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Vitruvius and the Origins of the Orders: Sacrifice and Taboo in Greek Architectural Myth

George L. Hersey

When Vitruvius' myths are analyzed, the origins of the Doric and Ionic orders im-

part gruesome lessons. They are tales of betrayal,

enslavement,

invasion,

colonialism,

though also of marriage and

procreation.

But even the Corinthian order, the outcome of that procreation,

memorializes an unwonted death....

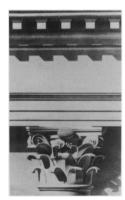
The rows of columns in

Greek temples, these 'rhythms' of punished or exalted ancestors, are figures from a sacred dance or march, figures that hold aloft the witnesses of sacrifice.

67







Louis Duc, Doric capital restoration, The Colosseum, Rome, 1829.

Louis Duc, Ionic capital restoration, The Colosseum, Rome, 1829.

Louis Duc, Corinthian capital restoration, The Colosseum, Rome, 1829.



Erechtheion, Athens, Caryatid, detail.

THE ORIGINS OF THE ORDERS¹

The Roman architectural writer Vitruvius was esteemed by Renaissance architects, who rightly honored his treatise as the only such book to survive from antiquity. But his reputation has diminished in the past one hundred years or so as the true nature of Greek and Roman building has gradually become evident. It has been shown that he had a distorted view of his subject. He ignored important buildings of his own time (the first century A.D.) and incorrectly described Greek buildings he had apparently not seen. His knowledge of the now-lost Greek architectural treatises that he quotes or paraphrases seems secondhand, and his own language is often confusing.

These charges are well-founded. Yet the fact remains that Vitruvius possessed an advantage that we lack: he was steeped in an architectural sensibility that vanished two thousand years ago. For all his narrowness and bias he had at least seen buildings and books, and had encountered architectural ideas, about which we know only what he has related. So, in spite of his faulty Greek and pretensions to high culture, it behooves us to pay attention. Specifically, let us closely analyze his mythology of the orders, about whose origins he tells five stories that deal with racial or national betrayal, colonization, and individual death.

THE CARYATIDS OF SPARTA

The first tale in Vitruvius' text is that of the caryatids (1.2). In the strictest sense caryatids are not one of the three basic orders, but without question the tale of their origin is part of Vitruvius' scheme. He says that caryatids were invented during a Persian invasion of the Peloponnesus-either that of 490 or that of 480 B.C.² During these in-



Charles Percier, P. F. L. Fontaine, Villa Albani, c.1790, caryatid aedicula.

vasions many smaller Greek states allied themselves with the Persians. The town of Caryae, in northern Laconia, was one such. After the Persians were defeated and driven away, all Greece turned against the traitor-town:

"[It] was captured and all the menfolk killed. The married women were led off in captivity, nor were they allowed to remove the clothing and ornament that showed them to be married women. They were led through the city not in the manner of a triumphal procession held on a particular occasion but rather were displayed as permanent examples sustaining a weight of punishment for their heavy sins before the city. Thus the architects of that time designed for public buildings figures of matrons placed to carry heavy burdens; in order that the punishment of the sin of the Caryaean women might be known to posterity and historically recorded."

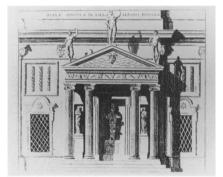
In other words, the matrons were set into a multiple pillory that made them look like piers or columns.

But before turning fully to this text let us notice the associations of the word "Caryatid," which means simply "inhabitant (or child) of Caryae," as they refer to the Spartan town of καρύαι. There there was a famous temple of Artemis whose priestesses or female worshippers were called καρυάτιδες. The focus of the ceremonies was an outdoor statue of the goddess. An annual round-dance called the caryata was performed by the young people.³ καρυᾶτις was also, naturally enough, an epithet for Artemis herself.⁴

Artemis was a stern and sometimes cruel goddess who in early times demanded human sacrifices.⁵ Later on surrogate victims were offered. For example, in Sparta and elsewhere virgin girls offered her goats.⁶ One of the most famous images of Artemis, the statue in the Villa Albani, shows her as the receiver of lamb-victims. The philological sources and etymological origins for Artemis' name have to do with butchery, murder, and hanging. A public hanging or, even more, the display of a criminal on a scaffold, are punishments analogous to that of the Caryaean matrons.

The caryatis dance is described in detail by Lucian as a fighting dance, performed before battles, in which at the climax the dancers raise their hands as they line up row by row in battle formations.⁷ The neat lines of caryatis dancers predict the rows in which caryatids are so often displayed. (Rows of columns in Greek are $\nu u \theta \mu \omega_1$, rhythms.) That the women in Vitruvius' tale are punished by being made to dance their native war dance would certainly be an appropriate irony.⁸

As to the dancers' raised arms, a fragment from the playwright Lyncaeus shows that these could be interpreted as supporting weight. A character in the play, Eucrates,



D. Magnan, Villa Albani, 1775, aedicula with statue of Artemis.

scoffs at some people who are partying in a room whose ceiling is collapsing. He says to them: "You eat with your right hands but with your left you have to hold up the ceiling like the caryatids." The dance's raised arm gesture, in other words, was here adapted to support a roof just as the Caryaean matrons do in Vitruvius' story.

But the connection between Caryatids and Artemis goes deeper than this. According to Roscher's *Lexikon* the common noun ápteµýç means religious chastity.¹⁰ Certainly the main stories about Artemis–her untouchability and the taboo against so much as looking upon her, which was Actaeon's downfall–reinforce this idea. When Greek women married they often sacrificed a lock of hair to Artemis in a rite known as the πpotέλεια, to ward off her anger at their renunciation of virginity.¹¹ This matrimonial theme is recalled in Vitruvius' account. It is only the married women of Caryae who were punished, which seems to imply some special culpability. This may have been linked to their Proteleia vows. In sum, the associational aura of the word "caryatid" is very different in Greek (or Latin) from what it is in English. The second secon

Herodotus 1.183.

Pratinas Lyricus, Fragmenta lyrica, ed. T. Bergk, p. 4.

Pausanias 3.10.7, 8.

Adolf Claus,

De Dianae antiquissima apud Graecos natura, diss. (Breslau: 1881), p. 36. Friedrich Schwenn, "Der Krieg in der griechischen Religion," Archiv für Religionswissenschaft, 1922, p. 21; Paul Stengel, Die griechische Kultusaltertümer (Munich, 1898), pp. 3, 133; Walter Burkert, Greek Religion (Cambridge: 1985), p. 151 ff.

Walter Burkert,

Homo Necans: Interpretationen altgriechischer Opferriten und Mythen (Berlin, 1972), p. 77.

/. Lucian, De saltatione, p. 10.

8

Corpus Inscriptionum Graecarum, p. 1444.

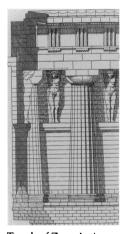
9. Lycaeus, Frag. 6.241d.

10. Roscher, Lexikon, s.v., citing Homer, *Iliad*, 7.308; Plato, *Kratyl.*, 406b.

11. Roscher, Lexikon, s.v. "Artemis," sect. 10 (573 ff.). 12. Vitruvius 1.1.6. See Pausanias 3.11.3.

13. Aristophanes, Lysistrata 1248 ff.

14. Herodotus 1.56; Diodorus Siculus 4.37.58 ff.



Temple of Zeus, Agrigentum, restoration of the order, with telamones.

THE PERSIAN PORTICO

The themes of Greek victories over Persians, and of sacrifice, appear again in Vitruvius' etiology of the orders. In the sentence immediately following his tale of the Caryaean women he records that when, in this same invasion, Spartan troops under a general named Pausanias conquered an infinitely larger Persian force, as a "trophy of victory to their descendants" they built a portico:

"There they placed statues of their captives in barbaric dress-punishing their pride with deserved insults-to support the roof, that their enemies might quake, fearing the workings of such bravery, and that their fellow citizens, looking upon a pattern of manhood, might by such glory be roused and prepared for the defense of freedom. There from many have set up Persian statues to support architraves and their ornaments. This motive has supplied for their works some striking variations."¹²

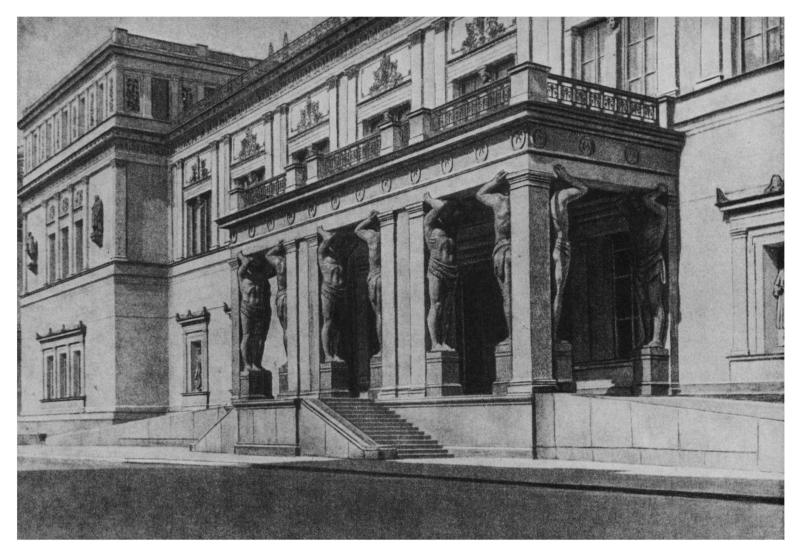
This is essentially a retelling of the Caryaean tale with the substitution of Persian men for Greek women. So the 'Persids' are mates, of sorts, for the Caryatids, but trophies too. And there is no hint of Artemis, though she was one of the chief inciters of Greek patriotism during the Persian invasions.¹³

The two stories have more in common than their structure. First of all both the Artemis-worshipping women of Caryae and the captors of the Persians are Spartans. Both types of portico were invented to commemorate victories and both use costume, decoration, and weaponry to identify the punished groups. Above all, both stories tell how acts hostile to the Greeks were punished by the invention of new types of column.

THE DORIC AND IONIC ORDERS

In Book 4.1 we discover that the columnar commemorations of Persian defeat belong to a much older tradition of column invention. Vitruvius here describes the origin of the Doric order. This, he says, was invented by Dorus, son of Hellen and the nymph Phthia, who ruled Achaea and the Peloponnesus.¹⁴ Dorus represented a race of conquerors and ruled one of four basic subdivisions of the Greek population (the others being the Aeolians, the Ionians, and the Achaeans). Under his descendants more and more of the Peloponnesus was taken over. Thucydides dates the final Dorian conquest to about eighty years after the Trojan War, that is, during the late twelfth or early eleventh century B.C.

The beginnings of this hegemony are marked by the invention of a new type of column. The first temple with the new columns was built by Dorus in Argos and dedicated to Juno. Later on, says Vitruvius, other temples, imitating Dorus' original, were constructed throughout the cities of Achaea. The column was named after its inventor: "Afterwards the Athenians, in accordance with the responses of Apollo, and by the general consent of all Greece, founded thirteen colonies in Asia at one time. They appointed chiefs in the several colonies, and gave the supreme authority to Ion, the son of Xuthus and Creusa (whom Apollo, in his responses at Delphi, had declared to be his son). He led the colonies into Asia and seized the territory of Caria. There he established the large cities of Ephesus, Miletus, Myus [etc.]. These cities drove out the Carians and Leleges and named that region of earth Ionia from their leader Ion, and establishing there sanctuaries of the immortal gods, they began to build temples in



Leopold von Klenze, New Hermitage, Leningrad, 1840-50, portico with atlantes.

At Mycale there was a Pan-Ionium dedicated to Apollo.

Corpus inscriptionum atticarum, III.175. For Apollo and Artemis as πανιώνιος, "all-Ionian," Herodotus 1.148, Roscher, "Panionios," col. 1535.

16. Vitruvius 4.1.5, 6.

17. Lewis and Short, Oxford Latin Dictionary, s.v. "Caria," quote as a proverb: "Quid? de tota Caria nonne hoc vestra voce vulgatum est, si quid cum periculo experiri velis, in Care id potissimum esse faciendum."

18. Rosch

Roscher, "Artemis," col. 582 ff., *ibid.* "Apollon," col. 440 ff.

19. Roscher, Lexikon, s.v. "Artemis."

20. For the Athenian colony at Miletus see **Roscher,** "Artemis," col. 574.

21. Hippocrates, Epidemiae, 3.1. them. First, to Pan-Ionian Apollo¹⁵ they established a temple based on those they had known in Achaia. Then they called it Doric because they had first seen it built in that style. When they wished to place the columns in that temple, not having their proportions, and seeking by what method they could make them fit to bear weight, and in their appearance to have an approved grace, they measured a man's footstep and applied it to his height. Finding that the foot was the sixth part of the height in a man, they applied this proportion to the column. . . . So the Doric column began to furnish the proportion of a man's body, its strength and grace."¹⁶

In other words Vitruvius is saying that the Doric temples designed by Dorus himself, in the Peloponnesus, were not proportioned after men, but that those erected by Ion in Ionia were. It was this second type of Doric that became definitive.

That Caria, a mountainous region in what is now southwestern Turkey, should have almost the same name as the Spartan town where, centuries later, caryatids were to be invented, is a coincidence worth considering–especially since these Asian Carians, like the Caryatid matrons, were notorious for their treachery.¹⁷ The coincidence is also ironic in that Apollo and Artemis are not only brother and sister but, in certain ways, male and female aspects of the same divinity.¹⁸ In Caria they were the objects of special cults,¹⁹ and Artemis had a famous shrine at Mylasa. Callimachus' hymn to her describes it:

"Once on the banks of Ephesus the Amazon warriors erected your image at the foot of a beech-tree. Hippo [their queen] celebrated the rites and, O Queen Oupis [a name for Artemis, meaning unknown], the Amazons performed their armed dance, the sworddance, around the statue, and then formed their great choir in a circle. The sharp, astringent music of the syrinx sustained their feet as they stamped on the earth in unison; . . . the echo resounded as far as Sardis, and to the country of Berecynthe [Phrygia]. Their feet stamped with stirring noise and their quivers danced."

The poet then goes on to describe the sanctuary. But what interests us is the dance, for it is clearly the caryatis or some variant. It is more warlike than Lucian's version, for here the dancers wear weapons. These Ionian honors were appropriate, for, like Apollo, Artemis was a divinity of colonization,²⁰ and indeed Vitruvius says the first temple built in Ionia, which was also the first of all Ionic temples, was dedicated to her (4.1.7).

But above all Vitruvius' account twice makes new columns, invented to mark new Dorian conquests, into personifications. Indeed he adds that Greek Doric columns have no flutes (4.1.7; an error: he is thinking of Roman Doric) but rather have plain undecorated shafts like naked Dorian warriors. Moreover, he uses the word "entasis" to describe the slight outward curvature in the silhouette of the Doric shaft (3.3.13), and Ěvtɑoıç, which means "tension, straining, exertion" of the human body.²¹ Both the Achaian and the Ionian Doric, however, personified conquerors rather than prisoners, and the Ionian Doric actually possessed in a sense the form and proportions of those conquerors.

The Dorians fulfill the next step in Vitruvius' design with the invention of their second order, the Ionic. The proportions of the column were modeled on the bodies of their women. So Ionic columns have 'caryatid' proportions in two senses: they are metaphors for women's bodies, and the women in question inhabit Caria–not the Spartan one but the Asian one.

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Richard Morris Hunt, Metropolitan Museum of Art, New York, 1902, Corinthian capitals.

Gordon, Tracy and Swartwout, Connecticut Savings Bank, New Haven, 1906, Ionic capital.

There is a third 'caryatid' aspect to Ionic columns: Vitruvius adds that Ionic columns resembled not only the physiques but the characteristic dress and ornament of the captured women. The shafts are fluted in imitation of the women's pleated chitons, and the curled volutes of their capitals are like their rolled hair. Finally, the fact that the Doric and Ionic orders in the account originate in conjunction with each other, as it were, reflects here earlier pairing of the women of Caryae and the Persian invaders.

THE CORINTHIAN ORDER

The last myth Vitruvius tells about the origins of the orders puts the final element in his pattern. It deals with the Corinthian capital. The story goes that Callimachus, an architect, one day spotted the tomb of a Corinthian girl who had died just before her marriage. The girl's nurse had decorated the tomb with a basket containing the young woman's prized collection of goblets, and on top of the basket had laid a tile to keep the goblets in place. According to Vitruvius, with time, an acanthus plant grew up from the base of the basket, its tendrils curling toward the tile. Callimachus transformed the little tableau into the Corinthian capital. He used it with details that were either original to it (4.1.9) or borrowed from the Doric and Ionic orders (4.1.1). So the new order had the genes of both parents.²² Like the Doric, Caryatid, and Persian columns, the Corinthian is a memorial to the dead.

There is a sort of plot to Vitruvius' five tales. The first three types of column mark Greek victories, the expulsion of Eastern invaders, and then the establishment of Greek colonies in the East. The appearance of the Ionic is a turning point. It marks the end of the period of war and, with its linking of male and female, suggests a marriage, one that in fact results in a Corinthian daughter. This daughter, like all the other orders, possesses a specific human physique or costume: Vitruvius says it has the physique of a young girl (4.1.9), which suggests not only that it is the daughter of Doric and Ionic but a personification of the original Corinthian maiden. Furthermore, her death before marriage—of which Vitruvius makes a point—prevents new offspring. That is, in terms of the five myths, the girl's death prevents the birth of new types of column. The pattern of the tales is complete.²³

Another common thread that unites the five tales is the theme of sacrifice. The matrons of Caryae and the Persians may be termed ritual victims. They sinned, and were offered to the gods. The Ionian colonists also sacrificed, but more positively. The first two temples in the new land were dedicated respectively to the brother and sister colonization divinities, Apollo and Artemis. Meanwhile the Corinthian girl's tomb was also sacrificial, for it will have resembled an altar decorated with a basket of offerings.

For the acanthus, or bearsfoot as it is called, see Helmut Baumann, Die Griechische Pflanzenwelt in Mythos, Kunst und Literatur, (Munich, 1982), p. 169 ff.

23. Vitruvius does not discuss the Composite order (Corinthian capital with Ionic volutes) or other

⁽Corinthian capital with Ionic volutes) or other variants. The Tuscan temple has columns with very simple capitals, and for which no myth is provided (4.7).

24. Burkert, Homo Necans, 41, who points out that though accepted the proposition cannot truly be proven.

25. Salomon Reinach, "La Mort d'Orphee," in his *Cultes, mythes et religions,* 2d ed., 2, (Paris, 1909), p. 103 ff.

26. Livy, 3, 55, 7.

27. Sophocles, Antigone, 256.

Jean-Pierre Vernant, "Théorie générale du sacrifice et mise à mort dans la 29 gràcque," Olivier Reverdin and Bernard Grange, eds., Le Sacrifice dans l'antiquité,

SACRIFICE AND TABOO

It is often said that myths are the plots of sacrificial rituals.²⁴ This gives us all the more reason to interpret the punishment of the Caryaean matrons as a sacrifice of atonement to Artemis. The same goes for the Persians: a god, we assume, perhaps Artemis again, told the Spartans to build the portico. Certainly it was her brother, Apollo, who directed the Athenians to invade Ionia, and to whom sacrifice was made in his new type of temple as Artemis was in hers. These are the myths. The rituals would be the repetitions of these myths, repetitions of the first carving of the column whenever artisans repeated the forms of these orders.

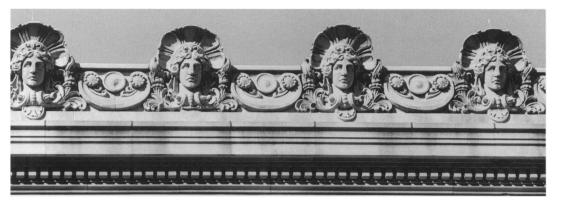
Ritual repetition, in this form of architecture, is the translation into rules of ornament of the original acts of revenge-sacrifice, marriage-sacrifice, and death-sacrifice that are described in these myths. The very word *ornamentum* means to equip, as Aeneas equipped himself for sacrifice on the occasion of his father's death (Hyginus, *Fabulae* 173.14). Another great characteristic of sacrifice is bound up with the most dangerous of all taboos: those invoked when a sacrifice succeeds and the god arrives in the midst of his worshippers. Such sacrifices were dangerous but also beneficial—the most beneficial actions a community could undertake. "This," says Reinach, "was because the act of slaughter released an ambiguous force—or rather a blind one, terrible by the very fact that it was a force."²⁵

Taboo is the protection against this danger. Yet taboo, like sacrifice itself, is perilously double-edged. Both Greek and Latin emphasize this in their words for it, respectively ǎyoç and *sacer*.²⁶ Thus within the same play, *Antigone*, Sophocles uses ǎyoç to mean both pollution and escape from pollution.²⁷ Taboos cluster around buildings in thick clouds. They are sacred and damned at once. And these taboos go hand in hand with the sacrifices that maximize both the dangers and the benefits of the taboos. We see this in Vitruvius' five accounts. The weight borne by the column personifications is either that of evil or that of good, either sin or virtue, either defeat or victory. Caryatids and Persids are emblems of a treachery and a barbarism that sought to undermine or destroy Greece. Doric, Ionic, and Corinthian orders are emblems of the Greek reply.

If taboo is the armor that protects sacrifice from going tragically awry, the metal of that armor is scrupulosity. The rules for sacrifice were legion. Blood-sacrifice is usually the most complex, though other types were not far behind. The breeding and training of the victim, his dress and ornament in garlands and gold-plated horns, the ceremonial for bringing him to the altar, the rites of slaughter, the $\partial \lambda \partial \lambda \dot{v}\gamma\eta$ or loud cry from the women at the moment when the beast dies and the god appears—an event which incidentally was accompanied by the caryatid-like raising of arms (*Iliad* 6.301)—the cooking, the distribution of the meat, the communion meal, and the disposition of the remains, were all subject to minute specification. Often, even when all went well, the priests or priestesses themselves had to be sacrificed afterward, so filled were they with taboo. Even the act itself was denounced by the very participants as a crime. The knife that did the deed, in the Athenian Bouphonia, was cast into the sea, and the slaughtered ox, after the sacrifice, was stuffed and hitched to his plow, as if to show that nothing had happened to him after all.²⁸ Meanwhile the leftovers—bones, head, garlands, and ribbons—were disposed on a table of offerings or hung in a tree.²⁹

The rules for the orders, which were after all invented for the buildings in which

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James Gamble Rogers, Edward S. Harkness House, New York, 1904–07, guttae.

Richard Morris Hunt, Metropolitan Museum of Art, New York, 1902, anthemions with faces.

or before which sacrifices occurred, were further forms of sacrificial taboo. Vitruvius' presentation of these rules makes such a conclusion almost inevitable. Thus in 3.1 he divides up the human body-one wants to say sacrificially, the way a priest divides a victim³⁰-into parts measured in fractions of the whole, those fractions in turn being fingers, palms, and feet. He also uses the head, again like the sacrificer, who saved this part of the victim till last and caused its tongue to utter. The body-parts are then correlated with specific proportions or fractions, for example, the $\delta \tilde{i} \mu o \rho o c$, two-thirds, the nevtáµoipoc, five-sixths, and so forth. The elements of temples are divided, measured, and named in terms of these body-parts. In the Ionic Order, for example, after the column bases are in place, the thickness of the plinths set on top of them must equal one-half the column diameter, and project one-sixth of a diameter from the shaft. These are the only options. As if to prove the point this one-sixth projection has a name of its own, expopá. If the base is Attic, furthermore, its height is divided so that the upper part is one-third the column diameter. The lower part of this latter is in turn divided into four parts, with an upper torus molding that is one fourth of that distance. The lower two parts must consist of another torus and a scotia (3.5.1). Or, to move on to 3.5.10: "The cymatium of the architrave should be made one seventh of its height and the projection of it the same. The remainder apart from the cymatium is to be divided into twelve parts of which the lowest fascia is to have three; the second four, the top five."

And so on, page after page. When the rules are broken, we are made to regard the result not as solecism but blasphemy. Vitruvius' minuteness, his admonitory tone, his frequent invocations of the gods, give his text the quality of the seemingly endless dietary taboos in Deuteronomy 14 and Leviticus 11, or the long lists of prohibitions in some Orphic or Pythagorean sect; or, appropriately to the present discussion, they sound like the prescriptions for blood-sacrifice.

THE ENTABLATURE AS A TABLE OF OFFERINGS

All this makes the entablature of a temple not only ǎyoç for good or evil, but a sacrificial representation as well. Indeed the very word "entablature," though English not Latin (the Latin is *epistylium*, beam on top of columns), suggests that it could be thought of as a table, like the one in the sanctuary on which the remains of sacrifice were laid. Archeological evidence strongly suggests that although animal parts were set on these tables, the most frequent materials of sacrifice were vegetables, grain plants, and other food, including eggs.³¹ The flowers, ribbons, and garlands that had ornamented the offering or victim were also laid on the table. In a burnt offering these things would have suffered scorching and consumption by fire. The remains of animals that had been partly consumed by the communicants were also stored here. Normally these consisted of the horned head or skull, thigh bones or femurs covered with fat, and [Entretiens Hardt] (Geneva, 1980), pp. 10 ff., 17.

29.

Vernant, "Théorie générale," pp. 10 ff., 17 ff. G. S. Kirk, 'Some Methodological Pitfalls in the Study of

Ancient Greek Sacrifice," in Reverdin and Grange, *Le Sacrifice*, p. 70.

30.

Marcel Detienne and Jean-Pierre Vernant, La Cuisine du sacrifice en pays grec (Paris, 1979), p. 84 ff.



31.

Kirk, "Pitfalls," 77. 32. Herodotus 4.76.

33. Pausanias 7.18.11 ff.

Giulia Piccaluga, "L'Olocausto di Patrai," Reverdin and Grange, *Le Sacrifice*, p. 243. ff. other bones with skin stretched over them. The primary meaning of τύμπανον, drum, comes into play here. A drum is an animal skin stretched over a framework, and the earliest Greek drums, which were used in the worship of Dionysus and the Mother Goddess, had frameworks of bone.³² It is probably from this background that the central panel in a pediment came to be called the tympanum.

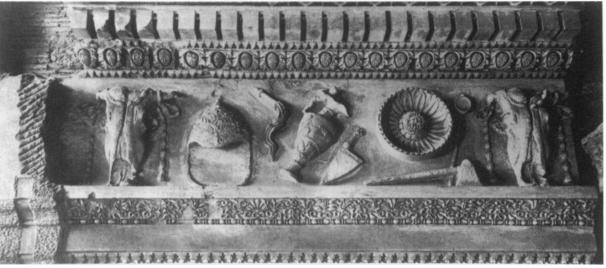
Sacrifices to Artemis, the goddess most involved in Vitruvius' myths, could involve wild birds and animals as well as the domestic animals sacrificed to other divinities. The most notorious of the wild-animal sacrifices were celebrated at Patras.³³ A platform of dry, easily burnt wood was surrounded by a palisade of green wood that was relatively uninflammable. The sacrificers assembled wild animals and birds that had been caught in a ritual hunt, filling the platform with live game that were secured so they could not escape. The priestesses set fire to the platform and the celebrants danced around it in a circle, as in the caryata.³⁴ This sacrifice would have produced bird's beaks, skulls, teeth, bones, and the like, but also the nets, darts, and other implements with which the game was caught, and which were considered sacramental.

Now let us return to classical moldings. This time we shall look not at their proportions but at their names. A taenia is a hair ribbon; a corona is a crown, garland, chaplet, or wreath; a cavetto molding gets its name from heavy rope; and a guilloche is a bias-cut net. We are all familiar with the darts that flank eggs in egg-and-dart moldings. A similar molding is the egg-and-tongue. Ovolo, another molding, also means egg, and a cyma is a sprout of cabbage. The anthemion, or camomile, is another edible plant. A dentil is a tooth, as by extension a rostrum is a bird's beak molding.

These are among the most common Anglo-Latin names for classical moldings. If we go to the Greek names that Vitruvius set such store by, we get more of the same. Ancones, ἀγκῶνες, (door lintel corbels) are primarily elbows; Apophysis, ἀπόφυσις, the hollow curve between a column's base and shaft, is part of a bone or blood vessel; an astragal, ἀστραγάλος, refers to vertebrae or other bones; a base, as in a column base, βάσις, is a foot. Capital, κεφάλαιον, means head. Similarly the columen or main block in a tympanum is in Greek κορυφαῖον, whose first meaning is the upper rim of a hunting net and whose second is "the head parts of sacrificed animals." A fastigium or pediment with its descending wings is an áετός, eagle. The colicolus of the Corinthian capital, the upright growth at the corners, is a kaúleiov, stalk. The space between the channels in a triglyph is called a *femur* in Latin and a µnpóç in Greek, the thigh or thigh bone that was particularly important in sacrifice. The vertical fillets created by carving flutes in a column are called $\dot{p}\dot{\alpha}\beta\delta o_1$, rods, staves, or wands, a word used also for spear shafts. The trachelion and hypotrachelion, parts of the necking or upper horizontal molding in a column shaft, come from τράχελος, neck or throat. A torus or σπεῖρα is a twisted rope.

When Vitruvius' myths are analyzed, the origins of the Doric and Ionic orders impart gruesome lessons. They are tales of betrayal, enslavement, invasion, colonialism, though also of marriage and procreation. But even the Corinthian order, the outcome of that procreation, memorializes an unwonted death. Flanked by Apollo, the presiding goddess for much of the five-part story is Artemis. The rows of columns in Greek temples, these 'rhythms' of punished or exalted ancestors, are figures from a sacred dance or march, figures that hold aloft the witnesses of sacrifice.

Finally, practically all classical moldings are called after things used in catching



Temple of Vespasian, Rome, fragment of the frieze decorated with implements of sacrifice and bulls' skulls.

and eating victims-human, animal, or vegetable-or after bits and pieces of the victims themselves. The moldings of a Greek temple are patterns of war and hunting weapons, of animal parts, and of sacrificial food. As surely as do the caryatids and the Persian prisoners, whose porticoes would in any case have been decked with some of these forms, the classical orders memorialize sacrifice.



Thomas Hastings with Everett V. Meeks, Alumni War Memorial, Yale University, New Haven, 1927, column base.