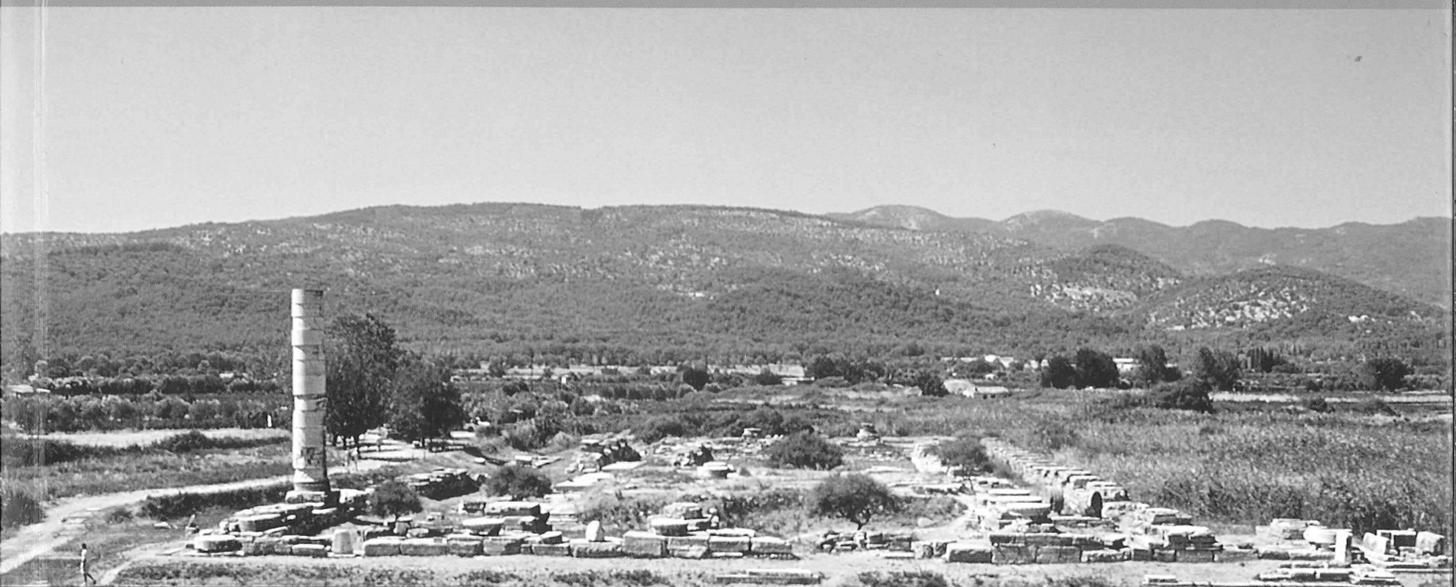


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Thekla Schulz (Hrsg.)

# Dipteros und Pseudodipteros



# BYZAS



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BAUHISTORISCHE UND ARCHÄOLOGISCHE  
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Internationale Tagung  
13.11. – 15.11.2009 an der Hochschule Regensburg

DEUTSCHES ARCHÄOLOGISCHES INSTITUT  
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## The Temple of Hekate at Lagina

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### Abstract

The temple of Hekate at Lagina is one of the most significant pseudo-dipteroi in Anatolia. The modular system, conceptualised by Pytheos and developed further by Hermogenes, was used in the planning of the temple and the placing of the structural elements on the stylobate. The structure consists of a deep pronaos and a naos without opisthodomos. There are 8 columns at the fronts and 11 columns on the sides. In this respect it differs from all the structures built up to that period, because it minimizes the ratio between the length and the width. The columns in antis in the pronaos have Ionic capitals.

The detailed study of the ornaments on the architectural elements of the temple and the data gathered through excavations enabled us to understand the development of the cult structure in the sacred area. There had been an older cult structure in the sacred area in the 4<sup>th</sup> century B.C. The construction of the new temple began in the last quarter of the 2<sup>nd</sup> century B.C., the cella and the columns in antis were present in 81 B.C. and the peristasis was built in the first half of the 1<sup>st</sup> century B.C. The details of the decoration infer that the structure underwent some repairs in the second half of the 1<sup>st</sup> century B.C., probably after the destruction by Labienus of 40 B.C.

The sanctuary of Hekate at Lagina in ancient Caria is situated at the site which is nowadays called Kapitas. It lies within the village of Turgut which is located near the town of Yatağan in the district of Muğla. The area that holds the remains of the ancient structures is still called Leyne today<sup>1</sup>.

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<sup>1</sup> L. Robert states that Lagina was called Hierakome and its inhabitants were called the Hierakome people in the ancient period (Robert 1970, 555–558). However; in the light of two inscriptions found in Lagina, it was understood that the settlement here was Koranza and not Hierakome (Şahin 1973, 187–195).

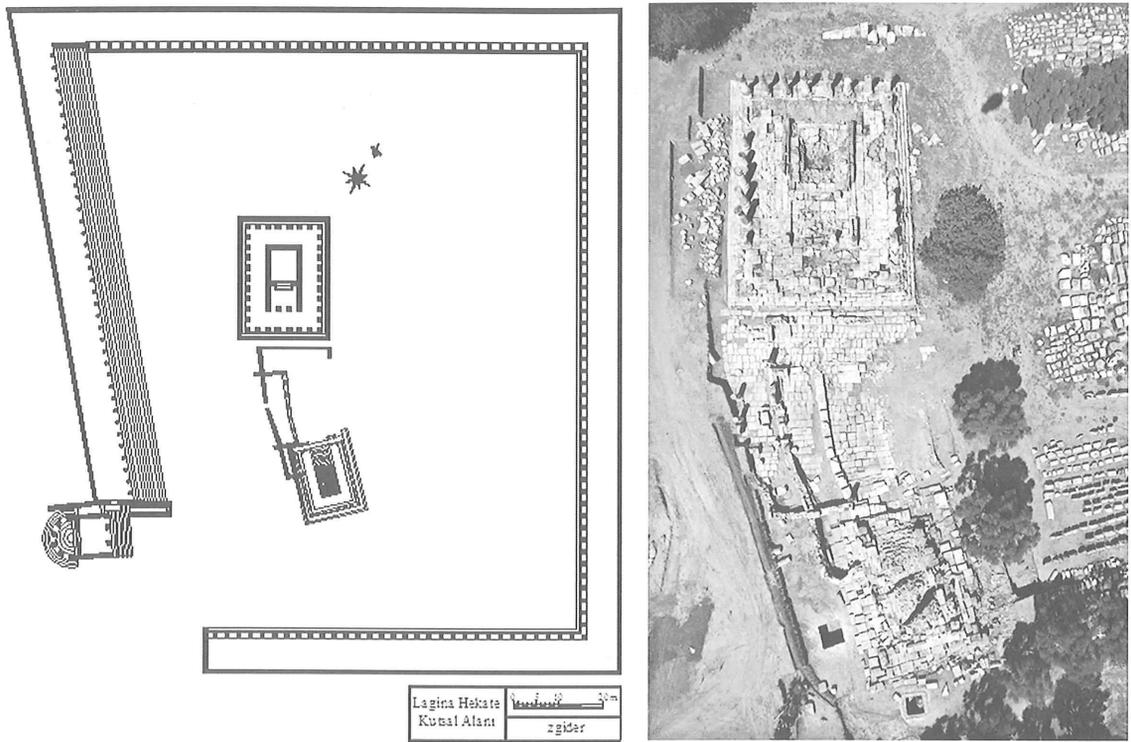


Fig. 1 The plan of the Hekate Sanctuary at Lagina



Fig. 2 The condition of the temple after the excavation

The Temple of Hekate was built roughly in the middle of the sacred area in a northwest-southeast direction (*Fig. 1*). It is surrounded by stoa in Doric order on all four sides. The altar is situated at the south eastern side and the propylon at the south western side. Lagina has attracted many travellers and researchers since the 18<sup>th</sup> century. Especially the discovery of the sculptured frieze blocks of the temple increased its interest. The first excavations in the temple were carried out by Osman Hamdi Bey during 1891-1892. The excavations were not resumed until 100 years after that in 1993 under the direction of A. A. Tirpan and are still being carried out today<sup>2</sup>. Most of the temple has already been excavated (*Fig. 2*) and the architectural elements have been classified according to the geographic direction they were facing.

## Platform

The Temple of Hekate stands on a five-stepped platform. The base structure was mostly formed through the levelling of the main rock and the rest was supported by clear-cut conglomerate rocks to adjust the altitude of the stylobate. During the construction of the platform two lines of marble blocks were placed in the locations where the peristasis columns carrying the upper structure were located in order to increase the stability. The height of the crepidoma is 1,56 m. The stylobate of 17,75 x 24,50 m is composed of clear-cut marble blocks in various sizes<sup>3</sup>.

The groundplan of the temple (*Fig. 3*) was designed according to the modular system originated by Pytheos and developed by Hermogenes. The elements of the architecture above stylobate level – the walls of the naos, the columns of the peristasis and the columns in antis – were placed in correspondence with the axes of a grid which was designed on the base of the axial spacings of the columns. The only exception from this rule is the position of the interior wall dividing the pronaos and the naos. If this wall had been placed in the axis of one of the columns of the long sides of the peristasis, either the naos or the pronaos would have become too small. In the system applied, the depth of the naos was determined as 1.3 times of that of the pronaos and thus a deeper pronaos was created.

## Peristasis

The Temple of Hekate is a pseudo-dipteros of 8 x 11 columns<sup>4</sup>. The fact that the temple was constructed as a pseudo-dipteros by the architect Hermogenes shows that it reflects

<sup>2</sup> For the data gathered through the excavations in the sacred area, see in Tirpan 1996, 209–228; Tirpan 1997, 309–336; Tirpan 1998, 173–194; Tirpan 1999, 237–256; Tirpan – Söğüt 2000, 153–162; Tirpan – Söğüt 2001, 299–310; Tirpan – Söğüt 2002, 343–350; Tirpan – Söğüt 2004, 87–100; Tirpan – Söğüt 2005b, 371–386; Tirpan – Söğüt 2006, 257–270; Tirpan – Söğüt 2007, 591–612; Tirpan – Söğüt 2008, 387–410; Tirpan – Söğüt 2009, 243–266; Tirpan – Söğüt 2010, 507–511.

<sup>3</sup> The temple was said to be 21,30 x 28 m in size in earlier publications. However, through our studies it could be determined that the temple is 21,10 x 27,90 m in size. Considering the bottom diameter of the columns as the module, these sizes equal to 22 2/3 x 30 modules.

<sup>4</sup> The temples with this plan type in Anatolia are the Temple of Artemis at Magnesia, the Temple of Apollon Smintheus at Chryse, the Temple of Aphrodite at Messa, the Temple of Artemis at Sardes, the Temple of Apollon at Alabanda, the Temple of Aphrodite at Aphrodisias, the Temple of Augustus at Ankara, the Temple of Domitianus at Ephesos, the Temple of Zeus at Aizanoi and the temples dedicated to the imperial cult one of which is in Sardes and the other in Seleukeia at Kalykadnos.

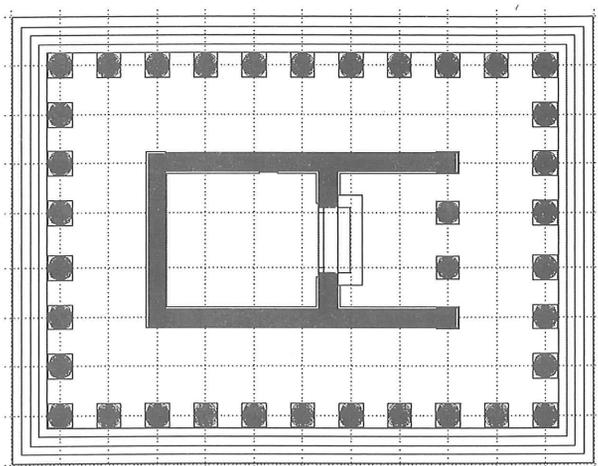


Fig. 3 The grid system in the stylobate

the style of the period. The number of columns, however, differs from the number determined by Hermogenes (8 x 15) which is defined as a constitutional element of the pseudo-dipteros by Vitruvius<sup>5</sup>. In contrast to all the structures until then the ratio of the length to the width was minimized with the number of 8 x 11 columns (Fig. 3). This characteristic property distinguishes it from all the other pseudo-dipteroi of the Hellenistic and Roman Period<sup>6</sup>. There are 7 column ranges (= intercolumnia) on the short side of the temple and 10 column ranges on the long side. Therefore, the ratio of the short side to the long side is 1 : 1.4. This makes the Temple of Hekate the only known example among the pseudo-dipteros temples in Anatolia with such a small ratio<sup>7</sup>.

The bottom diameter of the peristasis columns measures 0,93 m, the axial range is 2,325 m<sup>8</sup>. Thus the space between two columns is 1,395 m. This is equal to 1 : 1.5 times the bottom diameter; that is, 1.5 bottom diameters. The ratio of the column's bottom diameter to the column range was determined as 1 : 1 ½<sup>9</sup>. This column range (intercolumnium) corresponds exactly to the pyknostylos defined by Vitruvius<sup>10</sup>. However, while defining systylos Vitruvius states that the space between the plinths of the bases should be equal to the size of the plinths<sup>11</sup>. The width of the plinth in the Temple of Hekate is 1,16 m and the space between two plinths is also 1,16 m. This relation is consistent with the definition of

<sup>5</sup> Vitr. 3, 2, 6.

<sup>6</sup> One of the Hellenistic pseudo-dipteroi in Anatolia and the masterpiece of Hermogenes, the Temple of Artemis at Magnesia has 8 x 15 columns. The Temple of Aphrodite at Messa and the Temple of Apollon Smintheus at Chryse have 8 x 14, the Temple of Apollon at Alabanda and the Temple of Aphrodite at Aphrodisias has 8 x 13 columns. The Temple of Augustus at Ankara and the Temple of Zeus at Aizanoi from the Roman Period, 1 : 1.85 in the Temple in Seleukeia at Kalykadnos has 8 x 14 and the Temple of Domitianus at Ephesos has 8 x 13 columns.

<sup>7</sup> This ratio is the ideal ratio of 1:2 in the Temple of Artemis at Magnesia. Among other Hellenistic pseudo-dipteroi this ratio is 1 : 1.85 in the Temple of Apollon Smintheus at Chryse and the Temple of Aphrodite at Messa, 1 : 1.7 in the Temple of Apollon at Alabanda and the Temple of Aphrodite at Aphrodisias, 1 : 2 in the Temple of Augustus at Ankara and the Temple of Zeus at Aizanoi from the Roman Period, 1 : 1.85 in the Temple in Seleukeia at Kalykadnos and 1 : 1.7 in the Temple of Domitianus at Ephesos. The Stylobate ratio of the Temple of Hekate is similar to 1 : 1.4 ratio of peripteros planned the Temple of Zeus at Labraunda.

<sup>8</sup> F. Miltner calculated the axial spacing of the peristasis as 2,36 m and the middle axial spacing as 2,55 m (Schober 1933, 17; Hoepfner 1990, 32).

<sup>9</sup> Among the pseudo-dipteroi, this ratio in the Temple of Aphrodite at Messa is 1 : 1.85 (1 : 1 6/7), in the Temple of Artemis at Magnesia 1 : 1.81 (1 : 1 3/4), in the Temple of Apollon Smintheus at Chryse 1 : 1.5 (1 : 1 1/2), in the Temple of Aphrodite at Aphrodisias 1 : 1.4 (1 : 1 2/5), in the Temple of Augustus at Ankara 1 : 2 and in the Temple of Zeus at Aizanoi it is 1 : 1.5 (1 : 1 1/2). The column range of the Temple of Hekate is similar to the Temple of Apollon Smintheus at Chryse of the Hellenistic Temples.

<sup>10</sup> Vitr. 3, 3, 2-3.

<sup>11</sup> Vitr. 3, 3, 2.

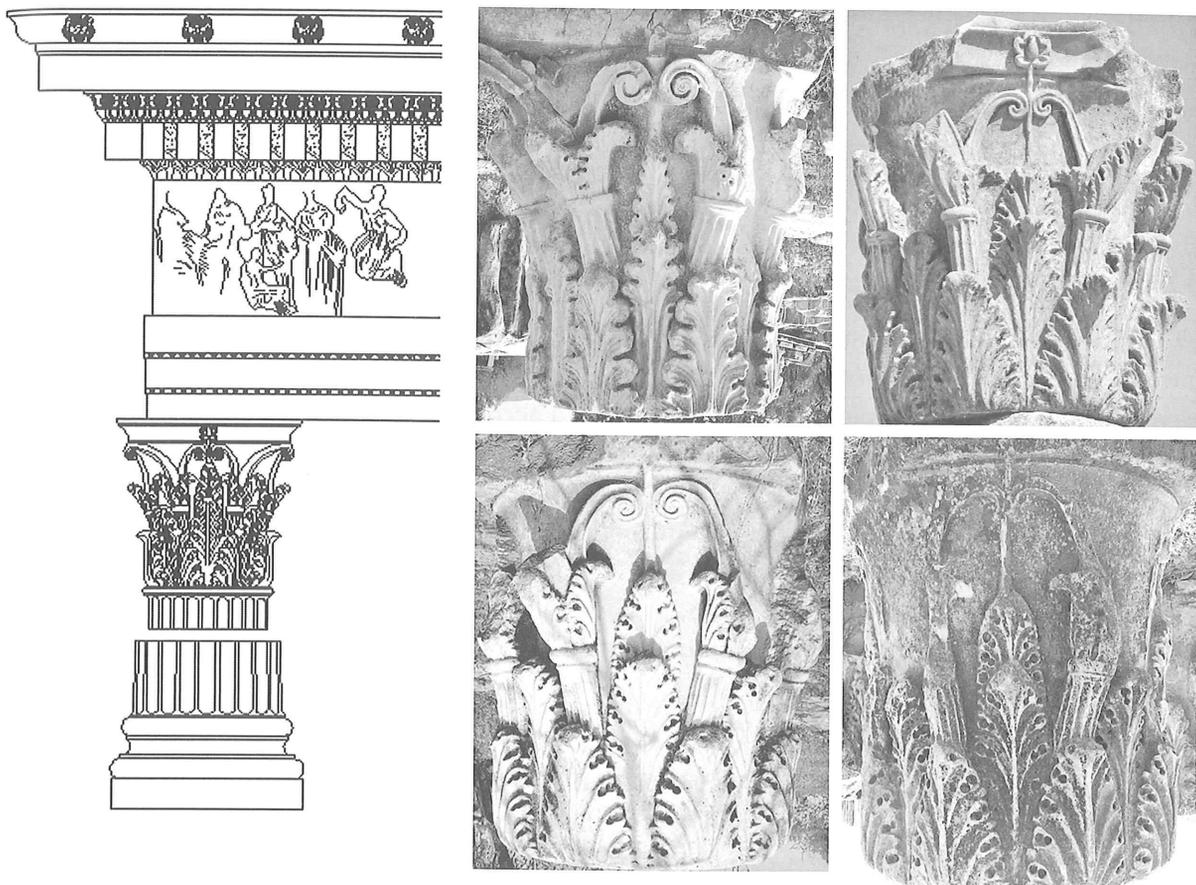


Fig. 4 The first and the second groups of capitals

the systylos by Vitruvius whereas the relation between column range and bottom diameter is that of the pyknostylos.

On the front side the column range is wider and it is 1 : 1.75 times the bottom diameter. Hence it is similar to the systylos. Keeping the column ranges wider at the center is a traditional characteristic of Ionic architecture in Anatolia<sup>12</sup>. The aim of this architectural practice is to make the entrance more distinct and to prevent the columns from obstructing the view on to the door of the naos.

In the peristasis of the Temple of Hekate the Corinthian order was preferred to the Ionic order which had been favoured by Hermogenes who had influenced the Anatolian temple architecture in the 2<sup>nd</sup> century B.C. (*Fig. 4*). Corinthian capital columns rise above the Attic-Ionic bases (*Fig. 4*). The upper torus of the base was made together with the lower drum of the column. The Corinthian order was used alongwith the Attic base from the

<sup>12</sup> The widening of the columns at the center is attributed to Hermogenes by Vitruvius (*Vitr.* 3, 3, 8). However, it has been ascertained that this system was also applied in early Doric structures such as the Temple of Apollon at Syracuse and the Propylea at Athens and also in Ionic Temples such as the Temple of Artemis at Ephesos, the Temple of Hera at Samos, the Temple of Artemis at Sardes and the Temple of Apollon at Didyma starting from the Archaic Period (Hermogenes 2002, 32–33). This practice identified with the Anatolian Ionic Architecture can be seen in the Temple of Hekate in Corinthian order.

date it originated<sup>13</sup>. There is an Attic-Ionic base in the Mausoleum at Belevi dated to the 3<sup>rd</sup> century B.C.<sup>14</sup>. The most refined forms of this type of base can be seen in the Temple of Artemis at Magnesia and the Temple of Dionysos at Teos built by the architect Hermogenes<sup>15</sup>. The plinth added below the Attic base, which was introduced into Ionic architecture by Hermogenes, is interpreted as an Anatolian element.

## The Capitals of the peristasis

34 columns surround the temple in one single row. However, only 24 column capitals have been excavated until today. The column capitals, along with all other architectural elements found in the temple, have been categorised according to the geographic direction they were facing when they were discovered. Among these capitals 7 belong to the southern peristasis, 8 belong to the northern peristasis, 5 belong to the eastern peristasis and 4 of them – including the one found during the previous studies and transferred to the garden of the Stratonikeia excavation house – belong to the western peristasis. The bottom diameter of the capitals is 0,65 m, the height is 0,99 m, and the abacus width is 1,08 m. The ratio of the height of the capital to the bottom diameter is 2 : 3<sup>16</sup>.

The Corinthian capitals of the peristasis of the temple were made out of one single block<sup>17</sup>. The lower part of the kalathos was covered with acanthus leaves in three rows. There are eight acanthus leaves in the first row constituting the bases and these were placed under the kalathos in equal sizes. The second row of the acanthus leaves were placed in the spaces between the first row of leaves and the middle veins of the leaves were extended to the lower edge of the kalathos. The spaces between the acanthus leaves in the second row were filled with fluted caulis roots. There are two leaves on each caulis. The outer leaf holding the diagonal volute is longer and depicted as supporting the lower side of the volute. The inner leaf holding the central helixes is shorter and does not extend much to the helix. The central helixes depicted on the kalathos surface as high reliefs end just under the kalathos rim in spirals curved to the pedicle of the abacus flower. At the center of each face of the capital there is an acanthus leaf rising from the central leaf of the second row. The pedicle of the abacus flower appears behind this leaf. The abacus leaf placed at the center of the abacus is shorter than the abacus.

<sup>13</sup> The Corinthian capital columns stand on Attic bases in the Tholos at Epidauros dated to 360–330 B.C. (Burford 1969, 63–68). Attic bases were used in the Monument of Lysicrates (Bauer 1977, 197–227 Beil. 5–10 Taf. 91–96) and the Arsinoeion of Samothrace (Shaw 1992, 29–91) on which the Corinthian capital columns were first used in the exterior architecture. The Temple of Apollon at Didyma (Voigtländer 1975, 87–88), the Temple of Zeus at Olba (Williams 1974, 408) the Building of Laodike at Miletus (Knackfuss 1924, 263–278), the Gymnasium at Stratonikeia (Mert 2009, 158, Abb. 76), the Pseudomonopteros at Termessos (Seiler 1986, 138. 140. 145–147 Figs. 62. 63. 67; Rumscheid 1994, Taf. 189) and the Propylon of Bouleuterion at Miletus (Knackfuss 1908, Abb. 65–67), where Corinthian capital columns were used, have Attic bases.

<sup>14</sup> Hoepfner 1993, 120 Abb. 9–10. 13.

<sup>15</sup> Hoepfner 1990, 8–16 Abb. 13. 22.

<sup>16</sup> This ratio is 3 : 5 in the capitals of the Gymnasium at Stratonikeia. See Mert 2009, 159, footnote 859.

<sup>17</sup> Corinthian capitals, composed of two blocks, were used in the Temple of Zeus at Olba and the Olympeion at Athens.

By examining these capitals, it can be seen that there are differences between them in regard to which geographic direction they are facing. Moreover, significant differences among the capitals facing the same geographic direction were also determined. Because of these details that can be described as period differences, the capitals were evaluated in two groups (*Fig. 4*). The Corinthian capitals of both groups are similar in general form and can be compared with the capitals in the Olympieion at Athens and the Propylon of the Bouleuterion at Miletus dated to 175–164 B.C. and the Gymnasium at Stratonikeia dated to the 2<sup>nd</sup> century B.C. The veins of the acanthus leaves in Lagina are depicted thinner than the previous examples and as a result the coves are longer and thinner. Thin veins on the acanthus leaves of the Stratonikeia capitals represent the next stage. The depiction of the caulis and the inner and outer cover leaves is the same with the Stratonikeia capitals. The helixes do not extend outside the kalathos rim in contrast to the capitals of the Olympieion at Athens. Regarding this characteristic, the capitals are similar to the capitals of Miletus and Stratonikeia. The torus profile at the upper end of the caulis is more inflated and distinctive compared to those of Miletus and Stratonikeia.

The second group of capitals looks more metallic than the capitals in the first group. The use of a drill is clearly to be observed on the acanthus leaves. The coves between the thorns of the leaves were created through two adjacent drill holes. The form of the coves is similar to the ones on the capital in the Uzunyuva at Mylasa<sup>18</sup> dated to 40–14 B.C. Therefore, it is possible to date the first group of capitals to the beginning of the 1<sup>st</sup> century B.C. and the second group to the second half of the 1<sup>st</sup> century B.C. This shows the phases of destruction and repair of the temple.

The third leaf at the center of the capitals is the improved version of the first examples in Greece in the 4<sup>th</sup> century B.C. The third leaf first appeared in the Temple of Athena Alea at Tegea and soon after that it was applied in the Temple of Zeus at Nemea<sup>19</sup>. The third row of acanthus leaves was depicted in the Mausoleum at Belevi, which is one of the earliest capitals of this type in Anatolia; however it was positioned differently from the other examples<sup>20</sup>. The most similar examples to the capital of the Hekate Temple are the Propylon of Ptolemy II at Samothrace<sup>21</sup>, the Gymnasium at Stratonikeia<sup>22</sup>, two capitals found in Miletus<sup>23</sup>, two capitals found in Ephesos<sup>24</sup> and the capital of the Uzunyuva at Mylasa<sup>25</sup>. The absence of a third row of acanthus leaves on the Corinthian capital of the Temple of Leto A at Xanthos dated to 160–130 B.C. indicates that the capitals of Lagina and Mylasa were influenced by Stratonikeia.

<sup>18</sup> Rumscheid 1994, Taf. 109, 2.

<sup>19</sup> On the capital in the Philippeion at Olympia the helixes are not worked and the space between the caulis roots is filled with many acanthus leaves extending below the kalathos rim. Bauer 1973, Beil. 17.

<sup>20</sup> Hoepfner 1993, Abb. 15–16.

<sup>21</sup> Frazer 1990, 87–91 Fig. 66. 68.

<sup>22</sup> Mert 2009, 158–161 Abb. 83–86.

<sup>23</sup> Rakob – Heilmeyer 1973, Taf. 33, 2; 33, 5; Rumscheid 1994, Taf. 107, 3–4.

<sup>24</sup> For the capitals one of which is dated to 2<sup>nd</sup> century B.C. and the other dated to the 1<sup>st</sup> century B.C., see Rakob – Heilmeyer 1973, Taf. 31, 6; Bammer 1973, Taf. 96, 2–3; Alzinger 1974, Abb. 107–108; Rumscheid 1994, Taf. 45.

<sup>25</sup> Rumscheid 1994, Taf. 109, 2.

## The entablature of the peristasis

The architrave of the peristasis is divided on its outer side into three fasciae. Between the fasciae, there are bead-and-reel motifs and there is no crown profile at the upper end of the block. This may have been done to make it easier for the frieze blocks to be conceived. The inner side of the architrave is divided into two fasciae and there is an anthemion depicted on the upper fascia and a bead-and-reel and an Ionic cymatium on the crowning profile. The architrave is ended above with a flat moulding. There is a convex soffit on the lower part of the architrave blocks surrounded by a bead-and-reel<sup>26</sup>.

Distinctive differences were determined through the detailed study of the ornaments on the architrave blocks. The ornaments are denser on some blocks and more dispersed on others or deeper on some and more superficial on some other blocks. The palmette width, the curve of the palmette leaf, sepal types of the palmette, the extension of the axis leaf, sepal type of the lotus, the extension of the lotus leaves to the side and the width of the lotus leaves in anthemions vary (*Fig. 5*). As the helixes below the bottom sepal of the lotus flower and covering the bottom of the palmette below create curves in different ranges, they have spirals in different sizes. These spirals are either empty or filled with buttons. In the egg-and-dart depicted on the crown moulding, the darts between the eggs should be on the same axis with the middle leaf of the lotus flower and the palmette. However, in some blocks this symmetry was ignored. Besides, there are differences in size among the ornaments on the same blocks. These differences in detail indicate that a lot of craftsmen were involved while creating the ornaments of the structure.

The surface of some palmette leaves was fluted while in some cases it was left plain. The ornaments situated at the edges are smaller, probably because they needed to fit in to the limited space that was available. In addition to the differences of craftsmen and period, the possibility of negligence or carelessness in the use of the templates and mistakes in the calculations of the sizes of motifs must be taken into consideration. Moreover, the ornaments on some blocks were left unfinished.

A first typology of the anthemion ornaments on the outer side of the wall architraves and on the inner side of the column architraves was established by Rumscheid<sup>27</sup>. Three different types of anthemion ornaments were determined in regard to the form of the helix passing below the bottom sepal of the lotus flower and covering the bottom of the palmette below. If one also considers the movements of the leaves, there are five different types. Furthermore, there are some differences in the Ionic cymatium and the bead-and-reel depicted on the crowning profiles of the architraves. These differences are either in the length or the width of the egg or the length or the width of the bead-and-reel. If one takes these details into account, five types of Ionic cymatia can be determined. Detailed studies on the architrave ornaments of the temple continue and their results will be evaluated separately.

<sup>26</sup> In some of the Anatolian temples the bead-and-reel were used alone or combined with Lesbian cymatium as a soffit frame. However, the bead-and-reel combined with Lesbian cymatium is more common.

<sup>27</sup> Rumscheid 1994, 133. 137–138 Taf. 74.



Fig. 5 Detail from the Anthemion ornaments

The anthemion band on the architrave blocks indicates that the hardening and ornamental characteristics appearing with the Belevi mausoleum reached their peak. Lagina is different from other structures at the beginning and in the middle of the Hellenistic Period when the area covered by motifs is concerned. The lotuses are depicted narrowly and do not take up much space. The softening in the movements of the leaves is replaced by a stiff curved look in Lagina. Three edged eggs were worked as high reliefs in plastic and their first examples are seen in the Temple of Zeus at Labraunda and the Temple of Athena Polias at Priene from the 4<sup>th</sup> century B.C.<sup>28</sup> The eggs in the architraves are obviously an imitation of the 4<sup>th</sup> century B.C. The form in which the beads stretch in the bead-and-reel below the egg-and-dart is different from the Hellenistic examples.

The frieze blocks with sculptured reliefs above the architrave are interpreted as a Hellenistic tradition. During the studies performed in the sacred area since the 18<sup>th</sup> century, 36 frieze blocks have been found. 33 of these frieze blocks were carried to the Archaeological Museum of Istanbul by Osman Hamdi Bey in 1892 and they were catalogued by Mendel in 1912<sup>29</sup>. It was determined that four main subjects were depicted on the friezes above the columns<sup>30</sup>. The subject depicted on the frieze on the eastern facade of the temple is the

<sup>28</sup> Rumscheid 1994, 133.

<sup>29</sup> Mendel 1912, 428–542.

<sup>30</sup> Chamonard 1895, 235–262 pl.10–15; Mendel 1912, 428–542; Schober 1933, 27–54; Junghölder 1989, 15–17; Webb 1996, 108–120; Baumeister 2007, 35–65.

birth and life of Zeus. Here Hekate presents a rock to Kronos, the father of Zeus. On the northern facade the moment of peace between the Amazons and the Greeks was depicted. Here Hekate is seen pouring a sacred drink on to the ground in honour of this peace. A Gigantomachia is depicted on the western side. In this frieze Hekate is watching this war while holding a torch. The subject on the southern side could not be fully identified, but it is assumed that the figures symbolize the Carian Gods and their cities.

The depiction of four different subjects on the friezes of the temple differs from other Hellenistic temples. The peace and friendship after the period of war and chaos in the first half of the 2<sup>nd</sup> century B.C. are emphasized in the friezes<sup>31</sup>. The most important scene on the west side of the temple, the Gigantomachia, was also depicted on the friezes of the Altar of Zeus at Pergamon. It is also important to note the baroque details here. The Roman influence on the scene with Amazonomachy on the northern side is clear. Therefore, from the stylistic point of view, the friezes can be dated to the time from 125 B.C. until the Augustan Period<sup>32</sup>. Differences in style show that sculptors from different workshops worked on the friezes. It was also discovered that together with older sculptors who worked traditionally, there were also younger and innovative sculptors.

The peristasis frieze with its height of 0,93 m is higher than the architrave. This ratio between the height of the architrave and the frieze is described as a Late Hellenistic characteristic by Schober<sup>33</sup>. The upper part of the frieze blocks of the temple is limited by a moulding decorated with a Lesbian cymatium<sup>34</sup>. Form and execution of the Lesbian cymatia is different in the frieze blocks found until today. This indicates that each craftsman shaped the ornaments in his own practice, rather than using a uniform motif<sup>35</sup>. The figured frieze of the Temple of Hekate at Lagina is also of significance, because it is one of the last examples of the Hellenistic Period. In the temples built after this period the figured friezes were decorated with floral decorations.

There is a dentil above the frieze blocks. Above the dentil there is a block with a decorated cyma-recta profile different from the other structures. The ornament, which consists of a bead-and-reel and an egg-and-dart below and an anthemion above, is the same as the ornament worked on the upper fascia of the architraves of the naos and of the inner side of the peristasis, facing each other. However, in the block with the cyma-recta profile the eggs are wider and the space between the palmettes and the lotus is larger. In contrast, on the architrave the palmettes touch the lotus flowers. On this block, ending with a vertical rim, the ornaments are projected quite much so as to be conceived fully when observed from below.

<sup>31</sup> The subject of peace in Hellenistic Period was first depicted in the Telephos frieze in the Altar of Zeus at Pergamon.

<sup>32</sup> Chamonard 1895, 235–262 pl. 10–15; Mendel 1912, 428–542; Schober 1933, 70–79; Webb 1996, 108–120; Baumeister 2007, 35–65.

<sup>33</sup> Schober 1933, 21.

<sup>34</sup> Rumscheid 1994, Taf. 70–71.

<sup>35</sup> Webb 1996, fn. 8.

As an Ionic characteristic the dentil was used together with the Corinthian capital columns just as this type of columns appeared. In the Monument of Lysicrates, the first structure using the Corinthian capital columns on the outer wall, a dentil was added above the frieze<sup>36</sup>. Among the Corinthian structures in Anatolia the dentil can be seen in the Building of Laodike at Miletus<sup>37</sup>, the Mausoleum at Belevi<sup>38</sup>, the Propylon of the Bouleuterion at Miletus<sup>39</sup>, the Gymnasium at Stratonikeia<sup>40</sup>, the Pseudomonopteros at Termessos<sup>41</sup> and the Temple of Augustus at Antiocheia dated to the Early Roman Period<sup>42</sup>. After that the use of a dentil became the rule in the Corinthian order and this rule was applied in many Corinthian temples in the Roman Period.

On the uppermost part of the entablature of the temple there is an Ionic geison, instead of a geison with consoles widely used in the structures of the Corinthian order. The geison and the sima of the temple were worked out of a single block 0,54 m high. In the geison blocks there are a bead-and-reel and a Lesbian cymatium under the eave part on the lower side of the eaves and lionhead gargoyles on the sima profile. One real and one fake gargoyle were always placed in consecutive order. The Lesbian cymatium on the geison-sima blocks is similar in general form to the Lesbian cymatium on the crowning moulding of the frieze blocks and on the abacus of the Ionic capitals<sup>43</sup>.

During our studies on the site the northern pediment was completed and reerected in the empty area on the north side of the temple in its original form. All blocks of the tympanon are preserved, only a part of the middle block is broken. The pediment on the northern facade is composed of 11 blocks. 7 pediment blocks were found of the southern facade. It is possible that the other 4 blocks of this facade consisting of 11 blocks will be found in the future excavations. The end profile of the pediment blocks has a bead-and-reel and an egg-and-dart, which are common in Late Classical architecture<sup>44</sup>.

The inner edges of the middle pediment blocks of both sides of the temple are cut in an L-shape. When considering the pediment block with a decorated lintel profile below, it may be assumed that these two blocks were reveals (dt. "Türlaibungen") of a door-opening (Fig. 6). A Pseudo-dipteros creates the necessity of a lighter upper structure as the number of columns is decreased<sup>45</sup>. The door and window openings in the pediments of the Temple of Artemis at Ephesos in its Hellenistic phase both enliven the empty space

<sup>36</sup> Bauer 1977, 197–227 Taf. 91–96.

<sup>37</sup> Knackfuss 1924, 263–278.

<sup>38</sup> Hoepfner 1993, 111–123.

<sup>39</sup> Knackfuss 1908, 56–73.

<sup>40</sup> Mert 2009, Abb. 127–128.

<sup>41</sup> Seiler 1986, 145–147 Abb. 63, 67; Rumscheid 1994, Taf. 189.

<sup>42</sup> Taşlıalan 1994, 245–284.

<sup>43</sup> Rumscheid 1994, 133.

<sup>44</sup> A similar composition is seen in the Temple of Zeus at Labraunda and the Temple of Artemis at Magnesia. However, there is only an egg-and-dart on the pediment blocks of the Temple of Artemis at Magnesia.

<sup>45</sup> The disappearance of the frieze in the Late Hellenistic Period, the decrease of the architrave fasciae from three to two and the decrease of the heights and the increase of the number of triglyphs and metopes in Doric structures must have been efforts to keep the upper structure lighter.

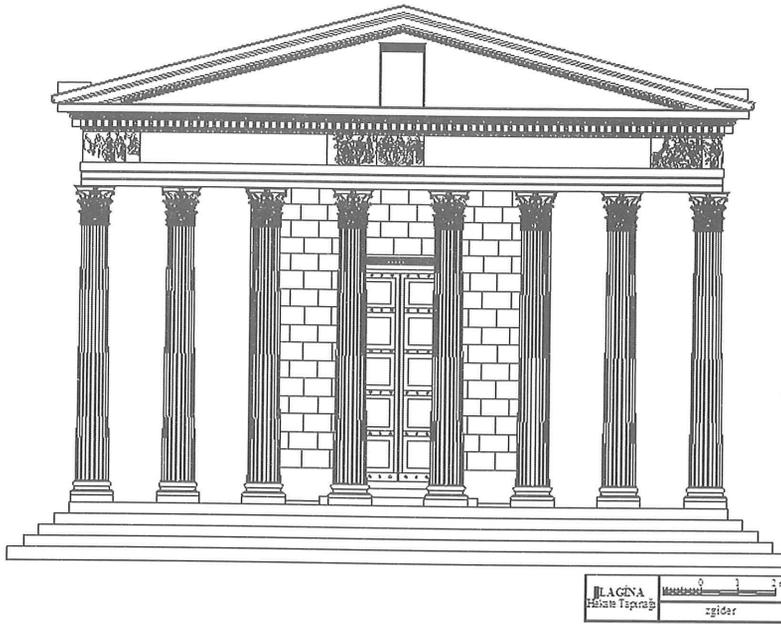


Fig. 6  
Restitution of the  
frontal facade

with light and shadow plays and prevent the columns from bearing an excessive weight. In the Temple of Artemis at Magnesia, in addition, the openings in the pediment were used to enlighten the cult statue with the light of the full moon, entering from this opening during the ceremonies for the goddess<sup>46</sup>. A similar application is also seen in the Temple of Apollon Smintheus at Chryse<sup>47</sup>. In the case of the Temple of Hekate, however, the openings were placed, both on the northern pediment and also on the southern pediment, with the intention of making the upper structure lighter, rather than for the purpose of a cult act.

## Cella

The cella with its entrance on the southwestern side is composed of a deep pronaos and a naos<sup>48</sup>. There is no opisthodomos. This distinguishes the temple from the previous pseudo-dipteroi<sup>49</sup>. The columns in antis in the pronaos have Ionic capitals. These capitals stand on Ionic bases of Ephesian type in contrast to the Attic-Ionic bases carrying the Corinthian capital columns of the peristasis. This situation, seen only in the Temple of Hekate among

<sup>46</sup> Bingöl 1998, 24–35.

<sup>47</sup> Özgünel 2001, 87 plan 19.

<sup>48</sup> The trend to a deep pronaos in Anatolia appeared with Pytheos, the architect of the Temple of Athena Polias at Priene dated to the second half of the 4th century B.C. In this temple the pronaos is the third fifth of the naos, that is, the naos is 1.7 times the pronaos. (Wiegand – Schrader 1904, 85–87 Taf. IX; Hermogenes 2002, 39). Hermogenes, though, kept these two units equal in the Temple of Artemis at Magnesia and pioneered the temples built in following periods. It is seen that typical of the Anatolian Ionic temples, the deep pronaos was also used in the Temple of Hekate built in the Corinthian order.

<sup>49</sup> There is an opisthodomos part in the Temple of Aphrodite at Messa, the Temple of Artemis at Magnesia, the Temple of Apollon Smintheus at Chryse and the Temple of Apollon at Alabanda dated to the Hellenistic Period. Built in Late Hellenistic period, the Temple of Aphrodite at Aphrodisias is similar to the Temple of Hekate at Lagina in that it does not have an opisthodomos either.

the pseudo-dipteroi, is a reflection of the Composite order<sup>50</sup> which appeared in the 5<sup>th</sup> century B.C. and influenced the other pseudo-dipteros temples built after that<sup>51</sup>.

The excavations in the interior of the cella revealed a bothros near the northeastern corner, three fixing plugs for a tripod in the north of the bothros and an offering canal in the south. This bothros is closely related to Hekate's being a goddess of the underworld. While analysing the soil quite a lot of grape pollens were found. Researchers state that this amount of pollens is an indicator for wine offerings to the bothros. The offering scene depicted in the northern frieze of the temple must thus be related to these ceremonies performed in the naos<sup>52</sup>.

The cella walls start with an orthostate layer 0,90 m high. These orthostate blocks stand on a socle which bears a profile on its outer and inner side (*Fig. 7*). The anta bases are decorated with relatively rich ornaments in contrast to other important structures of the period. The torus profile above the plinth is decorated with a guilloche motif. Above it follow a straight trochilos, a reverse Lesbian cymatium and a bead-and-reel at the top (*Fig. 8*). This form of the anta base resembles the socle profile of the altar of the Heraion at Samos<sup>53</sup>, but there the torus is decorated with a laurel different from Lagina. In the socle profile of the Temple of Artemis at Magnesia there is no bead-and-reel above the Lesbian cymatium, which is the only difference from Lagina<sup>54</sup>. The best known example of the guilloche motif on the torus is the platform of the Temple of Apollon at Didyma. One can also see the same ornament on the offering table of the altar of the Heraion at Samos and on the socle profile of the Alexander Sarcophagus<sup>55</sup>. In both examples, the ornament is similar to the anta bases of Lagina as they ended with a reverse Lesbian cymatium and a bead-and-reel. According to Rumscheid, the closest parallel for this profile of the anta base is a base fragment found at Emporion at Chios, dated to the Hellenistic

<sup>50</sup> The best known example in Anatolia of the use of Corinthian capital columns with capitals from the other orders in a structure, which was first seen in Greece in the Temple of Apollon at Bassae, is the Temple of Apollon at Didyma. While Ionic capital columns were used in the peristasis of this temple, two half columns at the entrance of and two solid columns inside the prophecy room had Attic bases and Corinthian capitals (Voigtländer 1975, 87–88; Dinsmoor 1950, Fig. 84). The Doric entablature on the platform of the Mausoleum at Belevi and the Corinthian capital columns used in the peristasis of the upper floor (Hoepfner 1993, 111–123) and the Corinthian capital half columns used in the naos of the Temple of Leto at Xanthos (Temple A) in Ionic order (Metzger 1966, 102; Hansen – LeRoy 1976, 317–336) are the examples of this use. Moreover, the Propylon of Bouleuterion at Miletus in Corinthian order – when considered to create a complex with the structure – is another example of the use of Doric, Ionic and Corinthian orders in the same structure (Knackfuss 1908, Taf. 5, 14).

<sup>51</sup> While the peristasis of the Temple of Augustus at Ankara, a pseudo-dipteros of the Roman period, is in Ionic order, the prostylos columns in front of the pronaos and the in antis columns in opisthodomos have Corinthian capitals (Krencker – Schede 1936, 23 *et al.*; Koşay 1957, 133–135; Hänlein-Schäfer 1985, 185–190. 289–290 Taf. 40–45) and the peristasis of the Temple of Zeus at Aizanoi built in Domitianus Period is in Ionic order while the prostylos columns in front of pronaos and in antis columns in opisthodomos have Composite capitals (Posamentir – Wörrle 2006, 227–246). It is thought that the prostylos columns proposed to be at the front facade of the temple in Corinthian order in Seleukeia at Kalykadnos considered to be within Augustus Period construction activities may have different capitals (Berns 1998, 135–154 Taf. 36–40). The same application must also be used in the Temple of Domitianus at Ephesos (Keil 1931, 54, Fig. 37; Bammer 1980, 79 Abb. 11) and the temple for the imperial cult in Sardes (Ratté – Howe – Foss 1986, Ill. 6 – Ill. 7/j).

<sup>52</sup> Tirpan – Söğüt 2002, 343–345; Tirpan – Söğüt 2005a, 24–35.

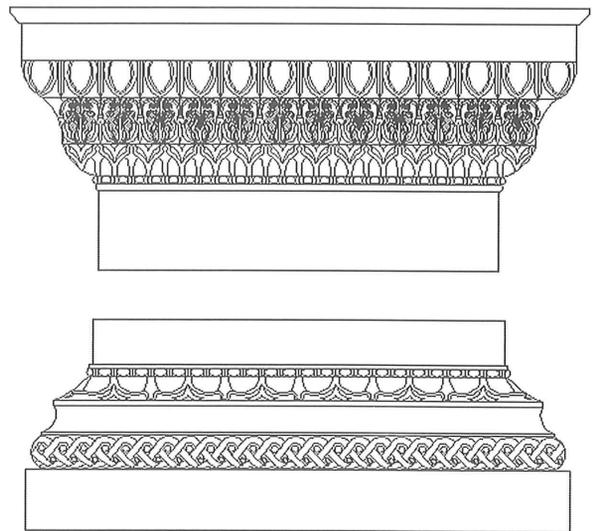
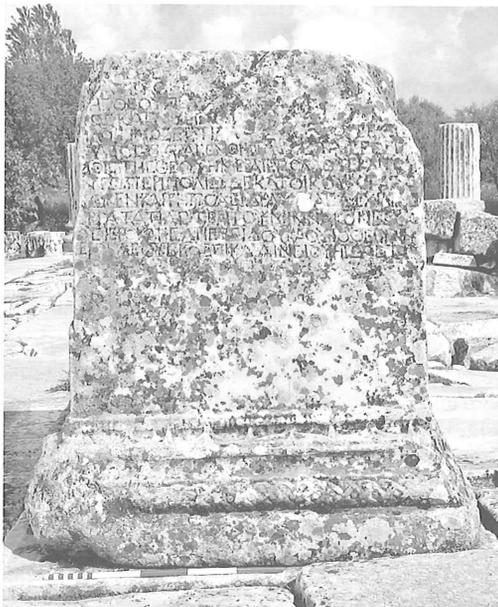
<sup>53</sup> Schleif 1933, 182 Abb. 4 Beil. 34, 3; Ziegenaus 1959, 4–5 Beil. 1–3.

<sup>54</sup> Rumscheid 1994, Taf. 83, 6.

<sup>55</sup> Mendel 1912, Nr. 72–74; Graeve 1970, Taf. 8–9.



Fig. 7 Toichobate and orthostate blocks of the naos walls



0 10 50 cm  
zgider

Fig. 8 Anta base

Period<sup>56</sup>. There are inscriptions referring to the inhabitants of Stratonikeia and the territorium of the Hekateion on the antae<sup>57</sup>. The inscription on the southwestern anta block is dated after 81 B.C. It is believed that the inscriptions on both antae are connected<sup>58</sup>. However, during the restorations after the destruction of the sacred area, a disconnection occurred between these inscriptions<sup>59</sup>.

Above the orthostate level the wall masonry continues in pseudo-isodomic style. On the walls of the naos there is another inscription referring to the decision of the Roman Senate acknowledging the inviolability of the sacred area in memory of the war won against Mithridates in 81 B.C.<sup>60</sup>. This inscription is accepted as the terminus ante quem for the temple.

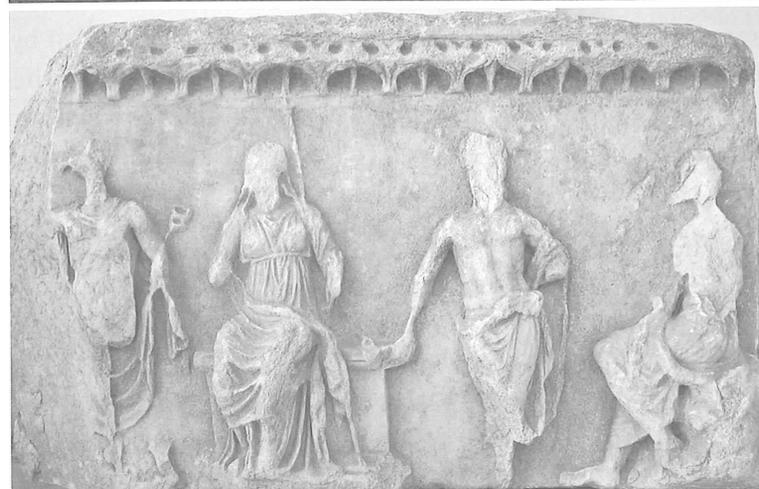


Fig. 9 Frieze blocks above the naos walls

Two types of architrave blocks were used. The first group consists of wall architraves with an anthemion ornament in the front, the second group consists of wall and column architraves with two fasciae on both sides. The second group of architraves belongs to the pronaos, the others belong to the naos.

The most alluring aspect of the Temple of Hekate for the researchers and excavators was its relief friezes. These friezes were thought to be only in the peristasis until 2000. Two frieze blocks found

<sup>56</sup> Rumscheid 1994, 135.

<sup>57</sup> For the inscriptions, see Diehl – Cousin 1887, 161–163 Nr. 71; Hatzfeld 1920, 70–72 Nr. I; Şahin 1982, 15–16 Nr. 512; Junghölter 1989, 122–123. 130–137.

<sup>58</sup> Roussel 1931, 93 Anm. 5; Schober 1933, 12–13; Junghölter 1989, 130–131.

<sup>59</sup> Rumscheid 1994, 22–23. – According to Rumscheid *loc. cit.* it is not certain whether these inscriptions refer to the distructions in the war against Mithridates before 81 B.C. or to later destructions by Labienus in 40/39 B.C. (note of the redactor).

<sup>60</sup> Diehl-Cousin 1885, 437–474; Sherk 1969, 105–111, Nr. 18; Şahin 1982, 4–9 Nr. 505.

during the excavations of 2000 and 2002 are 0,60 m high and thus different from the frieze blocks of the peristasis measuring 0,93 m. A corner frieze block 0,60 m high was discovered in the 19<sup>th</sup> century and carried to Istanbul Archaeology Museum in 1891. Schober claims that unlike the peristasis friezes, this block belongs to the altar<sup>61</sup>. However, in the course of our excavations we found out that these blocks do not belong to the altar and that the cella walls, too, were decorated with a sculptured frieze<sup>62</sup>. The subjects represented on this frieze are different from the others. The heroes of the Trojan War were probably depicted on the southwestern side and a scene with gods and goddesses belongs to the southeastern side. On another frieze block from the same place, there is a scene with Hermes, Demeter, Hades and Persephone (*Fig. 9*). As in the friezes of the peristasis, peaceful and static scenes were preferred to struggles and war. In some of the frieze blocks found in the excavations, only the Lesbian cymatia on the crown profile are executed. This is proof that the friezes above the walls of the temple were left unfinished.

## The Old Temple

The inscriptions found in the sacred area hint at the existence of an old temple with a history going back to the 4<sup>th</sup> century B.C. One inscription referring to Asandros, satrap to the Temple at Lagina, which can be dated to the year 323 B.C. is significant proof of the existence of a temple structure at this place<sup>63</sup>. Two other inscriptions – one dated to 318 B.C.<sup>64</sup> and the stele with an inscription dated to the 4<sup>th</sup> century B.C. found in the naos of the temple<sup>65</sup> also support this view<sup>66</sup>.

This old temple which is attested in the inscriptions mentioned above was surrounded by a peribolos wall. Approximately a 10 meter part of this peribolos wall beginning from the northeastern edge of the sacred area heading southwards has been visible. During our excavation in 2009 at the northeastern corner of the northern stoa, we discovered that the peribolos wall continued to the west. The style of the wall points to the 4<sup>th</sup> century B.C.<sup>67</sup>.

In order to identify the connection of the Temple of Hekate with the old cult center, sondage excavations were performed in the naos of the temple between 1999 and 2002 reaching a depth of 1,75 m below ground level (*Fig. 10*). Through the data gathered from these studies the existence of an old cult center was proven. In the excavation performed within a narrow space, piles of ashes, partially burnt pieces of figurines, a great number of glass amulets in various colours, dress ornaments in rosette form, ivory objects, an inscribed stele<sup>68</sup>, and coins dated between the beginning of the 4<sup>th</sup> century B.C. and the end of

<sup>61</sup> Schober 1933, 105–108.

<sup>62</sup> Tırpan – Söğüt 2002, 345–346, Res. 7–8; Tırpan – Söğüt 2004, 90, Res. 9–10; Tırpan – Söğüt 2005a, 34–35.

<sup>63</sup> Şahin 1982, 1–2, Nr: 501.

<sup>64</sup> Şahin 1982, 3, Nr: 503.

<sup>65</sup> Şahin 2002, 1–2.

<sup>66</sup> We kindly thank Dr. Murat Aydaş who contributed to the reinterpretation of the inscriptions.

<sup>67</sup> Tırpan – Söğüt 2005a, 39.

<sup>68</sup> One of the stelae with an inscription found in the naos is dated to the second half of the 4<sup>th</sup> century B.C. (Şahin 2002, 1–2) and the other is dated just after 190 B.C. (Şahin 2003, 1–7).



Fig.10 The sondage inside the cella

the 2<sup>nd</sup> century B.C. were found. All this data supports the idea that there had been a cult structure in the sacred area and that the offering objects of this structure were left to the naos of the temple during the construction to maintain its sanctity.

## Conclusion

Different opinions on the construction phases of the temple have been presented. The inscriptions found in the sacred area dated to the 4<sup>th</sup> century B.C. and the findings from the sondage excavation in the naos point to the existence of an earlier (4<sup>th</sup> century B.C.) temple. Rumscheid proposes that the antae bases and the capitals may have been built in 300s B.C. by considering the ornament scheme and the detail forms<sup>69</sup>. Therefore, he claims that these architectural elements belonged to the older temple. However, the connection of the older structure with the new temple will become definite when the sondage studies in progress are completed.

The decision of the Roman Senate inscribed on the Cella wall indicates the existence of the temple in 81 B.C. The inscription on the southwestern antae block is dated after this

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<sup>69</sup> Rumscheid 1994, 138–139.

date<sup>70</sup>. The style of the Corinthian capitals, the anthemion on the upper fascia of the architraves, Lesbian cymatia on the crowning of the friezes and the Ionic capitals in the pro-naos correspond with that date. Thus, the peristasis must have been added to the present temple in antis after the decision of the Roman Senate awarding Stratonikeia taking sides with Rome in the war against Mithridates.

The differences seen in the ornament details of the temple indicate that many craftsmen were involved in its construction. Huge financial resources must have been needed for such a grand structure. It is assumed that Stratonikeia obtained these resources from Rome through its political attitude. However, the depiction of only the Lesbian cymatium on the crowning moulding of some frieze blocks of the naos from the eastern facade and the unfinished parts in some other architectural elements of the temple show that the structure could not be completed in its entirety.

Some differences according to the directions can be noticed through the detailed study of the Corinthian capitals in the peristasis of the temple. Moreover, some differences between the capitals from the same direction can also be seen. The capitals were examined in two groups because of these details that can be described as differences of period. The first group of capitals was dated to the beginning of the 1<sup>st</sup> century B.C. and the second group of capitals was dated to the second half of the 1<sup>st</sup> century B.C. The close similarity of the capitals from the second group especially with the capital of the Uzunyuva at Mylasa dated between 40–14 B.C. suggests that they were built in this period. United with the Parths in 40 B.C., Labienus attacked Stratonikeia in the struggle against Rome and plundered the Temple of Hekate at Lagina after failing to capture it<sup>71</sup>. In consideration of this fact we can say that the second group of Corinthian capitals is from the restoration period after the destruction of Labienus. The restoration inscription of Augustus in the lintel of the Propylon refers to this destruction<sup>72</sup>.

It is surprising that although the pseudo-dipteros plan of Hermogenes was used in the Temple of Hekate, the Corinthian order was preferred in the peristasis. To be able to analyse this, the development of the Corinthian capital columns, the political structure of the region and the effect of the political structure on the construction activities must be examined.

The functional use of Corinthian capital columns appearing in the 5<sup>th</sup> century B.C. on the exterior facade of a structure was first seen in the Propylon of Ptolemy II at Samothrace<sup>73</sup> dated to 280 B.C.<sup>74</sup>. In the following period Corinthian capital columns were used together with Ionic elements in the exterior facade of buildings in Anatolia such as

<sup>70</sup> For the inscriptions, see Diehl – Cousin 1887, 161–163 Nr. 71; Hatzfeld 1920, 70–72 Nr. I; Şahin 1982, 15–16 Nr. 512; Junghölter 1989, 122–123. 130–137.

<sup>71</sup> Schober 1933, 15–16; Bean 1980, 67; Junghölter 1989, 131–135.

<sup>72</sup> Diehl – Cousin 1887, 151 Nr. 56; Şahin 1982, 14 Nr. 511; Rumscheid 1994, 23.

<sup>73</sup> Frazer 1990, 87–93.

<sup>74</sup> In the Monument of Lysicrates in which this type of capital was first used in exterior architecture, the columns are not carriers but served only for decorative purposes. Bauer 1977, 197–227 Abb. 1–7.

the Building of Laodike at Miletus<sup>75</sup>, the Mausoleum at Belevi<sup>76</sup> and the Propylon of the Bouleuterion at Miletus<sup>77</sup>. Among these structures, the Building of Laodike at Miletus was built by the Seleucid king Antiochos II Theos for his wife Laodike between 259–253 B.C. J. Keil claims that the Mausoleum at Belevi may belong to Seleucid king Antiochos II Theos who died in Ephesos in 246 B.C.<sup>78</sup>. The Propylon of Bouleuterion at Miletus dated to 175–164 B.C. was also built by a Seleucid king Antiochos IV Epiphanes. Antiochos IV took the responsibility of the construction of the Olympieion at Athens with regards to the construction policies he established to increase the prestige of the Seleucids, thus the Corinthian order was used for the first time at a temple. It has been argued that the Temple of Zeus at Olba, the first temple to be built in Corinthian order in Anatolia, was also an outcome of the political opinion of Antiochos<sup>79</sup>.

It must be considered that the choice of the Corinthian order in the Temple of Hekate instead of the Ionic order which had become a trend of the Hellenistic Period through the innovations of Hermogenes was owed to political thought. The ancient city of Stratonikeia to which the sanctuary of Hekate belonged, had been established by Seleukos. Obtaining the support of Rome after the war against Mithridates in 88 B.C., Stratonikeians must have used these resources in the construction of the Temple of Hekate. But with the ideological thought applied in this structure, the Stratonikeians wished to emphasize that they were not Romans but were Seleucids, and hence they preferred the Corinthian order which originated and was developed by the Seleucids in Anatolia.

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<sup>75</sup> Knackfuss 1924, 263–278.

<sup>76</sup> Hoepfner 1993, 111–123.

<sup>77</sup> Knackfuss 1908, 25–90; Tuchelt 1975, 91–140 Taf. 21–30 Beil. 1–2.

<sup>78</sup> Keil 1936, 141–142.

<sup>79</sup> Williams 1974, 414.

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