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Observations on the Griffin-cauldron

I. Introduction

The griffin-cauldron is one of the most representative products of the "orientalizing" phase of early Greek art. The type seems to have entered Greece from the Near East in the late eighth century B.C. at about the same time that the first obviously oriental motifs were invading Greek vase-painting, and it seems to have died out in the first quarter of the sixth century B.C. at the time when the orientalizing animal friezes were being ousted from the better vases by the developed black-figure style.

Although no griffin-cauldrons or griffins from them have been found in the East, it can be shown that the type of griffin used to decorate them stems from Northern Syria (1) and that the stands on which they rested were of oriental types (2). These large, ornate bronze vessels, which became very popular during this period as dedications in the larger sanctuaries of Greece, symbolize the influx of wealth into Greek art which is the real key-note of the orientalizing period. Wealth in the material sense is represented by their size and material and elaborate workmanship, and a new wealth of the imagination by the fantastic Eastern monsters here being introduced into the repertory of the Greek craftsman.

Essentially, a griffin-cauldron consisted of a large, round-bottomed bronze bowl with an incurving shoulder from which bronze protomes of griffins project at intervals around the vessel. The griffin protomes were of two types, the one made of sheet-bronze hammered to shape around a core, the other hollow-cast. The hammered griffins that we have are stiffer, stockier, and more rugged in appearance than the cast examples, which tend to graceful curves and harmonious stylization of the various parts. It seems certain that the hammered protomes are mostly earlier

than the cast ones, and that original oriental importations, if they exist in Greece, are to be sought among this group (3). Size as well as date has some influence on the matter, however. Very large protomes seem never to have been entirely cast. A hammered protome from Olympia which is 0.65 m. tall even without the cylindrical cuff which attached it to the cauldron is so close in style to some of the cast examples that it must be their contemporary (4). A more usual procedure for very large protomes was to cast the head separately and join it on to a neck made of hammered bronze. These protomes are sometimes spoken of as transitional between the hammered and cast varieties (5), but "transitional" here is not to be taken in the chronological sense.

Being round-bottomed, the bowl had to be set on a special stand, usually either a conical stand made of hammered sheet-bronze or a ring-tripod stand made of iron rods with bronze fittings. Actually it might be more correct to use the term "griffin-krater" rather than "cauldron," which I am using here as being the commonest term for this class of bronzes. Our only ancient literary reference to the vessel calls it "κρητήρ" (6). and the only ancient representation of one in use shows women drawing wine from it (7). Further, the conical metal stand which appears in all the ancient representations and was found together with the preserved examples in a few cases could not possibly have been set over a fire. Assyrian reliefs show bowls (griffinless, to be sure) on similar conical stands being used as kraters (8). The other type of stand which occurs with the griffins, namely the ring-tripod stand, could conceivably have been set over a fire, but the fact that this form existed in Greece throughout the Geometric Period parallel to the tripod-lebes suggests that its function was different, that is, that it was a stand not intended for cooking. (9). The same fact suggests also that the

ring-tripod stand was not traditionally connected with the griffin-vessel in the same way as the conical stand was.

Our knowledge of these kraters comes from three sources: a single literary reference, a few representations of the vessel in contemporary art, and numerous remains of the objects themselves. The griffin protomes, especially those which were cast rather than hammered from sheet-metal, being the least fragile part of the kraters, are the part most frequently preserved today. The stands, or parts of them, have survived in only a few instances, and the cauldrons themselves in still fewer. Some evidence for the form and dating of the bronze vessels is also to be derived from imitations of them in contemporary pottery. (10)

The one literary reference is in Herodotus. After describing an unintentional but highly profitable voyage of the Samians to Tartessus, the first commercial voyage to this Spanish port ever made by a Greek ship, Herodotus tells us that the Samians dedicated a tithe of their profits amounting to six talents, in the form of "a bronze vessel, like an Argolic krater, with griffins' heads projecting all round". (11) He continues, "This they set up in their temple of Hera, supporting it with three colossal kneeling figures of bronze, each seven cubits high". According to usual proportions for griffin-cauldrons a support this size would imply griffin protomes from two to three cubits tall. Since the largest protome found in the German excavations of the Samian Heraeum is only 0.565 m. tall (12), it appears that nothing has survived of the Herodotean dedication. Remains of griffin-cauldrons were especially numerous at the Heraeum, however, and it is clear that the six-talent krater was merely an exceptionally large and elaborate example of a type of dedication already popular in this sanctuary.

Historians now generally date the voyage to Tartessus around 625 B.C. There is no evidence outside the above passage for the use and meaning of the term "Argolic krater", but it is clear that the big krater dedicated on this occasion was made in Greece (~~a variation between the manuscripts leaves it undecided whether the Samians made it themselves or had it made for them (13)~~) and after a type which was already established as Greek, the "Argolic". Examination of the surviving remains of griffin-cauldrons suggests that a date around 625 B.C. would fit very well for the largest and finest examples of bronze griffin heads of developed Greek style. (13)

The very earliest griffin-cauldrons must have appeared in Greece at least seventy-five years earlier. On an Attic vase belonging to the period of transition between the Late Geometric and Early Proto-Attic styles is depicted an object most easily explained as a griffin-cauldron on a conical stand (14). The drawing of the protomes, eared creatures with open mouths projecting from the rim of the bowl, leaves it in doubt whether they are actually meant to be griffin protomes or whether they are lion protomes, which do occur in place of the griffins on some of the earlier examples of this type of cauldron (15).

The picture of a griffin-cauldron on a Protocorinthian aryballos of the First Black-figured Style in Berlin is clearer (16). Here the conical stand with its torus-like crown is plainly represented. The two protomes shown projecting from either side of the bowl are earless, as is the griffin-bird here shown in the act of admiring his bronze replicas on the cauldron. A tripod-cauldron painted on the other side of the vase balances the griffin-cauldron.

A Proto-Attic conical oenochoe in the Metropolitan Museum in New York (17) depicts a cauldron with griffins similar to those on the Berlin aryballos. White dots on their necks may be intended to represent the

incised or stamped scale-pattern on the necks of the bronze protomes.

The above vase-paintings are useful mainly as giving a terminus ante quem for the arrival of the griffin-cauldron in Greece. They are too schematic to show accurately the form of the protomes or even the number of protomes used to decorate a single cauldron. For the sake of simplicity in drawing the artists shows only two protomes, one in full profile on each side of the vessel. The most careful ancient representation of a griffin-cauldron that we have is that on a large bronze plaque found in the recent German excavations at Olympia (18). The plaque is in the form of a tall rectangle, 0.78 m. high, with hammered and engraved decoration in four rectangular fields one above the other. In the top field is depicted a griffin-cauldron on a sturdy conical stand. Above a torus at the top of the cone the stand flares out again to form a wide base for the bowl. The decoration of the stand is schematically represented by horizontal bands, of which the lowest is dotted and the middle one has a row of triangles. A tongue pattern adorns the flaring upper edge of the support (19). The bowl is deep, with a fairly steep shoulder, from which project four griffin protomes. These griffins are of a developed type, neither clumsy nor over-refined. Their necks are sturdy, but show a graceful double curve. The wide-open beak is likewise curved, and the ears are slender and pointed, but not excessively long. Two spiral locks curl down each side of the neck.

A terra-cotta votive plaque from Tarentum (20) depicts in a less careful manner a griffin-cauldron which may be later than any of the above. As on the Berlin aryballos, the griffin-cauldron is here shown side by side with a tripod-cauldron. Again only two protomes are shown, though we must imagine that more were intended. These griffins appear to have slender necks with a strong double curve and long ears and knobs. The stand appears as an elaborate two-tiered structure with volutes

projecting from it. It is doubtful whether these are to be literally translated into three dimensions, however.

Payne mentions still another ancient picture of a griffin-cauldron, one on a sherd in Aegina showing "women drawing wine from a griffin-deimos" (21). This is apparently unpublished and Payne does not describe the appearance of the griffins.

Though by far the greatest number of actual remains of griffin-cauldrons comes from excavations of the great Greek sanctuaries, the only completely preserved griffin-cauldrons that we have come from outside of Greece. This is because the dedications in the sanctuaries were cleared out from time to time and buried en masse without regard for their future preservation. These deposits yielded a great wealth of fragmentary material, often of the highest quality, but little that is complete. Some of the Etruscan graves of this period, on the other hand, contain griffin-cauldrons complete with their stands. One from the Barberini Tomb at Praeneste (22) corresponds to the pictures of griffin-cauldrons on the Attic and Corinthian vases mentioned above. It is set on a conical stand of bronze decorated with figures in repoussé and engraving. On the steep shoulder of the bowl are fastened four protomes, two of lions and two of griffins, made of hammered sheet-bronze. The griffins have thick necks, short ears, and bulging eyes. Between the eyes a stump-like projection rises on top of the head. The workmanship of protomes and stand alike is rather coarse and heavy.

A cauldron in the Bernardini Tomb at Praeneste (23) (found without a stand) had six hammered griffin protomes of the same heavy type with short ears, stumpy crest, and thick, short neck. On the same vessel were two winged handle-attachments with human heads of distinctly oriental aspect. These attachments resemble very closely some handle-attachments of the same type found in the Lake Van region of Armenia (24).

A number of similar examples have also been found in Greece, together with attachments that show the same scheme but with form and features thoroughly Hellenized (25). We do not actually know whether these handle-attachments occurred together with griffins on the same cauldron in Greece also, or whether the Etruscans combined two types (26). The only case where handle-attachments were found together with their cauldron in Greece there were no griffins (27). In any case, the Etruscan examples show that griffins and winged handle-attachments with human heads were contemporary.

A tomb at Vetulonia, called after the finds "Circolo dei Lebeti", yielded two cauldrons, one with six hammered griffin protomes and two winged handle-attachments with bearded heads and another with six lion protomes and two handle-attachments with female heads (28). The second was found with bronze and iron fragments that may have belonged to a tripod stand. The other rested on a strange wheeled metal carriage of a type which has been found in other Etruscan graves of this period (29) and seems to be a purely Etruscan piece of furniture.

From the Regolini-Galassi grave at Caere comes a cauldron with five lion protomes (30). It rests on a ring-tripod stand of iron. Another cauldron from this tomb has a tall conical stand, both stand and cauldron being decorated with animal friezes in repousse and engraving, and six dragon-like lion protomes on long curving necks facing inward (31). The style and workmanship of the whole is so peculiarly Etruscan that this piece is of less interest than the others for the form of the Greek cauldrons and their oriental prototypes.

In the grave tumulus of La Garenne at Châtillon-sur-Seine in Burgundy was found the only complete example that we have of a cauldron with cast griffin protomes of the Greek type (32). The cauldron is relatively shallow, with a rather flat shoulder and a wide everted rim.

Four griffin protomes rise from the shoulder, facing outward but leaning back toward the interior of the vessel instead of projecting out beyond the greatest diameter of the bowl as the protomes do in the earliest cauldrons. The cauldron rests on a ring-tripod stand made of iron rods with bronze fittings, a development of the type that had been in use in Greece from the Sub-Mycenaean Period on down.

In Greece the most **impressive** remains of griffin-cauldrons are those found at Olympia, both in the earlier German excavations in the 1870's and 80's and in the more recent ones which began in 1936 and were interrupted by the war. Furtwängler's classification and discussion of the finds from the earlier excavations in his publication of the bronzes from Olympia remains the most comprehensive treatment of griffin-cauldrons to date (33). He divides the Olympia griffins first into the two technical classes: hammered and cast. As basic traits of all the cauldron-griffins, whether hammered or cast, he lists: a scaly neck, an eagle's head with open beak, ears, a cylindrical or knoblike projection on the forehead, one or two curls falling down from the top of the head on each side of the neck. He makes the statement that the hammered protomes undoubtedly represent the earlier type (34).

Furtwängler publishes with catalogue numbers and drawings five hammered griffins of the early type (36) and one of a developed type contemporary with the cast protomes (37). He lists nine additional examples of the early type by inventory number only and mentions the neck of another protome similar to the late one, as well as numerous fragments of hammered protomes (39). Of cast griffins, he gives catalogue numbers and illustrations to six and lists eleven more by inventory number. In addition he mentions one which is not identified by number and various fragments of ears, knobs, and points of tongues.

The very earliest type of hammered griffin Furtwängler describes as having short, blunt ears, simply conical in form without any hollowing for the ear-shell. The projection on the forehead is short, thick, and simply cylindrical. Between the eyes there is usually a row of pointed warts, and the eyes themselves are bulging. The skull is narrow. The neck is thick and straight, without swinging curves. Slightly more advanced specimens have some indication of the hollowing of the ear (at first only by engraved lines) and the beginnings of a curve to the neck. Though the number of warts between the eyes does not diminish in strictly chronological order, Furtwängler's earliest example has five warts (40) and his latest has none (41). Only the very large hammered protome which resembles cast examples has long ears and a profiled knob.

Furtwängler associates with the early hammered protomes at Olympia those of the Bernardini cauldron, as well as one protome in Karlsruhe (42), one in the Louvre (43), and one from Praeneste in the possession of Prince Chigi (44). He also compares the type with that of the griffin head on the famous griffin-jug from Aegina in the British Museum (45).

Furtwängler does not discuss the type of protome which had the head cast and the neck of hammered bronze. He describes cast protomes in general as having a broad flange at the bottom which was regularly attached to the wall of the cauldron by means of three bronze rivets. He remarks that if the protome stood upright, the edge of the cauldron must have been sharply drawn in, and that this is confirmed by the La Garenne cauldron. The type of griffin with low blunt ears and cylindrical bump no longer appears in the cast technique, he says. The ears are always long and pointed, and the projection on top of the head is always profiled as a knob. Warts between the eyes occur only in relatively few

examples, and these are ones which seem earlier in other respects too.

Furtwängler's earliest cast example is one with a low knob and two warts between the eyes (46). He compares the shape of the beak to that of one of the hammered protomes. The spiral lock, rendered in relief on the side of the neck, is thick and has no incised ornament. The round scales are stamped in.

His next example (47), which he calls still close to the hammered type, has three warts between the eyes, which are large and round. The ears and knob are still relatively short. The spiral lock is merely engraved.

A more advanced specimen, which, however, still has the spiral lock in relief, shows longer ears, a taller knob, and a much more elegant curve to the neck and the beak. The eyes are now oval in shape (48).

Following this comes the most elegant example in Furtwängler's list (49), the one which he calls contemporary with the great hammered protome. Its neck is thinner and has a finer swing than that of the preceding griffin. The ears and knob too are slenderer and more elegant. The big spiral locks are engraved on each side of the neck, and a small engraved spiral curls over each eye. One pointed wart remains between the eyes. Other, small examples are mentioned as closely related to this one. (50)

The next griffin in the catalogue is smaller than the above. (51) It evidently gets its late place in the list from its knob, which rises on a tall, thin stem. Its top is in the shape of a pomegranate, a form which does not appear in other Olympia examples, though it is common in Samos.

Furtwängler does not publish any griffins which lack the spiral locks altogether or any which show such long ears and knobs and slender proportions as to be called "over-refined", "decadent", or "merely Dec-

orative" by the admirers of the earlier cast griffins (52). It is implied, however, by the progression he points out from short ears to long, from low knobs to high, and from short, thick necks to slenderer, more graceful ones, that such examples would come later than any of the Olympia griffins that he publishes. Furtwängler speaks as though all griffin protomes from cauldrons had spiral locks; hence he has nothing to say about the chronological or geographical significance of the spiral-less griffin (53). Actually there were none at Olympia at the time when he wrote, but examples had been found elsewhere, including some which he lists as specimens of Greek cast griffins without mentioning this peculiarity (54).

Though no cauldrons were found at Olympia with griffins attached, Furtwängler publishes two which had the sets of three rivet-holes by which the cast griffins were regularly fastened on. One had six griffin heads originally, the other eight (55).

The capital of one conical metal stand was found in the first excavations (56). This and several bronze animal feet with the remnants of iron rods sticking in them which belonged to ring-tripod stands ⁽⁵⁷⁾ are published by Furtwängler in connection with the griffins and cauldrons. Various small bronze animal figures (including griffins) seem to come from the decoration of the ring-tripod stands (58).

The finds from the more recent excavations enabled Olympia to keep its place in the front rank of the griffin-sources, in spite of the great numbers of griffins which had appeared elsewhere in the meantime. Important additions were: one of the earliest, heaviest, and homeliest of the hammered protomes known, (59) two large cast heads which were joined to hammered necks (60) -- the larger and later of these being the finest bronze griffin head in existence --, and a relatively late protome of the more decorative sort (61), the first to appear at Olympia without spiral-locks. These four specimens are published by Emil Kunze

in Olympia Bericht II (62), where several other pieces from Olympia and Athens are grouped with them. The chronological sequence given is in accordance with Furtwängler's outline, but Dr. Kunze goes farther and suggests absolute dates: around 700 B.C. for the early hammered protomes (63), the ^{middle} first half of the seventh century for the big, splendid head (64), and late in the seventh century for the decorative type (65). Dr. Kunze speaks of the "period of transition from hammered work to hollow-casting" (66), implying that the double technique of the large protomes is due to this shift. He speaks of the later pieces as "cast in one piece, as are all late protomes" (67). In the little book "Neue Meisterwerke Griechischer Kunst aus Olympia" Dr. Kunze dates the big griffin head around the middle of the seventh century (68), and a newly published specimen very similar to Furtwängler's No. 806 (the elegant but still powerful type with the single wart and the engraved double spiral locks) in the third quarter of the seventh century (69).

After Olympia, Delphi yielded the most representative collection of cauldron griffins that has been published. In Fouilles de Delphes V Perdrizet publishes one hammered protome (70) and a fragment of a cauldron with the base of a hammered protome still attached (71). Here are also published one of the big cast heads that went with a hammered neck (72) and seven all-cast protomes (73). A fragment of an eighth is catalogued, but no photograph of it is given (74). Besides these Perdrizet publishes a small cast protome with a very short neck and ring on top of the head. (75) The type is closer to the early hammered protomes than that of any ~~other~~ of the regular cast examples. Another cast protome, of rather early appearance, is considered by Perdrizet to be from a chariot pole (76). Three sets of broken-off ears complete the list for the first Delphi publication (77). Perdrizet says nothing to alter Furtwängler's classification. There are several specimens at Delphi which lack the

spiral locks (78), but no particular comment is made on this matter.

More recent excavations at Delphi have extended the list of hammered protomes by three new examples (79). In publishing the most recently found of these, Pierre Amandry discusses briefly the origin and evolution of the hammered type (80). He says that while there is no evidence for dating to be gathered from the deposit in which this protome was found, "the date of this type of griffin is sufficiently well established by other discoveries: it is contemporary with the geometric style" (81). M. Amandry divides the hammered protomes into three chronological groups (82). The earliest includes Furtwängler's first two Olympia griffins, the new early specimen from Olympia, the earliest of the three new Delphi protomes (remarkable because it lacks the usual spiral locks), the griffins from the Bernardini Tomb, and the small early cast griffin from Delphi with the ring on top of its head. His second group consists of the other two new griffins from Delphi, the next two from Olympia in Furtwängler's catalogue, a griffin from Perachora published by Payne (83), and the griffins of the Barberini Tomb. The last group includes only the next latest of Furtwängler's hammered griffins and the griffins from the Tomba dei Lebeti in Vetulonia. In this grouping the lines laid down by Furtwängler are again followed.

M. Amandry declares that the origin of the protomes is undoubtedly oriental, since the technique comes from the orient and the type of griffin derives from the area which was under the influence of Assyrian art. He points out their similarity to the type of griffin-demon shown in reliefs from Tell Halaf, Sanjirli, and Carchemish, and suggests that the rolled-up beginning of the spiral lock on the tops of the heads of these demons may be the origin of the knob on the heads of Greek griffins (84). He does not positively commit himself on the question of whether the hammered protomes were imported or locally

made in Greece and Etruria. Since they show a development in the direction of the Greek type, one is tempted, he says, to believe that they were made in Greece at least from stage 2 on, but one is faced with the problem of explaining the development of the Etruscan type parallel to that of the Greek type. "If these protomes are of Etruscan workmanship," says M. Amandry, "their evolution in this period is almost certainly independent of that of the protomes of the Greek mainland." He can only conclude that this independent parallel development must reflect the same sort of evolution in the country where the protomes originated. There seems to him to be a slight difference between the Greek and Etruscan protomes at each stage (85).

Another fairly large and representative group of griffins comes from the Athenian Acropolis and was published by De Ridder in his Catalogue des Bronzes Trouvées sur l'Acropole d'Athènes, which came out in 1896.

No hammered protomes were found there, but cast griffins are represented all the way from the earliest cast type found at Olympia (86), heavy, with slightly curved beak and plastic spiral locks, to the latest type of slender spiral-less griffin found at Delphi (87). The group includes a fine example of the large cast heads made to be joined onto a neck of hammered bronze (88). The publication follows, without adding to, the Furtwängler classification.

Single specimens of griffin protomes have been published from sites all over Greece and a few outside. In the temenos of Hera Limenaia at Perachora a protome of the early type was discovered (89). Because the walls of the protome increase in thickness from bottom to top, reaching a maximum thickness of 5 mm., Payne concluded that this protome and others of the same style were cast, not hammered from sheet-metal (90). M. Amandry specifically rejected this idea as far as the Delphi protomes

were concerned, affirming that Furtwängler's theory of hammering over a wooden core and subsequent filling with a soft substance compounded of clay and resinous material was the only possible one (91).

In publishing the Perachora griffin Payne reaffirms the validity of Furtwängler's classification and suggests a date in the late eighth century for the early, thick-necked group to which his protome belongs. His arguments are: One of the protomes from the Barberini Tomb is very close to the Perachora protome. The stand that goes with the Barberini cauldron has reliefs very close in style to that on the tympanon from the Idaean Cave in Crete. Kunze has shown that the reliefs of this class were made in the eighth century B.C. The pottery of the Bernardini and Barberini tombs was shown by Johansen to belong to the late eighth and early seventh centuries. The griffin on the griffin-jug from Aegina looks later than the Perachora griffin, and the griffin-jug cannot be later than the very beginning of the seventh century (92).

Payne also points out that the Middle Protocorinthian and later vases show a griffin type with long ears and a profiled knob (93). He believes that the griffin-cauldron became rare in Greece after the seventh century, since it is no longer represented on painted vases of the sixth century (94).

With regard to the origin of the early type of protome, Payne says that two facts: 1) the appearance of the griffin protomes on the Etruscan cauldrons together with siren-attachments "of undoubted oriental origin" and 2) the fondness of the orient for griffin finials, makes it seem probable that this type of vessel was taken over from the orient. We cannot be certain, he says, that the earliest examples found in Greece are Greek. He leaves it undecided whether the earliest group is actually oriental or whether no oriental griffins from Greece have survived and the earliest group is in reality a close imitation of "lost oriental

originals". (95)

Payne also gives in this article a list of all the sites in Greece where griffin protomes have been found, whether hammered, cast or clay imitations (96). Besides the sites I have already mentioned, Greek cast griffins have been found in Samos, Chios, Ephesus, Rhodes, Kalauria, Thessaly, Macedonia, the Argive Heraeum, and Laconia. Dodona should probably be added to this list, for Carapanos publishes a broken-off bronze knob which is profiled exactly like the knobs of one class of cast griffins. (97)

The collection from the Heraeum in Samos, which remains completely unpublished (98), is the largest collection of griffin protomes from any one site. Scholars seem to have felt free in the past only to mention the existence and the size of this collection, but not to say anything at all about its contents (99). Particularly striking is the fact that the Germans themselves in discussing the new Olympia finds preserved the same silence about Samos, though it presents close parallels for some of the examples discussed, and the appearance of identical types in East Greece and the Peloponnesus certainly deserves mention. Since the great size of the collection was known, but its contents remained obscure, it was impossible for any scholar to make generalizations about griffins without throwing in the reservation that the Samos material might change the picture.

The war and resulting conditions in Greece have put the Samos griffins into an even stranger position. Lying on open shelves in the dusty, but undamaged museum in Vathy, and presided over by an obliging phylakas, they are now the only large group of griffin protomes in Greece which can be seen and studied by the ordinary student of archaeology (100). While the material on which all the published griffin-lore is based remains locked away (except for three fine protomes from the earlier

Olympia excavations now on exhibit in the archaic rooms of the National Museum in Athens), the Samian collection can be seen but not heard about. There is no way of knowing whether there is any stratigraphic evidence for the dating of these griffins, and even the numbers by which the individual specimens might be designated have disappeared from many of them. During a short stay in Vathy I looked through the collection and made a few notes. In another section of this paper I shall attempt to discuss briefly the relation of the Samos group to other Greek griffins, though the situation makes it necessary that such a discussion be informal, inconclusive, and, above all, unpublished. It is to be hoped that before too many members of the collection perish of the bronze disease which is now attacking some of them, some one acquainted with the Samos material will be able to publish these griffins, and either to write the more comprehensive study of Greek cauldron griffins which they suggest or at least, by releasing this evidence, make it possible for someone else to do so.

Footnotes: Section I

1. Cf. Amandry, B.C.H. 1944-45, p. 71. A work by Ekrem Bey on Late Hittite art which is to appear shortly goes into this matter in detail from the oriental side.
2. Cf. Lamb, Greek and Roman Bronzes, Pp. 70 ff. Benton B.S.A. XXXV, p. 126.
3. See below, p. 8.
4. Furtwängler, Olympia IV, p. 120, no. 797, pl. XLV.
5. Cf. Kunze, Olympia Bericht II, p. 113.
6. Hdt. IV, 152. See below, p. 3.
7. See below, p. 6 and note 8.
8. Cf. Botta, Monuments de Ninive I, pl. 76.
9. Benton, B.S.A. XXXV, pp. 124 ff.
10. See below, Section II, p. 14. The most complete are: a Proto-Attic standed bowl in the Kerameikos, A.A. 1933, p. 269 and fig. 9; the Cycladic griffin-jug from Aegina, J.H.S. 1926, pl. VIII; and a deinos from Arkhades in Crete, Levi, Annuario X-XII, p. 323, figs. 420a-d. Other clay imitations, broken off their vases, are interesting, but not much good for dating.
11. Hdt. loc. cit.
12. No number. See below, Section II, p. 6.
13. See below, Section II, p. 15.
14. A.M. 1892, pl. 1.
15. Cf. MMAR 5, 1925, pl. 29; Notizie degli Scavi, 1913, p. 430 and fig. 8; Olympia Bericht II, pl. 45.
16. Payne, Protokorinthische Vasen, pl. 9, 4.
17. Bulletin of the Metropolitan Museum, 1924, p. 98, fig. 3.
18. Olympia Bericht I, pl. 17. Detail, Kunze, Neue Meisterwerke griechischer Kunst aus Olympia, pl. 26.
19. This seems to be a Greek substitute for the leaf-capital used on oriental stands. The one in Olympia IV, p. 125, no. 810, pl. XLVIII, has drooping leaves. On the Barberini stand, M.M.A.R. 5, pl. 29, the leaves are upright.
20. R.M. 1897, p. 112.
21. Payne, Necrocorinthia, p. 211, note 3.

22. M.M.A.R. 5, 1925, pl. 29.
23. M.M.A.R. 3, 1919, pls. 52-54, p. 72, no. 75.
24. Kunze, Die Kretischer Bronzereliefs, p. 266, 3 and 4, p. 270, 50.
25. Cf. ibid. pp. 275 ff. For examples see Fouilles de Delphes V, pl. XII, 1, 2 and 4 (oriental) and pl. XIII, 3 and 4 (Greek). Also Olympia Bericht I, pp. 72-73, figs. 33-36.
26. Hanfmann, Altetruskische Plastik, p. 13 f., suggests the latter possibility.
27. Ptoion, B.C.H. 1888, pp. 380 ff., pl. XII.
28. Notizie degli Scavi, 1913, pp. 429 ff.
29. E.g. Regolini-Galassi tomb, Pareti, La Tomba Regolini-Galassi, no. 240, pl. XXXIII.
30. Ibid., Nos. 307-317; pl. XL.
31. Ibid., no. 196, pls. XX-XXI. Stand no. 303, pl. XXXIX.
32. Furtwängler, Olympia IV, pp. 114-115 (with figure in text).
33. Olympia IV, pp. 114-131.
34. Ibid., p. 119.
36. Ibid., pp. 119 ff., nos 792-796.
37. Ibid., p. 120, no. 797.
38. Ibid., p. 120.
39. Ibid., p. 120.
40. Ibid., p. 119, no. 792.
41. Ibid., p. ~~119~~ 120, no. 796.
42. Schumacher, Beschreibung der Sammlung antiker Bronzen, p. 83, no. 446/
43. De Ridder, Bronzes antiques du Louvre, p. 103, no. 2614, pl. 94.
44. Mentioned, Bull. d. Inst. 1883, ~~pl~~ p. 68.
45. See above, note 10.
46. Furtwängler, Olympia IV, p. 122, no. 803.
47. Ibid., no. 804.
48. Ibid., no. 805.
49. Ibid., no. 806.

50. Ibid., p. 122, Inv. 7200 and Inv. 5986.
51. Ibid., no. 807.
52. Cf. Kunze, Olympia Bericht II, p. 115.
53. Miss Lamb, B.S.A. XXXV, p. 148, says, "From the evidence available up to date, it would seem that the spiral is not used on East Greek specimens, e.g. those from Chios, Ephesus, Kalymnos, and (possibly) Rhodes. There are, however, many unpublished ones from Samos which may alter the situation."
54. E.g. the ones from Corneto, op. cit. p. 123.
55. Ibid., pp. 123 f.
56. Ibid., p. 125, no. 810.
57. Ibid., pp. 126 ff.
58. Ibid., pp. 129 ff., nos. 815-821.
59. Olympia Bericht II, pp. 109 ff., fig. 69.
60. Ibid., pp. 113 ff., fig. 70 and pls. 48-50/
61. Ibid., ~~pp. 109-115~~ p/ 115 and pl. 51.
62. Ibid., pp. 109-115.
63. Ibid., p. 111.
64. Ibid., p. 115.
65. Ibid., p. 115.
66. Ibid., p. 113.
67. Ibid., p. 115.
68. p. 14.
69. p. 14, no. 25.
70. p. 85, no. 383.
71. p. 85, no. 384.
72. p. 87, no. 390, pl. XI, 1 and 1 bis.
73. pp. 85-86, nos. 379--385.
74. p. 86, no. 386, pl. X, 6.
75. p. 85, no. 385, ~~Inv. 3708~~ P1. X, 5

76. p. 86, no. 386, Inv. 3708.
77. p. 87.
78. Pl. X, 1, 2 and 7. P. 86, fig. 290 bis.
79. B.C.H. 1938, pl. XXXIV, 4.
Rev. Arch. 1938 II, pl. IV
B.C.H. 1944-45, pp. 67 ff., figs. 23-25, pl. VI.
80. B.C.H. 1944-45, pp. 67-74.
81. Ibid., p. 70.
82. Ibid., p. 71.
83. Perachora I, pl. 38.
84. B.C.H. 1944-45, p. 72, note 4.
85. Ibid., p. 73.
86. De Ridder, op. cit., p. 147, no. 431.
87. Ibid., p. 130, no. 436.
88. Ibid., p. 131, no. 437, new photograph in Olympia Bericht II, p. 113, fig. 71.
89. See above, note 83.
90. Ibid., p. 127.
91. B.C.H. 1944-45, p. 69.
92. Perachora, p. 128.
93. Ibid., p. 129.
94. Ibid., p. 129.
95. Ibid., p. 130.
96. Ibid., p. 129.
97. Dodone et ses Ruines, pl. LII, 10. Ht. 4 cm.
98. The finding of the griffins along with other objects is mentioned by Buschor, A.A. 1930, p. 147, but that is all. Payne, Perachora, p. 129 states that over a hundred griffins were found there, but Buschor does not give the number. Counting only whole protomes and heads in the museum in Vathy, I found more than eighty, so it is quite probable that there are more than 100 when the ~~various~~ various fragments are counted in.
- 99/ E.g. Miss Lamb's statement, above, note 53.
100. There is a possibility that the small bronzes at Delphi may be unpacked within the next year.

II. Development of the Greek Cast Griffin Type

There is general agreement on the fact that the griffin-cauldron was first introduced into Greece from the orient, but it is apparent from the introductory section of this paper that few, if any, scholars are willing to commit themselves definitely on the question of whether the group of hammered protomes that we have or any part of it is actually oriental work. At present I am even less prepared than they to decide such a question, since the only example to which I have had access is the one in Samos, which, being crushed flat, cannot give an adequate idea of what the object looked like in the round. Certain things suggest, however, that most of them are importations. There are two other groups of Greek bronzes of the orientaling period which are related to the griffin-cauldrons, and in each of these we seem to have examples both of oriental importations and of Greek imitations. This would suggest a similar situation in the case of the griffins.

The first group is that of the winged handle attachments with human heads variously known as "siren attachments" or "Assur attachments" (1). We know that these were attached to the same type of cauldron, and in Etruria, at least, to the same cauldron, as the griffins (2). Now the attachments on the cauldron in the Bernardini Tomb have the same facial type, the same shape of wings and tail (identical even to the number of scallops, ten on each wing and six on the tail), and the same drawing of the wings and tail feathers as an attachment in the Dutuit Collection (3). The provenience of the latter is unknown, but the incised decoration on the front of the bust is identical with that on attachments found in Armenia near Lake Van (4). It thus appears virtually certain that the Bernardini attachments are imported from the East, and, if they are,

the griffins may well be so too.

The winged handle attachments found in Greece fall into two easily recognizable groups, those which have oriental faces and the same general style as the Bernardini attachments and those which have distinctly Greek faces directly descended from the plastic art of the Greek geometric period, and whose whole scheme is translated from the run-together oriental form into a sharply articulated Greek syntax. (5) The most straight-forward explanation for this difference would be that the first group consists of importations from the East and the second group of Greek imitations of these, carried out with characteristic Greek individuality. The oriental group seems to show a progressive deterioration in quality -- the type does not develop and ~~finds~~ increasingly sloppy versions of it-- while the Greek group advances from small, rather crude early attempts to an excellent final product (6).

The same two groups and dual development seem to me to exist in another famous series of orientalizing bronzes, the Cretan Shields (7). These are associated with the handle attachments by various similarities in the engraved ornament which were noted by Emil Kunze in his monograph on the Cretan bronze reliefs (8) and with the griffins by the resemblance in style between the Barberini stand and the Idæan tympanon (9).

For the griffins it is naturally more difficult to tell what is and is not Greek style than it is for the other two groups of bronzes. The handle attachments have human heads which may be compared with the heads of Greek geometric figures, while the Cretan shields have human and animal types whose dependence on or independence of earlier Greek types maybe pointed out, but the griffin is a new creature in Greece and we have nothing earlier with which to compare it. As M. Amandry has pointed out, the fact that the hammered protomes develop in the direction of the

cast protomes would suggest that the former as well as the latter are Greek (10), but since the Etruscan griffins also have a parallel development he was led to assume a similar development in the oriental series which served as a model for both (11). The second assumption diminishes the force of the first, for we have in any case to assume a development in the (lost) oriental hammered protomes tending in the same direction as that of the Greek cast protomes.

Instead of assuming hammered models and hammered imitations leading up together to the cast series, one might assume that only the cast series and such hammered protomes as actually fit into it are Greek. That would mean that all the hammered griffins from Greek sites except for Furtwängler's Olympia 797 (12) are importations from the East. Olympia 797 is undoubtedly Greek, and the close similarity between it and the cast griffins should be kept in mind as a demonstration of how little the difference in technique need affect the style. The ears are probably shorter than they would have been had this piece been cast instead of hammered, but their shape is the same. No other hammered protome shows this very close similarity to any cast example, and yet certain early cast protomes appear to be contemporary with certain of the hammered ones. The similarities are such as one would expect if the one were imitated from the other, but not what one would expect if both were made by the same artists.

A. Early cast griffins

The earliest cast griffins are small, as first attempts at imitation of this kind would naturally tend to be, and just as the earliest Greek handle attachments and the earliest Greek "Cretan shields" seem to have been (13).

The one closest to the model is the short-necked little protome

from Delphi with cat-ears and a ring on the back of its head which M. Amandry listed together with his earliest group of hammered griffins (14).

There is a little protome in Samos with about the same size and with a similar short neck, but it is not so close to the model (15). It must be later than the Delphi one, for it has longer ears and a funny, floral-looking knob, but it is quite crude and tentative, not fitting into any established type. The knob may lead on, however, to a type which later does become canonized (16).

Other early cast griffins with short cat-ears appear in the form of griffin-attachments with spread wings made to be riveted to the outside of a cauldron in the same way as the more common siren-attachments. We do not know whether the ones we have are a Greek contamination of the oriental winged bull or siren attachments and the hammered griffin protomes or whether griffin-attachments as such already existed in the East. One from the earlier Olympia excavations, now on exhibit in the National Museum in Athens, must be one of the earliest Greek griffins (17). The head is very narrow, effective from the side but not from the front, and the details are rendered by incision, not by modelling. The knob appears only as a flat boss.

An attachment from the Argive Heraeum is smaller and cruder (apparently without engraved detail), but of the same general type (18). A griffin-attachment from Delphi, on the other hand, must be considerably later (19). It is like a miniature protome of the developed cast type attached to a wing-and-tail plaque.

In general the knobs of the Greek cast griffins are the single feature by which they can most readily be assembled into groups. As Furtwängler pointed out, the plain cylindrical knob of the hammered protomes does not appear on the cast ones (20). The few which do not

have a profiled knob have merely a flat disk in its place (21). The hammered protome Olympia 793 (22), belonging to M. Amandry's first group, is the only one which shows a rounded swelling at the top of the cylinder. An early group of cast griffins (23) has knobs in this simple form, rather like a doorknob set on end, but in facial form the griffins of this group come closest to certain protomes in M. Amandry's second group (24), which show a sharp offset from brow to nose, very prominent warts, and large circular eyes faintly reminiscent of the telescope eyes of the griffin-bird from Tell Halaf (25). Olympia 803 (26) and Acropolis 431 (27), with straightish beaks resembling that of Olympia 794/ (28), have the protuberant eyes cast solid. The spiral lock, rendered in relief, curls feebly at the end to a single loop, not a real spiral. Olympia 804 (29) is closest to the latest Delphi protome published by M. Amandry (30). Its big, round eyes are inlaid in amber. The lock is just as clumsy as in the preceding two griffins, but it is engraved, not plastic. It seems to hold as a general principle that plastic spirals are earlier than engraved and engraved spirals are earlier than none, but this cannot be strictly applied in every case. Olympia 804 is certainly earlier than many griffins with plastic spiral locks. The ears on Olympia 804 are no longer cat-ears, but still fairly short. The ears of all the others in this group are broken off.

Acropolis 432 (31) must be the latest of this group. The eye is inlaid and no longer round, but lozenge-shaped. The spiral lock is hatched in little groups of three strokes instead of the uniform hatching of 431.

The chariot-pole griffin from Delphi (32) is not much, if at all, later than these, but it has added a little astragal under the ball-like part of the knob. The spiral lock is engraved and the warts are a little less prominent.

The next group (33) adds a little bump like a pin-head on top of the ball to balance the astragal below (34). The stem below the ball is still short and thick. The most striking members of this group are solid-looking big cast heads made to be joined onto necks of hammered sheet-bronze (35). These composite protomes were bigger than any earlier protomes and must have adorned cauldrons of a new grand scale. The broad, heavy proportions of the head, the three warts, the relatively straight beaks and the rounded outlines of the eye with rounded ridges above it suggest that this group is descended from the preceding. An example in Samos (36) has the hammered neck partly preserved. The restoration, which seems to be justified by the remains, gives a neck much longer in proportion to the head than one finds in either all-hammered or all-cast protomes. If the whole protome had been cast, it would have been extremely heavy, and that is doubtless why the hammered technique was resorted to here. The ears in this group are longer than in the preceding, but still broad and spoon-like, with symmetrical outlines. The Delphi head has a plastic spiral above the eye.

The traits of these bigheads are duplicated in miniature in the head of a little walking griffin from Olympia which probably belonged to the decoration of a tripod-stand (37).

A fine all-cast griffin from Olympia has the same knob form as the above group, and its eyes are similar, but it is generally a little more advanced. The beak curves more, the neck has a fine swing, and the ears are taller and slenderer. The plastic side lock ending in a tightly

coiled spiral is decorated with groups of three little strokes. The warts have disappeared altogether from this example. (37a)

Parallel to the door-knob school of griffins with rounded eyes, there seems to have developed a school with big, flat eyes and knobs

in the shape of pomegranates (38). This group is represented by isolated specimens elsewhere, but the greater part of it is in Samos. Several things suggest that it is early. The spiral lock is most often shown in relief. The knob is broad, with a heavy conical base. The ears, though slenderer than in the preceding group, are mostly of moderate length. The necks are slender, but lack strong curves. The fact that the scales on most of these protomes are round, as on Olympia 803, instead of pointed, may also indicate early date.

The beginnings of the pomegranate group do not attach so readily to any point in the hammered series as do the beginnings of the doorknob group. It is a simpler type, less detailed and less clearly articulated. The sharp offset from brow to beak is missing, as are the warts which would serve to emphasize it. The spreading conical base of the knob runs directly down into the line of the top of the beak. The under side of the beak curves about as much as in the doorknob group, being sometimes rather straight and never really hooked. The outline of the big, flat eyes is like that of human eyes in seventh century vase painting. A single (occasionally double) ridge runs all the way around the eye. One example in Samos with the general proportions of this group (its knob is broken off) has a plastic spiral lock over the eye (39).

Outside of Samos, a typical pomegranate griffin was found at Velestino in Thessaly (40), and a late, atypical example at Olympia. (41) The latter has a smaller eye, engraved spiral lock, thin-stemmed knob and shaply curving beak. A small protome at Delphi has the lines of the pomegranate group, but the tip of its knob is broken off so that we cannot be sure (42). Another small Delphi protome ~~is~~ with plastic spiral locks and fairly short ears may be a late member of the group, though its knob is gone completely (43).

Two odd little griffins in Samos may be immediate ancestors of the

pomegranate group. One is a little iron protome with a clumsy neck and short, pointed ears (44). Its knob is an amorphous lobed affair sitting directly on a conical projection of the top of the head. A bronze griffin of which we have only the head shows a similar lobed knob and big, flat, almost triangular eyes (45). The beak of this one has considerable curve, but is narrow in front view, while the width across the back of the open mouth is very great. If it is a direct copy from any hammered griffin type it would be from one at about the stage of the Barberini griffins (46).

Two cast griffins which seem to belong at the end of the early period do not attach closely to any group. The one is a small protome from the Argive Heraeum, with engraved double spiral locks and three rather daintywarts (47). The rather heavy, solid forms relate it to the doorknob group, but instead of a knob it has merely a flat disk on the top of the head. The engraved spirals and the stronger curve to the beak put it late in the early period.

The other is a head from Ephesus. (48) It has rather long ears and two warts between the eyes. The knob is broken off. The heavy forms and round eyes make it seem contemporary with the later doorknob griffins, though it does not really resemble any other griffin that we have.

B. Later cast griffins

The great cast head from the new excavations at Olympia and its two less well-preserved replicas (49) are rather outside the ordinary categories of cast griffins. Kunze dates them later, but not much later, than the big cast heads with warts and doorknob crests (50). No smaller griffin head of any date has such a sharply hooked beak or such keenly pointed ears. As Dr. Kunze has pointed out, the head is

composed for the front view as well as for the side view, and the eyes are moved forward so as to be effective from both angles (51). A heavy ridge running across the top of the beak below the eyes serves to separate the beak from the brow. There are not warts. The ears are slender and the tips swing a little forward instead of rising on a stiff vertical axis. In proportion to the rest of the head the ears are not very long, but on a smaller head they would have to be longer to give the same effect. The knob, too, is smaller in proportion to the rest of the head than in griffins of ordinary scale, but its form, an inverted cone on a slender stem, is itself dynamic and upward-straining. (52) It is difficult to say how long it would take to go from the static massive strength of the earlier group of large heads to the tense vitality of these. Whatever the interval may have been, it was long enough for every trace of roughness and simple, uncontrolled mass to be eliminated from the forms. Everything here is smooth, calculated and interrelated into a powerful unified pattern of lines and surfaces.

The big all-hammered protome Olympia 797 (53) may be contemporary of the above. It has in common with them the grand scale and the sharply curved beak. The ears are necessarily blunter because of the technique. The knob is of an elaborate type that may be derived from a combination of the doorknob and inverted cone types. The conical part is inserted between the tip and the astragal, and is decorated with an engraved petal pattern. This type of knob goes on for a long time. It is the most characteristic form of Greek griffin knob, and almost all the later forms are merely simplifications of it.

Furtwängler pointed out the close resemblance between Olympia 797 and the cast griffin Olympia 806 (54). Besides the identical knob-form

they have in common the tense curves of the beak and the fine engraved spirals over the eye and down the side of the neck (55). The big double spirals are calculated to emphasize the sharp swing of the neck and to fill the surface ~~ix~~ at this point where it widens out. They form the greatest possible contrast to the limply hanging loops of Olympia 803 and Acropolis 431. One pointed wart remains of the traditional row of them between the eyes. Dr. Kunze has published a fine new example from Olympia of this same style and size (56). Only the knob differs, by having a ball instead of a cone on top of the slender stem. Delphi has a slightly smaller and badly damaged specimen of the same type (57). At Samos no whole examples are preserved, but there is a neck of the same shape with the same big engraved spirals (58) and a fragment of a head with engraved spirals over the eyes which may be from a griffin of the same type (59). The lone knob from Dodona (60) has the engraved petals ~~and~~ found on Olympia 797 and 806.

A head from the sanctuary of Poseidon at Kalaureia (61) still has engraved spiral locks, but in other respects appears later. It is transitional to a type of which there are many examples, the best-preserved and most beautifully published being one from Kamiros in the British Museum (62). Payne published it in Perachora, not because it had any particular connection with the Perachora griffin, but simply because it was so beautiful. This type has lost some of the vitality of the preceding group, which was, in any case, too intense a thing to have lasted for long. The big spirals, after having attained perfection, vanish altogether. The torus-like ring around the base of the protome which generally went with the spirals (decorated with groups of hatchings to match those on the spirals) also disappears. The outline of the neck does not change much. It may be a little slenderer where it joins the back of the head, but the strong swing remains. The neck is covered

with a fine, uniform pattern of little pointed scales. The ears are very tall and stiff-looking. The arched ridges above the eyes turn into sharp arrises. These, and almost ~~me~~ every other sharp edge on the protome, are hatched with little, fine strokes. This and the fine all-over scale pattern give this group its uniformly well-bred appearance. The curve of the beak is inherited from the preceding group, but it has lost some of its fierceness. The knob is the same, except that it usually lacks the engraved petals. The one example from Olympia belonging to this group still has them, however. The one wart has of course been banished from this polished company. For all their sleekness, the griffins of this group are not feeble or over-delicate as works of art. The stiff, straight ears and firmly profiled knobs give them a look of stability, and the heavy earlocks and projecting brow-ridges give the heads breadth when viewed from in front. (63)

There exists a large group of griffins, however, in which the slenderness is exaggerated and the forms have become fluid and generalized. Some of these may be contemporary with the above group, but many of them must be still later. The ears are extremely long and thin, and the knob has become a pointed blob on a thin stem. The beaks of these griffins have a fine hooked curve that is quite pleasing in profile, but the heads are narrow and characterless in front view. The sharp eyebrow ridges of earlier groups have here been rounded and blurred away. The eye sometimes has a socket pierced for inlay, but very often it is simply cast solid in the bronze. A griffin from Kato Phana in Chios is a good typical specimen. The large coarse drawing of the scales is to be noticed in contrast to the preceding group (64). A very large number of the griffins in Samos are of this type.

One of the finest examples there has ears 9 cm. long to a height of $24\frac{1}{2}$ cm. for the whole protome (65). The type is also represented at Delphi (66) and on the Athenian Acropolis (67), but not at Olympia. Three Greek protomes from Broglio in Italy are also of this type⁽⁶⁸⁾ It is amusing to compare them with a native Etruscan griffin protome from the same site which looks like a caricature of the worst features of this late Greek type. (69)

C. Where were Greek cast griffins made?

There is no real evidence for the places of manufacture of the various types of Greek griffins. Herodotus speaks of a cauldron "like an Argolic krater" being made at Samos. This would lead us to expect an original Peloponnesian school and perhaps a later East Greek school imitating it. Payne suggested that the early hammered protomes might be Peloponnesian (70). Others, noting that griffins without spirals turned up at various East Greek sites (e.g. Rhodes and Chios) but not at Olympia, declared that the absence of the spiral lock was the mark of an East Greek griffin (71). ~~Payne rightly reserved judgment on this until the Samos griffins should become known (72).~~ There are numerous early griffins with spiral locks in Samos, and recently a late griffin without spirals has turned up at Olympia (72). Still, the Samos material does give some reason to believe that there was an East Greek school subordinate to an earlier and better West Greek school. All the main types found at Olympia are represented at Samos, but the types which form the largest groups among the Samian material do not occur at Olympia. My candidates for East Greek griffins would be the pomegranate group and its forebears among the earlier griffins and the slender type represented by the Chios griffin among the later ones. Both these groups when compared with the other types discussed here show a certain

lack of articulation such as is often attributed to East Greek archaic sculpture in contrast to Attic and Peloponnesian. In general the quality is poorer, and that would explain why the Samians imported the West Greek griffins in all periods, but the East Greek griffins did not spread so widely until the latest period, when perhaps the western shops had stopped producing. I am not clear as to what, if anything, comes between the pomegranate group and the Chios type. Perhaps the pomegranate group lasted later than equivalent early types in the west. In any case, the East Greek artisans must have been influenced in the formation of the later type by the western examples which they had continued to be imported. The knobs of the latest type are certainly a simplification of the tall profiled type developed in the best western shops. The more representational pomegranate knob might be said to fit in with a more florid, East Greek spirit, while the architecturally profiled knobs are more in keeping with the usual conception of Peloponnesian qualities.

The group to which the handsome British Museum griffin from Kamiros belongs has been called East Greek (73), but I am not inclined to regard it as such. The distribution of the preserved specimens is neither for nor against the attribution. The type is represented by a few specimens at every site where there are many griffins, but it has not turned up en masse anywhere. All the forms seem to descend so directly from the group of Olympia 806 that it seems better to regard these handsome griffins as Peloponnesian until more evidence turns up.

The fact that there are no late bad griffins at Olympia suggests that the Peloponnesian or West Greek school may have stopped producing earlier than the East Greek, which continued to grind out a medium and low-grade product for export and home consumption. No first-rate Greek cast griffins have been found outside of Greece. They are

The isolated specimens from Italy, France, and Spain are all of the latest type and may well have come from the same factories which produced the row on row of uninspiring heads in the museum in Vathy.

D. When were Greek cast griffins made?

This question is not being answered here. There is actually, I believe, a considerable amount of evidence for dating griffins, though the straightforward method of dating through stratification is not a possibility here, mainly because the griffin-cauldrons were sanctuary valuables which were kept on hand for a long time ~~for~~ before they found their way into the earth. A good illustration is the early hammered griffin from Perachora, which was found in a sixth century deposit (73).

Imitations of griffin-cauldrons in pottery should give some help if an approximate date could be decided on for the vases. The Proto-Attic stand bowl in the Kerameikos seems to correspond to the earlier cast griffins, but this is dated in the first quarter of the sixth century by one scholar, and in the third quarter by another. The famous griffin-jug from Aegina has been rather overworked, but still without any very definite results. It most resembles hammered protomes of Amandry's second group, but the use as the spout of a jug necessitates some changes in the proportions. In a work on Late "Hittite" sculpture which is to appear shortly Ekrem Bey points out the resemblance of the lower jaw on the griffin-jug to that on the griffin-demon from Sakje-Geuzy, which he dates around 720 B.C. He is therefore in favor of dating the griffin-jug as early as possible in the seventh ~~and~~ century. Students of Cycladic pottery as such are tending to date it later.

Painted griffins on vases follow the bronze types to some extent, but show a great deal of freedom. Griffins on metal reliefs are closer,

but much harder to date in themselves. Probably the only way to arrive at absolute dating is to work with all these types of comparative material and choose the dates which produce the least violent contradictions when the whole mass of evidence is assembled. This is something on which I have barely begun at present, but the following Extremely tentative schedule seems possible as a starting-point:

- | | |
|---------|---|
| 700-675 | Earliest hammered griffins and small cast griffins directly imitating them. |
| 675-650 | Later hammered griffins. Cast griffins of the type of Olympia 803 and the earlier pomegranate griffins. |
| 650-625 | Large cast griffins beginning with the three-wart group and culminating with the new Olympia head. Olympia 806 and its contemporaries around 625. |
| 625-600 | Good, but less strong protomes, the type of the British Museum griffin from Kamiros. |
| 600-575 | Late, slender and simplified griffins. Predominance of the East Greek type. Export of Greek griffins to Italy, Spain, and France. |

Footnotes to Section II

1. A list of all examples known is given by Kunze, Kretische Bronzereliefs, Appendix II, pp. 267 ff. Two new examples from Olympia, one from Delos, and the tail of one from the Argive Heraeum have to be added to this list.
2. Cf. the Bernardini cauldron, M.M.A.R. 3, 1919, pls. 52-54.
3. Froehner, Collection Dutuit, Bronze antiques, pls. 7-9.
4. Kunze, loc. cit., nos. 3 and 4.
5. Compare Olympia Bericht I, pls. 20 and 21.
6. E.g. ibid., pl. 21. An attachment in Boston (A.M. 1930, Beil. 47) is considered by Kunze and Hampe to be the latest Greek style attachment, later than this Olympia example, but I suspect that it may really be exactly like it, the softer forms being due to weathering.
7. Kunze has attempted to prove that these shields are all of Greek manufacture. Albright has stated that they are Phoenician. So far as I know, I am the first person to try to split the difference.
8. Die Kretische Bronzereliefs, Stuttgart 1931.
9. Ibid., pl. 49.
10. See above, Section I, p. 14.
11. ~~to~~ B.C.H. 1944-45, p. 73. The possibility has sometimes been suggested ~~that~~ that the Etruscan examples were imported from Greece. The fact that there are no Greek griffins of the middle period in Italy, but only the earliest and latest types would argue against this hypothesis.
12. See above, Section I, pp 9, note 37.
13. E.g. Kunze, Kretische Bronzereliefs, pl. 34, no. 29, and pl. 40, no. 44.
14. See above, Section I, p. 12, note 75.
15. B 35. Ht. $7\frac{1}{2}$ cm.
16. See below, p. 6.
17. Olympia IV, p. 118, no. 791, pl. XLIV.
18. Waldstein, Argive Heraeum II, pl. CXXIII, no. 2205.
19. Fouilles de Delphes V, p. 87, no. 391, pl. X,8.
20. Olympia IV, p. 122.
21. See below, p. 8.
22. Olympia IV, p. 119, pl. XLVI.

23. Olympia 803; Acropolis 431; Olympia 804; Delphi 386, pl. X,5; Acropolis 432.
24. B.C.H. 1944-45, p. 71.
25. Von Oppenheim, Tell H alaf, pl. XI.
26. Olympia IV, p. 122.
27. De Ridder mentions the resemblance to 794.
28. Olympia IV, p. 119.
29. Ibid., p. 122.
30. B.C.H. 1944-45, pp. 67 ff., figs. 23-25, pl. VI.
31. De Ridder, op. cit.
32. Delphi 386, Inv. 3708.
33. Acropolis 437; Olympia Bericht II, Pl. 47; Samos no number (ht. $56\frac{1}{2}$ cm.); Delphi 390, pl. XI, 1; Olympia 805.
34. A detached knob in Samos which must have belonged to a very large griffin if it really is from a griffin has a separate pin running through the knob. This must be the origin of the bump on top.
35. Collected as a group in Olympia Bericht II, pp. 111 ff., but without mention of the Samos example.
36. See above, note 33.
37. Olympia IV, 818, pl. XLVIII.
- 37a. Olympia IV, 805, pl. XLVII.
38. Samos W7 ($23\frac{1}{2}$ cm.); B467 (19 cm.); J 657; Volo (from Velestino) Bequignon, Recherches archeologiques a Pheres, pl. XXI, 1; Delphi 380, pl. X, 3; Delphi 379.
39. No number (ht. $14\frac{1}{2}$ cm.).
40. See above, note 38.
41. Olympia 807.
42. Delphi 380.
43. Delphi 379.
44. No number. (Ht. $11\frac{1}{2}$ cm.)
45. No number (Ht. 7 cm.)
46. The front view in Mühlestein, Kunst der Etrusker, pl. 103, shows clearly the narrowness across the top of the head and the width across the back of the mouth.

47. A.J.A. 1939, p. 428 and fig. 16.
48. Hogarth, Excavations at Ephesus, p. 151, pl. XVI, 4.
49. See above, Section I, note 60.
50. Olympia Bericht II, p. 115.
51. Ibid., p. 114.
52. A smaller and seemingly later head, from the earlier excavations, Olympia 808, Olympia IV, p. 122, figure in text, has the same knob form.
53. Olympia IV, p. 120, pl. XLV.
54. Ibid., p. 120.
55. A little protome in Samos (no number, ht. $10\frac{1}{2}$ cm.) looks like a forerunner of this group. It has three warts, a curved beak, plastic spirals over the eye and two plastic spirals down the side of the neck.
56. Neue Meisterwerke, no. 25.
57. Fouilles de Delphes, no. 382, pl. X, 4.
58. 391.
59. No number (greatest length of fragments $9\frac{1}{2}$ cm.)
60. See above, section I, note 97.
61. A.M. 1895, pp. 312 f, pl. X.
62. Perachora, p. 128, fig. 19.
63. Cf. Olympia Bericht II, pl. 51.
64. Arch. Δελφ 1915, p. 77, fig. 13.
65. W4.
66. Fouilles de Delphes, 381, Pl. X, 2.
67. Acropolis 436.
68. Mühlestein, Kunst der Etrusker, pl. 111.
69. Ibid., pl. 168.
70. Perachora, p. 129 f.
71. See above, Section I, note 53.
72. Olympia Bericht II, p. 115, pl. 51.
73. I.e. by those who consider that spiralless griffins are East Greek.