HELLENIC REPUBLIC
National and Kapodistrian University of Athens
EST. 1837

Department of History and Archaeology

MA in Greek and Eastern Mediterranean Archaeology: From the Bronze Age Palaces to the Hellenistic Kingdoms

Regional Influences between Greek and Macedonian Architecture with Attention to Stoa Design

MA Dissertation

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Athens, 2019

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ABSTRACT

This thesis is a study of the regional influences of the Macedonian and Greek Architecture and their impact on the stoa design after the rise of the Hellenistic kingdoms. The stoa, as form and design is known to Greek architecture with continuous presence in agoras, sanctuaries and other public places. The origins of the stoa as a design are located in Greece, where the earlier examples are related with the development of the Classical aesthetics of design. Yet, the emergence of the Hellenistic kingdoms effects the stoa design in a significant degree and transforms completely the concept of the structure. The Hellenistic stoas incorporate various local and regional traditions, as an architectural hybrid. Yet, the Hellenistic Stoas are not affected by the Hellenistic palatial architecture only in terms of design but also in terms of ideology of kingship, of administration system and legitimization of the governance and maintenance of social hierarchies.

To my best friend, Stamatia Tselikou

ACKNOWLEDGMENTS

This project would not have been possible without the support and help of many people. During this process of working several people have encouraged and inspired me.

Honest thanks to my adviser, David Scahill, who patiently read my numerous revisions and offered me priceless guidance, support, inspiration, and advice. Also, I would like to thank the Department of History and Archaeology and its faculty at National and Kapodistrian University of Athens for the continuous progress of my studies in recent years. Many thanks also to my colleague and friend Eva Jorgensen for improving the English text with patience and persistence. And finally, thanks to my family and numerous friends who endured this long process with me, always offering love, tolerance, and companionship.

Thank you all from the bottom of my heart.

TABLE OF CONTENTS

Preface

"The creations of architecture are primary vectors of style in every historical period and express the spirit of the era more than other works of art. This is not only since architecture composes elements beyond any imitation, but that it is very close to everyday life and in direct response to existing social, political and economic conditions."

Charalambos Bouras

Greek Architecture, from the dawn of its creation, was neither a utilitarian form of constructions nor an 'Architecture for Architecture's sake' demonstrative concept; what makes Greek Architecture so exciting and unique is that it is a mixture of both conceptions. When studying Greek Architecture, the first thing to be noticed is its evolution through time but this development is not only an evolution in technology and craftsmanship; it is primarily an evolution of ideas which reflect on contemporary social, political and economic conditions. The construction of large-scale buildings became the mirror for the expression of the mentality of the Greeks and as a means of social communication in and out of the borders of the Greek World.

Those borders, which became even wider after the expansion of the Macedonian Kingdom by Alexander the Great, both incorporate and expand different styles, scales and content of art. Therefore, Macedonia was already an autonomous kingdom long before Alexander's expedition.

This reality could indicate that, when compared to the democratic society of Athens, Macedonian architecture communicated a different mindset or mentality. These political and spiritual factors that initially impact the representation of the monumental art are vital in our understanding of the Macedonian architecture and its regional influences with the rest of the Greek World.

This study concerns the regional influences between the Greek and the Macedonian architecture in the sense of the blending of features and meanings. The emphasis on the Stoa design as a civic construction is the demonstration of a hybridized example that redefines the identity of those combined units. The analyzed features indicate the shared commonalities of the Greek and Macedonian building traditions applied to the Stoa design, which inevitably delves into the ideology of power, kingship and public space.

Introduction

Greek Architecture has been held in regard since the beginning of the investigation of the Classical era in the 18th century. The study of Greek Architecture begs many fascinating questions; The works of architecture, as the monumental constructions of ancient history can be seen as mirroring of every aspect of society: ideology, politics, and economics.

Essentially, this deduction about the mirroring of ideological, political and economical created the fundamental need for classification of the architectural types, orders, and regional differences. Yet, the most extensive and numerous analyses have been made of the temples, especially of the classical period, since temples are considered the most elegant, complete and lavish monumental constructions of the classical past. This belief affected the research in general to a significant degree, that remained focused on this axiom classification of the buildings since the different styles and orders- Doric, Ionic and Corinthian- are first employed in temples.

In this study, an attempt will be made to detect the regional influences of the Greek and Macedonian architecture of the Stoa design, based on examples of material evidence and theoretical discussion. The main principle is to analyze the development of the Stoa, a civic building so essential to Greek Architecture, yet almost overlooked, especially in terms of influences.

The stoa in Greek architecture has been vaguely defined as a covered walkway or colonnade or an elementary feature of a building synthesis in all public spaces. Stoas are presented in sanctuaries, Agoras and other public meeting places as a building type which has been adapted to the benign Greek climate, mostly for utilitarian purposes. Stoas were used in sanctuaries to accommodate the pilgrims in activities during the day and night but smaller stoas, as found in Delphi and Brabrona, were used to house oblations or as athletic facilities. In agoras, stoas were used as installations for permanent stores, for nearby theaters and as bouleutiria to protect the visitors in case of rainfall (Bouras, 1999:293 & Winter, 2006:50). The origins of the stoa's design and construction date back to the prehistoric period where they were a part of palatial structures, however, they became more common from the 7th century BC onward where they were presented in all levels of constructions, from the simplest ones to the most developed monuments (Winter, 2006:51). The construction of the stoa was later revolutionized in the Hellenistic period. The emergence of the Hellenistic palaces affected the stoa design to such a degree that the stoas became a form of displaying pride, propaganda, and kingship. The Hellenistic stoa changes completely the perspectives of public space, civic life, and demonstration of authority (Winter, 2006:54).

The objective is to present the Stoa with selected examples, from the beginning of their emergence as utilitarian buildings, to the peak of their glory as demonstrative constructions. Therefore, through this journey of investigation, it is fundamental to present and discuss the

Macedonian and Hellenistic palaces in Asia Minor to detect the palatial features that influenced Stoa design. Yet the concept of this study includes the interpretation of the Stoa in the timeline of style, architectural evolution, political circumstances, and functionalities. The aim is to deeply explore as many aspects of the topic as possible, to sufficiently present the topic and reach conclusions. With the ambition of not recycle existing knowledge, the material will be re-examined with the combination of existing information and presentation of the topic under a new prism of comparison.

This essay is articulated in five chapters: Chapter one presents the development of the stoas, containing all the fundamental information for this study. Chapter two is dedicated to the presentation of the Macedonian and Hellenistic palaces. Chapter three provides a respective presentation of the Hellenistic Stoa designs. Chapter four is discussion and a comparison of the given examples taking aim of five axes, 1) Location and context; 2) Time, style and material 3) Size, structure and function 4) Light and accessibility 5) Architects, viewers and communicating ideas due to locating similarities, differences and associations. Finally, the topic will be summarized, conclusions will be drawn and the final argument will be presented.

Chapter 1: The development of Stoas

The earlier examples of stoas were Doric constructions, composed of a single level and a simple plan. According to Bouras (1999:293), stoas are segregated into two primary categories: open or closed stoas, a categorization which is based on their accessibility on one of their long sides. The closed stoas are rarer of the two. The open stoas, on the other hand, had at least one of their long sides directly accessible, supported by a colonnade. These are called one-aisled stoas (Bouras, 1999:293 & Winter,2006:58). The simpler type of stoas had only one colonnade directly accessible to the courtyard, while very common is also the design of two or three interior colonnades directly accessible, but without a wall. Very common was also the stoa with one or two series of colonnades directly accessible to the courtyard but with a series of rooms to their backside. These are called two-aisled stoas (Bouras, 1999:293 & Winter, 2006:58). As a general classification Coulton (1967:80-113) has suggested the following categories for stoas: one-aisled, two-aisled, double space inner colonnaded, with colonnaded rears, with projecting wings, with rooms behind, with superposed porticoes, with substructure, L-shaped, Pi-shaped and other minor categories.

In the early Archaic period, it is not known whether the first classical stoas were independent constructions or if they were using one preexisting wall on one of their sides (Winter, 2006:51). The earliest example of classical stoas is the South stoa at the Heraion of Samos **(fig. 1 & 2)**, which was built at the end of the seventh century BC as part of the same construction plan that included the 2nd Hekatompedos temple and the Sacred Way. This stoa was two-aisled, facing the north-east. Its extended length is measured to be 69,95 m and had a depth of 5,91 m; the portico was divided by cross-walls into three sections with different floor levels, making this stoa one of the most monumental of the early group (Coulton, 1976: 231,27). It was a long, hall-like building divided into three equal parts with an opening along the long NW side (Gruben, 1957:52). The supports of dimensions 0,20×0,15 m in each section were spaced into 2,30 m while the cross-walls were responsible for the stoas stability (Coulton, 1976:27). This type of early stoas has numerous features in common with the contemporary temples in terms of size and proportions; in the South Stoa at Samos, each section presents an almost identical shape and dimensions[1] to the neighboring temple of Hera (Coulton, 1976:23). The remains of this stoa include most of the wall foundations and numerous inner and outer base slabs (Coulton, 1976: 231 & Gruben, 1957: 55-62).

In order to solve the problems of a stoa built on a hillside, a certain amount of earthwork was necessary for the level side or the sides of different levels; The architect allowed the level of the floor to follow the slope of the ground in front, which drops 0,50 m to the north and south end of the stoa (Coulton, 1976:99).

1 32,3×6,80

This type of small and simple stoas were usually built as lean-tos against the enclosing wall but this stoa, with a depth of approximately 6m and probably a roof that slops down the colonnade, would demand a rear wall over 6 m high, which is unnecessary for a sanctuary. This example of an early stoa would never have been conceived as a free-standing structure on the temenos wall (Coulton, 1976:22). Nevertheless, the back walls were neat, employing rubble masonry (Coulton, 1976: 27).

The two colonnades, inner and outer, presumably consisted of 27 wooden posts; yet there are some suggestions that indicate the existence of a timber prototype for an Ionic colonnade with bracket capitals and rafters projecting like dentils (Coulton, 1976:18,99). Two rows of pillar columns survived; the rows of wooden columns were placed along the open side and down the center of the building, probably supported a hipped roof of terracotta roof tiles. The roof is speculated to be flat or thatched, but there is very little evidence for its form (Coulton, 1976:37) Yet, Gruben restored the roof in a terrace form, probably rightly (Coulton, 1976:149).

The South stoa was constructed in the position of a Geometric streambed; it was demolished in the mid-sixth century BC, and the Rhoiko's South Building erected in its place (Coulton, 1976:27). The construction fill that included Sub Geometric pottery also supports the late 7th century date. (Coulton, 1976:27)

Later on, during the 5th century, the stoas were used to frame the civic space, which was a decision associated with the testimonials and style of architecture of this period. The aim was to employ a canonical framework of the sanctuaries and Agoras, an act that produced new and more complicated stoa designs (Bouras, 1999:294). These stoas of the new design are Gamma-shaped, for example the Stoa of Naxians in Delos, or Pi-shape, as in the stoa of the Sanctuary of Brauron, which is probably the earliest example of this type (Bouras, 1999:294). The Pi- shaped stoas would later become very popular in the Asia Minor, which is the reason why they ended up being referred to as Ionic stoas. Despite this, the type is present in Attica ever since 420 B.C. A variation of the Pi-shaped stoas, yet not associated with the formative necessities of the original Pi- shaped stoas, is the so-called background form stoas, where the design remains simple but two smaller additions are included in the corner sides of the original, creating this background effect. These small additions, in resemblance to the background of the ancient theaters, are symmetrical, canonical facades, used to create a more monumental visual aspect to the building. Therefore, it can be concluded that their construction is not meant for utilitarian function (Bouras, 1999:294). The stoas of the classical period are usually ground floor stoas, employing a single roof with the gutter facing the courtyard; in front of the stoas, usually there is a furrow gathering the rainwater from the roof while other trenches were employed to collect the soil from sedimentation and clean the waters (Bouras, 1999:294).

Royal stoa

The stoa Basileios **(fig. 3 & 4),** also known as the Royal stoa [2], is located in the northwest section of the Agora of Athens, outside of the modern archaeological site[3]. The Royal Stoa is one of the oldest ones ever constructed in the Athenian Agora, and it was originally misidentified as the neighboring Stoa of Zeus Eleutherios in previous scholarship[4]. It was excavated for the first time in 1970 and completed between 1982-1983 (Camp, 2003:9). Nevertheless, the Royal Stoa has not been completely published. The monumental construction was blanketed by a thick layer of mud since antiquity, which protected the monument from later attrition.

This is a two-aisled stoa with a normal structure and form, facing to the east; it's length is measured to be 17,72 m with an extended depth of 7,18 m. (Coulton, 1976:33,228). The Stoa Basileios employs the Doric order for the outer and the inner colonnade; The outer colonnade consists of 8 columns, while the inner one by 2 columns. The diameter of the exterior columns is calculated to be 0,58 m while the diameter of the inner one is measured to be 0,42 m. Of significance is the variance between the external and internal intercolumniation, which is measured to be 1,902 m for the exterior side and 5,762 for the inner one; yet the inner intercolumniation was reduced to 3,201 m afterward (Coulton, 1976:228).

The remaining parts include the foundations, the krepis and one column drum which is preserved i*n situ.* Furthermore, elements from the upper parts were discovered (Coulton, 1976:228). The first phase of the building is dated to the 6th century B.C., based on the architectural style and the associated finds, for example some capital fragments (Coulton, 1976:34); yet the stoa was completely modified in the later 5th century B.C., probably after the Persian invasion in 480 B.C. (Camp, 2003:9). The exact dating of the Royal Stoa remains unidentified; the building material indicates it was in construction around 550 BC, but the pottery discovered in the foundations is dated after 500 BC, or even after 480 BC (Camp, 2004:128). The evidence indicates that all of the building material was originated from an earlier structure destroyed during the Persian invasion. It also remains unclear whether this building was a predecessor of the Stoa Basileios[5] on the same

2 The identification of the building is considered rather secure as, apart from the general consistency with Pausanias' description, there is also epigraphical evidence (Camp, 2003:9).

3 Its floor stands 3.2m lower than that of the neighboring Stoa of Zeus Eleutherios and 5.82m lower than the level of the modern Adrianou Street (Camp, 2003:9).

4 A very narrow passageway (1m) divided it from the Stoa of Zeus, with which it is confused in certain modern studies and some ancient lexica (Coulton, 1976:41).

5 This archon was the most important religious magistrate of Athens, responsible for the Eleusinian Mysteries and the Lenaia, and engaged also to certain juridical duties (Coulton, 1976:38). The Areios Pagos convened here

site. This Stoa was the seat of archon basileus, who had religious and juridical authorities.

The excellent preservation of the foundation of the Stoa, especially in the south end, is measured to be 17.72x 7.57 m (Camp, 2003:9). Quite smaller, the interior space of the stoa is calculated to be 16.63x 6.02 m, which makes the Royal stoa one of the smallest buildings in the Agora. Overall the stylobate and only one step of the stereobate, both made of hard, dark poros, has survived (Thompson, 1937:21-47). For the construction of the foundation, reused column drums were employed. The south end of the rear side is not only the best-preserved part of the foundation but also the most interesting. It appears that this section stood on a higher level than the rest of the foundation and the façade, arranged two or three steps (Thompson and Wycherley, 1972:83-90; Shear, 1994:240). Moreover, this part had a polygonal shape and the whole plan demands first-class craftsmanship which is not compatible with the workmanship employed in the rest of the building.

The façade comprises eight Doric columns, of which only traces of the first and seventh columns from the left have been discovered (Thompson and Wycherley, 1972:83-90). Their intercolumniation is calculated as having been 1,9205 m. Of significance is the original building phase where there were three interior and nine exterior intercolumniations, so that each inner column was placed behind every third outer one (Coulton, 1976:34) The exterior columns had a diameter of 0,58 m with 16 flutes on the painted shafts. The southern and northern posts correspond ideally to each other; the south post[6] is preserved to a height of 0,78 m while the width of both posts is calculated to be to be to 0,59 m (Thompson and Wycherley, 1972:83-90). A retaining wall is extended from the southeast corner of the stoa to 11 m to the east (Shear, 1975:368).

This is considered to be the south end of the original courtyard of the stoa. The enclosure of this section survives to a height of three blocks, in which the upper ones are set slightly more inwards than the blocks of the lower side (Shear, 1975:368). A parallel retaining wall was found in the north section of the stoa but it had been covered up by the north annex dating to the late 5th century B.C. One Doric capital of the exterior colonnade was discovered with the following dimensions: the width of the abacus was 0,702m while its height the height was 0,118m; the height of echinus is calculated to be to be to 0,121m and the shaft's upper diameter was 0,368m (Thompson and Wycherley, 1972:83-90). The capital was painted as well. A triglyph made of limestone survives from the entablature with space for inserting a metope, which was presumably made by marble.

Based on the triglyph, the dimensions of the entablature have been measured to be 0,382 in width while the distance between the glyphs should be 0,129m; the triglyph survives to a height of 0,34 m

sometimes, while there are also mentions of official dinners being given here. The record of the Archon Basileus were kept in this stoa together with copies of the laws of Solon and Draco (Camp, 2004:128).

6 was unearthed under the retaining wall of the cutting for the Metropolitan Railway (Thompson and Wycherley, 1972:83-90)

as well. Part of the entablature was discovered incorporated in a Byzantine wall nearby the stoa. Based on this find, the height of the frieze is calculated as 0,627 m in height and 0,962 in width, which corresponds directly to the north wall of the stoa (Thompson and Wycherley, 1972:83-90).

The interior colonnade was Doric as well, therefore in both storeys. (Thompson and Wycherley, 1972:83-90). However, the interior columns have a smaller diameter of 0,42 m but they had the same number of flutes on their shafts, viz 16. The interior columns were in fact three quarters as thick as the outer ones (Coulton, 1976:34). The columns and the capitals were painted in this case as well. One capital survives from the interior colonnade, which is believed to originate from the upper part (Thompson and Wycherley, 1972:83-90). This capital's dimensions are measured in the following way: the width of the abacus is 0,4895 while its height is 0,106m. The height of the echinus is 0,084m while the shaft's upper diameter is 0,239m (Thompson and Wycherley, 1972:83-90). Except for the columns in the interior side, there was a central beam for the support of the roof which rested on two columns. The bases of these columns survive and the evidence indicates that they were made of material in secondary use (Thompson and Wycherley, 1972:83-90). Two more columns were added in an evenly way in the middle of the 5th century, an addition that re-arranged the exterior colonnade[7]. The bases of the four columns survive in situ and one of them preserves the lower part of its shaft. The floor of the stoa was made of compacted earth which was renewed from time to time. The north wall is preserved in a height of 1,2 meters, which translates to three blocks (Thompson and Wycherley, 1972:83-90). The wall was rebuilt employing ashlar masonry with finely carved blocks of yellow poros with no coating. This yellow poros was extensively used as a building material for the columns, capitals, and the entablature. Bases of furniture made of limestone, or even marble, have been discovered inside the stoa, presumably used by the archon basileus[8].

For the cover of the roof, clay tiles were used. Parts of the roof have been discovered, such as kalypteres, antefixes decorated with anthemia, parts of the ranking cornice and one branch elaborated with a lotus flower and one anthemion (Thompson and Wycherley, 1972:83-90). Two lion heads, fragmentary preserved, are believed to be part of the corners of the sima. Several of the tiles and the antefixes of the building date to the middle of the third quarter of the 5th cent. BC, a period during which the building was renovated extensively Moreover, Pausanias mentions two sculpture complexes placed on the top of the building, depicting Theseus pushing Sciron into the sea and Eos abducting Kephalos (Camp, 2004:76).

7 the second and seventh, respectively (Thompson and Wycherley,1972:84).

8 On the north side, there survive the poros supports of the bench that replaced the original in the second half of the 4th century BC. Other bases for various other furniture can still be seen in the interior of the building. Poros thrones, probably originating from this structure, were found incorporated in Herm bases. Marble thrones, similar to the *proedriai* of the Theater of Dionysus, are dated to a much later period (Thompson, 1993:21-47).

In the last quarter of the 5th century B.C. the stoa's arrangement was transformed twice with two symmetrical additions. The first addition took place around 410 B.C., with the addition of an annex in the north. This additional wing had three columns in the façade side and a single column on either side (Thompson and Wycherley, 1972:84 & Shear, 1975:367). These are slender columns made of limestone, resting on a base without the presence of stylobate. The resemblance of the northern annex with the columns of the interior side is significant. Their diameter is calculated to be 0,33 m with asymmetrical intercolumnar spaces, which fluctuate from 2,163 m to 2,267 m. Some ruins located in this extension belong to later periods. A corresponding extension was erected in 400 B.C. on the south side (Thompson and Wycherley, 1972:84 & Shear, 1975: 367-369 & 1994:237). The colonnade on this side rests on a stylobate made of limestone, preserved partly on the north side. The corner block of the stylobate has been curved in such a manner to correspond directly to the second column of the exterior colonnade. Yet the pteron's stylobate is placed 60 cm below the stereobate of the stoa. The excavators support that the colonnade of the south extension was Ionic and each column rested on a base of 0,50 m. The intercolumniation is calculated to be to be to be 1,587 m based on the surviving traces of two columns on the north side (Thompson and Wycherley, 1972:84 & Shear, 1975: 367-369 & 1994:237). A sizable but thin slab made of grey marble, which was used as a threshold, was located in the second intercolumnar space between the stoa and the south extension. This slab stood at the height of 0,35 m over the old stylobate which was also the level of the floor of the south extension (Shear, 1975: 367-369 & 1994:237). The roofing system employed for the ptera remains unidentified while the excavators believe that a flat or semi-flat roof was used in order not to conceal the capitals and the Doric frieze behind.[9] One is a low gabled roof over each of the ptera. Both extensions are considered as publishing places for the city's laws, a deduction supported by the existence of marble stelai placed side by side in many times as posting places (Thompson and Wycherley, 1972:84).

Of importance is the sizable[10] piece of rough poros block, located in front of the stoa, which is considered to be the Lithos, mentioned in the ancient sources as the spot where the city's officials swore the oath while stepping on sacrificed animal parts (Camp, 2004:129-130). Moreover, a section from the neck down to the knees of a female statue's original height, estimated to 3 m approximately, has been discovered incorporated into a Byzantine residence (Camp,2004:128). This is a female figure dressed in a tunic is dated to 330 B.C. and probably portrays the personified abstraction of Themis or Democracy. Camp (2004:134) suggests that the interpretation of Themis is more suitable for construction associated with city laws. This is the statue, which was originally placed on a large pedestal; The foundation of this pedestal, consisting of four large blocks of

9 one is a low gabled roof over each of the ptera (Thompson and Wycherley, 1972:84).

10 0,95×2,95×0,4m (Thompson and Wycherley, 1972:84).

marble, was discovered in front of the stoa in the intercolumnar space between the fifth and the sixth column (Camp, 2004:134).

The Royal Stoa suffered severe damages during the siege of Sulla in 86 B.C. as is evident by residue of conflagration on the stoa's north wall. The wall was repaired afterwards and received a coating of stucco. It was destroyed once again in 267 AD but it was rebuilt afterward, The final abandonment took place at the beginning of the 6th century AD (Camp, 2003:9).

Poikile stoa

The Stoa Poikile **(fig. 5)** was located in the most privileged position in the Agora, along the north side "with an unhindered view to the Panathenaic road and the Acropolis" (Camp, 2004:96). Its north orientation was ideal for the advantage of the low sunrise of the winter while the back wall was preventing the cold winter winds (Camp, 2004:92). It was constructed in the second half of the 5th century B.C. as a monumental dedication from Peisianax, the brother-in-law of Cimon. Based on the finds discovered in the foundations the exact date of erection should be placed between 475 and 450 B.C. (Camp, 2003:42-43 & 2004:92, Shear, 1984:15-16). Literary sources mention this also as the Stoa of Peisianax as it was he who funded its construction. This stoa is one of the most illustrious civic constructions of the Athenian Agora[11]. This elegant stoa housed renowned paintings of the most famous painters of its time: Polygnotos, Micon and Panainos. These wall paintings were a true celebration of the city's mentality, pride, and autochthony, as is evident by the depicted scenes which are inspired by the mythological and historical past of Athens[12] (Camp, 2004:92).

From the 4th century B.C. onwards the stoa is called Poikile, because of these lavish wall paintings that adorned the walls. This building was excavated and identified in 1981 by the ASCSA, which identified it in a fragmentary form (Shear, 1984:1-5). The Poikile stoa is only partly exposed since a significant part remains overlaid by modern residences. Only a few preliminary excavation reports have been published (Thompson and Wycherley, 1982 & Shear, 1984), yet the excavation is

11 Various perspectives have been recently put forth, contraverse the identification of this building with the Stoa Poikile. Di Cesare (2002:43-50) suggests that the stoa named after Peisianax would have been dedicated shortly after the battle of Marathon (490 BC), therefore its donor was some other Peisianax, not Cimon's brother-in-law. Accepting this alteration would entail rejecting the identification of the building under discourse as the Stoa Poikile of 490-480 BC.

12 Pausanias describes in detail the Battle of Oinoe, where Athenians under Theseus fought against the Amazons attempting to invade their city; the sack of Troy by the Greeks during which Locrian Ajax rapped Cassandra who had taken refuge in the Temple of Athena; and the most celebrated artwork, the Battle of Marathon. He then mentions the statues that stood in front of the stoa: these portrayed Solon the lawgiver and king Seleucus I. (Camp, 2004:92-96).

still in progress. The existing knowledge of this building does not allow us to distinguish building phases.

The Poikile stoa is a two-aisled stoa, that employs probably a Doric colonnade for the exterior side and an Ionic inner colonnade; the exact dating of the main phase should be placed to 460 B.C. based on evidence of testimonia and the style of the attributed fragments (Coulton, 1976:231).

The crepidoma on top of which the stoa rested is preserved in a sufficient condition (Thompson and Wycherley, 1982:91-94). Well carved blocks of limestone comprised the arrangement of the crepidoma. All of the blocks are measured in 0,99 m in length, which translates into three Athenian feet (Shear, 1984:5-19), albeit, the number of steps differs from the west to the north and south. The west side consists of four steps while the north and the south side employs three steps, following the classical arrangement. This was probably due to balancing the elevation of the ground between the east and the west side of the building. At the level of the stylobate, the width of the building is calculated to be 11,573 m (Shear, 1984:5-19). This stoa presumably employed one Doric colonnade in antis at the façade and one Ionic for the interior side. The superstructure of the building has been deducted by fragments, and was possibly incorporated in neighboring Byzantine constructions[13] (Thompson and Wycherley, 1982:91-94 & Shear:1984:11). Of importance are sections of the Doric column shafts, some rather fragmentary triglyphs and diminutive parts of the Doric cornice. Nevertheless, the discovery of an intact section of the Doric frieze, found unearthed directly outside of the northwest corner of the stoa's foundations, was essential. This part of the frieze, made of durable limestone, has the same dimensions as the steps of the crepidoma, 0,99 m or three Athenian foot (Shear, 1984:5-19). This section of the frieze consists of one triglyph and the rear part where the marble metope was incorporated. In terms of measurement, the total thickness of the frieze was 0,718 m, the triglyphs were 0,348 m wide while the metopes width was 0,615 m. The total height of this section was 0,63 m. (Shear, 1984:5-19). The intercolumniation of the exterior colonnade should have been 1,998 m, based on a basis comprising blocks with a total length of 0,999 m. Additionally, the frieze incorporated 12 triglyphs and 11 metopes in a total length of 11,373 m. (Shear, 1984:5-19).

Since the number of columns of the interior side remains uncertain, the total length of the long sides varies from 42,37 m to 50,362 (Shear, 1984:11-19). In the first case, the number of the columns should be nine and in the second case eleven columns should have been employed and the intercolumniation of the interior side is calculated to be to be to 3,999 m (Shear, 1984:11-19). Nevertheless, only one base survives in situ of the interior colonnade, that of the westernmost column. This base comprises two slabs made of limestone which create an uneven square of

13 Meritt suggested (1970:90-91) the identification of fragments from an earlier Doric frieze to the stoa, yet this suggestion is not acceptable.

1,1×1,3 m, corresponding to the axis of the second column of the exterior side as was common in Doric stoas of this period. Moreover, the inner columns must have been considerably taller and slender than the outer ones in order to support the roof (Coulton, 1976:100-101). The Ionic columns of the interior side were unfluted, as evidenced by the six parts of them that have been discovered (Shear, 1984:11-19). These parts combine sections of the columns and capitals as well and parts of unfluted Ionic columns and Ionic capitals have been recovered from this colonnade (Shear, 1984:11-19). Two of them are sufficiently preserved and allow the calculations of the dimensions of the columns. The upper section of each column had a diameter of 0,496 m while the lowest part's diameter was 0,6 m (Shear, 1984:11-19). The abacus' diameter is measured to be 0,562 m while the distance between the helices is calculated to be to be to 0,558 m. The building was accessible only through the south side since the lateral wall had no openings (Shear, 1984:11-19). On the interior side, only a foundation of a low bench has been discovered although in a very good condition. The interior of the Poikile stoa was crafted with dandified ashlar masonry, where the blocks of the steps were worked in the same length and adjusted in T-shaped clamps afterward. Every second joint was arranged precisely to the vertical axis of each column; a work of superior craftsmanship (Shear, 1984:5-19). The exact opposite image though occurs on the back side of the north wall, whose masonry was not very well crafted.

As Camp states (2004:95-96), this stoa was "not used just to house wall paintings and spoils of war, but for many other activities. On the contrary of other stoas of the Agora, the Poikile stoa was not constructed to serve a certain purpose, for example to house a specific activity or to accommodate city officers. As it appears, it was covering the necessities of the residents of the city, offering protection in cases of bad weather conditions and a comfortable meeting place near the Agora square". Moreover, Camp mentions (2004:96) that the persons initiated into the Eleusinian Mysteries were invited and recorded there. In extraordinary cases, this stoa housed juridical sessions. One trial is mentioned by Demosthenes and others by the epigraphical testimonials of the 4th century B.C. (Wycherley, 1957:31-59), where the whole corps of 501 judges had been conferencing (Camp, 2004:96). Nevertheless, the Poikile stoa was also a famous meeting place for ordinary people of different backgrounds. Of importance is the presence of philosophers and philosophical schools, as Zeno and his Stoics (Camp, 2004:96). Concluding, "the stoa, crowded from people of the Agora had been bringing together philosophers and people, represents a perfect image of a club in which people had come together to discuss, argue and be educated" (Camp, 2004:96).

Stoa of Zeus Eleutherios

One important example of stoas with projecting wings, is the Stoa of Zeus Eleutherios **(fig. 5 & 6)** in the Ancient Agora of Athens. As Bouras mentions (1999:296), this stoa is attributed to Mnesikles, the architect of Propylaia, and "it is considered as an example of later constructions of its time". The Stoa of Zeus Eleutherios was the earliest large-scale, religious construction erected in the Agora but it was also an illustrious meeting place. Possibly, this stoa served also as the seat of state authorities, par example the *thesmothetai.* The building is dated to 430-420 B.C., based on the architectural features, pottery samples and construction techniques employed (Camp, 2004:135; Thompson 1937:39-45). The north section of the building was discovered and partly excavated in 1891, during the construction of the Athens-Piraeus Railway but this stoa would wait another forty years to be exposed completely by the excavations of the American School of Classical Studies at Athens in 1931.

The stoa of Zeus Eleutherios is two-aisled and has projecting wings. The plan is unusual and complex, the earliest example of such innovations where the associated problems were carefully faced (Coulton, 1976:41). The stoa consists of a central portico with one projecting wing with six columns at each end; it was entirely colonnaded in the outer section while the inner space was undivided (Coulton, 1976:41,81). The extended length of this stoa in calculated to be 43,56 m while the extended depth of the central portico id 10,43 m. The projection of the two wings is calculated to be 5,86 m while the width is measured to be 10,60 m. The exterior colonnade consists of 24 columns, while the interior of 8.

Parts of the building survive sufficiently; part of the foundations survive in the south side and the stoa's backside as well (Thompson, 1937:21-47 & Stillwell, 1933:110-124). Most of the building rests on the slope of the Hill of Agoraios Kolonos; accordingly, the north end of the building had to counterbalance the elevation of the ground with the addition of four or five layers of foundation (Thompson, 1937:21-47 & Stillwell, 1933:110-124). The south side in its west end preserves one step of the foundation, nevertheless, it is believed that three more existed. For the foundation soft yellow limestone was used while durable grey limestone was used for the exposed parts and Pentelic and Hymettian marble was used for the construction of the four steps (Thompson, 1937:21-47 & Stillwell, 1933:110-124). In the exact position where the stoa stands, there was a small shrine dedicated to Zeus, probably destroyed during the Persian wars. Traces of the foundation with dimensions of 1,78×2 meters, made of yellow limestone, have been discovered as well as the foundation of the pedestal where the cult statue presumably stood (Thompson, 1937:21-47 & Stillwell, 1933:110-124).

The Stoa of Zeus Eleutherios was an elegant Doric structure, elaborated with a façade of Pentelic

marble, which rested on a three-stepped stereobate. As Camp suggests (2004:135), this elaborate façade of Pentelic marble is very unusual for most of the buildings of the Agora and this choice should be "examined according to the unusual nature of the building itself", since this stoa was dedicated to Zeus as a religious building. Nevertheless, the architect did not employ the temple but “a public construction” (Camp, 2004:135). The exterior colonnade was composed of 25 Doric columns while the double interior colonnade featured 7 ionic unfluted columns (Thompson, 1937:31-37; Thompson, and Wycherley, 1972:96-103). Both colonnades comprised columns of high-quality Pentelic marble. Fragments from both colonnades allow the exact representation; one fragment from the lower drum of the Doric colonnade survived, two integral uppermost drums and two petite capital fragments show that the columns had 24 flutes with a lower diameter of 0,786 m and upper diameter of 0,599 m (Thompson, 1937:31-37). The intercolumniation of the Doric colonnade was 2,012 for the wings and 3,018 for the central portico (Coulton, 1976:232). Regarding the Ionic columns, the shafts partially survive. The evidence shows that these columns were unfluted while the echinus was elaborated with painted and engraved ova and anthemia (Thompson, 1937:31-37). Moreover, the Ionic column's lower diameter was 0,686 m while the upper diameter was 0,566 m. (Thompson, 1937:31-37). The intercolumniation of the Ionic colonnade is measure to be 6,036 m (Coulton, 1976:231).

Unfortunately, features of the epistyle and the frieze were reused in the foundations of a Byzantine monument on the NE section of the Agora. The light-weighted triglyphs were made of limestone from Aegina while the metopes were presumably made of Pentelic marble (Thompson, 1937:31-37). The total height of the frieze was 0,612 m and thickness of 0,789 m, in which the width of each triglyph has been calculated to be to be to 0,402 m and of each metope to 0,602 m. Additionally, the regular intercolumnar space has been measured to be 2,012 m (Thompson, 1937:31-37). Relatively smaller metopes decorated the corners of the frieze, which were not flanked by triglyphs. If we consider the regulation of the period, the epistyle must have been higher than usual. Furthermore, Thompson mentions (1937:31-37) that the surviving parts of the horizontal and the raking cornice indicate that there was no direct connection between them, even though the horizontal cornice extended through the long side. The sima, also made of Pentelic marble, connected the ranking cornice with the pediments (Thompson, 1937:31-37 & Thompson and Wycherley, 1972:96-103).

In the internal side of the stoa, the arrangement of the central space, where the intercolumnar spaces were larger, the addition of a third metope and a third triglyph can be justified. To support and minimize the weight of the central columns the constructors employed the combination of limestone from Aegina and marble (Thompson, 1937:31-37 & Thompson and Wycherley, 1972:96-103). The alliance of the interior columns to the exterior ones is executed with great precision, as

we can tell from the discovered column bases. A limited number of traces has been discovered regarding the walls of the original building; three blocks of the original wall were found in the foundation of the annex, which was constructed during the Roman period. These blocks were made of limestone from Aegina with dimensions 1,023×0,702×0,351m. Smaller blocks have been discovered in the interior of the stoa, ordered in a continuous line, which possibly supported and low bench coursing the interior walls (Thompson, 1937:19). The floor of the stoa was made up of a mixture of consolidated earth and clay. The roof, as evidenced, employed the Corinthian tile system in combination with antefixes at the lower part (Thompson,1937:31-37; Thompson and Wycherley,1972:96-103). The stroteres, with a width of 0,67 m, correspond directly with the 1/3 of the regular intercolumniation of 2,012 m (Thompson, 1937:31-37). During the 2nd century B.C., Thompson and Wycherley mention (1972:102-103) the addition of a simple rectangular building on the back end part of the stoa, an addition which was an independent structure with a separate entrance in the north and was not connected directly with the stoa.

Pausanias, in Book 1.3.3-4, mentions the artworks in the stoa. The wall paintings decorated the stoa's walls, depicted the twelve gods, the Athenian hero Theseus, the Demos and Democracy as personifications and the famous battle of Mantineia, and works of the famous painter Euphranor. Furthermore, the stoa was adorned with statues, also described by Pausanias, whose bases were discovered in the wings of the stoa. Four statues, all dated to the first quarter of the 4th century B.C., represented Conon and his son Timotheos, king Euagoras of Cyprus, Hadrian and the statue of Zeus Eleutherios. The statue of Zeus was located on the third base from the North, on a circular pedestal of 4,20m (Camp, 2004:135-136). Also, Pausanias mentions the pattern of dedicating the shields of the soldiers heroically fallen in battle in this building. The first one in 1.26.2 he mentions the battle of 287/286 B.C. against the Macedonian occupation and, in 10.21.5-6, the war against the Gauls in 279 B.C. This memorial decoration was probably placed in the façade of the stoa until it was finally removed by Sulla's troops in 86 B.C.

The cult of Zeus Eleutherios, particularly popular during the time following the Persian Wars, continued to be of the same importance to the Athenians. The stoa dedicated to him, as the religious building which housed the cult statue of Zeus, was not required to house any other activities or functions (Camp, 2004:136). Yet, ancient literature by Plato and Xenophone refer to this stoa as a meeting place for Socrates and his companions. Nevertheless, the location of the stoa in the west section of the Agora, among other administrative buildings should be connected to some authorities. As Camp supports (2004:136), the Stoa of Zeus Eleutherios could be identified as the Thesmotheteion, the building which housed the deliberations of the six Thesmothetai.

Finally, some additions and repairs took place in the stoa during the Roman period until its final destruction in the 5th century AD. (Thompson and Wycherley, 1972:103).

Chapter 2: Hellenistic and Macedonian palatial architecture

Macedonian Architecture is strongly connected to the palatial architecture as well as specific monuments and sites. The most impressive architectural remains and archaeological sites correspond to the Macedonian and Hellenistic palaces.

The perspective of previous literature of interpreting the palaces as large lavish residences of the royal family has been rejected and replaced by the "acknowledgment of the palace as a setting with multiple functions," as Kopsacheili suggests (2012:19). The kingdom's needs vary in terms of practice and ideology and that led to the creation of different features among the Hellenistic Kingdoms (Kopsacheili, 2012:20). The palatial architecture bears a certain meaning, communicating the ideological and social circumstances of the era and the region they are located (Kopsacheili, 2012:20). "This dual relationship, as palaces, is defined by their context and simultaneously they have the potential to transmit specific messages to maintain or change certain conditions. Legitimization of governance, implementation of the royal political agenda, and the attempt to acquire elite social status are factors that defined spatial organization".

Nielsen' s (1994:1) definition of Hellenistic palaces, focuses more on the function than the form. His model of Hellenistic palaces includes the official, social, religious, defensive, administrative, service, residential for the king, the royal family and guests, public and recreational; yet she states "form follows the function and design of the palace" (Nielsen,1994:13). However, the Hellenistic palaces are characterized by another factor as well, namely the hybridization. The "identity, cross-cultural interaction and continuity in material culture and the impact of the court ceremonies on the architectural forms of the palaces" are major questions arising out of the study of the Hellenistic palaces.

The Palace of Vergina (Aegae)

A long period of examination, investigation, and research has been dedicated to the palace of Vergina **(fig. 8 & 9)**, yet it has never been fully published (Pandermalis, 1987:579-605). Even the identification of the site as the ancient city of Aegae took a long time, since the first excavators in 1871, Heuzey and Daumet, first thought that the site was referring to Balla (Heuzey and Daumet, 1876:179), an insignificant and unverified city in the district of ancient Pieria (Saatsoglou-Paliadeli, 1996:225). Eighty years later in 1951, Rhomaios, despite his support to the "Balla theory" (1951:12) used the term 'palace' to describe the monumental building in the area but without sufficient explanation about its creation in the area (1955:142-150). A few years later, in 1961, Bakalakis and Andronikos diverged from the "Balla theory" and spoke about an unknown

Macedonian city, supporting the theory of a "royal summer resort" for the palace of Vergina (Andronikos et al., 1961:1) and dated it to the time of Antigonus Gonatus (Kottaridi, 2011:1). Hammond was the first scholar who identified the site as Aegae, the old Macedonian capital, and supported clearly and directly the connection of the palace with the Macedonian dynasty[14] (Hammond 1972:53-67 and 1979:53-67). The discovery of the Royal tombs by Andronikos between 1976 and 1980 offered supportive and undoubted archaeological evidence to Hammond's theory of the identification of Aegae.

Scholars usually date the palace to Cassander's reign in 309-305 B.C., an acceptance mainly based on stylistic features, which yet has remained debated (Saatsoglou-Paliadeli, 2001:210 note 33). Tourasoglou proposed a dating to the third quarter of the 4th century B.C. (1997:218) while other scholars, such as Nielsen (1994:81 n.180) and Hoepfner (1996:17) suggest a dating connected to the reign of Philip II[15]. Most important is the resemblance of the palace's ionic features with the features of the tomb of Eurydice, a monument precisely dated to 343 B.C. by the pottery findings (Kottaridi, 2009:143-153). The small ionic capitals of the double-sided pilaster-columns of the upper floor and the capitals of the Ionic capitals from Eurydice's tomb are quite similar[16]. Based on these architectural elements combined with the similarities of the mosaics of the palace and those of the tomb of Philip, we could conclude that the dating of the palace in the times of Philip II is a justified option.

The palace of Vergina, located on the northern slopes of the Pierian mountains, in a very imposing location, is a high-quality construction with impressive architectural design and exceptional dimensions. The palace is built on an outcrop of the natural slope, in the middle spot between the acropolis and the northwest gate (Kottaridi, 2011:1). It is conveyed around a petite, yet most impressive, terrace of the site. Completely fortified, the palace is surrounded with walls to the east, north and west and an acropolis to the south (Saatsoglou-Paliadeli, 2001:209, note 3). Oriented

14 Hammond's theory sufficiently explained and identified the palace of Vergina "as a true royal residence, occasionally used-after the transference of the administrative center of the kingdom to Pella- not as a summer resort but whenever members of the royal family had to return to the old Macedonian capital" (Saatsoglou-Paliadeli, 2001:202).

15 Nevertheless, as it concerns the dating Hoepfner mentions that the Doric parts of the palace, the columns capitals, columns, and the entablature find parallels and resemblances to the temple of Athena Pronaia at Delphi, the Thymele at Epidaurus and in the temple of Athena Alea at Tegea (Hoepfner, 1996:17). Additionally, Kottaridi is referring to the correspondence between the ionic column capitals of the great double-sided pilaster-columns of the ground floor peristyles and the column capitals of the Mausoleum of Halikarnasus; also, the ionic corner capitals of the double-sided pilaster-columns of the propylon correspond directly to the ionic capitals of the temple of Athena Polias at Priene (Kottaridi, 2011:1).

16 Moreover, in both monuments, the height of the ionic three-band architrave and frieze above are compressed to equal to the lower diameter of the column, following the classical canon (Kottaridi, 2011:1).

towards the east, the palace had a complete view of the whole city and the monumental east gate of the wall at which the carriage-road from Pydna and Methone was completed (Kottaridi, 2011:1). For its construction, various materials were used; all the architectural features, lower parts of the walls, columns and the entablature were made of local limestone, dressed in white stucco. The upper parts of the walls were built with mud bricks and afterwards covered with stucco in various colors, such as white, yellow and blue (Saatsoglou-Paliadeli, 2001:209 note 1). It has been suggested that the walls were decorated with paintings. Haddad mentions that the thresholds were made of marble while the doors were made of wood (1995:109). Also, wooden beams supported the roof of the construction, which was covered with Corinthian and Laconian tiles (Pandermalis, 1987:579-605). The design of the palace, as Andronikos describes (1984:43 fig,18) "consists of a square curt with Doric colonnades, around which rooms or complexes of rooms served different functions. The building was entered from the east through a monumental tripartite propylon, placed in the middle of a two-storeyed colonnaded façade." Moreover, "a veranda running along its northern side offered a magnificent view of the Macedonian plain, and a complex of three rooms with mosaic floors, to the south, were used as banquet halls"(Kottaridi, 2011:1).

In regard to the dimensions of the palace, the total length of the construction (E-W) reaches 104,50 m, while the width (N-S) reaches 8,50 m. The total monument covers an area of approximately 12.500 square meters, while later "palaces" of Demetrias and Pergamon cover considerably smaller space (Kottaridi, 2011:1). Moreover, the preservation of the palace of Aegae is "much better and its form much clearer and more relatable than that of the "basileia" of Pella, which underwent so many extensions and alterations during Hellenistic times" (Kottaridi, 2011:1). This monumental construction – three times the size of the Parthenon- was meant to be visible from the whole Macedonian basin, as a landmark of power, authority, and dominion.

The palace of Aegae covers the massive era of more than 12.500 m^2, consisting of two peristyle courtyards arranged East-West. An independent or complex room surrounds both courtyards. The sections vary in size and function: the eastern section is measured to 104,60×90 m, consisting of rooms on all sides, while the southwestern section is much smaller, that of 41,40×41,40 m, consisting of rooms only to the west and the north.

The monumental propylon, ten meters in width, located on the East side, is the point of entry to the palace. The propylon is divided into three equal sections, consisting of two Ionic double-sided pillar-columns at the entrance, between the first and the second section (Kottaridi, 2011:318).
Kopsacheili is mentioned in Ionic capitals that indicate the existence of an upper floor to the propylon. The discovery of the capitals as long as the fragments of false-windows, one pediment by the entrance and spaces V and X allow the reconstruction of the façade. Additionally, Kottaridi (2011:317) mentions the existence of a long Doric colonnade equal in length to the north and south

side of the propylon, which employed the optical correction of an additional intercollumnium to the north. The façade of the upper story consisted of an Ionic colonnade, this colonnade extended through the whole length of the eastern side. Kottaridi (2011:327) also suggests the existence of an upper floor above the spaces of each portico.

As suggested by the excavations in the foundations of the spaces behind the façade, slabs were employed to support the heavy benches along the south and west sides of room X (Andronikos, 1984:39). Similar forms of the foundation have been employed in other spaces of the eastern wing[17]. The third section of the propylon is larger than the other two, measured to 10×6 m, the second and the third sections were communicating via a sizable single door, as Kottaridi points out (2011:318). Two double-sided Ionic pillar-columns were employed to form the openings after the last anteroom, of which one was the entrance of the peristyle court. The Tholos is the first room of the left side; it is a circular construction inscribed in a square. The rectangular projection attached to the wall at regular intervals of approximately 2 m did not survive. Among other opinions, Kottaridi (2011:326) interprets them as supporting features for the engaged Corinthian half-columns. The Tholos probably functioned as banquet-hall[18]. The southern wing is a unit of two identical square rooms, E and G, and one vestibule – the F vestibule – which is open to the peristyle. The bases of three Ionic double-sided pillar columns, which were preserved in situ formed the entrance of the room F (Andronikos, 1961:22). Room E was accessible through room F and it was decorated with a paved mosaic floor depicting a rosette surrounded by eight pairs of interlacing tendrils (Andronikos, 1961:20). Decorated with a paved mosaic was also Room E[19]. Spaces D, H, E, and G have the same dimensions and probably functioned as dining rooms; yet, spaces D and H have a more public character, since they were directly accessible through the courtyard.

The western wing consists of the largest room in the whole palace, that of M1, M2, and M3. Nevertheless, room M2 was a vestibule between the two rooms, as the lower level of floor indicates (Andronikos, 1961:20). The discovery of an important number of clay tiles also indicated that the three rooms were roofed, yet no traces of interior columns are evidenced. It seems peculiar for this vast space of 17 m span not to have internal support (Kopsacheili, 2012:52). Whether the roof employed the usual post and lintel type supported by “one vast ridge beam or many beams joint together” or roof-truss system or just an experimental roofing technique, remains unclear[20]. The

17 for further analysis see Kopsacheili, 2012: 48

18 for the opinions about Tholos‘ functions see Kopsacheili, 2012:49-50

19 for further investigation see Kopsacheili: 2012:52

20 for further discussion see Kopsacheili, 2012:52-55 and Coulton, 1977:158

northern wing is the most problematic section of the palace since the state of preservation is poor; the northern wing was most likely a tripartite group of banquet halls and vestibule, with a corridor leading to the terrace (Kottaridi, 2011:324 and Andronikos, 1984:44). The southwestern peristyle is identified only by the foundations (Andronikos, 1984:46). Dated to the first quarter of the 3rd century BC, based on the pottery fragment discovered, Kottaridi (2011:304) suggests that it is contemporary to the main one, due to the same foundation type. Andronikos states (1970:338) that, based on the rectangular stone bases discovered, it was formed by 9×9 wooden columns.

The rooms of the north and west side belong to the initial phase of the building, while the semicircular bath is a later addition. Nevertheless, the most prominent sections of the peristyle are those of the northern side. These were probably dining rooms, decorated with paved mosaics, while in the second room of the northern side, a left hand of a marble statue and plaster fragment was discovered. However, it is unclear whether these finds belong to the initial phase of the building[21].

Summarizing the spaces of the building according to Kopsacheili's diagram (2012: 68-69), the palace of Aegae consisted of individual rooms of square shape that functioned as reception and banquet halls, and rooms in "a group of intercommunicating spaces" with a vestibule that also functioned as banquet halls or ancillary spaces. The Tholos probably functioned as an administrative and cult construction, while the sizable, long spaces as rooms of display. Besides, the ancillary spaces were residential and the propylon as a tripartite consecutive hall.

To conclude, the layout and form of the palace suggest that the main purpose of Aegae was reception and entertainment. A residential function is more than possible, however, an administrative is not. Social differentiation is directly implied by the form of the palace, among the users and the frequent visitors; this fact is a direct connection to the ideology of Macedonian Kingship with its demonstration of power and authorities.

The palace of Pella

During the first decades of the 4th century BC, Pella became the new capital and administrative center of the Macedonian Kingdom, a shift attributed to Amyntas the 3rd by Hatzopoulos (2001:190). Nevertheless, Akamati mentions (2003:13) that the city reached its peak during the reign of Philip II and later on was re-organized by Cassander. This palace **(fig. 10)** was excavated for the first time at the beginning of 1960 by Makaronas and more extensively after 1980 by Siganidou and Chrysostomou.

The complex of Pella consists of many independent sections with or without the presence of a

21 for further investigation on the pebble mosaics see Kopsacheili, 2012:56

peristyle, belonging to more than one construction phase (Kopsacheili 2012:70). In the north-east side of the peristyle V there was a tripartite gate of exquisite form; this gate of 18×14 m was employed to allow – or – not the direct access to the palace complex (Chrysostomou, 2001:445).
The complex was located across the fortification wall and had a form of a three-story tower with an independent gate for each story; the height of each gate is calculated to be 14 m (Chrysostomou, 2002:452).

The monumental palace complex of Pella covers an area of more than 70.000 m² and consists of six sections; these sections vary from ones with a peristyle to others without. The peristyle sections are four courtyards with surrounding rooms; these are the “buildings” I, II, IV, and V. The other two sections, namely "buildings" III and VI, are two large groups of space lacking a peristyle to the west.

The peristyle buildings I and II present constructing elements of different phases. In the first phase during the 3rd quarter of the 4th century is the propylon and its flanking stoas. Kopsacheili (2012:71) states that „the southern façade of the building I-II could be seen from the city and formed as a 160 m stoa, 8,60 m wide, including its stylobate that consisted of 25 columns. A monumental propylon,15 m wide, “between the south-east and south-west corners of sections II and I respectively interrupted the colonnade”(Kopsacheili, 2012:71). The height of the retaining wall of the stoa with the propylon is calculated to be 2,50 m; yet, the colonnade was further elevated by employing a 2 m high podium. Chrysostomou mentions (1988:114 and 2003:33) that the stoa was accessible via a ramp located in front of the tripartite propylon.

The propylon's first part was projected about 3 m from the façade and formed by four Doric columns of the entrance and a wall. The second part of the propylon was a sizable hall of 150 m² communicating with the side stoas through openings created by columns. The third section of the propylon covers quite the edifice, that of 90 m² and was accessible through a wide door. Chrysostomou (1996:121) mentions that the façade employed Doric columns on the lower floor of the entrance. On the other hand, for the adornment of the second floor, windows, Ionic half pillar-columns, and a pediment were used for the façade. The southern part of the courtyards of the two sections was accessible through five openings (Siganidou, 1989:61). The propylon levels should communicate through stairs.

The first phase is dated to the third quarter of the 4th century due to the form of the Doric capital of the façade colonnade, as well as the Corinthian roof tiles, the foundation, the lion-head sima and some coins from the northern part of Section I-IIB[22].

The intermediate phase belongs to the rooms of section I-IIA. These rooms are arranged around a Doric peristyle courtyard of 31×35 m, including the porticoes, in a colonnade of 11×13 columns

22 for further investigation see Kopsacheili, 2012:72-73

(Kopsacheili, 2012:74). The sizable hall with dimensions 17,70×21,80 m had a prominent northern wing. This hall was roofed, but no traces of interior support were discovered, such as the spaces MI-III of Vergina. Moreover, the foundation of the hall was impressively thick, which lead to the conclusion that on top rested a colonnade of double-sided Ionic column pillars (Hoepfner, 1996:29).

The discovery of fragments that belong to capitals of Ionic half pillar columns on the southern side is likely associated to the form of the hall. These capitals are interpreted by Hoepfner as the architectural elaboration of the northern wall; this wall employs a two-story pseudo-façade in Ionic order. Hoepfner's interpretation is supported by the fact that the capitals vary in size, which in any case is quite small for a supportive colonnade (Hoepfner, 1996:33-34 and Chrysostomou, 1996:126).

The narrow passageways on the northern corner led to secondary courtyards to the west and east sides. Of importance is the western courtyard which was connected with the main yard through a corridor; other rooms were accessed through this corridor as well.

The western peristyle functioned, according to Siganidou, as a light well; Kopsacheili, on the other hand, suggests that the western peristyle had auxiliary function. Spaces 6 and 7, placed opposite to each other in the northern corners of the yard, were constructed in the form of an apse; this apse was inscribed in a rectangular room and it was accessible through the portico of two Ionic columns in antis.

Section I-IIB is a rectangular space of 50×50 m that consists of a Doric colonnade of 16×16 columns. The paved porticoes of this section have a width of 6,35 m (Siganidou, 1984:81 and Chrysostomou, 1996:127). The southern façade of this section is an extension of peristyle's I façade; these features in combination are forming a long stoa of 160 m. The Building I-II was probably a demonstrative construction that housed official activities. In the 2nd-century-BC-phase of the building, I-II belong to the foundations of the altar in the center of the yard and the foundations of the three apsidal platforms, both made of grey local stone, in western, eastern and northern sides (Siganidou, 1984:81 and Chrysostomou, 1996:127). The foundation of a podium, contemporary and of the same materials, was discovered between the southern wall of a large hall and the stylobate of the colonnade in the northern portico. Furthermore fragments of four bases, statue plinths and finally fragments of marble statues were also found. Nevertheless, the foundations are made of material in secondary use. The whole arrangement of this section indicates ceremonial activity, according to Kottaridi (2012:78).

In 297-296 is dated the building IIIa, which is 85×50 m. It is next to building I-II, but their connection remains unclear. This building consisted of unfinished colonnaded stoas (Chrysostomou, 1996:108).

Buildings IV-V are both dated to the second phase of the construction of the palace and located on

the same terrace; they were connected via stairs and they were both divided into sections and spaces. Of importance is the sunken space E, constructed in a depth of 0,50 – 1,30 m. At least 8 pillars, with dimensions 9,5×13 m, were arranged to the east in two rooms out of four; this space functioned as a support for a wooden floor on the ground level. The discovery of an underground water reservoir in the northern side and combination with the latter underground space indicates a function of an organized bathhouse[23].

It is possible that the bath house is related to the functions of section IV-VB, which covers an area of 4445 m² and measures 70×63,5 m. The yard of the bathhouse measures 50×98 m and is framed by a wooden peristyle (Chrysostomou, 2002:444). It was accessible through four entrances, one in each corner. The northern portico employs three stone pedestals that probably functioned as bases for statues. This section corresponds to Vitruvius‘ interpretation of the gymnasium[24] (De Architectura, 5.12).

Building IIIb and VI belong to the third phase of the construction of the palace. The building IIIb consists of groups of consecutive spaces in the northern and southern terraces, which are connected by corridors. Also, corridors connect the southern garden with the northern yard (Chrysostomou, 1996:111). The discovery of tools, vases and loom weights indicate functions of workshops for the ancillary stall of the court or a residential function. This view is also supported by the simplicity of the construction, the use of ordinary materials and the small size of the rooms in sections VI and III (Chrysostomou, 2001:445 and Siganidou, 1996:147).

Located in the northwestern part of the palace, Building VI is a complex of rooms, corridors, and stools. The Doric peristyle of 9×9 columns on the east side of section VIa frames this small yard. This section consists of rooms in the northern, southern and western sides, while section VIb is a part of the western building (Chrysostomou, 2003:34),where there are preserved fragments of plaster from the wall. This building employed the Laconian roofing-tile system, while the floor was beaten earth. Of importance are the four rooms between the fortification wall and the north side, which probably functioned as bathhouses, as the hydraulic plaster of the floor indicates.

Finally, the two rows of spaces in building VII possibly functioned as storerooms and workshops (Chrysostomou, 2003:34).

Unfortunately, the state of preservation and the present evidence does not allow the reconstruction of the accessibility and circulation patterns. Nevertheless, this basileion could serve numerous functions, such evidenced by the multiple peristyles and variety of spaces.

23 for further investigation on the space E see Kopsacheili, 2012:80

24 Also see Kopsacheili, 2012:81-82

Palace V, Pergamon

The Basileia of Pergamon were composed of several building complexes. The palaces, located at the eastern part of the fortified Acropolis and to the north-east to the sanctuary of Athena, were identified by the stamps on roof tiles of the area, that bear the inscription βασιλείων or βασιλέων (Zimmer, 2012:144).They were first excavated in the 1880s, but the reports were published 60 years later by Kawerau and Wiegand. In the 1990s Salzmann's project studied the mosaics of the Palaces, including a small excavation in 1991, 1993 and 1995. The current research project of Pergamon is under the direction of the German Archaeological Institute of Istanbul.

Placed between the Sanctuary of Athena Pronaia and the fortification wall of the Acropolis, the palace V of Pergamon **(fig. 11)** is separated from the neighboring palace IV through a peristasis (Hoepfner, 1996:26-27). The existence of this propylon is evident through a block of the stylobate in the north-east corner of the foundation of the yard. This block preserves a round trace of one Doric column. Yet the peristyle was probably unfinished in the south-east corner since the walls of the western and southern propylon meet at this point. Kopsacheili mentions (2012:166) that the entrance should be placed at the western side, at the northern or southern end, as the original restored plans suggest too. Nevertheless, this interpretation is unsuitable for the entrance and the evidence that suggests this plan is lacking[25] (Hoepfner, 1996:25).

The arrangement of the rooms in the south side has also proven to be problematic, since the existence of relatively small rooms in the restoration of Pinkwart-Stemnitsa and Wulf creates severe problems of planning, especially in the sizable edifice of room B (Kawerau and Wiegand, 1930:34). The architectural arrangement is better preserved in the northern and eastern sections of the palace (Kopsacheili, 2012:167). The courtyard remains the main core of the palace while the largest Room, Room I, is in the north (Kopsacheili, 2012:167). Room I has a marble threshold placed slightly off-center. Room F is the second largest room of the palace and also contains an off-center threshold. This position of the threshold, according to Kopsacheili (2012:167) indicates a function of the room as a banquet hall. Wulf's reconstruction places the entrance of Room F to the right side. Lacking evidence and problematic remains Nielsen's suggestion for the existence of a garden in the peristyle (1994:107). The discovery of the foundation of a rectangular structure with dimensions 6,70×2,60 m to the west of the courtyard, which probably functioned as a votive monument or an altar, does not correspond to a proper arrangement for a garden (Kawerau and Wiegand, 1930:35). The rather big room H of 10,89 m² is significant for its polychrome mosaics[26], divided into four sections,

25 For further investigation on the problematic entrance see Kopsacheili, 2012:166-167 and Kawerau et Wiegand, 1930:34.

26 For the mosaics of the Room H see Kopsacheili, 2012:168 and Salzmann, 1995:108-109.

depicting nature motifs and garlands.

The largest banquet room of the palace, containing approximately 22 couches, was Room I in the north-west wing. Fragments of this lavish banquet room, made of white-blue marble, were discovered in this room and Room H as well (Kawerau and Wiegand, 1930:31). Room K, which measures 72,25 m², functioned as a room housing symposia and contains preserved fragments of a mosaic[27] that covered its whole edifice. Moreover, a female statue dressed in a chiton was discovered in this room, probably depicting a dancer (Kopsacheili, 2012:169).

The attribution of the panels of the frieze relief remains under construction. Fragments of them were discovered in the terrace of the sanctuary or incorporated in Byzantine walls (Kopsacheili, 2012:170). The panels were first attributed to the sanctuary of Athena, but Hoepfner (1996:24) suggests an association with the palace. Kopsacheili believes that these panels fit better in the intercolumniations of the upper floor of the peristyle colonnade (2012:170). The panel depictions are inspired by Greek Mythology, with a Homeric scene of Greek warriors coming out of the Trojan horse, Telephos and Athena and a scene of Gigantomachy.

The palace V of Pergamon was probably constructed during the reign of Eumenes II, somewhere between 197-159 BC (Hoepfner, 1996:25) which was a period of extensive building activity. Therefore, the adaption of the wall in the south-east part of Palace IV to the plan of Palace V, indicates that the Palace V was constructed slightly later than Palace IV.

In terms of function, most scholars accept Hoepfner's suggestion that Palace V was an official – administrative section for extensive banquets and receptions. Hoepfner suggests that the function of Palace IV was residential. Therefore, Palace IV accommodated fewer people than Palace V. Moreover, it did not have a monumental entrance or banquet rooms with vestibules. Of importance is that it was erected in a less privileged location (Kopsacheili, 2012:171).

Therefore, Kopsacheili (2012:171) disagrees with Hoepfner's suggestion by presenting two points: first, the parallel in terms of function Tholos in Aegae is the space D of Palace IV. Second, the two peristyles of Pergamon do not differ in size as much as the main and secondary peristyles of Aegae. Nevertheless, Nielsen agrees with Hoepfner‘ s suggestion by justifying an official function for Palace V based on the more lavish decorations (1994:105). By comparing Palaces IV and V, the suggestion made by Kopsacheili (2012:172) that „they were either two part of a unit and each catered for different by clearly distinct and contemporary needs, or they were independent buildings satisfying similar needs", seems quite logical.

This chapter only discussed a sample of Macedonian and Hellenistic palaces. For example, there is another Macedonian palace, that of Demetrias. Moreover, Hellenistic Palatial architecture is

27 For further investigation of the mosaics of Room K see Kopsacheili, 2012:169 and Salzmann, 1995:104

present in Egypt, Asia beyond the Taurus mountains (Jebel Khalid, Mount Karasis and Doura-Europos), in Bactria and Kommagene (Al Khanoun and Samosata) as well as Palace IV in Pergamon, which was briefly mentioned above.

The Hellenistic Palaces, as a product of court societies, "relied on diachronic behavioral patterns, as regards the social dynamics, power and self-representation"(Kopsacheili 2012:272). To conclude, Hellenistic palatial architecture is an architectural form of expressing administration and government, communicating the values of royalty, maintenance, and legitimization of power.

Chapter 3: Hellenistic Stoas

The purpose of the previous chapter dedicated to Hellenistic palatial architecture was to see and analyze some features of design that we are about to see in the Hellenistic stoas. After discussing also the chapter about the development of stoas by some earlier examples, in this chapter we will see the combined features of Hellenistic stoas. As we saw in Hellenistic palaces, the courtyard was engaged to monumental proportions and these were the largest independent sections of their planning. The Hellenistic Stoa, as we are about to see, was remarkably flexible in terms of planning and incorporating different features of various influences. As Winter points out (2006:56), "the Stoa is perhaps the most characteristic expression of Hellenistic architecture".

The earliest preserved example of two-storeyed stoas was the Stoa by the harbor of Perachora (Bouras, 1999:294). Therefore, in mainland Greece stoas of the "old type" employing simple planning were still constructed (Bouras, 1999:298). The real revolution was "the adaptation of the columnar orders to new uses in Stoas is as typical of the spirit of Hellenistic architecture as the varied function of the Stoas themselves" (Winter, 2006:65).

In the Hellenistic period, the Doric order was displayed by Ionic and Corinthian order. Before the Hellenistic period, the Corinthian order was rare, although it does occur in some examples, such as the interior of the South Stoa at Olympia. As for the Doric or Ionic columns of the Hellenistic Stoas, they were much more utilitarian in terms of material or finish – or even both. The shift from Doric columns on the main floor to Ionic columns probably fitted better to the aesthetics of Hellenistic design.

A significant category of stoic constructions is the so-called "Pergamene Stoas", which are characterized by innovative morphological peculiarities. The large proportion of the two-storey stoas, the creation of the archaic-palm capital that is known as Pergamene capital and the relative non-use of the Corinthian order, are the main peculiarities. The Pergamene Stoa was a ubiquitous element in public spaces exhibiting the Pergamene aesthetics of space (Seaman, 2016:406-421).

Stoa in the harbor of Perachora

The Stoa by the Harbor **(fig. 12)** has been in terms of exact location and general form, long known (Coulton, 1964:100). During the third and most productive year of Payne's excavations at Perachora in 1932, the Stoa had been brought to light. Pfaff mentions that the stoa was probably was a donation to the city by Demetrios Poliorketes (2003:130). The Stoa is briefly mentioned in

the preliminary excavation reports, of which Perachora I in 1940 is the most enlightening. Additionally, small supplementary excavations took place in 1963, “in an attempt to clear up some points about the form and building technique of the Stoa and obtain additional evidence for its date”, as Coulton states. In terms of plan, the Stoa is L-shaped, with arms of rather identical length meeting at the right angle, while colonnades are facing in the south and west (Coulton, 1964:100).

The Stoa at the Perachora Harbor is a two-storeyed, one-aisled, L-shaped Stoa facing to the South and West. The North Wing’s length is calculated to be to be to 16,59 m, while the depth is 4,60 m. On the other hand, the East Wing has a length of 16,57 m and a depth of 4,90 m. This Stoa employs a Doric colonnade of 10 columns for the lower storey, while the upper one consists of Ionic attached half-columns. The Doric columns have a diameter of 0,615 m, while the intercolumniation of the North Wing is 2,30 m and just 0,07 m more to the East Wing. The width of the pier at the bottom is measured to 0,325 m for the upper colonnade. The total height of the façade is that of 9 m. Preserved are the lower parts of the rear wall, the stylobate of the North and parts of the East Wing. Moreover the Doric drums and the Ionic piers and capitals have survived.

Of importance is that the layout of the plan is not symmetrical, since the stylobate of the two sides are not arranged in a parallel line (Coulton, 1964:100-101). The stylobate’s length in the north wind is calculated to be to be to 11,67 m, while the width near the function is 4,57 m and 4,66 m in the west end. Six columns composed the north side and “behind the western end column, the western end wall terminated in an anta, making this wing prostyle, instead of the more usual arrangement in antis”, as Coulton points out (1964:101).

This Stoa was sunk into the wall and this is the reason why the employment of an additional wall was unnecessary; though a gap was left between the rear wall and the cut rock’s face (Coulton, 1967:138). In this exact space, fragments of the roof tiles were discovered (Coulton, 1964:104 n.7). This cavity was presumably roofed during the use of the building, but collapsed afterwards (Coulton, 1967:138). The stoa was built as an architectural frame for the open space of the harbor of Perachora, and not as a certain demand for a covered space (Coulton, 1976:75).

This stoa has been probably constructed during the last quarter of the 4th century BC., based on stylistic and technical observations. This small but significant stoa, is one of the very few L-shaped Stoas on the Greek mainland, but this choice is justified, because of the restricted space available in the Harbor (Coulton, 1967:56). As a stoa under the Corinthian influence, this Stoa employed a prostyle colonnade. But what is the effect of this choice in terms of design? In a case of a prostyle colonnade, there is one clear intercolumniation at the front corner of each end, but there is no correspondence at the back corner as a symmetrical interpretation of the design; the colonnade just stops (Coulton, 1976:80). The orthostate of rubble masonry were probably covered by stucco on the upper part (Coulton, 1976:143). As far as the floor is concerned, it was a “single one set in plaster

on a rubble foundation, which was laid in the Stoa and over the surrounding area", as Coulton points out (1976:146). A wall-plate was apparent along the interior side of the frieze and cross-beams were placed in the upper part as support (Coulton, 1976:148) for the upper storey's floor. Moreover, no cuttings were found in the cornice, so the floor could occupy its full height of 0,286 m (Coulton, 1976:148). The Krepis of the Stoa consisted of two steps and a stylobate resting directly on the euthynteria (Coulton, 1976:110). One very important characteristic is the developed system of turning the re-entrant angle. The three-metope system was employed for the façade of the lower storey (Coulton, 1976:116).As for the strengthening of the entablature, an innovative manner was employed: "the architrave and frieze were cut from the same block, thus producing a beam with a taller section, and so considerably greater strength" (Coulton, 1976:145), as well as "the jointing of the beam is staggered, so that in the architrave the joint comes over the axis of the column, but in the frieze it comes at the edge of a triglyph".

Of value is the superposed porticoes, one of the earliest of this characteristic, which also employed the Ionic order for the upper storey. The use of the attached half-columns of the Ionic order was extensively used in the region of Peloponnese, so it is expected for the Stoa at Perachora. The Ionic attached half-columns of Perachora have two significant advantages, namely the easy setting of the intercolumnar barriers and the increased strength of the pier end entablature (Coulton, 1976:127).

There is no obvious justification for the choice of employment of the two-storeyed arrangement at Perachora, yet the rising ground behind the Stoa could be a sufficient explanation. Nevertheless, the ground rises only to about the height of the lower cornice and this made the upper storey directly accessible from behind, even without a staircase. This elegant stoa functioned as a shelter in case of bad weather conditions in the temenos. The architect of Perachora presents significant originality and high-standard craftsmanship by his choice of a two-storeyed Stoa with an Ionic upper order: his conceptualization was supported by many successors (Coulton, 1976:106-107).

Stoa of Antigonus, Delos

Located in the North boundary of the Sanctuary of Apollo, the Stoa of Antigonus **(fig. 13)** at Delos is a two-aisled Stoa with projecting wings, facing the South. The length of this Stoa is calculated to be to be to 119,62 m, while the depth of the main portico is 13,40 m. The wings are 13,40 m wide with a projection of 6 m to the South at each end. This Stoa employs a Doric exterior colonnade of 47 columns, fluted only in the upper part. The outer intercolumniation of the Stoa is measured to 2,94 m while the diameter of the Doric column is calculated to be 0,71 m (Coulton, 1976:78). The

Ionic inner colonnade consists of 19 columns while the inner intercolumniation is measured to be 5,84 m. The stoa of Antigonus is one of the seven[28] examples of Stoas with wings. (Coulton, 1976:83)

The preserved parts are those of the foundations, parts of the toichobate and stylobate, some considerable remains of the outer order and fragments of the inner columns. This Stoa is dated to 246-239 BC by the discovery of the dedication inscription of Antigonus. Marble was used only for the façade.

This stoa's plan is quite particular, since the intercolumniations of the wings, of the returns, and of the central section vary. Moreover, there is no contracted intercolumniation at the corner of the wings and the metopes seem extended (Coulton, 1976:59). Another problematic feature though was the irregular stylobate blocks, a fact that placed the columns nearer to the front (Coulton, 1976:110-111) than the regular back (Coulton, 1976:146). An "innovative" but also unfortunate method of obtaining the intercolumnar space was used in the Doric order. As Coulton (1976:117) explains, "the axial intercolumniation, 4,14 times the lower diameter, was wider than what was usual even with the three-metope system". Yet, "there are in fact only two metopes in each span, these being simply stretched into elongated rectangles with a width more than one and three-quarter times their height and nearly two and two-thirds times the triglyph width". The two-metope system was chosen in this case in order to place the bull's head triglyphs in the center of each intercolumniation, since with the three-metope system there would have been no triglyph in the center of the intercolumniation". The metopes vary in length; the metopes of the central section have a length of 2,92 m, while the metopes of the wings are measured to 2,55 m (Coulton, 1976:85). In addition to these, two metopes were employed above each span, instead of the typical three, a fact that moved the triglyphs off-center (Coulton, 1976:60).The placement of the extraordinary bull's head triglyphs also affected the cornice that projects in the same length (Coulton, 1976:60).This cornice had no mutules in its main façade because the bull's head triglyphs were placed in the middle of each intercolumniation, and that would interrupt the sequence of the mutules.

The only useful correspondence of the Stoa of Antigonus is that of the wing's width to the central part of the Stoa, a fact that would make easier the roofing system (Coulton, 1976:84). The roofing system was a complex one, since large-sloping cross-beams were used, placed in a fairly widely spaced manner, that carried above them a network of purlins and rafters of quite smaller section in order to support the tiles (Coulton, 1976:155).

All these unfortunate arrangements still create a rather harmonious design of this Stoa and its design was never repeated. This is quite unfortunate for a stoa that functioned as a votive

28 Other six: Stoa of Philip at Megalopolis, Stoa F at Kalaubria, the Bouleuterion at Mantineia, the Stoa with wings at Thasos and the Propylaia and Stoa at Lindos (Coulton, 1976:83).

construction, sponsored by a king; Nevertheless the stoa of Antigonus had lavish decoration by statues and other offerings that were placed inside. The stoa of Antigonos was an expression of the goodwill and benefaction to Delos, which was a common and conscious tactic among the Hellenistic kings (Constantakopoulou, 2017:110).

Stoa of Eumenes II

This stoa is located between the Theater of Dionysus and the Odeion of Herodes Atticos in the southern slope of the Athenian Acropolis (Coulton, 1976:69).

In terms of plan, the stoa of Eumenes **(fig. 14)** is a two-storeyed, two-aisled stoa facing to the South with a staircase at the east end. The length of this stoa is calculated to be 161,80 m, excluding the staircase, while it has a depth of 17,85 m. In the lower portico employs the Doric order for the exterior side and presumably the Ionic order for the interior side (Coulton, 1976:69). The exterior colonnade consists of 64 columns while the interior colonnade consist of 32. The intercolumniation of the outer colonnade is measured to 2,45 m while the inner one is 4,90 m. The upper portico is an Ionic, double-half colonnade for the exterior side and palm capitals for the inner colonnade. The stoa of Eumenes covered a total space of 16 m^2 (Coulton, 1976:79). The preserved parts of this stoa include much of the rear wall, the foundations of the krepis and the inner columns. Several features of the upper part survive as well. Its plan is not characteristically Pergamene, but the elevation is (Coulton, 1976:69, Pollitt, 1986:281-283 & Seaman, 2016:406-421).

The rear wall of this stoa was a robust construction with joint buttresses at the top; the buttresses were joined together by arches. This arrangement was hidden behind an undercoated wall of limestone on a marble socle. Yet, the space between the two walls was filed with poros blocks (Coulton, 1976:139). The cornice along the rear wall was crowning the whole building and is a simplified form of cornice that crowns the main façade (Coulton, 1976:119). The lower part of the columns of the exterior colonnade was left unfluted; this practice was very common in the Pergamene buildings, presumably in order to avoid the damage of the fragile arises from traffic passing through the colonnade (Coulton, 1976:112). Moreover, Doerpfeld described the lower parts of the bases of the exterior colonnade as polygonal, similar to those of the stoa of Attalos (Travlos, 1971: fig. 661). The upper part of these columns was fluted like the common arrangement.

The upper storey employed the Ionic order for the outer section, as did most of the Hellenistic stoas under the influence of Pergamon. (Coulton, 1976:107). Travlos (1971, fig.661) shows some fragments of the Ionic double- half colonnade and a suitable Ionic capital, that could be seen on the site in 1963. These half-columns are in fact rather more than a half column, since the flutes were not

a full set eleven and two half flutes but fifteen whole ones instead; this arrangement "gives the whole pier a waisted, hour-glass section, which makes the central part visually less important. Its unimportance is increased by the treatment of the capital in which, although the piers are much more elongated in section, the pulvinus runs unbroken along each side face of the pier, so that one is much less aware of the constituent elements of the pier" (Coulton, 1976:127). The barriers were decorated and carved with diamond patterns. The narrow, pointed leaves of the Ionic capitals was a very popular decoration for the pulvinus at this period of time, even though the origins of these capitals remain uncertain. (Coulton, 1976:122). The entablature of the upper storey was Ionic as well, and consisted of plain friezes. One frieze was placed above the two or three fascia architrave (Coulton, 1976:128).

The cornices attributed to this stoa had the unusual form of most Pergamene structures, with mutule-like slabs carved on a horizontal soffit with considerably greater projection and wider space between them (Coulton, 1976:128). For the inner section palm capitals were used; this is a clear Pergamene influence but in terms of design this capital was based on archaic Greek models. These capitals consisted of 20 leaves, while one leaf filled each corner of the abacus soffit; the leafs were "rounded and drooping, with a simple concave section and a swallow groove to separate them" (Coulton, 1976:121). The intention of this "revival" was manifestly to differentiate the upper inner colonnade of a two-stored, two-aisled stoa from the upper outer columns; this was a very common Hellenistic practice for the capitals (Coulton, 1976:122). Of importance is that most of the features of the stoa was made of island marble and they were crafted most likely in Pergamon; Korres suggests this was a clear choice of Eumenes to demonstrate even more the Pergamene origin and donation of this stoa (Valavanis, 2011:8).

This stoa was erected some-when between 180-160 B.C., based on the identification of the building as Stoa of Eumenes and in relation to other Pergamene structures, especially the stoa of Attalos II in the Athenian Agora. This stoa had the function of a shelter near the Theater of Dionysus, as a place of gathering for a great amount of people in cases of bad weather conditions (Coulton, 1976:12). Nevertheless, the genuine function of this stoa was to demonstrate the power and the authority of Eumenes, as a construction of display (Pollitt, 1986:281-283 & Seaman, 2016:406-421)

Stoa of Attalos

The Stoa of Attalos **(fig. 15 & 16)** is the most magnificent Hellenistic building in the Agora and the only one to have been restored in contemporary times using almost exclusively modern building material (Camp, 2004:209-210). The works for the erection of the Metropolitan Railway in 1861

brought to light the identification of the building. The dedicatory inscription unearthed reads: "King Attalos, son of King Attalos and Queen Apollonis". King Attalos II was the donor of this stoa, who at some point during his reign (159-138 BC) provided for this stoa. Initially then, this is one of the most safely dated buildings of the Agora (Camp, 2004:209-210).

The stoa of Attalos II is a two-aisled, two-storeyed stoa with rooms behind, facing to the west. The length of this stoa is measured to 112,09 m but including the staircases at each end it reaches to 116 m. The extended depth is calculated to be 19,40 m while the depth of the portico is measured to 13,30 m (Coulton, 1976:219) Each storey consists of a two-aisled portico with 21 rooms behind. Each of these rooms had a depth of 4,65 m and a width of 4,90 m. For the lower storey, a Doric colonnade of 45 columns was employed for the outer section and an Ionic colonnade of 22 columns for the interior one. The Doric columns had a diameter of 0,72 m and their intercolumniation is calculated to be 2,423 m. On the other hand the intercommunication of the inner Ionic colonnade is almost double, that of 4,855 m. (Coulton, 1976:219). In the upper portico, an Ionic colonnade of double half-columns was chosen while the inner colonnade consisted of columns with palm capitals. The total height of the façade is measured to 10,65 m. From the original phase of the building preserved are almost all foundations and the two ends of the building nearly to their full height. Moreover, numerous fragments of several parts of the building were discovered (Coulton, 1976:219).

In terms of materials, this building employs the most lavish ones that reflect the attention to luxury: Pentelic marble for the colonnades, Hymettian marble for the krepis, the stylobate and several sections of the façade and the walls. Other parts of the walls were made up of robust Piraeus limestone (Thompson, 1950:316-326).

The position of this stoa in the Agora did not require a two-storeyed stoa, since the ground level was not lower than the terrace level. In this case, the lower portico supports the upper one but the stoa of Attalos did not demand this arrangement (Coulton, 1976:89). This choice of the architect though was used as an element of recognition of the stoa as Pergamene (Coulton, 1976:90). In terms of design this stoa combines freely various elements of different origins, for practical and aesthetic reasons (Coulton, 1976:98, Pollitt, 1986:281-283 & Seaman, 2016:406-421). The proportion of this stoa is occupied by the two main porticoes, which are virtually identical in treatment; each portico has the exact depth of the two thirds of the stoa (Coulton, 1976:6). Coulton suggests that the stoa of Attalos is the only stoa that was built exclusively by Pergamene architects (Coulton, 1976:56). This stoa was straight and free-standing but the fact that it was erected in an Agora justifies the existence of the row rooms behind each portico (Coulton, 1976:69). The stoa of Attalos II is the most famous Pergamene stoa, and the type is quite Pergamene; this plan is much closer to the stoas of the mainland (Coulton, 1976:69). As Coulton (1976:69) claims, “there is no stoa of the same type at

Pergamon or Aegae, where the only stoas with rooms behind are one-aisled, and where straight, free-standing stoas are rare". The forms of this stoa are quite correspondent with the Stoa of Eumenes, and presumably the same team of tektones was employed for the construction afterwards.

A sizable square was constructed in front of the stoa, 7,33m wide, and in combination with the comfortable spaces of the storey. This square functioned as a viewing spot for athletic events as well as other events taking place in the area of the Agora by numerous people. The south section of the building featured a fountain; pedestals as statue bases, a rostrum and other monuments were discovered in the area of this terrace.

The investigation of the foundations has shown that the original plan is more suitable for a rather smaller stoa, of a total length of 78,64m and 14 rooms of 4,91m in width) on each storey, as a result, the original plan was significantly enlarged. The addition of the four rooms in the south side with the staircases were smaller than the rest of the rooms, each with a width of 2,21m. The later addition of three rooms in the north side consisted of rooms with a total width of 4,11 m. The form of this elaborated two-aisled and two-storeyed stoa with rooms in the back side was particularly favored for an agora (Coulton, 1976:86). The rear wall featured small windows (0,08 × 0,73m) for each room. Nevertheless, rooms occurring on the back side of a stoa is a very common feature of Greek architecture (Coulton, 1976:88). These rooms functioned as offices or for housing stores inside the stoa.

As mentioned before, the lower parts of the columns were left unfluted while the upper part had a normal fluting, in order to avoid damages from traffic (Coulton, 1976:112). In the lower inner colonnade the Ionic columns had a widespread base which actually covered more edifice of the floor in comparison with the bases of the exterior Doric ones of the same height; Moreover, the Ionic shaft was slightly more slender, giving to the interior space a more airy visual effect for decorative reasons that are offered by the use of the Ionic order in any case (Coulton, 1976:100). The columns of the inner section were unfluted in both storeys; this economical labor was probably adopted because the light and the shadow on which fluting depends for its full effect, would be missing from the inner sections (Coulton, 1976:111). The lower floor of the stoa consisted of marble chips set in a lime mortar (Coulton, 1976:146).

The two external colonnades placed one above the other, characteristic of Delian or Pergamene origin, are also employed here as in the Stoa of Eumenes. The presence of the upper portico did not affect either the proportions or the construction of the lower order below the level of the cornice; Neither the columns nor the entablature were strengthened by an additional load, such as in the stoa of Eumenes (Coulton, 1976:124). The cornice of the Stoa of Attalos is identical to that of the stoa of Eumenes and has the same arrangement, as analyzed above (Coulton, 1976:119). The floor of the upper portico, after the restoration, has "cross-beams supported on the interior architrave and

occupying the full height of the frieze, 0,513 m, but they are spaced further apart, about every 1,20 m, or half the outer intercolumniation" (Coulton, 1976:147). Above these cross-beams the thickness of the floor is measured to 0,40 m. The upper colonnades, the interior with palm capitals of 20 leaves and the exterior of Ionic double half columns, were the same with those in the Stoa of Eumenes. The palm capitals have greater neck diameter than the outer Ionic ones, so they were presumably higher (Coulton, 1976:157). The barriers between the columns of the upper portico had a height of 0,72 m and they were decorated with diamond patterns, as are those in the Stoa of Eumenes. As in all two-storeyed Pergamene stoas, the upper entablature was Ionic, consisting of a two- or three-fascia architrave (Coulton, 1976:128). In order to crown the upper order, the unusual Pergamene cornice was employed; the cornice of the Stoa of Attalos is the best preserved example of the Pergamene cornice, mentioned earlier in the Stoa of Eumenes, since it has a sloping top and a gutter with lion's head water spouts which clear belongs to the top of the stoa (Coulton, 1976:128). Of importance is the fact that "the projection of the special upper cornice that bears much of the same relation to the total height of the façade as the projection of the lower cornice does to the height of the lower order, while its height (excluding the sima) was suitably proportioned to the upper order alone" (Coulton, 1976:129).

The roofs must have employed sloping cross-beams for support, as do all the Hellenistic free-standing, two-aisled stoas (Coulton, 1976:157). In the roof of the stoa of Attalos there is evidence for the existence of pediments at every end, which is a common habit in all periods and eras of the Greek world (Coulton, 1976:165).

During the Roman period, the stoa was completely modified to better blend in with the new, impressive building of Pantainos' Library that was constructed to the south in the early 2nd century AD. During the construction of the Pantainos' library, the south staircase was removed and a new, internal staircase was built on the south side of the building. The stoa was demolished in the late 3rd century when the Late Roman defensive wall was constructed while parts of the building remained visible until the mid-19th century.

Chapter 4: Thoughts on Stoas: A synthetic view

As stated above, one of the aims of this thesis is to provide a general comparison of stoas in terms of their four axes: 1) Location and context; 2) Time, style and material 3) Size, structure and function 4) Light and accessibility 5) Architects, viewers and communicated ideas. In order to administer this, let us view the comparison thematically.

Location and context

Four out of eight of the stoa examples discussed in this thesis are located in the eminent Athenian Agora. The Athenian Agora **(fig. 17)** is the core of the city and, initially, employs stoas to accommodate certain activities of the state or to facilitate the citizens.

Regarding the Royal Stoa, the Poikile Stoa and the Stoa of Attalos II, the administrative/utilitarian context is an important factor of their construction. As mentioned in chapter two, the Royal stoa was the seat of Archon basileus, one of the most important officials of the state, and, sometimes, as the convening place of Areios Pagos, while there are also references to official dinners being given here. The Poikile stoa was a celebrated meeting place for the Athenians but it was not constructed to subserve a certain purpose, rather than offering protection in cases of bad weather conditions. Additionally, the stoa of Attalos II was a shelter for the visitors and housed a series of shops. But as for the Stoa of Zeus Eleutherios the situation is different: this stoa was constructed instead of a temple dedicated to Zeus, probably to fit better in the civic concept of the Agora. Nevertheless, the stoa of Zeus is primarily a religious construction which housed the cult statue of Zeus (Camp, 2004:136).

However, let us examine these stoas within ritual-context. The Athenian Agora, despite apparent mainly administrative function, consisted of several religious constructions, such as the Altar of the 12 Gods, and as a result the monuments of the Agora present a dual interpretation. The Royal Stoa was the seat of archon basileus, who was the most important religious magistrate of the State, responsible for the Eleusinian mysteries and Lenaia (Camp, 2004:128). As a result, the religious/cult context of this stoa is self-evident. The Poikile Stoa was the place where the participants of the Eleusinian mysteries were invited and recorded, and so the cult/religious context is present here as well. As for the Stoa of Zeus Eleutherios, despite the primarily cult/religious context, the stoa functioned as meeting place; its location in the Agora among other administrative buildings are likely to have been connected to some administrative function and context (Camp,

2004: 136).

Concerning the other four examples analyzed, they are located in notable sanctuaries, and so the cult/religious context is apparent. The South Stoa at Samos is located in the Sanctuary of Hera, which presents a detectable resemblance. The stoa by the Harbor at Perachora is also located in a Heraion. The Stoa of Antigonus is located in the most sacred temenos of the Ancient Greek world, that of Delos, while the Stoa of Eumenes is located in the southern slope of Athenian Acropolis, the most celebrated temenos of the city, near the Theater of Dionysus.

Despite the fact that those stoas are located in the context of a temenos, their function is based on a utilitarian context. The South Stoa at Samos, the Stoa by the Harbor at Perachora and the Stoa of Eumenes functioned as a shelter in case of bad weather conditions. On the other hand, the Stoa of Antigonus at Delos functioned as a demonstrative construction housing lavish statues and offerings of the Macedonian king.

Of course, the primary context of those stoas is ritual due to their location, but the indications of a secondary utilitarian context should not be overlooked.

Time, style and material

Describing the examples of Stoas in chronological order, the aim was to see the evolution according the style in the timeline of their construction. Of course, the use of different materials is associated with the time and the style.

The South Stoa at Samos, the first example of stoas, that was constructed in the Archaic Period was relatively simple in terms of design and construction, with wooden posts as colonnades in the inner and outer side (Coulton, 1976:18). The royal Stoa, with a main phase of use in the middle- 5th century B.C., is a simple design that employs the robust Doric order for the exterior and the interior colonnade. The main construction material was the yellow poros, that was used extensively for the columns, the capitals and the entablature, while marble was used for the construction of more decorative features, such as the metopes (Thompson and Wycherley, 1972:83). The Poikile Stoa, that was constructed later on the 5th century, employs the Doric order for the exterior side and the Ionic order for the interior one, since the combination of orders is one of the first innovations of the Classical architecture (Coulton, 1976:47). The main construction material is still poros but marble was employed for the metopes as well, however, the wall paintings give a new tendency to decorativeness. The Stoa of Zeus Eleutherios, is an example of new design, that with projecting wings. This stoa also employs the combination of the Doric order for the exterior side and the Ionic order for the interior side, following the style of the late 5th century. In the stoa of Zeus Eleutherios there was extensive use of marble, Hymettian and Pentelic, for the exposed parts and numerous

other features which is significant but very unusual for a building placed in the Agora (Camp, 2004:135).

Since four out of eight given examples were constructed in the Hellenistic period, it is necessary to mention the characteristics of the architecture of this time of period. As Bouras (1999: 256) notes, the architects of the Hellenistic period present an increased freedom of synthesis and design, constructing their buildings in combination of orders, architectural elements, local styles and materials. The use of different materials, diverse in texture, color, quality and curving ability, is presented in these stoas, which is expected according to the dominant methods of the Hellenistic period. The combination of materials of our examples is a tendency of decorativeness, elaboration and sophistication. The highlighting of the interior space is another major characteristic of the architecture of this period. The two-storied stoas, affected by the emergence of the Hellenistic palaces, their plan and their composition of orders, become the primary design. The widespread use of the Ionic colonnade in the upper storey, either in the façade as double-half columns or as a simple colonnade, was first employed in the Hellenistic palaces of Vergina and Pella. Furthermore the Ionic double-half pillar-columns were employed also in the Royal Tombs at Vergina, as architectural elaboration of the façade. The use of the colonnade with palm capitals which replaced the Ionic in the upper inner section, was clearly a Pergamene innovation, which was also employed in the Hellenistic palaces of Asia Minor. Nevertheless, the lower storey employs the Doric colonnade for the exterior side and -if exists- an Ionic colonnade for the interior, according the classical Greek architectural tradition.

The stoa by the Perachora Harbor, constructed in the last quarter of the 4th century B.C., is a two-storeyed, L-shaped stoa. For the lower storey employs a Doric colonnade while the upper storey consists of engaged Ionic half-columns, like those analyzed in the façade of the Hellenistic palaces; yet this arrangement was used extensively and in the region of Peloponnese (Coulton, 1976:56). Moreover, the prostyle colonnade of this stoa relies upon a Corinthian influence, while the rubble masonry covered by stucco, offers a more sophisticated image to the building, like several architectural features in the palace of Vergina (Coulton, 1976:80,146). The stoa of Antigonus, constructed in the middle 3rd century B.C. employs the classical canon of the exterior Doric and interior Ionic colonnade, but as mentioned above in a very odd and unsuccessful plan of projecting wings (Coulton, 1976:59). Despite the unfortunate design, this stoa was elaborated with a marble façade and with remarkable bull's head triglyphs. Going back to the two-storeyed stoas, the Stoa of Eumenes is a true hybrid of orders: The lower storey employed the Doric order for the exterior side and the Ionic order for the interior one. The upper storey employs the well-known Ionic, double-half colonnade for the exterior side and the Pergamene palm colonnade for the interior one. Most of the features of this Stoa were prefabricated in Pergamon and probably they were made of island

marble. Finally, the stoa of Attalos presents the same composition of orders, as the Stoa of Eumenes (Coulton, 1976:219). In terms of materials, this building employs the most elaborated materials available that reflect the intention to luxuriousness: Pentelic marble for the colonnades, Hymettian marble for the krepis, the stylobate and several sections of the façade and the walls. The extensive use of lavish colored marble corresponds to the Rooms I and H of the Palace V in Pergamon, where lavish white-blue marble was used for.

Size, structure and function

The size and the structure are those initial elements that subserve the function of every building. This architectonic principle is applied to the stoas, as every other building.

	Shape/Design	Length	Width/ Depth	Upper Storey	Rooms
South Stoa	Normal, two-aisled	65,95 m	5,91 m	No	No
Royal Stoa	Normal, two-aisled	17,72 m	7,18 m	No	No
Poikile Stoa	Normal, two-aisled	42,37 – 53,62 m	11,573	No	No
Stoa of Zeus	Projecting wings, two-aisled	43,56 m	10,43 m	No	No
wings	-	5,86 m	10,60	No	No
Stoa, Perachora	L-shaped, one-aisled			Yes	No
wings		North: 16,59 m East: 16,57 m	North:4,60 m East: 4, 90 m		
Stoa of Antigonus	Normal, two-aisled	119,20 m	13,40 m	No	No
wings		6 m	13,40	No	No
Stoa of Eumenes	Normal, two-aisled	161,80 m	17,85	Yes	No
Stoa of Attalos	Normal, two-aisled	116 m	19,40	Yes	Yes

Plate 1: Dimensions and Design

As we see in the above table, the most sizable stoa is that of Eumenes. This is a justified reality, since the Hellenistic stoas have a tendency to monumentality and elaborateness; this stoa that functioned as a shelter in case of bad weather conditions of the nearby Theater of Dionysus, could accommodate a large number of people in this normal design. In terms of function, this Stoa could actually be smaller since it does not house any activity, but it was constructed in this manner in order to demonstrate the donor, Eumenes II.

The second most sizable stoa is that of Antigonus. Since this stoa functioned as a epideictic construction, housing statues and offerings, it could accommodate a great number of both in a normal design that makes the decoration visible from many sides. This stoa could also be smaller, but communicates the same ideology of power and recognition of the donor, as the Stoa of Eumenes.

The Stoa of Attalos, despite the fact that it comes third in length, is the first in width; The rooms of the back side in both storeys justify this arrangement in a normal, accessible plan, since the main function of this stoa was to house offices and stores.

Fourth comes the earliest example of stoas, that of the South Stoa at Samos. The size of this stoa is unjustified since first of all it was constructed in a very early stage of the Greek Architecture and the necessities of the temenos do not demand such a monumental construction as shelter.

The stoa of Zeus Eleutherios, as the fifth more monumental construction mentioned, justifies this size by the fact that it was erected instead of temple; for a stoa that houses statues and also functioned as meeting place and possibly administrative construction, its size is justified as the plan with projecting wings, that makes the decoration visible and the stoa accessible by many sides. Sixth, comes the Poikile stoa, whose utility was that of a meeting place for people and a spot of display of paintings and shields among other things, has a sufficient size for its function and its normal design is ideal in terms of accessibility.

The seventh more sizable construction, the Stoa by the Harbor at Perachora, which owes its small size to its function as a shelter in case of bad weather conditions in the Heraion. Yet, the L-shape makes this stoa accessible by the two wings, facilitating access by both sides. Finally, we meet the Royal Stoa, one of the smallest constructions in the Athenian Agora, whose simple plan and small dimensions are not justified for a building that functioned as the seat of an official administrator, a dining place and occasionally for juridical sessions.

To conclude this section, of importance are the monumental stoas of the Hellenistic period, and especially the Stoa of Eumenes, that correspond in terms of length to the façade of the Building I-II in Vergina and to the façade of the Section I-IIB at Vergina, that formed a stoa of 160 m.

Light and space

The perception of light is a major issue for every civic construction, initially then this issue applies to stoas as well.

The perception of light, first of all has to deal with the exact location of the construction. As stated in Chapter 1,the Stoa Poikile was given the most privileged position in the Agora, along the north side "with an unhindered view to the Panathenaic road and the Acropolis" (Camp, 2004:96). Also, the Stoa of Eumenes was erected in a very advantaged location, that of the southern slope of the Acropolis nearby the Theater of Dionysus. The southern slope was an ideal location for the erection of monuments, this is the reason why it was chosen for the construction of the Theater, which demanded this ground level. The South Stoa also had a good location in terms of perception of light, as it was erected on a hillside. Ipso facto then, the other five examples that were more or less constructed on a flat ground level had less perception of light. Another factor that impacts the perception of light is the east or eastern orientation. Initially then, the stoas with east/eastern orientation, such as the Royal Stoa or the Stoa of Zeus Eleutherios were more privileged than the Stoas with other orientation, such as the Stoa at Perachora (NW).

In terms of design though, the perception of light is affected by the order employed and the intercolumnar space. In the analyzed examples of stoas three orders are mentioned: the Doric, the Ionic and the Pergamene, with the palm capitals. The Ionic and the Pergamene order have more slender proportions than the robust Doric. The placement of the Ionic and the Pergamene palm capitals extensively in the interior side presumably affects the perception of light, since it is the inner space that demands it the most. Accordingly, a more wide intercolumniation has the same effect. The columns, and the space between them, contribute to the general appearance of the construction by contrasts of light and shadow (Scranton, 1946:45).

Furthermore, the colonnades were employed, especially the inner ones, for the spatial effects they created; it is in fact the colonnades that allow a continuous movement in the interior side (Scranton, 1946:41). Initially then, an inner colonnade with more slender proportions and wider intercolumnar space creates a light effect of the interior and makes available more space. The intercolumnar spaces of the exterior colonnades though, tend to be narrower than those of the inner ones, especially if they the Doric order; "This point is implicit in Vitruvius' report of Greek theories of column spacing, according to which the intercolumnar spaces are given in terms of the column diameter" (Scranton, 1946:50). There is a relationship of heavy dependence on colonnade to define spaces and the architects employ the different orders to harmonize these massive elements and create an aesthetic subdivision of the spaces (Scranton, 1946:50). Finally, this relationship between

the orders and their intercollumnium, and the perception of light and the movement in space can be investigated and shown in the plate below. As a conclusion, the intercolumniations of the Hellenistic stoas are wider that those of the early examples in an attempt to further highlight the inner space, which is one of the main characteristics of the Hellenistic architecture.

Lower Storey			
	Exterior order (Diameter)	Interior order (Diameter)	Intercolumnar spaces (Exterior- Interior)
South Stoa	Posts	Posts	2,28 m
Royal Stoa	Doric (D:0,58 m)	Doric (D:0,42 m)	1,9205 m- 5,762 m reduced to 3,201 m
Poikile stoa	Doric	Ionic	1,998 m- 3,999 m
Stoa of Zeus	Doric (D:0,786 m)	Ionic (D:0,68 m)	2,012 m- 6,036 m
wings			3,018 m
Stoa, Perachora	Doric (D:0,615 m)	Ionic	2,92 m- 5,84 m
wings		N:2,30 m E:2,37 m	2,53 m
Stoa of Antigonus	Doric (D:0,71 m	Ionic	2,94 m – 5,84 m
Stoa of Eumenes	Doric (D:0,7 m)	Ionic	2,45 m – 4,90 m
Stoa of Attalos	Doric (D: 0,72 m)	Ionic	2,423 m- 4,855 m

Plate 2: Orders and intercolumnar spaces

Architects, viewers and communicating ideas

The architect, or the tekton, who was responsible for the whole construction project initially is the bearer of specific ideas that define his artwork. It is important, however, to mention that there was no original plan followed in the construction of a monument; the architect made of course a plan for some features, but these were not always followed. Many times they were modified or even completely changed during construction; sometimes the upper parts were planned first and the lower parts followed them (Winter, 2006:61).

The designs of the architects of the Archaic period were characterized by the strength and the simplicity of the forms, a reality that corresponds to the design of the South Stoa at Samos (Winter, 2006:65). The architects of the Classical period were experimenting in the composition and the combination of the orders; this experimentation is present in the examples of the Royal Stoa, the Poikile Stoa and the Stoa of Zeus Eleutherios of that period (Winter, 2006:68). The architects of the Hellenistic period are connected to the demand for greater decorativeness, lavishness and variety of forms, a fact that can be observed in the Hellenistic Stoas and palaces (Winter, 2003:66). Finally the Pergamene architects who were responsible for the large proportions of the two-storeyed stoas, increased further this tendency towards lavishness by the innovation of the palm capital that bears their signature (Winter, 2003:65).

The viewer is a shareholder of all these ideas of design; the conceptualization of these ideas, either contemporary or not contemporary with the viewer, bears significant ideological background. Besides the time of construction that affects the style and the form, stoas are communicating specific political ideas. Five out of eight examples mentioned are funded by individuals. The Poikile stoa, was a donation of Peisianax, brother-in-law of Cimon, to the people of Athens; The stoa by the Perachora harbor was a donation of Demetrios Poliorketes to the city of Corinth; the Stoa of Antigonus was a votive construction by a Macedonian king in Delos, the most sacred temenos of Classical antiquity while the Stoa of Eumenes and Attalos were donations of Pergamene kings. The stoas as demonstrative constructions of the donors, communicate the ideas of power, dominion and maintenance of cognition. These stoas were not just civic constructions of the city; most especially, the four examples of the Stoa of Perachora, Stoa of Antigonus, Stoa of Eumenes and Stoa of Attalos communicate the same ideas as the Hellenistic palaces. They are related to “the ideology of kingship and to the administration system” by satisfying “the need to legitimize the governance and to express the kingship ideology in order to create an identity of the kingdom and to maintain the social hierarchies” (Kopsacheili, 2011:32). The construction of these stoas was a conscious choice by the royal Hellenistic royal courts; these stoas functioned as agents of display of their political power, a power that was expressed by building and investing (Constantakopoulou, 2017:109-111).

Chapter 5: Conclusions and beginnings

Here, we have explored the evolution of a unique type of construction through the examination of stoas. Their development in timeline is related to the time of construction, since they incorporate different stylistic elements of various influences. The most significant incorporation of stylistic elements is detected after the erection of Macedonian and Hellenistic palaces that transform completely the design of the Stoa.

This hybridization of the Hellenistic Stoas is justified by the interaction of elements of different traditions that took place in the architecture of the Hellenistic period. The most difficult aspect to be investigated, the lines of influence, still remains under examination with various theories suggested, based on different optics and views. In my opinion the lines of influence will always remain debatable, since the features of different traditions are always imported, exported and reimported with variations and combinations.

There is no doubt that the investigation of the topic is far from resolved, especially since much evidence is yet unpublished. Moreover in this thesis, selected examples were employed to support the examination; a study with more examples on both palaces and stoas would be more efficient in terms of comparison and for drawing conclusions. Nevertheless, one conclusion is certain: it is fundamental that we examine the regional influences between the Greek and Macedonian stoa designs as an exchange of ideology, of cultural interaction but first of all living people.

List of Images

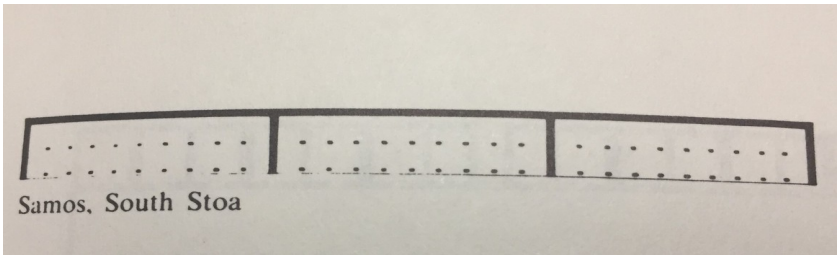

Fig. (1) South Stoa, Samos, Plan (Image from Coulton, 1976)

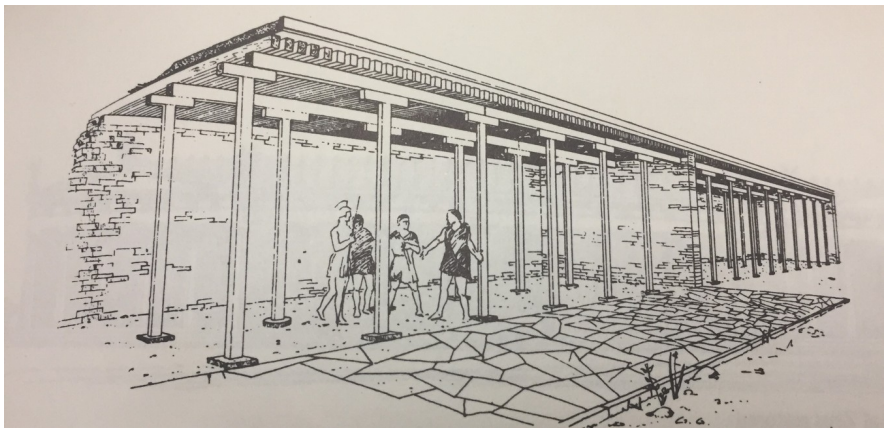

Fig. (2) South Stoa, Reconstruction (Image from Coulton, 1976)

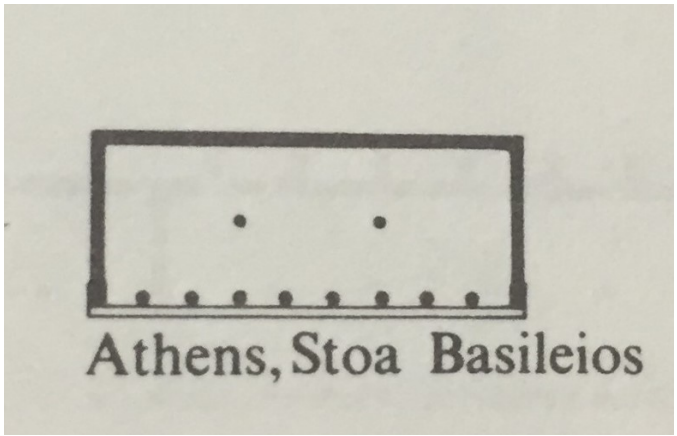

Fig. (3), Royal Stoa, Plan (Image from Coulton, 1976)

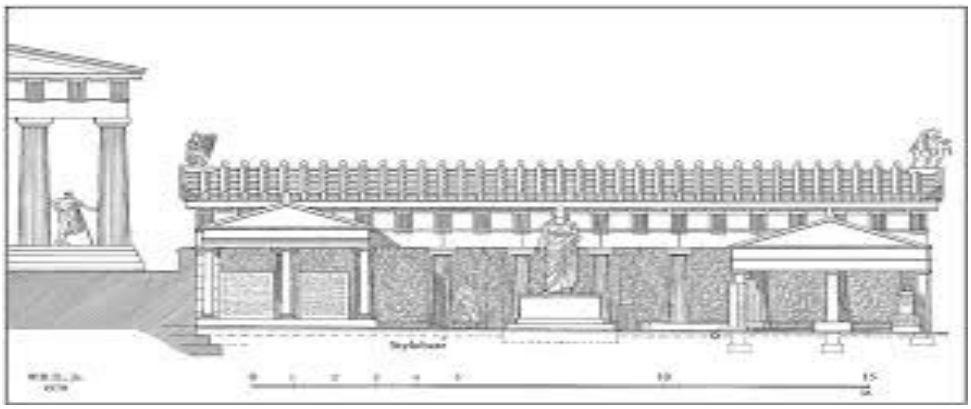

Fig. (4), Royal Stoa, Reconstruction (Image from American School of Classical Studies at Athens website)

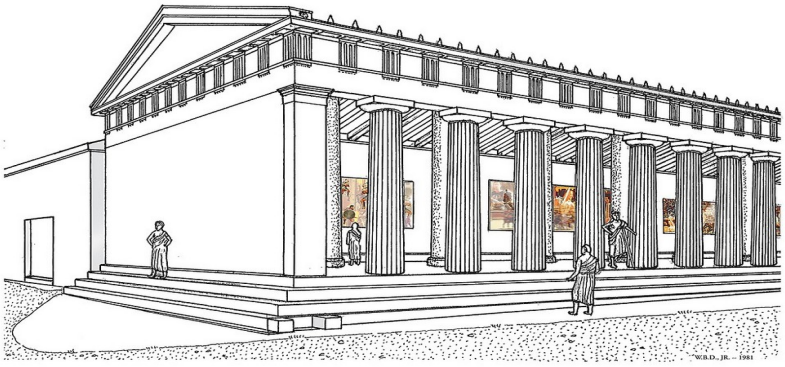

Fig. (5) Stoa Poikile, Reconstruction (Image from American School of Classical Studies at Athens website)

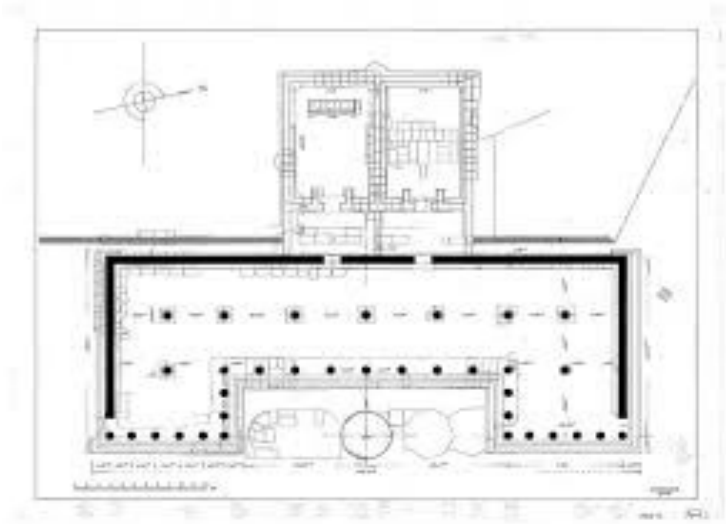

Fig. (6) Stoa of Zeus Eleutherios, Plan (Image from American School of Classical Studies at Athens website)

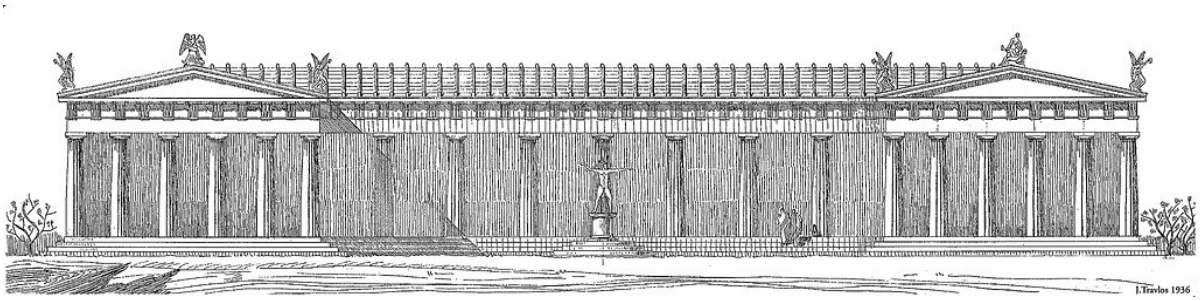

Fig. (7) Stoa of Zeus Eleutherios, Reconstruction (Image from American School of Classical Studies at Athens website)

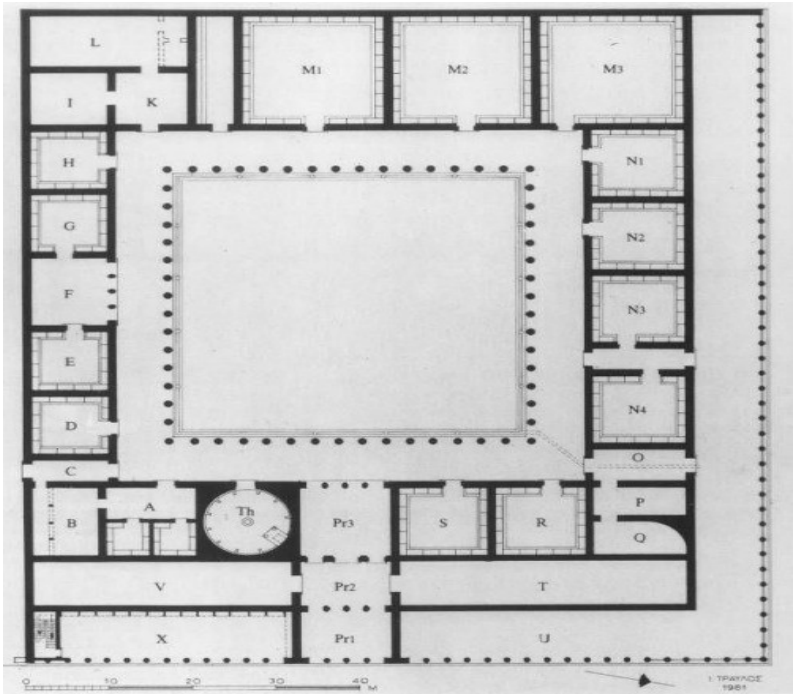

Fig. (8) Palace of Aigae, Plan (Image from Tumblr.com)

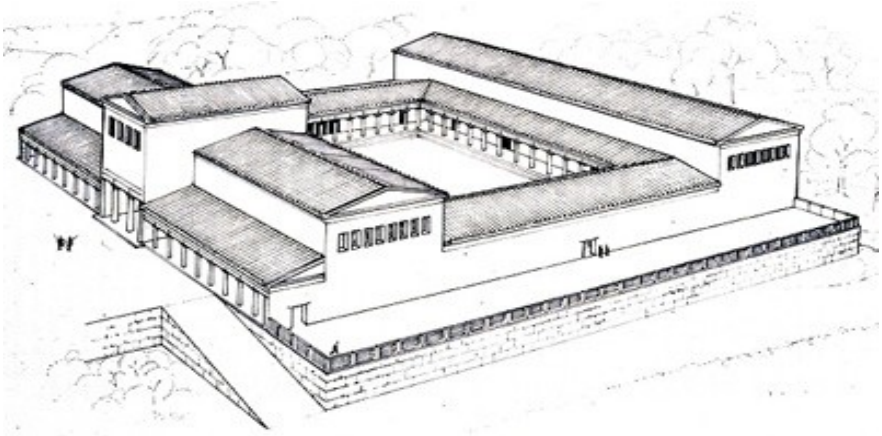

Fig. (9) Palace of Aigae, Reconstruction (Image from carolyneperry.blogspot.com)

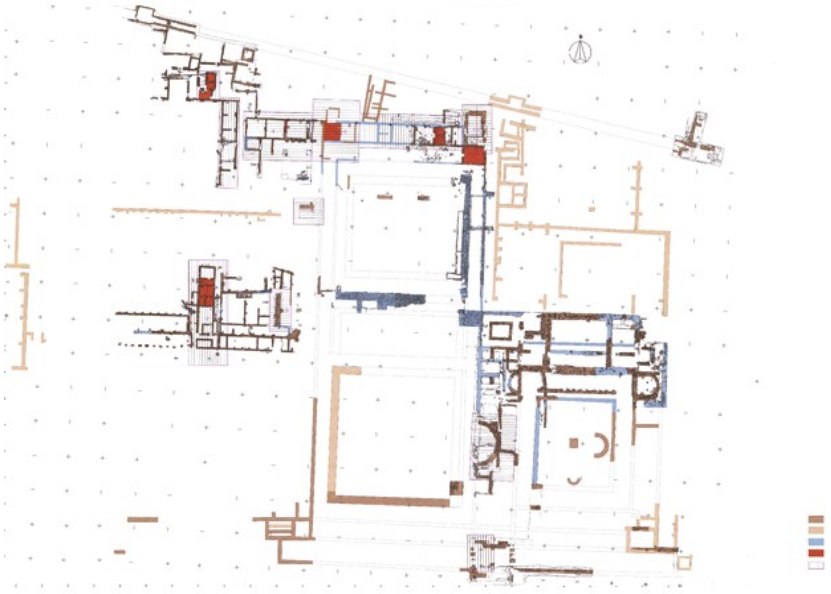

Fig. (10) Palace of Pella, Plan (Image from Archaeological museum of Pella website)

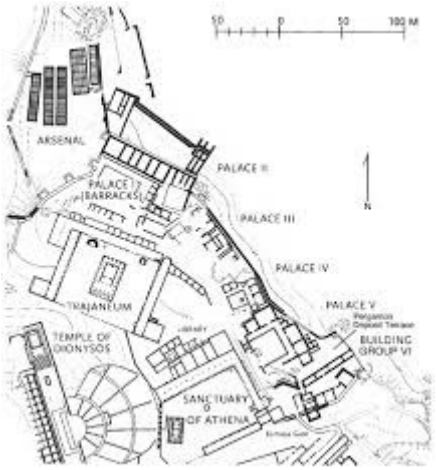

Fig. (11) Site of Pergamon (Image from Jstor)

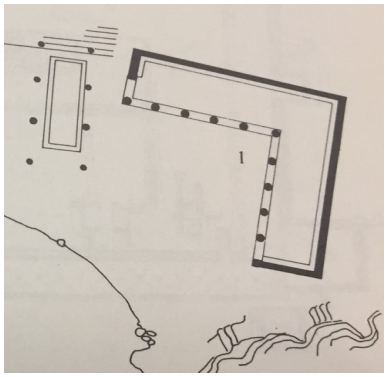

Fig. (12) Stoa, Perachora (Image from Coulton, 1976)

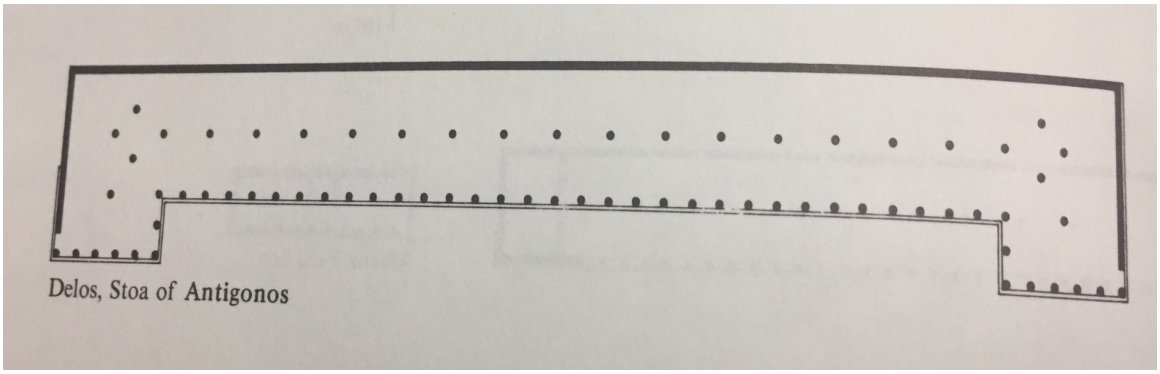

Fig. (13) Stoa of Antigonos, Plan (Image from Coulton, 1976)

Fig. (14) The South Slope of Acropolis, 3d reconstruction
(Image from www.ancientathens3d.com)

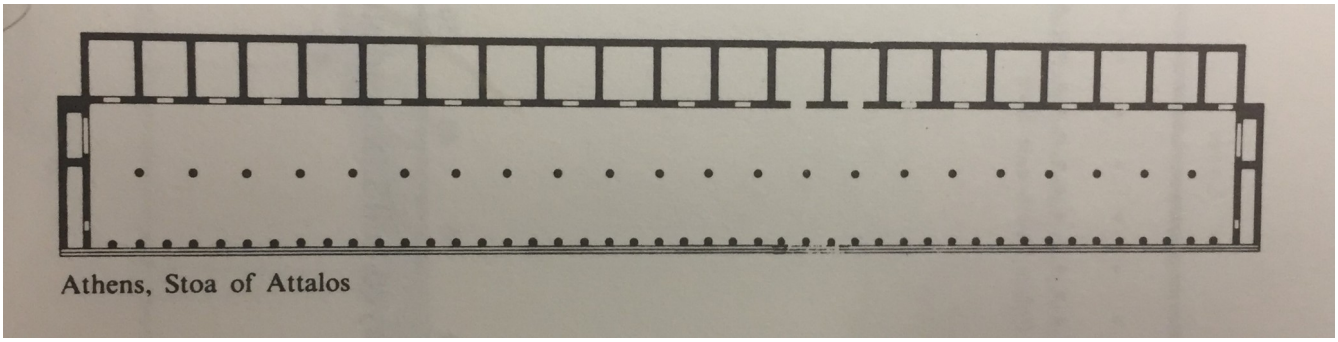

Fig. (15) Stoa of Attalos, Plan (Image from Coulton, 1976)

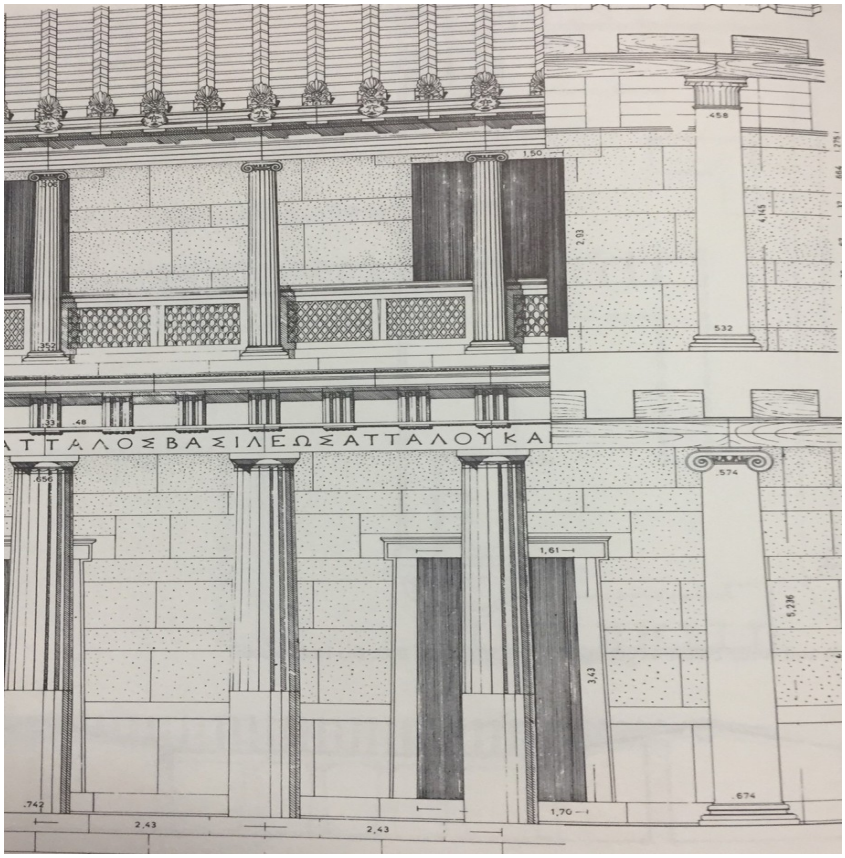

Fig. (16) Stoa of Attalos, Façade (Image from Coulton, 1976)

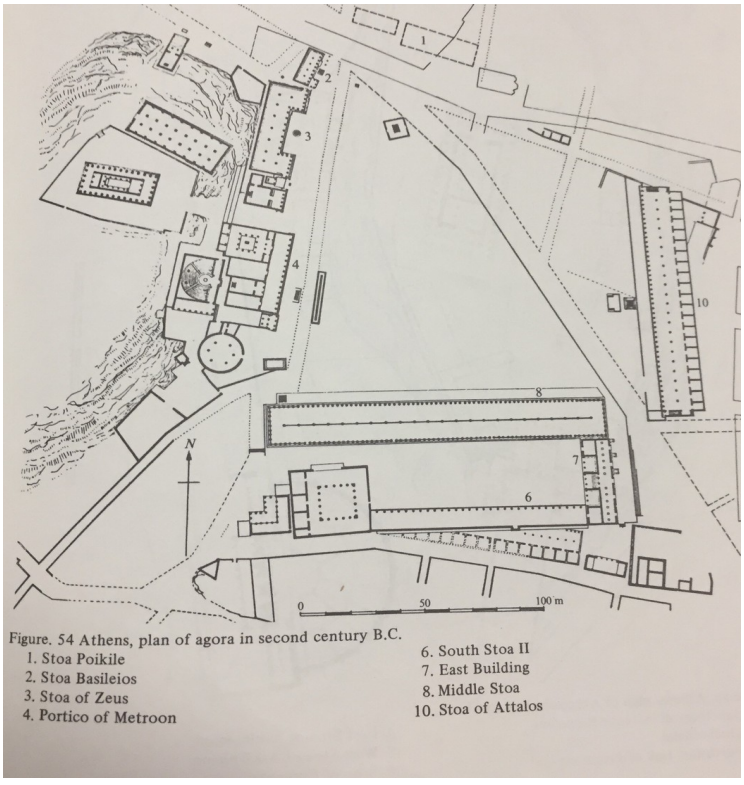

Figure. 54 Athens, plan of agora in second century B.C.
1. Stoa Poikile
2. Stoa Basileios
3. Stoa of Zeus
4. Portico of Metroon
6. South Stoa II
7. East Building
8. Middle Stoa
10. Stoa of Attalos

Fig. (17) The Athenian Agora, Plan (Image from Coulton, 1976)

Bibliography

Abbreviations

ADelt Archaelogicon Deltion
AE Αρχαιολογική Εφημερίς
AEMTh Το αρχαιολογικό έργο στη Μακεδονία και στη Θράκη
AJA American Journal of Archaeology
BSA The Annual of the British School

AKAMATI, M. Η Πέλλα. In M. Lilmpaki-Akamati and I.M. Akamatis (eds.) *Pella and its environs,* Thessaloniki, 2003

ANDRONIKOS, M. et al (MAKARONAS, CH., MOUTSOPOULOS, N. and BAKALAKIS G.) Το ανάκτορο της Βεργίνας, Athens, 1961

ANDRONIKOS, M. Vergina, The Royal Tombs and the Ancient City, Athens, 1984

ANDRONIKOS, M. Ανασκαφή του αρχαίου ανακτόρου Βεργίνης, *ADelt 16 (b2)*, 1960, p.212-214

BAKALAKIS, G. & ANDRONIKOS, M. Ανασκαφαί Βεργίνας, *ADelt 25,*1970

BOURAS, CH. Μαθήματα Ιστορίας της Αρχιτεκτονικής: Τόμος Ι , Athens, 1999

Mc CAMP II, J. The Athenian Agora: A Guide to the Excavation and Museum 4, Athens ,1990

Mc CAMP II, J. The Athenian Agora, A Short Guide to the Excavations, Excavations of the Athenian Agora, Picture Book no 16, American School of Classical Studies ,Princeton , 2003

Mc CAMP II, J. Η Αρχαία Αγορά της Αθήνας. Οι Ανασκαφές στην καρδιά της κλασικής πόλης, Αθήνα, 2004

CHRYSOSTOMOU, P. Λουτρά στο ανάστορο της Πέλλας, *AEMTh* 2, 1988, p.113-126

CHRYSOSTOMOU, P. Το Ανάκτορο της Πέλλας, *AEMTh* 10, 1996, p.105-142

CHRYSOSTOMOU, P. Ανάκτορο Πέλλας και Πελλαία χώρα κατά το 1999, *AEMTh* 13, p.491-495

CHRYSOSTOMOU, P. Ανάκτορο Πέλλας 2001, *AEMTh* 15, p.441-449

CHRYSOSTOMOU, P. Ανάκτορο Πέλλας 2002, *AEMTh 16*, p.447-456

CHRYSOSTOMOU, P. Το Ανάκτορο της Πέλλας In M. Lilmpaki-Akamati and I.M. Akamatis (eds.) *Pella and its environs,* Thessaloniki, 2003 p.31-39

CONSTANTAKOPOULOU, C. Aegean Interactions : Delos and its networks in the third century, Oxford, 2017

COULTON, J. J. The Stoa by the Harbour of Perachora, *BSA*, 1964

COULTON, J. J. The Architectural development of the Greek Stoa, Oxford, 1976

COULTON, J. J. Greek Architects at Work: Problems of structure and design, London, 1977

DI CESARE, R. Testimoniaze per la Stoa di Peisianax come edificio (trado-) archaico dell' Agora di Athene, *Annualio de la Scuola Archeologica di Atene 2,* Athens, 2002

GRUBEN, G. Der Polykratische Tempel im Heraion von Samos, *AJA*, 1957

HAMMOND, N. G. L. A History of Macedonia vol. I, Oxford, 1972

HAMMOND, N. G. L. & GRIFFITHS, T. A History of Macedonia vol. II, Oxford, 1979

HATZOPOULOS, M. B. Macedonian Palaces: Where king and city meet In Nielsen, I. (ed.) *The Royal palace Institution in the first Millennium BC,* Aarchus, 2001, p.189-198

HEUZEY, L. & DAUMET, H. Mission archaeologique de Macedoine, Paris, 1876

HOEPFNER, W. Zum Typus der Basileia und der königlichen Androne, in *Basileia Die Paläste der hellenistischen Könige, Internationales Symposion in Berlin,* Mainz, 1996, p.1-43

KAWERAW, G & WIEGAND, T., Die Paläste der Hochburg, Altertümer von Pergamon VI, Berlin, 1930

KOTTARIDI, A. The Palace of Aegae 2007-2009: The commencement of a major project, Thessaloniki, 2009

KOTTARIDI, A. The Palace of Aegae In Fox, R. L. *Brill's companion to Ancient Macedon,* Boston, 2011, p.297-333

KOPSACHEILI, M. Hybridisation of palacial architecture: Hellenistic royal palaces and governors' seats, In Kouremenos, A., Chandrasekaran, S. & Rossi, R *From Pella to Gandhara*, Oxford, 2011

KOPSACHEILI, M. Palaces and elite residences in the Hellenistic East, late fourth to early first century BC: formation and purpose, PhD, Wolfson College, London, 2012

MAKARONAS, CH. Ανασκαφαί Πέλλης 1957- 1960, *ADelt 16 b2,* 1960, p.71-83

MERRIT, L. S. The Stoa Poikile, Hesperia 39, 1970, p.233-264

PANDERMALIS, D. Η κεράμωση του ανακτόρου της Βεργίνας In *Αμητός: Τιμητικός τόμος για τον καθηγητή Μανόλη Ανδρόνικο*, Thessaloniki, 1987

POLLITT, J.J. Art in the Hellenistic Age, Cambridge, 1986

PFAFF, C.A. Archaic Corinthian Architecture ca. 600 to 480 B.C., in Williams II C.K. and Bookidis, N. (eds) *Corinth: Results of excavations conducted by the American School of Classical Studies at Athens, Volume XX : Corinth, The Centenary 1986-1996*, American School of Classical Studies at Athens, 2003, p. 95-140

RHOMAIOS, K.A. Ο Μακεδονικός τάφος της Βεργίνας, Athens, 1951

RHOMAIOS, K. A. Το ανάκτορον της Παλαιτίτσας In *Εις μνήμην Γ. Π. Οικονόμου, ΑΕ*, 1957, Π.142-150

SAATSOGLOU- PALIADELI, CH. Aegae: A reconsideration, AM III, 1996, p. 225-236

SAATSOGLOU- PALIADELI, CH. The palace of Vergina- Aegae and its surroundings In Nielsen, I. (ed.) *The Royal palace Institution in the first Millennium BC,* Athens, 2001, p.201-213

SCRANTON, L.R. Interior Design of Greek Temples, *AJA* vol. 50, 1946, p.30-51

SEAMAN, K. Pergamon and Pergamene Influence, In Miles, M. (ed.) A Companion to Greek Architecture, Wiley, 2016

SALTZMANN, D. Zu den Mosaiken in den Palästen IV und V von Pergamon :Asia Minor Studien, 1995

SHEAR, T.L. The Athenian Agora: Excavations of 1970, Hesperia 40, 1971, p.241-279

SHEAR, T.L. The Athenian Agora: Excavations of 1973-1974, Hesperia 44, 1975, p.331-374

SHEAR, T.L. The Athenian Agora: Excavations of 1980-1982, Hesperia 53, 1984, p.1-57

SIGANIDOU, M. Ανασκαφές Πέλλας υπό Μ. Σιγανίδου, Prakt 140, 1984, p.75-94

SIGANIDOU, M. Το μνημειακό πρόπυλο του ανακτόρου της Πέλλας, ΑΕΜΤh 3, 1984, p.59-66

SIGANIDOU, M. Die Basileia von Pella in W. Hoepfner und G. Bradns (eds) *Basileia, Die Paläste von hellenistischen Könige,* Mantz, 1996. p.144-147

THOMPSON, H. A. & WYCHERLEY, R. The Agora of Athens: The American Excavations in the Athenian Agora Vol. XIV, American School of Classical Studies at Athens, Princeton, 1972

THOMPSON, H. A. Buildings on the West side of the Athenian Agora, Hesperia 6, 1937, p.1-222

THOMPSON, H. A. Excavations in the Athenian Agora: 1948, Hesperia 18, 1950

TOURASOGLOU, I. Μεταλεξάνδρεια Πέλλα, ADelt 30 A, 1975, p.169-171

TRAVLOS, J. Pictorial Dictionary of Ancient Athens, Princeton, 1971

VALAVANIS, P. Ασκήσεις Αθηναικής Τοπογραφίας: Το θέατρο του Διονύσου, η Εκκλησία, η Στοά του Ευμένους και οι ημιτελείς στοές της Πνύκας In Delivorias, A., Despinis, G. & Zarkadas, A. (eds) *Έπαινος Luigi Beschi,* Athens, 2011

WYCHERLEY, R. The Agora of Athens: Literary and Epigraphic Testimonia In The American Excavations in the Athenian Agora vol.III, American School of Classical Studies at Athens, Princeton, 1957

WINTER, F. E. Studies in Hellenistic Architecture, Toronto, 2006

ZIMMER, T. "Die Basileia – Der Palastbezirk von Pergamon" in R. Grubinger, V. Kästner und A. Scholl (eds) *Pergamon Panorama der Antiken Metropole*, Berlin, 2012, p.144-177