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OPTICAL PROBLEMS AND SOME SOLUTIONS IN
ARCHAIC ATHENIAN PEDIMENTAL SCULPTURE

by


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A thesis submitted to the School of Graduate Studies
and Research of the University of Ottawa in
fulfillment of requirements for a
Master of Arts degree.

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Canada

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ABBREVIATIONS

AA	Archäologischer Anzeiger
AAS	Harrison - The Athenian Agora, vol. XI: Archaic and Archaistic Sculpture.
ABFV	Boardman - Athenian Black Figure Vases
ABV	Beazley - Athenian Black Figure Vases
AGA	Richter - Archaic Greek Art Against its Historical Background.
AJA	American Journal of Archaeology
AM	Mitteilungen des Deutschen Archäologischen Instituts.
AMA	Schrader - Die Archaischen Marmorbildwerke der Akropolis.
AMSA	Payne - Archaic Marble Sculpture from the Acropolis.
ARFV	Boardman - Athenian Red Figure Vases: The Archaic Period.
ARV	Beazley - Athenian Red Figure Vases.
ASGS	Ridgway - The Archaic Style in Greek Sculpture.
GSAP	Boardman - Greek Sculpture: The Archaic Period.
GV	Buschor - Griechische Vasen.
HGA	Robertson - A Handbook of Greek Art.
JDAI	Jahrbuch des Deutschen Archäologischen Instituts.
Para	Beazley - Paralipomena.
RA	Revue Archéologique.
SSG	Richter - The Sculpture and Sculptors of the Greeks.
SSGS	Ridgway - The Severe Style in Greek Sculpture

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NOTES

Unless otherwise noted, all directions are from the viewer's point of view. For example, "the piece to the right of Zeus" refers to the viewer's right. "Outward" always refers to something facing the front, towards the viewer, to the exterior of the building.

All dates are B.C. unless specified A.D.

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INTRODUCTION

This study is an examination of the problems encountered by the artists of some early pedimental sculptures decorating Doric temples. The greatest number of these decorated pediments during the Archaic period is encountered in Athens, and this study will restrict itself as much as possible to the works from this city. There are three areas of Athens in which pedimental works are found: the Acropolis and its surrounding area, the Agora, and the area of the Olympieion. When it is related, architectural sculpture from Delphi and Aegina will also be discussed.

The problems evident in Archaic pedimental sculptures are in two forms; physical and optical. The physical problems result from the very shape of the pedimental field. The triangular shape is not conducive to the placement of mythological scenes, of the type which Greek artists were depicting in vase painting. Since the pediment was an elongated triangle, the sculpture required had to fit this shape. Themes had to be chosen whose subject and situation could be adapted to such a shape. However, with the downward slant of the roof, available space diminishes, and the figure placement must accommodate this. Scale is also a physical problem. Artists had to learn to adapt their figures to their environments before any attempts at

realistic scale could be made.

The optical problems in Archaic pedimental sculpture are a bit more difficult to define. Logically, when sculpture carved at eye level is lifted to its pedimental position, a change in visual perception should result. However, as this study will show, Greek sculptors do not appear to have found this change in perception to be a problem. They do show that they acquired some skill in perspective correction for eye level viewing. The pedimental pieces examined exhibit the basic principles of perspective as applied through the use of foreshortening. This foreshortening contributes to a sense of depth and three dimensionality in the scenes carved. A parallel for this use may be seen in contemporary vase painting. Color, on painted figures and backgrounds, is also used to enhance the illusion of depth. All of these factors help contribute to visual adjustments which need to be made by the artist.

This study is divided into four chapters. The first chapter is a catalogue of all pedimental works found in Athens from the Archaic period, containing basic physical information. The commentary for each pediment discusses reconstructive problems and suggested solutions for them; problems in dating; and stylistic similarities between pieces. The second chapter is an examination of the

physical problems of pedimental space. The placement of figures within the pedimental space, scale of figures, and thematic unity and narration are treated. Optical corrections and perspective are the subject of the third chapter. Two topics are covered in some depth: depiction of the shield and depiction of the foreshortened human body. Each is discussed first in the context of vase painting; then in architectural sculpture under the headings of relief sculpture and sculpture in the round. Chapter four examines color and its help in creating the illusion of depth.

This topic is interesting because of the speculative nature of the reconstructions of the pedimental remains from the Archaic period. Much may be learned from the preserved pieces, but little is absolute. This aura of mystery and uncertainty is attractive. There are some certainties: the pieces have been identified as having come from pediments; placement of the pieces within the pediment, either central or corner, may be determined from their size, shape and composition. However, there is room for speculation, and also for rejection of former theories. What the Greeks did not do is as interesting as what they did. They made perspective corrections to pedimental figures such that they were convincing seen at eye level; they appear to have made

no concerted effort to correct the perspective distortion brought about by the high pedimental placement of the figures.

There are sculptural fragments of six figure groups which are believed to have filled the two pediments of this temple.

- (1) Herakles and Triton. The two figures are in a horizontal position with Herakles lying beside Triton, his arms around Triton's neck. This position would seem to indicate the use of this group in an angle space, as the tail of Triton would fill the corner. A male head, found in a well on the Acropolis, is believed to belong to the figure of Herakles, although this assumption is under dispute. (Broneer-Hesperia (1939)91-100)
- (2) Two lions attacking a fallen bull. The bull is attacked from both ends by the two lions, who stand over it. The lion's bodies are turned towards each other over the fallen bull, and the heads are perhaps turned outwards.
- (3) Typhon (Bluebeard). This figure is a snaky-tailed monster with three human torsos. Each of these three bodies holds an attribute in his hand; the identification of these symbols is in question.¹ There are also various theories as to the identity of the three-bodied figure--Typhon seems the most widely accepted. There is room for an additional figure to the left of Typhon. There remains a fragment of

drapery in this space which as been interpreted in various ways.²

- (4) Two large serpents. These snakes are coiled, one turned to the right, the other facing outwards.
- (5) Lioness and bull (and mate of lioness?) This lioness faces to the left and sits upon a small bull which she is devouring. There would appear to have been a mate with her, although only one front leg of this figure remains. He would have faced her in the other half of the pediment, without prey underneath him. (Dickens, 76)
- (6) Seated lion. This is a large figure which faces to the right.

There is great controversy concerning the proper reconstruction of these six groups. The stylistic differences and differences of scale have evoked much speculation among scholars. The most common practice has been to separate the groups and assign them to different buildings.

Heberdey spreads these pieces between three contemporary buildings. (Heberdey, 181) The first of these he calls "Hekatompedon 1" and contains the Typhon (3) and Herakles and Triton (1) in one pediment, and the seated lion (6) and the two snakes (4) in the other. "Hekatompedon 2" consists of one pediment with the lioness and bull (5). He

assigns the lions and bull (2) to the marble pediments of the Peisistratid Temple of Athena (ACR-H), even though the lions and bull are made of limestone. (See p. 1)

Buschor generally followed the reconstructive solutions of Heberdey, assigning pedimental sculpture to two buildings, "H 1" and "H 2". In "H 1" he placed the Bluebeard (3) and Herakles and Triton (1) and the seated lion (6). "H 2" he divided into two building periods; the pediment of period one consists of the lioness and prey with reconstructed mate (5) between the two serpents (4); the pediments of period two had the lions over the fallen bull (2) in one gable, and an extra marble lion group (ACR-H-1) in the other. (Buschor-AM(1922)95 ff.)

Schrader's reconstruction is also along these lines, with minor compositional changes. (Schrader-JDAI(1928)78) For "H 1" he placed Herakles and Triton (1) and Typhon (3) in one pediment, with the serpents (4) in the other. "H 2" contains all the remaining groups.³

Schuchhardt reduces the number of buildings even further, suggesting that all pieces, with the exception of the lioness (5) should go on one building. (Schuchhardt-AM(1935)1 ff.) His refusal to include this lioness group is based on the mane locks, more formal than mane locks of any

other groups, rendering this piece earlier than the others, belonging perhaps to a third large temple which would have stood alongside the Hekatompedon and the Peisistratid Temple of Athena (ACR-H). However, there is little evidence to support the theory that such a structure stood on such a small area as the Acropolis: the treatment of the lioness' mane may rather have been a way of distinguishing the female animal from the male. This figure may also have been the work of a less sophisticated, or more conventional artist. (Bookidis, 14)

Beyer has taken all figures from the Introduction Pediment (ACR-B) as well as miscellaneous poros pieces not usually assigned to pedimental placement, and incorporated them into the second pediment of the Hekatompedon. His composition is as follows, moving from left to right: a large snake (ACR-4-A) facing outwards; a number of the figures usually assigned to the left half of the Introduction Pediment (ACR-B-2), facing towards a seated Zeus and a small Athena, (reconstructed from a sandaled foot and a small head of Athena), in a "Birth of Athena" scene; a large lion and a central Gorgon (from miscellaneous fragments); a large lioness; the remaining right hand figures from the Introduction Pediment, (ACR-B-1); and finally a large snake (ACR-A-4) facing outwards.

The first flaw with this reconstruction is the fact that the central vertical joint of the pediment would bisect the central Medusa figure, which is hardly likely, especially for a central figure. A comparison with the Gorgon at Corfu where this joint is much less conspicuous, shows the improbability of this feature. (ASGS, 203)

Another objection lies in the removal from this gable of the lioness and prey group (5). This piece has a type of splayed joint which also occurs in the Typhon (3) and in the Herakles and Triton group (1) which would confirm their association with each other. These joints lock each piece in place, running up into the figures from the tympanum base. The outer figures were splayed outwards from the central joint, which extended straight up into the central figure. (Dinsmoor-AJA(1947)146, fig 11) It hardly seems realistic to include one such joint and not the others. The composition for this gable, as Beyer reconstructs it, would be unusually crowded. A composition including so many figures in one pediment has not been theorized for any of the other pediments.

The most probable reconstruction of these six groups is offered by Dinsmoor. (Dinsmoor-AJA(1947)146) He placed all the poros pieces on one building. His east pediment consists of the central group of the lions and bull (2) flanked by Herakles and Triton (1) on the left, and

Typhon (3) on the right. The west pediment is filled by the lioness and bull (5) in the centre and one of the two snakes in each of the corners (4). Bookidis feels that the remaining piece, the large seated lion (6), must also fit into the west pediment, since it fits nowhere else.

(Bookidis, 17)⁴

Technical features make it clear that Dinsmoor's reconstruction is valid. The relief projection is roughly the same for all six pieces, from 0,40 to 0,60 m. Groups which Dinsmoor has assigned to corners, Herakles and Triton (1) and Typhon (3) are each carved from one block of stone, while the central lion groupings, (2,5) are each carved from several. Splayed joints are employed in some of the reliefs: the lioness (5), Typhon (3) and Herakles and Triton (1). These joints keep pieces in place and prevent them from leaning forwards. The fact that all the pieces were found in the same place may also point to their originating from a single building. Dinsmoor's compositional arrangements seem coherent, and are further supported by the evidence of the color used in the relief background. (See pp. 103-104)

If we accept Dinsmoor's proposition that the sculpture comes from a single building, the Old Temple of Athena, we may consequently date the sculpture by this building. The

Hera, also seated, is placed to the right of him, facing outwards. They greet Herakles, who stands near the right hand corner of the pediment, and approaches them, moving to the viewer's left. Another figure, often identified as Iris, or Hermes, because of the fawn skin the figure wears, stands to the right of Herakles, deeper in the plane. Ridgway proposes that this figure is male, due to the short costume, heavy thighs and masculine chest. (ASGS, 203) The figure of Athena is missing, but surely it would have been she who would have presented Herakles, her protege, to her fellow gods and goddesses. She would have stood to the left of Herakles, between Herakles and the central figures of Zeus and Hera.

The figures are carved in high relief. The carving is somewhat crude. The heads and limbs of the figures are completely detached from the background. There are problems of scale between the large seated figures of Zeus and Hera, and the figures which occupy the corners where available space diminishes. This is, however, in keeping with the importance of the figures. It is only natural that Zeus and Hera, as king and queen of the gods, should occupy the most space, and that the other figures should diminish according to their importance within the scene. The figure of Athena, even though standing, would have been smaller than the seated Zeus and Hera, as she would have stood to the

right of Hera in the space which was already diminishing with the sloping gable roof. Although Hermes/Iris is divine and Herakles a mere mortal, Herakles is more important to the scene, and is consequently larger. However, it is to be noted that this theory of hierarchy of proportion is speculative.

From the remaining pieces of the left hand side of the pediment, it is surmised that there was a group of divine personages who were proceeding towards the centre. There is no dispute as to whether these striding figures actually belong to this pediment, or whether they should be placed in a separate pediment of their own. However, due to the subject of the Introduction Pediment, it is reasonable that they should belong; they represent a group of gods coming to meet the latest member of the Olympians.⁵ Beyer appears to scatter these figures among those on the Hekatompedon gable (ACR-A-4), placing them on the west side, in a scene of Birth of Athena, to the right of a large snake (ACR-A-4), and to the left of a large lion. (Beyer-AA(1947) 650) This would make for an extremely crowded gable, which does not seem to have been the norm. This reconstructive solution has already been examined and rejected in the discussion of the Hekatompedon pediments.

ACR-C LION AND BOAR PEDIMENT

DATE: ca. 570-550 B.C.

FIND SITE: Tyrannenschutt terrace fill, east of the Parthenon. Now in Acropolis Museum.

REMAINS: Four fragments in relief. (1) The snout of a boar turned to the right. (2) A knee of a boar's foreleg in a bent position. (3) Fragment of left half of a lion's mane and part of lion's jaw. (4) Fragment of boar's hind leg.

MATERIAL: Yellow poros limestone.

DIMENSIONS: (1) Pres. L. 0,14 m. Pres. Ht. 0,11 m. Dep. 0,09 m. (2) Pres. L. 0,20 m. Pres. Ht. 0,19 m. Dep. 0,09 m. (3) Pres. L. 0,14 m. Pres. Ht. 0,19 m. Dep. 0,10 m. (4) Pres. L. 0,065 m. Pres. Ht. 0,15 m. Dep. 0,10 m.

BIBLIOGRAPHY: Bookidis, 23-25. Heberdey, 113-115. Schrader-JDAI(1928), 84 fig. 32, giving Buschor's reconstruction.

Four fragmented pieces of limestone sculpture are attributed to this pediment which is thought to depict a lion attacking a boar. The figures are carved in relief and the composition of the figures is indicated by several of the fragments. The boar, (1,2,4) must have been standing in profile, facing to the right, since only the right side of the snout is properly finished as though for exposure to the viewer. The boar would have been faced by a lion in profile to the left. The fragments of the head of the lion (3) are few; only the mane and the right corner of the jaw remain. The scene is one of confrontation, rather than attack. Since part of the jaw of the lion remains, (3), it is

possible to see that the lion is not actually devouring his prey, since his mouth is not covered by, or closed around, the body of his victim, as is common in attack scenes.

The fragment of the boar's hind leg (4) seems to belong with the fragment of the boar's snout (1). There is question, however, as to whether the fragment of the boar's bent knee (2) actually belongs to this group. It seems too large and heavy to fit in with the figures' fragments. This knee is comparable to the bent knee of the bull in the lioness and bull group of the Hekatompedon's west pediment (ACR-A-5), and may in fact be a bovine knee. It is possible that this fragment belongs to a group similar to the Hekatompedon grouping, and its inclusion in this lion and boar group is tenuous, and may be mistaken. It also seems reasonable to disassociate this piece since the bent knee would seem to show an animal already attacked, falling to the ground. The fragment (2) would appear to portray an animal in a fallen or falling pose. The other fragments cannot belong to a falling or fallen animal.

This pediment was first identified by Heberdey (Heberdey, 181) who suggests that it was not part of an independent pediment, but that it was part of the same pediment to which the Red Triton work belonged (ACR-D). He states that this animal group should be placed in the

centre, with the Red Triton figures (ACR-D), just to the right of it. An examination of the degree of relief in both the Red Triton and the lion and boar group gives some support to Heberdey's theory. The depth of the two pieces is close enough to envision them as having stood together. However, this lion and boar group displays none of the red coloring covering the Red Triton piece. (See p. 15)

Buschor associates these pedimental fragments with another, unknown structure, and claims they occupied the gable angles while the centre space was occupied by the group of the two lions attacking a bull (ACR-A-2) which is generally attributed to the west pediment of the Hekatompedon. (AM47(1922),96) However, the degree of relief carving in the two pieces does not appear to be similar enough to fit the pieces together. This lion and boar fragment is of considerably higher relief than the Hekatompedon lions and bull (ACR-A-2). It would be conceivable to have such a different degree of relief within one work, if different artists had worked on the one pediment. It has been pointed out, however, that it would not seem logical to combine such attack scenes in a single pediment with a more peaceful scene of confrontation. (Bookidis, 25) From this point of view, Heberdey's reconstruction seems more probable.

An early date is suggested for this group, around 570-560, based on the stylistic features. There is much use of incision, especially in the snout fragment, around the mouth and tusk. The mane of the lion is rather flat and the locks are cut into the head of the animal. These details are similar to the treatment of the lioness from the Hekatompedon (ACR-A-5), which is sometimes considered to be an earlier date than the remainder of the Hekatompedon. (See pp. 4-5) However, since the use of incision and flat carving style of the Hekatompedon lioness (ACR-A-5) may indicate the work of an inferior artist, the same may hold true for this work (ACR-C). If this is the case for the Hekatompedon lioness, and it is of the same date as the rest of the Hekatompedon pieces, then this lion and boar group may be from the same approximate date, 570-560.

ACR-D RED TRITON PEDIMENT

Figure 8

DATE: ca. 550 B.C.

FIND SITE: Terrace fill, Perserschutt, southeast of Parthenon. Found with Hydra Pediment (ACR-E). Now in Acropolis Museum.

REMAINS: Small portion of centre of pediment depicting Herakles and Triton. Body of Triton remains; face ill-preserved. Legs and parts of arms of Herakles preserved.

MATERIAL: Poros limestone.

DIMENSIONS: Pres. L. (largest fragment) 1,10 m. Res. L. of pediment ca. 6,50 m. Res. Ht. 0,81 m. Dep. 0,18 m. Slope 1:4.

BIBLIOGRAPHY: Boardman-GSAP, fig 197, p. 155. Bookidis, 26.
Borst, 31. Dickins, 60-61. Dinsmoor, 71.
Heberdey, 13 ff. Ridgway-ASGS, 202.

This pediment takes its name from the curious red color which covers the entire work. The reason for this color is not known; it has been argued that this was the result of an accident during or after the destruction of the pediment. (ASGS, 205) Since there are no available chemical analyses of this red color, it is not possible to state with any degree of certainty where this pigment came from. It is possible that this color was merely a preparatory undercoat for the intended colors. Perhaps these colors were destroyed during the destruction, or perhaps they were never applied. A chemical analysis would probably prove informative.

The depiction is that of Herakles' struggle with Triton. The figures are locked together, perhaps just to the right of the center of the pediment. Herakles is kneeling beside Triton with one arm extended behind Triton's head, the other in front for a headlock. Triton stretches out one hand, perhaps as a plea for help. It has been suggested that this hand reached towards a group of Nereids who may have been running to the left corner of the pediment. (Bookidis, 26)

BIBLIOGRAPHY: Bookidis, 28-29. Borst, 13-15. Dickins, 57. Dinsmoor-AJA(1947), 126-127, n. 86. Harrison-AAS, 13. Heberdey, 10 ff. Richter-AGA, 10. Richter-SSG, 94, 133. Ridgway-ASGS, 202-203. Robertson-HGA, 91. Schuchhardt-AA(1963), 811-812.

This pediment portrays Herakles in the centre wielding his club over the nine-headed Lernaean Hydra which occupied the right hand side. On the left hand side, there is Iolaus with a chariot and horses, while a giant crab fills the left corner space. Even to one unfamiliar with the myth, it would be evident from the size of Herakles that he is meant to be the main character. Iolaus is conspicuously smaller than Herakles, but still of a realistic size, since he is fairly near the centre of the pediment. The oversize crab is not an accident of scale, but a representation of the giant crab sent by Hera to harass Herakles. (Diodorus Siculus:iv.II)

This example is carved in extremely low relief, a fact which leads Boardman to suggest that this may have been used as a back, or secondary, pediment. (GSAP, 155) Little attention seems to have been given to the final finish of the surface, which gives it a rather rough appearance. Despite this, however, the work is quite sophisticated, carved in a simple and clear linear style. It reflects good understanding of scale and of human proportions. Despite

the worn condition of the pieces, there are indications of musculature around the calves and knees of Herakles.

As noted in the discussion on the Red Triton, (See p. 16), there are similarities in the styles of these two pieces, which were found in the same deposit. This gives rise to the speculation that these may have come from a single structure. Both are carved with almost the same degree of relief, and the closeness of their slopes, allowing for some wear, may also indicate their origins from the same building. The carving is not as sophisticated in the Red Triton Pediment as in the Hydra Pediment, as may be noted from the stiffer treatment of limbs and musculature. This may indicate the work of another, less talented artist; or it may, as Boardman notes, simply indicate use of the Red Triton Pediment as a secondary pediment. Whatever its position, there exists the possibility that this work may have come from the same building which yielded the Red Triton Pediment.

There is dispute as to the date of this work. Richter proposes a date of 590, comparing Iolaus' head to that of a similar depiction on a bowl by the Gorgon Painter, from 600-800. (SSG, 94) Ridgway places it slightly later, around 560, taking as her basis, the Boxer Stele from the Ceramicus, again making a comparison to the head of Iolaus.

(ASGS, 202) Boardman also places the work to around 560-550. (GSAP, fig. 196) Harrison also uses the Boxer Stele as a reference point, dating the Hydra Pediment to 550.

(Harrison, 12) Bookidis agrees with Harrison in date for this piece. I tend to agree with Harrison as well, noting the head of Iolaus as stylistically comparable to the Boxer Stele.

ACR-F OLIVE TREE PEDIMENT

Figure 10

DATE: ca. 550 B.C.

FIND SITE: Terrace fill east of Parthenon, Tyrannenschutt. May come from east facade of building called Temple Aa. (Dinsmoor, 71) Now in Acropolis Museum.

REMAINS: Fragments depicting a building standing in the centre of the gable. At least three females, the leg of a male figure carved against an ashlar wall; parts of an olive tree. At least one half of pediment remains.

MATERIAL: Yellow poros limestone.

DIMENSIONS: Rest. L. 5,70 m. (Heberdey) (6,50 m. Bookidis, 34, n. 7) Rest. Ht. 0,685 m. (Heberdey) (0,80 m. Ibid.) Dep. 0,275 m. Slope ca. 1:4. (Heberdey)

BIBLIOGRAPHY: Bookidis, 27-28. Borst, 17-19. Dickins, 69 ff. Dinsmoor, 71. Harrison-AAS, 13. Heberdey, 16 ff. Ridgway-ASGS, 204. Robertson-HGA, 92-93. Schuchhardt-AA(1963), 802-807.

The sparse remains of this pediment show a central building with a female figure, carved in the round, standing

in a niche in front of it. This figure appears to have carried something on her head, as shown by the rounded pad she wears; she may have carried either a basket or a hydria. As many as two other females may have been set on the ledge to the front of this central structure, to the right and left of the structure. A naked male leg is carved in relief on the background wall, along with an olive tree, which was incised and painted above the leg. The building represented displays a sloped roof and a recessed doorway, in whose niche stands the female figure. Dinsmoor describes the structure as having "pseudo-isodomic coursing of the wall masonry, a mutular cornice, and a tiled hip roof."

(Dinsmoor, 71)

The interpretation of this pediment is problematic. The most commonly accepted view is that this pediment portrays the ambush of Troilus by Achilles at the fountain house. The evidence of the woman who may have carried a vessel on her head suggests the identification of the structure as a fountain house. It is also reasonable to presume that other women would be present at such a peaceful scene from daily life. The suggestion that this scene portrays the Ambush of Troilus is strengthened by comparisons to ambush scenes on contemporary vase painting.⁶ (See fig. 23) The naked leg would belong to Achilles, who waits in hiding for the advancing Troilus, who would have

appeared from the left of the structure. From such evidence, I am inclined to identify this pedimental scene as the Ambush of Troilus.

This theory has, however, been disputed. Since the male leg wears no armour, it is not thought to be that of Achilles, the great warrior. It has also been suggested that so many females, at least three, would not be present at the scene of an ambush. (ASGS, 204) Representations of this scene in vase painting, however, show women in attendance, such as on the François Vase.⁷ (See fig. 22) The François Vase also portrays Achilles without leg armour, although the François Vase dates within 25 years of this pediment. With evidence such as this, the interpretation of this scene as a scene of Troilus and Achilles seems convincing.

It has also been noted that there are no signs of terror within the scene. (ASGS, 204) In Ridgway's view, had an ambush been about to take place, the women who had been going about their domestic chores, would have been startled and some evidence would have resulted, such as confused movement. If however, the male leg is Achilles', and he is in hiding, about to ambush Troilus, he has not yet revealed himself, and there would be no reason for the women to disrupt their errands. Therefore, this peaceful scene is in

keeping with the depiction, an ambush. At this period in Greek art it was fairly common to show the moment just before a major event. Exekias' suicide of Ajax, and Achilles and Ajax playing a board game are some such examples.⁸

Boardman points out that an ambush scene would require the depiction of Troilus with horses, as he is shown in vase painting, and in the Tomb of the Bulls in Tarquinia.⁹ (See fig. 21) Since the building occupies the centre of the gable, Troilus would have to approach from the left, which would leave only a secondary space in the corner, with little room for either Troilus or his horse. This hardly seems likely, if the scene was to be played around him. However, it must be noted that Troilus was a boy, and could therefore be of a smaller size than the other figures. As well, his entire horse did not necessarily need to be present; his horse did not even need to be present at all.

The portrayal of Troilus approaching on foot, rather than on horseback, may simply be an alternate convention. However, the apparent absence of horses may also be evidence against the identification of this scene as the Ambush of Troilus. Dinsmoor does not think that the structure represented can be a fountain house, and rejects the entire theory. (Dinsmoor, 71, n.2) Although Dinsmoor does not

offer an opinion on the identification of the building, he does suggest that it is sometimes identified as an actual building on the Acropolis, and that the pediment thus presents a scene from real life connected with it. The building may be the Temple of Athena, with her sacred olive tree beside it.¹⁰ However, this idea of real life representation is otherwise unparalleled in early Greek pedimental sculpture, and although it provides an alternate suggestion to the Troilus theory, it cannot be confirmed. Comparison of this scene to near-contemporary vase paintings showing the ambush of Troilus suggests that the traditional interpretation is correct. (See n. 6)

Several attempts have also been made to identify the architectural source of this piece. Dinsmoor suggests that this may be the front pediment of Temple Aa on the Acropolis, and places the Hydra Pediment on its western gable. While comparable slopes on these two pediments would make this connection possible, their artistic styles are radically different. The low, simple, linear design of the Hydra Pediment (ACR-E) is in complete contrast with the complex Olive Tree work, which features a combination of relief and free standing figures, as well as exact detailing of the building. Given these differences, it seems unlikely that these two pieces were from the same building.

ACR-G SATYRS AND MAENADS

DATE: ca. 540-530 B.C.

FIND SITE: From Sanctuary of Dionysus. Found in a courtyard of a mediaeval house on the south side of the Theater of Dionysus. From the Temple of Dionysus Eleuthereus.

REMAINS: Fragments from left half of pediment. Back panel preserved on three sides, broken at the left side. Dancing satyrs and maenads.

MATERIAL: Shelly limestone.

DIMENSIONS: Pres. Ht. 0,50 m. Pres. L. 0,75 m. Dep. 0,24 m. Slope 1:5,5.

BIBLIOGRAPHY: Bookidis, 40-46. Boardman-GSAP, fig. 203. Heberdey, 75-77.

The slanting upper side of the back panel of this piece clearly shows its pedimental origin. Top and bottom surfaces of the panel area are smooth. Traces of anathyrosis are obvious on the right vertical joint, which may indicate that the scene originally continued to the right. The left hand side of the piece has been lost and it is thus not clear whether it continued to the left corner. The figures are carved in low relief.

The scene depicted is that of a Bacchic revel, satyrs and maenads dancing to the music of the double flute. At the left hand side of the remains, an ithyphallic satyr is depicted, kneeling, turned to the right and playing the flute. To the right of this figure is a maenad with her

legs in profile, while her head, torso and arms are depicted frontally. This maenad wears a short chiton. To the right of this female there is another maenad with her torso in profile to the left. Remains further to the right may be those of a fourth figure, perhaps another satyr.

This pediment is in a very poor state of preservation and it is consequently difficult to judge the rendering of surface details. Only the outlines of the figures are left, showing lively figures with well-proportioned bodies.

These remains may perhaps be placed in the left hand side of a pediment. Their attribution to the Temple of Dionysus is acceptable, due to their subject matter and find site. Some scholars, Dinsmoor and Bieber, date this Temple back to the early sixth century, placing its sculpture into this period, perhaps taking its poor state of preservation for crude, early Archaic carving style. (Dinsmoor, 120, n.2. Bieber, 54) The placement of sculpture need not, however, be contemporary with the erection of a temple, as sculpture was sometimes added later, and even then was sometimes remodelled and replaced.¹¹ Stylistic comparisons with similar portrayals on Nikosthenic vases would date this work to around 540-530, perhaps showing that this sculpture was, indeed, not necessarily contemporary with the temple's construction. Recent authors agree with this later date,

also taking note of the lifelike proportions and overall sophistication of the scene portrayed. (Bookidis, 41)¹²

ACR-H PEISISTRATID TEMPLE OF ATHENA Figure 11

DATE: 520 B.C.

FIND SITE: Perserschutt debris south east of Parthenon.
Now in Acropolis Museum.

REMAINS: Five figure groups. (1) Athena fighting a giant; only one foot of giant remains. (2) Reclining giant. (3) Fallen giant from left corner. (4) Fallen giant from right corner. (5) Lions and bull, with head, back and rear legs of bull preserved; mane, parts of body and paws of two lions.

MATERIAL: Parian marble.

DIMENSIONS: Ht. of ped. field 2,46 m. L. 19,7 m.
Slope 1:4. (1) Ht. of Athena 2 m. (2) Ht. of giant 0,80 m. (3) Ht. 0,89 m. L. 2,06 m.
(4) Ht. 1,07 m. L. 2,05 m. (5) Dimensions are not published.¹³

BIBLIOGRAPHY: Bookidis, 49-51. Heberdey, 164-166. Payne-ASMA, 53. Robertson-HGA, 159-160. Schrader-AMA, 345-387. Vanderpool-AJA(1965), 353.

This building, which takes its name from the Peisistratids who initiated its construction, offers the first example in the Greek world, of large scale pedimental sculpture carved in marble. (Cook, 106) There are five sculptural groups preserved, all in fragmentary condition. These are carved fully in the round, but with their hidden sides only roughly finished. These figures were supported

by long metal dowels which came up from the pedimental floor.

It has not been established whether all of these groups belonged to one pediment, or whether they were split between east and west. The figure of Athena may have stood just to the left of the centre of the pediment. She wears a long chiton, and a cloak thrown over her right shoulder. Her aegis is carried in her extended left hand, and in her right hand she raises her spear against the giant at her feet. She wears a helmet from under which her reddish-brown hair falls down over her left shoulder. (Schrader-AMA, 302) Because of Athena's size and her standing position, she must have stood near the centre of the pedimental field.

Nothing remains of Athena's opponent but a foot which is slightly raised off the ground. The gable angles were probably occupied by the two fallen giants (3,4), both well preserved. Another giant (2), whose original position is uncertain, remains. He had earlier been reconstructed placed at Athena's feet, although it is more likely that he belongs on the right hand side of the gable, to which he has recently been moved. (Bookidis, 49) He is in a semi-reclining position with his legs represented in profile, and his chest turned outwards. Nothing remains of his opponent,

although it is possible that he was engaged in combat with Zeus.¹⁴ There are also remains of several feet, with heels slightly raised of the ground, which suggest other moving figures in the scene.

Much less is left of what may have been the decoration in the west gable. From the preserved fragments a scene of two lions attacking a bull is reconstructed. There are pieces of the bull's rear legs, his back, and his head, as well as the manes, bodies, and paws of the two lions. The composition for this group is similar to the lion and bull grouping from the Hekatompedon (ACR-A-2), and as in that temple's west pediment, this group apparently also decorated the centre of the gable.¹⁵

AGORA

<u>AG-A</u>	<u>LION'S HEAD</u>	Figure 12
DATE:	ca. 570-560 B.C.	
FIND SITE:	From Agora, near Altar of Twelve Gods. From unknown building. Now in Agora Museum.	
REMAINS:	Large frontal head of lion, face badly worn; flat at back.	
MATERIAL:	Poros limestone.	
DIMENSIONS:	Ht. 0,565 m. L. 0,61 m. Dep. 0,50 m. L. of face 0,40 m.	

BIBLIOGRAPHY: Bookidis, 38-39. Harrison, 31-33. Thompson-Hesperia(1947), 207, n. 21. Thompson-Hesperia(1958), 153-154.

This piece is a badly preserved representation of a lion, which must have come from a large structure, judging from the size of the head. It faces outwards with the mouth hanging open. The body, which must have extended to the left, would have measured about two meters. (Bookidis, 38) The head is not carved in the round, nor does it attach to a background; it is not a true relief carving.¹⁶ The back is cut off smooth and the central portion is slightly hollowed out.

This piece may have belonged to the left hand side of a large pediment. This lion head is slightly smaller than the lions depicted on the Hekatompedon pediments, and the size of the building is likely to have been comparable. However, there is, as yet, no other evidence to support the existence of a structure of that size, and of appropriate date, in the Agora area.

The lion head has been closely linked with lions from the Hekatompedon gables (ACR-A-2,5,6). The styles of all these lions are similar and they are unquestionably from the same period. In the Agora piece, however, the carving on the brow of the head is unfinished, the mane indicated only

by chisel marks. Suggestions that this head (AG-A) belongs on one of the headless lions from the Acropolis (ACR-A-5,6) do not seem feasible; Harrison notes that the head is a bit too small for the bodies in question. (Harrison, 32) Furthermore, there is a good deal more detail on the hidden sides of the Acropolis animals than on this lion. It does not appear probable that this lion's head originated with the Acropolis pieces (ACR-A-2,5,6).

AG-B MAN'S HEAD AND LION'S PAW

Figure 13

DATE: 530-520 B.C.

FIND SITE: Found in pile of marble before Odeion of Agrippa in Agora. From unknown building. Now in storeroom of Agora Museum.

REMAINS: Top part of man's head, broken at back, with a lion's paw resting on it.

MATERIAL: Attic marble.

DIMENSIONS: Pres. Dim. 0,235 m. (Harrison, 36) Pres. Dep. 0,80 m.

BIBLIOGRAPHY: Bookidis, 47-48. Harrison-AAS, 36-37. Thompson-Hesperia 20(1951), 59-60.

This marble fragment may represent Herakles and the Nemean lion, although little remains. The top of a man's head is preserved, with hair indicated, and the paw of the lion apparently pressing upon the top of it. Two of the claws of this paw are preserved. There is much evidence of red paint on the hair of the man. This work would appear to

have been broken from a relief, rather than fragmented from a piece worked in the round, as indicated by the extreme contrast between the front and the back planes of the work. The back planes of the work are chipped and worn, looking as though they had never been fully finished. (Harrison, 36)

The originally exposed face of this piece reveals sophisticated workmanship. What remains of the face, the front planes, shows a very delicate finish to the surface of the marble, as well as detailed modelling in the curls of the man's hair, and in the claws of the lion's paw.

The bodies of the man and the lion were undoubtedly intertwined, but there has been some question as to the actual reconstruction. Thompson suggests that the lion was actually attacking the man from behind. If this view is to be accepted, however, the line of the man's head does not match up with the rest of the lion, when that is reconstructed from the paw. (Thompson-Hesperia(1951),59)

Harrison offers a more probable solution: she reconstructs the man's body extending horizontally to the left, with the lion in frontal attack, from the right, in front of him. (Harrison-AAS, 6)

The view with the lion in frontal attack also appears in vase painting. Although the depiction of Herakles wrestling with the Nemean lion from a kneeling position

occurs in sculpture towards the end of the sixth century, the same portrayal appears in black figure vase painting early on, from around 560. One such depiction appears on an oinochoe signed by Taleides, as potter, around 540; the scene is common in vase painting of the last quarter of the sixth century. (Hoppin, 342)¹⁷

AG-C LIONS AND BULL

Figure 14

DATE: ca. 500-490 B.C.

FIND SITE: Built into Byzantine cistern alongside Panathenaic Way in Agora. From unknown building. Now in Agora Museum.

REMAINS: Right half of a pediment. The head and forepaws of a lion seizing the hindquarters of a bull. Mane and parts of body of second lion are preserved.

MATERIAL: Poros limestone.

DIMENSIONS: Rest. Ht. 0,80 m. Rest. L. 7,32 m. Dep. 0,10 m. Slope 1:4,57.

BIBLIOGRAPHY: Bookidis, 52-53. Harrison-AAS, 33-36. Thompson-Hesperia 27(1958), 153-154.

The fragmented remains of this piece depict a lion vigorously biting into the back of a bull. This group may have been the centre piece of a pediment since the vertical joint runs through the body of the bull. Another lion symmetrically attacks the bull from the other side; the bull has just been attacked and has not yet fallen to the ground. The figures are executed in high relief on the blocks of the tympanum.

There is a close resemblance between the composition of this group and the earlier lion and bull group thought to belong to the west pediment of the Peisistratid Temple of the Acropolis (ACR-H-5). The composition for these two groups would appear to be similar, although the Agora piece shows a slightly more advanced stage of carving, notably in the mane locks and the treatment of the eyes. Another comparison may be made with the lions on the north frieze of the Siphnian Treasury at Delphi. (Bookidis, 53) The Siphnian Frieze is dated to the late sixth century; the Agora work seems slightly later.

AG-DHEAD OF HERAKLES

Figure 15

DATE: Early fifth century (?)

FIND SITE: Found in loose fill of third century A.D. in southwest Agora. From unknown building. Now in Agora Museum.

REMAINS: Head of Herakles wearing lion skin. Broken off at neck; facing to the right.

MATERIAL: Pentellic marble.

DIMENSIONS: Pres. Ht. 0,147 m. Ht. of face 0,10 m. L. 0,106 m. Dep. 0,13 m.

BIBLIOGRAPHY: Bookidis, 56-58. Harrison-AAS, 37-41. Schuchhardt-Gnomon(1958), 485. Thompson-Hesperia(1948), 174-175.

This small head presents many problems in dating. It is about half life size and since it seems to large for a

metope, it may have belonged to the pediment of a small building. (Bookidis, 58) The head, which most likely originates from a scene representing one of the labors of Herakles, is tilted slightly downwards and slightly to his left, towards the rear of the pediment. Above the hidden left ear there are two pin holes. These holes were perhaps for the attachment of Herakles' club, which he swung with his right hand. With Herakles thus reconstructed, the club would have been largely blocked by his head. The right arm may have come across his chest. Since so little remains of this figure, it is difficult to know for certain the figure's pose. The exposed surface of the face is finished, the hidden surface is rougher.

This piece has been dated to the Archaic period due to stylistic similarities with the metope of Herakles and the Stag from the Athenian Treasury at Delphi. The hair of the heads and beards of both Herakles figures is beaded; they have similar moustaches, and they also share the same broad face. However, there are also contrasting differences which could designate this piece as being from another period.

Schuchhardt suggests that this pedimental piece is an Archaistic work. (Gnomon(1958), 485) He bases this theory on stylistic features which appear on the head, but are obviously not common in the Archaic period. Bookidis agrees

with Schuchhardt's conclusion that this piece is not Archaic, stating "the lion skin which Herakles wears on his head...is treated in a most illusionary manner, unparalleled in Archaic art." Harrison, however, is unwilling to admit this piece as Archaistic, noting that there are no other examples of such treatment in Archaistic works, and suggests either that this piece be held as an unparalleled example of Archaic work, or that it belongs to the Roman period, (it was found in Roman fill) placing on it a date of the third century A.D.

OLYMPIEION

OL-A

LION AND BULL

Figure 16

DATE: ca. 500-490 B.C.

FIND SITE: Peribolos of Olympieion. From unknown building. Half now in Metropolitan Museum of Art, New York; other half now in National Museum, Athens.

REMAINS: Two lions devouring a bull.

MATERIAL: Parian marble.

DIMENSIONS: Pres. Ht. 0,64 m. L. 1,42 m. Dep. 0,19 m.

BIBLIOGRAPHY: Bookidis, 54-55. Richter-Catalogue of Greek Sculpture in the Metropolitan Museum of Art.

This piece is comprised of two pieces, found roughly in the same site, yet at different times, and now located in different museums. When joined together they form the central section of a roof.

The figures are carved in high relief and the fragments are joined in the centre by anathyrosis. Like other lion and bull groups, this is composed of two lions which attack a bull, one from each side. The bodies of the lions are in profile while the heads are turned outwards.

This pedimental piece has been dated to the early fifth century on stylistic grounds, with strong reference to the lion and bull group from the Agora (AG-C) which is roughly contemporary.

NOTES: CHAPTER ONE

1. Bookidis, 11. However, Boardman identifies these symbols as a water symbol, corn, and a bird. (GSAP, fig. 193) I am not so certain of Boardman's identification, due to the fragmentary nature of the pieces.
2. Heberdey restores a running Nereid. (Heberdey, 52ff) Furtwängler suggests that this piece of drapery represents a human figure with an outstretched arm, while Buckner takes this to be the depiction of an attacking deity, a theory no others seem to agree with. (Dickins, 81) Both Boardman and Cook claim a figure of a man. (GSAP, fig. 192; Cook, 105) Ridgway placed a figure of Athena with an owl in this space. (ASGS, 199) See p. 74 for the discussion of Herakles and Geryon.
3. Schrader does not specify whether the pieces he places in "H 1" and "H 2" belong in one pediment or two. (Schrader-JDAI(1928), 78)
4. Dinsmoor does not venture a suggestion for the placement of this piece (6).
5. This group of divinities is present in vase painting depictions of this scene. A pyxis by Nikosthenes, (Florence, Museum 76931, from Orvieto; ABV 229,VII; Hoppin, 201; ABFV, fig. 153); and a cup by the Sosias Painter, (Berlin, Staatliche Museen 2278, from Vulci; ARV, 21.1; Pfuhl, fig 418; Richter-ARVS, fig. 45; Buschor-GV, frontispiece; ARFV, fig. 50.2) both show deities other than Zeus, Hera and Athena in attendance.
6. The François Vase (Florence, Museum 4209, from Chiusi; ABV 76,1; Para 29; Buschor-GV, figs. 89-90; ABFV, fig. 46) depicts several divinities standing before a fountain house while Achilles pursues Troilus; some of these are female. Another portrayal, this time by the Painter of London B 76 (London, British Museum 97.7-21.2; ARV 86,8; ARFV fig, 55) shows more or less the same scene. In this case the only female present is Troilus' sister, Polyxena, and the fountain house is smaller, not as elaborate a structure as the carved example. The fountain house on the vase is not roofed, and is perhaps only a fountain.
7. The François Vase. See n. 6.

8. Vatican Museums 344, from Vulci; ABV 145,13; Pfuhl, fig. 229-230; ABFV, fig. 100; and Boulogne, Museum 558; ABV 145,18; Pfuhl, fig. 234; ABFV, fig. 101.
9. However, Troilus is shown with only one horse in Tarquinia. (Moretti, fig. 30)
10. If this structure is indeed a temple, it is an anomaly, since there is no evidence of the building having any columns, either peripteral or in antis. Nevertheless, Ridgway suggests that the "tree engraved above the wall suggests that the latter (the building) may be the precinct for the sacred Olive Tree of Athena, with the 'fountain' a sort of predecessor of the Erechtheion." (ASGS, 203) She also states that this structure represents "the Pandroseion and a pre-Erechtheion," and suggests that the Hydrophoros may in fact be a caryatid. (ASGS, 204)
11. There are examples of this in the Archaic period; a temple is constructed and after an interval, its structure is remodelled or replaced with new pieces. For example, Boardman maintains that the pedimental works generally identified as coming from the Peisistratid Temple were actually new pieces for the Hekatompedon gables, funded by the Peisistratids. (GSAP, 155) Since there is no certain length for the Hekatompedon pediments, it is difficult to know whether the length of the Peisistratid pediments, (19,7 m.) was comparable, and thus, whether the Peisistratid pieces would fit into the Hekatompedon space. Another example is the Temple of Aphaia, where three, perhaps four, separate pediments exist for the decoration of one temple. The east pediment was discarded and replaced about fifteen years after the placement of the west pediment. (SSGS, 13) This pediment was actually set up on a base, along with an acroterion, within the sanctuary. (GSAP, 156)
12. Boardman also dates this piece to 540-530. (GSAP, fig 201)
13. Dimensions published are only for each individual fragment. No figure is published with complete dimensions. (Schrader-AMA, 378,384)
14. The suggestion that this giant may have been fighting Zeus raises a problem of hierarchy of scale. (See p.66, n. 8)

15. Although these animal figures are generally attributed to the west pediment, Ridgway places them in the east, suggesting that these figures may have served as an apotropaic symbol related to Athena (ASGS, 206).
16. Harrison, 31, does not offer a suggestion for the attachment of this figure as it is now preserved.
17. A depiction of this pose in sculpture from a statue base from Lamptrai. (GSAP, fig. 261) A few examples from vase painting are by the Lysippides/Andokides Painters from 530-515. See Cohen, Plate XIV 2 (A 15) from Pregny; Plate XVI 2 (A 17) from Zurich; and Plate XXVIII 1 (c 3) from a private Swiss collection.

CHAPTER TWOImportance of Figure Placement, Theme, and NarrationINTRODUCTION

The Greeks began constructing Doric temples of developed form before the end of the seventh century, and at least from this time, Greek artists had been considering pedimental space.¹ The Doric pediment required a double pitched temple roof which sloped downward from its apex until it met with the entablature to form a triangular space which included the tympanum and the raking cornice. This area provided a large empty space in one of the more dominant areas of the temple, between the top of the columns and the roof. This space needed some sort of decoration, something to visually attract the viewer, and also to give a visible indication of the dedication of the temple, or of the type of worship carried out in association with it.

The earliest decorated pediments were probably painted, and the earliest pediment from the Acropolis is painted, not carved. (Dickins, 14)² A temple from the early sixth century on the Acropolis, designated by Dinsmoor as Temple Aa, has the remains of a pediment with painted animals, with the scene executed in light colors on a dark background. (Dinsmoor, 71; Hopper, 145)³ However, even with such

contrast, this painting would not have projected the scene out towards the viewer. These scenes would not have been dominant enough to catch the eye of the viewer. Sculpture could stand out against the tympanum and give the scene a sense of three-dimensionality which a flat painted scene could not.

The placement of sculpture in the pedimental space did not prove to be as easy as merely painting a flat scene on the tympanum wall. Many problems occurred which had to be overcome before the sculptural decoration could fit comfortably within the pedimental space. The earliest example of the recognition of these problems and attempted solutions to some of them is found in the pedimental decoration on the Temple of Artemis on Corfu. The problems demonstrated in this temple, and subsequent attempts at solutions to some of them, may be traced throughout the Archaic Period. However, many of the solutions attempted were short lived. They proved to be only temporary modifications, used perhaps on one building, as more convincing solutions continued to be developed.

The triangular shape of the pedimental field presented the greatest problem for artists. They had never before worked consistently in an area of this shape, and to do so required different considerations and organization than did

shapes which were more easily worked, such as square metopes. Because of this triangular shape, available space was limited. The only space in which the artists could comfortably place large scale sculpture was the central area of the pediment, at the apex of the roof. This area afforded ample room for any figure in almost any position. However, the available space diminished towards the sloping corners, and the management of this space proved difficult for artists. Since the figures chosen had to fill these angles, artists were limited in their choice of subject in ways which did not apply to the centre space.

I PLACEMENT OF FIGURES

A. CENTRAL FIGURES

The centre section of the pediment usually housed the most important and often the largest figure. This figure would be the first to be seen by the approaching viewer, and should attract his attention, as well as in some way embodying the theme of the structure. Since the pediment closest to the east was the main approach, the central figure or scene of this side was doubly important.

A series of motifs existed at this time which seemed to have been popular for architectural decoration in Athens.

We know that these subjects were drawn from contemporary mythology, as they were depicted in other media, such as vase painting. (Dickins, 12) There is a great prevalence of scenes involving Herakles, as there also is on black figure vase painting. (Bury-Meiggs, 131) Herakles proved to be an admirable symbol to the Athenians, occupying the position of and intermediary between the gods and man. (Dickins, 30) His close connection with Athena also must have endeared him to the people of Athens.

1 Herakles

One of these scenes of Herakles which were so frequent at this time is shown in the Introduction Pediment (ACR-B). In this example, even though the scene is part of Herakles' myth, Herakles is not the most important figure. The figure of Zeus occupies the central space, and is the largest figure depicted. As Zeus is king of the gods, his importance would have been the artists' first consideration. Because the most important figure was usually placed in the centre of the pediment, it is natural that Zeus should occupy this space. Zeus is larger than the others, but since he is seated, this is not immediately noticeable. He sits with his head just to the left of the roof apex, facing the other figures, a commanding presence

in the scene. The eye of the viewer is immediately drawn to this figure, which befits Zeus' station.⁴

The Hydra Pediment (ACR-E) is another example of a depiction of the Herakles myth. Here, however, there is no doubt that Herakles is the central figure. He stands in the central area of the pedimental field, with his right arm brandishing his club. He fits neatly into the space and his head and his upraised arms fill the apex. With the high point of the roof gable to work with there was always the danger that artists would not be able to find a pose which would fill this area. The motif of the upraised arms was used occasionally to fill this triangular space.⁵

It cannot be stated with any certainty whether or not the Red Triton Pediment (ACR-D) included the central portion of a pediment. These figures could have covered the entire centre of a gable if the pediment was a small one. The figure of Herakles, who is known to have won the struggle with the Triton, is not placed in the middle of the pediment, but off to the right hand side. Triton's right hand is held up, and may have projected into the apex of the pediment; we cannot be certain. He is of a size far greater than Herakles, and was, perhaps, made so to emphasize the skill of Herakles, the small human figure, in overcoming such a gigantic beast.

The Head of Herakles from the Agora (AG-D) may also have been part of a central scene. However, since only the head remains, it does not seem possible to state its placement. Comparisons with other Herakles scenes would place it either in the centre or close by: the pin holes which may have held Herakles' club would indicate a central figure of Herakles' swinging his club. His upraised arm and the club would fill the apex of the pediment, and such a configuration would be in keeping with other central figures in similar positions.

The fragment of a man and a lion's paw (AG-B) is another one of which little is known. Like Ag-D, it may be another portrayal of Herakles. However, since Herakles' body has been reconstructed as kneeling and extending to the left, it would not appear likely that this piece occupied the central and most important position, unless this was a very small pediment.

2 Other Mythological Scenes

Without a clear interpretation of the Olive Tree Pediment (ACR-F), it is difficult to state which of the human figures is dominant. We have only the incomplete composition to work from, and only one human figure is anywhere near complete. The centre is filled by the

structure sometimes referred to as the fountain house. Placement of this structure in the centre of the pediment would logically draw attention to it as the focal point of the scene.⁶ It is certainly the building which first catches the viewer's attention, not the female figures in front of it, or the relief leg and olive tree. The artist surely must have known that placing this building in the centre would attract the viewer's eye first, and if this is the case, he must have had a good reason for placing this structure as he did. This is not accidental placement, as the structure stands solidly in the centre of the pedimental field, with remains of the roof gable above it.⁷

Although this building occupies the centre of the pediment, the figure standing in its doorway is not the largest human figure in the scene. The remains of a female figure now placed to the right of the structure show her to be larger than the central female. However, the central figure had to be made smaller in order for her to fit within the doorway. The second female had no such restrictions.

The east pediment of the Peisistratid Temple of Athena (ACR-H) clearly shows a central, and obviously most important figure. The figure of Athena is very tall, and is believed to have stood slightly to the left of the centre. Because this figure is standing, and is made even taller by

her upraised arm, she fits most convincingly in this position. This becomes a problem when the questions arise: was Zeus present, and if so, where? (See p. 38, n. 14)⁸ However, given the length of this pediment, 19,7 m., it is possible that Zeus may have shared the centre space with Athena.⁹ Athena has been reconstructed to stand slightly to the left of centre, and this may have left room for Zeus, who would stand slightly to the right of centre. This suggestion becomes more attractive when it is considered that the giant formerly lying at Athena's feet has been moved further to the right, leaving room for the insertion of another figure, perhaps Zeus.¹⁰

3 Animal Groups

Another type of scene popular at this time for central placement was scenes of animals. Groups of two or three animals, usually two lions attacking either a boar or a bull, were roughly symmetrically positioned in the centre space. The power and might of Athens was perhaps symbolized in the ferocious beasts. (Dickins, 30) The victim is either still standing, having just been attacked; or fallen, with the lions devouring it. The lions are most frequently depicted to either side of the victim, symmetrically positioned with their bodies in profile and their heads turned outwards. The figures are large, and the heads of

the lions, always held above that of the victim, adequately fill out the apex of the triangular frame. The heads of the victims are usually tucked under the attacking lions' heads. The composition for such groups is roughly triangular.

Many of these animal groups are similar in style and composition, such as ACR-A-2, ACR-A-4, AG-C and OL-A. These examples would appear to be the most usual type of portrayal, although variations exist. The lionesses and bull (ACR-A-5) may represent one deviation in composition. Little remains of this lioness' mate, (See p. 1) but as he is reconstructed by Heberdey, he would have stood opposite the lioness, not involved in her attack on the bull. (Heberdey, 84) To have an animal so uninvolved in such a ferocious scene is out of the ordinary, and this may perhaps give rise to speculation about Heberdey's reconstruction. If his reconstruction is correct, this scene offers an unusual composition indeed.

There is also one example which in its fragmentary state portrays only two animals, as opposed to the usual three. This piece (ACR-C) shows the two animals, a lion and a boar, in a scene of confrontation, facing each other, rather than the usual scene of attack.¹¹ The central placement of this group is in doubt, depending upon whether one believes Heberdey or Buschor to be correct. (See p. 4)

Unfortunately, with so little preserved, and no concrete knowledge of these fragments, it is difficult to know for certain. The reconstructed composition offers no solutions, as this group could amply fill either the central position of a small temple pediment, or a side area of a larger one.

Artists had solved the placement of figures in the central triangular space of the pediment by using roughly triangular groups of figures, symmetrical animal groups, or standing or seated human figures with a head or upraised arms filling the apex of the roof. An extension of the same principle could be adopted for filling other areas of the pedimental field. Any space within the pediment was still triangular, though a differently shaped triangle, with height decreasing quickly towards the corners, and the placement of sculpture in this area proved difficult for artists.

B CORNER FIGURES

1. Animal Figures

The space to the immediate right and left of the centre was not a great problem. Figures could be easily fitted in, though their scale, pose and position had to allow for the sloping roof line. In early examples, such as the

Introduction Pediment (ACR-B), the right hand figures are simply made progressively shorter and smaller in size towards the angle. Because of this basic rule, in this instance, it is fairly easy to estimate the size of Athena, the figure most of whom is missing. The same scheme would presumably hold for the left hand side as well, with the procession figures diminishing into the corner. The composition of the Hydra Pediment (ACR-E) is similar to this. The figure of Iolaus is slightly smaller than Herakles, and fits into the space under the sloping roof. His chariot and horse also diminish in size according to available space.

The corners of the pediment were the most difficult to fill with sculpture because the available space was so limited. The triangular area was very low and needed figures which would accommodate that fact. In early examples, artists used creatures such as Typhon, (ACR-A-3), Triton (ACR-A-1), (ACR-D), and snakes (ACR-A-4) whose thin twisting bodies and snaky tails could taper into the corners. These pieces, from the Hekatompedon, all fit into corner spaces perfectly. If artists were working on a small pediment, the tails of lions or bulls would also provide sufficient fill for the corner spaces. This scheme was followed in Etruscan tomb painting.¹² However, there are no existing Greek examples of this, unless one of the animal

figures or groups from unknown structures did this: candidates would be the poorly preserved figures ACR-C, AG-A, AG-C, or OL-A.

2. Human Figures

The two fallen giants from the Peisistratid Temple of Athena (ACR-H-3,4) also fill the space, their fallen limbs outstretched into the corners. This motif of the fallen warrior--first seen as early as the Corfu temple--became popular in the later years of the Archaic period, as it was used in the pedimental decoration on the Temple of Aphaia on Aegina (GSAP, fig. 206), and on the pediments of the Megarian treasury (id, fig. 215) and perhaps the Temple of Apollo at Delphi. (id. fig. 203.1)

II SCALE

In the early stages of pedimental sculpture, scale was determined by the shape of the pediment. Artists were so concerned with fitting all the pieces together that they did not pay heed to the relation in size from one figure to another. In some early examples, the overall effect is almost absurd. Large figures take up the largest areas and small figures are fitted in wherever available space allows.

Artists had not yet developed poses and subjects which would allow for a uniform scale.

A glaring example of early lack of uniform scale is evident in the Corfu gable. The central Medusa takes up the entire centre section and is flanked by two tiny figures, Pegasus and Chrysaor. These figures are squeezed in beneath Medusa's wings. Even though they are Medusa's offspring, and should be smaller than she, they are still lacking in reasonable scale. They are depicted as small adults. The same phenomenon occurs in Birth of Athena scenes from around 550 onwards, in vase painting.¹³ The scenes in the corners, (the death of Priam and a dying giant in the left corner, Zeus striking down a giant, with another dying giant in the right angle), also display the same lack of overall uniform scale. Within each scene, the scale is consistent. However, there is too much of a difference in scale between these small groups and the large central figures to imagine what sort of coherent thematic and realistic relationship they bore to one another.

As time went on, artists began to find ways of filling the pedimental space without miniaturizing figures. The Hekatompedon pediments (ACR-A) do not exhibit as many problems of scale as do the Corfu gables. The scale of the human and half-human figures in the east pediment is

relatively consistent. The lion and bull group (ACR-A-2) in the centre, is of a much grander scale. The figure groups of Herakles and Triton (ACR-A-1) and the Typhon (ACR-A-3) are more or less the same scale, and fill spaces of similar sizes. This evenness of scale at the corners provides a nice balance for the whole pediment. However, if Beyer's reconstruction of these pediments is accepted (See pp. 10-11), the Hekatompedon gables present the same sort of lack of consistent scale as does the Corfu gable. Since there are no published measurements for the procession figures from the Introduction pediment (ACR-B-1), it is not possible to estimate their relation in size to the figures Beyer puts with them, the snake and the seated Zeus. Beyer's reconstructed new-born Athena would be the same small scale adult pictured in vase painting. (See n. 14) The other figures--the lion, Gorgon, lioness, the right hand figures from the Introduction Pediment, and the final snake--are also of strangely assorted sizes. This reconstruction, in addition to presenting figures of varied sizes, would also be extremely crowded. (See p. 10)

Other contemporary pedimental remains, such as the Lion and Boar pediment (ACR-C) and the Red Triton pediment (ACR-D) are simpler in composition, and thus do not seem to have great problems in scale. Too little is preserved from the Lion and Boar to adequately judge the scale between the

figures. The measurements from the preserved fragments are roughly comparable. (See p. 11) The figures of Herakles and Triton appear to be comparable in size; whether or not this is realistic, is not easy to say, since Triton is a mythical creature.

The Introduction Pediment (ACR-B) presents some problems; a degree of difficulty is introduced when seated figures are portrayed. Of course, hierarchy of proportion is to be considered, but Zeus is still substantially larger than many of the other figures. If he had stood up, he would be enormous. However, Hera is slightly smaller than Zeus; her size has been reduced, perhaps because she is female. She is seated at the same level and her body rises almost to the same level as that of Zeus. The advancing figures of Athena, Herakles and Iris/Hermes accommodate their diminishing spaces, but no overall sense of uniform scale is perceived.¹⁴ Very little can be known about the figures from the left hand side, as little is preserved. It would seem logical to assume that their size would as diminished with the available space.

A fine example of the continuing management of scale comes in the Hydra Pediment (ACR-E). All the figures are in symbolic proportion, but not in anatomical proportion to each other. Iolaus is smaller than Herakles, perhaps

because he is younger, perhaps because he is a mortal rather than a hero, and perhaps because he is less important in the scene.

The only problem of scale in this piece comes with the horse which pulls Iolaus' chariot. It is simply too small for the scene. The artist has not been able to continue with his proportionally balanced scene, as his main concern at this point in the carving was fitting in the horse. The horse's bowed head is evidence enough that the artist realized the problem of space. (See p. 43) The crab in the corner is of a reasonable size, evident to those who knew the myth of Hera and the giant crab. (See p. 17)

Scale in the Olive Tree pediment appears to present a few problems. The preserved complete figure is in believable scale compared to the building, provided the building is a small one. However, although this building occupies the centre of the pediment, the figure standing in its doorway is not the largest human figure in the scene. The remains of a female figure which stood to the right of the structure show her to be larger than the central female. However, the central figure had to be made smaller in order for her to fit within the doorway. The second female had no such restrictions. It is possible that this second female is Polyxena, Troilus' sister, who is often shown as present

at the ambush, getting water from the fountain. (See fig. 23) The fact that this second figure is larger than the central figure may be explained by hierarchy of proportion. If this second figure is indeed Polyxena, she is more important, and therefore, should be larger than the other female, who may be just a serving girl. Since much of the gable is missing, modern scholars are not able to judge whether this acknowledgement of scale would have been consistent throughout the entire gable.

The same holds true for the pedimental remains of satyrs and maenads (ACR-G). Too little is preserved to know if the entire gable was filled with figures of a size comparable to the preserved figures.

A wonderful example of this growing attention to naturalistic scale along with improved control of the pedimental space, emerges in the Peisistratid Temple of Athena (ACR-H). In this gable, all figures are portrayed as being the same size and they are not inhibited by the space which encloses them. Instead of diminishing the size of the figures in order that they would fit within the corner spaces, the artists have instead experimented with pose, with great success. (See p. 26)

This movement towards a uniform scale and the use of

pose to achieve it may be seen as a part of the overall development towards realism and naturalism in art in the later Archaic period. Figures are no longer forced into unusual spaces, and consistency of scale has begun to develop.

III THEMATIC UNITY AND NARRATION

It was no longer enough simply to fit the sculpted pieces into available space. After early experiments with multiple themes (Corfu, the Hekatompedon), artists began to attempt a single theme within a gable, a theme which would provide enough elements of a story for immediate comprehension of the scene by the viewer. The dominating centre figure remained the most important, but instead of stating one myth, with no obvious relation to the other figures in the gable who portrayed other unrelated scenes, the centre figures began to be involved with the scenes on either side. Moreover, all extraneous figures were eliminated, leaving only figures directly involved with the single myth depicted. (Borst, 73) This is in complete contrast from the Temple at Corfu with its mixture of apparently unrelated mythical scenes.

With this development of a unified theme came an interest in narration. The figures are now placed in an

order logical to the story, and they begin to interact physically with each other rather than remaining in their own spaces. The figures or figure groups had each previously acted out its own scene in one area of the pedimental field according to where the artist was able to put them. This had rendered them thematically and physically isolated from other scenes. However, they were not involved in a unifying pattern of theme and narration.

The Hekatompedon (following Dinsmoor's reconstruction, p. 6) is a good example of the early lack of thematic unity --or of unity perceptible to the modern scholar. The central groups of animals in both pediments (ACR-A-2) may be seen as apotropaic symbols, but this theme is not carried into any of the other figure groups. There are "abrupt transitions between apparently unrelated subjects." (GSAP, 152) Since the interpretation of some of these groups is in doubt, it is particularly difficult for the modern viewer to see any thematic unity among these pieces. There is no evident narrative, as each figure group is self-contained. The Herakles and Triton (ACR-A-1) from the east pediment works well within the corner space, but is in an isolated myth involving Herakles. The action of this group, as preserved, stops with the edge of Triton's shoulder and his torso line, not extending further towards the centre of the pediment. The same closeness of composition is noted in the

Typhon group from the same pediment (ACR-A-3). Two of the three heads face towards the centre, but unless there existed a now missing figure facing these heads, they look towards nothing, except the central animal group.¹⁵ A visual situation is set up by the direction of the heads, but apparently nothing is done with it: there is no evident thematic connection.

The west pediment is also in the same vein. The snakes are a convenient device physically; but modern scholars are at a loss to explain any threads of thematic continuity which these snakes may have offered. The central group of the lioness and bull (ACR-A-5) does not help clarify this matter. It may be suggested that all of these groups contained relevance to a single theme which has since been lost, such as seeing these animals as luck-bringing or apotropaic. If this were the case, some sort of thematic unity may have existed. Nevertheless, there still remains a lot to be desired as far as narrative aspects go, as there is no myth self-evident in the preserved figures, and none has yet been recovered. Once again, Beyer's reconstruction of the Hekatompedon must be mentioned. If his reconstruction is valid, it then presents the most jumbled series of figures known from the pedimental remains of this period. There does not appear to be any sort of thematic

relation from the animals interspersed with the Introduction scene, the Birth of Athena scene, and the Gorgon.

The Introduction Pediment (ACR-B), probably no more than ten years later than the Hekatompedon pediments, exhibits the beginning of a narrative style, as well as offering a solid definition of a single cohesive subject. Although the scale is not uniform in this work, the theme is easily understood; the narrative has succeeded. Zeus sits facing the right hand side of the gable, and with the exception of Hera, all other figures would have faced him. All of the figures depicted are actively involved in the myth, and no space is wasted on superfluous figures or actions. All of the figures on the right hand side, except Hera, were probably linked visually by eye contact with Zeus. Hera is the only figure which, though necessary to the scene, seems cut off from the rest of the figures by virtue of her pose; and even her comparative separateness has a thematic purpose, a purpose in keeping with the myth. (ASGS, 202)¹⁶ Although this side of the gable appears a bit heavy, especially since it includes two seated figures, it would have been balanced out by the procession of figures from the left hand side. Without more remains of the figures, we cannot know their exact positions, and therefore, their possible physical interactions with each other.

Fully developed thematic unity is exhibited in the Hydra Pediment (ACR-E). In this example, a single myth is depicted, but unlike any previous examples, all the figures are connected by their actions, giving the work a tight composition and narrative. The Hydra emerges from the corner to face Herakles. Herakles, with raised club, approaches the Hydra. Behind Herakles stands Iolaus with horse and chariot. His head is turned completely backward to look at Herakles, and his horse has its nose down, poking at the giant crab in the corner. (ASGS, 202) Each figure connects with the next in a sequence which delivers the explanation of the action. (ASGS, 178) There is never an abrupt stop or change in the viewing of this scene; rather, there is a continuous flow of action. The story is neatly presented and easily understood.

Although only a few figures remain from the east pediment of the Peisistratid Temple of Athena (ACR-H), and the exact composition is as yet unclear, there is evidence of thematic unity, although little narration appears. (See pp. 27-28) I accept that all of these figures do belong to one pediment, as reconstructed by Schrader. (See p. 27) The isolated remains of feet do not indicate anything of their owners except that their positions denoted action. This would be consistent with the more fully preserved figures. The theme is the Gigantomachy, with Athena

appearing as the central figure. With no evidence of any figures not connected with this scene, it seems that the whole pediment showed a battle between giants and gods. There is no evident logical progression or sequence to the events portrayed. However, because this scene is so simple and immediately recognizable, there is little need for narrative. Probably, a single battle from the Gigantomachy was shown, though perhaps with two divine combatants, and not a sequence of events.¹⁷

CONCLUSION

A steady development of increasing competency in pedimental decoration may be traced from the physical remains of these pieces of Archaic pedimental sculpture. Artists were experimenting with various methods of fitting sculpture within this area. They tried working with various figure types and poses within different areas of the gable. It became clearer to artists which type of figures (standing, seated, reclining, either human, animal or mythical), best fit the available space. Along with these developments came an artistic interest in thematic continuity and narration. Comprehension of the gable decoration had become important: artists were not just decorating a prominent temple area, but were telling a story which meant something to the viewer.

The first consideration for artists was the placement of the sculpted figures. They managed without too much trouble to fill the central portions of the gable, but it took them longer to be comfortable with the corners, where available space diminished rapidly. Artists first used scenes diminished in size to fit the corners. Then they hit upon the use of mythical beings with snaky bodies and tails. This use continued until artists realized that human figures of realistic size and proportional to the other figures in the pediments, could be placed in the corners, if carved in a reclining position. Reclining figures in corner spaces are used in the Corfu temple but they are placed in head first with no regard for scale. When artists, later, developed a consistent scale between the figures, they were able to depict more realistic reclining humans to occupy corner spaces. By the time this occurred, artists were carving pedimental works in the round.

With this development of physical placement, artists began to modify their demands upon their figures, with a resultant uniformity of scale. Figures now rested in the pedimental field in a natural manner, and it was no longer necessary to diminish them in size to make them fit an awkward space. Along with this acknowledgement of uniform scale, artists also became aware of hierarchy of proportion. When an important figure, such as Zeus or Athena, or even

Herakles, was to be present, artists would make sure that he or she was placed in the centre, the most important space. In most examples, all other figures are subordinate to this figure, and are made smaller, but the differences in size get less over time. Hierarchy of proportion seems to have been more important to the Greeks at this stage than was exact scale. However, artists were able to incorporate this into their works with such subtlety that it is rarely evident to the casual observer.

Another consideration for pedimental sculptors was thematic unity. The first clear example of thematic unity comes in the Introduction Pediment (ACR-B) from around 560-550. From this time on, artists seem to have considered this phenomenon when creating their works, as the Hydra Pediment (ACR-D), Satyrs and Maenads (ACR-G) and the Peisistratid Temple (ACR-H) show. From this time, there is a fairly consistent use of this principle, along with the introduction of narrative cohesion within the pieces. Artists were no longer satisfied with haphazard placement of figures, but began presenting their stories with the intention of exhibiting a scene clear in meaning and understandable to the viewer.

NOTES: CHAPTER TWO

1. The earliest example of sculptural decoration in a Doric pediment comes from Corfu. (Dinsmoor, 51)
2. Ridgway theorizes that this temple may not even be Archaic and considers it the latest of the Acropolis temples (ASGS, 202). However, since she makes no mention of why she makes this assumption, I am inclined to take Dinsmoor and Dickens more seriously than Ridgway.
3. Many of the early examples of Etruscan Tomb Painting also carry painted animal scenes on their gables, such as the Tomb of the Lotus (Moretti, figs. 28-29), the Tomb of the Bulls (Pallottino, 29), the Tomb of the Augurs (Pallottino, 37), the Tomb of the Lionesses (Pallottino, 54), and the Tomb of the Baron (Pallottino, 55). A difference in these Etruscan painted examples is the presence of the king post, which often physically and visually breaks up the centre of the gable, coming directly in the middle of the confrontation scene depicted.
4. See pp. 46-47. As previously noted, this is an example of hierarchy of proportion.
5. Athena (ACR-H-1) has a raised arm with spear; Triton (ACR-D) also raises an arm, although it is not known whether it extended into the centre of the pediment. See p. 16.
6. The placement of the building in the centre of the pediment perhaps reinforces the interpretation of the scene as that of the Ambush of Troilus if the building is a fountain house. However, without a certain identification of the building, it is not easy to say.
7. The fountain house in the Ambush of Troilus scenes in vase painting does not appear to dominate the scene the way it does in this pedimental work. A Neck Amphora by the Painter of London B76 shows a fountain, not a fountain house, but it is secondary to the figures involved in the action. (London, British Museum 97.7-21.2; ABV 86,8; ABFV, fig. 55) The depiction of this scene on the François Vase (Florence, Museum 4209, from Chiusi; ABV, 76, 1; Para 29; ABFV, fig. 46) shows the

fountain house as not dominant at all. The main focus is on the characters themselves and the fountain house is painted under the handle, in an unobtrusive place. One has to look through the entire scene of figures to get to the fountain house. The Tomb of the Bulls from Tarquinia, and the neck amphora by the Painter of London B 76, both have the fountain house (or just a fountain, in the case of the Etruscan painting) as part of the scene. (Pallottino, 31) However, these structures are also part of the action, providing a hiding place for the waiting Achilles.

8. The theory becomes a problem because of the common use at this period of hierarchy of proportion. Zeus, as king of the gods, would be expected to be portrayed as larger and more magnificent than any other figures. Logically, if included, he should also occupy the central and most important area of the pediment, as he does in the Introduction Pediment (ACR-B). However, in the reconstructed Peisistratid gable, Athena, the only identifiable divine figure, has been placed in the centre. If Zeus were indeed included in the scene, it would seem proper to place him in the centre, perhaps moving Athena to the right or left. Indeed, Payne considers that in reconstruction "the figure of Athena seems too tall and might have been made several inches shorter." (Payne, 53) Perhaps a new reconstruction may be in order, but this would prove difficult without further preserved evidence.
9. See p. 43. Given Boardman's theory that these figures belong to the second remodelling of the Hekatompedon's pediments, we cannot be certain that the gable with the length of 19,7 m. is the correct pediment for these figures.
10. It may also be noted that both reconstructible gables from the Temple of Aphaia have central Athena figures, although Zeus does not appear in these pediments. It is possible that Zeus was also not depicted in the Peisistratid pediment.
11. This scene of confrontation also has parallels in Etruscan tomb painting, for example, in the Tomb of the Lionesses where a lion and a leopard confront each other over the king post. There is no central animal present in this composition. (Pallottino, 43) See also n. 3.
12. This motif occurs frequently in Etruscan tomb painting and it is possible that it also may have been used in Attic pedimental decoration. The Tomb of the Lotus

(Moretti, figs. 28-29) shows two felines whose tails extend to fill the corner spaces. The same motif is used in the Tomb of the Bulls with a bull and a winged lions (Pallottino, 29); the Tomb of the Augurs shows a lion and a leopard (id, 37); the Tomb of the Lionesses, with two panthers (id, 43); the Tomb of the Bacchants (id, 54) with a lion (although in this example, the body of the lion also continued into the corner to fill this space); and the Tomb of the Baron, with the tails of sea horses (id, 55).

13. Compare the Birth of Athena scenes by the Phrynos Painter (London, British Museum B424, from Vulci; ABV 169,3; Hoppin, 315; ABFV, fig 123.1) and also by the Painter of the Nicosia Olpe (New York, Metropolitan Museum 06.1097; ABV 199.2; Para 197; Richter-Milne, fig 160; ABFV, fig 175). Athena, whom literature describes as emerging from the head of Zeus full-grown, is instead a much smaller figure than her father, portrayed as a scaled down adult.
14. Hierarchy of proportion has been adhered to in this case. Hera is noticeably smaller than Zeus, and Athena would have been the next advancing figure, slightly smaller, and then Herakles, smaller still than Athena, as he is only half divine. It is unfortunate that the figure of Athena is missing, and that her size may only be estimated from the space available for her figure.
15. Remains of a small figure lead some scholars to believe that another figure may have stood between Typhon and the central animal group. Ridgway suggest that it may have been Athena with an owl. (ASGS, 199) Boardman (GSAP, 192) suggests a male figure in this space. This space may also have been filled by a second figure of Herakles, if the three-bodied monster may in fact be identified as Geryon. (For the story, Graves, 132) However, Geryon is normally depicted with human legs. (Belly amphora by Exekias, Paris, Louvre F 53, from Vulci; ABV 136,49; Hoppin, 101; ABFV, fig 96; and a cup by Euphronios, Munich, Antikensammlungen 2620, from Vulci; ARV 16, 17; ARFV, fig. 26) Although it would be somewhat surprising to find a Geryon with a snaky tail, it may not be impossible, as a variant. For example, the depiction of the centaur changes from the Geometric and early Archaic period, a man with a horse attached to his buttocks, to the Severe and Classical period where a centaur is represented as a horse with a man's torso replacing his neck. (Kantharos by the Sokles Painter, Berlin, Staatliche Museen 1737, from Vulci; Para 72; ABFV, fig. 122; and the later Kalpis by the Leningrad Painter, London, British Museum 1920.3-

- 15.3, from Capua; ARV 571,79; ARFV, fig. 326) If this were the case, this pediment would provide an interesting narration for two of the deeds of Herakles. Later narrative depictions of Theseus on red figure vases show the same technique; one scene with the hero and adversary is portrayed, and then another, repeating the figure of the hero.
16. Her pose is also somewhat determined by the scene since Hera is not completely in favor of Herakles' apotheosis, but is just giving in and must be persuaded. Therefore, her pose, which sets her off from the other figures in the scene, is in keeping with the myth portrayed. (For the jealousy of Hera, see Graves, 119)
17. See p. 66, n. 8 for a discussion of the problems which arise when Zeus is placed within this scene.

CHAPTER THREE: OPTICAL CORRECTIONS AND PERSPECTIVEINTRODUCTION

The existence of optical corrections in Archaic pedimental sculpture is somewhat of a problem for modern scholars. Modern scholars are not able to view the sculptures in situ, as they were meant to be viewed. We are only able to work from an eye level viewpoint, or from photographs, which are generally taken from eye level position. For this reason, it is difficult to confirm the existence of any optical problems which may have arisen while the pieces were being carved for pedimental placement. The pedimental works, when viewed at eye level in a museum, appear to be optically correct. There seem to be only problems of a physical nature, due to the forcing of large figures into the triangular pedimental area. (See Ch. II) There is no clear evidence that any optical corrections have been made (See p. 119).

This lack of evident optical refinements seems surprising. These pieces were carved at eye level for viewing twenty-five to thirty feet above the viewer's head. (Dinsmoor, "A Chronological List of Greek Temples," following 340) According to the modern interpretation of perspective, a change in visual perception would result when

these pieces were set in place. They ought to look different from twenty-five to thirty feet below, to what they would look like at eye level. Therefore, it would seem logical that optical adjustments would have to be made in order for the viewer to comprehend the pedimental sculptures just as fully in their high setting as at eye level.

The main principle behind these possible optical adjustments is perspective. Whether or not the Greeks attempted any such corrections would have depended largely upon their understanding of what moderns call perspective. It was not required that Greek artists know this word, or even the rules behind it. As Richter notes, "a perspective drawing can be produced merely by correct observation by an artist looking in one direction from one point of sight without any knowledge of the laws underlying this phenomenon." (Richter-Perspective in Greek and Roman Art, 2) It is doubtful that Greek artists had a scientific knowledge of perspective, but it is evident that artists were using the basic principles of perspective. The Greeks were able to make optical corrections using their eyes and logic. In this way, drawings that appear on vases which have been adjusted so that the image seen by the viewer on the vase is optically coherent as representing a three-dimensional object. This interest in presenting optically corrected depictions indicates some consideration by artists of

optical problems and also some attempts to resolve them.

However, the evidence in Archaic sculpture is not as readily accessible as are those examples in vase painting. It is harder to identify optical corrections in architectural sculpture, than in vase painting. Optical corrections frequently appear in vase painting and sometimes in relief sculpture, and the principles of perspective which have been applied to them are identifiable. This is not the case in pedimental sculpture. Few of the preserved examples of Archaic pedimental sculpture display any similar use of perspective. What is visually identifiable in one medium is not so readily detectable in the other.

However, there is evidence of elements of perspective in pedimental sculpture from the Archaic period, even when examined at eye level. In order to better understand the application of perspective principles in pedimental sculpture, it may prove useful to examine both contemporary vase painting and contemporary relief sculpture. The key to the use of perspective in Archaic vase painting lies in the application of foreshortening. It is this device which permits the artist to portray an object or a figure with optical corrections, as well as with an illusion of depth. It is the evidence of foreshortening which indicates the extent of ancient artists' working knowledge of perspective.

I SHIELDS

A. VASE PAINTING

During the earlier Archaic period, artists used foreshortening mainly for inanimate objects. Towards the end of the period, foreshortening was also used on human figures. The most frequent and easily identifiable of these examples of foreshortening of inanimate objects comes in the depiction of shields. A round shield is relatively easy to depict frontally, when one doesn't have to contend with the three-dimensionality of the convex shield. However, when this shield is depicted in profile, the three-dimensionality of the shield must be taken into account. One mid sixth century example of a frontal shield is on a cup by the C Painter.¹ In this depiction, the mounted warriors carry shields which are presented frontally, as a flat circle. However, an oinochoe by Lydos, somewhat later, shows the same type of shield, but here portrayed in profile.² There are four shields depicted on this vase, all in different positions; none frontal. On the left hand side of this depiction, Athena's shield is held almost vertically with the three-quarter view of the interior showing. The second and fourth shields are held at an angle by the warriors and are not purely profile, but three-quarter, with the convex curve of the shield realistically drawn and with the

interior detailed on the far side from the viewer. The third example is in profile, and is near horizontal; no interior parts are showing. In the examples where a three-quarter view is drawn, the outer edge is drawn in an optically correct manner; artists were quite capable of an exact representation of the shield through logical observation.³ The depictions have been optically corrected, to reproduce what is seen when a convex shield is turned to the side.⁴

These portrayals continued into the red figure period, appearing in both profile and frontal form. However, with red figure depictions, considerable development occurred. More advanced shield positions were introduced, such as the more than three-quarter view of a shield held by Athena on a cup by Oltos, and a later example by the Foundry Painter from around 480.⁵ (See fig. 24) The shield held by Athena on the Oltos cup shows more detail than usual, especially on the interior of the shield. The angle at which it is grasped and the exact curvature of the rim shows this as a particularly fine example.

The shield of Kyknos on the Oltos vase is also of note. It is a completely profile view, with now trace of the interior showing. The rim of this profile shield is curved and foreshortened realistically.

Artists portrayed the shields with the interior parts visible, as this strongly helped the purely perspective changes necessary when depicting a shield from any viewpoint other than frontal. It may be noted that it was far more difficult for the artist to show a three-quarter shield than a purely profile one. In the three-quarter example, the curve of the shield is already present, and just needs to be tilted into the appropriate angle. However the profile shield has two different lines, rather than the curve of the three-quarter view; the rim curves one way and the line of the top of the shield is another shape entirely.

A good indication of the range of the types of shield depictions comes on a cup and a volute crater, both by Euphronios.⁶ (See fig. 25) On the cup, two of the bodies of Geryon hold their shields frontally, overlapped to show depth. In contrast, the crater shows two advancing Amazons in more or less the same position as Geryon, but in this example, the innermost Amazon holds her shield frontally, but the other female holds hers in profile.

The frequency with which profile views of shields appear attests to the relative ease of conversion from front to side view. Shields may have proven less difficult to foreshorten because "the curves required to change the shield into a sharp three-quarter view are already visible

in the convex forward contours." (White, 21)

Another facet of optically corrected depictions of shields on vase painting comes in the portrayal of receding shields. By placing shields, or any object side by side, in an overlapping pattern, a sense of depth is established. This device was used as early as the seventh century for frontal shields. The Chigi Vase by the Macmillan Painter dated to around 650-640, shows a procession of warriors.⁷ All figures and shields are overlapped for the illusion of depth.⁸ Not all of these overlapping shields had to be held at the same angle. Amazons by the Andokides Painter provide one such example.⁹ In this instance, the shields are not completely parallel as on earlier examples, but appear to lean towards each other on their right hand edges. This device creates the illusion of depth.

From these examples, it is clear Archaic vase painters had a firm understanding of the basic principles of foreshortening. They were able to produce optically corrected versions of simple geometric shapes, such as the circle, and the more complex spherical sections which form the convex shield. Therefore, it would be logical to assume that since vase painters had the capabilities required to foreshorten when necessary, perhaps operating merely from careful observation, that contemporary sculptors would be

able to do likewise. However, this was not necessarily the case.

B. ARCHITECTURAL SCULPTURE

It is unfortunate, for the purposes of this study, that most examples of Archaic sculpted shields fall outside Athens, and therefore are not included in the catalogued works of Chapter I.¹⁰ Nevertheless, an examination of some of the existing shields in sculpture will still prove useful for an overall understanding of the use of perspective in the works which form the primary subject of this study.

Three of the better preserved Archaic monuments' sculpted shields will be examined: the friezes from the Siphnian treasury at Delphi, the metopes from the Athenian Treasury at Delphi, and the pediments from the Temple of Aphaia on Aegina.¹¹ Within these three structures the same development of foreshortening that was evident in vase painting may be found.

1. RELIEF SCULPTURE

a) The Siphnian Treasury

The relief friezes from the Siphnian Treasury, dated to 530-520, portray a Gigantomachy on the north side, and the gods in council and a Trojan battle on the east.¹² In both the Gigantomachy and the Trojan battle scenes shields are shown, as warranted by the subject matter. The shields in these friezes are carved frontally. The entire scene is one of great movement and action. However, the artist has continued to place his figures so that those figures bearing a shield should present their shields frontally. Granted, there are interior and exterior views presented, but no attempts at profile or three-quarter depictions appear to have been made. Any allusions to real depth are created not by foreshortening, but by the layering of figures, and the figures often carry overlapped frontal shields, such as the confronting giants on the north frieze.¹³

However, the Siphnian friezes are not completely without evidence of perspective corrections. The east frieze presents a chariot which has been optically adjusted, although these wheels are no longer preserved, having been added to the frieze, carved in bronze. (GSAP, fig. 214) Nevertheless, White has logically reconstructed these

wheels; they are foreshortened to produce a fine three-quarter view. (White, pl. 2 C) From this example, it seems that the artists of this frieze found the chariot an easier form to work with than the shield. The kind of apparent recession seen in the chariot from the Siphnian treasury does not appear in the frieze's depiction of shields. Part of this problem could be that in most scenes, only one chariot was required, whereas whenever a shield was depicted, chances were that many more were necessary, as in battle scenes. To portray this many shields in relief sculpture at different angles and positions, at the same time attempting to provide the illusion of depth, may have proven to much for these Archaic artists. It was easier for them to manipulate a number of relief shields frontally than in profile, which would have required foreshortening. Sculptors obviously had not yet acquired the knowledge of foreshortening required to depict shields in anything other than a frontal view if they wished to project them from and recede within the planes of the relief.

b) The Treasury of the Athenians

The metopes from the Treasury of the Athenians at Delphi, 500-490, also provide examples of relief carved shields. Even though these metopes were carved by Athenian artists, which is more in keeping with the object of this

study, the depictions are much the same as those seen on the more foreign Siphnian Treasury.

The metopes which depict the Amazonomachy and the labors of Herakles have shields preserved. Most of these shields are portrayed with flat interiors showing.¹⁴ However, unlike an Ionic frieze or a pediment, each metope contains only two figures, and there are no preserved remains which indicate both figures were armed with shields. Since both figures did not bear shields, this eliminates any possibility of creating the illusion of depth by overlapping shields. Moreover, as for the shields from the Siphnian Treasury, there is no real foreshortening, and there are no attempts at three-quarter or profile views.

However, the Athenian artists working on these metopes were still able to create apparent recession within their shallow working area. The result is a sense of depth created when a shield, held frontally, is partially blocked by one of the two figures, or even by both of them.

A metope showing the Amazonomachy has this device, although little is preserved. (GSAP, fig. 213, no. 11) The shield is held naturally, but is behind both figures, giving a suggestion of recession into the plane of the metope. The same thing happens in another of the Amazonomachy metopes

(id., no. 14) where the action of the two figures takes place in front of the shield. The metope containing Herakles against Kyknos shows more of the figures preserved than in the other two examples, and the same overlapping technique is observed, though only Kyknos is blocking the shield.¹⁵ (See fig. 18)

These three examples from the Athenian Treasury show Attic artists working in a small square area, and still being able to incorporate a feeling of depth into their works. However, there is no evidence of foreshortening as was observed in vase painting of shields. Artists are still depicting relief shields frontally, and these portrayals do not require foreshortening as they would if turned to the side.

2 SCULPTURE IN THE ROUND

a) The Temple of Aphaia

The Temple of Aphaia presents shields in a different medium, that of sculpture in the round, as opposed to the previous relief examples. With this change from relief work, many more possibilities for perspective are allowed the sculptor. In previous work, artists did not attempt to portray shields in any manner other than frontally, not yet

having found the principles of linear foreshortening for use in sculpture, or being unwilling to cope with the problems which this depiction presented. However, once sculpture in the round was introduced to pediments, the problems of portraying depth was physically present. This freedom from the confines of relief sculpture enabled artists to carve shields three-dimensionally, without worrying about the linear foreshortening necessary for relief examples.

The result of this development may be seen in the gables from the Temple of Aphaia. The scenes are Trojan battles, similar in content to the architectural sculpture from the Siphnian Treasury. The figures are involved in action, but now their shields are held in a variety of angles. Instead of having to draw the shield in profile and then optically adjust the view with foreshortening, the artist could now carve the shield naturally, as it would be held in real life. The shield did not require foreshortening, as the dimension of depth is present physically.

The evidence from the Temple of Aphaia, twenty to forty years after the Peisistratid temple, shows that artists were quick to make the change from relief work to sculpture in the round for pediments. With these changes, artists were able to abandon their previous attempts at linear

foreshortening, and could carve their figures three-dimensionally. The visual adjustments required with sculpture in the round could now easily be worked out in a naturalistic manner.

II THE HUMAN FIGURE

A VASE PAINTING

With their portrayals of the human figure, artists also displayed an understanding of perspective. As with depictions of inanimate objects, vase painters were able to draw optically correct human figures, through the application of foreshortening. A series of poses which involved foreshortening was developed.

From the beginning of black figure work, in the mid seventh century, a standard pose of human figures emerged. The figure stood with profile legs and head, but with a frontal torso.¹⁶ This pose rendered the figures as flat as the frontally depicted shields, avoiding depth of profile torsos and frontal faces. As previously noted, human figures were overlapped, as shields were, to produce a feeling of depth within an entire scene. However, this method was not applicable when the illusion of depth had to be given to just one figure. With the change from black

figure to red figure, around 530, artists gained more freedom in their linear drawing, and the use of foreshortening in human figures gradually came into frequent use.

The Pioneers, early in the red figure period, began moving the body away from the rigidity of the black figure profile legs/frontal torso motif. Because red figure painters could include greater internal detail through dilute slip lines and washes, they were able to denote the subtle anatomical details required when a body is twisted or turned. Their first change, around 500, was the turning of the frontal torso to a three-quarter view. This portrayal was then optically corrected by foreshortening the internal muscle patterns of the front or back torso.¹⁷ A stamnos by Smikros shows turned torsos.¹⁸ The chest muscles of the near frontal view have been adjusted through foreshortening. (ARFV, fig. 32.2)¹⁹ (See fig. 26) Another twisting figure occurs on the reverse of this pot. (ARFV, fig. 32.1) This figure has a profile torso, with foreshortened chest lines, which produces a realistic effect. (See fig. 27)

The other change in pose comes in seated or reclining figures. A psykter by Euphronios shows one form of this pose.²⁰ The frontal female raises her right leg while the left is bent back at the knee. Granted, the limbs are

depicted in full length, and no real foreshortening is used, but the sense of depth is captured. The hidden leg has to extend into the space behind her, and this recession suggests the third dimension. Another example of this device is shown in a fallen Greek in an Amazonomachy by Euphronios.²¹ A later depiction of this pose may be seen on a kalpis by the Kleophrades Painter.²² The right leg of Cassandra is bent back as she kneels. Her thigh is foreshortened with the inside of the leg shortened as it would appear in real life, in contrast to the other, more outstretched leg. The knee has been realistically worked, and the upper surface of the foot is drawn complete, with the toes bent.

Another example of the treatment of legs comes in a volute crater by Euphronios, which shows Herakles fighting Amazons.²³ In the figure of the Amazon standing in the right-hand side of the depiction, the left leg is extended, but the knee is bent towards the vase background. Many examples show bent legs projecting, but this leg is shown recessed; the sole of its foot is turned towards the viewer. Although this foot is too small for the rest of the body, the image of this bent leg is realistic, through foreshortening of the calf of the leg.

Feet are occasionally foreshortened in those examples where seated figures with one leg bent have the other extended, rather than tucked behind. A cup by the Sosias Painter showing Achilles and Patrokles is such an example.²⁴ Such foreshortened feet are shown frequently by the end of the sixth century. Another depiction of such a foot is shown on a neck amphora by the Kleophrades Painter.²⁵ In this case, the figure is standing, and the foot is placed flat and not extended as in earlier examples. A Proto-Panaitian cup shows another of these feet.²⁶ (See fig. 28) However, the foot, stuck out at a rather precarious angle, has not been correctly foreshortened, and this portrayal does not succeed in realistically depicting a foot in such a position. Showing the foot from this angle is realistic enough, but the toes are all drawn the same size, and the foot is a little too large overall, for the rest of the figure. Onesimos has better luck with a shod foot.²⁷ However, the toes of the woman portrayed in the same tondo suffer from the same problem as the youth in the Proto-Panaitian cup; they are all the same size, and slightly too large for the scale of the figure.

B ARCHITECTURAL SCULPTURE

1. RELIEF SCULPTURE

The development and use of foreshortening to produce optically correct depictions of the human figure in relief sculpture follow much the same progressions we have seen in vase painting. The same series of poses is adopted, and the devices used to obtain a sense of depth are similar. However, relief work has the added benefit of a real sense of three dimensions because the degree of carving is higher. This gives the figures a real physical depth and makes it easier for the artist to optically correct the figures through the principles of perspective.

Although many examples of optically adjusted human figures exist in architectural sculpture during the Archaic period, there are a few which are particularly noteworthy. Foreshortening for the purpose of correcting visual perceptions is found in the pediments of the Hekatompedon; the Introduction Pediment; and the metopes of the Treasury of the Athenians, in relief works. Examples in Archaic sculpture in the round come from the Peisistratid Temple of Athena; and the temple of Aphaia.

a) Hekatompedon

The figure from the Hekatompedon which best exhibits properties of optical corrections is probably the three-bodied Typhon. (ACR-A-3) Although the pieces are carved in relief, the three heads are carved in the round. The torsos joined just below the shoulders. The three bodies are seen at different angles. On the left hand figure, both the head and the body are in profile, but the body is turned to slightly less than a three-quarter view; the right hand figure has a head at a three-quarter frontal angle, with a torso which is almost frontal. The heads are carved as free-standing, in three full dimensions, thus avoiding the problem of having to deal with linear perspective and foreshortening.

The three bodies, however, which are all carved together, exhibit properties of foreshortening. The artist has successfully observed the turning of a chest, and the result of this motion on the arms. The forearms of the figures have been compressed because they are bent at the elbow and the correct proportions for this bending must be observed. The figures' visible shoulders, which overlap from one figure to the next, are also correctly depicted, foreshortened against the relief background.

The overlapping of these three torsos enhances the three-dimensionality of the figure group. The right hand figure is actually behind his neighbor, in a space deeper into the plane. The left hand figure appears to be slightly behind the middle figure as well, but turned towards the background relief wall. The twisting angles of the left and middle figures also helps imply the continuation of the tail in behind them; it does not appear to stop with the right hand torso. These elements of overlap aid with the appearance of three dimensionality for the entire figure group.

b) Introduction Pediment

The same sort of optical adjusting of the receding shoulder for a figure with a chest in a seven-eighths view is evident in the Introduction Pediment. (ACR-B) The degree of relief of the smaller figures in this piece is less than in the Hekatompedon figures. Ridgway states that "Hera, seated facing outward, is a good example of compression and foreshortening." (ASGS, 202) Hera's knees, although missing, must have been foreshortened to accommodate for her seated frontal pose; her legs would have protruded out past Zeus', had they not been compressed. Zeus is depicted seated, as he is not foreshortened, as his profile view did not necessitate any. Herakles, even in his ill-preserved

state, gives an indication that the artists also acknowledged perspective in the depiction of his figure. Even though he has the frontal torso--profile legs and head, his torso is turned; it is not purely frontal. Because of this slight change in pose from the ordinary, Herakles seems to stride forwards, leading with his right shoulder. His right shoulder and the right part of his upper chest are shortened as they lean into the relief background. If Herakles was portrayed frontally, his chest would have been slightly wider. Because of the poor state of preservation, it is difficult to judge the internal markings of Herakles' chest, which would have helped to indicate the extent of foreshortening.

c) The Treasury of the Athenians

The Treasury of the Athenians, from 500-490, with metopes carved by Athenian artists, is also included, as the metopes display human figures with a greater degree of perspective acknowledgment than any known previous relief works. Artists working on metopes had less space in which to work, than other architectural sculptors: these metopes were rectangles measuring about 0,67 X 0,63 m. Because of this limited working area, sculptors could not carve many figures into a metope. If they wished to portray figures in action, no more than two figures would fit into a metope.

The sculptors of these metopes, aware of these constraints, had to portray these two figures in poses which would fit into their limited working space. As a result, these metopal figures tend towards rather unusual poses. Figures lean in angles not seen before, and torsos and legs are bent into positions which required optical adjustments.

The artists of the Athenian Treasury metopes have virtually abandoned the former pose of the profile legs with frontal torsos; these figures are depicted in the manner in which the human body actually moves, rather than in a manner convenient to the artist. Even though these metopes are ill-preserved, with little remaining below the hips for most examples, a degree of foreshortening may be observed. The turning of the legs to a frontal position is an example of the degree of understanding of perspective possessed by these artists. Through foreshortening, the leg has been depicted frontally, and yet there are no visual problems evident.

The metope portraying Theseus and Antiope²⁸ gives an indication of the treatment of legs. Although the figures are preserved to just below the waist, the position which the legs would have taken is clear. Theseus' lower torso is frontal, and so would his right leg have been. His left leg, bent at the knee, would have been foreshortened. This

impression would have been necessary for the depiction of a leg which projected frontally out from the background.²⁹

Legs are not the only parts of the body corrected on these metopes. Torsos are turned slightly, in a seven-eighths view, and again, adjustments are made. The metope of Herakles and Kyknos shows a foreshortened chest.³⁰ (See fig. 18) Herakles has profile legs, but his torso is shifted slightly to the right, towards the centre of the metope. The detail of musculature in the lower torso area indicates turning even more than the upper chest, and is foreshortened across the abdomen. Although the figure of Kyknos is not preserved, indications from the position of the body are that similar adjustments would have been made for his figure.

It is unfortunate that these metopes are not better preserved, so that we could judge fully the renderings of features such as arms and feet, most of which are broken off. However, enough of the legs remains to notice that the same type of pose we have examined in vase painting, that of one leg bent back under the other, is evident in these metopal figures. This bent leg may be seen in the metope of Herakles and the stag.³¹ (See fig. 17) Herakles' left leg is pulled up under his body which curves around it. The connection between the flat side of the profile leg and the

frontal torso is good and the lower torso is foreshortened with the bending waist. The calf and foot of the bent leg are anatomically correct.

2. SCULPTURE IN THE ROUND

a) Peisistratid Temple of Athena

Like the turned shield, the human figure is easier to portray when the third dimension is fully present, as it is in sculpture in the round. The figures from the east pediment of the Peisistratid Temple, around 520, (ACR-H) are examples of the human body portrayed in the round; they are correctly carved, and there appears to have been no need for foreshortening.

The two corner giants, (ACR-H-3,4) take a pose familiar from vase painting and relief sculpture, kneeling on the inner knee with the outside knee extended. The legs are portrayed in profile and there does not appear to be any need to carve them otherwise; no problems result with the carving of these legs which would necessitate optical corrections. The bent leg, however, has been carefully considered. These legs are shown in all three dimensions, and the changes to the musculature which would result when a leg is bent, are observed. The upper torsos of these two

giants display a slight turning of the shoulders and arms. There is no need to apply foreshortening to either of these figures. Like the three-dimensional portrayals of shields, the human figure may be carved completely in the round, and the presence of actual depth makes foreshortening unnecessary.

The reclining giant (ACR-H-2) is in a different position, but the physical changes required for bent legs seen in the two corner giants may also be observed in this giant. (Schrader, fig. 410) There is great torsion of the shoulders and chest. However, the artist was not able to fully grasp the carving of a three-quarter chest, as the upper part is entirely frontal, while the lower half is twisted. This results in an awkward depiction and the portrayal is not entirely realistic. The lower torso is anatomically correct, twisting in accordance with the torsion of the hips and legs. However, the upper chest is entirely frontal, and there is no anatomical explanation given for this change from three-quarter to frontal view. It is physically impossible for a human body to be in such a position.

b) The Temple of Aphaia

The successful attempts at depicting a turning torso,

the two corner giants from the Peisistratid Temple, are clear predecessors to these pedimental figures. This temple is not strictly an Attic work, but is Aeginetan. (GSAP, 156-7) Nevertheless, it has strong affinities with Attic works, such as the similarities between the central Athena from the west pediment and the Athena with Theseus metope from the Athenian treasury at Delphi. (SSGS, 15), as well as "forerunners of Aeginetans found in the few preserved figures from the Peisistratid Temple in Athens." (SSGS, 17) The gables of the Aegina temple display figures in many different poses, and all with believable anatomy. Since these figures are carved in the round, again, there is no need for linear foreshortening. However, correct observation by the artist played an important part in a physically exact portrayal.

The earlier west pediment, around 500-490, like the Peisistratid Temple, displays fallen figures. The warrior from the right corner has an almost frontal chest, but he lies on his side, in the act of turning his torso.³² (See fig. 20) The internal detailing of his chest, which indicates this motion, is exact. However, the artist seems to have had some difficulty with the legs. The lower torso and hips are depicted frontally, instead of the more natural three-quarter view which one would expect with the upper torso in such a position. From this pose, it appears that

this warrior, after having fallen in battle, is trying to raise himself up, using his right leg and right arm. The frontal left leg is a great success. However, there is an unnaturally deep portion at the top of the right leg, between the thigh proper and the waist.

In comparison, a fallen warrior from the east pediment, around 480-470, attempts almost the same pose. (See fig. 19) There is no attempt to represent the torsion of the hips which would naturally accompany the pose of the torso and the shoulders. The upper torso is turned in the direction which the warrior leans, in contrast to the full frontal chest of the west warrior. However, the waist portion of this figure is almost the same as in the earlier figure; after the turning chest, the waist area is near frontal, which is not anatomically believable. The deep portion evident in the west warrior has been properly handled, and the legs follow the pose set up by the lower torso. However, these legs are not fully compatible with the torso. As two separate portions, the chest and shoulders, and lower torso and legs, this figure is optically correct; the problem lies in the connecting waist area, which is rendered no better than in the earlier example.

CONCLUSION

This chapter has attempted to address the problems of optical changes necessitated by the placement of the pedimental works far above the viewer's head. Unfortunately, this intended viewpoint is not possible today, and scholars must resign themselves to eye level views. Because of this, there is no way of telling what type of adjustments might have been made by the sculptor. Moreover, none of the preserved pieces exhibits any evidence of such changes. Therefore, the modern scholar is able only to consider the visual changes seen at eye level.

Vase painting gives a good indication of the knowledge Greek artists of this period had of perspective, since vase painters were up against many of the same problems as those encountered by relief sculptors. In order to portray a human figure or an inanimate object so that it looked right, the painter had to acknowledge the basic principles of perspective.

Relief sculpture also gives an indication of optical adjustments. The same principles used in vase painting were applied in relief sculpture; the use of perspective is evident.

The main force behind these adjustments was the application of linear foreshortening. The image had to be given a sense of three-dimensionality in order to be optically correct; both vase painting and relief sculpture slowly began to make use of this. Inanimate objects such as shields and chariots were depicted with foreshortening, and a sense of projection and recession resulted. The same principles were applied to the human figure, but with more freedom, given the wider range of figure poses. In this way, relief works were adjusted to be optically correct, at least to the view at eye level. There is no evidence of any corrections beyond this use of foreshortening for a realistic three-dimensional presentation. Sculpture in the round did not have any of these problems because the third dimension was physically present and artists were able to work within it, and did not have to imply depth by linear foreshortening.

Pedimental sculpture, both relief and free standing, appears optically correct when viewed at eye level. From the evidence at hand, it appears that artists seemed to be concerned with realistic interpretations of their scenes, which necessitated physically correct figures and objects, as well as an illusion of depth.

The works examined in this chapter have given an

indication of how much Archaic vase painters, and relief sculptors, were able to do with linear perspective. The application of foreshortening was one solution attempted, and it shows the ability of artists to visually adjust what they were painting or carving, so that the finished image would be optically correct. There was a lot Archaic artists did not know about perspective, but the works produced in this period do acknowledge some thought towards its use. The principle way in which pedimental artists got around the illusion of depth was to move towards using figures carved in the round in pediments. Artists had discovered that the optical corrections they applied to relief works were not needed in free standing works.

NOTES: CHAPTER THREE

1. London, British Museum B 380, from Siana; ABV 55, 91; ABFV, fig. 35.
2. Berlin, Staatliche Museum 1732, from Vulci; ABV 110, 37; CVA, pl. 8,1; JHS (5) 43; ABFV, fig 68.
3. Other objects which were frequently presented with a degree of foreshortening were sails and chariots. A cup by Exekias shows a foreshortened sail. (Munich, Antikensammlungen 2024; ABV 146, 21; White, pl. 3a; ABFV, fig. 104.3; Richter-HGA, fig. 45) "The impression of foreshortening is created by the curves which flow from the attachment of the halyards to the stem half of the ship and its vividness is accentuated by the brilliant device of the wind-scalloped new moon canvas seen from the other side, which the artist adds upon the left."(White, 21) A foreshortened chariot may be seen on a neck amphora by a painter of the Class of Cabinet des Medailles 218, Paris, Louvre F 115; ABV 319, 4; CVA pl. 37, 10-11, 14-15; White, pl. 2a.
4. The linear depiction of shields may be noted in five vases in which the same scene appears; Ajax and Achilles playing a board game. Exekias, Vatican Museums 344, from Vulci; ABV 145, 13; Pfuhl, fig. 229-230; Richter-GA, fig. 446, ABFV, fig. 100. The Lysippides Painter, London, British Museum B 211; ABV 256, 14; CVA pl. 49,3; Cohen, pl. VI 1 (A9). The Andokides/Lysippides Painters, Boston, Museum of Fine Arts 01.8037; Cohen, pl. VII 2-3 (B1). The Lysippides Painter, London, British Museum B 193; ARV 4,8; CVA, pl. 1; Cohen pl. XVI 1 (B5). In most of these paintings, the shields lean away from the heroes, and are shown in profile. The Lysippides Painter (Cohen, pl. VII, 2-3 (B1)) depicts a frontal shield. However, all of the examples are realistically portrayed.
5. London, British Museum E 8; ARV 63, 88; Murray, no. 5; The Art Bulletin (19) 547); ARFV, fig. 65; and Munich, Antikensammlungen 2640, from Vulci; ARV 402, 22; Buschor-GV, 160; Pfuhl, 403; Lullies, pl. 80; ARFV, fig. 268.
6. Munich, Antikensammlungen 2620, from Vulci; ARV 16,17; ARFV, fig. 26.2 and Arezzo, Museo Civico 1465; ARV 15,6; Pfuhl, fig. 395; ARFV, fig. 29.

7. Rome, Villa Giulia 22697; Cook, pl. 7c.
8. Examples of this overlapping technique are as follows: Amphora by Exekias, Paris, Louvre F 53, from Vulci; ARV 136, 49; Hoppin, 101; CVA pl. 11, 19-20; ABFV, fig. 96; amphora by Antimenes Painter, Brussels, Musee Royaux B 291; ARV 270, 52; CVA pl. 8,1; ABFV, fig. 187; cup by the Wraith Painter, Oxford, Ashmolean Museum 1966.954; Para 86,8 bis; ABFV, fig. 174; cup by the Lysippides Painter, London, British Museum B 426; Cohen, pl. XIII 1 (A 13).
9. Orvieto, Faina Museum 64; ARV 3,5; Buschor-GV, 136; Cohen, pl. XXXI 2 (C 5).
10. The subject matter of Athenian pedimental examples does not allow for the use of shields, except in the Peisistratid Temple (ACR-H). Although much of the figure is lost, the reclining giant (ACR-H-2) apparently supported himself by a shield on his left arm. (Dickins, 91) However, not enough of this is preserved to judge the treatment of the shield.
11. Similar frontal depictions exist on shields found on the pediments from the Megarian treasury at Olympia. (GSAP, fig. 215.1,2)
12. Richter-GA, 90; GSAP, figs. 212.1,2; Lullies, GS, fig. 48, 50-51, 53-55.
13. Charbonneaux-GA, fig. 330; GSAP, fig. 213.
14. GSAP, fig. 213.
15. Charbonneaux-GA, fig. 330; GSAP, fig. 213, no. 21.
16. This pose was modified for figures such as Gorgons or satyr, where a frontal face would be included in the portrayal. See a dinos by the Gorgon Painter, Louvre E 874; ABV 8,1; ABFV, fig. 11.
17. Pyxis lid by the Thaliarchos Painter, Paris, Petit Palais 382, from Orvieto; ARV 81,1; CVA pl. 21.1,2; ARFV, fig. 81.
18. Brussels, Musee Royaux A 717; ARV 21,1; Hoppin, 417; Pfuhl, fig. 388; Buschor-GC, 143; ARFV, fig. 32.
19. Another fine example of foreshortening used on a twisting torso comes on an amphora by Euthymides. (Munich, Antikensammlungen 2307; ARV 26,1; ARFV, fig. 33.2) This piece "...is remarkable for the quality of

the anatomical drawing and particularly for the astonishing mastery with which the artist handles the extremely difficult foreshortening of the central figure's sharply twisting back." (White, 24)

20. Leningrad, Hermitage Museum 644, from Cerveteri; ARV 15, 16; Hoppin, 405; Buschor-GV, 159; Pfuhl, fig. 395; ARFV, fig. 27.
21. Arezzo, Museo Civico 1465; ARV 15,6; Pfuhl, fig. 195; ARFV, fig. 29.
22. Naples, Museo Nazionale 2422, from Nola; ARV 189,74; Pfuhl, fig. 387; AJA (30) pl. 63; Richter-HGA, fig. 447; ARFV, fig. 135.
23. Arezzo, Museo Civico 1465. See n. 21.
24. Berlin, Staatliche Museen 2248, from Vulci; ARV 21.1; Pfuhl, fig. 418; ARFV, fig 50.1.
25. Harrow School 55; ARV 183,11; JHS (30) pl. 7; ARFV, fig. 140.
26. Munich, Antikensammlungen 2636; ARV 317, 16; ARFV fig. 220.
27. Onesimos, British Museum E 44, from Vulci; ARV 318,2; Hoppin, 389; Pfuhl, figs. 401-2; ARFV, fig. 222.
28. Because the frontal face proved difficult for vase painters in the black figure period, it was reserved for creatures whose faces were intentionally distorted variants on human features. A Medusa is shown on an olpe by the Amasis Painter, London, British Museum B 471, from Vulci; ABV 153, 32; Pfuhl, fig. 216; Hoppin, 33; ABFV, fig. 80. A satyr is shown on a column crater by Lydos, New York, Metropolitan Museum 31.11.11; ABV 108,5; Buschor-GV, 114; ABFV, fig. 65. Red figure painters gained some expertise in portraying frontal faces, but were not entirely comfortable with these depictions. The lower part of the face proved to be the most difficult and artists masked these parts of the face with devices such as beards and raised drinking cups. See a Calyx crater by Euphronios, Munich, Antikensammlungen 8935; ARV 1619, 1705, Para 322; ARFV, fig. 25; and a Kalpis by Euthymides, Rome, Vatican Museums G71, from Vulci; ARV 28, 14; ARFV, fig. 35.
29. Charbonneaux-GA, fig. 328; GSAP, fig. 213.1.

30. Boardman (GSAP, fig. 213, no. 8) has reconstructed this metope with the figures' legs in place.
31. Charbonneaux-GA, fig. 330; GSAP, fig. 213.4.
32. Lullies, fig. 79; GSAP, fig. 213.3; Charbonneaux-GA, fig. 329.

CHAPTER FOUR: COLOR

The existence of color on Archaic pedimental remains is a quandary for modern scholars. Traces of once rich color are preserved, but the full extent of its use is not known. From studying other sculptural pieces, such as kouroi and korai, it is possible to see that color was applied for decoration, with a full spectrum of shades used which appear gaudy to us today. Color was also used to pick out certain features, such as eyes or hair, enhancing the work of the sculptor. (GSAP, 81) However, the existence of the background wall in pedimental works, and the painters' treatment of this wall, may indicate a step beyond the decorative use of color.

It has been noted in Chapter III that Greek artists became aware, through logical observation, of optical changes needed in their works. These adjustments corrected the scenes with foreshortening so that the illusion of depth is present. It is possible that artists used color for the same purpose, to enhance the illusion of the third dimension. The existence of the background wall in pedimental sculpture makes possible a simple application of a fundamental fact of human color perception: dark colors recede; lighter colors project. If light colors are placed against a dark background, they appear to project, and this,

coupled with the apparent recession of the dark wall, would well enhance the third dimension of the entire scene. It is this use of color on background walls for the illusion of depth which will concern this chapter.

The main problem with this principle, at least in the Archaic period, is the evidence of the pieces themselves. Some pieces have background color, which may be used as a clue for their reconstruction. Other pieces have no existing background color. These fragments may have had color applied to them originally, which has since been lost. On the other hand, these pieces may never have been colored. An examination of the preserved background fragments from Athens, as well as other contemporary relief works, will give some indication of the conventions of color which were in use at the time.

Boardman states: "Relief backgrounds were usually dark blue or red." (GSAP, 81) This generality is found to be true in many instances of relief sculpture, although exceptions do exist. The earliest example from Athens is the Hekatompedon. The backgrounds for the Herakles and Triton group (ACR-A-1); the Lions and Bull group (ACR-A-2); and the Typhon (ACR-A-3) are all colored dark blue. The two corner snakes have their tail extremities "in one piece with the typanon wall"; both the tail and the background are

painted dark blue. (Dickins, 73) However, it is unclear from the written sources (such as Dickins) whether the "dark blue" of the east pediment, and the "blue" of the west pediment are described in this way because they are two different colors, or for literary variety. If the background of the east gable is indeed darker, as written reports would seem to imply, then color may be used as a clue to support reconstruction. This seems to be one of Ridgway's points.¹ There is too little preserved from the lioness (ACR-A-6) to adequately determine any colored background. It would be reasonable to assume that this piece also had a blue background, if it belongs to the Hekatompedon, as Dinsmoor and others suggest.

The figures of the Hekatompedon gables also display color. This painted decoration is used mostly for picking out details, such as eyes and hair. Herakles and Triton (ACR-A-1) has a Triton's tail painted in alternating bands of red and blue, while Triton's body and Herakles are painted light red. The Typhon (ACR-A-3) displays hair, moustaches, and beards of the left and right figures in blue; the central figure has a blue moustache and beard, but his hair is white. The left and central heads have red irises; they have dark eyelids and red lips. The right head has a blue iris. Like Herakles and Triton, the flesh of the

Typhon is light red; Triton's tail is red, blue and plain.
(Dickins, 80)

The two snakes (ACR-A-4) show alternating bands of red and blue (not using the uncolored third band of Triton's tail); the interior of the existing mouth is painted red.

For the most part, the animal groups from the Hekatompedon have no preserved color. The seated lion (ACR-A-6) displays red incisions in its uncolored mane, and the lioness with the bull (ACR-A-5) has a dark inner eye circle with an outer circle of red. Her mane has a row of blue or dark green. (Dickins, 77)

The Introduction Pediment (ACR-B) displays much color, mostly decorative, depicting garments. In this example, the background is painted dark green. This is in keeping with the two pediments from the Hekatompedon. However, in the Introduction Pediment, the flesh of the figures shows no traces of preserved paint. This is not to say that these figures were not at some time painted, perhaps light red. As they stand now, the basic color combination is upheld: light figures on a dark background. The now uncolored limestone of the figure's flesh provides a light contrast to the dark green of the tympanum wall.

The idea of color being a possible guideline for reconstruction brings up Beyer's reconstruction of the Hekatompedon gables. The pieces from the Introduction pediment show what is described as a dark green background. It may be noted that the definition of blue and green is subjective; one man's green may be another's blue. A Munsell color chart would prove useful in the identification of this blue and green. A chemical analysis of the two pigments would also be a help. As well, the blues and greens we see today may have been closer together in color when they were applied.² Beyer's theory, which in some other ways seems improbable, finds some support in the color of the tympanum wall, wherever it is preserved. On other grounds, it seems improbable.

Some of the fragments Beyer adds to the Hekatompedon pediment (Birth of Athena) have no painted background--or no background at all. When it does not exist, of course, color cannot provide evidence.

As noted in Chapter I, the Red Triton Pediment poses a problem for modern scholars. The overall red color is unusual, and as yet, no satisfactory explanation for it has been found. However, it does provide a bit of information on the question of color. It has been suggested that the red color may have been a preparatory undercoat, upon which

various colors would have been applied. (See p. 15) If this was the case, then this would indicate a painted background.³ This would then lend support to Boardman's statement concerning relief background, that it was "...usually dark blue or red." The Red Triton pediment may have been an example of an architectural relief with an intentional red background: such red backgrounds were common in relief in other contexts. (See p. 110)

The background of the Olive Tree Pediment (ACR-F) looks as if it may have been painted in a dark color judging from the remaining fragments to the left of the central structure. The figures are colored, as in the fountain house; the inside of the structure, against which one pale figure is silhouetted, is painted black.

The Hydra Pediment (ACR-E) provides the first example of pedimental relief from this period which has no traces of a painted background. This is not due to fragmentary remains, as much of the background surrounding Iolaus survives, but is due to the fact that this wall retains no color. It may simply be a case of the color not having survived, perhaps not adhering well to the stone in the first place. Nevertheless, as the evidence now stands, this example is an anomaly among generally colored relief backgrounds.

There are no other Athenian pediments from this period that have any preserved background color. Although the examples where a tympanum wall exists are few, these few instances do show a consistent trend towards the use of dark paint for backgrounds.⁴ There are other pieces of architectural sculpture from the same period which support the few Athenian examples.

The frieze from the Siphnian Treasury at Delphi is consistent with the pedimental pieces from Athens. It too has a dark background, this time dark blue. (SSG, 151) Cohen offers an interesting theory connecting the painting of these friezes with Attic vase painting.⁵ She suggests that the Andokides Painter worked as a sculpture painter on the Siphnian Treasury, around 525. (Cohen, 115) If the Andokides Painter, possibly the inventor of red figure technique and certainly one of the first red figure vase painters, worked on the frieze, then perhaps he derived the idea for the red figure color combination from architectural sculpture. In works such as this frieze, light figures stand out against a dark background (in red figure vase painting, pale red figures stand out against a black background). The evidence of the earlier pediments would suggest that providing a dark background for light figures was an artistic convention in sculpture long before the introduction of red figure. The Andokides Painter's

innovation, then, would be to transfer this idea from the medium of relief sculpture, to vase painting.⁶

Evidence is not so clear for metopes. There are no traces of color remaining on the metopes from the Treasury of the Athenians at Delphi. The metopes from the Sikyonian treasury at Delphi display colored figures, but the background retains no color. However, later structures do display metopes with a dark painted background. The Temple of Zeus at Olympia has metopes with colored backgrounds. The metopes of the Cretan bull shows red figures on a blue background. (Yalouris, 26) The Parthenon metopes show traces of red paint in some of the backgrounds. (Boardman-Greek Sculpture: The Classical Period, 103) The metopes from the Hephaisteion in Athens, contemporary to the Parthenon, also appear to have had red backgrounds. (Brommer, 17) Such evidence from the Classical period would suggest that metopes were also colored with dark backgrounds, in the Archaic period. Many of the Archaic metopes are uncolored today, but it has not been determined whether color was once applied and lost, or if these backgrounds were never colored at all.

Some of the non-architectural reliefs from this period also display the same color scheme. A statue base from Athens showing ball players has a red background clearly

visible (Athens, 3476; SSG, 151, fig. 283) Richter notes: "On archaic grave reliefs we often see some color (generally red) still adhering to the background or the hair." (SSG, 151) Another of these reliefs is the "Stele of Aristion" which shows a red background as well. (Athens, 29; GSAP, fig. 235) The evidence of archaic reliefs with intentional red background makes one re-consider the color on the Red Triton pediment. (See nn. 3,4)

In summary, the relief evidence preserved from the Archaic period shows that when backgrounds were colored--as they generally were--they were dark blue, green, or red. Even the fragments which appear to have no color at all, such as the Hydra pediment, may have originally had color applied, which has since been lost.

There must have been some reason for this artistic trend. I believe the reason lies in the fact that light figures on a dark background give the illusion of projection and recession. "Shadow, heightened by a dark painted background, helped to project and distinguish the figures to the viewer, who was normally far more distant from the carving than the modern museum goer." (GSAP, 153) Richter also points out that extreme color differentiation was necessary in the "brilliant Greek light." (SSG, 149) This theory is supported by the consistency with which the dark

background/light figures color scheme appears. Its frequency points to more than merely an artistic convention.

As noted by Cohen, (113-119) there may have also been a connection between the introduction of red figure vase painting, and the dark background/light figures combination found on sculpture. Relief sculptures were thus painted. Cohen may be correct in her conclusion. The internal detail possible in red figure can add to the impression of depth and the dark/light color combination may also have enhanced the illusion of depth in vase painting, as well as in sculpture.

The east pediment of the Siphnian Treasury shows how this principle might have been approached. The torsos of the figures in this gable were cut in the round, but their legs are cut in relief from the tympanum wall. These figures' torsos, therefore, cast shadows on the background wall, which heightens the impression of depth given by the figures. A dark background with light figures would have a similar effect.

A final note must be made on later pediments, which are composed of free-standing figures. This makes it difficult to identify the tympanum blocks: they are no longer attached to the sculptures. Nevertheless, modern

reconstructions have also presented dark backgrounds for the pediments of the Aphaia temple, the Temple of Zeus at Olympia, and the Parthenon.⁷ The pedimental sculptures from the Temple of Zeus were painted in bright colors. (Yalouris, 8) Even though no note is made of the background color, the painting of the figures, with light flesh for females, and brown for males, must have necessitated a dark background in order for the painted figures to stand out against the pedimental field. Against a pale background, this would have been far more difficult to see clearly. Drawings of the Parthenon pediments by Carrey in 1674, show a dark background. (Brommer, Plate 23, 25) These drawings provide evidence for color which may have been lost since 1674. The lighter colored figures, with pale flesh and brilliantly colored garments, hair and eyes, would contrast strongly with the dark pedimental background.

It is thus clear that dark backgrounds were used consistently for architectural relief and for pedimental sculpture, in the early Classical period. This continuation strongly implies that the use of dark backgrounds for architectural relief, and particularly for pedimental sculpture, in the Archaic period, was due to something more than a simple color convention. Artists were surely aware of the effect produced by this light/dark color combination,

and used it to heighten the effect of depth in their works
as early as in the Hekatompedon gables.

NOTES: CHAPTER FOUR

1. "Dinsmoor's reconstruction still seems valid... supported by matching color of remains of background." (ASGS, 199)
2. "What today appears green is sometimes blue which has turned green." (SSG, 199)
3. Ridgway's theory (ASGS, 203) that this color was a result of an accident during destruction does not seem to hold up, since limestone does not change color as a result of fire, rather, it is calcined, and the surface flakes off.
4. The only clear exception to the dark painted background comes in the Hydra pediment. The Red Triton pediment may be taken as having been painted, or left uncolored, depending upon one's interpretation of the red color. Until there has been a chemical analysis, this must remain pure speculation.
5. Even though most of the color is no longer preserved, enough remains to support Cohen's theory.
6. Cohen's speculative argument is based not only on the color contrast discussed here, but also on iconographic and other connections between the friezes of the Siphnian Treasury and the works--especially the earliest works--of the Andokides Painter. See Cohen pp. 113-119.
7. See Richter-SSG, figs. 388, 389, for reconstruction of the Temple of Aphaia by Furtwangler; Ashmole, Yalouris for reconstruction of the Temple of Zeus, and Brommer for Parthenon reconstruction.

CONCLUSION

The material presented in this thesis has produced few answers to the problems of Archaic pedimental sculpture. Although Athens yielded a great number of preserved fragments, many are in no condition to answer questions about physical and optical problems. With pieces which are better preserved, such as the Acropolis pieces, found on the site of a known structure, possibilities as to reconstruction are better. A temple may be identified and sculpture, in various combinations, may be assigned to it. Basic arguments among scholars are speculative, with approval going to the scholar whose reconstructions most closely agree with the physical properties of the preserved fragments. The principal clue may be found in color consistency, the existence of specific joints, a common theme, or the manner and style of carving.

This kind of argument does not help with isolated pieces which are more fragmented and not associated with any known temple, such as the Agora and Olypieion pieces. Even though these works have not yielded the same amount of information as other pieces catalogued in this study, they are nevertheless worth mentioning. They have been identified as probable pedimental works and thus, the same problems which apply to less fragmented and isolate pieces,

would most likely also apply to them. The sculptors who made them are likely to have tried the same kinds of solutions. These pieces do, however, provide some information as to their physical placement in their pediments. Their size and shape may indicate their possible central or angle positions. This also must remain speculative, due to the fragmented nature of these works.

Examining these pieces from our twentieth century viewpoint, working only with temples which no longer exist, and with pedimental pieces in fragmented condition, may actually pose more problems than were encountered by the artists carving the gables in the first place. Nevertheless, as we have seen in this study, the artists had their own problems. The physical problem, the actual placement of the figures, was not a problem for long. The temple of Artemis in Corfu, around 600, (SSG, 35) is taken as the earliest example of sculptured pedimental decoration in Greece. The figures of this pediment are fitted in wherever there was space, with no thought to scale or logical relationships from one figure to the next. However, within sixty years, the Peisistratid Temple of Athena shows all these problems as solved. Relief work has given way to figures in the round. These figures fit their spaces perfectly, due to their situation and pose, as well as the artists' observation of consistent scale. This development

may be traced even further, moving towards more inventive poses, with more figures, and more demanding themes. The Temple of Aphaia, from the early fifth century, is an example of this development. The figures fit comfortably and realistically into their pedimental space.

Along with this development of figure placement and the knowledge that pose was an integral part of figure placement, came an awareness of unity of theme and narration. By the time of the Hydra Pediment, and certainly by the time of the pediments of the Peisistratid Temple were carved, one theme is present in one gable; one scene is depicted, and a story is clearly told.¹ This particular development is a boon to modern scholars, as we are more likely to identify correctly the scene when it involves one theme with elements of narration; the theme is identifiable, as in the Peisistratid Temple of the Temple of Aphaia. Earlier examples, such as the Hekatompedon, are more of a mystery to us, as the scene presented is not as clear and understandable, although it certainly may have been clear to the ancient viewer.

If we knew for certain that the possible pedimental pieces from Athens came from pediments, and what buildings they came from, and their positions in their pediment, many more questions would be answered. Even in the present state

of evidence, we can see that there is a certain development in awareness of the physical problems encountered in early works, such as at Corfu. Problems which are visible to me in these works were obviously evident to ancient artists as well: what does not work well in one building is often improved on the next.

Much of modern reconstructions is speculative. If some modern reconstructions are not correct, many of the problems visible to us, may not have been problems to the ancient artists at all.

Unfortunately, there is much less evidence on the subject of optical problems, and consequently even more speculation. The main starting point of the problems for modern scholars is the present placement of the sculptures. It is not possible for museums to provide the same viewing angle for which the pieces were intended. As a result, the modern scholar is resigned to studying the pediments at eye level. One would assume that sculptures carved at eye level would take on some visual changes when placed in their intended setting high above the viewer's head. Indeed, upon examination of the casts in situ in restored pediments such as the Parthenon, it is evident that the figures which were carved at eye level and then placed in their high setting do undergo some distortion. Since there is no evidence that

these figures were modified to compensate for the oblique angle of view, we must suppose that these problems did not concern the artists, nor the ancient sponsors. Boardman makes note of a few examples of corrections made for this lower vantage point: Chrysaor from the Corfu temple, (GSAP, 153, fig. 187.1) and Theseus from the Temple of Apollo from Eretria. (GSAP, fig. 205.2) He states that these figures fare better visually from a lower point of sight, than from eye level. However, from the photographs he provides, I am not able to see this. Boardman does not discuss specific changes to the figure, made to provide the "improvements" he sees. Ridgway also mentions this same sort of point of sight correction concerning the Athena of the Peisistratid Temple: "She [Athena] should definitely be seen from below, so the slant of her features falls into proper position and her expression changes, becoming almost wrathful." (ASGS, 208) Like Boardman, however, Ridgway does not elaborate upon her statement and her opinion of Athena's "wrathful" expression may be subjective impression.

Within these pedimental sculptures, as seen at eye level, there are subtle optical adjustments made--but they are corrections for eye level viewing. The same kind of changes are evident in relief works, just as they are in contemporary vase painting. It has been seen how foreshortening can correct a flat image, giving the illusion

of recession into the third dimension. Even early pediments, such as those of the Hekatompedon, use this device successfully. Its use becomes more frequent as the range of poses grows, as depictions of the three quarter torso and frontal leg become more common.

Pedimental sculpture in the round, starting with the Peisistratid temple, gives rise to new problems. Since the third dimension is usually present in these works, there is no need to use foreshortening to imply it. However, artists in the late Archaic and Severe periods appeared to have had trouble with an accurate and realistic depiction of a three dimensional human figure. The giants from the Peisistratid Temple display anatomical problems, as do the fallen warriors from the Aphaia Temple. This is not so much an optical problem as it is a problem in the development of sculptural form. Artists were gradually moving away from the rigidity of free-standing Archaic figures, and these pedimental figures reflect this change. The carving of figures in motion was something which took time to get right. Artists eventually did get it right, and one may cite the active figures of the west pediment of the Temple of Zeus at Olympia as being anatomically correct. There is a great sense of tumult, with the figures twisting and undulating, but they are still realistically portrayed.

Finally, the importance of the Archaic problems of figure placement, and the use of perspective in the development of Greek art must be mentioned. The pieces discussed in this thesis certainly contributed to the development of pedimental sculpture, as they represent the first known examples of the medium in sixth century Athens. Moreover, it is to be noted that the Archaic period was one of rapid development, and that many artistic conventions evident in Classical art had their beginnings in the Archaic period. Archaic pedimental sculpture, in the years from around 580 to 480, accomplished a lot. The problems the artists recognized, and the solutions they attempted, constantly moved architectural sculpture towards the forms which the Classical period was to adopt. From the Temple of Artemis at Corfu at one end of the Archaic period, to the Aphaia Temple at the other, the seeds for works such as the architectural sculpture of the Temple of Zeus at Olympia, the Parthenon, and the Hephaisteion are sown.

Archaic artists found solutions to many problems which otherwise would have concerned later artists. Their contribution to the development of Greek architectural sculpture ought not to be underestimated.

NOTES: CONCLUSION

1. See pp. 61-62. The existing remains would point to a single theme being represented. If Zeus is included in the scene there may have been two separate situations, one including Zeus and the other involving Athena. However, even if this were the case, the overall theme of the gigantomachy is still maintained.

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Fig. 1 Hekatompedon - Herakles and Triton (ACR-A-1)

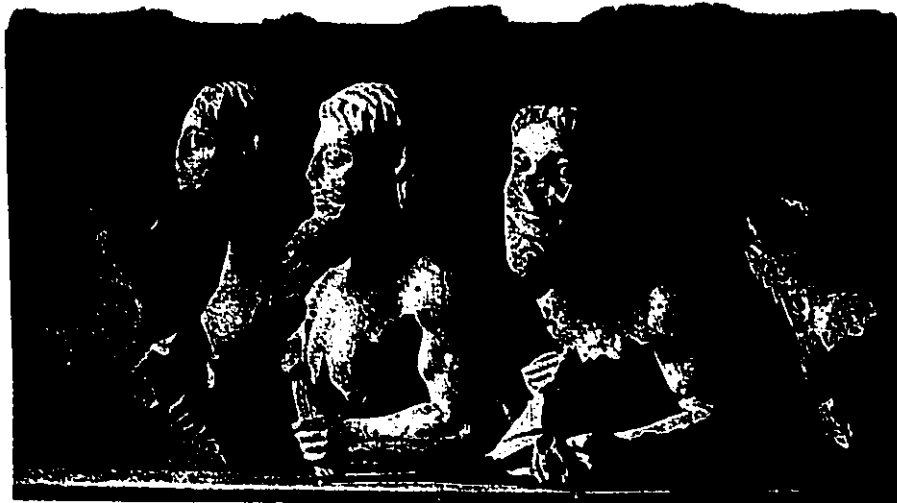


Fig. 2 Hekatompedon - Typhon (ACR-A-3)



Fig. 3 Hekatompedon - Snakes (ACR-A-4)

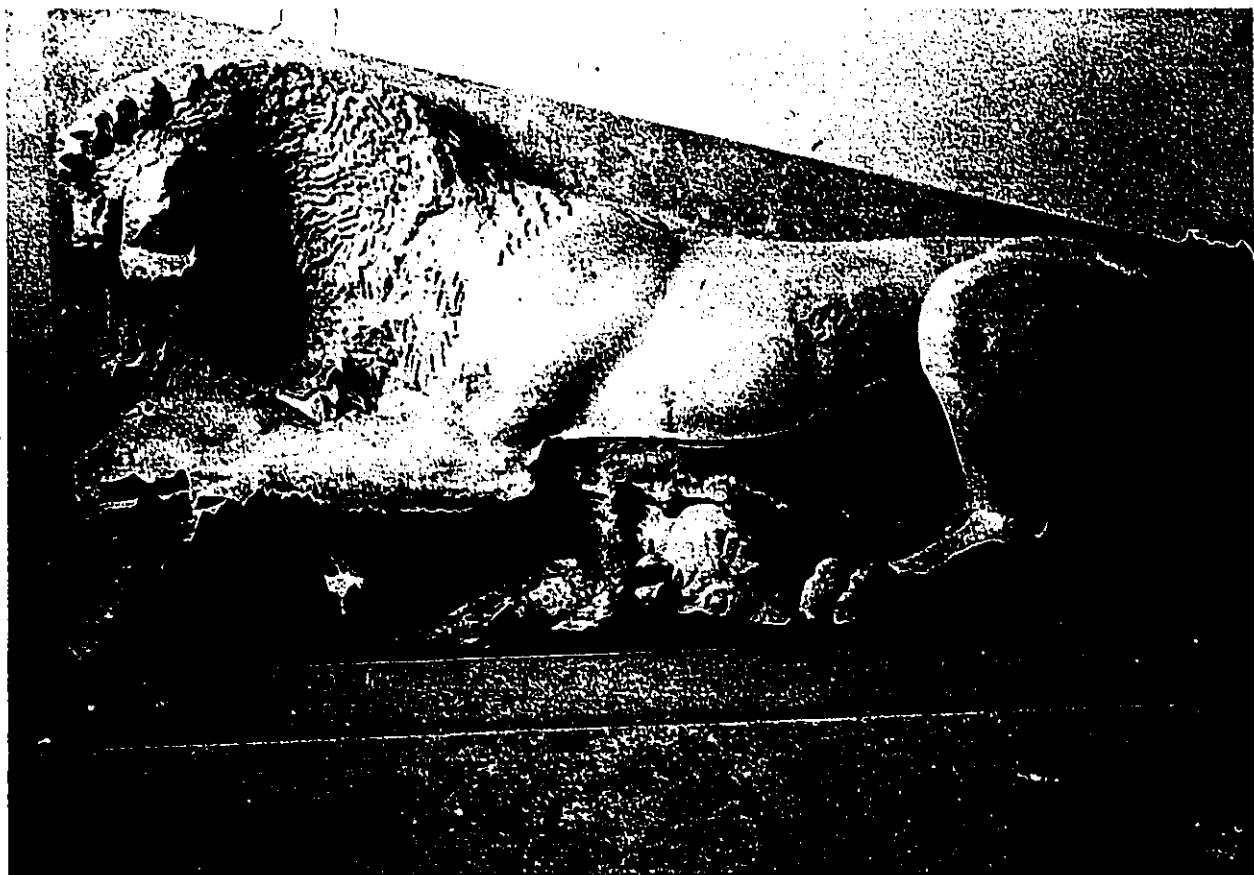


Fig. 4 Hekatompedon - Lioness and Bull (ACR-A-5)

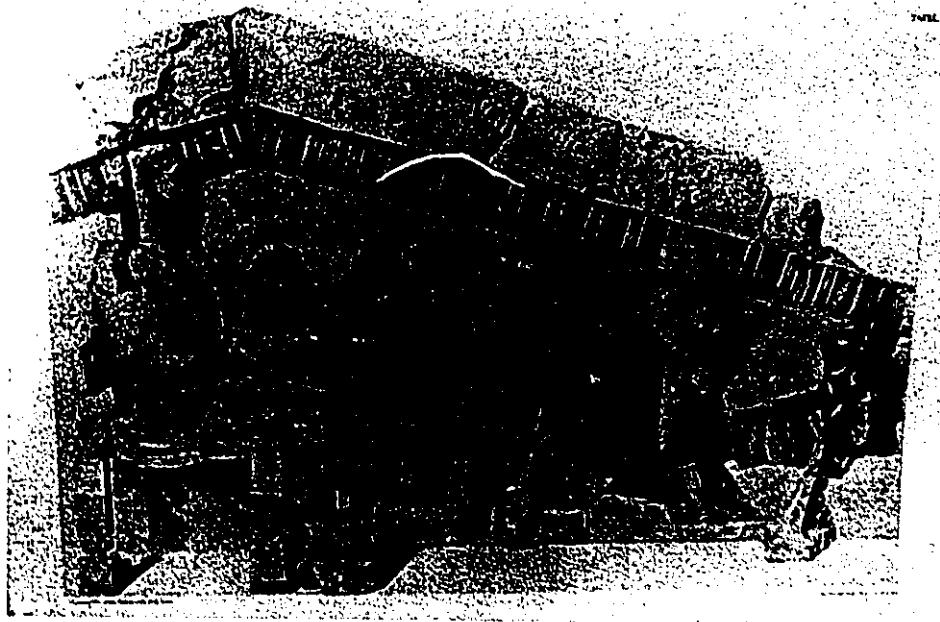


Fig. 5 Introduction Pediment (ACR-B)



Fig. 6 Introduction Pediment - Zeus and Hera



Fig. 7 Introduction Pediment - Herakles and Iris/Hermes



Fig. 8 Red Triton Pediment (ACR-D)



Fig. 9 Hydra Pediment - Iolaus (ACR-E)

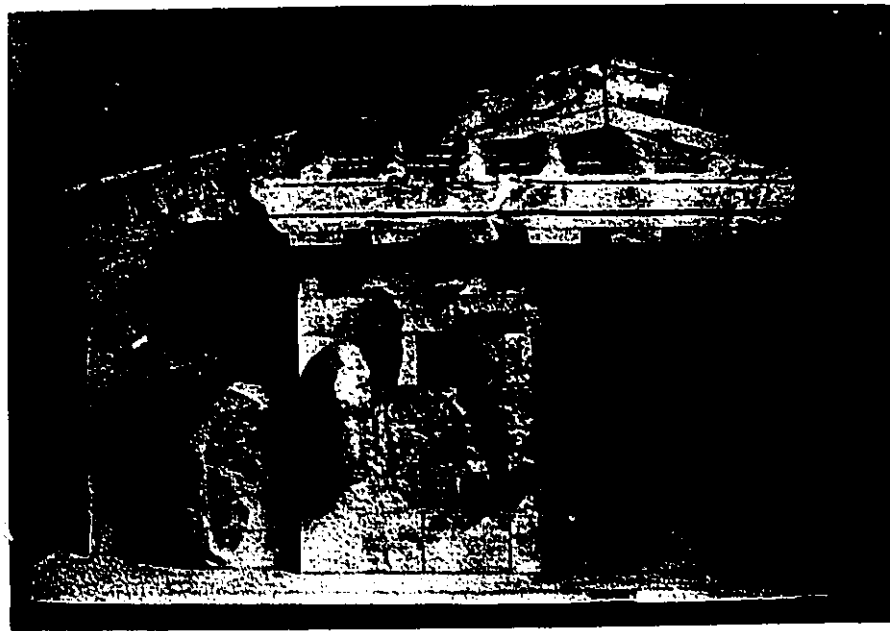


Fig. 10 Olive Tree Pediment (ACR-F)



Fig. 11 Peisistratid Temple - Athena and Giant

(ACR-H-1,2)

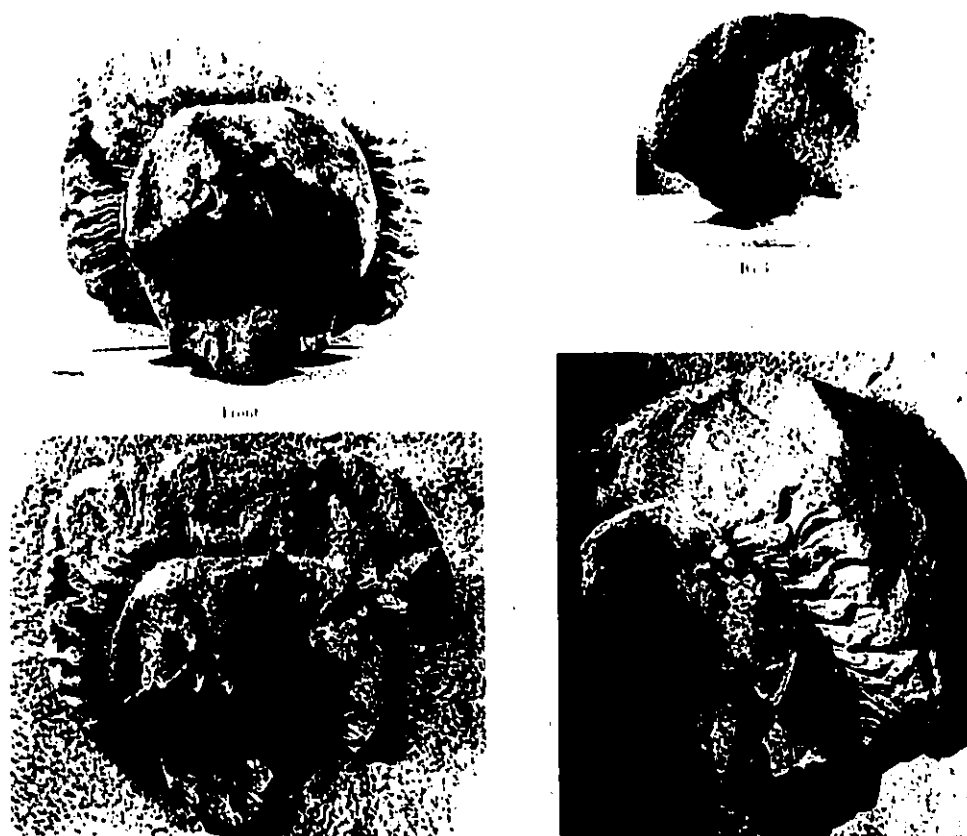


Fig. 12 Lion's Head (AG-A)



36 Fragment, Herakles and Lion, back of head

Reconstruction of group



Fig. 13 Man's Head with Lion's Paw (AG-B)



Fig. 14 Lion and Bull (AG-C)



Fig. 15 Herakles (AG-D)

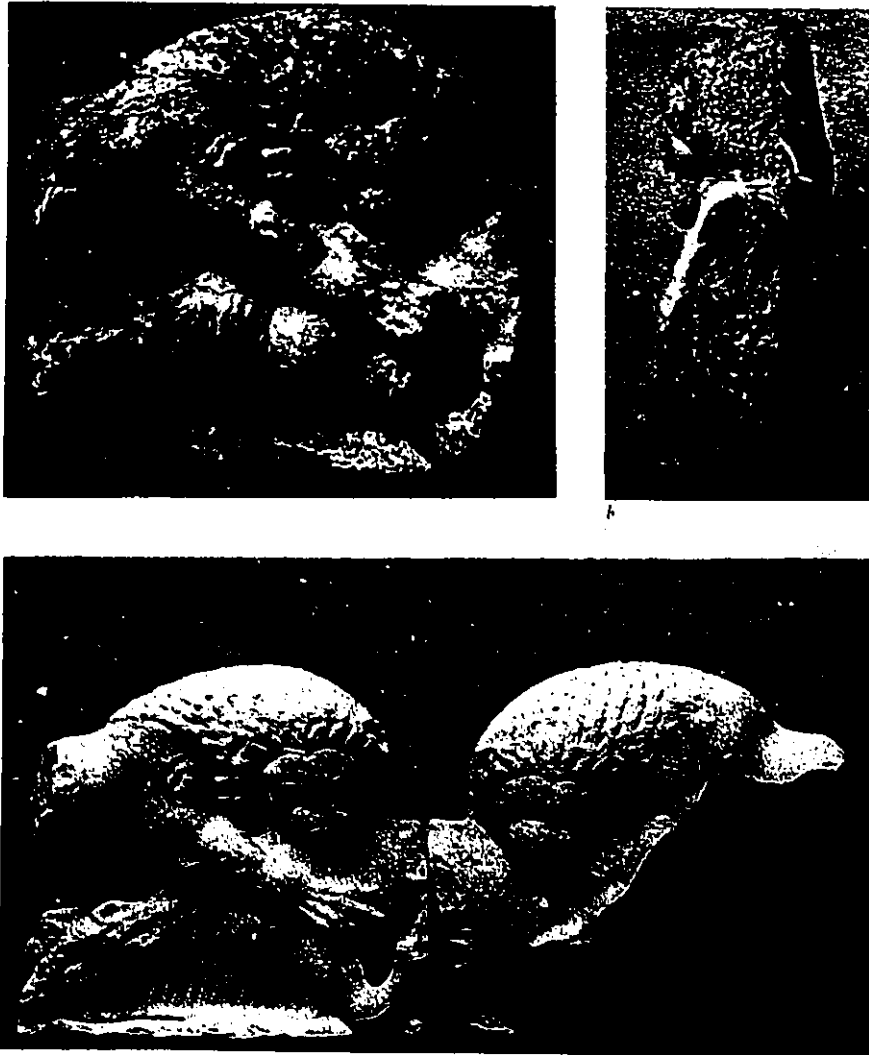


Fig. 16 Lion and Bull (OL-A)



Fig. 17 Athenian Treasury at Delphi: metope
Herakles and the Stag



Fig. 18 Athenian Treasury and Delphi: metope
Herakles and Kyknos



Fig. 19 Temple of Aphaia: east pediment
Fallen Warrior



Fig. 20 Temple of Aphaia: west pediment
Fallen Warrior

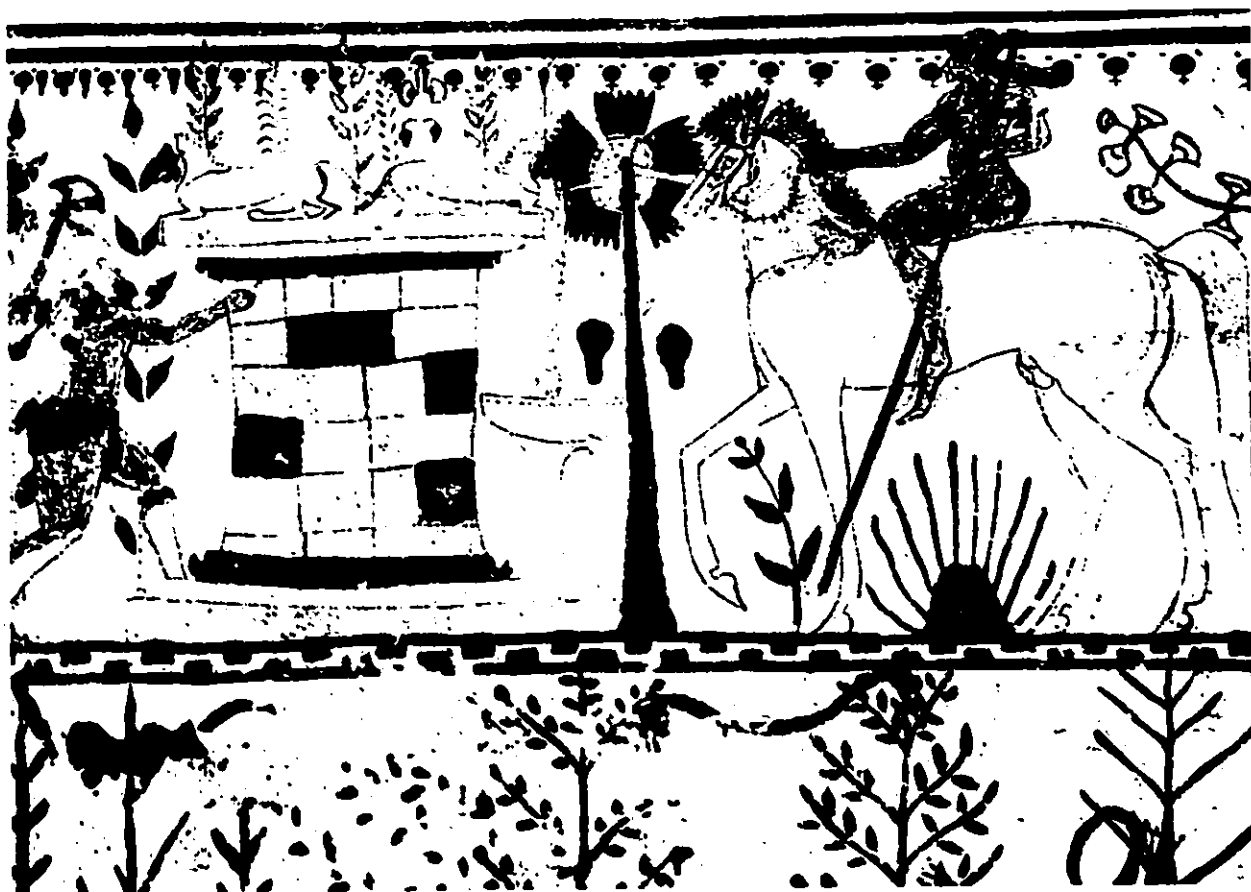


Fig. 21 Tomb of the Bulls at Tarquinia: pediment

The Ambush of Troilus



Fig. 22 The François Vase - The Ambush of Troilus



Fig. 23 The Painter of London B 76

The Ambush of Troilus



Fig. 24 Oltos - Herakles and Kyknos



Fig. 25 Euphronios - Herakles and Amazons



Fig. 26 Smikros



Fig. 27 Smikros - Reverse of Fig. 26



Fig. 28 Proto-Panaitian Cup



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