemaic Admiralty*. W. Peremans, Leuven, 1970.
- P. Hellström. *Labraunda: A guide to the Karian sanctuary of Zeus Labraundos*. Ege Yayinlari, Istanbul, 2007.
- P. Hellström and T. Thieme. *The Temple of Zeus*, volume I:3 of *Labraunda. Swedish Excavations and Researches*. Paul Åströms, Stockholm, 1982.

- P. Hellström and T. Thieme. The Androns at Labraunda. A Preliminary Account of their Architecture. *Medelhausemuseet Bulletin*, 16:58–74, 1981.
- H. Hepding. Die Arbeiten zu Pergamon 1908-1909: II. Die Inschriften. *AM*, 35:439–442, 1910a.
- H. Hepding. Die Arbeiten zu Pergamon 1908-1909: III. Die Einzelfunde. *AM*, 35:494–520, 1910b.
- R. Herzog and P. Schazmann. *Kos. Asklepieion, Baubeschreibung und Baugeschichte*. H. Keller, Berlin, 1932.
- V. Hinz. *Der Kult von Demeter und Kore auf Sizilien und in der Magna Graecia*. Reichert, Wiesbaden, 1998.
- B. Hinzen-Bohlen. *Herrscherrepräsentation im Hellenismus*. Böhlau, Cologne, Weimar and Vienna, 1992.
- W. Hoepfner. *Zwei Ptolemaierbauten*. *AM*, Beiheft 1. Gebr. Mann, Berlin, 1971.
- W. Hoepfner. The Architecture of Pergamon. In R. Dreyfus and E. Schraudolph, editors, *Pergamon. The Telephos Frieze from the Great Altar*, volume 2, pages 22–57. Fine Arts Museums of San Francisco, San Francisco, CA, 1996.
- M. Hollinshead. Monumental Steps. In T. Hackens, N. D. Holloway, R. R. Holloway, and G. Moucharte, editors, *The Age of Pyrrhus*, pages 83–96. *Archaeologia Transatlantica*, Louvain, 1992.
- T. Hölscher. *Öffentliche Räume in frühen griechischen Städten*. C. Winter, Heidelberg, 1998.
- M. Honroth. *Stadtrömische Girlanden. Ein Versuch zur Entwicklungsgeschichte römischer Ornamentik*. Österreichisches Archäologisches Institut, Vienna, 1971.
- J. Hopp. *Untersuchungen zur Geschichte der letzten Attaliden*. Beck, Munich, 1977.
- S. Hornblower. *Mausolus*. Clarendon Press, Oxford, 1982.
- A. Ippel. Die Arbeiten zu Pergamon 1910-1911: III. Die Einzelfunde. *AM*, 37:304–312, 1912.
- K. Jeppesen. *The Maussolleion at Halikarnassos: v. 5. The Superstructure*. Gyldendalske Boghandel, Nordisk Forlag, Copenhagen, 2002.
- K. Jeppesen. *Labraunda, Swedish Excavation and Researches. V. 1, pt. 1. The Propylaea*. C. W. K. Gleerup, Lund, 1955.
- K. Jeppesen. *The Maussolleion at Halikarnassos: v. 2. The Written Sources and Their Archaeological Background*. Gyldendalske Boghandel, Nordisk Forlag, Copenhagen, 1986.

- T. E. Kalpaxis. *Hemiteles. Akzidentelle Unfertigkeit und "Bossenstil" in der griechischen Baukunst*. P. von Zabern, Mainz, 1986.
- S. Kasper. Zum großen Altar der Demeterterrasse in Pergamon. In E. Boehringer, editor, *Pergamenische Forschungen 1*, pages 69–93. W. de Gruyter, Berlin, 1972.
- V. Kästner. Vorhellenistische Architekturstücke aus Pergamon. *IstMitt*, 54 (Pro Pergamo - 2004. Festschrift für Wolfgang Radt):129–145, 2004.
- V. Kästner. Tradition oder Innovation. Besondere Kapitellformen in der hellenistischen Baukunst von Pergamon. In E.-L. Schwandner, editor, *Säule und Gebälk. Zu Struktur und Wandlungsprozeß griechisch-römischer Architektur*, DiskAB 6, pages 153–161. P. von Zabern, Mainz, 1996.
- B. Kidd. *The Doric Revival under the Attalids of Pergamon*. PhD thesis, University of Missouri-Columbia, 2003.
- K. Kjeldsen and J. Zahle. Lykische Gräber: Ein vorläufiger Bericht. *AA*, pages 312–350, 1975.
- I. Kleemann. *Der Satrapen-Sarkophag aus Sidon*. Istanbuler Forschungen 20. Gebr. Mann, Berlin, 1958.
- H. Knackfuß and A. Rehm. *Milet I. 7. Der Südmarkt und die benachbarten Bauanlagen*. Reimer, Berlin, 1924.
- W. Koenigs. Bauglieder aus Milet II. *IstMitt*, 30:56–91, 1980.
- W. Koenigs. Archaische Bauglieder aus Kyzikos. *AnatSt*, 31:121–128, 1981.
- W. Koenigs. Der Athenatempel von Priene. Bericht über die 1977-82 durchgeführten Untersuchungen. *IstMitt*, 33:134–175, 1983.
- E. Kosmetatou. The Attalids of Pergamon. In A. Erskine, editor, *A Companion to the Hellenistic World*, pages 159–174. Blackwell Publishing, Malden, MA, 2003.
- E. Kosmetatou. Telesterion or Telesteria? Paper delivered at the 133rd AIA Meetings, 2002.
- U. Kron. Frauenfeste in Demeterheiligümern: Das Thesmophorion von Bitalemi. eine archäologische Fallstudie. *AA*, pages 611–650, 1992.
- U. Kron. Priesthoods, Dedications and Euergetism, What Part Did Religion Play in the Political and Social Status of Greek Women? In P. Hellström and B. Alroth, editors, *Religion and Power in the Ancient Greek World, Proceedings of the Uppsala Symposium 1993*, Boreas 24, pages 139–182. Acta Universitatis Upsaliensis, Uppsala, 1996.

- A. Kuttner. "Do you look like you belong here?": Asianism at Pergamon and the Macedonian Diaspora. In E. S. Gruen, editor, *Cultural Borrowings and Ethnic Appropriations in Antiquity*, pages 137–206. F. Steiner, Stuttgart, 2005.
- A. Kuttner. Hellenistic Images of Spectacle, from Alexander to Augustus. In B. Bergmann and C. Kondoleon, editors, *The Art of Ancient Spectacle*, Studies in the History of Art, v. 56, pages 97–122. National Gallery of Art, Washington, D.C., 1999.
- H. Kyrieleis. Bronzener Bauschmuck. In H. Büsing and F. Hiller, editors, *Bathron. Beiträge zur Architektur und verwandten Künsten für Heinrich Drerup zu seinem 80. Geburtstag von seinen Schülern und Freunden*, pages 279–286. Saarbrücker Druckerei und Verlag, Saarbrücken, 1988.
- D. Laroche. L'autel d'Apollon a Delphes: elements nouveaux. In R. Étienne and M.-T. Le Dinahet, editors, *L'espace sacrificiel dans les civilisations méditerranéennes de l'antiquité*, pages 103–107. Bibliothèque Salomon-Reinach, Paris, 1991.
- H. Lauter. Künstliche Unfertigkeit: Hellenistische Bossensäulen. *JdI*, 98:287–310, 1983.
- H. Lauter. *Die Architektur des Hellenismus*. Wissenschaftliche Buchgesellschaft, Darmstadt, 1986.
- A. W. Lawrence. *Greek Architecture*. Yale University Press, New Haven, CT and London, fifth edition, 1996.
- S. Le Bohec-Bouhet. Réflexions sur la place de la femme dans la Macédoine antique. In A.-M. Guimier-Sorbets, e.a., editor, *Rois, Cités, Nécropoles. Institutions, Rites et Monuments en Macédoine. Actes des Colloques de Nanterre (décembre 2002) et d'Athènes (janvier 2004)*, pages 187–197. Centre de Recherches de l'Antiquité Grecque et Romaine, Athens, 2006.
- H. Lefebvre. *The Production of Space*. Blackwell, Malden, MA, 1991. transl. D. Nicholson-Smith (orig. 1974).
- P. Lehmann. The Setting of Hellenistic Temples. *JSAH*, 13:15–20, 1954.
- C. Leypold. *Bankettgebäude in griechischen Heiligtümern*. Dr. Ludwig Reichert Verlag, Wiesbaden, 2008.
- C. Löhr. *Griechische Familienweihungen. Untersuchungen einer Repräsentationsform von ihren Anfängen bis zum Ende des 4. Jh. v. Chr.* Leidorf, Rahden, 2000.
- H. van Looy. Apollonis reine de Pergame. *AncSoc*, 7:151–165, 1976.
- J. N. Lowe. Thesmophoria and Haloa: myth, physics and mysteries. In S. Blundell and M. Williamson, editors, *The Sacred and the Feminine in Ancient Greece*, pages 149–173. Routledge, London and New York, NY, 1998.

- H. S. Lund. *Lysimachus: A Study in Early Hellenistic Kingship*. Routledge, London and New York, NY, 1992.
- D. Magie. *Roman Rule in Asia Minor*. Princeton University Press, Princeton, N.J., 1950.
- J. R. Marszal. Ubiquitous Barbarians: Representations of the Gauls at Pergamon and Elsewhere. In B. S. Ridgway and N. T. de Grummond, editors, *From Pergamon to Sperlonga*, pages 191–234. University of California Press, Berkeley, 2000.
- J. R. Marszal. *The Representation of the Gauls in the Hellenistic and Roman Imperial Periods*. PhD thesis, Bryn Mawr College, 1991.
- J. R. Marszal. Tradition and innovation in early Pergamene sculpture. In O. Palagia and W. Coulson, editors, *Regional Schools in Hellenistic Sculpture*, pages 117–127. Oxbow, Oxford, 1998.
- H. Mattingly. Athens between Rome and the Kings: 229/8 to 129 b.c. In P. Cartledge, P. Garnsey, and E. Gruen, editors, *Hellenistic Constructs: Essays in Culture, History, and Historiography*, pages 120–144. University of California Press, Berkeley, CA, 1997.
- F. Matz, B. Andreae, and H. Herdejürgen. *Die antiken Sarkophagreliefs, Bd.6.2. Stadtrömische und italische Girlandensarkophage*. Gebr. Mann, Berlin, 1997.
- J. McCredie, e.a. *Samothrace 7: The Rotunda of Arsinoe*. Princeton University Press, Princeton, NJ, 1992. 2 vol.
- R. B. McShane. *The Foreign Policy of the Attalids of Pergamum*. University of Illinois Press, Urbana, IL, 1964.
- D. Mertens. Der ionische Tempel in Metapont. *Architectura*, 7.2:152–162, 1977.
- S. G. Miller. *The Prytaneion: Its Function and Architectural Form*. University of California Press, Berkeley, CA, Los Angeles, CA and London, 1978.
- St. G. Miller. *Hellenistic Macedonian Architecture: Its Style and Painted Ornamentation*. PhD thesis, Bryn Mawr College, 1971.
- S. Mitchell. The Galatians: Representation and Reality. In A. Erskine, editor, *A Companion to the Hellenistic World*, pages 280–293. Blackwell, Malden, MA, 2003.
- L. Mühlbauer. *Lykische Grabarchitektur: Vom Holz zum Stein?* PhD thesis, Technische Universität München, 2002.
- J. A. R. Munro and H. A. Tubbs. Excavations in Cyprus, 1889. Polis tes Chyrsochou, Limniti. *JHS*, 11:1–99, 1889.
- G. E. Mylonas. *Eleusis and the Eleusinian Mysteries*. Princeton University Press, Princeton, NJ, 1961.

- A. E. Napp. *Bukranion und Guirlande. Beiträge zur Entwicklungsgeschichte der hellenistischen und römischen Dekorationskunst*. E. Bechstein, Wertheim a. M., 1933.
- C. T. Newton. *A History of the Discovery at Halicarnassus, Cnidus, and Branchidae*. Oxford University, London, 1862.
- I. Nielsen. Cultic Theatres and Ritual Drama in Ancient Greece. In S. Isager and I. Nielsen, editors, *Proceedings of the Danish Institute at Athens III*, pages 107–134. Aarhus University Press, Aarhus, 2000.
- I. Nielsen. *Cultic Theatres and Ritual Drama: A Study in Regional Development and Religious Interchange Between East and West in Antiquity*. Aarhus University Press, Aarhus, 2002.
- M. P. Nilsson. *Opuscula Selecta*, volume 3. C. W. K. Glerup, Lund, 1960.
- L. Nixon. The Cults of Demeter and Kore. In R. Hawley and B. Levick, editors, *Women in Antiquity. New Assessments*, pages 75–96. Routledge, London, 1995.
- K. L. Nourse. *Women and the Early Development of Royal Power in the Hellenistic East*. PhD thesis, University of Pennsylvania, 2002.
- E. Ohlemutz. *Die Kulte und Heiligtümer der Götter in Pergamon*. Wissenschaftliche Buchgesellschaft, Darmstadt, 1968.
- A. Ohnesorg. *Ionische Altäre: Formen und Varianten einer Architekturgattung aus Insel- und Ostionien*. Gebr. Mann, Berlin, 2005.
- J. Onians. *Art and Thought in the Hellenistic Age: The Greek World View, 350-50 BC*. Thames & Hudson, London, 1979.
- M. Ortac. *Die hellenistischen und römischen Propyla in Kleinasien*. PhD thesis, Universität Bochum, 2001.
- P. Pedersen. Pergamon and the Ionian Renaissance. *IstMitt*, 54 (Pro Pergamo - 2004. Festschrift für Wolfgang Radt):409–434, 2004.
- A. Petropolou. *Prothesis and Altar: A Case Study*. In R. Étienne and M.-T. Le Dinahet, editors, *L'espace sacrificiel dans les civilisations méditerranéennes de l'antiquité*, pages 25–31. Bibliothèque Salomon-Reinach, Paris, 1991.
- J. P. Phillips. *The Columns of Egypt*. Peartree, Manchester, 2002.
- C. Piok Zanon. The Propylon to the Sanctuary of Demeter at Pergamon. Master's thesis, University of Pittsburgh, 2000.
- C. Piok Zanon. Dank an Demeter: Neue Gedanken zu Architektur und Bedeutung des Demeter-Kultes in Pergamon im späten 3. Jh. v. Chr. *IstMitt*, 57:323–364, 2007.

- J. J. Pollitt. *Art in the Hellenistic Age*. Cambridge University Press, Cambridge and New York, NY, 1986.
- W. Radt. *Pergamon. Geschichte und Bauten einer antiken Metropole*. Wissenschaftliche Buchgesellschaft, Darmstadt, 1999.
- W. Radt. Archaisch oder archaisierend? — Ein ornamentierter Baublock in Limyra. In J. Borchhardt and G. Dobesch, editors, *Akten des II. Internationalen Lykien-Symposiums, Wien, 6.-12. Mai 1990*, pages 177–183. Österreichische Akademie der Wissenschaften, Vienna, 1993.
- W. Raeck. Priene. Neue Forschungen an einem alten Grabungsort. Mit Beiträgen von H. Bankel, H. Fahlbusch, A. Hennemeyer, A. von Kienlin, A. Leibhammer, E. Nagel, F. Rumscheid, C. Schneider. *IstMitt*, 53:313–423, 2003.
- W. Raeck. Das hellenistische Pergamon als Residenzstadt und Polis. Kenntnisstand und offene Fragen. *IstMitt*, 54 (Pro Pergamo - 2004. Festschrift für Wolfgang Radt):23–34, 2004.
- W. Raeck. Carl Helmut Bohtz: Das Demeter-Heiligtum (review article). *Gnomon*, 55: 525–530, 1983.
- J. D. Reed. Arsinoe's Adonis and the Poetics of Ptolemaic Imperialism. *Transactions of the American Philological Association*, 130:319–351, 2000.
- K. Rheidt. Pergamenische Ordnungen — Der Zeustempel und seine Bedeutung für die Architektur der Attaliden. In E.-L. Schwandner, editor, *Säule und Gebälk. Zu Struktur und Wandlungsprozeß griechisch-römischer Architektur*, DiskAB 6, pages 162–180. P. von Zabern, Mainz, 1996.
- K. Rheidt. Die Obere Agora. Zur Entwicklung des hellenistischen Stadtzentrums von Pergamon. *IstMitt*, 42:235–285, 1992.
- E. E. Rice. *The Grand Procession of Ptolemy II Philadelphus*. Oxford University Press, Oxford, 1983.
- B. S. Ridgway. *Hellenistic Sculpture I: The Styles of ca. 331-200 B.C.* University of Wisconsin Press, Madison, WI, 2001.
- M. C. Root. *King and Kingship in Achaemenid Art: Essays on the Creation of an Iconography of Empire*. E. J. Brill, Leiden, 1979.
- H. J. Rose. *The Architecture of Ancient Greece*. E. P. Dutton and Co., Inc., New York, NY, 1959.
- M. I. Rostovtzeff. *The Social and Economic History of the Hellenistic World*. Oxford University Press, Oxford, 1964.

- J. Roy. The Masculinity of the Hellenistic King. In L. Foxhall and J. Salmon, editors, *When Men were Men*, pages 111–135. Routledge, London and New York, NY, 1998.
- F. Rumscheid. *Untersuchungen zur kleinasiatischen Bauornamentik des Hellenismus*. P. von Zabern, Mainz, 1994. 2 volumes.
- F. Rumscheid. *Priene: A Guide to the “Pompeii of Asia Minor”*. Ege Yayinlari, Istanbul, 1998.
- F. Rumscheid. Die unbekannte Säulenbasis des Demeter-Tempels von Pergamon. *IstMitt*, 42:347–350, 1992.
- S. Ruzicka. *Politics of a Persian Dynasty: The Hecatomnids in the Fourth Century B.C.* University of Oklahoma Press, Norman, OK and London, 1992.
- C. Saatsoglou-Paliadeli. Queenly Appearances at Vergina-Aegae. Old and New Epigraphic and Literary Evidence. *AA*, pages 387–403, 2000.
- S. Saba. Isopoliteia as an Independent Honor. Paper delivered at the 135th APA Meetings, 2004.
- I. Savalli-Lestrade. Archippe di Kyme: la benefattrice. In N. Loraux, editor, *La Grecia al femminile*, pages 193–228. G. Laterza & Figli, Rome and Bari, 1993.
- I. Savalli-Lestrade. Il ruolo pubblico delle regine ellenistiche. In S. Alessandri, editor, *Historie: Studi offerti dagli allievi a Giuseppe Nenci in occasione del suo settantesimo compleanno*, pages 415–432. Congedo, Lecce, 1994.
- H. Schaaf. *Untersuchungen zu den Gebäudestiftungen in hellenistischer Zeit*. Böhlau, Cologne, Weimar and Vienna, 1992.
- H.-J. Schalles. *Untersuchungen zur Kulturpolitik der pergamenischen Herrscher im dritten Jahrhundert vor Christus*. E. Wasmuth, Tübingen, 1985.
- T. G. Schattner. *Griechische Hausmodelle: Untersuchungen zur frühgriechischen Architektur*. Gebr. Mann, Berlin, 1990.
- P. Schazmann. *Altertümer von Pergamon VI. Das Gymnasion. Der Tempelbezirk der Hera Basileia*. W. Spemann, Berlin, 1923.
- T. S. Scheer. The Past in a Hellenistic Present: Myth and Local Tradition. In A. Erskine, editor, *A Companion to the Hellenistic World*, pages 216–231. Blackwell, Malden, MA, 2003.
- T. S. Scheer. *Mythische Vorväter. Zur Bedeutung griechischer Heroenmythen im Selbstverständnis kleinasiatischer Städte*. Maris, Munich, 1993.
- S. T. Schipporeit. Das alte und das neue Priene. *IstMitt*, 48:193–236, 1998.

- E. F. Schmidt. *Persepolis*. University of Chicago Press, Chicago, IL, 1953. 3 vols.
- A. Schober. *Die Kunst von Pergamon*. M. F. Rohrer, Wien, 1951.
- A. Schober. Zur Datierung Eumenischer Bauten. *ÖJh*, 32:151–168, 1940.
- J. Schrammen. *Altertümer von Pergamon III.1. Der große Altar. Der obere Markt*. Reimer, Berlin, 1896.
- H. Schwarzer. Untersuchungen zum hellenistischen Herrscherkult in Pergamon. *IstMitt*, 49: 249–300, 1999.
- U. Seidl. Wie waren die achaimenidischen Doppelprotomen-Kapitelle ausgerichtet? In W. Henkelman and A. Kuhrt, editors, *A Persian Perspective: Essays in Memory of Heleen Sancisi-Weerdenburg*, Achaemenid History XIII, pages 67–77. Nederlands Instituut voor het Nabije Oosten, Leiden, 2003.
- G. Sfameni-Gasparro. *Misteri e culti mistici di Demetra*. L’Erma di Bretschneider, Rome, 1986.
- L. Shivkova. *Das Grabmal von Kasanlak*. Verlag Aurel Bongers, Recklinghausen, 1973.
- L. T. Shoe. *Profiles of Greek Mouldings*. Harvard University Press, Cambridge, MA, 1936. 2 vols.
- R. Simms. Mourning and the Community at the Athenian Adonia. *CJ*, 93:121–141, 1997.
- A. B. Stallsmith. Aporetta: Verbal and Ritual Obscenity in the Cults of Ancient Women. In R. Hägg, editor, *The Role of Religion in the Early Greek Polis*, pages 67–74. Paul Åströms, Stockholm, 1996.
- A. B. Stallsmith. A “Crowd of Vulgar Revellers”: the *Thesmophoriazousai* at Athens. In B. G. Wright, editor, *A Multiform Heritage. Studies on Early Judaism and Christianity in Honor of Robert A. Kraft*, pages 1–9. Scholars Press, Atlanta, GA, 1999.
- A. B. Stallsmith. The Name of Demeter Thesmophoros. Paper delivered at the MAR-AAR Meetings in Baltimore, 2007.
- P. E. Stanwick. *Portraits of the Ptolemies: Greek Kings as Egyptian Pharaohs*. University of Texas Press, Austin, TX, 2002.
- G. Stanzl. The Ptolemaion at Limyra and its Recently Discovered Curvature. In L. Haselberger, editor, *Appearance and Essence: Refinements of Classical Architecture - Curvature*, pages 155–172. University of Pennsylvania, Philadelphia, PA, 1993.
- E. Stehle. Thesmophoria and Eleusinian Mysteries: The Fascination of Women’s Secret Ritual. In M. Parca and A. Tzanetou, editors, *Finding Persephone: Women’s Rituals in*

- the Ancient Mediterranean*, pages 165–185. Indiana University Press, Bloomington, IN, 2007.
- M. Stephan. *Die griechische Guirlande. Ein Beitrag zur griechischen Ornamentik*. M. von Nordheim, Zella-Mehlis, Thr., 1931.
- S. A. Stephens. *Seeing Double: Intercultural Poetics in Ptolemaic Alexandria*. University of California Press, Berkeley, CA, 2003.
- V. M. Strocka. Die frühesten Girlandensarkophage. Zur Kontinuität der Reliefsarkophage in Kleinasien während des Hellenismus und der frühen Kaiserzeit. In S. Şahin, E. Schwertheim, and J. Wagner, editors, *Studien zur Religion und Kultur Kleinasiens. Festschrift für Friedrich Karl Dörner zum 65. Geburtstag am 28. Februar 1976*, volume 2, pages 882–913. E. J. Brill, Leiden, 1978.
- R. A. Stucky. *Das Eschmun-Heiligtum von Sidon. Architektur und Inschriften*. Antike Kunst, Beiheft 19. Vereinigung der Freunde antiker Kunst, Basel, 2005.
- R. Stupperich. Zu den Stylopinakia am Tempel der Apollonis in Kyzikos. *Mysische Studien. Asia Minor Studien*, 1:101–109, 1990.
- M. C. Sturgeon. Pergamon to Hierapolis: From Theatrical “Altar” to Religious Theater. In B. S. Ridgway and N. T. de Grummond, editors, *From Pergamon to Sperlonga*, pages 58–77. University of California Press, Berkeley, Los Angeles, and London, 2000.
- C. Thomas. The Sanctuary of Demeter at Pergamon: Cultic Space for Women and Its Eclipse. In H. Koester, editor, *Pergamon Citadel of the Gods*, pages 277–298. Trinity Press International, Harrisburg, PA, 1998.
- H. A. Thompson. The Thesmophorion in Athens. *Hesperia*, 5:151–200, 1936.
- H. A. Thompson. *The Stoa of Attalos II in Athens*. The American School of Classical Studies at Athens, Princeton, NJ, 1992.
- E. Töpferwein. *Pergamenische Forschungen 3: Die Terrakotten von Pergamon*. W. de Gruyter, Berlin, 1976.
- A. Trevor Hodge. Bosses Reappraised. In S. T. A. M. Mols and E. M. Moorman, editors, *Omni pede stare. Saggi architettonici e circumvesuviani in memoriam Jos de Waele.*, Studi della Soprintendenza archeologica di Pompei 9, pages 45–52. Electa Napoli and Ministero per i Beni e le Attività Culturali, Naples, 2005.
- A. Tzanetou. Something to Do with Demeter: Ritual and Performance in Aristophanes’ *Women at the Thesmophoria*. *AJP*, 123:329–367, 2002.
- G. Umholtz. *Royal Patronage of Greek Architecture as an Instrument of Foreign Policy in the Hellenistic Period*. PhD thesis, University of California at Berkeley, 1994.

- G. Umholtz. Queenly Emulation in Early Hellenistic Architecture. Paper delivered at the 100th AIA Meetings, 1998.
- G. Umholtz. Architectural Ornament Fit for a Queen: Feminine Piety and Early Hellenistic Boukrania. In N. D. Cahill, editor, *Love for Lydia. A Sardis Anniversary Volume Presented to Crawford H. Greenewalt, Jr.*, pages 99–110. Harvard University Press, Cambridge, MA and London, 2008.
- G. Umholtz. Talking Gateways. Paper delivered at the 62nd SAH Meetings, 2009.
- R. van Bremen. *The Limits of Participation: Women and Civic Life in the Greek East in the Hellenistic and Roman periods*. J. C. Gieben, Amsterdam, 1996.
- P. Veyne. *Bread and Circuses*. Penguin Press, London, 1990 (orig. 1976).
- V. von Graeve. *Der Alexandersarkophag und seine Werkstatt*. Istanbuler Forschungen 28. Gebr. Mann, Berlin, 1970.
- H. von Hesberg. *Konsolengeisa des Hellenismus und der frühen Kaiserzeit*. P. von Zabern, Mainz, 1980.
- H. von Hesberg. Girlandenschmuck der republikanischen Zeit in Mittelitalien. *RM*, 88: 201–245, 1981.
- H. von Hesberg. The King on Stage. In B. Bergmann and C. Kondoleon, editors, *The Art of Ancient Spectacle*, Studies in the History of Art, v. 56, pages 64–75. National Gallery of Art, Washington, D.C., 1999.
- R. von Ranke-Graves. *Griechische Mythologie*. Rowohlt Taschenbuch Verlag, Hamburg, 1960.
- K. Waldner. Gender Studies in den Klassischen Altertumswissenschaften. Internet-Beiträge zur Ägyptologie und Sudanarchäologie Vol. II (IBAES II): Geschlechterforschung in der Ägyptologie und Sudanarchäologie. <http://www2.rz.hu-berlin.de/nilus/net-publications/ibaes2/Waldner/text.pdf>, 2004.
- G. B. Waywell. The Ada, Zeus and Idrieus Relief from Tegea in the British Museum. In O. Palagia and W. Coulson, editors, *Sculpture from Arcadia and Laconia*, pages 79–86. Oxbow, Oxford, 1993.
- P. Webb. The Functions of the Sanctuary of Athena and the Pergamon Altar (the Heroon of Telephos) in the Attalid Building Program. In K. J. Hartswick and M. C. Sturgeon, editors, *Stephanos, studies in honor of Brunilde Sismondo Ridgway*, pages 241–254. University Museum, University of Pennsylvania for Bryn Mawr College, Philadelphia, PA, 1998.
- M. Weiskopf. *The So-Called "Great Satrap's Revolt", 366-360 B.C.* Historia Einzelschriften 63. F. Steiner, Stuttgart, 1989.

- A. F. Wensler. Zur Datierung des Temenos für den Herrscherkult in Pergamon. *AA*, pages 33–42, 1989.
- B. Wesenberg. *Kapitelle und Basen: Beobachtungen zur Entstehung der griechischen Säulenformen*. Rheinland-Verlag, Düsseldorf, 1971.
- U. Westermark. *Das Bildnis des Philetairos von Pergamon*. Almqvist & Wiksells, Stockholm, 1961.
- J. J. Winkler. *The Constraints of Desire: The Anthropology of Sex and Gender in Ancient Greece*. Routledge, New York, NY, 1990.
- F. E. Winter. *Studies in Hellenistic Architecture*. University of Toronto Press, Toronto, Buffalo, NY and London, 2006.
- C. Winzor. *The Architectural Patronage of the Attalids and Ptolemies*. PhD thesis, University of Oxford, 1996.
- U. Wulf. Vom Herrensitz zur Metropole — Zur Stadtentwicklung von Pergamon. In E.-L. Schwandner and K. Rheidt, editors, *Stadt und Umland. Neue Ergebnisse der archäologischen Bau- und Siedlungsforschung*, DiskAB 7, pages 33–49. P. von Zabern, Mainz, 1999a.
- U. Wulf. *Altertümer von Pergamon XV.3. Die Stadtgrabung. Die hellenistischen und römischen Wohnhäuser von Pergamon*. W. de Gruyter, Berlin, 1999b.
- P. Zazoff, e. a. Zur thrakischen Kunst im Frühhellenismus. Griechische Bildelemente in zeremoniellem Verwendungszusammenhang. *AA*, pages 595–643, 1985.
- O. Ziegenaus and G. de Luca. *Altertümer von Pergamon XI.1. Das Asklepieion. Der südliche Temenosbezirk in hellenistischer und frühromischer Zeit*. W. de Gruyter, Berlin, 1968.