

# CORINTH

RESULTS OF EXCAVATIONS

CONDUCTED BY

THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS

VOLUME XV

PART I

## THE POTTERS' QUARTER

BY

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THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS

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## PREFACE

THE Potters' Quarter site, which lies somewhat off the beaten track of Corinthian travel, first attracted serious attention when George Kachros, guard of antiquities, noticed numbers of sherds strewn over the ground in this area. He and Dr. Rhys Carpenter, then Director of the American School, made trial pits in the fall of 1928 and found that not only did the sherds continue below the surface but complete miniature vases and figurines also turned up. Later in the winter I was asked to make other trial pits and in the spring was assigned to begin regular excavations. In a short time it became apparent that the site was the potters' quarter of ancient Corinth. Perhaps it would be safer to say that it was one of the potters' quarters, since there is as yet no evidence that architectural terracottas, a very important part of the Corinthian clay-working industry, were manufactured here. Vases of one large and important class, that which shows elaborate figure scenes, usually mythological, are also not represented in the amount one would expect if they had been made here. The site, however, certainly produced most of the other well-known types of Corinthian pottery, and it must have been equally important as a center for the manufacture of figurines.

I wish to offer here my sincere thanks to those who furnished valuable advice and aid during the excavation of the Potters' Quarter, especially to Rhys Carpenter for the opportunity of excavating the site and for his help and advice during the progress of the work, and to Oscar Broneer for much material assistance and guidance in the early stages of the excavation. In dating the various buildings I was greatly aided by being able to draw upon the expert knowledge of Miss Katharine M. Edwards in regard to coins, of Oscar Broneer in lamps, of Sterling Dow in inscriptions, and of Miss Lucy Talcott and Homer A. Thompson in Attic pottery. Finally, I wish to express my gratitude to the many friends who have given me encouragement during the preparation of this volume, and in particular to my husband, Richard Stillwell, for valuable help and counsel as well as encouragement.

The photographs of Plate 5 B and C were contributed by Oscar Broneer; the author is responsible for those of Plates 2 A, B and C, 4 B, 8 A-D, 15 A and B, 21 B and C, and 22 A and B; all the rest are the work of Hermann Wagner. The drawings of Figures 1-11 and Plates 51-52 were made by Joseph M. Shelley.

AGNES N. STILLWELL

## CONTENTS

	PAGE
I. The Excavations and Buildings . . . . .	3
II. Architectural Blocks and Sculpture . . . . .	63
III. Terracotta Figurine Moulds . . . . .	82
IV. Metal and Glass Objects . . . . .	114
Index . . . . .	133

# ILLUSTRATIONS

## FIGURES IN THE TEXT

FIGURE	PAGE
1. Stele from Stelai Shrine A . . . . .	72
2. Stele from the "Erosa Shrine" . . . . .	73
3. Stele from the Cistern . . . . .	73
4. Stele from the Circular South Shrine . . . . .	74
5. Stele from the Terracotta Factory . . . . .	74
6. Stele from the Shrine of the Double Stele . . . . .	76
7. Offering Table from the Cistern . . . . .	76
8. Altar from the Cistern . . . . .	78
9. Altar from the Terracotta Factory . . . . .	79
10. Altar from the Shrine of the Double Stele . . . . .	79
11. Archaic Doric Capital . . . . .	80

## PLATES

*(The Plates are to be found at the end of the book)*

### PLATE

- A. Acrocorinth from the Potters' Quarter  
B. View from Acrocorinth, Showing the Potters' Quarter
- A. Vases Outside Geometric Grave V  
B. Cover Slab of Geometric Grave VI  
C. Interior of Geometric Grave V  
D. Early 7th Century Fortification Wall
- A. Early Fortification Wall (Left) and South Long Building  
B. Building of the Second Half of the 7th Century
- A. North Long Building (Foreground), Third Tower of City Wall, and South Long Building (Upper Left)  
B. Modern Pottery Factory in Lower Messenia
- A. Double Water Channel  
B. Stelai in Stelai Shrine A  
C. Stelai Shrine A  
D. Stelai Shrine A and Graves 1, 2 and 3
- A. Stelai Shrine B  
B. Reservoir Southeast of the Terracotta Factory

7. A. Stuccoed Block and Offering-Table Supports near the Cistern  
B. "Erosa Shrine"
8. A. South Cemetery  
B. Circular South Shrine from the Northwest  
C. Circular South Shrine from the East  
D. Circular South Shrine from the Southeast  
E. Cement Floor and Well
9. A. Terracotta Factory from the North  
B. Terracotta Factory from the South
10. A. Terracotta Factory from the Northeast  
B. Court of the Terracotta Factory
11. A. Exterior Face of the West Wall of the Court  
B. Piers and West Wall of the Court
12. A. Northwest and North Rooms of the Terracotta Factory  
B. South Room and Part of the Court
13. A. Northeast Room, Showing Capital in West Wall  
B. Northeast Corner of the Terracotta Factory
14. A. Altar Room of the Terracotta Factory  
B. South Room
15. A. Shrine of the Double Stele  
B. Shrine in Process of Excavation  
C. West City Wall at North Stairway
16. A. Outer Face of City Wall at North Stairway  
B. City Wall North of Second Tower, Showing Masons' Marks
17. A. Detail of Outer Face of West City Wall  
B. Mason's Mark at End of North Stairway  
C. Masons' Marks on Outer Face of North City Wall
18. A. Outer Face and Fill of North City Wall  
B. North Side of Third Semicircular Tower
19. A. Third Semicircular Tower of West City Wall  
B. Second Semicircular Tower
20. A. Rectangular Tower at Northwest Angle of City Wall  
B. Supporting Wall for a Ramp at South Side of Rectangular Tower
21. A. South Face of Gate (Foreground) and Second Tower of West City Wall  
B. Sarcophagus in Fill of West City Wall  
C. Interior of the Grave in the City Wall
22. A. Stelai in the Schimatari Museum  
B. Stele in the Agora at Corinth

- c. Stele from the “Erosa Shrine”
  - d. Stele from the Cistern
23. A. Stelai from Stelai Shrine A  
B. Stele from the Terracotta Factory and Offering Table from the Cistern
24. A. Stele and Altar from the Shrine of the Double Stele  
B. Altar from the Cistern
25. A. Altar from the Terracotta Factory  
B. Archaic Doric Capital
26. A. Left Side of the Stone Siren  
B. Right Side of the Stone Siren
27. A. Back of the Siren  
B. Front of the Siren  
c. Marble Hand Holding a Kantharos  
d. Hand Holding a Kantharos
- 28–46. Terracotta Figurine Moulds
- 47–49. Metal Objects.
50. Metal and Glass Objects
51. Plan A, The Excavated Area in the Potters’ Quarter
52. Plan B, The Terracotta Factory

## ABBREVIATIONS

A.J.A. = American Journal of Archaeology

Annuario = Annuario della R. Scuola archeologica di Atene e delle Missioni italiane in Oriente

Arch. Anz. = Archäologischer Anzeiger

Ἀρχ. Ἐφ. = Ἀρχαιολογικὴ Ἐφημερίς, Περιοδικὸν τῆς ἐν Ἀθήναις ἀρχαιολογικῆς Ἑταιρείας

Ἀρχ. Δελτ. = Ἀρχαιολογικὸν Δελτίον τοῦ Ἑπουργείου τῶν Ἐκκλησιαστικῶν καὶ τῆς δημοσίας Ἐκπαιδεύσεως

Arch. Zeit. = Archäologische Zeitung herausgegeben von archäologischen Institut des deutschen Reichs

Ath. Mitt. = Mitteilungen des deutschen archäologischen Instituts, Athenische Abteilung

B.C.H. = Bulletin de correspondance hellénique

B.S.A. = The Annual of the British School at Athens

Bull. Metrop. Mus. = The Bulletin of the Metropolitan Museum of Art, New York

Compte-rendu = Compte-rendu de la commission impériale archéologique. St. Petersburg

C.V.A. = Corpus Vasorum Antiquorum

Gaz. arch. = Gazette archéologique, recueil de monuments pour servir à la connaissance et à l'histoire de l'art antique

Jahrbuch = Jahrbuch des deutschen archäologischen Instituts

Jahreshefte = Jahreshefte des österreichischen archäologischen Instituts in Wien

J.H.S. = The Journal of Hellenic Studies

Mon. Ant. = Monumenti antichi pubblicati per cura della Reale Accademia dei Lincei

Mon. Piot = Fondation Eugène Piot, Monuments et mémoires publiés par l'académie des inscriptions et belles-lettres

N. d. Sc. = Atti della R. Accademia nazionale dei Lincei, Notizie degli scavi di antichità

Πρακτικά = Πρακτικὰ τῆς ἐν Ἀθήναις ἀρχαιολογικῆς Ἑταιρείας

Rev. arch. = Revue archéologique

Röm. Mitt. = Mitteilungen des deutschen archäologischen Instituts, Römische Abteilung

## THE POTTERS' QUARTER

## CHAPTER I

### The Excavations and Buildings

**T**HE Potters' Quarter lies about a mile west of the ancient Agora of Corinth. It is situated on a long, tongue-shaped plateau<sup>1</sup> which forms the northern end of the first of a series of north-south ridges lying to the west and northwest of Acrocorinth.<sup>2</sup> On either side of the plateau is a ravine, the west one considerably deeper than that on the east. The two ravines meet at the north end of the plateau and run out to the Corinthian plain.<sup>3</sup> There is no water now in the upper part of the east ravine, but further down, on the east side of the road which runs through it, a fairly good spring emerges from under the rock of the next hill. A small brook which runs through the west ravine usually contains water. The surface of the plateau consists of a fairly thin layer of soil over a rock ledge which in turn rests on clay. At the west side the ledge is not very thick, but at the east it is considerably deeper, in places reaching nearly to the bottom of the ravine. Such a formation makes the hill particularly susceptible to change by earthquake. At the western edge particularly, where parts of several buildings have been lost, it is obvious that the cliff no longer has the same contours that it had in ancient times. In an earthquake in January of 1931 a piece of the cliff fell into the ravine, carrying with it an already excavated wall.

Most of the clay used in the Potters' Quarter probably came from the west side of the hill. At present the clay on this slope is mixed with earth, making a marl which in this form cannot be used for pottery. In ancient times the clay was doubtless quarried out of the side of the hill and thus obtained in a purer form. The consequent undermining of the rock probably was a contributing factor in the collapse of so much of the rock ledge at the top. Other clay beds lie on the west side of the ravine (see Plate 1 B) and were doubtless also worked in antiquity.

Two ancient roads can be traced leading from the ravine to the top of the hill. The chief one may be seen on the plan opposite the third tower of the City Wall. Its course is roughly Z-shaped. The earth was banked along its north edge, but the road was never surfaced and, though it was wide enough for a cart, it was probably used almost entirely

<sup>1</sup> This plateau appears in the center of Plate 1 B. Along its left edge may be seen the excavated area; the white patches on the opposite side of the ravine are clay beds. The village and church of Hagioi Anargyroi are in the foreground. In the upper right-hand corner one may see the road to Sikyon.

<sup>2</sup> The relation of this ridge to Acrocorinth is shown in *Corinth*, III, pt. 2, fig. 47.

<sup>3</sup> The panorama from the site is one of the finest in Corinth, with the exception, naturally, of that from Acrocorinth. Plate 1 A shows Acrocorinth to the south; in Plate 3 A one may see the view over the Corinthian plain and the Gulf of Corinth to the promontory of Perachora and the peak of Helikon, and in Plate 11 A the view of Geraneia. Parnassos and Kiona are also clearly visible from the site. The view to the west is dominated by Kyllene.

by men and donkeys bringing up the clay from the ravine below. The other road, which does not appear on the plan, lies just beyond the south end of the excavated area. The hill at this point is much higher and steeper, and the road was probably not as extensively used as the other.

Most of the small stones employed in the rubble walls of the Potters' Quarter probably came from the ravines. Some of the cut blocks may have come from the east ravine, where there are traces of quarry cuttings, and perhaps also from the west, though the configuration of this ravine has changed so much that traces of quarrying are no longer to be seen. For the City Wall, however, stone must have been obtained from other sources. About half a mile west of the Potters' Quarter there is a very extensive ancient quarry which might have been worked at that period, though it has not been investigated and may not be as old as the Potters' Quarter.

The surface of the plateau on which the excavations lie slopes gradually downward to the north. Toward that end the surface of the field is broken near the center by two steps which form a narrow terrace; below this, the field again slopes evenly to the north end of the hill. The main excavations of the Potters' Quarter lay along the western edge of the plateau, and toward the northern end turned eastward to follow the line of the terraces mentioned above. The excavated area comprised a narrow strip of land about 340 m. in length, over 260 m. of this distance lying along the west edge of the hill. With the exception of the Terracotta Factory area, this strip is only about ten or fifteen meters wide, since further in from the edge the finds became so scanty that it did not seem worth while to continue in that direction.

There were no modern buildings on the hill; in fact, the nearest are those of the small settlement of Hagioi Anargyroi (Plate 1 B, foreground), some distance to the southeast. With the exception of a few Roman bricks and tiles from the east side of the field and the foundations of a very small late Byzantine church at the south end, just where the steeper slopes from Acrocorinth join the field, there was no indication that the site had ever been occupied after the 4th century B.C. The field, at the time of excavation, was owned by one family, consisting of a widow and seven sons. It was divided horizontally into strips of varying widths (see Plate 1 B), each of which had a different owner or a different combination of owners. As the excavated area ran along nearly the entire west edge of the field, cutting across most of these strips, the negotiations for permission to dig and finally for the purchase of the excavated strip may be said to have been fairly complicated.

Before excavation began, it had been thought that only a small area would have to be explored and could then be covered up again. The earth, therefore, was kept to fill in the excavated areas. Thus, when it finally became necessary to buy the land and excavate it more thoroughly, the large dumps from previous operations had to be removed. After that time the earth was thrown directly into the west ravine, since trial trenches had shown that the ravine contained no ancient remains except what had fallen from the field above.

Attention was first called to the site when it was observed that many sherds and

fragments of roof tiles lay on the surface of the field. No other ancient remains were visible, except two wells and the top of a large cut block which turned out later to be part of Wall B (p. 16). One of the wells was Well VI, toward the south end of the excavation (p. 33). The other lay at no great distance from the eastern side of the field, near the end of the narrow terrace which crosses the northern part. This well was later partially excavated, but yielded nothing.

In the fall of 1928 a few trial pits were dug at various places in the field and revealed a thick deposit of sherds, especially along the very western edge of the cliff, near where Stelai Shrine A was later uncovered. In the spring of 1929 regular excavation was begun on a very small scale, with only about four or five workmen, and carried on for nearly three months. Most of the work was done in the central part of the area, especially around Stelai Shrine A.

For three months in the spring of 1930 the work was continued in both directions from the excavation of the year before. The most important result of the season was the uncovering of the Terracotta Factory. The workmen were increased, but only to an average of ten; the work, therefore, still progressed slowly, but the use of a greater number of men would hardly have been practicable, as the small finds in many areas were so numerous that it would have been impossible to keep up with the recording if more men had been digging. The thick sherd deposits and the closely packed deposits of vases and figurines required particularly careful digging.

In 1931 a spring campaign of the usual length brought to completion the excavation of the west side of the hill. An average of fifteen men was employed and the most important finds were the Circular South Shrine and the Shrine of the Double Stele. The excavation seasons of the next three years were devoted to sorting sherds and piecing together vases, to the inventorying of the vases, figurines and metal objects, and to the study of the material.

If one considers the small scale of the excavation during these three seasons, the list of small objects found is seen to be unusually large. A total of approximately 850 baskets of sherds was obtained from the entire area. Under the heading of "pottery" about 2700 items were inventoried, comprising the vases and the more important sherds. This classification included none of the miniature vases, a group which numbered somewhere between 3000 and 4000. About 2300 terracotta figurines, or parts of figurines, were inventoried; to this number must be added a large quantity of uninventoried fragments. There were also found 110 moulds for making figurines. The coins from the excavation totalled 103, an unusually large proportion of which were of silver. About 150 metal objects, bronze, iron and lead, were inventoried. A large group of miscellaneous clay objects comprised lamps, loomweights, etc.

In the spring of 1935 a week was spent in making trial trenches at the east side of the hill. One trench contained no walls, but a few sherds and figurines of the classical period and also a number of Roman bricks and *tegulae mammatae*. The other trench revealed a small building of at least two rooms with rubble walls. One room was partly paved with fragments of flat roof tiles. A well-cut stone gutter ran outside the west wall,

and a short distance to the southwest was a well with a high stone curb. In this area were found a few sherds and figurines, all of types common in the excavations on the west side of the hill. About sixteen coins were found in the second trench; of these, five were Greek of a period after the middle of the 4th century B.C., two were Corinthian obols of indeterminate date, six were Roman or Byzantine and three were illegible (one of these is certainly Greek). The number of Greek coins datable after the middle of the 4th century and the appearance of curved roof tiles, fragments of which were found in the well, probably indicate that the building is of late 4th century date. The comparatively small numbers of sherds and figurines and the fact that no moulds or wasters were found may be taken to show that the building was not a pottery factory. A more thorough investigation of the east side of the field would be highly desirable.

The numerous structures uncovered at the west side of the hill present a rather confused plan, not because buildings of later periods were often superimposed on earlier ones, but because previously existing structures were largely, but seldom entirely, removed to make way for succeeding ones. Occasionally an earlier wall, or part of one, was retained in a later construction. The earliest buildings are so fragmentary that it is hard to form an idea of their original appearance. In the following description of the existing structures on the site it seemed best to take them up according to their period, rather than their location. The varying types of masonry and the objects found in connection with the buildings make it possible in most cases to determine their period with a fair degree of certainty. The structures on the site ranged in date roughly from the second half of the 8th century B.C. to about the middle of the 4th century B.C. In all periods it is probable that the walls now visible represent merely the socles for superstructures of mud brick. Some of the buildings were roofed with tiles, which were found in fair numbers; others may have been covered merely by boards, branches or reeds plastered with mud; still others were probably open to the sky.

All the walls and other constructions described below are included in Plan A, Plate 51. The Terracotta Factory and Stelai Shrine B are shown at a larger scale on Plan B, Plate 52.

## EIGHTH CENTURY

The earliest pottery found in the Potters' Quarter is late Geometric. There is no evidence whatever that the site was occupied in the prehistoric period; and half a Mycenaean figurine hardly justifies one in assuming the existence of a Mycenaean settlement. In comparison with the masses of Proto-Corinthian and Corinthian pottery found in the course of the excavation, the amount of pure Geometric ware is very small, an indication either that the Geometric settlement was quite insignificant or that it was almost completely obliterated by the four centuries of subsequent occupation of the site. A few sherds of this type of ware were found scattered at various points, but the only structural remains from that period are to be seen at the north end of the excavated area, where two steps form a narrow terrace near the center of the field. At the lower edge of

this terrace we uncovered, in the midst of later superimposed walls and, as it happened, immediately inside the great City Wall of later date, a small Geometric cemetery of five graves, at least three of which were child burials. To the north, just below the terrace, two trial pits dug for the purpose of tracing the course of the City Wall eastward produced a certain number of Geometric sherds. Later investigations below the terrace uncovered a sixth grave of Geometric type. It is very likely that still further remains of a Geometric settlement lie buried at this northern end of the field.

The five graves at the north edge of the middle terrace are probably to be dated late in the 8th century. They were set at rather irregular intervals with relation to each other, but were all oriented fairly exactly north and south. All but Grave II followed more or less the customary scheme of Corinthian Geometric burials: they consisted, that is, of a rectangular grave pit, surrounded by a shelf on which to support a cover slab.

Grave I, the westernmost of the group, consisted of a rectangular cutting in hard gravel, 2.20 m. long, 1.10 m. wide and 0.30 m. deep, in which was sunk a very small grave, 1.30 m. long, 0.55 m. wide and 0.50 m. deep. The cover slab had disappeared. The greater part of a large handmade oinochoe of coarse fabric was found in the earth above the south end of the outer cutting. Two small conical oinochoai lay at the same end, but actually rested on the cutting. The grave pit itself contained no vases, and only confused remains of the skeletons of two infants. One head, slightly the larger, lay at the south end, facing east, and the other at the north, facing upward.

Grave II, 0.70 m. to the east, was smaller, a mere shallow depression scooped out in the gravel. The grave was 1.10 m. long and 0.47–0.63 m. wide, and was nowhere more than 0.25 m. in depth. It was rounded at the south end and roughly square at the north, and apparently had no stone cover. The bottom was partly covered with a layer of small pebbles, on which rested slight traces of a very small infant, lying with its head to the south. A long bronze pin (p. 122, No. 40) near its left shoulder indicated that the child was a girl. In the earth a little above the south end of the grave a very small round-lipped oinochoe was found; inside the grave at the left, near the center of the body, lay the lower part of a skyphos, certainly incomplete when it was buried with the child.<sup>4</sup>

Grave III, lying northeast of Graves I and II, was again of the more usual type, a large rectangular cutting in the bottom of which the actual grave, much smaller, was sunk. A badly broken stone cover lay over the inner grave pit. The outer cutting measured 2 m. in length, 1.40 m. in width and 0.20 m. in depth; the grave itself was 1.25 m. long, 0.65 m. wide and 0.45 m. deep. The cover slab was made up of two pieces, one of fine sand conglomerate, about 0.13 m. thick, and the other of harder pebble conglomerate, about 0.07 m. thick. At the east side of the outer shelf we found fragments of a large unpainted oinochoe and a black skyphos with offset rim. The skull lay at the south end, but the other bones had disappeared. The paucity of offerings, in the case of both Grave III and Grave IV, is probably to be attributed to the fact that their position at the very edge of the terrace allowed the protecting earth to be washed off the vases, since these would

<sup>4</sup> In two of the Geometric graves at Halos (*B.S.A.*, XVIII, 1911–12, pp. 4 and 7) were found vases whose handles had been broken off in antiquity.

normally have been set not in the grave but on the shelf outside. The offerings may also have been removed in the course of subsequent operations at this spot; we must remember that in later times the City Wall was being constructed directly under this terrace.

Grave IV, nearly due east of Grave III, was made in the same way, but was more roughly cut. Except for two badly preserved iron pins (p. 122, No. 41) inside the grave pit itself, no bones or other contents were found in the grave. The soft sand conglomerate slab, 1.55 m. long, 0.85 m. wide and *ca.* 0.15 m. thick, was found in place, but broken in two pieces. The outer shelf measured 2.25 m. by 1.40 m. and was about 0.40 m. deep; the inner grave was 1.20 m. long, *ca.* 0.50 m. wide and *ca.* 0.50 m. deep.

Grave V, 1 m. south of Grave IV, is by far the most important, being more carefully constructed and more productive of offerings than the rest. The original ground level was cut down much more deeply in this case than in the others to form the shelf around the grave. At the southwest corner of this cutting an upright marker, about 50 cm. high, was set at the original ground level. It consisted of a natural stone, long and rather flat, generally elliptical in shape, but broader at the bottom, and with all the edges quite rounded. The narrow ends were turned north and south.<sup>5</sup> At the same earth level was later constructed, probably in the first half of the 7th century, a group of rubble walls, one of which ran across the south end of the grave cutting and had to be partly removed when the grave was excavated. The marker, though projecting above the floor level of this superimposed structure, was evidently respected by the later builders, since it was still upright when uncovered. The outer cutting of Grave V was rather irregular and larger than that of the other graves, being 2.30 m. in length, 1.40 m. in width and 0.50 m. in depth.

The grave pit was 1.40 m. long, about 0.39 m. wide and 0.50 m. deep. Its heavy, irregularly cut cover, 1.25 m. long, 0.95 m. wide and about 0.18 m. in thickness, consisted of two separate slabs, a square one of soft sand conglomerate at the south end and a more irregular one of gray pebble conglomerate at the north. Twenty-three vases, an unusually large number for a Corinthian Geometric grave, lay in a confused mass at the south end of the surrounding shelf, between the end of the cover slab and the wall of the outer cutting (Plate 2 A). One skyphos had evidently been thrown in after the other vases had been buried, as it was found about 30 cm. above the others. A conical oinochoe lay by itself at the north end of the cover slab. The inner grave was not completely filled

<sup>5</sup> Simple stone markers were used in the Minoan and Mycenaean periods, as at Knossos (Evans, *Shaft Graves and Beehive Tombs of Mycenae*, fig. 45), Mycenae (Tsountas and Manatt, *Mycenaean Age*, pp. 91 and 152; Schuchhardt, *Schliemann's Excavations*, pp. 167-169), Kephallenia ('Αρχ. Έφ., 1932, pp. 13 f., figs. 12 and 16), and Ialysos (*Annuario*, VI-VII, 1923-24, p. 150, fig. 72). The last probably belongs to the sub-Mycenaean period. Several similar gravestones were found in connection with the Geometric graves of the Dipylon cemetery (*Ath. Mitt.*, XVIII, 1893, pp. 153 f.; Poulsen, *Dipylongräber*, p. 18). Others were found in the Geometric cemetery at Eleusis ('Εφ. Αρχ., 1889, pp. 175, 179, 184; *ibid.*, 1898, p. 86). With these simple markers may be compared the rough, inscribed slabs, some of them unworked field stones like ours, of the early archaic period from Thera (*Thera*, II, pp. 108-112, figs. 302, 303, 305) and Amorgos (*Ath. Mitt.*, XI, 1886, pp. 99-101, illustrated on plate opposite p. 97; *B.C.H.*, XVI, 1891, p. 598, no. 28). A number of long, roughly worked gravestones found at Neandria (Koldehewy, *Neandria*, p. 17, fig. 30, in *Winckelmannsprogramm der archäologischen Gesellschaft zu Berlin*, 51) and at Vroulia (Kinch, *Vroulia*, p. 55) are probably also of the archaic period.

with earth, and one of the raised knees of the skeleton was visible when the slab was removed (Plate 2 C). The body was laid on its back with the head to the south and the chin resting on the breast. The arms were crossed over the breast and the knees drawn sharply up. The legs were together, but fallen sideways, so that the knees rested against the right side of the grave. A conical oinochoe lay on its side across the left foot. The skeleton, and the skull in particular, was in remarkably good preservation for one not protected by a sarcophagus. It was probably that of a young person.

The construction of the inner grave is somewhat unusual for one of the Geometric period.<sup>6</sup> The two long sides were lined with irregular blocks of gray conglomerate, thinned to form slabs *ca.* 5 cm. thick. A single slab, resting on a row of small stones, formed the east wall; there were two small slabs on the west, filled out by small stones. The upper edges of these slabs were level with the top of the grave cutting, but they did not reach quite to the bottom. The space left between the skull and the south end of the grave had been filled with soft earth and stones, on top of which was set a single layer of rounded stones, carefully laid with their upper surfaces level with the top of the side slabs. These stones formed a rough crescent around the end of the grave and were evidently intended to help support the cover slab. The bottom of the grave consisted merely of the natural gravel cut to form a floor. The upper part of the grave was partly filled with very fine earth which had sifted in under the covering slab. The skeleton, except for the raised knees, was covered with a thick layer of very heavy, dark gray clay, clinging so persistently to the soft bones that it was with the utmost difficulty that they could be uncovered without injury.

This small group of graves seems to represent a family cemetery and not the public burial place of the settlement. The fact that, of the six people buried there, at least four are children is evidence of the private nature of the cemetery. The area to the south of the graves had already been dug, and had produced an important dump of Proto-Corinthian and Corinthian sherds; at the north the terrace drops off abruptly. We continued the excavation to the east and west, with no results in either direction, as the earth showed no indications of ever having been dug before, except in the course of ploughing. In the fall of 1933 a brief exploration of the lower terrace to the north, rendered of necessity very hasty by the uncoöperative attitude of the owners of the field, revealed, at a low level beside two fifth-century graves, a grave (VI) of undoubted Geometric type, very similar to those above and probably contemporary.

In this case, the large outer cutting was more oval than rectangular in shape, and measured 1.60 m. in width; the length could not be determined. In it rested a well-cut slab of sand conglomerate (Plate 2 B) which covered the actual grave. The slab, which was rather trapezoidal in shape, was 1.52 m. long, 0.78 m. wide and *ca.* 0.18 m. thick. The inner grave was cut in soft sand without lining stones; it was 1.40 m. long, 0.47 m. wide and 0.50 m. deep. The body was apparently that of a woman as indicated by the

<sup>6</sup> A comparison may be noted, however, with a group of graves excavated in Tenos (*Annuario*, VIII-IX, 1925-26, pp. 203-234). Proto-Geometric graves at Asine (Frödin and Persson, *Asine*, pp. 129-139) had sides built up of irregular slabs. A Geometric grave at Kos (*Jahrbuch*, LI, 1936, Arch. Anz., p. 180, fig. 25) seems also to have been lined with slabs. Sixty vases were found outside this grave.

offerings, with the head lying at the south and strongly bent backward. Beside the head were fragments of bronze spirals (p. 124, No. 49), probably for fastening the hair, and near the middle of the grave, at the east side, a badly rusted iron pin (p. 122, No. 42).

An interesting comparison may be made between this small cemetery and another of the Geometric period excavated at Kardiani in Tenos.<sup>7</sup> This cemetery, like that at Corinth, lay on one of a series of descending terraces and likewise comprised five graves, with a sixth found at some distance from the others. All were oriented roughly NW-SE or N-S. These graves, in general, were formed of two long, roughly rectangular slabs (one side of Grave III was formed of two slabs), set parallel to each other and joined by smaller slabs at the ends. Virgin soil formed the floor, and the covers consisted of irregular slabs of various sizes. The irregularity of the slabs and the careless manner in which they were fitted make them very similar to the Corinthian examples. The cover slabs in Tenos, however, usually consisted of a greater number of pieces. In each burial the skeleton lay on its side, with the knees drawn up a little and the arms reaching to the knees. The offerings were scattered throughout the grave, with the most important near the head. Grave I was that of an infant, with the head probably at the north. Graves II, III, and IV had the head at the south; in V the head was at the north.

That this cemetery is of roughly the same date as that in the Potters' Quarter is shown by the contents of the graves. Although the ware in each case is presumably local, several of the shapes coincide, notably the tall oinochoai (cf. *ibid.*, p. 227, figs. 30 and 31, with a vase from our Grave V, KP 178<sup>8</sup>), the deep cups with offset rim and two vertical handles (cf. *ibid.*, p. 229, fig. 32, with KP 172), and the similar cups with horizontal handles (cf. *ibid.*, p. 232, fig. 35, no. 9, with KP 167 and 170). In Grave II at Tenos were also found two bronze pins of exactly the same type as the one found in Grave II of the Potters' Quarter.

Earth-cut ledges similar to those of the Potters' Quarter graves were also found in several of the Geometric graves in the Dipylon, in one case on all four sides, in others along the long sides only.<sup>9</sup> No stone slabs were found on these, however, and they were assumed by the excavators and by Poulsen<sup>10</sup> to have served as supports for wooden boards laid in a horizontal position across the graves. Traces of color, presumably from painted boards, were found on the sides of the graves at the level of these ledges.<sup>11</sup>

Our small cemetery tells us nothing, of course, of the character of the Geometric settlement. The pottery also, quite scanty except for the find in Grave V, affords no clue; but, if we consider the fact that Geometric Proto-Corinthian ware, a clear development out of pure Geometric, can be proved to have been manufactured on this site,<sup>12</sup> I think we may regard it as possible that the first location of the pottery industry on this hill dates

<sup>7</sup> *Annuario*, VIII-IX, 1925-26, pp. 203-234.

<sup>8</sup> These numbers are the inventory numbers of vases to be included in the forthcoming publication of the pottery from the Potters' Quarter.

<sup>9</sup> *Ath. Mitt.*, XVIII, 1893, p. 133 (Grave XVIII); p. 93 (Grave III); p. 112 (Grave VII).

<sup>10</sup> *Dipylongräber*, p. 22.

<sup>11</sup> For ledges in graves of later periods see pp. 24 f.

<sup>12</sup> The evidence for this statement will be presented in the forthcoming publication of the pottery from the Potters' Quarter.

from the late Geometric period. Four ensuing centuries, during which the site continued to be used for manufacturing purposes, might well suffice to wipe out all except the few remains which have just been described.

### FIRST HALF OF THE SEVENTH CENTURY

Remains of the early 7th century settlement and factories are, unfortunately, hardly more numerous than those of the Geometric period. They are centered chiefly in two places: around the Terracotta Factory, where slight traces over a fairly wide area seem to point to an earlier building which was almost entirely swept away by the later complex; and at the north end of the excavations, where a few walls remain near the Geometric cemetery. No other structures can be dated with certainty in the first half of the 7th century, but to this period we may probably assign the broad wall, almost certainly an early fortification wall, which runs for a considerable distance along the western edge of the hill, beginning at the point where an ancient road descends to the ravine.

The most extensive Proto-Corinthian remains are those in the vicinity of the Terracotta Factory; these were found mainly in the area to the east of the factory. A small, square room to the west, at the edge of the cliff, also contained Geometric Proto-Corinthian sherds, and in at least one place in the Terracotta Factory itself such sherds were found in significant quantities. It seems, therefore, almost certain that a large area at this point, from the edge of the hill eastward as far as the excavations have been carried, was occupied in the 7th century by buildings, perhaps factories, which were later cleared away to make room for the Terracotta Factory and for the City Wall.

In the area immediately east of the Terracotta Factory a number of water channels were dug in the native rock, probably at different times, but undoubtedly all at a very early period (Plate 9 A, extreme left). These cross and re-cross each other in apparent confusion, but all eventually slope downward to the north where a large, irregular depression northeast of the Terracotta Factory often holds stagnant water. These water courses are most irregular in width, depth, and level. In only one channel are there traces of built-up walls; at the south end of the main north-south channel low walls made of irregular fragments of roof tiles and stone slabs are partially preserved. A large hollow (see p. 42), roughly cut in the native rock just outside the south wall of the East Room of the Terracotta Factory, drains by means of a shallow, rock-cut channel into the same area as the other channels, and is probably part of the same system. The channels and the rock surfaces between them were covered with a thick layer of Geometric Proto-Corinthian sherds and, above them, a rough pavement of crushed stones (see p. 18). This pavement stopped at either side of the walled channel, indicating that the latter continued in use after the pavement was laid. South of the channels the pavement could not be traced beyond a small cemented reservoir of uncertain date, which will be described later (p. 27). Still further to the south we found fragmentary walls of rubble and several unexplained rock cuttings, beside considerable numbers of Geometric Proto-Corinthian sherds.

In the Northwest Room of the Terracotta Factory, against the center of the north wall, was uncovered part of a stone water channel, lying beneath the floor level of the later Northwest Room (see p. 39). The importance of the channel, which will be further described when the Northwest Room is reached, lies in the fact that it was bedded on a mass of fine Geometric Proto-Corinthian sherds. East of the channel two small stone slabs rested end to end on the same layer of sherds. The sherd deposit was confined to the earth immediately under the channel and under these slabs. As there were no later sherds in the deposit, it is probable that the channel was placed there at least as early as the beginning of the 7th century. Since the floor of the room and, indeed, the base of the north wall were at a higher level than the top of the channel, it is obvious that the channel must have been buried before the Northwest Room was constructed. At the time when the rest of the original channel was presumably taken up for use elsewhere, this piece may have been left in place, probably because the damage done to it by fire had rendered it unusable. It is quite possible that the Geometric sherds may originally have covered a much larger area.<sup>13</sup> Only those protected by the channel and the stone slabs survived a cleaning up of the area at some later period, most probably in the early 4th century. Some of these sherds, which included two with inscriptions, have already been published.<sup>14</sup> It is not my purpose to embark here on any further discussion of these sherds, except to reaffirm my belief that, since the uninscribed sherds were without exception of the Geometric Proto-Corinthian style, it is unreasonable to exclude two of the sherds from the group merely because they happen to be inscribed, especially when in quality of clay and glaze they are identical with the others.

A single square room outside the City Wall, west and slightly south of the Terracotta Factory, contained many sherds of the same period and may also have formed part of the same complex as the early constructions east of the Terracotta Factory. The walls of this room are of varying types of construction. The north wall, 45 cm. in width, is carefully constructed, mostly of well-laid stones, with two cut blocks together in the center. In one of these is a small rectangular cutting, and perhaps the two blocks together formed a threshold. This wall is probably of later date than the rest of the room, since in the Potters' Quarter cut blocks appear not to have been used in the Proto-Corinthian period. The west wall was of good rubble masonry.<sup>15</sup> The east wall is of poorer construction. The south wall is not preserved; but, since the native rock sloped considerably at this point, the levelling of the floor of the room caused a steep rise in level toward the south. This rise was made in two cut steps with short returns at the corners; the narrow lower step was used as the bedding for the south wall of the room.

The only other construction preserved in this area which must belong, if not to the early 7th century, at least to the middle of that century, is Well I, which was found filled with late 7th and early 6th century pottery (Plate 11 A, left foreground). There are two reasons for including this well here. The first is the discovery of a complete Late Proto-

<sup>13</sup> A small deposit (about four baskets) of similar sherds was found about a meter north of the north wall of the room, in what is probably a roadway outside the building.

<sup>14</sup> *A.J.A.*, XXXVII, 1933, pp. 605-610.

<sup>15</sup> The west wall was carried away when part of the cliff broke off in the earthquake of January, 1931.

Corinthian lekythos at the bottom. The fact that it was unbroken shows that, at the time it was thrown in, there was water in the well; hence, the well had presumably been constructed at least by the third quarter of the 7th century. The second point to be considered is that the well, shown by its pottery content to have been abandoned long before the Terracotta Factory was built, is most likely to belong to the only previous building period that we know in this area, i.e., that of the early 7th century. The diameter of the well is 90 cm. and its depth over 12.50 m.; it was cut entirely through the native rock. Descent was made possible by shallow footholds scooped out on opposite sides of the well at intervals of about 40 cm. The well was found filled to the brim with a mixture of sherds and earth; from it about fifty baskets of pottery were obtained. The bulk of this was Early and Middle Corinthian, with a few Proto-Corinthian sherds and still fewer of the Late Corinthian style. Near the bottom, in a layer of clayey mud *ca.* 2 m. deep, were embedded two large oinochoai of coarse, pebbly clay, probably for kitchen use, and at the very bottom was the Late Proto-Corinthian lekythos referred to above. The layer of mud, unmixed with sherds, represents the material which found its way into the well during its period of use, before it was deliberately filled with sherds and earth. The presence of three unbroken vases near the bottom must indicate that there was water in the well at the time they were dropped in; hence, that it was presumably in use at that time. At a period considerably later than its abandonment Well I was partly covered by the City Wall.

Probably also of the first half of the 7th century are the low rubble walls south of the Geometric graves already described. They are later than the graves, since one of them was built over Grave V. The walls are single rows of rough, unworked stones and have no particular meaning in their present condition. Two of them are parallel and so close together that they may have formed one wall. Around the middle of the 7th century the place began to be used as a great dump for the *débris* from the pottery factory, broken vases, tripods from the kilns, etc. From an area of about 50 square meters we obtained over seventy baskets of sherds, some Proto-Corinthian, but the majority Early Corinthian. Since, presumably, dumping was begun after the walls fell into disuse, we may date the walls somewhere before the middle of the century. Under the edge of the rock step which forms the southern limit of the narrow terrace on which these walls were built the soft rock was dug out in a small, shallow cave, divided in two by a wall. The latter is rather wider than the rest in the area and contains a few roughly cut blocks. The sherds in the cave were mostly Geometric Proto-Corinthian and fairly numerous.

In conclusion, we must admit that such scanty remains of walls, water channels, etc., can give us no idea at all of the arrangement and disposition of the early 7th century factories; but the great numbers of Geometric Proto-Corinthian sherds which are found embedded in early walls and underneath early pavements and water channels, occurring, in fact, wherever the slightest traces of the original structures are preserved, indicate clearly that the amount of pottery of this style originally existing on the site must have been very considerable indeed. In particular, the traces of early structures across the whole area of the Terracotta Factory show quite certainly that the construction of that

building and of the City Wall destroyed what must have been an important building complex at an early period and may have been a factory for the production of pottery of the Geometric Proto-Corinthian style.

Of the early 7th century period there remains to be discussed only one structure: the broad wall which runs for a distance of about 70 meters along the very western edge of the hill, between the northwest angle of the later City Wall and the point at which the northern road from the ravine reaches the top of the hill. This wall (Plate 2 D) is nowhere preserved to a height of more than 85 cm. Its average width is 2.40 m. It is constructed of loose rubble which consists of large, rough stones, smaller stones and much earth. At its south end, along the edge of the road which ascends from the ravine, the wall is badly preserved; the central section as it appears at present seems to be a solid mass of earth and stones; at the northern end, however, we see more clearly the interesting method of construction which was adopted. Between the two faces of the wall, each of which is *ca.* 30 cm. in width, run straight cross walls, 40 cm. in width. These were set *ca.* 5 m. apart, forming a series of small chambers, which were filled with earth. The walls and the earth-filled chambers must have formed a foundation for a superstructure of mud brick. The sherds from the fill of the chambers were all of the Geometric Proto-Corinthian style, and indicate most probably that the wall was constructed before the middle of the 7th century.

Along a section of the wall, extending from its present south end to a point opposite the third circular tower of the City Wall, the rock slope drops off toward the edge of the hill. Hence, the rock had to be cut back to make a level bed for the wall. The inner face of this part of the wall, moreover, was laid in a narrow trench of seemingly unnecessary depth, cut partly in rock, partly in hard gravel (Plate 3 A, left). At its north end the trench has a width of only a few centimeters and a very slight depth, but it widens and deepens toward the south until, at the point where it stops abruptly against the road from the ravine, it is 1.15 m. deep. This part of the wall was built, or rebuilt, later, possibly in the latter part of the 7th century, since the earth filling the trench contained Proto-Corinthian sherds, mostly of the late Orientalizing period. At a point in the wall opposite the narrow space between the South Long Building and the North Long Building there seems originally to have been a gate, later filled in with cut blocks (one of these appears in the right foreground of Plate 2 D). Just outside the gate is a step-like cutting in the native rock.

It is impossible to state with certainty that this wall was built for the purpose of fortifying the early settlement against attack, and yet its great breadth would be unnecessary if it were built merely for an enclosure wall. If we accept it as part of the early defense wall of the quarter, it is easy to see why it became necessary to rebuild the walls entirely, and why the later builders nowhere make any use of previously existing walls.

Toward the north, beyond the point where the angle tower of the City Wall breaks through it, no trace of the early wall was found; at the south it has doubtless disappeared with the breaking away of the cliff.<sup>16</sup> As we have seen above, there is some indication

<sup>16</sup> A double wall which may have formed the southern boundary of the early Potters' Quarter is described on p. 19.

that the wall was constructed before the middle of the 7th century. The finding of Late Proto-Corinthian sherds in the trench for the inner face of the wall possibly shows that the entire wall may have been built as late as the third quarter of the century. The wall, or considerable remains of it, must have been standing until the early 5th century, since the North Long Building, whose south end was probably added at that period, runs parallel to it. The blocking up of the gate with cut blocks may also have been done in the 5th century.

## SECOND HALF OF SEVENTH CENTURY

Structures of the second half of the century are far more numerous than those of the first half and their plans are somewhat more intelligible. Their characteristic masonry is rubble, consisting of small, unworked stones laid in earth. The walls are narrow, usually measuring about 50 cm. in width.

The most extensive construction remaining from this period is the South Long Building (Plate 3 A, right; see also Plate 4 A, upper left, and Plate 18 B, upper center), which begins just north of the third tower of the City Wall. It runs southward for about 65 m. but cannot be traced beyond the second tower. At present it consists of a long outer wall, east of the early fortification wall just described and running parallel to it at a distance of *ca.* 2.80 m., an end wall at right angles to it just north of the third tower, and short cross walls at irregular intervals. At the south end of the building the outer wall forms an angle with an east-west wall, Wall E (Plate 21 A, right), near the second tower of the City Wall. It is impossible to determine whether the outer wall continued beyond this point since the present line of the cliff here swings inward. For a short distance at the north end of the building another wall runs parallel to the outer wall, 1.60–2 m. east of it; these parallel walls, together with the three cross walls to be traced in this area, formed two very small rooms, each only *ca.* 3–3.50 m. in length. Although no other cross walls could be traced, it is possible that this entire end of the building, or a great part of it, was divided up into similar rooms. Since the building abutted on a roadway, these rooms may have formed a series of shops or booths where pottery was sold. The walls of the building are 40–50 cm. wide; in height the outer wall varies from *ca.* 20 cm. at the north to 50 cm. at the south.

The area between the outer wall of this building and the early fortification wall must have been used as a roadway (Plate 3 A, center). Finds of any kind were very scarce inside the building, but along the entire length of the outer wall there was a fairly thick deposit of sherds in the road. The fact that these were especially numerous immediately outside the wall suggests that they were dumped into the road from inside the building. The deposit in most places was *ca.* 10–20 cm. in depth and lay immediately above the road-bed, indicating presumably that dumping began when the building and road were new. The earliest pottery, with the exception of an occasional Proto-Corinthian figured sherd and some of the ubiquitous Geometric Proto-Corinthian ware, is Early Corinthian; hence a date between 625 B.C. and 600 B.C. is suggested for the building. The greater number of sherds seemed to be Middle Corinthian.

Inside the building, at a point halfway between the second and third towers of the City Wall, a considerable number of vases and figurines of somewhat later date was found. About 40 cm. west of the City Wall was uncovered a closely packed deposit of miniature vases and a few figurines, referred to as the Deposit in Trench J.<sup>17</sup> At one edge of the deposit, at a slightly higher level, lay a number of long iron rods, in a fragmentary state, some lying together in a bundle and the rest scattered. Outside the deposit, a large number of vases, miniature vases and figurines lay scattered in the area between the City Wall and the outer wall of the South Long Building. Most of this material, like that in the deposit, is to be dated in the second half of the 6th century. West of the deposit, a roughly circular depression in the gravel, *ca.* 2 m. in diameter and 0.50 m. in depth, contained about forty vases, mostly miniatures, and about fifty figurines. These objects, designated as the Circle Deposit,<sup>18</sup> were of varying dates, but many are probably to be dated as late as the end of the 5th century.

Another long wall, Wall B, similar in construction and width to the outer wall of the South Long Building, lies about 15 m. to the east, near its south end, and runs roughly parallel to it, but follows a rather straggling and uncertain course. This wall can be traced much further to the south than can the wall of the South Long Building; it ends at Stelai Shrine B. A short cross wall running eastward from it is probably a continuation of Wall E, but the intervening portion of the wall was destroyed by the building of the City Wall.

In the narrow space between Wall E and the second tower of the City Wall are several roughly circular pits, each of which contained in the bottom a layer of clay, indicating that they may have been used for kneading or storing clay. Just north of Wall E and *ca.* 1.60 m. inside the outer wall of the South Long Building, a small deposit of vases was found packed in heavy gray clay, intermixed with green clay and with lumps of partly baked clay, burned wood, ashes and a few fragments of animal bones. The vases are probably to be dated in the third quarter of the 5th century; they seemed more likely to have come from a potter's shop than a shrine.

Immediately inside the City Wall at the second tower, and partly destroyed by it, is a small complex of very poor walls of rubble construction (Plate 19 B, foreground, and Plate 21 A, left), with a few cut blocks which are probably of later date. These walls form tiny, irregularly shaped enclosures. In the southernmost of these a shallow, circular depression, *ca.* 45 cm. in diameter, had been hollowed out in the native rock. In it, and immediately surrounding it, lay a mass of débris, evidently dumped after an unsuccessful firing. This consisted mainly of a group of large oinochoai of the Early or Middle Corinthian style, which had melted together in the kiln.

South of the complex of walls at a distance of 2.35 m. runs a narrow water channel (Plate 19 B, left foreground), hollowed in the rock and covered over with a row of small, flat slabs of stone. The channel runs southeast and then turns more toward the east. It is 25 cm. in width and 17 cm. deep. A meter or so south of the channel we uncovered part of a floor of sun-dried clay, indeterminate in extent, except at the west edge where

<sup>17</sup> D<sup>1</sup>, Plan A, Plate 51. The area in the lower right-hand corner of Plate 16 B shows the approximate location of the deposit.

<sup>18</sup> D<sup>2</sup>, Plan A, Plate 51.

there appeared fragments of a low, upright bounding wall of clay. The thickness of the latter is 1–1.5 cm., and it is preserved to a height of 5 cm. The floor rested on rock. It was *ca.* 12 cm. thick and had a smooth, hard-packed surface. The clay of which it was made was finely textured, mostly chocolate brown in color, but with lumps of greenish gray and brick-red clay. The edges of the floor curved upward against the west bounding wall. Covering most of the floor and extending some distance beyond the bounding wall was an upper layer, irregular in thickness, of very coarse gray and red clay which split off easily from the hard surface of the original floor. It seems possible that the floor was employed in some way for working clay, and that the thin upper layer represents the *débris* from this process.

Immediately east of the Terracotta Factory, between the City Wall and the edge of the cliff, are several walls which may belong to the late 7th century, although there is a possibility that they are somewhat earlier. From a curved wall which runs roughly north-east and southwest four cross walls run westward to the edge of the cliff.<sup>19</sup> All these walls are constructed of small, rough stones. Two parallel walls north of them which run east and west are probably of somewhat later date.

Although the devastation caused by the construction of the City Wall has left the plan of the late 7th century factory very incomplete, a study of the South Long Building, Wall B, and the walls and other constructions adjoining them may perhaps give us some idea of its general arrangement. The wavering line of Wall B suggests that it is the wall of an open enclosure rather than of a roofed building. If we assume that the South Long Building originally continued further to the south, then we have two large open yards, divided by Wall E. One or more other yards may have existed east of Wall B. The area west of Wall B contains many indications that the manufacture of pottery was actually carried on there; evidence may be found in the pits, partly filled with clay, just south of Wall E, the water channel between Wall B and the second tower of the City Wall, the floor of sun-dried clay near it, and the mass of partly fused pottery from the same area. The thin rubble walls opposite the tower may represent small shelters or storage places for unfired or newly fired vases, tools, etc. There is a strong probability that a kiln was located somewhere in this region. It is tempting to suppose that the round depression which contained the partly fused oinochoai marks the site of this kiln. There was, however, no trace of burning in the area, and the hollow may originally have been made merely to hold a pithos. Since no kilns were found in the Potters' Quarter, we are forced to conclude that they were of a temporary nature, perhaps constructed of reeds and clay.

In the late 7th and early 6th centuries, then, the period in which the production of Corinthian pottery reached its peak, we find that the working part of the factory consisted of an undetermined number of open yards, containing kilns, several small bins or shelters, and a number of pits for working clay, all situated not too far from a roadway leading up from a ravine in which both clay and water were easily obtainable. Plate 4 B shows a small modern pottery establishment near Kandianika in Lower Messenia, on the road between Korone and Methone. With its open areas, sheds and domed kilns, it is

<sup>19</sup> See Plan B, Plate 52, upper left-hand corner.

probably not very unlike the Corinthian factory of nearly 2600 years earlier. The ancient Greek potters, like the modern, probably worked largely in the open air, fashioning and decorating their vases. In the Corinthian Potters' Quarter their finished products may have been exhibited in the booths at the north end of the South Long Building, whence they made their way to all parts of the known world.

Two other groups of walls in the Potters' Quarter are probably to be dated in the late 7th century. The first lies some distance southeast of the Terracotta Factory and south of the complex of water channels (p. 11) which probably belong to the Proto-Corinthian factory. In its present form it appears to consist of two rooms, each *ca.* 3 m. long and 1.50 m. wide. The position of the west wall of the west room is indicated only by a shallow rock cutting and that of its north wall only by the abrupt termination of the pavement of crushed sherds which covers the area to the north. The east room has a roughly made eastern wall and a very well constructed north wall with a return at the west end. The north wall is of good rubble masonry with many cut blocks, especially along its north face, which presumably, therefore, was the outer face of the wall. The east wall is loosely built of small, rough stones and is only *ca.* 40 cm. in width, while the north wall is 50–55 cm. wide. The latter extends eastward for a distance of *ca.* 4 m. beyond the east room. Just north of its eastern end, where it finally disappears, were placed two and a half flat roof-tiles, laid carefully end to end, right side up.

The dating of these walls and, indeed, of the whole adjoining area is quite uncertain. With the exception of the long north wall which is probably later, the walls are of the rough rubble construction of uncut stones which seems to be characteristic of the 7th century. There is no evidence for dating the north wall, but I should be inclined to place it in the 6th century. The small east room was filled to the level of the top of the north wall with a mass of red gravel, small stones and sherds. The latter were mainly of the Middle Corinthian style and many of the vases later made up from them were sufficiently alike to have been painted by the same hand. Several of these vases had been broken in antiquity and subsequently used to hold red paint. With the sherds were several fragments of the clay tripods used in firing vases. Since in this area practically no sherds of the Corinthian Orientalizing styles were found outside this room, it is not impossible that the deposit represents a dump of material brought from some distance away.

The pavement of crushed sherds and limestone, already mentioned (p. 11) in connection with the rock-cut channels east of the Terracotta Factory, presents some difficulty. It extends from the southernmost channel *ca.* 3.60 m. southward as far as the cemented reservoir east of the two small rooms just described; in the other direction it extends from the west edge of the reservoir to a point a little east of the wall which divides the two small rooms. The pavement lies directly on the native rock and is about 5 cm. thick. The stones and sherds it contained were very finely crushed. A row of roof-tile fragments was incorporated into the eastern side of the pavement. All the sherds were of the Geometric Proto-Corinthian style, a fact which probably, though not certainly, enables us to assign the pavement to the 7th century.

The reservoir is likewise undatable except for the similarity of its stucco to that used

in the great cistern. The reservoir will, therefore, be described in the following section. The area south of the reservoir contains only a few bits of wall, all of which are of the rubble construction with uncut stones which seems to be characteristic of the 7th century, with the exception of one short wall with cut stones which is probably to be dated later.

The last group of 7th century walls which merits discussion is a complex at the south end of the excavation (Plate 3 B). It lies both inside and outside the City Wall near its southern stairway. Several periods are represented in these walls, but it is impossible to say whether they are widely separated in time or nearly contemporary. We may note, however, that the walls of the first two periods seem to show the masonry of small rubble which is characteristic of the late 7th century. Since this is so, and since part of the pottery from the area is of the Corinthian Orientalizing style, the walls will be briefly described as a whole at this point.

Against the inner face of the City Wall, just at the northern angle of the stairway, is a small and confused complex in which walls of three periods interlace to form what looks on the plan like a series of small cubicles. These are too small to have had any practical value and we must assume that at any one period most of the walls of the previous period or periods must have been buried. A study of the walls, then, reveals three superimposed plans, each of which shows one or two rooms of irregular shape. A roughly hollowed stone trough was found built, end up, into a wall which runs in an east-west direction through the middle of the complex. This wall, belonging to the second period of the complex, seems to be of late 7th century date; the trough is presumably earlier. A north-south wall of very poor rubble masonry, running north from the complex, shows that the building once extended considerably further to the north.

The south wall of the southernmost room of the complex, also probably of 7th century date, runs diagonally northeast and southwest, and in both directions extends far beyond the rest of the complex. A second wall of the same construction and width runs parallel to it at a distance of little more than half a meter. Both walls can be traced westward to the edge of the cliff. Together they form a barrier about 1.50 m. in breadth (Plate 3 B, left center). There is a rather interesting possibility that this double wall was intended to form the southern boundary of the 7th century Potters' Quarter. The supposition is strengthened by the fact that all the structures uncovered in the area south of this wall were of 5th century date or later. The wall is, of course, much narrower than the 7th century fortification wall (p. 14) which follows the edge of the hill to the northward and it also lacks the cross walls, but it is at least possible to regard them both as parts of a barricade which may have surrounded the entire factory at the period of its greatest prosperity.

Of the fragmentary walls outside the southern stairway of the City Wall some doubtless belong with the complex just described. The scattered and inconsistent finds from this area and the lack of deposits of homogeneous pottery make it impossible to date these walls with any certainty. The irruption of the City Wall and the probable disappearance of part of the cliff have rendered their plan quite meaningless. Most of the walls are of the familiar rubble masonry, though here unusually well laid and straight.

These walls show the usual width of 50 cm. and are preserved to a height of *ca.* 20 cm. One narrow east-west wall almost opposite the north edge of the stairway is, by exception, formed of a single row of small, well-cut blocks and is doubtless of later date.

Among these walls, more immediately outside the City Wall, runs a curious double water-channel (Plate 5 A) which slopes northward, beginning at the wall last described. After *ca.* 2.40 m. it turns northeast at an obtuse angle, and after another 1.60 m. vanishes completely. Long, thin, well-cut blocks of poros, set edgewise, form, with the exception of one roof tile, the outer and inner walls and the common wall of the two channels. These slabs are from 13 to 15 cm. high and from 9 to 11 cm. wide; the width of the channels is 10 to 13 cm. The natural gravel was hollowed out to form the bottom of the outer channel, making it 15 to 17 cm. deep. The bottom of the inner channel, which is only *ca.* 11 cm. in depth, is lined with thick, white cement which curves up against the base of the walls. At the south end the walls have been disturbed. Originally, the channels probably issued from a small, cement-paved area, badly preserved, of which we uncovered traces extending for *ca.* 4 m. to the southward, a pavement which was doubtless laid to collect water to feed the channels. At their lower end these stop abruptly at the cutting for the outer face of the City Wall; but, from their general direction, we may assume that, when complete, they would have emptied into a deep, round hole, set in a large, rectangular depression, *ca.* 50 cm. deep, which lies inside the City Wall and partly under it. This hole, 85 cm. in upper diameter, 1.15 m. deep, and unlined, was probably dug to hold a large pithos or other receptacle which collected the water. A narrow, very shallow channel, scraped out in hardpan, also leads into it from the east. Strangely elaborate measures had thus been taken in this area to secure a rather small amount of water.

## SIXTH CENTURY

The late 7th century was, as we should expect from the amount of Corinthian pottery produced at that time, one of the periods of greatest building activity. Some of the walls, however, which were assigned to that period may represent early 6th century alterations in the 7th century factory buildings; the type of masonry, rubble without cut blocks, probably remained unchanged during the early part of the 6th century. Still later alterations are represented by a few walls exhibiting a type of rubble masonry which contains cut blocks. Most of these have been mentioned earlier<sup>20</sup> and are of slight importance.

One structure, however, which seems to be entirely datable in the 6th century, probably rather early, is the North Long Building, which extends from near the third tower of the City Wall northward as far as the square angle tower. Only the west wall of this building, part of the south wall, and a few bits of cross wall are preserved. The west wall, like that of the South Long Building, runs exactly parallel to the early 7th century fortification wall at the west edge of the hill, leaving a roadway of uniform width between. The original length of the North Building is unknown, as its entire south end has been re-

<sup>20</sup> See pages 17, 18, and 20.

built; this later part may have replaced an earlier structure, or it may have been built as an extension of the original building.

The northern part of the west wall is of carefully laid rubble masonry, containing many cut blocks. Its average width is 45 cm. and the preserved height is 50–60 cm. About 16 meters from its south end the wall bends at an obtuse angle to follow the line of the early fortification wall. Southward from this angle the construction of the wall becomes quite different and undoubtedly indicates a later date. In this section very large cut blocks alternate with equal stretches of rubble masonry (Plate 2 D, upper right). The blocks vary considerably in size, ranging from 40 to 90 cm. in height, from 35 to 45 cm. in width, and from 80 cm. to 1.50 m. in length. The south wall of the building is also formed of very large cut blocks with a little rubble construction (Plate 4 A, lower center).

Very little was found inside the building, except for a small amount of pottery at its southwest corner, but in the roadway outside the sherd deposit was enormous.<sup>21</sup> From the road alone outside this building, employing about ten men and digging largely with knives, we obtained from fifteen to twenty baskets of sherds a day. From the entire roadway, stretching from the angle tower of the City Wall to the point outside the second tower where the road disappears over the cliff, about 350 baskets of pottery were obtained, an extremely large amount when one considers that the deposit in most places was only 10–20 cm. in depth.<sup>22</sup> While the pottery found outside the South Long Building was mostly of the Corinthian Orientalizing style, much of that from outside the North Building was considerably later in date, some being of the Conventionalizing style which is typical of the late 6th century and early 5th, and some being of a ware with very poor, plain black glaze which seems to be characteristic of the 5th century.<sup>23</sup> One of the poorest fragments, a skyphos base, bore the signature of the potter Echekles. From a study of the disposition of pottery in the area, I should be inclined to place the north end of the North Long Building in the early 6th century, or even the 7th, and the rebuilding of the south end, with its large cut blocks, in the 5th century.<sup>24</sup>

Probably contemporary with the reconstruction of the North Long Building is a repair in the early fortification wall, coming at a point about opposite the south end of the North Building. The repair seems to have consisted in filling in with cut blocks a narrow gate which existed in the early wall (see pp. 14 f.).

A small group of walls which lies immediately inside the northwest angle of the City Wall is probably also to be assigned to the 6th century. These walls are of inferior rubble

<sup>21</sup> I was interested to observe in Lower Messenia, in the region of Kandianika, an important modern center for the manufacture of pithoi and water jars, that many of the roads are paved with sherds and refuse from the kilns.

<sup>22</sup> Of this amount about 255 baskets came from the roadway outside the North Long Building, while less than 100 were obtained from outside the much longer South Building.

<sup>23</sup> A curious exception to the fairly homogeneous character of the sherd deposit in the northern part of the roadway is the Aryballos Deposit (D<sup>3</sup>, Plan A on Plate 51). This was located about 6 m. north of the south end of the North Long Building, and fairly close to the early fortification wall. It consisted of a few figurines, a large quantity of sherds, and about 200 vases of various shapes, over half of which were aryballoi or alabastra. Nearly all were datable in the last quarter of the 7th century.

<sup>24</sup> We may possibly specify the first half of the century, since the only other large cut block comparable to those in this building is the one forming the east wall of Stelai Shrine A, which was abandoned probably in the second half of the 5th century.

construction, built of large, rough stones, mostly conglomerate; the preserved height varies from 0.50 to 1.10 m. In their present fragmentary condition they present a rather meaningless plan. They contained a considerable quantity of Geometric Proto-Corinthian sherds, and others which are probably Middle Corinthian. These were found especially in the earth actually adhering to the walls and likewise among the stones.

The problems concerning the dates of the various shrines in the Potters' Quarter are extremely difficult of solution. The deposits found in them afford evidence for the date of their discontinuance, not necessarily of their original construction. Both the actual and relative chronology, therefore, which is suggested for them is based on bits of evidence which are not wholly conclusive.

It is my opinion that the earliest shrines are those already published,<sup>25</sup> two extremely small, rectangular enclosures, either one furnished with two stelai standing side by side. The probability is that these shrines, being nearly identical in construction, are contemporary. The only evidence for supposing them to be the earliest of the sanctuaries in the Potters' Quarter lies in the fact that the large deposit in one of them much antedates the contents of any of the other shrines. The vases and figurines in this deposit are for the most part datable in the first half of the 5th century; the shrine itself is probably still earlier, although there seems to be no evidence for a date earlier than the second half of the 6th century.<sup>26</sup>

A brief account only of these two shrines will be necessary, since their stelai will be dealt with in another chapter (pp. 72 f., Nos. I-IV). The first shrine, A (Plate 5 B-D), immediately inside the outer wall of the South Long Building, about 9 m. from the southwest corner of the building, is an enclosure 1.27 m. wide (north and south) by 1.15 m. (east and west). There is no north wall, the east wall consists of a single large cut block, and the south and west walls are of rubble construction, *ca.* 45 cm. in width. The re-used block (Plate 5 C and D) which forms the east wall is right side up; it is 36 cm. wide, 1.27 m. long and 45 cm. high, and has a narrow drafting along the upper inside edge and anathyrosis on the north end. Continuing the line of the south wall from its juncture with the west wall is a short section of wall, twice as wide and more deeply bedded, which joins the outer wall of the South Long Building and must from its similar construction be of the same 7th century date. There is no bond between this section and the south wall of the shrine which from its lighter construction and higher level must be of later date. The block forming the east wall must have been placed even later than the south wall, probably not long before the abandonment of the shrine. Its source is unknown, but is perhaps the same as that which provided the large blocks for the rebuilding of the North Long Building (see page 21). The likelihood is that the shrine was located in a room of the South Long Building but constructed there at a later date, presumably in the second half of the 6th century, and that it was buried soon after the middle of the 5th century, its east wall being added at that time or not long before.

<sup>25</sup> *A.J.A.*, XXXV, 1931, pp. 2-4.

<sup>26</sup> This shrine is contained in the South Long Building, and perhaps the other shrine also, if the straggling wall (B) to the south end of which it is attached can be considered a part of that building (see p. 16). This connection indicates little more than that the South Building was probably still in use in the 6th century.

The earth floor of the enclosure slopes downward to the north. When they were found, the two stelai (p. 72, Nos. I and II) stood side by side, leaning slightly backward (Plate 5 B); they were 85 cm. from the east wall and faced east. Their tops, projecting above the walls, were so near the surface that they had been often gashed by the plough. East of the stelai, below the red earth of the surface, was a very thin stratum of gray clay. Under this, beginning about 10 cm. below the top of the stelai, was a stratum of soft reddish clay, 30 cm. deep, and below that an equally thick layer of very soft grayish clay, nearly free from any admixture of earth. Throughout the two lower strata the deposited objects, 120 vases, 215 miniature vases and 55 figurines, lay crowded almost inextricably together in this tiny area, hardly more than a meter square and only 60 cm. deep.

A brief description of the deposit must suffice. Most of the large skyphoi were buried south and southeast of the stelai, stacked upright in piles of from three to seven. Several of them had also been wedged on their sides, with their mouths against the stelai backs, into the 20 centimeter wide space between the stelai and the west wall. Into this space also the three complete terracotta shields had been inserted. The miniature vases were found inside the larger vases and also filled the interstices between them; some of the figurines also served the latter function, but most of them were scattered immediately around the stelai and on top of the stones of the west wall. In several cases figurines of the same type had been placed together, e.g., in one place three reclining figures, and in another two seated Korai.

There can be no doubt but that this miscellany of objects represents a sanctuary deposit. The objects themselves, vases, miniature vases, figurines, lamps, a bronze ring, are typical of the offerings customarily made in sanctuaries. Their careful arrangement indicates that they were placed there at one time, doubtless immediately before the enclosure was buried.

Just outside the southeast corner of the shrine a small, densely packed deposit of vases and figurines was uncovered. This is called for convenience the Aphrodite Deposit, from a small bronze bowl (p. 115, No. 1) which bore the dedicatory inscription:  $\tau\acute{\alpha}\varsigma$  Ἀφροδίτας ἐμί. The majority of datable objects in the deposit seemed to be of about the first quarter of the 5th century. A deposit so close to Stelai Shrine A and of roughly similar date surely may be assumed to represent a clearing out of offerings from that shrine.

The most peculiar feature of Stelai Shrine A is the group of four graves found to the north of it. These were all oriented east and west and lay just below the floor level of the shrine. They were all of the same type, a shallow, rather irregular trench dug in the hardpan and entirely unlined. Two of the graves had covering slabs, which evidently had existed also in a third grave. They contained no offerings, and the few sherds found in them were of the same kind as those in the earth above.

Grave 1 was situated with its west end under the north edge of the large cut block which formed the eastern wall of the shrine. It was 35 cm. in depth and 2.25 m. long; its width was *ca.* 45 cm. at the center, narrowing somewhat toward either end. Along the north side of the grave ran a shelf 30–40 cm. wide on which the ends of the cover slabs

rested. These lay over the grave in a slanting position, with the westernmost one supported against the east block of the shrine (Plate 5 D). The slabs were of poros, irregular in shape and varying from 8 to 15 cm. in thickness. The skeleton was much disintegrated. It lay on its back with the skull at the west end and the arms at the sides. Its length was *ca.* 1.60 m. and it was probably that of a young person, as there were no third molars in the jaw.

Grave 2 lay just at the north end of the west wall of the shrine (Plate 5 B, right center). The body was laid at the south edge of a large, shallow depression in the earth. The head was protected by a long (73 cm.) poros slab, laid slantwise over it but without any earth shelf; a second smaller slab at the foot of the grave rested against the end of the west wall of the shrine. The skeleton was that of a child, and was *ca.* 1.15 m. long and in very bad condition. The head was again at the west end, and the body laid in the same position as the other.

Grave 3, that of a smaller child, lay *ca.* 1.40 m. north of the shrine and roughly opposite it (Plate 5 D, right foreground). It was 1.27 m. long and 53 cm. wide at the center, narrowing toward the ends. The skeleton was *ca.* 75 cm. long and very much disintegrated. The head, as before, lay at the west, but the body lay on its side, facing south. Behind the back was a mysterious intrusion in the shape of what appeared to be an adult thigh bone. This grave had no covering slabs.

The outer wall of the South Long Building, at a point 2.90 m. north of the south wall of the shrine, was broken through and in this opening lay Grave 4, projecting 70 cm. beyond the west face of the wall and 50 cm. beyond the east face. The grave was 1.70 m. long, *ca.* 45 cm. wide at the bottom and *ca.* 30 cm. deep. A shelf, like that of Grave 1, 20–30 cm. wide, ran along the north side, but none of the covering slabs was preserved. The south side of the grave was undercut and overhung the grave so far that even very small slabs resting on the north shelf would have effectively closed the grave. Only a few unidentifiable fragments of bone were found in this grave.

The presence of the ledge along only one side of the grave and the use of a single row of cover slabs placed in a slanting position over the grave are most unusual features. Ledges all around the grave were, of course, seen in the Geometric graves at the north end of the excavations, and occasionally in Geometric graves elsewhere. Ledges along the long sides of the grave have occurred somewhat more frequently, notably in Geometric graves in the Dipylon<sup>27</sup> and in late 6th century graves at Rhitsona.<sup>28</sup> In both places the ledges seem to have supported horizontal wooden boards instead of stone slabs; iron nails, doubtless from these κλίβαι, were actually found in the Rhitsona graves. Ledges along the long sides of the grave, here supporting gabled tile covers, were noted once at Caulonia.<sup>29</sup> This grave appears to be nearly contemporary with those of Rhitsona. A grave of similar type, found at Thebes,<sup>30</sup> was dated in the first half of the 4th century, while others<sup>31</sup> from the same site with similar ledges were considered by the excavator to

<sup>27</sup> *Ath. Mitt.*, XVIII, 1893, p. 93 (Grave III); p. 112 (Grave VII).

<sup>28</sup> *B.S.A.*, XIV, 1907–8, p. 244; Ure, *Sixth and Fifth Century Pottery from Rhitsona*, p. 3.

<sup>29</sup> *Mon. Ant.*, XXIII, pt. 2, 1916, col. 917, fig. 157.

<sup>30</sup> *Αρχ. Δελτ.*, III, 1917, p. 225.

<sup>31</sup> *Ibid.*, pp. 234 f.

be of Christian date, apparently because the bodies were placed with the head at the west, although this arrangement is, as a matter of fact, not unknown in ancient graves, and because other isolated bones were put in with the main burial. In these graves also the bodies were covered with tiles. Similar ledges, likewise intended for supporting tiles, occurred at Olynthos.<sup>32</sup> Ledges along the long sides of a rock-cut grave at Kameiros<sup>33</sup> served to hold the ends of stone slabs which formed a gable over the grave.

It is very difficult to determine the relation between the graves and the shrine. Since one of the covering slabs of Grave 2 rested against the west wall of the shrine, it is probable that the grave is later than the wall. This seems to eliminate the possibility that the shrine was built in honor of the persons buried here; in that case the graves would certainly have been dug first and the shrine constructed afterward. One of the slabs of Grave 1 was found leaning against the block which forms the east wall of the shrine, and hence this grave is presumably later than the block. As the only blocks at all comparable with this one in size are those in the reconstructed south end of the North Long Building, this block is perhaps to be assigned to the 5th century, although it obviously cannot be very late in the century. If the graves are later than the east wall, they must be dated in the second quarter of the 5th century or later. Two possibilities present themselves: either the graves were made after the shrine was buried and have only an accidental relationship to it, or they were dug at the same time the shrine was buried. In the latter case we must assume that they were dug for a group of people who were interred at the same time and in honor of whom the shrine and its contents were buried. Such a procedure might explain the curious fact that, though the graves appear to be of the Greek period, they contain no offerings. It seems, however, impossible to determine which of the two suppositions is the correct one.

The second shrine (Plate 52, Plan B, top; Plate 6 A and Plate 9 A, right foreground), built against the south end of Wall B, is nearly identical in construction with the first and therefore probably contemporary. Wall B ends in a long cut block, 1.20 m. long, *ca.* 25 cm. wide and *ca.* 50 cm. high, against which are backed the two stelai (pp. 72 f., Nos. III and IV), standing side by side with their edges not quite touching. As in the other shrine there is no north wall. The south wall, which the south stele touches, consists of two large, roughly cut blocks with rubble construction between. A very large rectangular block partly blocks up the east side. This shrine, 1.20 m. by 1.10 m., is of very nearly the same size as the other. The native rock formed the original floor; the level was later raised *ca.* 15 cm. by laying several rough stone slabs of which only part remain and, presumably, by filling the interstices with earth. The raised floor of the second period concealed the bases of the stelai and the lower part of their recessed panels. The first coating of white stucco on the stelai covers the entire front surface. The second coat stops at the level of the inserted paving slabs.

That the shrine was in use for some time is indicated by this re-stuccoing of the stelai and by the change in floor level. Since cut blocks are not found in 7th century construction, we must assume that the block which forms the west wall was added to Wall B

<sup>32</sup> *Olynthus*, XI, p. 162.

<sup>33</sup> *Clara Rhodos*, VI-VII, p. 17, fig. 4.

later, presumably when the shrine was built. The shrine and Wall B, therefore, are not contemporary. The cut block at the east may be an even later addition. Since nothing was found under the floor slabs, it is impossible to determine the date at which the floor level was raised. The period at which the shrine was discontinued is also unknown, since, unlike Stelai Shrine A, it was not purposely buried but probably drifted gradually into disuse. The miniature krater and two terracotta doves found in the shrine might date from almost any period after the middle of the 6th century.

Another structure which must probably be placed in the 6th century is a cistern which is connected by a tunnel with a manhole; it is located at the edge of the cliff not far south of the second tower of the City Wall. The opening of the cistern itself is a cylindrical, well-like shaft *ca.* 90 cm. in diameter, bored in the rock to a depth of *ca.* 1.70 m. At this point it widens sharply to a diameter of *ca.* 3.10 m. and becomes a capacious, straight-sided drum. The height of this lower part is also 3.10 m. The drum, but not the upper shaft, is lined with hard, white cement of superb quality. The native rock, levelled off, forms the floor. At the south side an arched tunnel, of such dimensions that a man can walk stooping through it, pierces the rock for *ca.* 5 m. The width of the tunnel is *ca.* 60 cm. and its height *ca.* 1.30 m. It is entirely lined, except for the floor, with cement similar to that used in the reservoir. The edges of the tunnel are smoothly rounded. After running *ca.* 1 m. to the south, the tunnel turns southeast, its width gradually increasing to 90 cm. and its floor sloping slightly downward; it continues in this new direction for another 4 m. and then narrows again to meet the opening of a manhole pierced in the roof at the end of the tunnel. The angles of this opening are likewise rounded and the cement is continued upward to the top of the manhole. The shaft, 68 cm. in diameter, ascends vertically to the surface, a distance of 3.50 m. Down opposite sides of the shaft run two series of footholds, extremely well cut and with the cement carefully run into them, so that their edges are smooth and rounded. A small, round, cement-lined channel, pierced through the side of the shaft a few centimeters below the top, runs 40 cm. westward and ends at the upper edge of a rectangular basin cut in the earth and not lined. The basin is 80 cm. wide, 1.80 m. long and varies in depth from 60 cm. to 1.20 m.

This cistern, with the smooth, flawless cement of its manhole, arched tunnel and reservoir, is one of the most interesting features of the Potters' Quarter and gives evidence of unusual care in construction and finishing. How water was introduced is not apparent, but what water was obtained must have represented the drainage from a fairly large area. On the surface of the rock a shallow channel, only a meter or so long, runs into the main reservoir from the south, but obviously can have had but a small part in feeding the cistern. Since the basin west of the manhole can have had no other purpose than to catch an overflow, it is apparent that the cistern was expected to be entirely filled on occasion.

The cistern, when we began to excavate it, was completely filled with earth. The manhole did not appear on the surface, but was discovered from below when we reached the south end of the tunnel; its upper opening was concealed by the lower part of a large pithos with heavy moulded rings. The greater part of the tunnel was filled

with earth, but its south end and the shaft of the manhole contained a great mass of rough stones. This must indicate that the shaft was blocked up deliberately and its mouth utilized as a convenient place for setting a pithos.

Very few sherds or figurines were found in the cistern; beside a stele, offering-table and altar (pp. 73 f., No. VI, pp. 76 f., No. XIII, p. 77, No. XVI), we took out quite a number of other worked blocks, some stuccoed, and many roof-tile fragments. It seems fairly evident that the cistern, except for the manhole, was not filled up deliberately, as was the case with Well I, but fell into disuse and acquired gradually the earth and the miscellaneous objects which do find their way into wells. That a great part of the process was completed in comparatively recent times was evident from the very mixed fill in the upper part of the cistern. This ranged from Corinthian sherds of the 6th century B.C. and Attic sherds of the 5th century to a modern steel fork and knife. The cistern was most productive at the bottom, in the last meter of earth. At this level were found the altar, table, stele, and most of the worked blocks. Two fragmentary vases, probably of the late 5th century B.C., near the bottom indicate that the cistern was probably still open at that period. A skyphos with offset rim and vertical handles, decorated in the Conventionalizing style of the second half of the 6th century, and a miniature lamp of a late 6th century type, both found unbroken at the bottom of the tunnel immediately under the opening of the manhole, offer some indication that the cistern had already been built and contained water at least by the end of the 6th century.

Although we have no independent evidence concerning their date, we may consider at this point two small rectangular reservoirs which are lined with a hard, white cement very similar to that used in the cistern, though not applied as thickly. The first of these (Plate 6 B), already mentioned,<sup>34</sup> is a little southeast of the Terracotta Factory. It is slightly irregular in shape, but measures *ca.* 1.67 m. in length, 1.07 m. in width and 60 cm. in depth. The cement is applied directly to the hardpan, and at the bottom of the reservoir forms right angles on three sides and a rounded joint on the fourth. The second reservoir lies north of Stelai Shrine A and is broken through by the City Wall. Like the other, it is a roughly rectangular cutting in hardpan, and is lined with cement which in this case has a slight admixture of cracked pebbles and bits of baked clay. All the angles are rounded. It is 2.70 m. long and 40 cm. deep, but the width is lost.

Here also may be described the small undated shrine immediately north of the cistern. When uncovered, it consisted of a squared block and two upright piers (Plate 7 A). The block, resting on the levelled rock 4.50 m. north of the cistern, is covered on all four sides and on top with a thin coat of very fine, hard, white stucco. It is 51 cm. long, 45 cm. wide and 37 cm. high. North of the block at a distance of 1.32 m. stand the piers (p. 77, No. XIV), set with their longer sides facing each other, one about 45 cm. east of the other. They are well cut and show traces of stucco similar to that on the block. Their tops are broken off, probably by the plough; they are preserved to a height of *ca.* 50 cm. Their length is 21 cm. and their width 15 cm. A narrow, rectangular cutting in the ground, *ca.* 1.60 m. long, which lies 50 cm. north of the piers (Plate 19 B, upper left) is not

<sup>34</sup> Pages 11 and 18 f.

necessarily connected with the shrine. The dimensions of the piers and the distance between make them fit almost exactly the two shallow, rectangular depressions on the under side of the shelf-like table (pp. 76 f., No. XIII) found in the cistern; it is almost certain, therefore, that these piers were actually the supports for the table.<sup>35</sup> This probability and the proximity of the shrine to the cistern seem to justify us in attributing to this shrine the stele (pp. 73 f., No. VI) and altar (p. 77, No. XVI) found in the cistern at the same depth as the table.<sup>36</sup> The stuccoed block may possibly have served as a base for the altar, although the under side of the altar shows a large dowel hole, and none appears on the stuccoed block. Since no trace of walls was found, the area beside the cistern was doubtless an open-air shrine.

Clear evidence for its date is lacking. The fact that the table and the other possible accessories of the shrine were found near the bottom of the cistern in company with, among other things, late 5th century pottery might be taken to indicate that the shrine was dismantled in that period. On the other hand, the similarity of the table supports to those in the Terracotta Factory may allow us to date the table, and thus perhaps the construction of the shrine itself, somewhere in the late 5th century. The type of stele peculiar to the Potters' Quarter apparently continued to be made in much the same form until the latest period of the settlement, and can therefore be of no assistance in dating any of the shrines in which it is found.

Another building which may as well be considered here as elsewhere is a very small one which lies immediately outside the City Wall and close to the edge of the cliff northwest of the first round tower (Plate 7 B). It is less than nine square meters in area and consists of two very small rooms.<sup>37</sup> The walls are of fairly good rubble construction; the use of cut blocks precludes the possibility of their being of 7th century date. The south room, slightly the smaller, contains in the southwest corner a small stele (p. 73, No. V) of the usual type with a recessed panel, facing east as is customary, and set in earth *ca.* 40 cm. above the floor level (the rock is cut down inside the building to a level 40 cm. below the rock level to the south). Only part of the wall dividing the two rooms is preserved; a rise in the rock forms a socle on which the wall was originally set. The southwest corner of the north room contains a small, deep, rectangular pit. A very narrow wall along the north side of the room, close to the north wall, may have formed the support for a bench or table. Outside the northwest corner of the building is a well (II) cut in the rock 3 m. from the edge of the cliff (Plate 7 B, right foreground). It is 80 cm. in diameter, with footholds very close together down either side. The well is only 2.10 m. in depth and was filled largely with stones. The objects found in it were quite heterogeneous but the

<sup>35</sup> The chief reason for considering this area a shrine lies in the fact that the piers are almost identical with those in the small sanctuary in the Terracotta Factory (p. 77, No. XV). The latter shrine, in addition to the table supports, contained also two stelai and an altar.

<sup>36</sup> From the position of the piers it is evident that the offering table faced either north or south. The stele would supposedly have faced east, like all the other stelai found in the Potters' Quarter. This arrangement seems a little peculiar; in the Terracotta Factory shrine, both table and altar face east.

<sup>37</sup> There was probably once a third room to the west, now vanished into the ravine; a bit of wall and a shallow cutting in the rock continue to the west the north wall of the building, while its south wall extends to the edge of the cliff.

greatest number were of late 5th century date. A shallow rock cutting running north and south near the well may mark a water-collecting area. A long wall (Plate 7 B, center) of well-laid rubble with a few cut blocks runs parallel to the south wall of the building and may form part of a large yard such as those in which most of the activities connected with the pottery industry must have been carried on. About thirty miniature vases and several figurines were found in the building, comprising mostly 5th and early 4th century types. The present level of the stele may indicate that at some period the building was remodelled, with the floor at a higher level.

Tempting as it is to consider this tiny, two-roomed building a potter's shop, complete with its clay pit, well, working bench and little shrine, we must, nevertheless, admit that it is more likely to be a sanctuary. For one thing, we should expect to find a larger amount of broken pottery in or near a potter's shop. A find which, if it could be proved to have any connection with the building, would give increased importance to the identification of the building as a shrine is a small pyxis of the Conventionalizing style, bearing the painted inscription ΤΑΜΕΡΟΜΑΜΕ (τας εροσας ε—). A very possible restoration of the last word is ἐμί. The vase was put together from fragments found scattered throughout the area between the City Wall and the edge of the cliff, in the trench in which the building was included. If the vase is considered part of the refuse from the building, we may perhaps identify the latter as a sanctuary of an unknown goddess or heroine, Erosa, although the name may, of course, merely be that of the owner of the vase.

## FIFTH CENTURY

In the Potters' Quarter the first half of the 5th century seems to have been a period of very slight building activity. A large amount of pottery was found which is very probably of this period, but the whole question of the sequence of Corinthian pottery in the 5th century needs study. Some of the structures to be considered in this section may well go back to the first half of the century, though the deposits in them are usually to be dated in the second half. Most of the constructions of this period are centered at the south end of the excavations, and include a circular shrine, three wells, a cement floor, a small cemetery and a deep, rectangular pit. The objects from the shrine and the pit, when compared with deposits in other parts of the excavation, take their place in the sequence somewhere between the deposits of Stelai Shrine A and the Terracotta Factory. They belong, then, in the second half of the 5th century, a dating which is confirmed by comparisons of the material from these deposits with that from other deposits in Corinth and in the Agora at Athens. The cemetery also seems to be of like date; and, since everything else in the immediate vicinity thus appears to fall roughly into the same period, we may probably assume that the wells and the cement floor are also contemporary.

Let us first consider the south cemetery (Plate 8 A) which, as far as could be determined by trial trenches toward the south, marks the furthest extent of the settlement in this direction. It comprises five graves, set so close to the present edge of the cliff that

the end of Grave A has now disappeared over the edge. Four of the burials were in monolithic poros sarcophagi; none of the covers was preserved and in none of the sarcophagi did we find bones or other objects. Of these four Grave C is oriented exactly north and south, and the other three seem to have been grouped about it with only slight reference to the points of the compass. Three of the five are child burials.

The sarcophagus of Grave C is large and well preserved, 1.68 m. in length and 79 cm. wide; it was partly set down into a cutting made for it in the hardpan. Graves B and D are those of infants. The former, only one side of which is preserved, is oriented north-northwest and south-southeast, and is *ca.* 50 cm. long and 16 cm. wide. Outside its northwest corner the fragments of a small skyphos of poor quality were uncovered at the level of the top of the sarcophagus walls. The sarcophagus of Grave D is quite complete; it is oriented northeast and southwest, and measures in length 58 cm., in width 39 cm. and in depth 23 cm. It is set much deeper in the earth than that of Grave B.

Grave A, south of Grave C, is oriented east-northeast and west-southwest. The width of the sarcophagus is 58 cm. and its present length 1.75 m. (the west end is broken away). Outside the southeast corner of the grave four vases had been set. The offerings showed the grave to be that of a woman; they consisted of a large, round, one-handled kitchen pot of coarse, porous red clay, a small skyphos and two small, round pyxides, unpainted, with flat, grooved covers. These vases were almost certainly placed outside the grave at the time of burial. They seem to be of 5th century date, and probably belong nearer the end of the century than its beginning. We may assign the other three graves to the same period.

The fifth grave is of a different type and not necessarily of the same date as the sarcophagus burials. A short distance northeast of the sarcophagi begins a large cement-paved area, bedded on a rubble foundation. The cement, the surface of which is 35 cm. above hardpan, is white with tiny fragments of red tile mixed with it and is *ca.* 3 cm. in thickness. On the surface of the pavement one can trace a series of very faint impressions, as if large, flat paving-slabs had been laid on the cement. The most clearly defined of these impressions measures 1.17 m. by 58 cm. A trial pit to the east showed the pavement still continuing, but in this particular place a child's grave (Grave E) had been cut through it. The grave is shallow and unlined, oriented northwest and southeast and rounded at the west end. Its dimensions are 1.35 m. by 58 cm. The head lay at the west, but was bent southward almost at right angles to the body, although the face was turned upward.

An enormous, roughly trimmed rock which appeared on the surface of the ground, about 20 m. in from the edge of the field and 12 m. northeast of the cemetery, turned out to be the covering of a well (V). A small level area, cement-paved and bounded by a low curb, surrounded the well. This area, trapezoidal in shape, had the following measurements: (east side) 1.70 m., (west side) 1.07 m., (north side) 2.20 m.; the south side was not preserved. Its bounding wall was formed of thin, well-cut poros slabs, from 10 to 17 cm. wide and from 6 to 9 cm. in height. The removal of the boulder which blocked the mouth of the well, and the raising of a long, rectangular slab on which the west side of the boulder rested, revealed a well-curb consisting of four long, thin slabs of poros, their

inner faces cut to form a very accurate circle. The diameter at the well mouth is 70 cm., widening to *ca.* 85 cm. lower down. The well was found unfilled to a depth of 8.50 m. We dug some distance below that point, but, finding that the earth was entirely without sherds, we abandoned it.

About 19 m. northwest of Well V and 15 m. from the edge of the hill, Well IV had already been found (Plate 8 E, foreground). The discovery was made somewhat prematurely when one of the workmen fell through the soft poros cover slab while it was still concealed by earth. The cover was 1 m. by 72 cm. in size and was supported on the south side by a long, rectangular block, fitted into a cutting in the earth. The well itself, circular like all the wells on the site, is *ca.* 1 m. in diameter. The cover, which kept the well free of earth, saved us the labor of digging it out, a fortunate circumstance, since it is probably one of the deepest wells in Corinth. At its discovery it measured 17.20 m. down to the water level, with an unascertained depth of water below and probably a deposit of earth at the bottom.

Adjoining the well on its north side, 50 cm. above the top of the well cover, is a pavement of pebble cement of good quality with a rectangular depression in the center (Plate 8 E). The north side of the floor is badly preserved and the west side has been entirely destroyed. The length of the east side, which alone is completely preserved, is 2.93 m. The central depression, everywhere 90 cm. from the edges of the pavement and 2.5 cm. deep, is bounded by a rough cyma recta moulding. The floor lay only slightly below the surface of the field, and there is no trace left of any wall in its vicinity. A small amount of hard, thin wall stucco from this locality, made of marble dust and painted a brilliant red, must indicate that the pavement, as we should expect, once formed the floor of an enclosed room, presumably that of a private house.<sup>88</sup> An oil press and several millstones, found in this general region, likewise seem to point to the residential character of this area (see p. 33).

Directly west of the well in the field (Well V), 5 m. from the edge of the cliff and immediately outside the City Wall, we came upon a large, roughly rectangular pit cut deeply into the earth; it was filled chiefly with large, unworked stones, but contained also a considerable number of vases and sherds, and a few miniature vases and figurines. The pit is 2.70 m. wide, *ca.* 3 m. long and *ca.* 1.65 m. deep. It contained a little red-figured Attic pottery, but most of the vase fragments were from skyphoi fashioned and painted in imitation of Attic ware. Comparison of the vase shapes with those from datable deposits in the Agora at Athens<sup>89</sup> indicates that the Rectangular Pit deposit belongs in the second half of the 5th century, and probably largely in the middle of the second half. The most interesting object from the pit was a small poros statue of a siren, probably of much earlier date (see pp. 70 f.).

About two meters north of this pit is an east-west wall (Plate 8 B, background) of good rubble construction, 45 cm. wide. At right angles to it a similar wall runs southward.

<sup>88</sup> Similar floors have been found in the androns of Olynthian houses (*Olynthus*, VIII, pp. 174 f.), as well as at other sites (*ibid.*, pp. 180-184).

<sup>89</sup> For much information about these vases, I am indebted to Miss Lucy Talcott.

From either end of the east-west wall a short wall runs northward; together the walls partly enclose a tiny circular shrine (Plate 8 B–D), which lies only about two meters from the drop of the ledge. Five large, well-cut rectangular blocks, undoubtedly re-used and rather carelessly laid with loose rubble between them, form the low foundation walls of the shrine. Its inner diameter is roughly 1.40 m. At the east side, facing eastward, stands the lower part of a stele of the usual type with recessed panel (p. 74, No. VII). Close around the outside of the shrine and especially against its south wall, we uncovered an enormous mass of offerings. These consisted of a few vases, about 225 figurines and well over a thousand miniature vases, to say nothing of many baskets of fragments. The miniature vases formed a solid stratum south of the shrine, practically all being packed into a shallow area roughly 3 m. by 1.70 m. The figurines were found mostly in front of the stele to the east. Nothing was found inside the shrine below the level of the tops of the foundations. South of the shrine, inside and parallel to the present enclosing wall, appears the cutting for another wall (Plate 8 D, left foreground), probably earlier, which also turns north inside the east branch of the present enclosure.

We have no evidence as to the identity or nature of the deity to whom the circular shrine was sacred. The dedications themselves give us no clue; the figurines, both male and female (the latter predominating, as always in these deposits), are not at all unusual in type, or characteristic of any one deity more than another. The presence, against the east face of the stele, of the lower part of a very large seated female figurine, XVII, 4, may indicate that this figure was intended to represent the mistress of the shrine. Here also was found a fragment from another seated female figurine of unusual size, XVII, 5; its original height must have been about 40 cm.

Beside the main deposit, other smaller deposits of vases and figurines were uncovered immediately outside the east branch of the enclosing wall outside the shrine, and in the area between the fall of the cliff and the north-south wall which runs southward at right angles to the south enclosing wall. It is, moreover, not impossible that some of the objects in the rectangular pit nearby to the southeast are also part of the sanctuary deposit, since they are roughly contemporary. The pit deposit, however, with its numerous sherds belonging to vases of a single type, and its miniature vases which for the most part comprise only three or four shapes, gives the impression of a dump of potters' refuse rather than that of a sanctuary deposit.

The deposit around the shrine perhaps indicates, as in the case of Stelai Shrine A, that the objects were purposely buried with the shrine. They may, on the other hand, represent an accumulation of offerings, but an accumulation of comparatively few years, as is apparent from the homogeneous character of the objects and the total lack of stratification. If the shrine had continued in use after all or a part of these objects had been buried, their fragility and the shallow depth of earth over them would surely have made it impossible for them to have been preserved intact under the trampling of feet around the shrine.

Immediately north of the shrine were clear evidences of a water-collecting area. A little less than a meter to the north a long rectangular cutting, lined with hard white

cement, ran roughly east and west. This cutting was 3 m. long, 80 cm. wide and 28 cm. deep. A short distance north of it we uncovered a section of an open clay water channel of good fabric. The cement-lined basin and the channel are very possibly to be connected with a shallow well (Well VI) about 6 m. north of the basin. This well yielded sherds, a few vases and figurines, but nothing of particular interest except a fragment of a marble statuette which represented a hand grasping a vase (Plate 27 C and D).

This southern area, if its structures had better survived their unfortunate position directly in the path of the City Wall, the proximity of their foundations to the surface of the field, and their precarious situation at the edge of the cliff, would have been most important in the study of our series of sanctuaries. As it is, we can only guess as to the original appearance of the shrine itself and of its enclosing walls. The deep, rectangular pit to the south is oriented more or less in relation to the south enclosing wall; we cannot, however, be certain that any connection exists. The building to which the cement floor and well (IV) must originally have belonged there is, of course, no hope of reconstructing. It may have formed an adjunct of the sanctuary but was more likely a private house. There is, in fact, sufficient evidence that the southern part of the settlement had a more residential character than the rest. The cement pavement and well, and the bits of wall stucco found near them, surely mark the site of one house. Not far off, near the edge of the cliff, were found two millstones. About 15 m. north of the cement floor part of a third millstone appeared, and also a few more fragments of red wall stucco. At the very edge of the hill, in this same general region, was found part of what is probably an olive press.<sup>40</sup> Both oil presses and millstones are, of course, found commonly in private houses.<sup>41</sup>

At the very northern end of the excavation, trial trenches north of the Geometric cemetery and just outside the City Wall uncovered, beside the sixth of the Geometric graves (p. 9), but at a higher level, two burials of a much later period. These two graves were set into rectangular cuttings in hardpan and oriented roughly north and south. Their long sides were parallel and lay only half a meter apart. The cover slab of Grave  $\alpha$  rested *ca.* 30 cm. above that of Grave  $\beta$ . Both graves had monolithic poros sarcophagi with covering slabs of the same material. The vases from both were of 5th century date and Corinthian manufacture.

The sarcophagus of Grave  $\alpha$  was 1.70 m. long and 67 cm. wide in its outer dimensions and 38 cm. deep; its walls were 6–7 cm. thick. The cover slab was 75 cm. wide and its thickness varied from 14 cm. in the center to 9 cm. at the edges. Its length was incomplete. Inside the sarcophagus, near the northeast corner, fragments of a covered trefoil oinochoe were found part way down; opposite it on the west side a skyphos was placed with its mouth resting on the floor of the grave; also on the floor, in the southwest corner, lay a miniature round-lipped oinochoe. No trace of bones could be found.

Most of the cover slab of Grave  $\beta$  was missing. The north end of the sarcophagus

<sup>40</sup> It is *ca.* 60 cm. square and 10 cm. high, with the edges and corners well rounded off. In the upper surface is a circular channel 3.5 cm. wide and 4 cm. deep. The stone is incomplete and the spout is not preserved.

<sup>41</sup> Cf. École française d'Athènes, *Exploration archéologique de Délos*, XVIII, pl. XXXIX, 276, and pl. XL, 277–283. See *ibid.*, pp. 97–99, for further references.

had been removed and the walls extended with stones and fragments of tile, probably with the intention of adapting a small sarcophagus to fit a larger person. The preserved length was 1.13 m., the width 74 cm., and the depth 52 cm. The walls were 7 cm. thick and the cover slab 14 cm. thick. Inside the south end, about halfway down, appeared fragments of a large black skyphos. At a slightly lower level, at the west side, a small lekythos lay on its side. A squat oinochoe stood upright at the northwest corner. Fragments of leg bones were found at the south end. The upper and lower leg bones appeared to lie together, an indication that the knees were probably drawn up.

Two isolated graves which may be mentioned here were of a tile-covered type. The first lay just under the surface of the field about 9 m. east of Stelai Shrine A, at the northern end of the long, straggling wall (Wall B) mentioned on p. 16. The grave was 1.68 m. long and *ca.* 50 cm. wide, and was oriented east and west. The body was covered by broken pieces of curved roof tiles, overlapping each other to form an arch over the grave. Pieces of similar tiles, set vertically, closed the narrow ends. Some distance under this covering a single tile, 45 cm. long, had been placed over the legs. The skeleton was much disintegrated, but it could be determined that it lay on its side, facing north, with the head at the west. It rested on a bed of closely packed stones. The grave contained no offerings and few sherds.

The second grave, that of a woman, was found in a trial trench to the north of the main excavation. Two curved tiles were placed in an arch over the legs, and two large flat tiles formed a steep gable over the upper body. The grave was 1.82 m. long, *ca.* 45 cm. wide and 45 cm. deep. It was oriented east and west, with the head at the west. The only contents were a simple bronze bracelet and a vase of coarse red ware at the feet.

Graves with curved covering tiles have been found at several Greek sites, notably in the Kerameikos at Athens,<sup>42</sup> at Rhitsona,<sup>43</sup> Olynthos<sup>44</sup> and Asine,<sup>45</sup> and in Kephallenia.<sup>46</sup> Those in the Kerameikos are said to be of 4th and 3rd century date, while those of Rhitsona seem to belong to the 5th century and those of Kephallenia to the late 5th century. The graves at Asine were said to belong to the Hellenistic period. A tile grave at Halai<sup>47</sup> appeared to be even later.

## THE TERRACOTTA FACTORY

### FIFTH AND FOURTH CENTURIES

We come now to the most extensive and best preserved building in the Potters' Quarter—the Terracotta Factory (Plates 9–14). It is located just inside the northern stairway of the City Wall, and covers an area of about 280 square meters. To form a

<sup>42</sup> *Ath. Mitt.*, XVIII, 1893, pp. 162 f.; Stackelberg, *Gräber der Hellenen*, pl. VII.

<sup>43</sup> Ure, *Sixth and Fifth Century Pottery from Rhitsona*, pp. 4 f., pls. I (Grave 114a) and III (Grave 138). Also Graves 107, 108, 111, and 121.

<sup>44</sup> *Olynthus*, XI, pl. LXI, 6 and 7.

<sup>45</sup> Frödin and Persson, *Asine*, pp. 140 f., fig. 126.

<sup>46</sup> 'Αρχ. Ἐφ., 1932, p. 4, fig. 41; *ibid.*, 1933, p. 69, fig. 2.

<sup>47</sup> *Hesperia*, XI, 1942, p. 368, fig. 3.

level floor for the building much of the native rock had to be cut back, in places as much as 80 cm., as is shown by the abrupt rise in level east and south of the building. Since the existing walls are all finished off smoothly at about the same height, it is clear that they are merely the socles for walls of mud brick. Part, at least, of the building must have been roofed, since fragments of tiles and even whole tiles were found in several places.

Three main periods are discernible in the Terracotta Factory. The walls of Period I are of rubble masonry with a few small cut blocks, fairly well laid, but with the use of much earth. They are often characterized by very shallow socles formed in the native rock. Those of Period II are constructed mostly of cut blocks, fitted with considerable care and the use of very little earth. In these walls roof tiles appear for the first time. Period III is represented by walls of rough rubble, made of small stones and much earth. They contain very few cut blocks, with the exception of the walls of the rooms along the north side of the building, which contain considerable re-used material and may be of this period.

The galleried court, as the main room of the building, must be our starting point (Plate 10 B). It is situated in the center of the west side of the building. Its interior measurements were 9.60 m. by 5.80 m. in its original form; its present dimensions are 5.95 m. by 4.70 m. Its east and west walls are of very well-constructed rubble, employing many squared blocks and comparatively little earth; they are *ca.* 40–50 cm. in width and are preserved to a maximum height of 75 cm. They belong to Period II. The construction of the west wall is particularly interesting (Plate 11 A and B). It is very solidly built of large and small squared blocks, small stones, either very roughly cut or left in their natural state, and pieces of flat roof tiles. The whole wall was laid with regard to the appearance of the inner face and not the outer, so that some of the larger blocks project on the west side considerably beyond the straight face of the wall. The east wall, with the whole northeast corner (Plate 10 B, center foreground), is also fairly carefully constructed of large and small blocks, roughly squared.

The north wall, except for its east end, exhibits the ordinary type of rubble, composed of small, irregular stones and much earth. There are, however, a few squared blocks near the base of the wall. It is the only wall of the court which survives from Period I. The south, east and west walls of the original court have been completely removed, leaving only the slight socle cut in the native rock to receive the masonry. The entrance to the court, blocked up probably when the Terracotta Factory was abandoned, was at the east, near the northeast corner. The doorway is 1.35 m. in width, and is framed on the south by a large, well-cut block, set upright, and by careful masonry on the north side. In the north wall, at a distance of 1.50 m. from the west wall, appears a blocked-up doorway, 1.20 m. wide. Its west side is faced by a flat, upright stone; its east side is marked by careful masonry. If there was no room north of the court in Period I, as is possible, this doorway may have been the main entrance to the court in that period. It was probably filled up in Period II.

The most interesting feature of the court is a row of four small, rectangular bases, set a little less than a meter inside the present west wall (Plate 11 B). The first three

bases (counting from the south) are about 1.40 m. apart; the distance between the third and fourth is only 1.25 m. On the southernmost base a rectangular pier was found still standing upright, although its top lay only a few centimeters below the surface of the field (Plates 11 B and 12 B). The present height of 90 cm. probably represents more or less the original height of the block, since the upper surface, though much battered and gashed by ploughshares, is fairly horizontal and does not show the irregular lines which would result from actual breakage. The pier is 44.5 cm. in depth (the long sides are set at right angles to the west wall) and 24.5 cm. in width. A very fine, hard white stucco covers the two sides which face in toward the court, i.e., the north and east faces. The other two sides are dressed back slightly at the corners which adjoin the stuccoed faces. The width of the dressing is 3.5 to 5.5 cm., and the same stucco is continued over it. The remaining surfaces of these two sides project very slightly beyond those of the corner returns and are fairly smoothly worked off, but not stuccoed. Behind the pier, wedged in tightly between its back and the socle of the original south wall of the court, a flat stone was inserted to hold the pier upright. Not quite accurately centered on its base, the pier leaves a margin, varying from 3 to 7 cm., on the top of the base. This margin shows traces of stucco, ending in a slightly thicker line where the edges of the pier rest; the pier, then, was already in place when the base was stuccoed. No stucco was applied to the bases except around the edges of the upper surfaces. The south base measures 60 cm. in length, 37 cm. in width and 25 cm. in height. All the bases are of more or less the same size, varying only in height. The north base is considerably higher than the others.

The original height of the piers we cannot, of course, determine; that they did not support a roof which covered the whole court seems evident from the fact that they are so far from the center of the room. It is probable, therefore, that they served in Period I as the props for a roofed shed against the side of the court, replaced by a narrower gallery in Period II. The rest of the court was probably never roofed. The presence of large, pier-like blocks built upright into the west wall opposite three of the pier bases (Plate 11 A and B) suggests possibly that they were inserted with the idea of giving additional strength at the points where the cross beams from the piers would rest on the wall.<sup>48</sup> Since there is no trace of stairs nor, indeed, much space for them, we must conclude that the gallery of Period II was of a height to be conveniently reached by a ladder. Further evidence for the existence of the gallery is afforded by the masses of vases and other objects (Deposit 2) found between the wall and the row of pier bases. These were piled against the wall as they would be by the collapse of a shelf. The gallery was probably used for the storage, before their sale, of articles made in the Terracotta Factory.

The most important find made in excavating the court was a deposit of figurine moulds (Deposit 4), fourteen in all, lying in a heap on the floor halfway between the east wall and the second base from the south. Four other moulds were found at various places in the same room. The miniature vases found in the court numbered over one hundred, of which forty were from the deposit under the gallery. Of the twenty or more larger

<sup>48</sup> If the upper part of the wall was of mud brick, these blocks would not seem to have been very effective, unless they supported wooden posts which were incorporated into the fabric of mud brick.

vases and the thirty figurines from this room, half were from this deposit. Twenty-six heavy loomweights, many of them bearing the ΜΕΛΙΞ stamp, also formed part of the débris from the gallery. Also along the west wall, immediately outside the north and south walls of the court, we found deposits of objects quite similar to those which lay along the same wall inside the court. The deposit to the south (Deposit 1) consisted mainly of figurines, which exceeded thirty in number but comprised only about four distinct types. The corresponding deposit north of the north wall of the court (Deposit 3) contained our largest single find of figurine moulds—twenty-one, exclusive of fragments. We can hardly doubt that the objects in the two deposits outside the court, like those inside, were originally stored on the gallery. Hence, the gallery and the north and south walls must have fallen at the same time. We must certainly assume some major disaster, doubtless an earthquake, whose direction of vibration was such that the north and south walls were thrown down, while the others may have remained standing. That the west wall, at least, did not collapse at the same moment seems to be indicated by the fact that no objects were found immediately outside that wall. The earthquake was apparently one of great severity; the Terracotta Factory was never rebuilt, and the objects from the gallery, even though they included a considerable sum of money, were never retrieved, doubtless because the fallen bricks from the walls covered them too deeply.

For Period I of the court we have the following: the north wall, except for its east end; a rock-cut socle for a west wall a little west of the present one; a socle for a south wall which ran directly behind the southernmost pier; an east wall represented by a shallow rock cutting which runs through the middle of the Altar Room, nearly 2 m. east of the present east wall; and four piers *ca.* 2.20 m. inside the original west wall. The only point about which any doubt exists is the northeast corner of the room, since the cutting for the east wall cannot be traced north of the Altar Room. The main entrance to the court in this period may have been at the northeast corner, as it is now, or it may be represented by the blocked-up doorway in the north wall.

In Period II the court was made 3.65 m. narrower by building new east and west walls inside the old ones. It was made 1.10 m. shorter by building a cross wall (Plates 10 B and 12 B) which ran just in front of the south pier. This wall, 40 cm. wide, is well constructed of rubble, containing a few cut blocks. A doorway, 1.10 m. wide, was made in it at a point 1.80 m. from the west wall of the court. Its west side consisted of a single thin cut block, set on edge, and the east of two thin slabs set back to back with earth between. This doorway gives access into the new South Room. The west end of the wall is finished off 90 cm. before it reaches the west wall of the court, thus forming a sort of niche in the southwest angle of the court. A doorway was made in the new east wall, possibly replacing an earlier one which was, presumably, further east. This east entrance was retained in Period III, at which time it was rather impressively set at the end of a diadromos which was flanked by wings on either side: the Altar Room and East Room on the south, and the North and Northeast Rooms on the north.

To a fairly late date, probably somewhere in Period III, belong the very poor rubble walls inserted between the two northernmost pier bases, and the short bit of wall, con-

sisting of a few uncut stones laid in a single row, which was set between the west wall and the second pier from the south.

The large room north of the court, which may be called the Northwest Room, is nearly square, being 4.45 m. long and 4.65 m. wide (Plate 10 A). The wall common to both the court and the Northwest Room belongs to Period I. It is not clear whether the blocked-up doorway in this wall indicates the existence of a room north of the court in Period I, or whether this doorway was the outside entrance to the court in that period. The other walls of the Northwest Room are quite unlike those of the court. The west wall of the latter is continued in a straight line to form the wall of the Northwest Room; its construction, however, changes to a rather poor variety of rubble, consisting of small, rounded stones and much earth. The east wall is similar to the west, except that two or three cut blocks appear near the southeast corner. The south end of this wall, therefore, should possibly be assigned to Period I.

The construction of the north wall (Plate 9 A, in foreground beyond Stelai Shrine B) is rather peculiar, and its course uncertain. The entire wall rests from 20 to 40 cm. above the level of the native rock. Several large uncut stones form its east end, followed by a short piece of rubble masonry, and then a curious, upright, pier-like block with a rough semicircular cutting at the bottom of its outer face. Except for another large, re-used block next this, lying flat, the rest of the wall is continued in rubble to a point about 2.80 m. beyond the west wall, where it is terminated by a very large, well-cut block (Plate 9 A, extreme right) at the edge of the cutting for the City Wall. This block is dressed in much the same way as the blocks of the City Wall, and may have been discarded during the construction of that wall. From its position it must have been set in place after the City Wall was built. Hence, at least the west end of the north wall and, presumably, also the rest of the wall cannot belong to Period I. Its construction is entirely different from walls which belong to Period II, and the likelihood is that it belongs to Period III. The west wall is probably contemporary, since it is very similar in construction to the parts of the north wall which are of rubble masonry. The same type of construction appears also in the short spur wall (Plate 11 A, at left, beyond well) which runs westward nearly opposite the west end of the south wall.

This spur wall, and hence the contemporary west and north walls of the Northwest Room, are further shown to be later than Period I because the spur wall would otherwise have continued the line of the Period I south wall of the room. The western end of the latter wall was destroyed by the building of the Period II west wall of the court. It was later replaced, a few centimeters further north, by the present spur wall which was built to form one limit of an enclosure which lay between the Northwest Room and the City Wall. The earth visible (Plate 11 A, left) between the south face of the spur wall and the last block of the Period II west wall of the court indicates the point where the west end of the wall between the court and the Northwest Room was torn out in Period II. If the spur wall had existed before the present west wall of the court, or were contemporary with it, the latter wall would surely have joined it without this awkward gap.

The entrance to the Northwest Room is in the east wall, 70 cm. from the south wall.

The doorway is faced at the north by a small, square block which serves as a base for the jamb and rests against the end of a threshold made of two blocks (Plate 12 A). This threshold measures 1.20 m. in length, 35 cm. in width and 20 cm. in height, and has at the west side a shallow rabbet, 8 cm. wide, against which the door must have swung. A curious discovery, made after the displacing of the threshold blocks by shepherds, was a small, deep square hole cut in the north jamb base and containing seven bronze coins.<sup>49</sup> Before the block was disturbed, the cutting faced the end of the wall.

Near the south wall of the Northwest Room was found the lower part of a large pithos (Plate 10 B, right) and near it a very large amphora with pointed base. The short section of stone water channel found near the north wall has already been mentioned in connection with the remains of the Geometric Proto-Corinthian period (p. 12). The channel, preserved to a length of 1.70 m., was of soft white poros stone, hollowed out to a depth of *ca.* 8 cm.; its width was 25 cm. Traces of calcination were evident on the stone and on the mass of hard gray and soft red clay which partially filled the hollow of the channel. The top of the channel lay just beneath the level of the base of the wall and hence beneath the floor level of the room. It is surely safe to assume that the channel was already buried when the wall was built, since the latter would presumably have been laid at the then existing ground level. The important feature of the channel is, as we have seen, the Geometric Proto-Corinthian sherds found under it. Near it were two stone slabs, laid end to end; the earth under them contained a considerable number of similar sherds. In the northwest corner of the room and near the west side of the water channel we found traces of a floor of white pebble cement at a somewhat higher level than the channel; this could not be traced east of the channel.

The central room on the north side (North Room), which is 4.20 m. long and 3.55 m. wide, is of little interest (Plate 10 A). Its east and south walls are constructed of rather loose rubble and are probably to be assigned to Period III, although it is not entirely impossible that they belong to Period I. The entrance, though not well marked, appears to be on the south side, one face of the doorway being formed by the northeast corner of the court. The single noteworthy feature of the room is the archaic Doric column capital (p. 80) built into its east wall, 70 cm. from the southeast corner (Plate 13 A). Lying on its side, it rested so that the top of the abacus was flush with the east face of the wall.

The Northeast Room (Plate 10 A) is only about 1.80 m. in width, although it might originally have been as much as 4 m. in length. Its entire north wall is missing. The entrance is in the south wall where a thin cut block forms a threshold. The southeast corner of the room is filled by a small cement floor, raised 15 cm. above the native rock on a foundation of small stones and earth (Plate 13 A and B). Complete except for its north side, the location of which can easily be conjectured, the floor now measures 85 cm. in width and 1.15 m. in length; the original length was probably not more than 20 cm. greater. The cement is of the usual very fine, hard variety found in the Potters' Quarter, grayish white in color and very smooth. It is about 5 cm. in thickness; about 2 cm. represents the pure surface cement and the remainder is cement mixed with pebbles which

<sup>49</sup> For a description of these coins, see p. 48.

become coarser and more numerous toward the bottom. The edges of the floor curve slightly upward. The level slopes somewhat downward to the southeast corner, near which a small semicircular opening, 10 cm. wide, bridged by a small, narrow, rectangular block of stone, pierces the upcurved east edge of the floor. The pavement was, therefore, laid in such a way as to drain off into the open tile drain which abuts in its course on the southeast corner of the room. As to the use of the floor we can only conjecture. Some bits of worked clay found in the mouth of the drain hole may indicate that the floor was employed for washing and kneading clay.

The area east of the series of rooms on the north side appears to have been much disturbed in later times, perhaps because the ancient ground level here is nearer the present surface. East of the Northeast Room two long cut blocks, placed end to end, run east and west (Plate 13 B, left foreground). The original use of these is unknown; the westernmost one has a circular depression in its north face. At right angles to them a long, rectangular block, set on edge, runs northward (Plate 12 A, center background). This block rests on small stones and appears to have formed part of a wall. These three blocks may indicate the existence of another small room east of the Northeast Room.

There is some doubt as to the dating of the rooms on the north side of the Terracotta Factory, the walls of which are characterized by abundant use of re-used material. The Northwest Room and the enclosure between it and the City Wall have been shown to belong most probably to Period III, and it is not unlikely that all the rooms along the north side of the factory were added in this period.

Along the south side of the two rectangular blocks east of the south wall of the Northeast Room runs a narrow, open drain (Plates 10 A, left, and 13 B), the walls of which are formed of pieces of flat roof tiles with occasional fragments of thin stone slabs; it is 17 cm. in width and 19 cm. in depth. Near the corner of the Northeast Room it is crossed by a second drain which emerges from the northeast corner of the room east of the court. The second drain continues across the first to a point a little beyond the hole through which the floor of the Northeast Room is drained; its total length is 4.50 m. It is slightly narrower (14 cm. wide) and shallower (17 cm. deep) than the first drain. There is no break in the walls of the second drain at the point where the first joins it; the level of the bottom of the latter also is slightly lower. A fragment of tile, moreover, was found set upright west of the higher channel, continuing the line of the lower one. These three facts, then, indicate that the first drain was not in use at the same time as the second, but antedated it. The water in the second must have flowed northward. A considerable amount of clayey earth and small lumps of clay were found in the bottom. At its north end the drain simply disappears, either because its further course has been destroyed, or because the water, after it had been directed out of the building, could be allowed to flow by itself the short remaining distance to a hollow roughly dug out of the soft natural conglomerate.

The higher drain begins at the north wall of a small room immediately to the east of the galleried court. Water emerging from the wall, at a point *ca.* 15 cm. from the northeast corner of the room, through a roughly circular opening (Plate 13 B) left in the

masonry would fall a distance of 17 cm. into the channel. The opening is *ca.* 10 cm. in diameter; a stone slab partly bridges it, fragments of stone slabs are used for its side walls, and the bottom is lined with a piece of curved cover tile. No trace of the drain appears inside the wall. Perhaps a pithos or other container stood in the corner of the room, and waste water drained from it into the channel.

The room itself (Plate 14 A), called the Altar Room, appears to have been a shrine. In its present form it measures 4 m. in length; the width at the west side is *ca.* 2 m., but at the east nearly 3 m. Here, as in the court, it is possible to find evidence for two distinct periods of construction.<sup>50</sup> The north wall of the shrine is well constructed of small stones, with a number of cut blocks inserted, a type of masonry very similar to that of the later walls of the court. The east wall is similar, but rather more irregular, with one large cubical block projecting from the outer face (Plate 14 A, foreground). The east, north and west walls must belong to Period II. The east end of the south wall is probably of the same date; its west end, however, is narrower than the other walls, and its bottom rests at a level *ca.* 40 cm. higher. It probably belongs, therefore, to the rearrangement of the shrine, which perhaps took place in Period III. The entrance in the original plan of Period II appears to have been in the north wall, not far from the drain hole, and was 1.05 m. in width (best seen in Plate 9 B).

In the course of the remodelling of the shrine in Period III, the floor level was raised by an earth fill 40–45 cm. deep, that is, to a level *ca.* 10 cm. below the tops of the walls as at present preserved. Simultaneously, a new stretch of irregular rubble masonry replaced the west end of the original south wall, and two long, narrow blocks were inserted in the north door to form a threshold at a higher level.

The furnishings found in place at the earlier level consist of a slender, stuccoed stele of a type quite unique in the Potters' Quarter (pp. 74 f., No. VIII), and two supports which are probably for an offering table (p. 77, No. XV). These are set in a row 30 cm. from the west wall and rest on the bedrock floor of the room. The upright poros supports north of the stele are set at right angles to the west wall. They are 14 cm. wide and 23 cm. long. The south one, the higher of the two, is preserved to a height of 94 cm., *ca.* 20 cm. higher than the stele. In width and length these blocks correspond sufficiently to those found *in situ* north of the large cistern (p. 77, No. XIV); the space between them (41 cm.) is only 4 cm. less. The working of the surface is the same in all four blocks. If we are correct in assuming that the pair near the cistern once supported the table (pp. 76 f.) found in the cistern, then those in the Terracotta Factory must have served a similar purpose.

Above the raised floor level of Period III still projected the upper parts of the stele and of the two supports on which the table doubtless continued to rest. The stele must then have been curtailed to a height of only 30 cm. At this time the shrine contained, beside the shortened stele and table, a second stele (p. 75, No. IX) and an altar (pp. 77 ff., No. XVII). This stele stood at the new floor level in the northwest corner of the room;<sup>51</sup>

<sup>50</sup> Periods II and III. In Period I, of course, the east wall of the court lay considerably further to the east, and it is uncertain whether there was any room beyond it.

<sup>51</sup> In Plate 14 A it may be seen on top of the west wall of the Altar Room.

it is small and very simple in form, and consists of a rectangular pier, now broken, with a slightly wider base cut from the same block. The altar, a small rectangular poros block, decorated with a triglyph frieze, was found in front of the table supports, at a distance of *ca.* 50 cm. from the south wall and *ca.* 1.50 m. from the west wall, oriented so that the two short sides faced north and south. Both stele and altar may, of course, also have formed part of the furnishings in the earlier period of the shrine.

We found in this room small objects, miniature vases and figurines, in the earth above both floor levels. The vases were the common unpainted phialai, black kraters, etc., which are of no help in distinguishing in date between two periods as close together as these must be. The two figurines, I, 24, and XXII, 22, found in the level under the later floor seem to be survivals of 6th century date.

East of the shrine we have another small room whose north and south walls continue the line of the walls of the shrine (Plate 13 B, left). The length of the East Room is *ca.* 3.50 m. on the north side and 2.10 m. on the south. The east wall is not oriented with the west, but diverges at a considerable angle. It is of rubble with a few cut blocks, and is quite irregular in width, with several blocks projecting to the east. The north wall is built of rubble of similar type, but the south wall is represented only by the high scarp which resulted from the lowering of the natural rock level to the floor level of the building. The rock is cut vertically to a depth of 73 cm. A previously existing hollow made it necessary to fill in part of the southwest corner above the scarp wall with rubble.<sup>52</sup>

In the East Room also we have clear indications of a later remodelling. In the northeast corner, where the divergence of the east wall forms an acute angle, part of a clay floor was preserved, raised on a foundation of stones and earth to a level *ca.* 30 cm. above the native rock. The floor was quite thick and made of what appeared to be sun-dried or perhaps semi-baked clay of various kinds, a soft brown variety, also a hard, fine gray, and a very light and porous green kind. A further slight rise in the floor level is evidenced by the fact that about 10 cm. above the clay floor were found two square pieces of gray roof tile, set one against the other as if to form a pavement. A mass of sun-dried clay of varying color and consistency, probably further hardened by fire, which lay on top of the east wall may possibly represent the remains of its upper courses of brick. The entrance to the East Room is not certainly located, but was probably in the east wall.

Both the east and south walls near the southeast corner are much blackened by fire. The earth filling this corner was heavily mixed with ashes in a stratum which began *ca.* 60 cm. below the top of the scarp which forms the foundation of the south wall. From this stratum a considerable number of figurines and miniature vases (Deposit 5) was obtained, all blackened from their burial in the ashy earth, and some of them showing the effects of direct contact with fire. All belong to types current throughout the entire 5th century and even later, but the shapes of some of the vases tend to indicate a late, rather than an early date. Along the north wall of the room lay a great number of objects of

<sup>52</sup> This hollow drained into the basin which is partly preserved just outside the south wall of the Altar Room. A short bit of wall later dammed up the higher basin; this was perhaps done when the Terracotta Factory was built, in order to keep the water out of the court. Both basins doubtless belong to a period before the factory.

various kinds (Deposit 6), which showed no signs of calcination. These occurred from the level of the tops of the walls, as at present preserved, down to a depth of *ca.* 40 cm. below, and were thus consistently higher in level than the deposit in the southeast corner. Deposit 6 contained a few vases and a quantity of sherds, 45 miniature vases, 10 miniature lamps, two fragments of moulds, and a number of figurines. The latter were all very similar in style and technique; the majority represented horses and riders, and the rest standing Korai and doves. This deposit must be later than the other, and is perhaps to be dated as late as the middle of the 4th century.

Nothing was found in the East Room to afford any clue as to its use. One of the two deposits might represent discarded offerings from the shrine in the next room or from some other shrine. The higher deposit, however, which contained mould fragments and a number of figurines which were obviously made by the same hand, would seem rather to be refuse from manufacture. One of the figurines, XXIV, 5, was certainly discarded on account of an accident in firing; two parts of it, which join perfectly, nevertheless differ markedly in the color of the clay, a fact which indicates that the object split apart in the kiln and its two parts were therefore subjected to varying intensities of heat.

There is no evidence to show that either the Altar Room or the East Room existed in Period I. There may, however, have been a single room at that time east of the court. The present south wall of the East Room, represented mainly by the rock scarp, follows fairly closely the line of the original south wall of the court and may date from Period I. The rooms as at present existing were built in Period II and remained unchanged in Period III except for a rise in floor level and the rebuilding, already noted, of part of the south wall of the Altar Room.

Let us return to the galleried court and consider the small room (South Room) at its southeast corner, the building of which necessitated the moving of the south wall of the court (Plates 12 B and 14 B). The east wall of this room continues the line of the east wall of the court and is similar in construction. The west and south walls are not as well built. The room measures *ca.* 2.40 m. in width (north to south) and 4.80 m. in length. Here, as in the Altar Room and the East Room, the native rock had to be cut down considerably from the original level which we see to the south. Still visible in the center of the floor (Plate 14 B, foreground) is part of the rock-cut socle for the original south wall of the court. The foundation of a narrow rubble wall can be traced inside the room, parallel to its west wall and 1.70 m. distant from it (Plate 14 B, right center). The thinness of this wall is perhaps an indication that it was intended merely for a low barrier or possibly a support for a counter or some other construction.

The style of the masonry shows that the South Room is to be dated in Period II. Its purpose is uncertain. Along its south wall is a series of four peculiar constructions, formed mainly of fragments of flat roof tiles (Plate 14 B). The one in the southeast corner is a flat surface formed by two sections of tile, laid side by side and resting 35 cm. above the rock level on a fill of earth and small stones. Located 25 cm. to the west at about the same level was the mouth of a large pithos of heavy fabric,<sup>58</sup> set upright on a bedding

<sup>58</sup> Removed before the photograph of Plate 14 B was taken.

composed of a piece of roof tile, several pithos fragments, and four loomweights carefully arranged so that they lay horizontally, overlapping one another under the broken edge of the pithos. The fill under these was earth, containing sherds and a plate of black stamped ware, and was probably of 4th century date.<sup>54</sup> At a distance of 1.05 m. to the west we found the first of two constructions, each formed by a vertical tile set at the edge of a horizontal one. The east construction is 45 cm. high. The vertical tile is at the east; it rests 15 cm. above the floor with its edge against the south wall, and was probably complete when set in place, though the top is now broken off. The horizontal tile is only half a complete one. Both tiles are 58 cm. in width. Immediately under the horizontal one were several fragments of a pithos of the type which has a serpentine line in relief between two moulded rings. Except for these, the tile rests on earth and on the end of the narrow inner wall foundation mentioned above. The west construction is about a meter from the other, and the upper surface of its horizontal tile is about 10 cm. lower than that of the other. The two pieces of tile in this case are small and both laid so as to show the under side of the tile with its broad groove. The vertical tile is preserved to a height of *ca.* 20 cm. above the horizontal one, and is set at its western edge. These four constructions were probably set in place at two different periods; the two to the west rest at a level 15–20 cm. above the native rock, while those at the east are set *ca.* 20 cm. higher.

Between the present South Room and the scarp which forms the edge of the higher rock level to the south are remains of what appear to have been two earlier rooms (Plate 9 B, lower half at center), a square room to the east and an L-shaped one to the west. Two short bits of wall make a very small rectangular enclosure in the southwest corner of the square room. The masonry of the north wall of this enclosure is similar to that of the Period II south wall of the South Room. The two walls can hardly be contemporary, since there would be little point in building them so close together. It is probable, therefore, that the small enclosure was inserted in the square south room of Period I at some time later than Period I, but at least slightly before Period II. The west wall of the square south room of Period I could not be traced beyond the south wall of the present South Room. It is quite possible that there was a door opening at this point which connected the two earlier rooms. The walls of the L-shaped room were set on rock-cut socles similar to those of the west and south walls of the Period I court.

West of the court the socle of the west wall of the L-shaped south room joins a rock-cut socle which forms the arc of a circle at the southwest corner of the present Terracotta Factory (visible beyond west wall of court in Plate 10 A and B). For what the arc served as a foundation we are unable to determine, since the City Wall passes over it, but it must belong to Period I. Parallel to the present west wall of the court and *ca.* 2 m. west of it runs a very thin wall which consists of a single row of rough stones (Plate 11 A). The higher level of this wall indicates that it is later in date than the wall of the court; it is probably to be dated in Period III or even later.

A description of the area south of the Terracotta Factory will complete the account

<sup>54</sup> Miss Lucy Talcott informs me that this plate is probably not to be dated earlier than the end of the first quarter of the century.

of this region. The entire area south of the two earlier south rooms was left at a rock level which is from 40 to 80 cm. higher than the average floor level of the factory (see foreground of Plate 9 B). Immediately south of the Altar Room, near the edge of the rock scarp, a well (Well III) was sunk through the rock; it is 75 cm. in diameter, with the usual double line of footholds cut down the sides (Plate 14 A, extreme left). The irregular surface of the rock at this point necessitated the addition of a poros curbing around the north and west sides of the well. The curb is made of three rectangular blocks, left straight on the outside face and cut in a curve inside. The well was cleared to a depth of 13.65 m., but digging had to be discontinued when water was reached. *Ca.* 15 cm. above the water level appeared the top of an arched channel, 60 cm. wide, dug in the rock and running toward the east. Roof tiles, many of them showing traces of fire, and stones formed the main fill of the well below a depth of about 5 m. The sherds found were small and very largely of the Geometric Proto-Corinthian style, indicating that they may have washed into the well from the area to the east where such sherds are numerous. If the well is assumed to be contemporary with the Terracotta Factory, its period of usefulness may have been brief. The calcined tiles very probably came from the East Room, the only one in the factory which shows traces of fire. Objects found in the burned stratum in this room may have been of late 5th or early 4th century date. It is possible, therefore, that the well was filled in at that period.

A long north-south wall a little to the southwest of the well lies at a higher level than any of the walls of the building (Plate 9 B, foreground). It is laid nearly, but not quite, on a line with the scarp which forms the east boundary of the square south room of Period I. The levels in the area south of the factory vary considerably, since in several places the earth had not been cleared away even in antiquity down to the level of the native rock. Several deposits were uncovered in this area. One (Deposit 7), found nearly at the rock level, lay about 4 m. to the east of the long north-south wall just mentioned. It included a number of miniature kraters and other shapes, but the bulk of it was a mass of over 60 very small miniature skyphoi; there were also Attic sherds of the early and late 5th century. About 1.50 m. west of the same wall we uncovered two large deposits of pottery, about 2.50 m. apart.<sup>55</sup> These deposits together totalled nearly 30 vases, about 130 miniature vases (including over 50 skyphoi of the same type as those found in the deposit east of the wall), and a number of figurine fragments, but only a few complete examples. All these objects are very simple in style, many of the vases are entirely covered with black glaze, and all seem to fit fairly well a date in the second half of the 5th century. Again, the fact that many examples of exactly the same type of object were found in masses together indicates that we have a deposit of factory refuse rather than a sanctuary deposit. We may mention here a small, but very interesting deposit of fragmentary figurine moulds (p. 95, Nos. 21-23) which was found *ca.* 4 m. east of the East Room. These may be dated fairly certainly in the late 5th century.

That the name Terracotta Factory is well founded must by now be evident. The sixty moulds found therein constitute sufficient proof without the additional evidence to

<sup>55</sup> That nearer the Terracotta Factory is called Deposit 8; Deposit 9 was further south.

be gained from the deposits in which numerous examples of the same type of figurine and miniature vase occur. In ordinary deposits and sanctuary deposits one expects a fairly heterogeneous mixture of objects; but a mass of figurines or vases of one type, found all together, is more likely to represent a day's output which through some accident became unsalable and was dumped, in the modern Greek fashion, in some convenient but not necessarily inconspicuous corner. Examples of such deposits are the mass of handmade rider figures found in the East Room, the quantity of Kore figures and riders lying immediately outside the court against the southern continuation of its west wall, and the deposits of miniature skyphoi in the southern area. The production of figurines was clearly not the sole function of the factory, for miniature vases were certainly made there in quantity, and it is most probable that the vases found in the building were products of the same workshop.

We have three clearly marked building periods in the Terracotta Factory, but no certain date for any of them. Our starting point must be the date of the destruction of the building, which almost certainly took place in the third quarter of the 4th century. Among the objects found in the débris along the west wall of the court, presumably thrown there when the gallery collapsed, were a number of coins, both silver and bronze. These were found chiefly in two places: eight around the southernmost pier and eight between the two central pier bases; they may have come from two containers. Many of them are the common bronze "Pegasi" of Corinth, most of which cannot be more precisely dated than to the period after 400 B.C. Fortunately, there were also a number of coins from other Greek sites which can be dated more closely.<sup>56</sup> These include:<sup>57</sup> Phokis<sup>58</sup> (ca. 371–357 B.C., or 357–346 B.C.); Opuntian Lokris<sup>59</sup> (ca. 338–300 B.C., or ca. 316–300 B.C.); Troizen<sup>60</sup> (370–300 B.C., or ca. 322–300 B.C.); Sikyon<sup>61</sup> (400–300 B.C.); Salamis<sup>62</sup> (ca. 350–318 B.C., or after 338 B.C.); and Boeotia<sup>63</sup> (ca. 338–315 B.C.). A silver diobol of Corinth<sup>64</sup> is probably to be dated ca. 350–338 B.C. The Opuntian Lokrian and Boeotian coins are the latest and indicate that the collapse of the gallery took place later than 338 B.C., or not until after 316 B.C., if we accept Babelon's date for the

<sup>56</sup> For the identification of these coins I am indebted to Miss Katharine M. Edwards. They will be included in a forthcoming publication of coins from Corinth.

<sup>57</sup> Where two different dates are given for a coin, the first is that of the *Catalogue of Greek Coins in the British Museum*, the second that of Babelon in *Traité des monnaies grecques et romaines*, II, 3. Only one date is given when Head's and Babelon's dates are the same.

<sup>58</sup> *B. M. Cat. Coins, Cent. Gr.*, p. 20, no. 66; Babelon, *op. cit.*, pl. CCV, figs. 18 and 19, p. 327, nos. 395 and 396.

<sup>59</sup> *B. M. Cat. Coins, Cent. Gr.*, p. 7, nos. 57–60; Babelon, *op. cit.*, pl. CCVII, figs. 26 and 27, p. 379, no. 453.

<sup>60</sup> *B. M. Cat. Coins, Pelop.*, p. 166, no. 14; Babelon, *op. cit.*, pl. CCXVII, figs. 10 and 11, p. 503, no. 703.

<sup>61</sup> *B. M. Cat. Coins, Pelop.*, p. 47, nos. 143–145; Babelon, *op. cit.*, pl. CCXXII, figs. 17 and 18, p. 537, no. 815.

<sup>62</sup> *B. M. Cat. Coins, Attica*, p. 116, nos. 1–6; Babelon, *op. cit.*, pl. CXCIV, figs. 1–3, p. 143, no. 99.

<sup>63</sup> *B. M. Cat. Coins, Cent. Gr.*, p. 38, nos. 57 and 58.

<sup>64</sup> *B. M. Cat. Coins, Corinth*, p. 24, no. 238, pl. IX, 15; Babelon, *op. cit.*, pl. CCXII, figs. 13 and 14, p. 425, no. 557.

Opuntian Lokrian coin. Since none of the vases or figurines from the Terracotta Factory are of what may be called Hellenistic style, I should be inclined to accept the earlier date of 338 B.C. As we have seen, the destruction of the Terracotta Factory was probably caused by an earthquake. Since the débris was never cleared away, we must assume that the factory was never used again; the entire settlement of the Potters' Quarter was probably abandoned at the same time.

The earliest finds from the region of the Terracotta Factory are, of course, the Geometric Proto-Corinthian sherds found at various places and the Early to Late Corinthian pottery found in Well I and in one deposit east of the Terracotta Factory. None of this pottery, however, is later than 550 B.C. and it may be discounted in the present discussion, since the next finds from the area are more than a century later in date. These include the small mould deposit in the east area and three deposits of pottery and figurines in the south area; all of these, as we have seen, may be dated in the second half of the 5th century by analogy with similar objects from datable deposits elsewhere. It is not certain that any of the 5th century deposits have any connection with the Terracotta Factory, although it seems very probable that at least those in the south area do represent material discarded from that building. The deposits could, of course, have been made at any period of the Terracotta Factory's existence, but, since the area produced no objects which could be identified as belonging to the early part of the 5th century, I am inclined to think that these deposits belong to Period I. There is certainly no evidence which necessitates setting the original date of the building earlier than the middle of the century, or even earlier than the third quarter.

The date of Period II is closely bound up with the date of the City Wall, since, as has been shown, the rebuilding of the factory must have taken place after the construction of the City Wall, and probably almost immediately after it. A slight indication that Period II should be set in the late 5th century is perhaps to be found in the probable late 5th or early 4th century date of the material found in the burned stratum in the East Room. The East Room was built in Period II; the fire was subsequent to that period, but must have occurred before Period III. In fact, the fire may have been the reason for the reconstruction in Period III of the East Room and the Altar Room.

The Period II walls, particularly the west wall of the court, are closely comparable with Attic walls which may be dated in the second half of the 5th century. The peribolos wall of the Tritopatreion in Athens<sup>65</sup> shows a type of masonry which is strikingly close to that of our Period II walls. Here large blocks of roughly trapezoidal shape are separated by smaller stones, generally rectangular and rather flat. Still smaller stones of irregular shape fill in the chinks. This wall Wrede dates in the second half of the 5th century. A house wall in Eleusis,<sup>66</sup> also of similar style, is assigned by Wrede to the years 460-440 B.C. The earliest fortification wall at Sounion<sup>67</sup> may also be compared, although

<sup>65</sup> Wrede, *Attische Mauern*, pl. 112.

<sup>66</sup> *Ibid.*, pl. 111.

<sup>67</sup> *Αρχ. Δελτ.*, XI, 1927-28, p. 50, fig. 45; Wrede, *op. cit.*, pl. 27.

the fact that the large blocks are in general much longer in relation to their height gives the masonry a somewhat different aspect. Wrede dates this wall at 412 B.C. One may also compare walls at Dystos<sup>68</sup> in Euboea and on the island of Peparethos.<sup>69</sup>

At what period the threshold in the Northwest Room was laid is not certain, although the probability is that it was done in Period III. Of the bronze coins found in the jamb base beside it four were Corinthian "Pegasi," which began to be coined about 400 B.C. The remaining three were from other cities: Aegina<sup>70</sup> (after 404 B.C., or *ca.* 404–348 B.C.); Sikyon<sup>71</sup> (*ca.* 400–300 B.C.); and Athens<sup>72</sup> (406–393 B.C., or 339–300 B.C.). Of the Corinthian "Pegasi," one bears on the reverse the letters ΔΙ, which appear also on staters which may be dated in the years 338–300 B.C.,<sup>73</sup> although it is not impossible that the same letters might appear earlier. The Athenian coin has a helmeted head of Athena on the obverse, and on the reverse a double-bodied owl with a full front head between, a kalathos beneath, and the letters ΑΘΕ. A silver diobol very similar in type, but with an olive branch and crescent instead of the kalathos, is dated by Babelon 393–338 B.C.<sup>74</sup> The Sikyonian coin has on the obverse a dove flying left and on the reverse the letters ΜΕ and a small wreath inside a larger wreath. A coin with the letters ΜΕ but with only one wreath is dated by Head 323–251 B.C.<sup>75</sup>

These coins, then, may give us a date after about 400 B.C., perhaps after 339 B.C., possibly even after 323 B.C., for the laying of the threshold in the Northwest Room. If we accept a date not long after 338 B.C. for the abandonment of the factory, then it may be necessary to reject Babelon's date for the Athenian coin. Since the other coins in the jamb base are of types which seem to have originated earlier in the century, it seems reasonable to accept the earlier dating of the Athenian coin. These coins may indicate that Period III is to be assigned to the early 4th century. It is, of course, also possible that the coins are earlier than Period III, since they may already have been in the cutting and remained unnoticed when the block was re-used in its present position. The uncertainty concerning the dating of these coins and our lack of knowledge as to when they were placed in the cutting make them of little positive value for our purpose. On the whole, however, the early 4th century seems to be a very likely period for the final rebuilding of the Terracotta Factory.

The history of the factory may be tentatively summarized as follows. Probably somewhat after the middle of the 5th century a modest beginning was made in the form of a large open court with two rooms adjoining it at the south, and possibly others of which no trace is left. This construction may have been a private house. Later, perhaps in the last quarter of the century, the construction of the City Wall made necessary an

<sup>68</sup> *Ath. Mitt.*, XXIV, 1899, pl. VI.

<sup>69</sup> *Ath. Mitt.*, XXXI, 1906, p. 120, fig. 11, and p. 126, fig. 17.

<sup>70</sup> *B. M. Cat. Coins, Attica*, p. 143, nos. 206–212; Babelon, *op. cit.*, pl. CXCIV, figs. 20 and 21, p. 163, no. 141.

<sup>71</sup> *B. M. Cat. Coins, Pelop.*, p. 48, nos. 151 and 152; Babelon, *op. cit.*, pl. CCXXII, fig. 12, p. 537, no. 813.

<sup>72</sup> *B. M. Cat. Coins, Attica*, p. 21, no. 224; Babelon, *op. cit.*, pl. CXCII, figs. 12 and 13, p. 121, no. 69.

<sup>73</sup> *B. M. Cat. Coins, Corinth*, pp. 33 f.

<sup>74</sup> *Op. cit.*, pl. CXC, figs. 14 and 15, p. 101, nos. 32 and 33.

<sup>75</sup> *Historia Numorum*, p. 410.

extensive rebuilding of the existing Terracotta Factory; at the same time two rooms were added at the east. Another period, or possibly two, of building activity in the first quarter of the 4th century produced further changes in the rooms already in use and the addition of three or more rooms along the north side. The structure then seems to have remained substantially unchanged until the third quarter of the 4th century when a severe earthquake brought about its final destruction.

#### FOURTH CENTURY

The Shrine of the Double Stele, the largest uncovered in the Potters' Quarter, is enclosed in the small rectangular area between the south wall of Stelai Shrine A to the north, the cutting for the outer face of the City Wall to the east, the west wall of the South Long Building to the west, and to the south the south wall (Wall E) of the same building (Plate 5 D, left, and Plate 19 B, extreme right). Though smoothly levelled off to receive a small building, *ca.* 5.30 m. long and *ca.* 4 m. wide in its outer measurements, this area is now denuded of walls. Along the west side, roughly parallel to the west wall of the South Long Building at a distance of only 30 cm. from it, runs a very shallow cutting in the virgin soil, intended for the setting of a wall *ca.* 55 cm. in width. The south end of this cutting projects slightly beyond its junction with a similar cutting for the south wall. The latter extends to within 1.50 m. of the cutting for the City Wall, and in turn projects eastward 40 cm. beyond the end of the cutting for an east wall; the east wall still shows a few of its stones in place near the south end and gives us the information that the walls of the shrine were constructed, at least in part, of small stones laid in earth. No trace of any north wall was discovered. The east wall, however, seems to end at a point about 4.20 m. from the south wall. At a corresponding point in the west wall a faint cutting in the rock between the wall cutting and the west wall of the South Long Building looks as if it might represent the westward projection of the north wall.

Within the shrine (Plate 15 A and B) a large, stuccoed poros stele (p. 76, No. XII) of the usual Potters' Quarter type, but with two recessed panels instead of a single one, rested on earth 55 cm. above virgin soil. The stele was placed 1.40 m. inside the west wall of the shrine and 1.65 m. from the south wall. It faced east, as usual, but was strongly tilted forward. At the time it was buried, a rectangular block had been placed against its face at about the level of the top, and another against its back. A third smaller block was tilted against the face of the stele further down (Plate 15 B). Resting on the same level as the bottom of the stele, a few centimeters in front of it, was a small poros altar (pp. 79 f., No. XVIII), also stuccoed, decorated on all four sides with shallow recessed panels. North of the stele at a distance of 55 cm., but at a lower level (25 cm. above virgin soil), was preserved the lower part of a second stele (pp. 75 f., No. XI), also facing east, covered with white stucco and displaying the more usual single panel. At the same distance north of the second stele, at roughly the same level, lay the lower part of a plain, pier-like stele (p. 75, No. X) with a projecting base. One whole side is broken away so that the original size of the stele cannot be determined.

Around these three stelai we found a dense deposit of objects; miniature vases and figurines occurred in equal quantities, the total number of each being about 160. Of these very few were found scattered, but practically all lay in a comparatively shallow stratum (10–15 cm. in depth), the bottom of which lay just above the tops (as now preserved) of the two north stelai and the top only very slightly above the base of the double stele. In addition to this layer of objects, the spaces between the double stele and the altar and between the stele and the two blocks resting against its upper part were full of offerings. In the narrow space between the stele and the east block the objects were most densely packed. From this space alone, for example, beside 38 miniature vases and 10 other figurines, we removed two fairly large draped male figures (XVIII, 9 and 10), found standing upright against the face of the stele, and also a group by the same artist representing two women seated in a canopied wagon drawn by two horses (XVII, 36). No large vases were found in the deposit, but there were many finely smashed sherds. A deposit of vases of late 5th century types, found between the south wall of the South Long Building (Wall E) and the south wall of the shrine, may possibly represent an earlier clearing of the shrine, although a large strainer of coarse ware, which the deposit included, is not an object one would expect to find in a sanctuary deposit.

An examination of the three stelai and their varying levels reveals that in this shrine two periods of use are to be distinguished. The two northern stelai, both broken when found, rested at a level 30 cm. below that of the double stele and the altar (Plate 15 B). This difference in level, combined with the fact that all the offerings, with the exception of those mentioned above as being found close to the double stele, were contained in a shallow stratum which lay above the tops of the two northern stelai, is a clear indication that the double stele replaced the two single stelai of the original shrine. The latter were apparently sliced off instead of being entirely removed, and the floor was raised to cover them. All the mass of dedications, therefore, belongs to the reconstructed shrine, not to the original one. Only scattered sherds were found at the level of the two earlier stelai. These were not readily datable, but a few of them seemed to belong around the end of the 5th century B.C. The date of the second period is also rather uncertain. The figurines do not help greatly in determining it; many are of types (standing Korai, handmade female figures, horses and riders, etc.) which are very difficult to date exactly, and the better mouldmade figurines all happen to be of a style which is not paralleled in other Potters' Quarter deposits or elsewhere in Corinth. Their relationships with figurines from other sites will be considered in the forthcoming publication of the figurines. Most are probably to be dated somewhere in the 4th century. The miniature vases are also mostly of common types which are difficult to date; among them, however, are a number of kraters and one hydria which resemble in shape vases dated in the first half of the 4th century.<sup>76</sup>

One of the questions arising in connection with this sanctuary concerns its relation

<sup>76</sup> Cf. Schefold, *Untersuchungen zu den Kertscher Vasen*, figs. 18, 35 and 40, pls. 10 (167) and 20 (264); Hahland, *Vasen um Meidias*, pl. 4; Tillyard, *Hope Vases*, pl. 38 (297); Langlotz, *Griechische Vasen in Würzburg*, pl. 192; *Röm. Mitt.*, XL, 1925, p. 223, fig. 13.

to Stelai Shrine A, which it adjoins immediately on the south. The builders of Shrine A obviously took into consideration the existing west wall of the South Long Building and oriented their shrine with regard to it. The cuttings for the walls of the Shrine of the Double Stele, however, are not oriented with reference to the walls of the South Building. It is unlikely that the shrine antedates these walls, since the latter have been shown to belong to the second half of the 7th century and in the sanctuary were found no figurines and few sherds to indicate any occupation of the area previous to the 4th century. We must conclude either that the earlier walls had fallen into disuse but were not thought worth the trouble of removing when the shrine was built, or that they were still in use but ignored by the builders.

There can be no doubt that Stelai Shrine A was abandoned by the second half of the 5th century. We do not know exactly when the Shrine of the Double Stele was constructed; the apparent uniformity of the date of the majority of objects found in it does not of necessity mean that the shrine itself must be assigned with them to the 4th century, but it strongly indicates that the building probably does not long antedate that period. It is possible, however, that the shrine was so completely cleaned out in the 4th century that no trace, with the possible exception of a few sherds, of any 5th century occupation remained; this supposition would afford a more satisfactory solution to our problem, since this more imposing sanctuary could then be considered to have replaced the smaller shrine immediately, without the awkward interval of a century. On the other hand, it may be mere accident that the two shrines are so close together.

As with the earliest shrine of the Potters' Quarter, the same Stelai Shrine A, so with this latest of its sanctuaries, we are left in uncertainty as to the exact identity of the deities worshipped. Conclusions drawn from a study of the objects which make up sanctuary deposits are in general unreliable, since certain types of terracottas were popular in certain periods and were apparently purchased and dedicated without reference to the nature of the deity honored. This is especially true in the case of figurine types which have no particular attributes. A quantity of figurines adorned with the peculiar emblems of Athena would afford sufficient evidence for assigning a shrine to that deity; but horsemen, reclining male figures, female figures holding doves, fruit, etc., such as form the bulk of the figurines from sanctuary deposits in the Potters' Quarter, are worthless as evidence, except insofar as they confirm hypotheses derived from other sources.

One important point, however, is the fact that in two shrines there occur twin stelai, identical and set side by side, and that in a third shrine there is a stele with a double panel which apparently replaces the twin stelai. We have, then, two divinities, perhaps of different sexes, worshipped sometimes together and sometimes singly. It remains to discover, if possible, their identity. We must first admit the possibility that one or both may be local deities or heroes quite unknown to us. One object which tends to support this view is the pyxis, already mentioned on p. 29, with its possible dedication to an unknown Erosa.

Our only conclusive evidence as to the identity of the divinities is to be gained from the bronze bowl with the incised inscription to Aphrodite, found in the small deposit im-

mediately south of Stelai Shrine A (for a description of the deposit see p. 23; of the bowl, p. 115, No. 1). This deposit, from its character and position, is very probably to be connected with Shrine A. We have Aphrodite, then, identified as one of the two deities worshipped in that shrine, and presumably also, therefore, in Stelai Shrine B, perhaps in the Shrine of the Double Stele, and very possibly also in some of the shrines which contain single stelai. The quantities of female figurines holding doves, fruit and flowers, which have appeared in most of the shrines, are interesting in this connection, but not necessarily significant. As an important divinity of Corinth from an early period,<sup>77</sup> it is not surprising to find Aphrodite established in one of the earliest settlements of Corinth. It is possible that the hypothetical Erosa was a local goddess whose cult was assimilated into that of the greater divinity, or perhaps Erosa is merely a personified epithet of Aphrodite.

Another object which may be mentioned in connection with the problem of identification is a terracotta figurine, XVIII, 8, found in the Shrine of the Double Stele, which represents a bearded male figure, wearing a conical cap and archaic garments, seated on a high throne and holding expectantly on his knees a large, empty tray. The type is thoroughly archaic, but the figurine itself is of a much later date and is probably contemporary with the other figurines from the shrine. There are two possible explanations: first, that the mould was taken from an archaic figurine, or made in imitation of the archaic style,—in other words, that we have here an early instance of archaizing; or, second, that the mould itself was carefully preserved during a space of nearly two centuries. In either case, the reason must be the same: namely, that this particular figurine type had a religious significance sufficient to account for its preservation and repetition in a period in which it is obviously anachronistic.

The identification of the figure is not entirely certain. Of known deities, Hephaistos and Hermes seem to fit the type most closely. The conical cap is common to both and in the archaic period both were represented as bearded.<sup>78</sup> Hermes, however, except in his general functions as Ἀγοραῖος, Τύχων or Κερδῶος, has no specific connection either with Corinth or the pottery industry. Hephaistos, on the other hand, particularly presided over industry of all kinds and has, moreover, an early established association with Aphrodite. The fact that a figurine of Athena, a very rare type in the Potters' Quarter, was found in the same shrine may indicate simultaneous dedications to the two deities who jointly presided over industry and craftsmanship.<sup>79</sup>

The seated male figure, however, perhaps does not represent a deity at all. Moreover, even if a representation of Hephaistos or Hermes was intended, it may still not have any especial significance for the Potters' Quarter. A workman who had turned out for sale a number of figurines of a certain type might well dedicate one of them in a local shrine without any particular thought of its appropriateness.

As a general rule the shrines were found with their stelai and other furnishings

<sup>77</sup> *Corinth*, III, pt. 1, p. 4; Farnell, *Cults of the Greek States*, p. 635.

<sup>78</sup> A further discussion of representations of these gods will appear under XVIII, 8, in the forthcoming publication of the figurines.

<sup>79</sup> Plato, *Laws*, 920 D; *Critias*, 109 C; Solon, 13, 1, 49 (Bergk).

standing upright as when they were in use. We must assume that the shrines in which deposits were found were deliberately buried intact at the end of their period of usefulness. The others probably continued in existence until they were abandoned but never actually dismantled. There is a partial exception in the small shrine north of the cistern, some of whose furnishings were found *in situ* and others, which probably also belonged to it, in the cistern. Three of the shrines show evidences of having been remodelled after they had been in use for some time. These are: Stelai Shrine B, whose reconstruction consisted merely in a renewal of the stucco of the stelai and in the laying of stones to serve as a floor; the shrine in the Terracotta Factory, whose floor level was raised, part of one wall rebuilt, and new furnishings added to those already existing; the Shrine of the Double Stele, in which the floor level was raised and a large double stele set up to replace the two stelai of the original plan.

Another question in regard to the shrines of the Potters' Quarter concerns the source of the many thousand offerings dedicated in them. The number is so great that one is at first inclined to believe that to this region as one of peculiar sanctity people came from other parts of the city, and possibly from further afield, to honor gods who were perhaps most appropriately worshipped in these shrines. A very important source of the potters' revenue would, in that case, be the manufacture of the miniature vases and figurines which these worshippers dedicated. On the other hand, some or even all the objects found in the shrines may have been offered by the potters themselves as insurance against accident and ill-success, or as thank-offerings for a successful firing or a profitable sale. In the Terracotta Factory such objects were found, though not in very large quantities, in a room which must be a private and not a public shrine. If the larger deposits likewise represent the offerings made by the potters themselves, we must credit them with piety of an unusually active nature.

## THE CITY WALL

At an unknown date, which we shall endeavor later to determine, the West City Wall (Plates 15 C–21) was constructed, running throughout the entire length of the Potters' Quarter and destroying whatever structures lay in its path.<sup>80</sup> In general, this part of the West Wall is constructed of hard, white poros stone and consists of two faces with a rough fill between which is composed of natural stones, earth and partly trimmed blocks of irregular shapes (Plate 15 C). Many of the latter are probably blocks intended for the faces of the wall, but rendered unserviceable for some reason, and irregular pieces left when the wall blocks were hacked and chiselled to their present shape. The width of the West Wall is about 3.20 m. Its inner and outer faces, at least in the section lying south of the second tower, are more or less ashlar in character, although the horizontal joints are much broken and the vertical joints are often somewhat slanting (Plate 17 A). The upper surface of the wall, designed to receive the upper courses of brick, for the most part forms a series of broad steps, rising gradually as the natural ground level rises

<sup>80</sup> *Corinth*, III, pt. 2, pp. 76–78.

(Plate 16 A). The blocks vary considerably in size. Small rectangular or triangular blocks are often employed to fill in broken corners of a large block (Plate 17 A and B). One edge of a joint usually has a narrow bevel to prevent chipping; in the part of the wall to which the second tower is attached, both edges show a much wider bevelling (Plate 19 B). The face of a block which abutted on the next was often, though not always, carefully finished with anathyrosis. The end block of the second course in Plate 16 B shows clearly the treatment of both bevel and anathyrosis.<sup>81</sup> On the upper surface of this same block and of those beyond it, appears a lightly scratched setting-line for the next course. This line is 5–6 cm. from the edge of the blocks.

The somewhat different construction of that part of the North Wall which runs through the Potters' Quarter was necessitated by the slope of the ground. Here the outer face<sup>82</sup> is laid in a trench cut in the hardpan<sup>83</sup> and consists of long, rectangular blocks of nearly uniform shape (Plate 18 A). They are 75 cm. wide, *ca.* 40 cm. in height, and range from 1 m. to 1.50 m. in length. Only the lowest course of this face is preserved. Behind it the hardpan rises *ca.* 2 m., measuring from the base of the wall. The natural slope of the hardpan toward the north made it necessary to fill in the space between its upper edge and the outer face of the wall with small stones and roughly cut blocks, backed with earth (Plate 18 A). The inner face of the wall rests, of course, at a much higher level than the outer and consequently only a few blocks of it are preserved. At the only point along the North Wall where both the inner and outer faces are preserved together, *ca.* 20 m. from the northwest angle of the circuit, the wall reaches the impressive breadth of 5.25 m. as compared with 3.20 m. for the West Wall. The North Wall, of course, with the gently sloping terraces below it was far more open to attack than the West Wall on the steep side of the ravine and might very possibly have been wider. The precise width of 5.25 m., however, might also suggest the existence of a stairway at this point, 5.20 m. being about the width of the West Wall at the northernmost of the two stairs which were built against its inner face (p. 58).

A characteristic feature of the North Wall is the thin cross walls which are set into the core of hardpan between the two faces of the wall. These occur at irregular intervals of between 5 and 6 m., and consist of well-cut blocks, 65 cm. wide, treated with anathyrosis. Most of the walls are two courses in height, but sunk almost entirely in trenches cut in the hardpan. Six cross walls were noted, including two in trial pits. The west section

<sup>81</sup> On the front surface of this block may be observed a broad dressed band along the side and lower edges, a treatment which occurs only rarely in the City Wall.

<sup>82</sup> The building level of the wall, as marked by the layer of poros chips north of it, shows that the three lowest courses of the outer face must have been under ground. The natural rock level falls away so steeply here that there is a sharp drop of over 2 m. from the level of the northwest corner of the City Wall to the upper surface of the hardpan which forms the core of the North Wall. This core was cut down still further (*ca.* 2 m.) for the laying of the outer face of the North Wall, the bottom of which was, therefore, *ca.* 4 m. lower than the bottom of the West Wall at the northwest corner. Exactly how the transition was made cannot be determined, since every block at this point is missing.

<sup>83</sup> The north side of this trench was found in the course of examining the layer of poros chips at the building level. It was 2.30 m. from the outer face of the wall, making the original trench a little over 3 m. wide. This width was necessitated by its great depth, since in the West Wall the shallow cuttings in which the outer face is laid are only 20 cm. wider than the wall blocks.

of the City Wall is perhaps not sufficiently well preserved to enable us to say definitely that it was not similarly constructed. In any event, such transverse walls are preserved in only two places: at a point about halfway between the second and third round towers, and in the southernmost trench in which the wall could be traced in the Potters' Quarter.

The rather irregular masonry of the south part of the West Wall has been commented on. In the part of the wall which has been preserved about halfway between the second and third towers (Plate 16 B), it will be noted that we have a regular ashlar construction with long blocks of uniform size. At this point, also, there is a cross wall through the fill. The inner face could not be traced and hence must have been built at a higher level than the outer face. The style of construction here, therefore, is exactly like that of the North Wall, in spite of the difference in terrain. Unfortunately, north of this point hardly a block of the City Wall is preserved until we reach the North Wall. Since no cuttings for the inner face could be traced except near the northwest corner, it is possible that the entire north end of the West Wall was of the same construction as the North Wall, and that here, as in the North Wall, the stone socle may have reached a height of three or four courses above ground, as contrasted with the one-course socle of most of the southern part of the West Wall. The gradual widening of the ravine toward the north was probably thought to make a stronger type of construction necessary.

A peculiar feature of the West Wall is the existence, between the second and third towers, of a cutting of the same width as that for the outer face of the wall, but lying 1.75–2.25 m. west of it.<sup>84</sup> This cutting can be traced for about 12.50 m. At its north end there is a short return at right angles in the direction of the wall. It is possible that the cutting was intended for a flanking wall, probably never actually built, to protect a gate.<sup>85</sup> One might reasonably have expected to find a gate here, where the road from the ravine reaches the top of the hill. Another possibility is that the cutting to the westward may really be that for the outer face of the wall, here bastioned out for the purpose of commanding the road from the ravine.

Masons' marks appear both in the West Wall and in the North Wall. Beginning at the south, the first preserved is a  $\psi$  at the north end of the north stairway (Plate 17 B), which lies midway between the first and second towers. About halfway between the second and third towers a stretch of the wall bears the letters  $\dagger$  and  $\vee$  on alternate blocks of the upper course, and  $\text{IM}$  on a block of the lower course (Plate 16 B). The first letter is, of course,  $\times$ ; the second is probably  $\wedge$  (though  $\vee$  is possible); the third is  $\text{MI}$ . On the blocks of the North Wall which are preserved masons' marks appear much more frequently (Plate 17 C). Beginning at the northwest angle of the wall, those in the higher (western) level of the lowest course are:  $\dagger$ ,  $\text{MI}$  (upside down),  $\text{H}$  and  $\text{H}$ . Only one block, the central one, at this level lacks a letter. The first two masons' marks are the same as those in the West Wall; the second is  $\text{MI}$  upside down. Those at the lower (eastern) level of the lowest course, again reading from the west, are:  $\surd$ ,  $\text{H}$ ,  $\dagger$ ,  $\vee$ , all on consecu-

<sup>84</sup> The two edges of this cutting may be seen in the left foreground of Plate 3 A.

<sup>85</sup> This method of construction was employed in several of the gates at Mantinea (Fougères, *Mantinee*, pp. 153–157, figs. 28–30, 32), and at Feniki in Albania (Ugolini, *Albania Antica*, II, fig. 31).

tive blocks. The last is  $\Lambda$  (or  $\Upsilon$ ) and the first probably  $\Psi$ . One of the cross walls which strengthened the fill in this section shows masons' marks on adjoining blocks of the upper course. These are H and  $\Lambda$ . Another cross wall which appears in a trial pit a short distance west of the Geometric cemetery has a  $+$  on its east face. The fifteen masons' marks which are preserved comprise four H's, four X's, three  $\Lambda$ 's, two  $\Psi$ 's, and two Ml's.<sup>86</sup> Of these only H was noted in the other walls of Corinth.<sup>87</sup>

Five towers were included in the area of the Potters' Quarter: three semicircular towers along the West Wall, and a semicircular and a rectangular tower at the northwest angle of the circuit. The first three semicircular towers are about 46 m., or about 150 feet, apart; those in the East Wall were about 200 feet apart.<sup>88</sup> Those in the Potters' Quarter resemble very closely those found elsewhere in the circuit; they are somewhat more than semicircular in shape and consist of an outer face of well-fitted poros blocks and a narrow median wall, 60 cm. wide, at right angles to the curtain wall.<sup>89</sup> They resemble a tower<sup>90</sup> further south in the West Wall, rather than those in the East Wall, in having a fill of loose stones and earth rather than of fitted blocks. Their diameter is 7.20 m.; the distance through the center, from the wall to the outer edge, is 5 m., like that of most of the semicircular towers elsewhere in the circuit. The second tower, however, projects further from the wall than the rest; its greater size is explained by its more important position commanding a gate.

The first, or southernmost, tower is completely destroyed, but can be traced by the shallow cutting in the hardpan for the outer face and median wall. Of the second tower, just south of the gate, there are preserved the block which adjoined the outer face of the curtain wall at the south side and part of the fill of large, rough stones (Plate 19 B). Also preserved is a wall block, worked with anathyrosis on the south, west and north faces, which originally abutted on the second course of the tower at the south side. Of the fill there remains a row of large, irregular stones, following the inner edge of the cutting for the outer face of the tower; the inner part of the fill probably consisted only of earth and smaller stones. The cutting in which the outer face of the tower was bedded is somewhat deeper than in the first tower; at the south side the lowest course of blocks must have been entirely under ground.

The third tower is in the best condition, since its lowest course and most of its median wall are preserved, as well as part of the fill (Plates 18 B and 19 A). The lowest course consisted of only six blocks, or about a third of the semicircle, since the ground rose toward the south and the lower courses on the south side were laid at two higher levels. The wall block which joined the north side of the tower is also preserved. The lowest course of the tower consisted of narrow, wedge-shaped blocks, carefully fitted together and lacking the bevelled joints usual elsewhere in the wall (Plate 18 B). In the center of

<sup>86</sup> Four upright parallel lines scratched on a fallen block near the northwest tower are probably not to be considered as a mason's mark.

<sup>87</sup> *Corinth*, III, pt. 2, p. 289.

<sup>88</sup> *Ibid.*, p. 48.

<sup>89</sup> The angle tower showed no trace of the median wall.

<sup>90</sup> *Ibid.*, p. 68.

every alternate block, at the edge, a setting-line in red paint showed that the second course was one of stretchers, as in the towers of the East Wall.<sup>91</sup> The median wall consisted of a row of well cut and fitted blocks, each about 45 cm. wide and 60 cm. long.

The masonry of the fourth semicircular tower, at the northwest angle of the City Wall, is entirely missing, but a deep cutting for the outer face is preserved. Its south side may be seen at the extreme left of Plate 20 A, with the cutting at a high level for the block which adjoined the curtain wall. The cutting for the outer face of the tower is *ca.* 2.50 m. deep, but only just wide enough to contain the blocks. The sides of the cutting are very irregular, and it would appear to have been rather hard to lay blocks of uniform size in it. It is possible that this tower was never actually built, but that the project was abandoned after the foundation cutting had been made.

Another deep cutting runs straight westward from the west side of the round tower and ends at the very edge of the cliff in a deeper cutting of irregular shape, *ca.* 3 m. long and 1.50 m. deep. It is quite possible that this is part of a cutting for a short curtain wall thrown across at this point to prevent a passage between the tower and the edge of the cliff. It is impossible to say whether this wall was contemporary with the tower or later.

Closely adjoining the round tower on the south is a platform for a large tower of trapezoidal shape (Plate 20 A). Its north and south sides are at right angles to the West Wall, but the west side is not parallel to the wall. The north side is 6.50 m. long, the west side 7.25 m., the south side 8 m., and the east side *ca.* 7 m. The platform, which consists almost entirely of the native rock, is faced by a foundation of fitted blocks along the west side, with returns to the east at either end. The present upper surface of this facing is not quite as high as the surface of the rock core. The width of the foundation varies from 1.20 m. to 1.40 m. A single row of blocks forms the west side, but the returns are double. The foundation is one course high, and its height ranges from as little as 12 cm. to as much as 55 cm. The surface of the platform is quite irregular and slopes downward toward the north. The stone employed for the blocks is a soft, reddish conglomerate which is considerably disintegrated. It is greatly inferior to the white poros used for the other towers and for the wall itself. The use of this material and the rather weak construction make it probable that the blocks visible now were intended to be under ground.

Outside the southwest corner of the tower platform is a terrace wall which forms an obtuse angle with the point toward the west (Plate 20 A, extreme right, and Plate 20 B, left). This wall is 65 cm. in width and preserved to a height of *ca.* 60 cm. The poros blocks of which it is constructed are small, but fairly well cut and more or less carefully fitted; in the outer face they have a rather square shape, while in the inner face they are long and flat. Both ends of the wall are missing. The space between the wall and the corner of the tower was filled with a mass of earth and small stones (Plate 20 A, right). The wall was doubtless a terrace wall for the tower, probably supporting a ramp which led along the south side of the tower. There may have been a gate in this face of the tower, or possibly in the wall just south of the tower, although it is, of course, rather unusual to find a gate to the left of a tower. The construction of the terrace wall is somewhat remi-

<sup>91</sup> *Ibid.*, p. 52.

niscient of that of the second-period walls in the Terracotta Factory, and will be mentioned later in connection with the dating of the City Wall.

The presence of two towers adjoining each other could ordinarily be explained only by the existence of a gateway between them. In this case, however, one tower abuts on the other with no possibility of a gate. It is probable that the round tower, as Carpenter has already pointed out,<sup>92</sup> was laid out first and the square tower later. One explanation is that the square tower was built to replace the other; one must not overlook the possibility that the round tower was never actually built, although the use of a different kind of stone probably still indicates a later date for the square tower. It is equally probable, however, that they existed at the same time, the square tower having been added when it became evident that the round tower, even with the curtain wall which ran from it to the edge of the cliff, was not sufficiently strong to protect this important and vulnerable point in the circuit.

The only other features of interest in that part of the City Wall which runs through the Potters' Quarter are the remains of two stairways and a gate, and a sarcophagus incorporated in the fill.

The better preserved stairway lies inside the City Wall, immediately west of the Terracotta Factory. Its southern end is about 6 m. from the first tower. It is 21 m. in length; the width is 2 m., making the total width of the wall at this point 5.20 m. The stair was built in with the wall, not added to it; thus the inner face of the wall and the edge of the stair foundation are the same. The south end of the stair was constructed in a slanting line (only the cutting in the hardpan is preserved), while the north end forms a right angle with the wall.<sup>93</sup>

The other stair is at the south end of the excavation, about 19 m. south of the first tower. The City Wall is entirely destroyed in this area, except for the shallow cuttings for laying the two faces. Only 4.25 m. of the north end of the stairway is preserved (Plate 3 B, right); this end formed a right angle with the wall, as in the other stair. By faint traces of cuttings in the hardpan the stair can be traced some distance further to the south, making a total length of at least 16 m. Since the width of this stairway is somewhat less than that of the other (about 1.60 m. in addition to the normal width of the wall), its length was probably also less. The last discernible cutting to the south appears to show a diagonal line and perhaps indicates that the south end of this stairway was similar to the south end of the north stairway. The few blocks of this stair which are preserved show a far less impressive type of masonry than the other. At the north end there appears to have been an opening, now blocked up with small stones, in the inner face of the stair. This opening may indicate that there was originally a chamber under the stairway, but it could not have been large enough to afford more than a very small storage space.

The only gate which could be certainly identified in the Potters' Quarter lies just north of the second tower. This tower, as we have noted, was of a somewhat larger size

<sup>92</sup> *Ibid.*, p. 78.

<sup>93</sup> The north end of this stairway appears in several of the Terracotta Factory photographs, e.g., Plates 10, 11 B, 12 B, and 14 A. The end is formed largely by a single block 1.60 m. long, on the north face of which is the mason's mark  $\Psi$  (Plate 17 B).

than the others, presumably in order to protect the gate more effectively. About 30 m. north of this gate the road leading up from the ravine reaches the top of the hill. From this point it doubtless ran outside the City Wall, breaking through the west wall of the South Long Building, until the gate was reached. Only the south face of the gate is preserved (Plate 21 A, lower center), resting on a socle of rough masonry which was probably not intended to be seen. Since the north face is completely destroyed, it is impossible to determine the width of the gate.<sup>94</sup> It may not have been very wide, however, since the road leading from the ravine, although of a width barely to accommodate carts, was probably intended only for foot and donkey traffic.

Another feature of the City Wall which is of some interest is the grave in the fill near the south end of the northern stairway. A monolithic sarcophagus of white poros, covered with a rectangular poros slab, rested in a shallow cutting in the native rock (Plate 21 B). Its top was just below the upper surface of the outer face of the wall socle and just above the level of the inner face. The sarcophagus cover appears in Plate 15 C. The grave was oriented north and south, and measured 1.38 m. in outer length, 78 cm. in width, and 40 cm. in inner depth. The sides were 9 cm. thick and the cover 13 cm. thick. A skeleton was uncovered under the soft earth with which the grave was filled (Plate 21 C). It lay on its left side, with the legs doubled up and the head at the south, facing westward. The teeth were in perfect condition, but the bones were much disintegrated. The grave contained no other objects except some badly rusted fragments of iron near the head, perhaps a pin, suggesting that the burial may have been that of a woman.

The sarcophagus could not have been inserted after the wall was completed. It is probably safest to assume that it existed before the wall was built and was incorporated into the fill, instead of being moved or destroyed. It is, however, interesting at least to speculate on the possibility that the burial is contemporary with the wall. It is certain that at various times in Near Eastern history human sacrifices were made at the laying of the foundations of new buildings. That this custom may have originated with the Semites is indicated by the prevalence of such sacrifices in all periods, even down to Hellenistic times, at Gezer.<sup>95</sup> Several foundation sacrifices were also noted at Megiddo<sup>96</sup> and Jericho,<sup>97</sup> and there were apparently others at Ta'annek.<sup>98</sup> The examples of human sacrifice under the enclosure wall of Tanis and at the corners of a building on that site<sup>99</sup> are thought to show Semitic influence. Apparently the custom was also known to the Phoenicians.<sup>100</sup> It may also be traced, at least sporadically, along the eastern shore of the

<sup>94</sup> The cuttings for the inner and outer faces of the wall may be seen in the opening of the gate, Plate 21 A, foreground. It is not unusual for wall cuttings to be continued across a gate, although it is also possible that the gate may have been inserted after the original plans of the wall were laid out.

<sup>95</sup> Macalister, *Excavation of Gezer*, II, pp. 426-433; Palestine Exploration Fund, *Quarterly Statement*, 1902, p. 352; *ibid.*, 1903, p. 224; Vincent, *Canaan*, p. 213.

<sup>96</sup> Schumacher, *Tell El-Mutesellim*, I, p. 25, fig. 23; pp. 44 f., fig. 41; pp. 54-56, figs. 59 and 60; Vincent, *Canaan*, pp. 50 f., fig. 141.

<sup>97</sup> Sellin and Watzinger, *Jericho*, pp. 63 and 65.

<sup>98</sup> Sellin, *Tell Ta'annek*, pp. 50-53, 97.

<sup>99</sup> Montet, *Nouvelles fouilles de Tanis* (1929-1932), pp. 43 f., pl. IX; pp. 78 f.

<sup>100</sup> Movers, *Die Phönizier*, I, p. 302.

Mediterranean in Hellenistic and Roman times. Ioannes Malalas<sup>101</sup> and Pausanias of Damascus<sup>102</sup> both describe the sacrifice of a girl at the founding of Laodicea. Malalas also records similar sacrifices at the founding of Alexandria, Antioch and Ancyra.<sup>103</sup> An interesting incident dealing with the finding of a sarcophagus in the course of digging in the long walls of Thrace is related by the Byzantine historian Theophanes.<sup>104</sup> The purpose of a foundation sacrifice was the providing of a guardian spirit (στοιχείον) for the structure. An indirect method of achieving the same result is reflected in numerous modern Greek legends concerning the luring of a person to the site of a new building and the placing of a stone on his shadow; such a person was believed to die within a year. The practice, still prevalent in Greece and other Levantine countries, of burying a cock or a lamb under a foundation is very probably a survival of the tradition of burying a human being, either dead or alive, under the foundation.

The persistent legends of human sacrifice in modern Greek folk lore<sup>105</sup> may be a direct survival from earlier times; on the other hand they may be more closely related to many similar legends in northern Europe and other parts of the world. There is no definite proof that foundation sacrifices were employed in Greece in the classical period.<sup>106</sup> The stories related by Malalas<sup>107</sup> of the sacrifice of a girl by Perseus at the founding of Tarsus and of a similar sacrifice in the time of Orestes at the construction of a temple of Artemis at Nyssa are interesting, but hardly significant. The offering of a girl to Poseidon on the occasion of the sending of a colony to Methymna<sup>108</sup> might be taken as a kind of foundation sacrifice.<sup>109</sup>

Presumably human sacrifice, if it was known in the classical period, would have been employed only in the case of important constructions, such as a city wall. What little we can determine about the person buried in the West Wall of Corinth, namely, that the person was probably female and probably poor (an iron dress pin replaces the more usual bronze one), seems to make her a suitable victim for such a sacrifice. A sarcophagus, however, would seem to be unnecessary in an interment of this kind, and its presence here is certainly one stumbling block in the way of assuming the use of a human sacrifice in constructing the walls of Corinth.

Any finds in this grave might have been of the utmost importance in ascertaining the date of the City Wall. As it is, we must arrive at the most likely date by a study of the chronology of other buildings on the site, in particular the Terracotta Factory. The

<sup>101</sup> *Chronographia* (ed. Dindorf, Bonn, 1831), p. 203.

<sup>102</sup> *Fragmenta* (in *Historici Graeci Minores*, ed. Dindorf, Leipzig, 1870), p. 160.

<sup>103</sup> Malalas, *op. cit.*, pp. 192, 200, 221.

<sup>104</sup> *Chronographia* (ed. De Boor, Leipzig, 1883), I, p. 455, lines 12–17. For this reference I am indebted to Glanville Downey.

<sup>105</sup> Cf. Mary Hamilton, *Greek Saints and Their Festivals*, pp. 178–181; Rennell Rodd, *Customs and Lore of Modern Greece*, pp. 168 f. and pp. 278 f.

<sup>106</sup> Vincent (*Canaan*, p. 200, note 2) mentions a rock-cut grave under one of the towers of the Arcadian Gate at Messene. It would be interesting to have confirmation of this.

<sup>107</sup> *Op. cit.*, pp. 37 and 139.

<sup>108</sup> Athenaeus, XI, 15.

<sup>109</sup> *Neue Jahrbücher für Philologie u. Paedagogik*, XVIII, 1883, p. 366. Compare, however, Schwenn in *Menschenopfer bei den Griechen u. Römern*, p. 127, who regards the incident as a simple sacrifice to Poseidon.

greater part of the structures destroyed by the passage of the City Wall is of 7th or 6th century date, but its style of masonry shows that the City Wall must be later than the 6th century. Of the later buildings in the Potters' Quarter the two which might have been most helpful in dating the wall, namely, the Circular South Shrine of the late 5th century and the Shrine of the Double Stele, belonging in its present form to the 4th century, but perhaps founded in the 5th, both lie immediately outside the City Wall but just far enough removed from it to afford no indication as to whether they are earlier or later than the wall; it might, however, be somewhat more reasonable to suppose that any building constructed later than the wall would have been located inside.

The City Wall obviously postdates the first period of the Terracotta Factory, since it runs over part of a curved wall socle belonging to that period (p. 44). The Period II walls of the Terracotta Factory all lie inside the City Wall, a fact which suggests that they are later than the wall. Moreover, the outer face of the west wall of the factory, which is close to the City Wall, is rough and irregular, as if it were not intended to be visible. It therefore appears that after the construction of the City Wall the factory was rebuilt entirely within the wall. As the factory was doubtless in continuous use, this rebuilding probably took place at the same time the City Wall was built or very shortly afterward. In fact, as has already been mentioned, the masonry of the terrace wall outside the square tower at the northwest angle of the City Wall is somewhat reminiscent of that of the Period II walls of the Terracotta Factory.

The masonry of the southern part of the wall is very similar in style to that of a tower on Acrocorinth<sup>110</sup> and to that of the first tower of the Isthmian Gate<sup>111</sup> in the east circuit. One may compare too the tower at Varnava<sup>112</sup> in Attica, and the walls of Eleutherai<sup>113</sup> (Gyphtokastro) may also be mentioned, although these are of a somewhat more regular character than the Corinthian walls. The socle of the circuit wall at Eleusis<sup>114</sup> exhibits a very similar style. Common features in all these walls are the use of blocks of varying sizes, the nearly uniformly horizontal joints and the occasional use of small stones, usually triangular, more rarely rectangular, to fill in a missing upper corner of a block. The Acrocorinth tower was dated by Carpenter<sup>115</sup> in the 4th century, and the Isthmian Gate by Parsons<sup>116</sup> after 450 B.C. For both a date about 395 B.C. is suggested by Scranton.<sup>117</sup> The Eleusinian wall is placed by Noack<sup>118</sup> and Wrede at the beginning of the 4th century, by Scranton<sup>119</sup> in the 5th century.

There are three events in Corinthian history which might reasonably have motivated the building of the City Wall. One might consider the most likely time to have been

<sup>110</sup> *Corinth*, III, pt. 2, figs. 7-9.

<sup>111</sup> *Ibid.*, fig. 64.

<sup>112</sup> Wrede, *Attische Mauern*, pls. 68 and 82.

<sup>113</sup> *Ibid.*, pls. 83-86.

<sup>114</sup> *Ibid.*, pl. 79, p. 31.

<sup>115</sup> *Corinth*, III, pt. 2, p. 11.

<sup>116</sup> *Ibid.*, pp. 120 f.

<sup>117</sup> *Greek Walls*, pp. 86 f.

<sup>118</sup> *Eleusis*, pp. 72 f.

<sup>119</sup> *Op. cit.*, p. 169.

that immediately following the Persian Wars, when steps might well have been taken to remedy the condition of the city, apparently defenseless as the Persians approached the Isthmus. The 7th century fortification wall which appears in the Potters' Quarter can hardly have been a very effective defense by the 5th century, even supposing that it formed part of a general circuit and was not merely a wall for the Potters' Quarter alone. Either the Peloponnesian War or the Corinthian War and the troubled conditions which preceded them might also have been the motive which impelled the walling of the city.

For the construction of the wall immediately after the Persian invasion, that is, in the second quarter of the 5th century, there seems to be little evidence outside of the suitability of such a move. The apparently archaic form of the  $\times$  employed in several of the masons' marks in the West Wall might point to this period. The  $\times$  might well, however, have been the mark of an older mason who had learned his letters in the early part of the century and saw no reason to change, even though he might have been employed on the wall as late as the last quarter of the century. A strong reason against dating the wall in the first half of the century lies in the fact that no vases or terracottas demonstrably of early 5th century date were found in the region of the Terracotta Factory. It seems highly unlikely that no small objects of any kind should have survived from Period I of that building, which is, as we have seen, pre-City Wall.

A date early in the 4th century for the construction of the wall might fit in with part of the Terracotta Factory evidence, if we assume, as we probably may, that the late 5th century material from south of the factory is connected with Period I. Moreover, the southern part of the West Wall shows certain characteristics in common with Attic walls of the early 4th century (see above). Too much reliance, however, cannot be placed on masonry styles, and it also seems very unlikely that a  $\times$  of archaic form should be used as late as the 4th century. Moreover, the material from the burned stratum (p. 47) in the East Room of the Terracotta Factory seems to indicate that Period II cannot be as late as the 4th century. Since Period II and the West Wall are almost certainly nearly contemporary, a 4th century date is probably also precluded for the latter.

On the whole, the evidence, while far from conclusive, tends to suggest that the West Wall was constructed in the late 5th century, possibly as early as the period immediately preceding the Peloponnesian War, but more probably during the course of the war or during the peace of Nikias. This dating does not necessarily hold for the entire circuit of the walls of Corinth, which may have been in the process of construction over a considerable period of time, as the varying masonry styles to be found in them seem to indicate, but as far as the West Wall is concerned the late 5th century seems to be the most probable date.<sup>120</sup>

<sup>120</sup> Compare, however, *Opuscula Archaeologica*, I, 1935, p. 100, where the earliest semicircular towers in Greece are said to be those of Mantinea (371 B.C.).

## CHAPTER II

### Architectural Blocks and Sculpture

AS ONE might expect in a settlement which is essentially of an industrial character, the buildings of the Potters' Quarter display an extremely utilitarian style of architecture. Stone blocks with architectural mouldings or with surfaces worked for decorative purposes are almost completely lacking. The Terracotta Factory, with its galleried court and its well-furnished shrine, is the most carefully constructed building in the Potters' Quarter, but even that is architecturally very simple. The house at the south end of the excavation may have been more elaborate, but of this only a cement floor and a well have survived. The earlier constructions in which the manufacture of pottery was carried on were extremely simple, comprising large, open yards and rambling buildings, surrounded by thin walls of rubble and mud brick. Some of the buildings were roofed by tiles, and others perhaps by branches or reeds plastered with mud. All were probably entirely without any permanent stone furnishings. It is, therefore, not to the private houses or to the pottery shops and storerooms that we must look for examples of well-executed stone cutting,<sup>1</sup> but to the small shrines of the Quarter. From these came the stelai, altars and offering tables described below; it is very possible that the column capital and the stone siren were also originally connected with a shrine.

All the blocks described in the catalogue, with the exception of two sculptured fragments, are of common Corinthian poros stone, a close-grained, very light-colored limestone, quite hard, but with a tendency to crumble when much exposed to weather; it varies somewhat in fineness of grain and shows differences due to weathering, but on the whole is fairly homogeneous in character. This stone was quarried in numerous places around Corinth. The gully immediately east of the hill on which the Potters' Quarter lies shows the marks of quarrying, and perhaps a half mile to the westward is an ancient quarry of considerable extent. The stucco used on these poros blocks is very fine and hard, of impermeable texture and a creamy white in color; it is usually applied very smoothly and evenly over the prepared surface of the block. The usual thickness of a coat of stucco is one and a half millimeters.

Of the blocks listed below, the stelai, which are twelve in number, present the most interesting questions. As may be seen from the drawings and photographs, the stelai, with the exception of Nos. VIII, IX and X, follow essentially the same scheme, though they may differ in detail. The typical stele of the Potters' Quarter is a thin, rectangular

<sup>1</sup> From the large cistern (p. 27) we obtained several fragments of poros blocks with stuccoed faces and bevelled edges, and one or two with a simple rounded moulding. A few blocks, possibly parts of stelai, came from Well III (p. 45). These fragments, being out of their context and not of particular interest in themselves, are not included in the following catalogue.

slab with the front surface cut back so that the edges of the slab form a frame around a recessed central panel. In most cases the sides are parallel; Stelai I and II, at least, taper slightly toward the top (Plate 23 A). More often both the upper and lower borders project slightly beyond the sides of the stele, but in Stelai I, III and IV only the upper border projects at the sides. Above the central panel, in all the stelai of this type which are preserved to a sufficient height to reveal it, a shelf was cut into the top of the stele; it is slightly broader and more deeply cut back than the panel below. As a rule, the front and side surfaces only of the stelai are stuccoed; the shelf, however, is not stuccoed. The back of the stele in each case is worked to a fairly smooth surface, though the tool marks show clearly.

This type of stele had a long history in the Potters' Quarter. The earliest, I–IV (Plates 23 A and 6 A), are probably to be dated somewhere in the second half of the 6th century. Stelai V, VI, VII (Plates 22 C and D and Plate 8 C), and possibly X and XI (Plate 15 B, foreground) are to be assigned to the 5th century. Stele XII (Plate 24 A) is almost certainly of 4th century date. Neither the origin nor the significance of the stele with the recessed panel is entirely clear. It seems strange that a particular type of stele such as this should have developed in a single small settlement and have been entirely limited to its confines, and yet exactly similar stelai have been found nowhere else, not even elsewhere in Corinth. This fact and the fact that they are found in shrines rather than in graves must indicate some special religious significance, some appropriateness to a local cult which would ensure their exclusive use in the carrying on of that cult. Their invariable position looking eastward probably was fixed, like their shape, by cult demands.

In many places there exist grave stelai<sup>2</sup> which are more or less similar to our stelai, i.e., rectangular in shape with a recessed panel surrounded by narrow borders. Practically all, however, differ from our stelai in having tops which are not horizontal, but are finished with pediments, acroteria of various forms and elaborate architraves. Many of the

<sup>2</sup> A very curious group of terracottas which may be mentioned in connection with the Potters' Quarter stelai consists of small stelai in relief with figures of boys in the central panel. Their pose, with the knees drawn up, reminds one strongly of the seated boy type of terracotta (compare the moulds on pp. 105 f., Nos. 61–65). Two of these reliefs were found in Rhodes, at Ialysos (*Clara Rhodos*, III, p. 205, fig. 200) and Lindos (Blinkenberg, *Lindos*, I, pl. 136, 2937), another at Myrina (Winter, *Typen der figürlichen Terrakotten*, II, p. 217, 4), and there is a fourth from an unknown site (Biardot, *Terres cuites grecques funéraires*, pl. XIII, 5). A limestone stele of very similar type was found in the cemetery of Polis tes Chrysochou in Cyprus (*J.H.S.*, XII, 1891, p. 318, fig. 4). The Ialysos relief is closest to the Potters' Quarter stele; it is almost exactly the same as the Theban stele (*ἸΑΡΧ. ΔΕΛΤ.*, III, 1917, pp. 246–251, fig. 177) mentioned below, i.e., a simple rectangle with recessed panel, raised borders and three projections at the top. The limestone relief differs from the others in having a wide lower border and at the top a pediment in addition to the three acroteria. The terracotta reliefs, though in the form of stelai, seem to have been thought of as beds, since pillows usually appear under the heads of the boys.

Closely related to the terracotta reliefs already cited are others in which the background of the figures is further removed from the stele form and sometimes obviously represents a cradle or, perhaps, a *λίκνον* (cf. Biardot, *op. cit.*, pl. XIII, 1, 3, 4; Salzmann, *Nécropole de Camiros*, pl. 22, right; *Clara Rhodos*, IV, p. 210, fig. 222, also from Kameiros; *Lindos*, I, pl. 136, 2935 and 2936; Winter, *Typen*, II, p. 271, 3, from Smyrna, and p. 271, 7 and 9, from Italy; Danish National Museum, *Catalogue of the Terracottas*, pl. 59, 471, from Smyrna).

Alexandrian grave stelai are very similar to our stelai,<sup>3</sup> except for the fact that they are invariably finished with a pediment. The sunken central panel bears a painted design. The very few stelai from other sites which have a horizontal top surface all differ from ours in other respects.<sup>4</sup> In some of the well-known painted stelai from Pagasai<sup>5</sup> the painted surface is on a slightly sunken central panel and the upper surface is horizontal, but the sides always bear representations of parastades and the top is finished with cornices or eaves-tiles.

The stele which is most similar to those from the Potters' Quarter was found at Thebes.<sup>6</sup> It resembles them in the proportions of the central panel, in the narrow, rather irregularly cut borders, in the slightly greater width of the lower border, and in the stuccoed surface. It differs, however, in several respects: its sides are perfectly straight with no projection of the borders at the base or top, there is no shelf above the upper border, and the top, though horizontal, is finished with three projections representing tiles. The central panel bore a painting. A date about the time of the Peloponnesian War is suggested for this stele by Keramopoulos. Plate 22 A shows a group of stelai at present in the courtyard of the Schimatari Museum. All have recessed panels with raised borders, but their tops are finished in various ways. The lowest one is of the same shape as the Theban stele mentioned above. Another stele of a type rather similar to that from the Potters' Quarter is at present resting on the triglyph wall in the agora at Corinth (Plate 22 B). Its top is finished off horizontally, but there is no shelf above the border. The upper and lower borders project slightly in front, but not at the sides. The front surface is stuccoed.

From a glance at the stelai from other sites which are at all comparable with those from the Potters' Quarter<sup>7</sup> it becomes apparent that the shelf at the top of our stelai is essentially the feature which differentiates them from all other stelai. The shelf is com-

<sup>3</sup> Cf. *Catalogue général des antiquités égyptiennes du Musée d'Alexandrie*: Breccia, *Necropoli di Sciatbi*, pls. XX, 23, XXV, XXVIII, XXX, XXXII, 35, XXXII a, XXXIII, 37; Pagenstecher, *Nekropolis*, figs. 19, 21-23, 27, 32, 35, 37, 41, 46, 51.

<sup>4</sup> One ('Αρχ. Ἐφ., 1920, p. 29, fig. 11) lacks a base and the shelf above the upper border. Another (*ibid.*, p. 27, fig. 6) has sides decorated with parastades instead of plain borders.

<sup>5</sup> Arvanitopoulos, *Γραμμαὶ Στῆλαι Δημοτηριάδος-Παγασῶν*, fig. 160, pls. I and II.

<sup>6</sup> 'Αρχ. Δελτ., III, 1917, pp. 246-251, fig. 177.

<sup>7</sup> Mention may be made here of the stelai which are commonly found at Carthaginian sites. These comprise a wide variety of designs, most of which are far removed from the Potters' Quarter type, but among them, particularly among those of early date, one occasionally sees types which resemble our stelai in certain respects. It is hard to see, however, what connection these could have with the Potters' Quarter stelai and, indeed, since the crowning shelf is lacking in the Carthaginian stele, it is clear that the latter must have a different derivation; in fact, many Carthaginian stelai of a more elaborate character obviously represent shrines and it is probable that the simpler examples have the same significance.

A stele from Cagliari in Sardinia (*Mon. Ant.*, XL, 1944-5, pl. I, b) with its raised borders and sunken central panel shows a strong resemblance to the Potters' Quarter stele, but with the important difference that the shelf at the top is lacking. A very similar stele was found at Carthage (*ibid.*, p. 404, fig. 30, 5). Compare also a stele from Nora in Sardinia (*Mon. Ant.*, XIV, 1904, pl. XXI, 1 d). In another type of stele from Cagliari (*Mon. Ant.*, XL, 1944-5, pl. III, 5) the central panel, instead of being sunken, is indicated merely by an outlining groove. In a group of stelai from the Phoenician colony of Motya in Sicily (Whitaker, *Motya*, p. 271, fig. 50), found in connection with Corinthian pottery of the late 7th and early 6th centuries, an incised line likewise outlines the central panel which is usually left flush with the borders and only rarely cut back; these stelai are of much rougher workmanship than the Sardinian examples.

pletely preserved only in VI and XII, but there are traces of it in several of the others and we may assume that it existed in all the stelai of the panelled type. Its intimate connection with the recessed panel is shown by the fact that the border dividing the panels in the double stele (XII) divides also the upper recess, so that each panel is crowned by its own shelf. The shelf appears to be at least as essential a member of the stele as the central panel. The purpose of the shelves, however, is uncertain. Their lack of depth, only 3 cm. in the case of Stele VI and not more than 5 cm. even in XII, one of the largest of the stelai, limits the list of objects for which such a shelf could be employed. It is possible that they may have received small offerings, such as grain, fruit, flowers, etc.; it is also conceivable that small figurines could have been set on them, supported against the back of the recess. The stelai, however, would seem to be of very little practical use, and the reason for their apparent importance must be sought in some other direction.

The stelai of the Potters' Quarter are unusual not only in form but also in the fact that they were set in shrines and not over graves. If they bore paintings one might explain them as a kind of eikon, or substitute for sculpture. The supposition that it was used as a background for painting might explain the existence of the recessed panel. It might likewise afford an explanation for the curious fact that the single stelai (V, VI and VII) have broad central panels and the double stele and those standing in pairs have tall, narrow ones; we might suppose that in the case of the single stelai space was needed for two painted figures, while in the other instances one figure could be placed on each stele or each panel. Little stress can be laid on this theory, in view of the fact that not the faintest trace of color could be found on any of the stelai. It is possible that thin painted plaques of wood or clay might have been inserted into the panels, but there seems to be no evidence that such a procedure was ever followed in antiquity. A detail which might argue against decoration of the central panel is the curtailment of Stelai III and IV by the raised floor level of the shrine in which they stood. The lower line of their second coat of stucco shows that after the change in floor level only part of the central panels would have been available for decoration (Plate 6 A).

Speculation as to the possible origin of the panelled stele leads us to the offering tables which were used in the Potters' Quarter. None of these was actually found assembled, but one table and two pairs of supports were found and, from the fact that the two rectangular cuttings on the under surface of the table corresponded fairly closely to the size of one pair of supports and the distance between them, we can be reasonably certain that the supports and the table belong together. The table (pp. 76 f.) is like a large shelf with low back and sides; it was supported on two high, slender legs. Plate 23 B shows the restored table as set up in the Corinth Museum.<sup>8</sup> If we look at VI (Plate 22 D), the best preserved of the single stelai, and imagine that the base is not there and that there is an opening in the place of the central panel, what we have left is a table exactly like the one in Plate 23 B. It seems highly probable, therefore, that the panelled stelai of the Potters' Quarter are representations of offering tables.

The offering tables of the Potters' Quarter, like the stelai, seem to be without exact

<sup>8</sup> The supports are modern copies of those still *in situ* in the Terracotta Factory.

parallels elsewhere. They bear no resemblance to the tables which are depicted in vase paintings, either Corinthian or Attic.<sup>9</sup> The stone offering tables which have been found in sanctuaries resemble ours in having two pier-like legs, but differ in other respects: their tops are flat and broader, and their legs are formed by broad slabs which extend under the whole width of the table.<sup>10</sup>

Three altars, all of different types, were found in the Potters' Quarter: a rectangular altar with a triglyph frieze (Plate 25 A) from the shrine in the Terracotta Factory, a rectangular altar with recessed panels (Plate 24 A) from the Shrine of the Double Stele, and a round altar (Plate 24 B) from the cistern, probably belonging originally to the shrine just north of the cistern. None of these altars is exactly paralleled elsewhere, but all are variations of types which are fairly common.

The round altar is of much finer workmanship than the other two. Round altars of this type with base and crowning mouldings are almost always of small size and seem to have been used chiefly for burning incense. In general, they are inferior in workmanship to that from the Potters' Quarter. A small altar from Syracuse<sup>11</sup> is fairly similar to ours, though the mouldings at the top and bottom of the drum are somewhat different and the upper fascia and base are lacking. Another from Priene<sup>12</sup> is more like ours, but is very much smaller. This has the fascia at the top of the drum, and the base moulding, like that on our altar, is a cyma reversa; the upper mouldings, however, are not quite the same, and the depression for the incense burner is much larger. Small round altars for incense have also been found at Delos.<sup>13</sup> These are much smaller, varying in height from 4.5 cm. to 17 cm. They comprise many variations, but consist basically of a cylindrical drum with a moulding above and below. No. 911 is closest to ours, but all are of much rougher workmanship.

Altars with decoration in the form of a triglyph and metope frieze are not uncommon. A large altar of a type similar to that from the Terracotta Factory, rectangular in shape and consisting of a triglyph frieze which rests on a low, plain base and has a narrow fascia above each triglyph and metope, was found at Megalopolis;<sup>14</sup> it was probably once surmounted by a coping of some sort. A large altar from Perachora<sup>15</sup> is also very similar; the triglyph frieze has a double fascia above and the top was probably originally finished by a coping. Fragments which are perhaps from altars of similar type have been found at Porto Raphti<sup>16</sup> in Attica, at Aegina<sup>17</sup> and at Himera.<sup>18</sup> An altar from the Athenaion at

<sup>9</sup> Cf. Richter, *Ancient Furniture*, figs. 152, 155, 158-161, 163, 166, 173, 174, 180-182, 184, 192, 195-205, 209.

<sup>10</sup> Wiegand, *Priene*, p. 153, fig. 122; p. 177, figs. 169 and 170. There is an example in the museum at Lykosoura which came, presumably, from the sanctuary. Similar tables in miniature were found at Selinos (*Mon. Ant.*, XXXII, 1927, pp. 201 f., figs. 104-107). Of these fig. 107 with its plain, straight legs is closest to our type, but the table itself is flat-topped. Compare also *Délos*, XVIII, pl. XIV, 102 and 103, and fig. 32.

<sup>11</sup> *N. d. Sc.*, 1891, p. 387.

<sup>12</sup> Wiegand, *Priene*, p. 378, fig. 477.

<sup>13</sup> *Délos*, XVIII, pls. CIII and CIV.

<sup>14</sup> Gardner, *Excavations at Megalopolis*, pp. 51 f., fig. 44.

<sup>15</sup> Payne, *Perachora, Sanctuaries of Hera Akraia and Limenia*, pp. 89-91, pls. 6 and 130.

<sup>16</sup> *Ath. Mitt.*, LII, 1927, pp. 163-165, Beilage XVIII, 3 and 4.

<sup>17</sup> *Jahrbuch*, LIII, 1938, *Arch. Anz.*, pp. 20 f., fig. 12.

<sup>18</sup> Marconi, *Himera*, p. 150, fig. 150.

Syracuse<sup>19</sup> is made up of re-used triglyphs and metopes, with simple fasciae above and below. A red-figured vase from Ruvo<sup>20</sup> shows an altar of a type quite similar to that from the Potters' Quarter. The coping at the ends of the altar in this case, however, has a rectangular rather than a triangular shape.

A somewhat different type is represented by the great altars at the Athenaion in Syracuse<sup>21</sup> and in Kerkyra.<sup>22</sup> In these the triglyph frieze surmounts a plain band of masonry, instead of resting directly on the socle. The great altar of Zeus at Olympia<sup>23</sup> may have been of similar type. This form occurs most frequently on red-figured vases.<sup>24</sup> A small example in stone of this more elaborate type of altar was found at Syracuse.<sup>25</sup> It is of almost exactly the same size as that from the Terracotta Factory. In this there is a plain band below the triglyph frieze and an elaborate cornice above. The coping at either end of the upper surface does not form a pediment, as in the altar from the Potters' Quarter, but has a flat top.

Triglyph friezes also occur on round altars. A round terracotta altar from Syracuse<sup>26</sup> is almost identical in style with the rectangular altar, just mentioned, from the same site. A round stone altar from Akrai<sup>27</sup> in Sicily is closely similar to the round altar from Syracuse. The large altar found near the Bouleuterion at Olympia,<sup>28</sup> in spite of its circular shape, in other respects is not unlike our altar. It is likewise of a very simple type, consisting of a low base, triglyph frieze and plain crowning fascia. An isolated triglyph found at Olympia<sup>29</sup> is perhaps also from a round altar.

The object which most closely resembles the triglyph altar from the Potters' Quarter was found at Selinos;<sup>30</sup> it is made of clay and is called by the excavator a "temple model." It is rectangular, only slightly smaller than our altar and, like it, consists of a plain, low base and crowning band with the space between filled by a triglyph frieze; there are triangular pediments at either end of the upper surface. Even the number of triglyphs is the same as on our altar.

Altars of the type of that found in the Shrine of the Double Stele, i.e., rectangular, with ends which project somewhat above the upper surface and are finished off horizontally, are illustrated in vase paintings and have also been found at several sites. Such altars are particularly common on vases of the Apulian style.<sup>31</sup> They are all more or less the same, rectangular, with a plain, low, projecting base and crowning fascia and with

<sup>19</sup> *Mon. Ant.*, XXV, 1918, pp. 688-690, fig. 250, pl. IV.

<sup>20</sup> Reinach, *Répertoire des vases peints*, I, p. 128, 3 (second edition).

<sup>21</sup> *Mon. Ant.*, XXV, 1918, p. 713, fig. 261.

<sup>22</sup> Arch. Inst. des deutschen Reiches, *Korkyra*, I, pp. 63-66, pls. 15-17; see *Perachora*, p. 91, note 2.

<sup>23</sup> *Jahrbuch*, XI, 1896, pp. 53-77.

<sup>24</sup> Cf. *Jahreshefte*, XV, 1912, p. 169, fig. 108; Pfuhl, *Malerei und Zeichnung*, III, fig. 801; *J.H.S.*, XI, 1890, pl. VI, p. 226.

<sup>25</sup> *N. d. Sc.*, 1891, p. 381.

<sup>26</sup> *N. d. Sc.*, 1938, p. 293, fig. 19.

<sup>27</sup> Serradifalco, *Antichità della Sicilia*, IV, pl. 33, 8.

<sup>28</sup> Curtius and Adler, *Olympia*, II, p. 164, pl. XCV, 8.

<sup>29</sup> *Ath. Mitt.*, LII, 1927, p. 164, Beilage XVIII, 2.

<sup>30</sup> *Mon. Ant.*, XXXII, 1927, p. 201, pl. LXXVIII, 2.

<sup>31</sup> Cf. Furtwängler-Reichhold, *Griechische Vasenmalerei*, Ser. III, pl. 148, and fig. 80 in text; *J.H.S.*, LI, 1931, pp. 86-90, pl. IV; Herrmann, *Denkmäler der Malerei des Altertums*, p. 215, fig. 63.

square ends which are carried above the upper surface and are finished off horizontally. Sometimes the crowning fascia carries an egg and dart moulding.

Actual altars of this type have been found at Priene<sup>32</sup> and Thera.<sup>33</sup> The former is somewhat more elaborate than those on the vases, since it has complicated base and crowning mouldings and, although the projecting ends are finished in a horizontal line, they bear a relief in pedimental form on their outer surfaces. The Theran altar, on the other hand, is simpler than those in the vase paintings and is thus closest of all to the altar from the Shrine of the Double Stele. It is cut in the rock and consists of a recessed panel, surrounded by wide borders on all four sides; the borders at the ends are carried upward somewhat beyond the upper surface of the altar, as are those of our altar. The Theran altar is said to be of the Ptolemaic period. That from the theater at Priene falls within the same period, since it bears an inscription of *ca.* 180 B.C.<sup>34</sup>

To sum up, we may say that the round altar is usually of small size and seems to have been intended merely for burning incense. The type is not easy to date. The rectangular altar decorated with triglyphs was common over quite a long range of time and shows considerable variation in detail. That from the Terracotta Factory cannot be dated more exactly than to the period from the latter part of the 5th century to the middle of the 4th. The rectangular altar with square ends which project above the top of the altar seems to occur only rarely before the 4th century.<sup>35</sup> The example from the Shrine of the Double Stele is probably to be dated in the 4th century. The type of altar which is nearly universal on earlier vase paintings, a rectangular block crowned by finials in the shape of volutes,<sup>36</sup> is not represented in the Potters' Quarter.

That the Doric capital (Plate 25 B) which was built into the east wall of the North Room of the Terracotta Factory (Plate 13 A) is of the archaic period is indicated by the fact that the echinus is very low in proportion to its diameter. The sides of the echinus, however, are quite flat in profile, and it does not resemble the "cushion" echinus characteristic of the most archaic capitals. In style the capital is not far removed from those of the temple of Apollo at Corinth.<sup>37</sup> It may also be compared with the earliest capitals of Temple G at Selinos<sup>38</sup> and with those of the "temple of Ceres" at Paestum.<sup>39</sup> Thus it falls in the third quarter of the 6th century B.C., perhaps in the decade between 540 and 530 B.C.

The original provenance of the capital is unknown. It is unlikely that it was brought

<sup>32</sup> Schede, *Ruinen von Priene*, p. 71, fig. 87.

<sup>33</sup> Hiller von Gaertringen, *Die Insel Thera*, III, figs. 77, 78, 81.

<sup>34</sup> Wiegand, *Priene*, p. 241.

<sup>35</sup> An altar of this type appears on an amphora from Nola (*Jahrbuch*, XXV, 1910, Arch. Anz., p. 461, fig. 4) which is probably to be dated in the latter part of the 5th century.

<sup>36</sup> Cf. Pfuhl, *Mal. u. Zeich.*, III, figs. 297, 320, 420, 433, 447, 477. An example of the simple volute altar in stone may be seen in Dörpfeld and Reisch, *Griechische Theater*, p. 34, fig. 8. A combination of this altar with the triglyph frieze type is sometimes employed (cf. Pernice, *Hellenistische Kunst in Pompeii*, V, figs. 19-21, pl. 36; Reinach, *Répertoire des vases peints*, I, p. 218 B [second edition]; Langlotz, *Griechische Vasen in Würzburg*, pl. 170).

<sup>37</sup> *Corinth*, I, pt. 1, pl. IX.

<sup>38</sup> Koldewey and Puchstein, *Die griechischen Tempel in Unteritalien und Sicilien*, I, p. 125, fig. 104.

<sup>39</sup> *Ibid.*, p. 19, fig. 17.

from any great distance, but as yet the excavations in the Potters' Quarter have yielded no trace of any building to which it might have belonged. Its small size may indicate that the capital came from an isolated column. Such columns frequently appear in vase paintings, often in connection with an altar;<sup>40</sup> sometimes they form part of a grave monument.<sup>41</sup> They may be plain columns, or they may have a statue, vase or tripod on top; in any case, they doubtless represent votive monuments, such as have also been found in stone.<sup>42</sup>

Only three pieces of sculpture were found in the Potters' Quarter. The presence here of the two marble fragments, both of which represent hands, is perhaps accidental. The poros siren is a more interesting object. It was found at the bottom of the Rectangular South Pit (p. 31), lying among a number of large, unworked stones. Most of the pottery from the pit could be dated in the late 5th century, but there is no necessity for dating the siren so late, since a figure such as this would probably have remained in use for some time before being discarded; it may even have been discarded years before it was used in filling the pit. In the absence of the head, it would be very difficult to date it very closely, but I am inclined to think that it belongs in the second half of the 6th century. The siren was, of course, particularly popular in Corinth in the 6th century. The archaic arrangement of the hair in the Potters' Quarter siren likewise suggests the 6th century. The use of poros rather than marble as a medium also tends to indicate a date earlier than the 5th century.

This particular type of siren in which the entire body is that of a bird and only the head is human, and in which the wings are closed, is not as frequently seen as some other types. Sirens are only rarely represented in this fashion on Attic vases.<sup>43</sup> The sirens which appear on Corinthian Orientalizing vases normally have outspread wings, either plain or sickle-shaped, although in a few instances the wings are closed.<sup>44</sup> Plastic vases in the form of sirens, on the other hand, have closed wings, sometimes modelled, like those of our figure, with a wing cap and two rows of long feathers.<sup>45</sup> A terracotta figurine in Berlin<sup>46</sup> which represents a siren with human head and closed wings is of 5th century style. Here again the wings have two rows of feathers below a plain wing cap. Beside terracottas, one occasionally finds examples in other materials of a siren with closed wings. A bronze mirror handle in Munich<sup>47</sup> is formed by a nude female figure; on either

<sup>40</sup> Cf. Pfuhl, *Mal. u. Zeich.*, III, fig. 169; *Arch. Zeit.*, I, 1848, pl. XV, 1; *Annali dell' Istituto*, 1848, Tav. d'agg. L, 1; *C.V.A.*, Germany 1, Bonn 1, pl. 19, 1; *C.V.A.*, Italy 17, Syracuse 1, IV e, pl. 2, 1; *C.V.A.*, Denmark 4, Copenhagen 4, pl. 147, 1 a; Walters, *Catalogue of Greek and Etruscan Vases* (British Museum), III, pls. XVI and XVII, a; Reinach, *Peintures des vases antiques*, Millingen 52.

<sup>41</sup> Cf. *Jahreshefte*, XXXI, 1938, Beiblatt, pp. 58-62, fig. 17; Walters, *op. cit.*, IV, pls. III, IV (F 93), VIII; *C.V.A.*, Great Britain 11, Cambridge 2, pl. XV, 3; Pagenstecher, *Unteritalische Grabdenkmäler*, pp. 57-68, pls. IV, b, VI, a-c, VIII, a, XIV, c, XV, d, XVI, a, b, g.

<sup>42</sup> Cf. *B.S.A.*, XL, 1939-40, pp. 17-36, figs. 4, 7, 33 A, 39, 41, pls. 7-13; *Jahreshefte*, XXXI, 1938, Beiblatt, pp. 21-67, figs. 2-5, 11.

<sup>43</sup> Cf. Weicker, *Seelenvogel in alten Litteratur und Kunst*, p. 165, fig. 85; Gerhard, *Auserlesene griechische Vasenbilder*, I, pl. 28.

<sup>44</sup> Cf. Payne, *Necrocorinthia*, pl. 30, 3.

<sup>45</sup> Cf. Maximova, *Vases plastiques*, fig. 31.

<sup>46</sup> Königl. Museen zu Berlin, *Ausgewählte griechische Terrakotten*, pl. VIII.

<sup>47</sup> *Jahreshefte*, XV, 1912, p. 231, fig. 152.

side of its head a siren standing on a lotos blossom further supports the mirror. These sirens also have wing caps and two rows of straight feathers below. The date of the mirror appears to lie in the late 6th century. A bronze from the Acropolis at Sparta<sup>48</sup> is in the form of a siren standing on a flower. The head alone is human and faces front. The closed wings have a wing cap and a single row of long feathers. A bronze lamp in Naples<sup>49</sup> has in the center a siren seated on the top of a Doric column. The body is entirely that of a bird and the wings are closed; there is, however, no indication of feathers. Two other representations, one a relief on an ivory seal<sup>50</sup> and one a lead relief,<sup>51</sup> of this type of siren were found at Sparta. Both are probably of 7th century date. The type appears to be even less common in stone. An Attic stele fragment<sup>52</sup> which represents a siren with the body of a bird standing on an acanthus leaf is apparently of Roman date.

The original use of the Potters' Quarter siren is far from clear. There would seem to be little reason for making a cult statue or a dedicatory figure in the form of a siren. There is a possibility that it could have been part of a grave monument, although we know little of the forms these monuments took in the archaic period at Corinth. A stone siren from Cyprus,<sup>53</sup> also of the archaic period, is probably a funerary monument. It is, however, of a different type; it is bearded and has human arms as well as head. On an Attic red-figured vase<sup>54</sup> a siren with bird body, human head and outspread wings which stands on a two-stepped base very possibly represents a tomb monument. The stone sirens which appear in Attic cemeteries<sup>55</sup> are, of course, of considerably later date than the Potters' Quarter siren and bear little resemblance to it, since, except for the wings, they are human as far as the waist, often even down to the knees.

It is also possible that the poros siren is an acroterion from a small temple. Although Nikes, sphinxes and griffins were far more commonly employed for this purpose, sirens may have been used in a few instances.<sup>56</sup> If the poros column capital just discussed is from a small temple, the two pieces may very well have belonged to the same building. The capital is dated in the third quarter of the 6th century, which would also be a very likely date for the siren.

<sup>48</sup> *J.H.S.*, XLIV, 1924, p. 259, fig. 3 (upper right).

<sup>49</sup> Naples, Museo Nazionale, *Real Museo Borbonico*, XV, 1856, pl. XXII.

<sup>50</sup> Dawkins, *Sanctuary of Artemis Orthia at Sparta*, pl. CLXVIII, 3 b.

<sup>51</sup> *Ibid.*, pl. CLXXXIX, 19.

<sup>52</sup> Conze, *Die attischen Grabreliefs*, pl. CCCCLXXII, 2136.

<sup>53</sup> Collignon, *Statues funéraires*, p. 13, fig. 2.

<sup>54</sup> *C.V.A.*, Italy 14, Palermo 1, pl. 22, 9. For this reference I am indebted to Miss Gisela M. A. Richter.

<sup>55</sup> Conze, *op. cit.*, pls. XXXV, 1, LXI, 253, LXIII, 299, XCIV, CCLXXXVIII, 1369-71; Gardner, *Sculptured Tombs of Hellas*, fig. 47.

<sup>56</sup> Cf. Van Buren, *Archaic Fictile Revetments in Sicily and Magna Graecia*, p. 157, no. 6. It is certainly possible that two fragmentary architectural terracottas from Palaikastro which represent birds may have been sirens, since the head is not preserved in either case (*B.S.A.*, XI, 1904-5, p. 303). A late 6th century terracotta head from Olympia (*Jahrbuch*, LII, 1937, Bericht über die Ausgrabungen in Olympia, pls. 26 and 27) appears to be an acroterion from the earlier Treasury of Gela. The excavators (p. 96) suggested that it might have come from a sphinx; Andrén (*Architectural Terracottas from Etrusco-Italic Temples*, p. cviii) suggests a siren. An Etruscan terracotta acroterion (Van Buren, *Figurative Terracotta Revetments in Etruria and Latium*, p. 38, fig. 1) representing the body of a bird, now headless, may have had the form of a siren.

## STELAI

**I (KA<sub>3</sub>).** South Stele from Stelai Shrine A. Fig. 1 and Plate 23 A, right. The latter shows this stele and Stele II as they are set up (in reversed order) in the Corinth Museum. For the stelai *in situ* see Plate 5 B and C. Pp. 22 f.

Poros, stuccoed on front and sides. Lower edge chipped. Top much mutilated by plough. Upper border and shelf preserved only at right side. Height: 69 cm. Width at bottom: 35 cm. Width at top (exclusive of projecting borders): 33 cm. Width of side borders: *ca.* 7 cm. Width of bottom border: *ca.* 8 cm. Width of upper border: 6.5 cm. Height of central panel: 47.5–49 cm. Depth of central panel:

1.8–2.5 cm. Projection of upper border at sides: .5 cm. Depth of upper shelf: 5 cm. Thickness of stele: 8–10.5 cm.

The deposit in Stelai Shrine A dates from the end of the 6th century and from the first half of the 5th (p. 22). The shrine itself, and consequently the stelai, must presumably be dated before the end of the 6th century, but perhaps not very long before.

**II (KA<sub>4</sub>).** North Stele from Stelai Shrine A. Plate 23 A, left. See also Plate 5 B and C. Pp. 22 f.

Poros, stuccoed on front and sides. Part of top of stele split and upper left corner broken off. Height preserved: 74 cm. Width at bottom: 36 cm. Width at top (exclusive of projecting borders): 32 cm. Width of side borders: 7–8 cm. Width of bottom border: 11.5 cm. Height of central panel: 49.5–50.3 cm. Depth of central panel: *ca.* 1.5 cm. Projection of upper and lower borders at sides: 1.3 cm. Thickness of stele: 9–9.5 cm.

A comparison with Stele I will show that this stele is a little taller and more slender than the other, its central panel is shallower and its base border wider. The only difference in actual construction is that in II the bottom border, as well as the top, projects beyond the sides of the stele.

**III (KA<sub>5</sub>).** South Stele in Stelai Shrine B. Plate 6 A, left. Pp. 25 f.

Poros, with a first coat of stucco completely covering the front and sides, and a second coat stopping shortly before reaching the lower border. Top very badly broken by the plough. Upper border completely missing except for a little at south side. Most of second coat of stucco has disappeared. Height preserved: 74 cm. Width: 51 cm. Width of side borders: 10 cm. Width of bottom border: 7 cm. Height of central panel: 58 cm. Depth of central panel: 2.4–4 cm. Projection of upper border at sides: 1.8 cm. Thickness of stele: 24.5 cm.

This stele and its companion are somewhat larger than those in Stelai Shrine A. In neither of the two is the total height preserved, but their width is considerably greater and their thickness more than twice as great as that of Stelai I and II. The central panel has about twice the depth of that in the other two stelai. As in Stele I there is no projection of the lower border. At some period the floor level of the shrine was raised *ca.* 15 cm. by the insertion of a rough stone paving, which concealed the lower borders of the stelai. The stelai were subsequently re-stuccoed down as far as the new floor

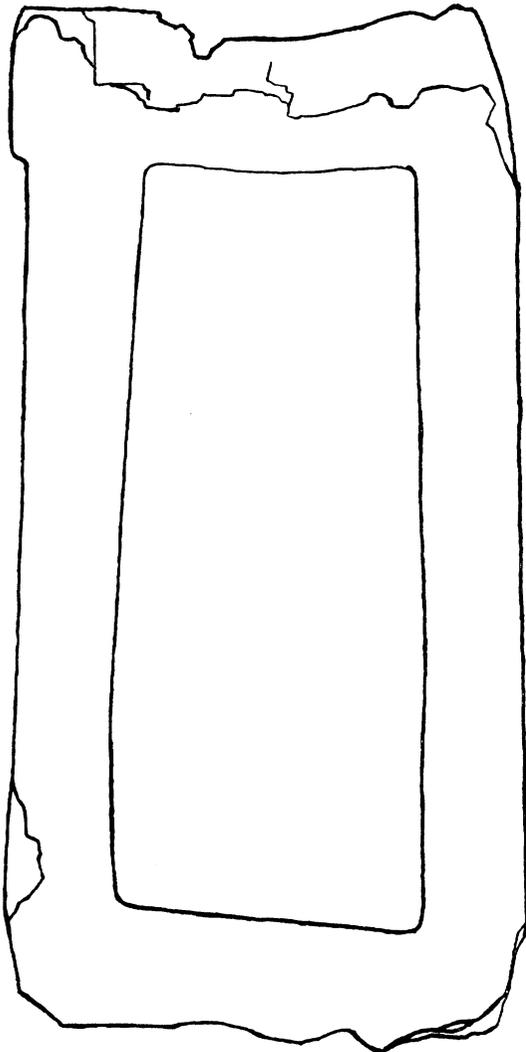


Fig. 1. Stele from Stelai Shrine A

level. The date of the shrine is uncertain, but from its similarity to Stelai Shrine A we may probably assume that it too was built sometime after the middle of the 6th century.

**IV (KA6).** North Stele in Stelai Shrine B. Plate 6 A, right. Pp. 25 f.

Poros, covered, like Stele III, with two coats of stucco. Top and sides very badly broken by plough. Most of second coat of stucco gone. Height preserved: 69 cm. Width: 48.5 cm. Width of side borders: 11.3 cm. Width of bottom border: 7 cm. Depth of central panel: 3 cm. Thickness of stele: 22 cm.

Stele IV is very similar to III, except in the greater width of the side borders and the consequent narrowing of the central panel.

**V (KA7).** Stele in "Erosa Shrine." Fig. 2 and Plate 22 C. See also Plate 7 B. Pp. 28 f.

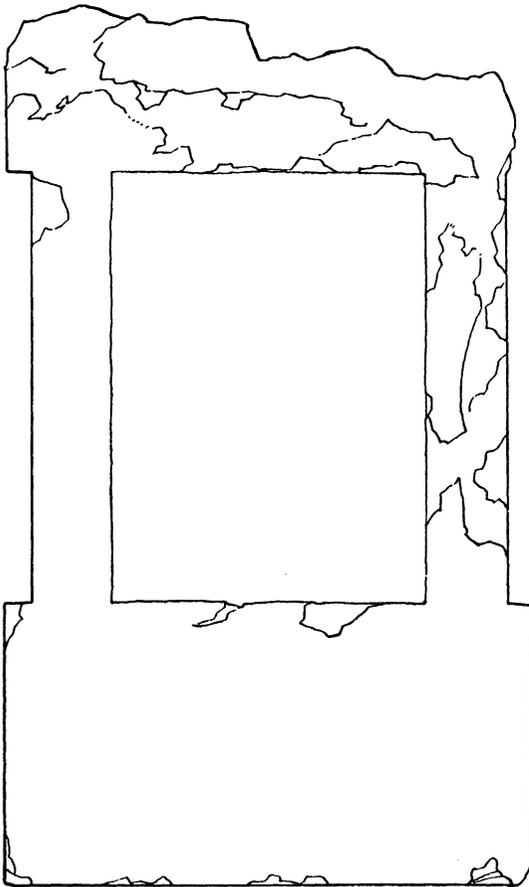


Fig. 2. Stele from the "Erosa Shrine"

Poros, stuccoed on front and sides. Top and left side damaged. Stucco in good state of preserva-

tion. Height preserved: 60 cm. Width (exclusive of projecting borders): 33.8 cm. Width of side borders: 5.3 cm. Width of upper border: 6 cm. Width of bottom border: 20 cm. Projection of upper and lower borders at sides: 1.7 cm. Height of central panel: 29 cm. Depth of central panel: 1.75-2 cm. Depth of upper shelf: 5.5 cm. Thickness of stele: 13-15 cm.

Stele V differs from the preceding stelai in two principal respects. In the first place, the lower border is much wider and gives the effect of a base. The central panel is consequently smaller than usual. An entirely new feature is the chamfering of the rear edges where the stuccoed sides of the stele join the unstuccoed back. The chamfered surface, which is also stuccoed, is *ca.* 4 cm. wide.

**VI (KA8).** Stele from Cistern. Fig. 3 and Plate 22 D. Pp. 27 f.

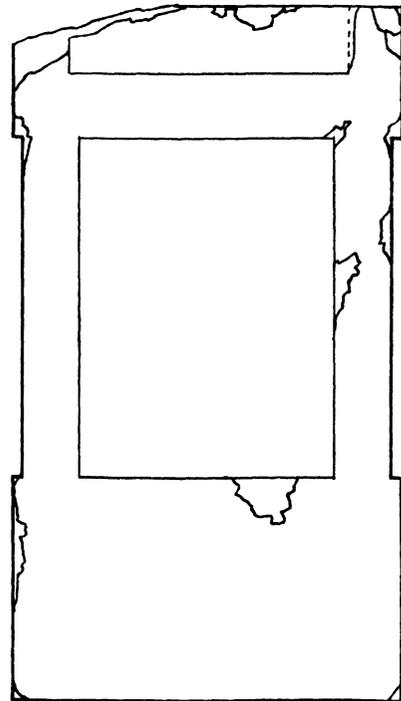


Fig. 3. Stele from the Cistern

Poros, unstuccoed. Upper right-hand corner broken off. Surface slightly abraded. Height: 36 cm. Width (exclusive of projecting borders): 19.5 cm. Width of side and top borders: 3 cm. Width of bottom border: 11 cm. Projection of upper and lower borders at sides: .9 cm. Height of central panel: 17.5 cm. Depth of central panel: *ca.* .75 cm. Depth of upper shelf: 3.8 cm. Width of upper shelf: 15 cm. Thickness of stele: 9.3 cm.

This stele, the smallest and one of the best preserved, resembles the preceding stele very closely, except that the chamfering of the back edges is not repeated. It is uncertain whether the cistern shrine is to be dated in the 5th or 4th century, although there is some indication that it was already dismantled in the late 5th century (p. 28).

**VII (KA9).** Stele in Circular South Shrine. Fig. 4. See also Plate 8 C and D. P. 32.

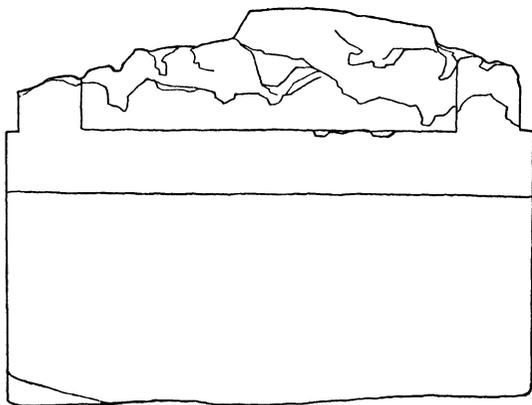


Fig. 4. Stele from the Circular South Shrine

Poros, stuccoed on sides and on front, with the exception of the lower part of the base. Only lower part of stele preserved. Upper edge very roughly broken. Stucco in good preservation. Height preserved: 39 cm. Width at bottom: 48 cm. Width of side and bottom borders: 6 cm. Depth of central panel: 1.8–2.2 cm. Height of base: 19.7 cm. Thickness of base: 14 cm. Projection of lower border over base: .5 cm. Projection of lower border beyond sides of stele: 1.6 cm.

Stele VII presents one new feature: the presence of a base as well as a bottom border. The latter projects slightly beyond the front surface of the base. The transition is not angular, but forms a gentle curve. The deposit of vases and figurines from the Circular South Shrine seems to be of late 5th century date. There is no evidence that the shrine itself is much earlier.

**VIII (KA10).** Earlier Stele in Shrine (Altar Room) of Terracotta Factory. Fig. 5 and Plate 23 B, left. See also Plate 14 A. P. 41.

Poros, stuccoed on front, sides and top. Base not stuccoed. Edges abraded and much of stucco round central part chipped off. Upper part of stele broken off and mended in antiquity. Height of stele (without base): 65 cm. Width: 19 cm. Thickness: 13 cm. Height of upper band: 12 cm. Projection

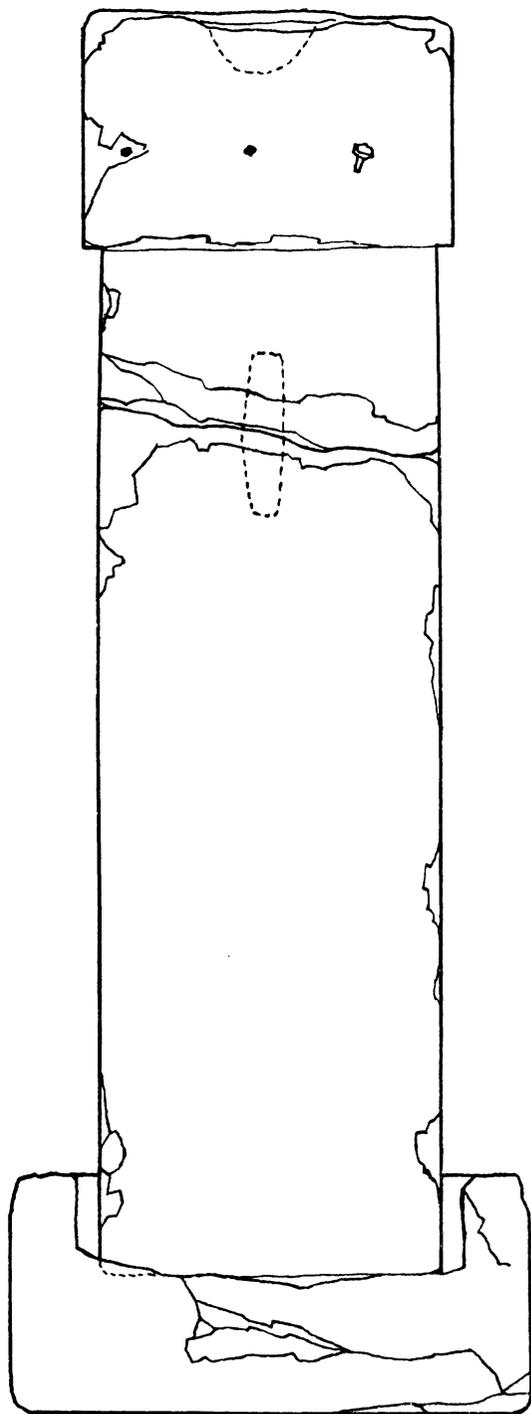


Fig. 5. Stele from the Terracotta Factory

of upper band: 1 cm. Height of base: 12.5 cm. Width of base: 28 cm. Depth of base: 23 cm. Width of raised borders: 3.8 cm. Height of raised borders: 3 cm.

Stele VIII is the only one which consists of two separate parts, a tall, slender pier with a broad,

projecting band at the top, and a separate base on which it rests. A round depression in the center of the top surface of the stele is lined with a layer, 1.5 cm. thick, of pebble cement. In the front surface of the projecting band at the top of the stele appear three nail holes in a horizontal row, at not quite regular intervals. From the hole at the left a small iron nail with a flat head still projects. Below the upper band the stele is broken across in a slanting line. A repair was effected by drilling a deep hole, square in section, in either broken surface and inserting a dowel, probably of wood, as no discoloration can be detected. The two rear edges of the stele are very slightly chamfered.

The base in which the stele rests is rectangular, and wider than it is deep; the top is hollowed to leave a rectangular depression, bounded on the sides and back by a low, raised border. The front edge is much broken, and it is uncertain whether this border was continued also across the front.<sup>57</sup> The stele does not fit accurately into the depression.

This stele, although even simpler than the panelled type, appears to have no counterpart at other sites. The purpose of the three nails on the front is uncertain; perhaps they served to suspend fillets or wreaths.<sup>58</sup> The depression in the upper surface was probably intended for an incense burner. The stele can hardly have had painted decoration, since in the course of the reconstruction of the shrine the raised floor level curtailed the stele to less than half its original height. The stele probably belongs to the earlier period of the Altar Room, hence to Period II of the Terracotta Factory; it is probably to be dated in the late 5th century.

**IX (KA11).** Later Stele in Shrine of Terracotta Factory. The stele may be seen in Plates 10 B and 14 A resting on the top of the west wall of the Altar Room. It is not, of course, *in situ*. Pp. 41 f.

Poros, stuccoed on front and sides down to and including the upper band of the base. Top of stele broken off. Height preserved: 40 cm. Height of base: 21 cm. Width of upper part of stele: 19 cm. Thickness of upper part: 15 cm. Height of upper band of base: 4 cm. Projection of base beyond upper part: 2 cm. Projection of upper band of base over lower: 1.5 cm.

Stele IX seems to be also of a unique type, although we have no evidence to show how it was finished at the top. It presumably belongs to the reconstructed Altar Room and, if so, is later than Stele VIII, although it may have been in use in the earlier period of the room and merely re-used at a higher level in the second period.

**X (KA12).** North Stele in Shrine of Double Stele. Plate 15 B, right. P. 49.

Poros, stuccoed on side and front and on upper surface of base. Back, top and one side of stele broken completely away. Height preserved: 22 cm. Width of upper part: 15.5 cm. Thickness of upper part: 19 cm. Projection of base in front: 4 cm. Projection of base at side: 1 cm. Height of base: 13 cm.

It is impossible to do more than guess at the original shape of this stele. It seems to resemble Stele IX more closely than it does any of the others, and was perhaps, like it, a simple shaft with a rectangular base cut from the same block. How the top of either stele was finished it is impossible to say; perhaps there was a projecting band like that of Stele VIII.

**XI (KA13).** Central Stele in Shrine of Double Stele. Plate 15 A, right, and 15 B, center. P. 49.

Poros, with sides, front of stele, and upper surface of base stuccoed. Upper part of stele broken off nearly down to base. Height preserved: 19.5 cm. Width of upper part: 50 cm. Height of base: 10.5 cm. Projection of base at front and sides: 2 cm. Width of side borders: 11 cm. Thickness of upper part: 19 cm.

Stele XI is again of the type with a recessed central panel, but differs from the others of the same type in that it has, instead of the lower border, a base which projects beyond the front and sides of the stele. The back, as usual, is cut straight and smooth with no projections.

Stelai X and XI, lying entirely below the stratum of votive offerings which were scattered around the large double stele south of them, we may safely assume to antedate these objects (p. 50). How long the stelai of the earlier period remained in use before they were supplanted by the double stele we cannot tell, although the scanty sherds found in the

<sup>57</sup> When the stele was set up in the Corinth Museum, the base was reversed to make the position of the stele more secure.

<sup>58</sup> Fillets (Fairbanks, *Athenian White Lekythoi*, I, pl. II, 1; Hoppin, *Handbook of Attic Red-Figured Vases*, I, p. 11), and occasionally branches (Hoppin, II, p. 219), are frequently represented on vases as hung from altars, apparently by nails. The fillets represented on grave stelai are usually wrapped around the stele (Fairbanks, I, pls. IX, 2, X, 3, and XIV, 2).

earth on which the two earlier stelai rested seem to point to the latter part of the 5th century or the very beginning of the 4th as a possible date for the first period of the shrine.

**XII (KA14).** Large South Stele in Shrine of Double Stele. Fig. 6 and Plate 24 A. The latter shows the stele as it is set up in the Corinth Museum with the altar which was found in front of it. See also Plate 15 A and B. Pp. 49 f.

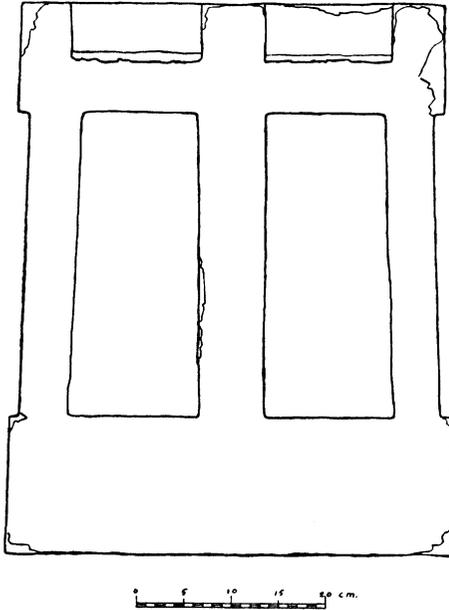


Fig. 6. Stele from the Shrine of the Double Stele

Poros, stuccoed on front and sides. The marks of the broad chisel are very distinct, especially on the sides. Most of the stucco has disappeared, except in the central panels. Surface slightly abraded. Height: 62 cm. Width (exclusive of projecting borders): 43.8 cm. Projection of upper and lower borders at sides: 1.6 cm. Width of side and upper borders: 5.2 cm. Width of lower border: 15 cm. Height of central panels: 36.8 cm. Width of panels: 14 cm. (at bottom) and 12.5 cm. (at top). Width of border down center: 7 cm. Thickness of stele: 12.5 cm. Width of upper shelves: 13.8 cm. Height of shelves: 5 cm. Depth of shelves: 4–5 cm.

This is the sole example of a stele with two central panels instead of a single one. The earliest panelled stelai, those in Stelai Shrine A and Stelai Shrine B, were found in pairs, set close together side by side. In the case of Stele XII, which we have evidence for placing at the very end of the series of stelai, the stonemason, or someone else, has had the idea of combining the traditional pair of stelai into a single one with a double panel.

The central band also divides the upper shelf, as well as the panel. This duplication of panel and shelf in a single stele must indicate that one or both of them are indispensable parts of the stele. If the supposition is correct that the stelai represent offering tables, then it must be the shelf which is the essential and significant member. The date of the double stele is probably somewhere in the first half of the 4th century.

#### OFFERING TABLES

**XIII (KA2).** Offering table. Fig. 7 and Plate 23 B. The latter shows the table as it is set up in the Corinth Museum. Pp. 27 f.

Poros, stuccoed except on back and under surface. Edges chipped. Most of stucco gone. Width: 83 cm. Depth: 31 cm. Height: 22.3 cm. Thickness of walls: 8–8.5 cm. Thickness of shelf: 13.5 cm. Length of depressions on under surface: 22 cm. Width of depressions: 15 cm.

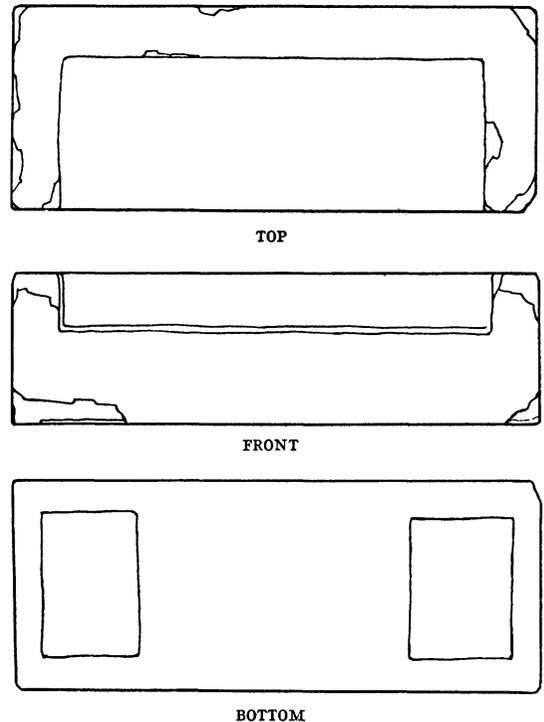


Fig. 7. Offering Table from the Cistern

This table was found, together with an altar and stele, in the large cistern. The two shallow rectangular depressions on its under surface, set about 4 cm. from the edges, are of practically the same dimensions as two piers found *in situ* beside the cistern, probably in an open air shrine. As the distance between the piers (45 cm.) is the same as that between the two depressions on the under side

of the table, there can be little doubt that the piers are actually the supports for the table.<sup>59</sup> No certain date is indicated for the table or the area, probably a shrine, near the cistern.

**XIV (KA19).** Supports of offering table. Plate 7 A. Pp. 27 f.

Poros, with traces of stucco. Tops broken off. Length (front to back): 21 cm. Width: 15 cm. Preserved height (east pier): 50 cm. Preserved height (west pier): 55 cm.

These two piers were found standing just north of the large cistern and are doubtless the supports for the offering table just described, which was found in the cistern.

**XV (KA22).** Supports of offering table. Plate 14 A. P. 41.

Poros, unstuccoed. Tops of both supports broken. South support also broken further down, but pieces still in place. Length (front to back): 23 cm. Width: 14 cm. Preserved height (south pier): 94 cm. Preserved height (north pier): 50 cm.

These piers were found *in situ* in the Altar Room of the Terracotta Factory, and doubtless formed the supports of a table similar to that described above. In size the piers differ slightly from those found near the cistern. The distance between them (41 cm.) was a little less. They belong to the earlier period of the Altar Room (Period II of the Terracotta Factory) and hence may perhaps be dated in the late 5th century.

### ALTARS

**XVI (KA15).** Round altar from cistern. Fig. 8 and Plate 24 B. Pp. 27 f.

Poros, unstuccoed. Upper moulding broken away and missing except for one piece also found in cistern. Abrasions on surface. Upper surface shows traces of burning. Height of altar: 35.9 cm. Height of base: 8.5 cm. Height of base moulding: .8 cm. Height of drum (to edge of fascia): 17.6 cm. Height of fascia and mouldings: 9 cm. Width of base: 27 cm. Length of base: 28 cm. Diameter of drum: 23.7 cm. Diameter of top: 26.3 cm.

The altar consists of a low, square base and a circular drum, cut from the same block; the transition is made by a small cyma reversa moulding.

<sup>59</sup> The supports used in setting up the offering table in the Corinth Museum are modern. Their height was determined by the similar supports in the Altar Room of the Terracotta Factory, one of which was preserved to a height of 94 cm. (incomplete). The supports in the museum are *ca.* 1 m. in height.

<sup>60</sup> The same method of attachment was used in joining the upper and lower parts of the triglyph altar found near the Bouleuterion at Olympia (*Olympia*, II, p. 164, pl. XCV, 8).

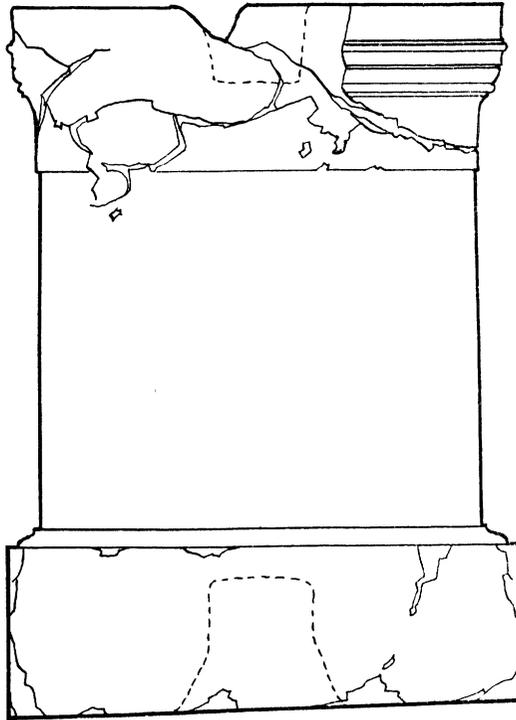
The drum is crowned by a wide, slightly projecting fascia which swells out into a series of mouldings. Above these runs a narrow plain fascia at the very top. The upper mouldings, beginning from the top, consist of a base cyma reversa swinging into a cavetto, an ovolo, an astragal, and an apophyge which curves into the fascia. A deep cutting, 7 cm. square, rather flaring at the mouth, occupies the center of the under side of the altar and is hollowed out almost to the full height of the base. The cutting was probably intended for attaching the altar to a larger base by a wooden dowel.<sup>60</sup> In the center of the upper surface another square cutting, smaller and shallower (5 cm. square and 5.5 cm. deep) than that in the under surface, was drilled through a shallow, square depression, previously existing and differently oriented. A roughly circular area around this cutting shows blackening from fire. The calcination of the surface is probably to be explained by the assumption that an incense burner was used in the square cutting, though the altar is somewhat larger than those usually employed for this purpose.

The finding place of the altar gives us no indication whatever of its date. It probably stood originally in the shrine just north of the cistern; of this shrine nothing survived in place except a large stuccoed block and two supports for an offering table, presumably the one found in the cistern with the altar. The two similar supports found in the shrine of the Terracotta Factory are probably to be dated in the late 5th century. On the other hand, there is some slight evidence which might indicate that the cistern shrine had already been dismantled by the late 5th century.

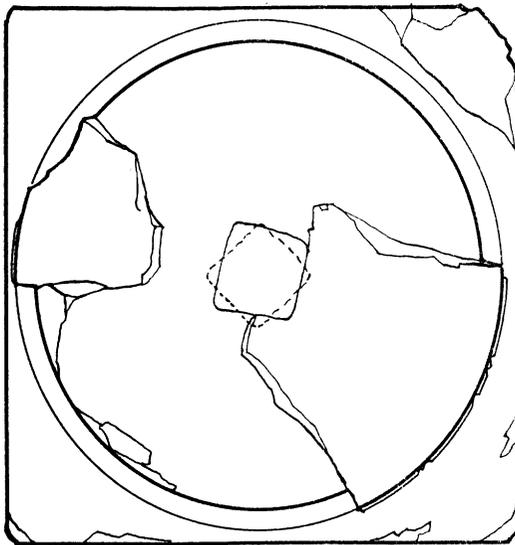
**XVII (KA16).** Rectangular altar with triglyph frieze from shrine (Altar Room) of Terracotta Factory. Fig. 9 and Plate 25 A. Pp. 41 f.

Poros. Few traces of very thin white stucco. Finials of pediments broken off. Minor injuries to surface. Traces of burning on upper surface. Length: 30.5 cm. Width: 26 cm. Height: 23 cm. Height of pediment: 4 cm. Height of upper fascia: 4.3 cm. Height of frieze: 9.3–9.7 cm. Height of lower fascia: 5.3 cm. Thickness of pediment: 3.7 cm.

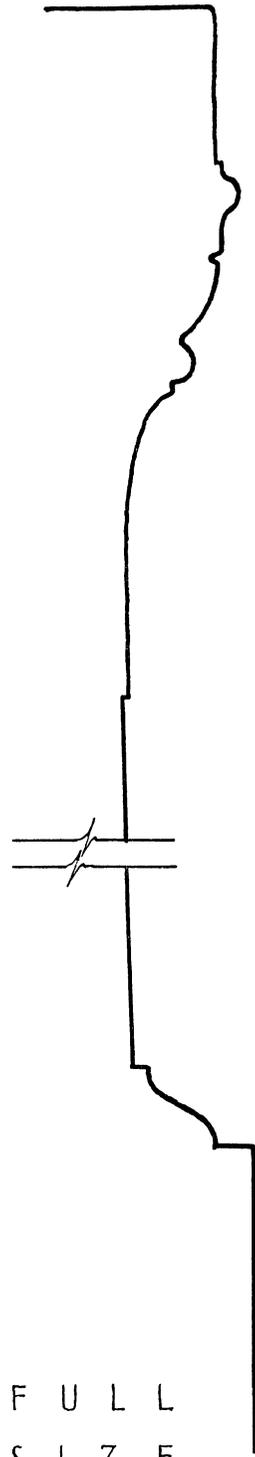
The altar is carved with an upper fascia, a triglyph frieze, and a lower fascia which, on the short sides, is divided into two horizontal bands by a nar-



E L E V A T I O N



P L A N



F U L L  
S I Z E  
P R O F I L E

Fig. 8. Altar from the Cistern

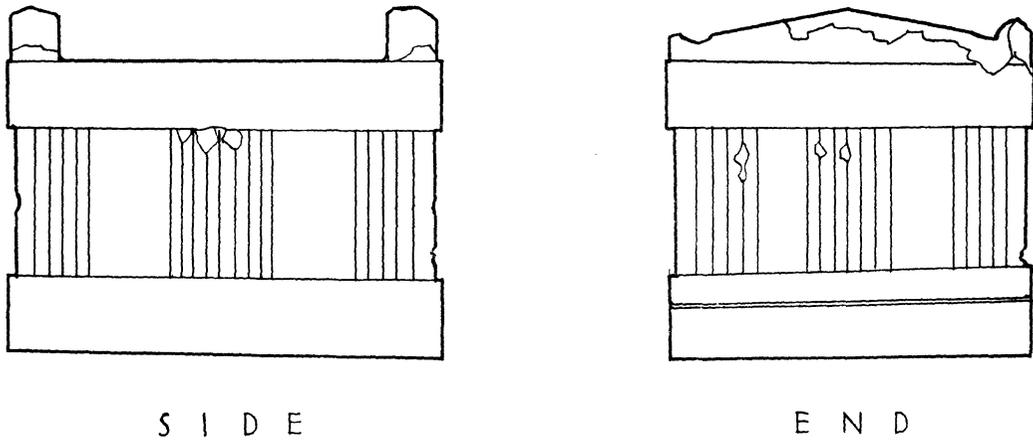


Fig. 9. Altar from the Terracotta Factory

row groove; either end of the altar is surmounted by a low, triangular pediment with a plain face, finished at either end by a sort of finial which is broken in every case too badly for restoration. These finials do not, however, appear to have been very elaborate, but consisted probably of low projections, square in section, and either flat or rounded at the top. On either of the ends are carved three triglyphs which vary slightly in width; these are separated by two metopes, much narrower than the triglyphs and also differing considerably from each other in width. The ridges and the channelings of the triglyphs are sharply triangular in section and end against the fasciae at top and bottom without the use of a heading. The long sides also contain three triglyphs, spaced at about twice the interval of those on the ends. The central triglyph in this case departs from the norm in having four ridges instead of the usual three. This particular adaptation of the design to the space was not strictly necessary. By taking the triglyph of least width on the short end and combining it with the

narrowest metope, the stonecutter could have used four triglyphs on the long sides. The adaptation which he chose is probably preferable, however, as it obviates overcrowding of the design. The calcination of the upper surface proves that the block was used as an altar; in this case the depression for the incense burner is not present.

The altar cannot be dated with absolute certainty; although it was found at the level of the second period of the shrine, it is quite possible that it existed also in the original shrine and simply continued in use after the reconstruction. The altar, then, might be dated at any time from the latter part of the 5th century to the middle of the 4th.

**XVIII (KA17).** Rectangular altar from Shrine of Double Stele. Fig. 10 and Plate 24 A. See also Plate 15 A and B. P. 49.

Poros, stuccoed on all sides, also on inner surfaces of projecting ends. Edges chipped. Part of stucco flaked off. Traces of burning on upper surface. Length: 34 cm. Width: 20 cm. Height of

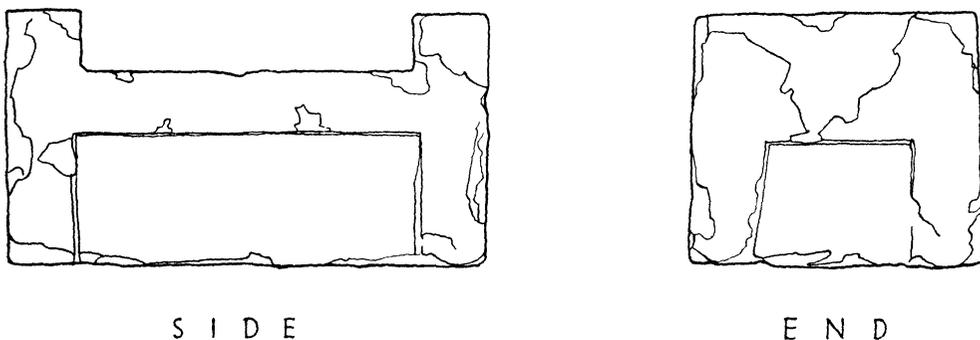


Fig. 10. Altar from the Shrine of the Double Stele

sides: 13.5 cm. Height of ends: 17.5–18 cm. Thickness of projecting ends: 5 cm. Width of side panels: 24.3 cm. Width of end panels: 11–12.7 cm. Height of panels: 9 cm. Depth of panels: *ca.* .75 cm.

The length of this altar is nearly twice as great as the width. The short ends are continued to project above the top of the altar; they are not, however, finished in pediment form, like those of the triglyph altar, but have a horizontal upper line. All four sides of the altar are decorated with rectangular recessed panels which are framed by a broad border on the sides and at the top. The transition from the borders to the sunken areas is formed by a very narrow surface which is bevelled instead of being cut at right angles to the face of the altar, as is invariably the case with the similarly panelled stelai. The end panels narrow slightly toward the top. None of the panels is quite accurately cut.

This type of altar, rectangular with square ends which project above the upper surface, has been found elsewhere, as we have already noted. The decoration of this particular altar, however, is certainly derived from the stelai of the panelled type prevailing in the Potters' Quarter. The altar is probably to be dated in the first half of the 4th century.

#### COLUMN CAPITAL

**XIX** (KA1). Archaic Doric Capital. Fig. 11 and Plate 25 B. For its position when found see Plate 13 A. P. 39.

Poros, with very thin layer of stucco. Complete, except for injury from ploughshares on one side. Total height: 28 cm. Width of abacus: 63 cm. Height of abacus: 10 cm. Height of echinus: 11.5 cm. Diameter of shaft: 33.5 cm.

The capital was found, as has been described (p. 39), built into the east wall of the North Room of the Terracotta Factory. The shaft has sixteen flutes, and there are two annuli at the base of the echinus. The under surface of the capital shows a dowel hole, 4 cm. square and 6 cm. deep. The style of the capital indicates a date in the third quarter of the 6th century.

#### SCULPTURE

**XX** (Corinth sculpture inventory 1473). Siren. Plates 26 and 27 A and B. L. 0.35. H. (base to neck) 0.31. L. of prop: 0.175. H. of prop: 0.105. Thickness of prop: 0.055.

Fine-grained white poros, somewhat weathered. Small injuries to surface. Head, feet, tail missing. Original surface very smoothly finished, as shown by less exposed parts of neck, legs, support, and under side of wings and tail. Wings closed, meeting in ridge along back. Plain wing caps cover shoulders, separated on back by shallow groove. Below wing caps row of short feathers with rounded tips; tips of two highest feathers meet, leaving triangle at point where wing caps join. Row of longer feathers behind, with tips meeting in herringbone pattern along back. Tail feathers indicated only toward end of tail. Head turned to face left. Hair falls on right shoulder in four wavy locks with pointed ends. Right leg set very slightly in advance of left.

From the Rectangular South Pit (p. 31). The figure was obviously intended to be set up so that the left side was visible, as the head was certainly turned in that direction. The slight advancement of the right leg was intended to make both legs

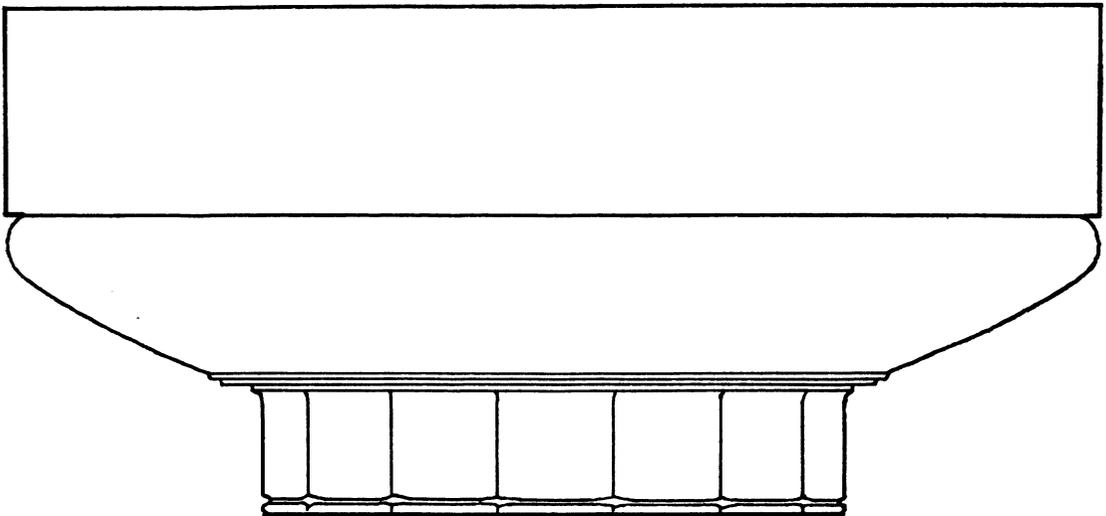


Fig. 11. Archaic Doric Capital

visible in side elevation. The siren is probably to be dated in the second half of the 6th century.

**XXI** (Cor. sculpt. inv. 1386). Hand with kantharos. Plate 27 C and D. W. 0.077. H. 0.054. D. of mouth of kantharos: 0.046.

Fine-grained, white, crystalline marble. Hand and half of kantharos preserved. Stem missing. Finish of upper part of hand very smooth. Surface of under part rough. Very fine chisel marks visible on kantharos. Small round hole in wrist for insertion of dowel. Fingers inside handle of kantharos; thumb lies on outside of handle. Handle, which is broad and flat, rises slightly above lip. Shallow groove indicates line of rim at handle. Rim strongly curved outward. Body of kantharos projects strongly.

Found in Well VI (p. 33). The hand was made

separately and attached to the rest of the figure by means of a dowel in the wrist. The statuette may have represented Dionysos.<sup>61</sup>

**XXII** (Cor. sculpt. inv. 2126). Hand. L. 0.085.

Fine-grained white marble, less crystalline than preceding. Surface worn, but probably originally finished smoothly. Fine parallel chisel scratches on back of hand. Broken at wrist. Top of thumb and last two fingers broken off. Rough projection (broken) on back of hand. Fingers bent across palm; thumb curved and laid across forefinger. Fingers blunt-ended, with nails indicated. Dimple in knuckle.

The rough projection of the back may be part of a piece of drapery. The dimple probably indicates that the hand is that of a woman.

<sup>61</sup> Of the many statues which represent Dionysos holding a kantharos, in most cases the kantharos is a restoration. De Clarac, *Musée de sculpture*, IV, pl. 678 B, no. 1619 C, seems to be an exception. A number of Greek coin types depict Dionysos holding the kantharos. Cf. *B. M. Cat. Coins, Macedonia*, pp. 81-83, nos. 4, 8-10 (from Mende); Imhoof-Blumer, *Monnaies grecques*, p. 38, pl. C, 2 (from Abdera); Seltman, *Greek Coins*, pl. XXXVIII, 6 (from Sybrita in Crete); Head, *Historia Numorum*, p. 725 (from Nagidos). A marble fragment in Boston (Museum of Fine Arts, Boston: Caskey, *Catalogue of Greek and Roman Sculpture*, p. 87, no. 38) representing an arm with the hand holding a kantharos was thought by Amelung (*Jahrbuch*, XLII, 1927, p. 142, note 1) to have come from a marble copy of the bronze ephebe from Pompeii. For the latest restoration of the latter statue, however, see Lehmann, *Statues on Coins*, pp. 15-22.

## CHAPTER III

### Terracotta Figurine Moulds

**A**MONG the most important finds from the Potters' Quarter are the moulds for terracotta figurines. More numerous than from any other Greek site, they comprise one hundred and ten examples, ninety of which are complete or nearly so, and in addition a considerable number of uninventoried fragments. Fifty-six complete moulds and nine of the inventoried fragments were found in a single building, the Terracotta Factory. The range of date is from the 7th century B.C. to the 3rd. The archaic moulds, twenty-two in number, were scattered throughout the excavation. Only about ten 5th century moulds were found; these came from the area of the Terracotta Factory, especially from a small deposit just east of it, and also from the Rectangular Pit at the south end of the excavation. From the various rooms of the Terracotta Factory<sup>1</sup> came the majority of the 4th century moulds, which include over sixty of the total number. A single fragment is of 3rd century date.

Although the manufacture of figurine moulds has often been described, it may be well here to note down the observations to be made from a study of these particular moulds.

#### CLAY

Although the clays employed vary considerably in color and texture, they can all be paralleled in Corinthian vases and terracottas, and there is no reason for supposing that any of these moulds are imported. The clay used in the archaic moulds is invariably very hard and finely grained. As a rule, its color is very light, and comprises various shades of yellow, grayish yellow, green and buff. The clay of the 5th and 4th century moulds is softer and the color range is more often brown, reddish brown and buff. Occasionally in these later moulds a very coarse type of clay is employed, grayish brown in color and full of small pebbles.

#### MAKING OF MOULDS

As a rule, the archaic moulds are heavier, and there are clear indications that the practice at this period was to press into a thick lump of prepared clay, spherical if only for a head, the figurine to be copied, which we may call the model. Evidence for this procedure is to be found in a study of the fingerprints on the backs of moulds. It becomes obvious that the lump of clay was held in the left hand and the model pressed in with the

<sup>1</sup> See pp. 36 f. for an account of the finding of these moulds.

right. The later moulds, however, are almost invariably much thinner and the prints seem to indicate that the clay was held in the right hand. Here the procedure, at least in cases where the mould is for the head alone, and probably in most other cases also, was apparently to wrap a flat disk of prepared clay around the model, which would thus naturally be held in the left hand. This thin first layer was backed with one or two other layers of clay, which sometimes covered the entire back of the mould and sometimes were added only where extra strength was needed, as at the neck, ankles, etc. Where the outer layers have broken away, the fingerprints on the first layer are clearly visible. The backing is usually of the same clay as the inner layer, although occasionally clay of a different color was used.

### FINISHING

In a few cases, bosses were added to the back to keep the mould horizontal while the figurine was hardening in it.<sup>2</sup> The back of the mould was finished smoothly, either by patting with the fingers, as in most of the archaic examples, or, as in later periods, by scraping vertically with a sharp, square-ended instrument. The latter always had in the cutting-edge slight irregularities which made fine scratches in the clay and enable us to measure the width of the edge used (about five millimeters). Occasionally the back looks as if it had been scraped with a stiff brush. In certain cases, the edges of the mould were finished with short, curving grooves. Sometimes these appear to have been made with a brush before the clay dried. Since this finish appears only on edges which would come in contact with the mould for another part of the figurine, we must assume that its purpose was to keep the moulds from slipping apart. The presence or absence of these curving strokes, therefore, is of assistance in determining whether one or two moulds were to be used in making a given figurine.

### METHODS OF TYING MOULDS TOGETHER

On the backs of several moulds, mostly archaic, we find at right angles to the edge incised setting-lines for use when a figure demanded two moulds. These setting-lines served to fit the two moulds together and probably also helped to keep in place the string used to tie them together.<sup>3</sup> In use in the 5th century we find an unusual method of tying two moulds together by boring small holes through the lower corners and the upper edge of either mould and running a string or a wire through.<sup>4</sup> In the 4th century moulds we find neither holes nor setting-lines. In the majority of the figurines of that period only the

<sup>2</sup> Such bosses appear on Nos. 52 (Plate 28) and 97. Those on No. 28 are too small to have been of any use.

<sup>3</sup> This is certainly the case with No. 81 (Plate 28).

<sup>4</sup> The moulds of Greek period found in Egypt often have notches and projections cut on the edges so that when two halves of a mould are joined their edges dovetail together, a much more accurate method than the Greek custom of using setting-lines. Cf. *Catalogue général des antiquités égyptiennes du Musée du Caire*: Edgar, *Greek Moulds*, p. xv.

front was mouldmade and the back was left flat. In the moulds for heads the lower edge is not designed to fit another mould. We must assume, then, that the heads and bodies were made separately and joined afterward. In the two moulds, Nos. 66 and 67 (Plate 41), for the front and back of a jointed doll, the edges are so finished that the two parts do not fit closely together. Moreover, all the dolls from the Potters' Quarter were found split in half, a strong indication that they were actually made in two parts, although the joining doubtless took place before baking.

### INSCRIPTIONS

Fourteen of the moulds have letters on the back (Plate 28). One of these is not included in the following catalogue; it is a fragment with the letter  $\Lambda$  (or  $A$ ). The inscriptions were incised with instruments of varying sharpness, and in one case (No. 68) appear to have been gouged with a small stick. There is occasionally some doubt as to which way the mould is to be held in order to read the letters. This can, however, usually be determined by assuming that the coroplasts were right-handed. If one tries making the same strokes in plasticine or wax, it becomes apparent that the beginning of a stroke tends to undercut the clay slightly and the end of the stroke tends to become somewhat wider and also to push the clay up.

The alphabet employed changes, as we should expect, between the archaic and the 4th century moulds:  $\Pi$  becomes  $\Pi$ , and  $\beta$  becomes  $E$ . The archaic  $\Pi\Lambda$  for  $B$  occurs on No. 81. On the later moulds occur the developed forms:  $\Lambda$ ,  $N$ ,  $\xi$ ,  $\Upsilon$ ,  $\chi$  and  $\Omega$ . The significance of the inscriptions is uncertain. The  $\Pi\Lambda$  of No. 68 may possibly stand for  $\piαιδός$ . The  $\xi\Omega\xi$  of No. 51 looks like the beginning of a proper name. Nos. 66 and 67 have the same letter, but we cannot assume from this that the purpose of the letters is to designate moulds which belong together, since Nos. 51 and 61 both have letters and yet both were undoubtedly single moulds. The inscriptions perhaps designated the owner or, more likely, the workman who made the mould.

The comparison of these moulds and the figurines, from the Potters' Quarter and elsewhere, made from them leads to the following observations.

### MOULDING OF FIGURINES

In the archaic period, the clay appears to be entirely pure and homogeneous and to have been put into the mould all at once and in sufficient quantity to produce a solid figurine. The practice in the 5th and 4th centuries was to put a thin layer of clay into the mould, pressing it with the fingers into all the hollows. Successive layers were then added, sometimes of the same clay and sometimes of inferior clay. In some cases, notably in the seated boy type, the mould was filled solid. Sometimes a slight hollow was left in the back, as in the standing *Kore* type. In many of the reclining figures the backing layer consists of lumps of clay added only at points where the mould was most deeply indented.

In most cases where two moulds were used the clay for the figurine was pressed into either half separately and then the two halves of the mould were joined and tied together. In such figurines we can usually see at the point of junction traces of a suture which has not been completely smoothed down.

### FINISHING

Certain types of figurine, especially the Korai and seated boys, would require nothing further except the trimming of the edges, which might be done while the figure was still in the mould. In the case of the jointed dolls, however, the two halves would have to be joined after removal from the mould, the knees trimmed,<sup>5</sup> the holes pierced and the head attached before baking. In the three figurines found in the Potters' Quarter which were made from No. 25, the projections which in the mould appear under the feet have been removed, and in a figurine, XVII, 10,<sup>6</sup> made from the mould No. 21, much of the base which is included in the mould has been cut away. In some instances, square holes were cut in the backs of the figurines.<sup>7</sup> Handmade details were often added to the figure at this stage.<sup>8</sup>

The figurine which shows best the amount of re-working which might be necessary is XIV, 13, from No. 59 (Plate 40). The base was heightened 0.009 m. and all the details of the body, drapery, kantharos, etc., were very much sharpened, as the tool marks show, after the figurine was taken from the mould. A flat piece of clay was shaped into a curving back to enable the figure to stand. The fingerprints on the edges of the back, where the front is broken away, are an indication that the back was carefully made to fit the front before it was attached. That the back was made in several pieces is clear from the fact that, where it is broken across the shoulders, fingerprints are visible on the surface of the break. Inside the figure, at the junction of the front and back, there are deep gouges where the clay was pressed together to make the join more secure. In the less carefully finished reclining figures, such as the series, XIV, 7, etc., made from No. 58, the join between the front and back is not carefully smoothed off, and the back flares more widely away from the figure, with the result that the right arms of the figurines are usually much too wide and the head much too deep.

### SHRINKAGE

The question of the painting of the figurines does not enter into this discussion, nor does the baking, except for the matter of shrinkage. The amount of the latter varies con-

<sup>5</sup> The ends are square in the mould, rounded in the figurines.

<sup>6</sup> These numbers refer to the forthcoming publication of the Potters' Quarter figurines.

<sup>7</sup> The figurine XVII, 10 (from mould No. 21), evidently had square openings cut in the sides of the chair as well as in the back.

<sup>8</sup> Two reclining figures from the same mould (see XIV, 3) hold handmade phialai, attached in slightly different positions. Poloi, locks of hair, etc., were often added by hand to the archaic mouldmade figures. Mould No. 13 affords a most interesting example of a group of heads from the same mould completed by hand to form different types of figurines.

siderably. It is impossible to compile accurate statistics on the matter, as the figurines are seldom perfectly preserved and we must allow also for the trimming of the figurine after it was removed from the mould.<sup>9</sup> In cases where the discrepancy in size between the figurine and the mould seems too great,<sup>10</sup> we must take into consideration the fact that the moulds were repeated one from another. This procedure is made certain by the fact that we find in other places figurines of types identical with these Corinthian moulds but fabricated from local clay. Between the original figurine from which the mould was taken and the figurines made from a second repetition of the mould, we have four points at which shrinkage would occur. It is hardly remarkable that we find strong discrepancies of size among figurines of identical type.

### CONCLUSIONS

The importance of the figurine moulds from the Potters' Quarter lies not alone in their abundance, although they far outnumber moulds previously found at any Greek site,<sup>11</sup> with the possible exception of Tarentum in Italy.<sup>12</sup> The range of periods they represent, covering four centuries, makes possible an illuminating comparison of changing technical processes, style, etc. The existence on one site of moulds and of figurines from the same moulds offers an unparalleled opportunity for studying the technique of making figurines, and affords particularly important information concerning re-working, finishing, etc. Furthermore, since pottery, figurines and moulds appear together in the same deposits, we have some grounds for believing that the same workmen made both vases and terracottas.

A minor consideration which is not, however, without some importance is the tendency of moulds to be better preserved than figurines. Unless the mould was in actual use for a long time in antiquity, the surface is likely to be better protected than that of a figurine. Small details of hair and features are often well preserved, and in the moulds the nose, normally the first casualty in a figurine, is usually intact.

The fact that so large a proportion of the moulds can be dated fairly closely by coins and other evidence is of considerable importance. The moulds from the deposits

<sup>9</sup> A group of standing Korai from the same mould and the same deposit, KT4-76 to 80 and KT4-83 to 85 (X, 35), were found to vary in height from 0.108 m. to 0.104 m. As the types of clay, which varied considerably in color and hardness, seemed to bear no relation to the amount of shrinkage, the latter was probably determined by the intensity of the heat.

<sup>10</sup> In the case of No. 13, all the figurines from the mould are smaller than the plaster cast, but one or two of them are not much more than two-thirds as large.

<sup>11</sup> Other noteworthy finds of Greek figurine moulds include the following: twelve, in addition to many fragments, from the Athenian Kerameikos (Martha, *Catalogue de figurines en terre cuite du musée de la Société Archéologique d'Athènes*, pp. 36-38); sixteen from Olynthos (*Olynthus*, IV, pp. 92-101, and *Olynthus*, VII, p. 4); fifteen from the Pnyx (*Hesperia*, Suppl. VII, p. 140, nos. 31-34, p. 144, nos. 50 and 51, pp. 146 f., nos. 60-62, p. 148, no. 65, p. 150, no. 80, p. 155, nos. 102-105); forty from the Chersonese, found in one room (Minns, *Scythians and Greeks*, p. 364, fig. 265).

<sup>12</sup> *B.C.H.*, LXI, 1937, p. 442, fig. 1, pl. XXXI; Walters, *Catalogue of Terracottas in British Museum*, pp. 435-438, nos. E 1-41; *J.H.S.*, VII, 1886, pp. 44-50; *Mon. Piot*, XXX, pp. 45-60; Danish National Museum, *Catalogue of the Terracottas*, nos. 399-417.

in the court of the Terracotta Factory are proved by the coins found with them to have been in use as late as the third quarter of the 4th century. This fact is of particular interest as showing that terracottas of 5th century and even archaic types were still being manufactured late into the 4th century. At the same time, the deposits show that a number of new types were making their appearance, notably those drawn from the drama. The very large number of moulds found in these deposits indicates that, although Corinthian pottery production had declined to a very low level by the 4th century, the manufacture of terracotta figurines was still a flourishing industry. The chief interest to be derived from the small group of moulds which can be dated to the second half of the 5th century lies in the fact that they are so surprisingly poor, even though they were made at a time which coincided with the great period of Attic art.

The great beauty of the archaic moulds from the Potters' Quarter gives us much fresh evidence for the excellent quality of Corinthian art in the 7th and 6th centuries. The 5th century moulds indicate, it is true, the low state of this art at the time when Athens was at its greatest, but it is interesting that, bad as they are, they are not imitative. In the 4th century group, we may trace a renaissance of Corinthian art, now fallen strongly under the influence of Athens, but at the same time still preserving much of its native character and style.

IN THE following catalogue the descriptions are generally applicable to the details of the cast, not those of the mould unless it is so stated.

1 (KH1). Archaic female head. Plate 29. H. 0.063. W. 0.036. Left half preserved.

Hard yellow clay. Face of mould and broken edge covered with red paint. Splashes of red on back. High polos. Hair arranged in heavy mass without detail, which forms straight line just above eyebrows. Hangs to shoulders at sides, and was probably finished with square ends. Eyebrow indicated by two thin, parallel, arched ridges. Eye extremely large and shallow, surrounded by thin ridge. Nose large and forms angle with forehead. Extremely short upper lip. Mouth turns down slightly at corners.

Found in the narrow trench dug to contain part of the inner face of the early fortification wall (see p. 14). Most of the pottery from this trench was Late Proto-Corinthian, i.e., of about the third quarter of the 7th century, but its style shows that the mould must be of even earlier date.

The head shows little similarity with Corinthian or other Greek works of art. A study of its characteristics leads us further to the east. One may note certain points of resemblance to Cypriote

heads of an early period, e.g., the earliest heads from Hagia Irini.<sup>13</sup> Common features are the large, almond-shaped eye, outlined by a raised ridge, the downward curve of the mouth, and the short upper lip. Further east we find even closer parallels among the finds from Nimrûd. Particularly close is an ivory which represents two female figures back to back.<sup>14</sup> The shape of the eye and its disproportionate size, the extremely short upper lip, and the downward curving line of the mouth are very similar. The representation of the eyebrow by two thin parallel lines (incised in the Nimrûd figure, ridged in the figurines made from our mould) is a striking feature in both, and is found also on other heads from Nimrûd.<sup>15</sup> Since the mould is definitely of Corinthian clay, there can be no question of importation. It may have been made by a foreign workman, perhaps a Phoenician, or more probably by a Corinthian artist, working under the direct influence of imported works of art.

It is not easy to assign a definite date to the mould. One may, of course, find fairly close counterparts for the face in eastern art of a much earlier

<sup>13</sup> Cf. *Swedish Cyprus Expedition*, II, pl. CLXXXIX.

<sup>14</sup> Poulsen, *Orient und frühgriechische Kunst*, p. 42, fig. 27.

<sup>15</sup> British Museum, *Excavations at Ephesus*: Hogarth, *The Ancient Artemisia*, pl. XXIX, 2 and 8; *Iraq*, II, 1935, pl. XXV, 2 (right).

period.<sup>16</sup> On some of the early Cretan bronze shields, one may see the use of a double line for the eyebrow.<sup>17</sup> The head of the sphinx on one of these shields, the so-called "snake shield," has in addition the large eye, the curved nose with the downward bent tip, and the short upper lip. The style of the mould may also be compared with that of a bronze head from the Bernardini tomb at Palestrina.<sup>18</sup> This bronze is probably of Phoenician origin and datable in the first half of the 7th century.<sup>19</sup> In view of its affinities with these early objects, our mould probably should be dated at least as early as the early 7th century. It thus appears to be the earliest preserved example of a Greek terracotta figurine mould.

**2 (KH4).** Archaic relief of female figure. Plate 29. H. 0.059. W. 0.054. Left side of face and top of head broken off. Lower part broken off half way down thighs.

Hard yellowish gray clay. Hair in long, horizontally ribbed masses with square ends, falling in front of shoulders. Ear well placed, but lies flat on front surface of hair. Face triangular in outline. Eye large and circular with heavy lids. Large mouth with full lips. Hands very large with long fingers. Close-fitting garment with edge of neck and sleeves not indicated. Waist encircled by wide belt.

The mould is, fortunately, supplemented by a relief, found at Perachora,<sup>20</sup> which was made from

it. The relief lacks the head, which is partly supplied by the mould, but gives us the entire lower part of the body. The mould is very closely related in style to a relief, XXI, 1, from the Potters' Quarter. The head of the mould also shows affinities with two other heads from Perachora.<sup>21</sup>

An attempt to date the mould leads us to a comparison with two well-known works of art, the Cretan statuette from Auxerre<sup>22</sup> and the bronze kouros from Delphi,<sup>23</sup> also assigned by some writers to Crete.<sup>24</sup> In the mould and in the statuette from Auxerre, we may compare the similar shape of the body, with the close-fitting garment and the broad, tightly pulled belt, and also certain details of the face, particularly the long, rather square chin and the full lips. This statue is dated by Rumpf<sup>25</sup> at about 650 B.C., by Jenkins<sup>26</sup> at about 645-640 B.C.

The bronze kouros, it seems to me, is even closer to our mould. The upper part of the body is strikingly similar; in both the shape is that of a broad triangle with the apex at the waist. In both figures the neck is short, the shoulders are broad, heavy, rounded, and sloping rather than square, and the waist is small and encircled by a wide belt. The resemblance is not as strong in the head as in the body, but we may note in both the triangular outline of the face and the rather similar modelling of the large, full-lipped mouth.

The style of the Delphi kouros head has been compared<sup>27</sup> with that of the heads on the Chigi

<sup>16</sup> Compare the face of the attendant in a relief from Sendschirli (Königliche Museen zu Berlin, *Ausgrabungen in Sendschirli*, IV, pl. LXVI). The face in the relief is considerably shorter in proportion to its length and also deeper from front to back, but one may compare the large eye, the downward bent tip of the nose, the extremely short upper lip, the downward curved mouth, and the full, slightly receding chin.

<sup>17</sup> Kunze, *Kretische Bronzereliefs*, pls. 2 and 5. A dating entirely within the 7th century for the Cretan shields, which were dated by Kunze from the end of the 9th century to the beginning of the 7th, is suggested in *B.S.A.*, XXXIX, 1938-39, pp. 52-64.

<sup>18</sup> *Memoirs of the American Academy in Rome*, III, 1919, pl. 54, 1.

<sup>19</sup> Poulsen, *Orient*, pp. 64 f. Cf., however, Kunze, *op. cit.*, p. 279, and *Ath. Mitt.*, XLV, 1920, pp. 147 f.

<sup>20</sup> *Perachora*, pl. 103, no. 187.

<sup>21</sup> *Ibid.*, pl. 88, nos. 16 and 18.

<sup>22</sup> *Mon. Piot*, XX, pls. I and II.

<sup>23</sup> *Fouilles de Delphes*, V, pl. III.

<sup>24</sup> Payne in *Necrocorinthia*, p. 233, note 3, and Jenkins in *Dedolica*, p. 46. Lamb in *Greek and Roman Bronzes*, p. 75, suggests a possible Corinthian origin. Buschor in *Plastik der Griechen*, p. 16, calls it Peloponnesian. I myself have been unable to see that the head of the Delphi kouros and that of the Arkhanes head vase (*Dedolica*, pl. VI, 1) are "in style virtually identical" (*ibid.*, p. 46). Between the head of the kouros and that of the terracotta mask from Halai (*Hesperia*, IX, 1940, p. 424, fig. 76) there is an even wider gap, although the Arkhanes vase and the Halai mask are obviously works of closely related style. The small eye is the most un-Corinthian feature of the kouros, but this feature is occasionally found in Corinthian heads, e.g., in a mould from the Potters' Quarter, No. 4. The nose of this mould, moreover, in profile strongly resembles that of the kouros.

<sup>25</sup> *Jahrbuch*, XLVIII, 1933, p. 59.

<sup>26</sup> *Dedolica*, p. 63.

<sup>27</sup> Von Lücken in *Ath. Mitt.*, XLIV, 1919, p. 58, pl. I, 2; Kunze in *Ath. Mitt.*, LV, 1930, p. 162.

vase, dated by Payne<sup>28</sup> about 650–640 B.C. Both the Auxerre statuette and the Delphi kouros must be dated fairly early in the third quarter of the 7th century, and the mould from the Potters' Quarter is close enough to them in style to be of the same date.

**3** (KH5). Archaic female head. Plate 29. H. 0.047. W. 0.031. Right half preserved. Top of head and lower edge broken off. Break in front of neck.

Red clay. Hair hangs to shoulder in long, horizontally ribbed mass with square end. Face triangular in outline. Eye full and prominent.

The arrangement of the hair, the triangular shape of the face, the full lips and the shallow, nearly circular eye connect this head with the preceding in style, and doubtless also in date. A figurine from the Potters' Quarter, VIII, 4, shows a very similar treatment of the hair; the full, protruding eyes may also be compared.

**4** (KH2). Archaic male head. Plate 29. H. 0.044. W. 0.028.

Light gray clay. Long, narrow face. Small, superficial eyes with protruding eyeballs and very heavy lids. Nose large, strongly salient and blunt at tip. Straight mouth with protruding upper lip. Chin massive. Close-fitting cap worn low across forehead; double flaps at either side end just below ears.

The head covering is possibly a helmet, but more likely a skin cap of some kind. A similar cap, completely covering the hair, is worn at least once by a rider on an Early Corinthian vase.<sup>29</sup> In style the head may be compared with a series of heads first associated by Kunze,<sup>30</sup> which begins with the Geometric terracotta head from the Amyklaion and ends with the bronze kouros from Delphi. These heads are characterized by a sharply jutting nose, protruding lips and a sharp-angled chin. To this

series may now be added the cauldron attachment since discovered at Olympia.<sup>31</sup> Hampe<sup>32</sup> takes up Kunze's group, assigning them in general to considerably later dates. In his chronology the Amyklaion head falls at the end of the 8th century, the bronze attachment from the Acropolis<sup>33</sup> in the first quarter of the 7th century, and the Boston cauldron attachment<sup>34</sup> in the second quarter. Hampe's dates, if correct, bring these heads down to a period where they may reasonably be compared with our mould, which they undoubtedly resemble in certain respects.

In profile the mould shows very strong resemblances to the Delphi kouros,<sup>35</sup> notably in the shape of the nose and the outline of the lower lip and upper part of the chin.<sup>36</sup> The profile of the nose is also very closely paralleled in a female head from Sparta.<sup>37</sup> In front view the mould shows certain points of likeness to the Mycenaean metope head,<sup>38</sup> particularly in the modelling of the mouth and of the eyes and brows. The style of the head may also, in some points, be compared with that of two heads from Perachora.<sup>39</sup> The mould is probably to be dated in the third quarter of the 7th century, and is of particular interest, since sculptured male heads are practically unknown in Corinthian art of that period.

**5** (KH12). Archaic female head. Plate 29. H. 0.056. W. 0.036. Left half preserved. Surface somewhat worn, as mould was found lying on surface of field.

Yellowish brown clay. Front hair combed forward from top of head in series of curls which end low over forehead. Hair at sides hangs behind ears. High polos, set well back on head. Eye prominent. Ear large and flat.

The low, horizontal line of the hair across the forehead, the protuberant eye, small nose and flat

<sup>28</sup> *Necrocorinthia*, p. 272.

<sup>29</sup> Cf. Payne, *Necrocorinthia*, fig. 18 C. The cap is an exact parallel for that represented on our mould. In both cases the side flap is double, and its lower edge slopes downward from front to back. A separate fillet passes around the head and secures the cap. The arrangement is exactly that of the Arabian *kaffiyeh*, and probably served the same purpose of protecting the back of the neck from the rays of the sun.

<sup>30</sup> *Ath. Mitt.*, LV, 1930, pp. 141–162.

<sup>31</sup> *Jahrbuch*, LII, 1937, Bericht über die Ausgrabungen in Olympia, pp. 72–76, pl. 21, figs. 34 and 36.

<sup>32</sup> *Frühgriechische Sagenbilder*, pp. 32–38.

<sup>33</sup> *Ibid.*, pl. 31, 3; pl. 40, 3.

<sup>34</sup> *Ibid.*, fig. 16.

<sup>35</sup> *F. de D.*, V, pl. III; de la Coste-Messelière, *Delphes*, fig. 10.

<sup>36</sup> We must remember that the chin of a mouldmade terracotta head cannot be undercut, unless it is reworked after removal from the mould.

<sup>37</sup> *B.S.A.*, XXXIII, 1932–33, pl. 9, 3.

<sup>38</sup> *Corolla Ludwig Curtius*, pl. 9, 2.

<sup>39</sup> *Perachora*, pl. 88, nos. 16 and 18.

cheek all suggest a date in the 7th century, probably in the third quarter. The arrangement of the front hair in curls over the forehead is found on many other works of about that period, e.g., the Auxerre statuette,<sup>40</sup> the Mycenaean metope head<sup>41</sup> and the Chigi vase.<sup>42</sup> In the treatment of the hair the mould is particularly close to a mould from Kameiros<sup>43</sup> and to the heads on a bronze cuirass said to come from Olympia.<sup>44</sup>

**6** (KH3). Archaic female head. Plate 30. H. 0.031. W. 0.011. Right half preserved. Broken off below chin.

Pinkish buff clay. Hair straight with strands indicated by few narrow grooves; parted in middle, drawn back of ears and hangs to shoulders in horizontally ribbed mass. Eye large, shallow and nearly circular, with high arched brow, heavy lids and well-marked tear duct. Mouth wide. Ear small and placed too near eye.

Found in the North Dump (p. 13), in which a large proportion of the pottery was Late Proto-Corinthian and Early Corinthian. The date probably lies in the last quarter of the 7th century. A comparison may be made with the drawing of the male heads on the Eurytios krater.<sup>45</sup> The straight hair is a rather unusual feature, which is found also in two figurines from the Potters' Quarter, IX, 10, and XII, 2.

**7** (KH8). Archaic female head. Plate 30. H. 0.061. W. 0.041. Left half preserved.

Very hard grayish yellow clay. Back covered with fingerprints. Hair parted in middle and scalloped over forehead, probably with smaller scallop at either side of central parting; hair falls behind ear in thick mass marked by vertical grooves. Upper eyelid strongly arched and lower nearly straight.

<sup>40</sup> *Mon. Piot*, XX, pl. I.

<sup>41</sup> *Corolla Ludwig Curtius*, pl. 9, 2.

<sup>42</sup> Payne, *Protokorinthische Vasenmalerei*, pls. 27 and 28. Compare particularly the hair of the full-front sphinx on the middle frieze.

<sup>43</sup> *B. M. Cat. Terracottas*, p. 99, fig. 22. Compare also the hair of a figurine from Kameiros (*ibid.*, fig. 21).

<sup>44</sup> *Olympia*, IV, pl. LIX.

<sup>45</sup> Payne, *Necrocorinthia*, pl. 27.

<sup>46</sup> *Perachora*, pl. 107, nos. 228–230.

<sup>47</sup> Payne, *Necrocorinthia*, pl. 48, 12 and 15.

<sup>48</sup> *Ibid.*, pl. 48, 11; *C.V.A.*, Great Britain 9, Oxford 2, III c, pl. VII, 9.

<sup>49</sup> *C.V.A.*, Great Britain 6, Cambridge 1, pl. VI, 3. This vase is dated (p. 15) in the late 7th century, but seems more likely to belong to the Middle Corinthian period.

<sup>50</sup> Payne, *op. cit.*, pl. 48, 1–4.

<sup>51</sup> *Bull. Metrop. Mus.*, XXXI, 1936, p. 105, fig. 1.

<sup>52</sup> Cf. Payne, *op. cit.*, p. 155, fig. 64, C and D.

<sup>53</sup> Payne and Young, *Archaic Marble Sculpture from the Acropolis*, pl. 9, 3, and pl. 10, 1–3.

Flat cheek. Lips thrust forward and slightly smiling. Deep depression under lower lip. Large ears, placed too low.

This fine type is probably to be dated in the first quarter of the 6th century. Three heads from the Potters' Quarter, IX, 2 and 3, and KT9–36, are identical with the mould in every respect, except that the jaw seems to be wider than that of the mould. The first two heads, possibly the third also, seem to have come from pyxides. Three heads from Perachora<sup>46</sup> are also extremely close in style, and it is not impossible that two of them (229 and 230) could have been made from this mould. We may compare the mould and the figurines made from it with a head from a Middle Corinthian pyxis in the British Museum.<sup>47</sup> The modelling of the eye in this head is obscured by paint, but we may compare other features, such as the high triangle of the forehead, the modelling of the ear, and the shape of the nose and of the mouth and chin. The resemblance between the mould and the heads on a pyxis in Oxford<sup>48</sup> is very striking; in fact, it seems highly probable that the heads on this vase were made from our mould. One may compare also a head on a plastic vase in Cambridge.<sup>49</sup> The mould must be dated near the end of the Middle Corinthian period; it is obviously of later style than the heads on the Berlin pyxis.<sup>50</sup> Other heads which are somewhat similar in style, but of later date, may be seen on a pyxis in New York.<sup>51</sup> That this vase is of the Late Corinthian period is shown by the form of the lotos flowers in the main frieze.<sup>52</sup> A certain similarity, particularly in respect to the shape of the eye and the flatness of the cheek, may be noted between our mould and a later Attic head.<sup>53</sup>

**8** (KH9). Archaic female head. Plate 30. H. 0.037. W. 0.054. Broken across top of head.

Yellowish buff clay, inferior in quality to that of the other archaic moulds. Mould ends in straight line across breast. Hair in irregular mass without detail. Eyes small and narrow. Wide, upward curved mouth with deep depression under lower lip. Round, heavy chin.

The modelling of the face, particularly of the lower part, is very similar to that of No. 7. A figurine, VIII, 32, made from the mould shows that the arrangement of the hair in this mould was exactly the same as that of No. 7. The lack of sharpness and the blurring of detail, especially in the hair, make it possible that the actual mould is later than the type it portrays and perhaps represents a repetition of the original mould. This supposition would account also for the discrepancy in technique between this and other archaic moulds, i.e., the unusual thinness and the inferior clay. From its shape it is evident that the mould was originally intended for making pyxis heads. The one head from this mould which has survived belongs, however, to a complete figurine. There is some reason to suspect that this figurine also is much later than its style would indicate. The original mould-type is probably not far removed in date from No. 7, though it might be slightly later.

**9 (KH7).** Archaic female head. Plate 30. H. 0.049. W. 0.029. Left half preserved. Lower edge chipped.

Light brown clay. Attempted repair<sup>54</sup> in antiquity; black paint applied to broken edge, but also runs over nose, mouth and neck. On back one or two splashes of red paint. Hair scalloped over forehead and finely incised to indicate strands. Thick mass of hair, square in section, falls to shoulder from behind ear; has wide horizontal ribs and traces also of fine vertical grooves. Eye large, with thick, clearly cut lids. Eyebrow sharply modelled.

The mould was found in the Shrine of the

Double Stele, but obviously cannot be contemporary with the 4th century deposit in that shrine. The modelling is done with extreme care, that of the brows and eyes, in particular, being unusually delicate and sure. A figurine from the Potters' Quarter, XXI, 4, to which a flat plaque of clay was attached to make it a relief, is perhaps from the mould, although the cracking of the clay and the consequent blurring of the features in the relief have made it difficult to compare all the details of the two. Another figurine, IX, 8, is of very similar style.

The mould, the head, IX, 8, and the relief, XXI, 4, all form a closely homogeneous group with several heads from Perachora.<sup>55</sup> Of these, no. 89 is perhaps closest to IX, 8, and no. 75 to XXI, 4. The heads of this group are characterized by several distinctive features: the large, widely opened eye and strongly curved eyeball; the rather salient nose, usually with a sharp-edged bridge; a mouth of peculiar shape, with the upper lip of nearly the same thickness as the lower, and the extreme ends of the lips slightly turned upward; a very short chin; and an arrangement of the hair with a small shallow scallop at either side of the central parting, deeper scallops over the rest of the forehead, horizontally ribbed side hair falling behind the shoulders, and extremely fine incised lines running parallel to the edge of the hair over the forehead and vertically on the side hair. The polos is worn low over the hair.

The group is probably to be dated in the second quarter of the 6th century. The combination of red and orange-brown paint on the relief could hardly occur later in the century, and it is rather surprising to find it even as late as the second quarter. A very similar arrangement of the hair, with the small scallop at either side of the central parting and the deeper scallops below, is found on both Attic<sup>56</sup> and Corinthian<sup>57</sup> heads of about the same

<sup>54</sup> The mould, if once broken, would hardly have been serviceable for making any number of figurines. Probably the two halves were temporarily stuck together in order that a cast might be taken and another mould made.

<sup>55</sup> *Perachora*, pl. 93, no. 75; pl. 94, no. 89; pl. 108, no. 233. Pl. 94, no. 85, may also be compared, particularly with IX, 8.

<sup>56</sup> Payne and Young, *Arch. Marble Sculpt.*, pl. 9, 1, 3, 4, and pl. 11; Brunn-Bruckmann, *Denkmäler griechischer und römischer Sculptur*, pl. 66 A; Heberdey, *Altattische Porosskulptur*, pp. 18-20, fig. 7 (variously dated, but probably to be assigned to the second quarter of the 6th century); *Gaz. Arch.*, XII, 1887, pl. 11. In the Lyons kore (Payne and Young, *op. cit.*, pl. 24) and in a kouros from Mt. Ptoön (Richter, *Kouroi*, pl. LXIX, fig. 244) the center is marked by larger rather than smaller scallops.

<sup>57</sup> Payne, *Necrocorinthia*, pl. 48, 12; Curtius, *Antike Kunst*, II, 1, fig. 258; *C.V.A.*, Great Britain 9, Oxford 2, III c, pl. VII, 9; three terracotta heads, VIII, 35 and 36, and IX, 6, from the Potters' Quarter; probably the mould No. 7 from the Potters' Quarter; *Bull. Metropol. Mus.*, XXI, 1936, p. 105, fig. 1; *A.J.A.*, X, 1906, p. 425, fig. 4; a plastic vase in the Metropolitan Museum (21.88.8); *Festschrift Loeb*, pp. 91-94, pl. XII, a bronze protome from Tarentum, published as Spartan, but which I believe to be Corinthian (to be further discussed in the forthcoming publication of the Potters' Quarter figurines).

period, and occasionally on contemporary works which are neither Attic nor Corinthian.<sup>58</sup> It is only rarely found at either earlier or later dates.<sup>59</sup>

**10** (KH6). Archaic female head. Plate 30. H. 0.065. W. 0.051.

Hard pinkish buff clay. Mould unusually thick, even for archaic period. Face long, pointed, and concave in profile. Chin and nose very prominent. Long, narrow, superficial eyes. Lips strongly curved upward. Hair parted in center and scalloped over forehead; finely grooved to indicate strands.

This head differs markedly from other Corinthian terracotta heads in the narrowness of the jaw and the striking concavity of the profile. It has certain features in common with heads which may be dated toward the end of the second quarter of the 6th century. The profile of the mouth and chin shows a certain similarity to that of the Apollo of Tenea.<sup>60</sup> The narrowness of the jaw is paralleled in an Attic head,<sup>61</sup> probably of about the same date, which is related to the Volomandhra kouros<sup>62</sup> and to a head of a kouros from Aegina.<sup>63</sup> The shape of the mouth in the latter head is very similar to that of the mould. The greater softness of the modelling and the narrowness of the eyes indicate that the mould cannot be as early as the second quarter of the sixth century. It probably belongs in the third quarter, and doubtless near the end of that period. The treatment of the eyes is rather like that of Acropolis korai of about the end of the third quarter and the beginning of the last quarter of the century.<sup>64</sup>

**11** (KH11). Archaic female head. Plate 30. H.

<sup>58</sup> Compare, for example, the Nike of Delos (Brunn-Bruckmann, *op. cit.*, pl. 36), the Karyatids of the Knidian Treasury at Delphi (*F. de D.*, IV, pl. XXVI) and a head from Thasos (*Jahreshefte*, XI, 1908, pl. I).

<sup>59</sup> Compare the head of Hera from Olympia (*Olympia*, III, pl. I), usually dated at the beginning of the 6th century, but rather plausibly dated at the end of the first quarter of the 6th century in *A.J.A.*, XLIX, 1945, pp. 74–80; the head of the Louvre comast (Payne, *op. cit.*, pl. 48, 14, and *C.V.A.*, France 12, Louvre 8, pl. 4, 3, where the details of the hair are perhaps better seen), datable toward the end of the first quarter of the 6th century; a terracotta head from Perachora (*Perachora*, pl. 108, no. 226), dated by Jenkins at *ca.* 590 B.C.

In the second half of the 6th century it occurs in the Acropolis kore 671 (Payne and Young, *op. cit.*, pl. 43, 1) and in Sicilian terracottas (*Jahrbuch*, LII, 1937, Bericht über die Ausgrabungen in Olympia, pls. 26 and 27; Quarles van Ufford, *Les terres-cuites siciliennes*, fig. 62; *Mon. Ant.*, XXXII, 1927, pls. XXXV, 1, LI, and LII, 3; *Mon. Piot*, XIX, pl. III). An arrangement with two small scallops at the center and the rest of the hair in large spirals is found in the kouros of Anabysos (*B.S.A.*, XXXVI, 1935–36, pl. 4) and a terracotta head from Agrigentum (Marconi, *Agrigento*, p. 156, fig. 88).

<sup>60</sup> Curtius, *Antike Kunst*, II, 1, fig. 259.

<sup>61</sup> *Bull. Metrop. Mus.*, XVII, 1922, pp. 148–150.

<sup>62</sup> 'Εφ. 'Αρχ., 1902, pls. 3 and 4.

<sup>63</sup> Deonna, *Apollons archaïques*, no. 73.

<sup>64</sup> Compare Payne and Young, *Arch. Marble Sculpt.*, pl. 43, 1, and pl. 55.

0.045. W. 0.035. Broken around edges. Surface much worn.

Yellow clay. Back covered with fingerprints. Hair parted in middle, waved over forehead with finely incised strands, and ribbed horizontally on part which falls to shoulders. Eyes small and round. Chin massive.

Whether or not this is a mould for making pyxis heads, it is impossible to say definitely. The poor preservation also makes the date hard to determine, but I should suggest the middle of the 6th century. The eyes are unusual in that the lids were modelled as thin raised ridges in the mould. Their outlines in the figurines hence would be sunken instead of raised, as one would expect. This uncommon feature may also be seen on a figurine head, IX, 6, from the Potters' Quarter.

**12** (KH17). Archaic female head. Plate 30. H. 0.038. W. 0.028. Edges chipped.

Yellowish brown clay. Hair in small scallops over forehead. Eyes small and encircled by thin raised ridges. Wide mouth and heavy chin.

The condition of the mould makes it nearly impossible to assign a date to it. It may be contemporary with the preceding.

**13** (KH10). Archaic female head. Plate 31. H. 0.049. W. 0.036. Left half preserved. Back of head broken away.

Pale yellowish gray clay. Mould ends in straight line across breast. Hair finely scalloped over high forehead and falls in three long, thin, horizontally grooved locks over shoulder. Eye large, flat and prominent. Mouth curved upward at ends.

The fact that the mould includes not only the head and neck, as is usual, but also part of the breast probably indicates that it was designed for making heads for pyxides. Heads from this mould, or from an identical one, are numerous in the Pottery Quarter and have also been found outside Corinth. They are particularly interesting as showing the number of different uses heads from a single mould might have.

- 1) IX, 12. Pyxis head. Mass of clay added at back.
- 2) IX, 11. Pyxis head. Clay added to lower part of bust. Top of head flattened to receive rim of pyxis.
- 3) VIII, 43. Head probably from figurine. Smaller than rest. Originally had mass of clay applied to back and top of head.
- 4) VIII, 41. Head attached to handmade seated figure. Elaborate handmade polos added.
- 5) XXI, 6. Head from relief. Handmade polos added.
- 6) VIII, 42. Head used twice in group of two handmade female figures seated side by side. Handmade poloi added.
- 7) VIII, 44. Fragment, of unknown purpose.
- 8) XIII, 2. Head of male rider with handmade body. The moulded locks of hair over the shoulders have been worked off and replaced by slashed incisions at the sides of the neck. The head is not certainly from this mould, but is of nearly identical style.
- 9) Pyxis head from Perachora.<sup>65</sup> Clay added to lower part of bust. This head is the best preserved of the entire series.
- 10) Pyxis head from the Argive Heraion.<sup>66</sup>

The style is closely paralleled by that of a figurine from Skillous,<sup>67</sup> dated by Oikonomos in the second half of the 6th century. The shape of the face is the same, the short, broad chin, the smiling mouth and the arrangement of the hair. The Skillous figure, however, is larger in scale. The kind of eye which we find in this mould-type, long, flat, projecting from the surface of the face and with no indication of detail, is not uncommon in the second half of the 6th century. It occurs in Sicilian terracottas,<sup>68</sup> and in the head of Perseus<sup>69</sup> on the metope

from Temple C at Selinos. In Attic sculpture it is characteristic of the more poorly executed heads of the last quarter of the century.<sup>70</sup>

Two of the figurines listed above (4 and 5) were found in Trench J (p. 16), an area which yielded many figurines, mostly datable around the middle of the 6th century, although a few were either earlier or later. From its style the mould-type can hardly be dated before the middle of the century nor, on the other hand, does it seem necessary to place it very late in the third quarter of the century.

**14** (KH14). Very small archaic female head. Plate 31. H. 0.026. W. 0.026. Top of head broken off.

Hard yellow clay. Figure ends in straight line across breast. Eyes flat and prominent. Hair hangs in solid mass to shoulders.

The mould was undoubtedly intended for making heads for pyxides. It can hardly be of very early date. The style is somewhat similar to that of the preceding. Its small size, however, should place the mould even later in the third quarter of the 6th century. Its style is somewhat like that of a group of heads from Perachora.<sup>71</sup>

**15** (KH13). Small archaic female head. Plate 31. H. 0.038. W. 0.035.

Fine, hard grayish yellow clay, similar to that used in No. 7. Head slightly turned to left and bent downward. Left shoulder included in mould; modelled in impressionistic manner with five vertical strokes of broad-edged instrument. Eyes long, slanting and extremely narrow. Hair parted in middle and encircled by narrow fillet which ends in tassel on right side. Hair very finely scalloped, with strands indicated by extremely delicate incised lines. Below fillet these incisions run parallel to edge of hair; on top of head they run at right angles to fillet.

The extraordinary delicacy of detail in this head does not appear to advantage in a photograph, and it is doubtful whether many of the finer lines would have impressed themselves very sharply on any figurine made from the mould. Since the

<sup>65</sup> *Perachora*, pl. 107, no. 236.

<sup>66</sup> *B.S.A.*, XXXII, 1931-32, pl. 16, 7. The reference to pl. 16, 6, in the text of the article (p. 39) must be incorrect. The reference to *Argive Heraeum*, II, pl. LXVI, is certainly incorrect. Possibly pl. LXI, 19, is intended.

<sup>67</sup> *Αρχ. Έφ.*, 1931, p. 51, fig. 31, 5.

<sup>68</sup> Compare *Mon. Ant.*, XXXII, 1927, pl. XLVIII.

<sup>69</sup> Charbonneaux, *Sculpture grecque archaïque*, pl. 23.

<sup>70</sup> E.g., Payne and Young, *Arch. Marble Sculpt.*, pl. 49, 1, and pl. 56.

<sup>71</sup> *Perachora*, pl. 93, nos. 77 and 79.

face is inclined downward, it was impossible, if the head was to be extracted with ease from the mould, to cut the neck back to its normal depth. This gives a rather false impression of the modelling of the chin. In the figurines themselves, however, the necessary alterations would doubtless have been made by hand.

The long, narrow, slanting eyes may be compared with those of Acropolis korai of the beginning of the last quarter of the 6th century,<sup>72</sup> although the eyes of the mould are of even more exaggerated length. The treatment of the hair is better paralleled on even later korai, of the end of the 6th century or early 5th.<sup>73</sup> In these figures, however, the eyes, although very narrow, are not slanting, as in the mould, and the lids of the Euthydikos kore are, moreover, much heavier than those of the mould. In the latter statue the corners of the lips are turned downward, while those of the mould are still smiling. The mould must be somewhat earlier than the Euthydikos kore, and should probably be dated in the late 6th century rather than in the 5th.

The purpose for which the head was intended is not at all clear. The turning of the head in a different direction from the body would be nearly impossible for a human figurine of the archaic period. It is possible that the mould was intended to form part of a sphinx, except that in the mould the shoulder is definitely represented, while the shoulder of a sphinx is normally concealed by the wing. Another possibility is that the complete figurine was represented as in motion<sup>74</sup> or in a grouping with another figure which might motivate a turn of the head.<sup>75</sup> In any case the departure from the usual strict frontality of archaic Corinthian art is most surprising.

**16** (KH15). Left arm of male figure. Plates 28 and 31. L. 0.099. W. 0.045. Part of upper end broken off.

Red clay. Mould ends in straight line across upper arm. Back of hand only represented; fingers would be included in second mould for inside of arm. Slight hollow just above elbow bone. Large muscle of forearm indicated. Modelling careful but very heavy. Back of mould has small round depression at upper end. Two short grooves on either side

at edge of mould are probably setting-lines used in tying two halves of mould together. Arm, therefore, was probably made in one piece, though two moulds were used. On back, incised inscription: Γ 9.

The cutting of the arm below the shoulder may possibly indicate that it was meant for an *ex-voto*, but it is more likely to be one part of a large figure which required several different moulds. Compare Nos. 25, 86 and 87, where the arms were intended to be made in separate moulds and added to the figure. In these cases also the arm begins a little below the shoulder.

**17** (KH16). Right leg of male figure. Plates 28 and 31. H. 0.075. W. 0.03. Mould for rear half of leg only. Broken off above knee. Break at left side of foot.

Hard yellow clay. Heel, ankle bones, and muscles of calf very well modelled. Back of mould has two incised setting-lines at edges nearly opposite each other, indicating, as before, that a second mould was used for the front of the leg, but that the leg was actually made in one piece. On back, two large letters, roughly cut: ΗΞ (aspirated ε or η).

The style of the modelling, particularly the heaviness of the proportions, as well as the archaic form of the inscription, put this mould well back into the 6th century.

**18** (KH18). Female head. Plate 31. H. 0.037. W. 0.027.

Reddish brown clay. Hair in vertically ribbed mass over forehead and covering ears. Eyes large and shallow with high-arched brows. Chin very large. Mould formed of a thin sheet of clay which, contrary to the usual procedure in archaic moulds, the koroplast wrapped around the original model instead of pressing the model into a lump of clay. Two depressions on back show where clay was pressed with fingers around neck.

This head, as well as the following, resembles the type used for kore figures in all periods after the middle of the 6th century, and is, therefore, impossible to date exactly.

**19** (KH19). Female head. Plate 31. H. 0.04. W. 0.037.

<sup>72</sup> Payne and Young, *Arch. Marble Sculpt.*, pl. 43, 1; pl. 50, 1-3.

<sup>73</sup> Compare *ibid.*, pls. 74 and 85.

<sup>74</sup> Cf. Langlotz, *Frühgriechische Bildhauerschulen*, pl. 48 a; Richter, *Sculpture and Sculptors of the Greeks*, fig. 87.

<sup>75</sup> Compare the Theseus and Antiope group from Eretria (*Antike Denkmäler*, III, pls. 27 and 28).

Pinkish buff clay. Low polos. Chin broad and square.

**20** (KH54). Head of Kore. Plate 31. H. 0.025. W. 0.019.

Hard reddish buff clay. Low polos. Face long and narrow. Eyes large, but not modelled in detail.

This mould was probably intended for making heads for figurines of the kore type. The color and hardness of the clay point to a date perhaps as early as the late 6th century, when this type of figurine first began to be popular.

**21** (KH20). Large female figure, and fragment from separate mould for back. Plate 32. H. (front mould) 0.183. W. 0.109. Depth of base: 0.062. Broken off above shoulders. Upper left side of body broken away. H. (back mould) 0.079. W. 0.065. Average thickness of walls: *ca.* 0.01.

Reddish buff clay. Upper part of body nude. Heavy mass of folded drapery falls from right shoulder, crosses lap and ends beside left knee in  $\Sigma$ -shaped incised swallow-tail fold. Lower part of drapery drawn tightly over legs with no indication of modelling. Three scratched lines cross front, just above feet, and curve upward at sides as far as knees. Feet large, with toes roughly indicated. Right foot slightly in advance of left. Square seat, solid at sides, with front edge slightly concave. Feet rest on flat square footstool which appears to be part of chair. Under entire figure base swells out widely and somewhat irregularly. Fragment of back of mould comprises part of right side of chair and curved base below.

This mould is particularly interesting for two reasons: first, for the technical evidence which it affords and, secondly, because it can be dated fairly closely.

The edges of both moulds, except the bottom, are finished with curving grooves, undoubtedly to keep the two parts of the mould from slipping apart too easily. Small holes were punched diagonally through the corners of the moulds, and front and back were apparently held together by threading a string, or wire, through these holes and tying it. The holes were probably made with a wire, and seem to have been bored from the bottom, since here a deep groove shows where the side of the wire was pressed into the clay to gain leverage.

In the Potters' Quarter also was found a fragment of a figurine, XVII, 10, made from this mould. In this fragment we can see to what extent re-working was necessary after the figure was taken from the mould. The grooves around the bottom of

the skirt were probably scratched more deeply. The greater part of the flaring base was trimmed off. The sides of the figurine stop just behind the front edge of the chair, and the edges are here finished off smoothly, except for a broken surface at the bottom which indicates that a bar of clay was left to give the figure support at the sides. If we compare the large rectangular openings at the sides and back of another seated figurine from the Potters' Quarter, XVII, 4, we are led to the conclusion that the figurine fragment already mentioned (XVII, 10), complete with sides and back when it came from the mould, in the process of re-working had large squares of clay cut from the sides and back of the chair.

In this case we have considerable evidence as to date. The mould itself came from a small deposit (p. 45) of mould fragments found just east of the Terracotta Factory. Although nothing was found with the mould to afford any evidence of date, the figurine, on the other hand, came from the datable deposit in the Rectangular South Pit. This, as is shown elsewhere (p. 31), can be dated in the late 5th century. The mould must, therefore, be either contemporary or earlier. That the former is the case seems probable from the fact that very similar mould fragments were found in the pit (see No. 24) and several of these had diagonal tie-holes of the same kind as those of No. 21. It is rather surprising to find, at that particular period when Greek art was supposedly at its best, a figure so poorly modelled and badly proportioned, but, while figurines of traditional types were still being successfully made in Corinth in the 5th century, most attempts at innovation, such as this one, ended in failure.

**22** (KH21). Upper back of large seated female figure. H. 0.097. W. 0.079.

Red clay. Includes back (draped) from shoulders to seat of chair. Edges finished with curved grooves.

From the same deposit.

**23** (KH22). Back of large seated female figure. H. 0.185. W. 0.079. Upper left side broken away.

Pale grayish buff clay. Very similar to preceding. Figure probably draped. Seated on chair. Edges finished with curved grooves. Diagonal tie-holes pierced through lower corners. Hole pierced through mould at upper edge, near right side.

From the same deposit.

**24** (KH23). Five fragments of large draped female figure (or figures).

Yellowish brown clay. (*a* and *b*) Two fragments with drapery folds indicated. (*c*) Fragment with curved lines on edge and diagonal hole pierced through corner. (*d*) Fragment, probably from side of chair, with similarly finished edge and horizontal hole bored through corner. (*e*) Fragment, probably from different figure from rest, possibly representing lower part of back of chair.

From the Rectangular South Pit.

**25** (KH87). Standing female figure. Plate 33. H. 0.085. W. 0.046. Broken off across shoulders. Left edge much broken.

Red clay. Buff slip. Forearms not included in mould. Weight on left foot; right knee slightly bent. Clinging chiton, belted at waist, with overfold falling to hips. Separate little base under either foot.

From the Terracotta Factory. Three figurine fragments from this mould were found in the Potters' Quarter;<sup>76</sup> one, XVII, 18 (Plate 33), will be published in a forthcoming volume. These show no re-working except that the projections under the feet have been trimmed off.

**26** (KH24). Head of old man. Plates 28 and 33. H. 0.045. W. 0.041. Part of lower edge broken off.

Inner layer of red clay, backed by thick layer of buff clay. Head slightly conical; bald except for slight fringe on top and over ears. Three deep wrinkles across center of forehead and two vertical ones between eyes. Very heavy, sharply peaked brows and deep-set eyes. Lower lids more prominent than upper. Eye itself marked by tiny raised circle, easily made by scratching line on mould. Pouches indicated under eyes. Nose large, somewhat aquiline, and slightly inclined to left. Cheeks sunken, with heavy jaws and high, prominent cheek bones. Lines drawn from nose to corners of mouth. Lips turned downward at corners. Short, clipped moustache. Chin rather short but projects strongly. Ears large. On back of mould incised letters: VΔ (υδ or δυ, although the first letter may possibly be a λ). Very fine incision at left side may be setting-line; corresponding line on right broken away.

The date of the mould is not easy to determine. Though found near the Terracotta Factory, it is not from one of the large deposits of moulds, but was an isolated find from the area south of the

building and from a fairly high level. It is not, then, necessarily contemporary with the majority of the Terracotta Factory moulds, which belong in the 4th century. As a matter of fact, most of the objects found in the south area could be assigned to the late 5th century. Two technical details also seem to point to a date earlier than the 4th century. In the first place, the clay was not wrapped around the model, as is the case with the majority of our 4th century moulds, but the model was pressed into a thick lump of clay, with the result that the walls of the mould are quite thick. Moreover, the presence of setting-lines on the back usually indicates a date earlier than the 4th century.

The style of the mould presents further difficulties. At first one is struck by the appearance of extreme realism and by the portrait-like quality of the face. Closer study reveals the fact that the effect is gained, not from the accurate delineation of the features of a particular person, but from the use of conventional methods of representing old age—the bald head, wrinkles, hollow eyes, sunken cheeks, etc. There are, of course, many examples of this type of portraiture.<sup>77</sup> In the mould the very realistic effect is largely gained by the deliberate asymmetry of the features. The right eyebrow is higher than the left and the eye larger; the pouch under the right eye is larger, that under the left more deeply wrinkled. The nose is bent a little to one side.

There seem to be no close parallels for this head. In Greek portraiture examples of a moustache without a beard do not seem to exist. In the Mausolos portrait,<sup>78</sup> of course, we have an example of a moustache with only a slight beard. There is, however, no indication, outside of the lack of a beard, that our mould might represent a barbarian type. Though it would be unusual, it would be possible that the beard was left to be added by hand in the figurine, and we must probably assume that such was the procedure followed in this case.

A few Greek portrait heads, mostly datable in the early 4th century, are faintly reminiscent of the mould. The rendering of the eyes (not the brows) in the mould, with the pouches underneath and the wrinkles at the outer corners, is somewhat similar to that in the Lysias head in Naples.<sup>79</sup> The head of an unidentified man in Rome<sup>80</sup> may also be mentioned. The modelling of the cheeks is com-

<sup>76</sup> No exact parallel elsewhere, but compare Winter, *Typen*, I, p. 78, no. 2.

<sup>77</sup> Cf. Hekler, *Greek and Roman Portraits*, pls. 13, a and b, 25, 27 b.

<sup>78</sup> *Ibid.*, pls. 37 and 38.

<sup>79</sup> *Ibid.*, pl. 26.

<sup>80</sup> *Ibid.*, pl. 27 b.

parable; the bald head has a slightly conical outline, though far less pronounced than in the mould. The head which is perhaps closest of all is that of a statue in the Vatican,<sup>81</sup> sometimes identified as Lycurgus. One may note here also the conical shape of the head, far less accentuated than in the mould, with the tuft of hair on top. One may compare in both the wrinkle across the bridge of the nose, the straight grooves on the surface of the moustache, and the fact that one eye is modelled quite differently from the other. The nose of the statue is a restoration, but enough is preserved to show that it was strongly salient, like that of the mould.

The mould from the Potters' Quarter is of considerable interest in the field of Greek portrait sculpture on account of its probable early date and the vigor of its style. The intention in the mind of the artist seems to have been to create a realistic representation of a human face, not that of a particular person but of a type, and to depict not only the features but the soul behind them. The result is an astonishingly powerful study of old age, empty and disillusioned.

**27** (KH25). Head of lion. Plate 33. H. 0.045. W. 0.036.

Hard pinkish buff clay. Back covered with fingerprints. Very small ears, close to head. Broad forehead with mane in low relief between ears. Eyes small and rather sketchily indicated. Two punched holes for nostrils, asymmetrically placed. Forehead and nose modelled in more detail than appears in photograph. Roof of mouth marked with broad gouges of some rounded instrument. Lower lip, under tongue, shows series of smaller gouges, perhaps to suggest teeth. Mould very thick; model pressed into lump of clay. On back three depressions of varying depth show position of lump in fingers while model was being pressed in.

From Deposit 8 of the Terracotta Factory. I am inclined, however, to think that its date may be somewhat earlier than that of the rest of the deposit, perhaps the early 4th century or late 5th. The clay, hard and somewhat pinkish, closely resembles that of the earlier moulds. Moreover, the clay employed was not a thin sheet wrapped around a model, but a heavy lump into which the model was pressed.

The mould represents a rather more benign

type than is commonly found among Greek lions. In certain respects it may be compared with a statue in New York,<sup>82</sup> although the entirely different treatment of the eyes gives the two heads a totally dissimilar expression. The New York lion is dated at about 400 B.C. The lions of the Nereid monument,<sup>83</sup> which our mould also resembles to a certain degree, are of about the same date.

**28** (KH26). Large female mask. Plate 32. H. 0.156. W. 0.146. Thickness of walls: 0.009.

Warm buff clay, with fine polished slip of same clay. Raised ring encircles base of broad polos. Veil hangs from sides of polos to bottom of mould, covering shoulders and upper arms, and is draped at either side in  $\Sigma$ -shaped swallow-tail fold. Hair worn low over forehead and covering ears; arranged in deep scallops. Center of each scallop deeply indented. Eyes only faintly indicated. Short mouth with heavy lower lip. Cheeks full and chin very heavy. Edge of garment indicated in slight relief round base of neck. Modelling of breast slightly indicated. Small hands, asymmetrically placed on breast. Two roughly conical bosses on back of mould at shoulders, apparently with object of keeping mould in horizontal position, but in actuality bosses are too low for mould to rest on them.

From Deposit 4 of the Terracotta Factory. Masks of more or less similar type are, of course, extremely common. They readily divide themselves into two groups. The East Greek and Sicilian masks form one group, which does not concern us here. The Greek mainland group comprises two or three separate types which differ in detail but agree in two respects: the shape of the figure, which ends at the waist and is broad across the bottom, and the pose with the hands raised to the breast. These masks have been found at many sites in Greece, Asia Minor, the islands and South Russia.

Masks which are identical in all details with our mould have been found at various sites on the mainland. All except those from Aetolia (no. 5) and Ithaca (no. 6) were probably made from the Potters' Quarter mould.

1) A mask in Berlin<sup>84</sup> (Antiquarium 7528), the provenance of which is given as Corinth.

2) A mask, mentioned by Winter in connection

<sup>81</sup> Brunn-Arndt, *Griechische u. römische Porträts*, no. 432.

<sup>82</sup> Richter, *Animals in Greek Sculpture*, figs. 20 and 25.

<sup>83</sup> Brunn-Bruckmann, *Denkmäler*, no. 219.

<sup>84</sup> Winter, *Typen*, I, p. 249, no. 1.

with the preceding, then in a private collection in Corinth, now doubtless lost.<sup>85</sup>

3) A mask from the Asklepieion at Corinth (83), and possibly also another fragment (1206) from the same site.

4) Fragments of at least five or six similar masks from the deposit in a cave at Pitsa in the Corinthia. As the figurines in the deposit were undoubtedly imported from Corinth and the date of the bulk of the deposit lies in the 4th century, there is every possibility that these masks were actually made from our mould.

5) A mask from a small Aetolian shrine near Thermon.<sup>86</sup> From the description this appears to have been slightly smaller in size and probably made of local clay. The details, as far as one can judge from a photograph, are exactly the same as in the mould and the difference in size may be easily explained. The Aetolian koroplast doubtless imported a mask of this type from Corinth, made from it a mould, and began the production of similar figurines. The discrepancy in size between the original mould and the Thermon figurine is, therefore, explained by the fact that in this process there is a double chance of shrinkage.

6) A head from a mask found at Ithaka.<sup>87</sup> This is similar in scale to the mould and the mould-type appears to be identical. The clay is said to be red, and the mask was probably therefore of local manufacture.

7) A fragment of a mask found at Olynthos.<sup>88</sup> Although the reference given as a parallel in the publication is to a mask of purely Attic type,<sup>89</sup> the fragment resembles our Corinthian mould far more strongly. It clearly wears a polos, not the veil alone, as does the Attic mask. We note also the heavy ring encircling the base of the polos. The hair of the Attic mask is distinctly arranged in "layers," while the hair of the Olynthian fragment and the Corinthian mould is deeply scalloped along the edge with alternating ridges and grooves which run back under the polos. The fragment is too small to be identified with certainty as from our mould, but it is at least extremely close.

The provenance of our mould shows that it

was in use in the third quarter of the 4th century. It is, moreover, in perfect condition and so little worn that we must assume that it was made not long before that period. Obviously the type itself goes back into the previous century and this discrepancy raises a very interesting point. The figurines from the Potters' Quarter afford much evidence that the manufacture of various types of archaic and even "primitive" figurines continued into the 5th and 4th centuries. There can be no difficulty, then, in accepting the fact that masks of this fine type were still being produced after the middle of the 4th century, giving the type a probable life of nearly a hundred years. Since it is impossible that the same mould could have been in use for that length of time, we must assume that the present mould is the last of a series made by casting one mould from the preceding. The fact that the details are not as sharp as one would expect in a 5th century figurine type is the inevitable result of the process of repetition, and affords strong evidence that such repetition took place.

A mask from Myrina forms an interesting parallel for the discrepancy between style and context. Although of 5th century style, it was found in a tomb with objects said to belong to the second or first century B.C. (Pottier and Reinach, *La nécropole de Myrina*, pp. 386 f., pl. XXVII, upper center). It is improbable that a mask could have been preserved for four hundred years. It is more likely that certain types of figurine continued to be made for a very long period of time.

**29** (KH27). Female head. Plates 28 and 33. H. 0.052. W. 0.04. Part of surface of back gone. Piece missing at side of neck.

Pale pinkish buff clay. Oval face with rounded chin. Modelling of mouth destroyed by break. Hair in heavy mass rolled at sides over narrow fillet. On back, broken away in part, inscription: MO (or possibly NIO), cut with very pointed instrument.

From Deposit 4 of the Terracotta Factory. The arrangement of the hair, with the sides tucked over a fillet, is not uncommon,<sup>90</sup> especially in the late 5th century. A break in the clay makes it

<sup>85</sup> Published in *B.C.H.*, III, 1879, p. 33, no. 5. The flower in the left hand was probably assumed by Martha from the position of the fingers.

<sup>86</sup> *Αρχ. Δελτ.*, VI, 1920, p. 78, fig. 11, 2.

<sup>87</sup> *B.S.A.*, XXXIX, 1938-39, pl. 20, no. 56.

<sup>88</sup> *Olynthus*, IV, pl. 3, no. 13.

<sup>89</sup> Winter, *Typen*, I, p. 237, no. 1.

<sup>90</sup> Köster, *Griechische Terrakotten*, pl. 37, affords a close parallel. Compare also Stackelberg, *Gräber der Hellenen*, pl. LXXVII, 3; Winter, *Typen*, I, p. 86, no. 9 (from Corinth); and Kekulé, *Terrakotten von Sicilien*, pl. XV, 7. *Hesperia*, Suppl. VII, p. 141, fig. 57, no. 37, from the Pnyx, is also similar in style.

doubtful whether the letters on the back of the mould are to be read as  $\nu\iota\omicron$  or  $\mu\omicron$ ; the latter, however, seems much more probable.

**30** (KH28). Female head with hair in knot. Plate 33. H. 0.06. W. 0.045. Right side of face much broken.

Soft red clay. Face very round, with great breadth across eyes and unusual height of forehead. Eyes and brows slope downward at outer corners. Hair in knot over forehead. Surface of hair varied by shallow grooves of irregular shape and depth. Heavy pendant earrings, probably in form of bunch of grapes. Necklace consists of row of round beads above row of small pointed pendants. Head very slightly tipped to left.

From Deposit 3 of the Terracotta Factory, hence to be dated at least as late as the middle of the 4th century, a date confirmed by the style. The high knot of hair over the forehead was in vogue in the 4th century, and there seems to be little evidence for it in the 5th century. The necklace is related to types common in the 4th century,<sup>91</sup> and the grape earrings are paralleled on a bronze mirror relief from Corinth,<sup>92</sup> probably datable in the third quarter of the 4th century.

The closest parallel for the mould is a terracotta head from Kyrenaika in Madrid.<sup>93</sup> The knot is very similar, and also the arrangement of the hair at the sides, partly covering the ears; we may compare also the heavy earrings, the large chin and full lips, and even the downward droop of the eyebrows and upper eyelids. A very similar arrangement of the hair appears in a terracotta head from the cave at Vari.<sup>94</sup> Another head, illustrated in

Stackelberg,<sup>95</sup> resembles the mould in respect to the knot over the forehead, the round face and heavy chin, the short, full mouth, and again in the slight downward slope of the eyes. A head in the Sabouroff Collection<sup>96</sup> shows resemblances to our mould in the outline of the face and the slope of the eyes, as well as in the knot of hair over the forehead. The same type of coiffure is found on semi-nude figures<sup>97</sup> which are obviously of 4th century date, on grave reliefs<sup>98</sup> of the period around the middle of the 4th century, on 4th century vases,<sup>99</sup> and on bronze mirrors of about the third quarter of the 4th century.<sup>100</sup>

For the style we may also compare a large terracotta bust from Agrigentum.<sup>101</sup> The knot over the forehead is not represented, since the figure wears a polos. The hair is, however, worn over the ears, as in the mould, and the necklace is of similar type. Also strongly reminiscent of the mould are the outline of the face, the broad jaw, the shape of the mouth, and the downward slope of the eyes. The Agrigentum bust has been dated at the end of the 5th century from its similarity with the heads on Syracusan coins of that period, but our mould is certainly considerably later.

**31** (KH29). Female head with knot over forehead. Plate 34. H. 0.05. W. 0.039.

Soft, light brown clay, with thin slip of same clay. Features and shape of face very similar to preceding. Forehead lower, narrow depression under brow slightly deeper, lips somewhat less full, neck shorter, downward slope of eyes even more pronounced. Hair very similar, except that modelling is done with sharper instrument and less skilfully.

<sup>91</sup> Cf. Marshall, *Catalogue of Jewellery, Greek, Etruscan and Roman, in British Museum*, pl. XXXIV, 1948, and pl. XLII, 2190-2191; *Jahrbuch*, XXIX, 1914, Arch. Anz., p. 258, fig. 82. Compare also the following figurines on which similar necklaces are represented: Marconi, *Agrigento*, fig. 114; Stackelberg, *Gräber der Hellenen*, pl. LVIII; Panofka, *Antiques du cabinet du Comte de Pourtalès-Gorgier*, pl. II (left).

<sup>92</sup> Züchner, *Griechische Klappspiegel (Jahrbuch, Ergänzungsheft XIV)*, p. 72, fig. 34. Compare also *B. M. Cat. Jewellery*, pl. XLII, 2157 a.

<sup>93</sup> Laumonier, *Catalogue des terres cuites du musée archéologique de Madrid*, pl. XXXIV, 1.

<sup>94</sup> *A.J.A.*, VII, 1903, pl. XI, 2.

<sup>95</sup> *Op. cit.*, pl. LXXVII, 1. For the arrangement of the hair, compare also pl. LXIII, 1.

<sup>96</sup> Furtwängler, *Sammlung Sabouroff*, II, pl. 132, 3. This head was placed on a figurine from Thisbe to which it probably does not belong.

<sup>97</sup> Cf. Winter, *Typen*, I, p. 85, no. 7, and p. 86, no. 6 (from Corinth); Winter, *Typen*, II, p. 110, no. 4; Königliche Museen zu Berlin, *Ausgewählte griechische Terrakotten*, pl. XV; *Collection Lecuyer*, I, pl. R (from Megara).

<sup>98</sup> Conze, *Attische Grabreliefs*, I, pl. 68 (no. 290) and pl. 83 (no. 334); Diepolder, *Attische Grabreliefs*, pl. 44.

<sup>99</sup> Cf. Schefold, *Untersuchungen zu den Kertscher Vasen*, figs. 24, 76, 77, 225.

<sup>100</sup> Züchner, *Griechische Klappspiegel*, p. 18, fig. 5, and p. 72, fig. 33 (both from Corinth).

<sup>101</sup> Marconi, *loc. cit.*

Planes of hair tend to run into planes of face. Earrings similar; necklace single line of small round pendants with pointed ends.

From Deposit 2 of the Terracotta Factory, and obviously of the same date as No. 30.

**32** (KH<sub>30</sub>). Female head with knot over forehead. Plate 34. H. 0.04. W. 0.035.

Hard grayish yellow clay. Mould made in two distinct layers. Face slightly less broad than preceding. Features very indistinct. Hair in heavy mass around face; surface treated with very fine, shallow vermiculations.

From Deposit 4 of the Terracotta Factory. The type resembles that of the two preceding heads and forms a link between them and the two which follow.

**33** (KH<sub>31</sub>). Female head with knot over forehead. Plate 34. H. 0.038. W. 0.034.

Hard yellow clay. Hair in heavy mass around face and over ears, with large round knot over forehead. Hair at sides ribbed in herringbone pattern; surface of knot irregularly gouged. Large pendant earrings. Chin heavy, but outline of face less rounded than that of Nos. 30 and 31. Neck extremely broad, but in figurines must have been trimmed after removal from mould.

From Deposit 4 of the Terracotta Factory. This and the following mould were perhaps intended for making heads of jointed dolls. For the type we may compare a head from Elateia,<sup>102</sup> which is quite similar and shows the same herringbone pattern in the hair. The head from Elateia is closely connected with a large group of figurines<sup>103</sup> which I believe to be Corinthian. This group consists of seated female figures, probably all from the same mould, but holding in their hands varying attributes. Our mould is not identical with this type, but the points of resemblance are too numerous to be ignored.

**34** (KH<sub>32</sub>). Female head with knot on top. Plate 34. H. 0.039. W. 0.032.

Yellow clay. Nearly identical with preceding, except that face is slightly rounder, features more

blurred, and knot over forehead is plain ball without indication of detail. Back of mould scraped with vertical strokes of broad instrument.

From Deposit 4 of the Terracotta Factory. A head from the Asklepieion at Corinth (T.F.26) is of very similar style but, since it is slightly larger than the mould, cannot have been made from it. The width of the tool strokes on the back of this mould is about the same as those on the back of No. 31, although the slight irregularities in the edge of the tool show more clearly in this case.

**35** (KH<sub>33</sub>). Female head. Plates 28 and 34. H. 0.057. W. 0.048. Surface not well preserved.

Soft grayish brown clay and slip. Hair in thick mass covering ears, and treated in naturalistic manner. Chin heavy and rounded. On back of mould large letter E, cut with very pointed instrument.

From the North Room of the Terracotta Factory. The style of this head is good, but most of the details of the modelling, which was apparently very simple but skilful, have been lost through the peeling off of the slip. The head shows some similarity with a figurine head from the Potters' Quarter, XVII, 9.

**36** (KH<sub>34</sub>). Female head. Plate 34. H. 0.05. W. 0.04. Part of right side broken away. Edges chipped.

Brown clay. Lighter brown slip which flakes off easily. In comparison with preceding heads, face is long and narrow with high forehead. Eyes indistinctly modelled; mouth short with full lips. Neck very slender. Hair treated in naturalistic manner with ridges and depressions of varying shapes and depth. Small earrings of elongated shape.

Found in the court of the Terracotta Factory, lying between two of the piers. The pleasing proportions of the face, the free and beautiful treatment of the hair, and the unusual grace of the neck make this one of the finest types among the 4th century moulds. The style is reminiscent of that of a head from the Potters' Quarter, XVII, 12, but the softer modelling and more blurred outlines show the mould to be later. The treatment of the hair may be compared with that on a mould from

<sup>102</sup> *B.C.H.*, XI, 1887, pl. V, 8.

<sup>103</sup> Cf. *F. de D.*, V, pl. XXII, 4; Heuzey, *Figurines antiques du Musée du Louvre*, pl. 40, 4 and 5; Winter, *Typen*, I, p. 86, nos. 1-4 (several of these are from Corinth); *Compte-rendu*, 1869, pl. III, nos. 3-5 (from a grave which is dated about 380 B.C. by Schefold in *Untersuchungen zu den Kertscher Vasen*, p. 71); *Compte-rendu*, 1873, pl. II, no. 1; *Compte-rendu*, 1882-83, pl. VI, nos. 3 and 4; Königliche Museen zu Berlin, *Ausgewählte griechische Terrakotten*, pl. IX, 1-3; Cramer, *Griechische Altertümer sudrussischen Fundorts*, p. 63, fig. 39; Danish National Museum, *Catalogue of the Terracottas*, pl. 43, 365; seven examples in the National Museum in Athens.

Olynthos.<sup>104</sup> It is perhaps an attempt to imitate in clay the free treatment of hair one often finds in bronzes.<sup>105</sup>

**37** (KH35). Female head. Plate 34. H. 0.055. W. 0.05.

Soft yellowish brown clay, with slip. Face slightly broader than that of preceding. Hair arranged very similarly, but treatment of surface does not give same effect of lightness and freedom. Large round pendant earrings. Three small bosses of uncertain significance on breast, one at base of throat and one on either side, slightly lower.

From Deposit 3 of the Terracotta Factory. In style the head is midway between No. 36 and No. 38.

**38** (KH36). Large female head. Plate 35. H. 0.073. W. 0.06. Small bit of right edge missing.

Clay with reddish core and buff exterior. Hard buff slip. Face similar in shape to preceding, except that forehead is slightly higher and chin less square. Shallow curved grooves, sloping strongly downward at outer corners, mark line of eyebrows. Upper lids indicated by thin sharp ridge, parallel to brows. Eyeballs and lower lids barely suggested. Faint trace of modelling on right eyeball perhaps indicates that eye was rendered in more detail in original mould. Front plane of nose has very sharp edges. Mouth large and clumsily modelled. Single wrinkle across center of neck. Few folds of drapery indicated at lower edge of mould.<sup>106</sup> Surface of hair covered with very thin, irregular ridges with wider flat spaces between. Dividing line between hair and face indefinite.

From Deposit 3 of the Terracotta Factory. The head is inferior in style to the two preceding. The hair is particularly unsuccessful. The details of its surface, instead of giving an effect of lightness

and variety, as is the case with No. 36, only add to the impression of extreme solidity and hardness. The treatment of the eyes, with the strong downward slope and the very sketchy indication of the eyeball, is very close to that of No. 31. The slope of the eyes is, however, much more exaggerated in the case of No. 38.

The coiffure, with the hair pulled up in a triangle over the forehead, is very characteristic of the 4th century. A strikingly close parallel may be found in a life-sized terracotta head from the Asklepieion<sup>107</sup> in Corinth, which shows an identical arrangement of the hair and a very similar treatment of its surface. The downward droop of the eyes may be noted in both. The mouth of the Asklepieion head shows much better modelling and may possibly indicate a slightly earlier date. The same coiffure appears on other Corinthian figurines,<sup>108</sup> including the group of seated figures to which references have already been given under No. 33 (p. 100, note 103). Several examples occur on grave stelai of the 4th century.<sup>109</sup> A head on a bronze mirror from Corinth<sup>110</sup> which shows a similar arrangement of the hair is dated by Züchner in the third quarter of the 4th century. No. 38 can hardly be dated before the middle of the 4th century and may even be datable in the third quarter. It has several features in common with a head represented in profile on a bronze mirror case in New York,<sup>111</sup> which is dated by Züchner<sup>112</sup> in the last quarter of the 4th century.

**39** (KH37). Female head with knot on top. Plate 34. H. 0.042. W. 0.034. Part of right edge broken off. Surface much worn.

Grayish yellow clay. Features very indistinct. Arrangement of hair closest to that of No. 31; few thin ridges scattered over surface indicate strands. Large pendant earrings.

From Deposit 4 of the Terracotta Factory.

<sup>104</sup> *Olynthus*, IV, pl. 59, 419.

<sup>105</sup> Cf. Richter, *Greek, Etruscan and Roman Bronzes* (Metropolitan Museum), no. 75, and *Jahrbuch*, XLIX, 1934, p. 177, fig. 14. One may compare also such coin types as Head, *Historia Numorum*, p. 177, figs. 98 and 100.

<sup>106</sup> Very similar folds appear at the base of the neck in a relief on a bronze mirror (Richter, *Metrop. Mus. Bronzes*, no. 759).

<sup>107</sup> *A.J.A.*, XXXVII, 1933, pl. LII, 2.

<sup>108</sup> E.g., *A.J.A.*, II, 1898, p. 221, fig. 33. With this compare *B.C.H.*, XI, 1887, pl. V, 8. Other related heads are: *A.J.A.*, VII, 1903, pl. XI, 4; Köster, *Griechische Terrakotten*, pl. 29; Stackelberg, *Gräber der Hellenen*, pl. LXXV, 7, and pl. LXII.

<sup>109</sup> Conze, *Attische Grabreliefs*, I, pls. 50 (no. 161), 89 (no. 359), 109 (no. 465); Diepolder, *Attische Grabreliefs*, pl. 44 and pl. 45, 1 and 2.

<sup>110</sup> Züchner, *Griechische Klappspiegel*, p. 76, fig. 107.

<sup>111</sup> Richter, *op. cit.*, no. 757.

<sup>112</sup> *Op. cit.*, p. 78.

**40** (KH38). Head of child. Plates 28 and 35. H. 0.041. W. 0.041.

Soft red clay. Red slip. Head inclined to right. Face circular with very full cheeks. Hair pulled up in triangle over forehead; surface worked with short irregular grooves. Mould includes part of breast with bit of drapery at lower edge. On back inscription IN, deeply scratched with very pointed instrument.

From Deposit 3 of the Terracotta Factory. The head is probably that of a girl,<sup>113</sup> although the coiffure with the knot over the forehead occurs also on male heads, and a fairly close resemblance to the mould is to be observed in the head of Ploutos from the group by Kephisodotos.<sup>114</sup>

**41** (KH39). Small female head. Plate 35. H. 0.032. W. 0.031. Part of lower edge broken off. Hole in upper part of face. Clay backing of mould broken away, leaving fingerprints on under layer visible.

Soft red clay, partly turned brown. Face long and rather narrow, with indistinct features. Eyes more carefully modelled than in majority of preceding heads. Head slightly turned to left and bent downward. Hair in heavy, cap-like mass, projecting beyond face and drawn to high knot on top.

Found in the Northwest Room of the Terracotta Factory. The arrangement of the hair in this fashion is not uncommon in the 4th century, occurring frequently among the figurines from Tanagra and elsewhere.<sup>115</sup> The closest parallel to our

<sup>113</sup> Cf. Conze, *op. cit.*, II, pl. CLV (no. 811).

<sup>114</sup> Brunn-Bruckmann, *Denkmäler*, pl. 43. Compare also the copy of the Ploutos from the Peiraeus (Bulle, *Schöne Mensch*, pl. 186).

<sup>115</sup> Cf. Stackelberg, *Gräber der Hellenen*, pl. LXVI, no. 1, pl. LXVIII, pl. LXXV, no. 1; Winter, *Typen*, I, p. 85, no. 2 (from Corinth); *ibid.*, II, p. 95, no. 4; Cartault, *Deuxième Coll. Lecuyer* (1892), pl. 4, 4.

<sup>116</sup> Marconi, *Agrigento Arcaico*, pl. XII, no. 4 (cf. also no. 5). These heads are dated in the 5th century, but can hardly be so early.

<sup>117</sup> *F. de D.*, V, pl. XXII, 2 (from a grave dated "ca. 400 B.C."). It seems to me quite possible, however, that this grave is of a somewhat later date. Several of the female figurines it contained have coiffures with high knots which are very similar to those seen on moulds from the Terracotta Factory (Nos. 30-34), which must be dated at least as late as the middle of the 4th century. Moreover, the three lamps from the grave seem to be of 4th century types. That illustrated in fig. 683 is very similar to one of Type VII from Corinth (*Corinth*, IV, pt. 2, pl. III, 126). That in fig. 685 shows the groove separating rim and sides which is also characteristic of Type VII in Corinth. Type VII first appears toward the end of the 5th century, but is mainly a 4th century type. The third lamp, illustrated in fig. 684, has a small vertical handle, a feature which occurs only once in Type VII lamps at Corinth, but is very common in an early 3rd century type, Type IX. In fact, the Delphi lamp, as far as one can judge from the illustration, has far more bulging sides than the lamps of Type VII at Corinth, and in shape resembles much more closely those of Type IX. The grave also contained miniature vases (figs. 689 and 690) which resemble some which were found in the Shrine of the Double Stele and are probably datable in the first half of the 4th century (see p. 50).

<sup>118</sup> Winter, *Typen*, II, p. 417, no. 2b.

mould, in respect to both hair and features, is a terracotta head from Agrigentum,<sup>116</sup> which is extraordinarily similar.

**42** (KH40). Small female head. Plate 35. H. 0.031. W. 0.035.

Soft brown clay. Face round with very indistinct features. Heavy undetailed mass of hair covers ears. Broad polos probably worn. Drapery indicated at lower edge.

From Deposit 4 of the Terracotta Factory.

**43** (KH41). Head of comic actor. Plate 35. H. 0.04. W. 0.032. Surface slightly chipped at left side.

Hard reddish brown clay. Face long and pointed. Broad forehead, crossed by three long furrows. Eyebrows slightly lifted at outer corners. Large eyes with round protruding eyeballs and heavy lids. Nose concave in profile. Very wide mouth, partly open. Short moustache and beard.

From the Northeast Room of the Terracotta Factory. The features are unmistakably those of an actor of Old Comedy. A very close parallel, though not identity, exists in a comic type representing Herakles, replicas of which have been found in Delphi,<sup>117</sup> Eleusis,<sup>118</sup> Athens,<sup>119</sup> Melos,<sup>120</sup> South Russia<sup>121</sup> and other places.<sup>122</sup> Bieber considers this a 5th century type. It is, of course, possible that No. 43 is earlier than the other Terracotta Factory moulds, especially since it was found in an isolated position and not in one of the large mould deposits,

but the evidence from the Delphi grave tends to show that the 4th century is a possible date.

**44** (KH42). Head of comic actor. Plate 35. H. 0.035. W. 0.025. Small piece missing at top.

Red clay. Buff slip. Face long and narrow. Eyes large and protruding, with brows raised at outer corners. Nose small and very concave in profile. Mouth very wide and partly open. Short rounded beard.

From Deposit 4 of the Terracotta Factory. This type also belongs to Old Comedy; it and the succeeding heads probably represent the stock character of the "old father." It is closely related to many other terracotta heads of actors, the majority of which show the same characteristics as the mould: the more or less wrinkled forehead, the snub nose, the protruding eyes and twisted eyebrows, the furrowed cheeks, the wide, partly opened mouth, and the pointed beard.

**45** (KH43). Head of comic actor. Plate 35. H. 0.033. W. 0.022.

Buff clay. Nearly identical with preceding. Beard slightly longer.

From Deposit 3 of the Terracotta Factory.

**46** (KH44). Head of comic actor. Plate 35. H. 0.036. W. 0.026.

Soft brown clay and slip. Similar to preceding. Beard more pointed.

From the same deposit.

**47** (KH45). Head of comic actor. Plate 36. H. 0.048. W. 0.043.

Core of grayish brown clay. Outer layer of hard pinkish buff clay. Hair cut square around face, with round protuberance just above forehead. Face oblong, with sharp-pointed beard. Features similar to those of Nos. 44-46.

From the same deposit. This also is a typical Old Comedy head.<sup>123</sup> On a head from the Potters'

Quarter, XIX, 12, which was probably made from this mould, the point of the beard has been trimmed off and a polos has been added.

**48** (KH46). Head of comic actor. Plate 36. H. 0.051. W. 0.037.

Reddish buff clay. Almost identical with preceding, except that face is slightly narrower.

From the same deposit.

**49** (KH47). Standing figure of comic actor. Plate 36. H. 0.103. W. 0.055.

Deep buff clay, full of small pebbles, with thin wash of fine clay over face of mould. Figure stands on low square base with legs together and knees slightly bent. Head sunk on breast; hands hidden under chin. Costume consists of high conical cap, short tunic with stippled surface, short cape, artificial phallos, looped up, and long, tightly fitting sleeves and trousers. Head disproportionately large. Forehead furrowed and projects strongly above eyebrows. Upper lids only of eyes indicated. Snub nose; wide, partly opened mouth with suggestion of teeth. Long pointed beard with parting down center. Edges of mould finished with shallow curved grooves, probably indicating existence of mould for back of figure. Walls of mould heavier than usual for period.

From Deposit 4 of the Terracotta Factory. The type is probably that of a slave. A fragment of a figurine, XIX, 11 (Plate 36), from this mould was found in the Potters' Quarter, but none elsewhere. There are, however, closely related figurines from many places. A figurine in Athens<sup>124</sup> resembles ours most closely. It likewise wears a short tunic with stippled surface, a short cape, and long, close-fitting trousers crossed by wrinkles, and resembles the mould also in the pose with the legs close together and the chin sunk on the breast. There are a number of other figurines with similar costumes and often a similar pose.<sup>125</sup>

<sup>119</sup> *Ibid.*, p. 417, no. 2a; *Hesperia*, Suppl. VII, fig. 61, no. 65 (fragment of mould from Pnyx).

<sup>120</sup> *B. M. Cat. Terracottas*, p. 197, C 80.

<sup>121</sup> Reinach, *Antiquités du Bosphore Cimmérien*, pl. LXX a, 6 (from a grave, mentioned also in *Compte-rendu*, 1869, p. 146); Bieber, *Denkmäler zum Theaterwesen*, pl. 67, 2.

<sup>122</sup> McClees, *Daily Life of Greeks and Romans*, p. 16, fig. 20; Winter, *Typen*, II, p. 417, no. 2e; Bieber, *op. cit.*, p. 189 (references in note on no. 73). Sieveking, *Terrakotten der Sammlung Loeb*, II, pl. 78, 3, also seems to me to be very close to the Herakles type.

<sup>123</sup> See Winter, *Typen*, II, pp. 414-420, where there are several heads which seem fairly close to the mould.

<sup>124</sup> *Jahrbuch*, VIII, 1893, p. 77, fig. 2.

<sup>125</sup> Cf. *Jahreshefte*, IV, 1901, p. 43, fig. 49; *Coll. Lecuyer*, I, pl. Q2 (the face of this figure resembles that of the mould most closely); Winter, *Typen*, II, p. 414, nos. 4 and 6; Wiegand, *Priene*, fig. 444 (note the stippled surface of the tunic); Schöne, *Griechische Reliefs aus athenischen Sammlungen*, pl. 36, 141; *Olynthus*, VII, pl. 37, no. 297; *Lindos*, I, pl. 136, 2939; Cartault, *Deuxième Coll. Lecuyer* (1892), pl. 33. See also references to Herakles type under No. 43.

**50** (KH48). Upper part of comic actor carrying calf. Plate 36. H. 0.063. W. 0.043. Left side and upper edge somewhat broken. Surface in bad preservation.

Soft red clay. Calf thrown across shoulders and held by legs in front; head at right side, but is only faintly visible, owing partly to destruction of surface. Actor wears short cape and progastriion (padding). Large head with heavy brows, short nose, wide, slightly open mouth and broad flat beard.<sup>126</sup>

From the same deposit. There are a few other terracottas of the type of a comic actor carrying an animal on his shoulders.<sup>127</sup>

**51** (KH49). Standing Kore with dove. Plates 28 and 37. H. 0.109. W. 0.045.

Soft brown clay and thin slip. Broad polos. Hair grooved vertically over forehead and horizontally on part which falls to shoulders. Head inclined downward. Face thin and triangular. Right arm bent at elbow, holding large dove. Left slightly bent, with fingers closed. Costume consists of chiton with long overfold, and himation which is thrown across shoulders and falls in long swallow-tail folds at either side. Skirt very finely pleated, with wider pleat down center. Square base. On back of mould letters inscribed with pointed instrument  $\xi\Omega\xi$ .

From Deposit 3 of the Terracotta Factory. There are no exact parallels for this figure, which is distinguished from the usual Kore types by several peculiarities. The treatment of the hair and of the details of the drapery is unusual, as well as the fact that the left hand is empty.

**52** (KH50). Standing Kore with dove and pomegranate. Plates 28 and 37. H. 0.125. W. 0.051. Several pieces missing around head. Lower right-hand corner broken off.

Red clay. Buff slip. High polos, rounded at top. Mould probably much worn, as features and drapery folds are very indistinct. Low square base. At back of shoulders two large bosses on which mould rests and so is kept in horizontal position.

From the same deposit. The mould represents the most common type of standing Kore, that with the dove and fruit. The only figurines in the Potters' Quarter large enough to have come from this mould are X, 19, and the fifteen figures identical

with it. The mould is, however, so badly worn that one cannot be sure that it and the figurines are actually identical. The latter may, on the other hand, have been made from an earlier mould of which this is a repetition. Considering the fact that, out of this group of figurines, one was found in the Aphrodite Deposit, one in the Circle Deposit and three in the Circular South Shrine and that these are, therefore, presumably earlier than the mould, I think we must assume that the present mould is the result of a series of repetitions in which the details have become increasingly blurred. Several figurines from other sites appear to be from the same mould.

**53** (KH51). Seated Kore with dove. Plate 37. H. 0.089. W. 0.053. Lower left-hand corner broken off.

Red clay. Buff slip. High polos, rounded at top. Long pointed face with indistinct features. Right hand holds dove against breast; left rests on knee. Sides of chair solid; projections on back. Garment close-fitting with no indication of folds. Feet on low square base projecting forward from chair.

From the corridor north of the Altar Room of the Terracotta Factory. This, as well as the two succeeding moulds, represents the type of seated Kore most common in Corinth; several figurines of this type were found in the Potters' Quarter. All three moulds appear to be much worn, and figurines made from them must have required considerable re-working.

**54** (KH52). Seated Kore with dove. Plate 37. H. 0.093. W. 0.056. Small piece missing at lower right-hand corner.

Red clay. Yellowish buff slip. Almost identical with preceding. Outlines slightly more blurred.

From Deposit 3 of the Terracotta Factory. A figurine (XI, 5) from the Potters' Quarter and two others identical with it may have been made from this mould, but more probably from an earlier version of it.

**55** (KH53). Seated Kore with dove. Plate 37. H. 0.106. W. 0.057. Lower left-hand corner gone. Surface badly preserved, with several fragments missing.

Soft red clay. Yellowish brown slip. Very similar to preceding but somewhat larger. Indistinct-

<sup>126</sup> Cf. *Jahrbuch*, VIII, 1893, p. 82, fig. 6.

<sup>127</sup> Cf. Martha, *Cat. fig. Ath.*, p. 197, no. 923 (ram); Winter, *Typen*, II, p. 414, no. 2 (goat); Fröhner, *Collection Gréau* (1891), pl. 8, 1 (calf); Bieber, *Denkmäler*, pl. 70, 1 (calf).

ness of outlines caused partly by poor condition of surface.

From Deposit 3 of the Terracotta Factory.

**56** (KH55). Reclining figure with fruit. Plate 38. H. 0.072. W. 0.093.

Light brown clay. Short hair. Breast prominent and clumsily modelled. Drapery (no indication of folds) covers left shoulder, arm, and side of couch. Left elbow rests on small circular cushion; round fruit in hand. Right hand lies on right knee. Legs tightly wrapped in drapery; folds only faintly indicated. Feet merely suggested. Low base. Mould very heavy.

From Deposit 3 of the Terracotta Factory.

**57** (KH56). Reclining figure with fruit. Plate 38. H. 0.068. L. 0.075. Lower end of couch broken off.

Buff clay. Broad low polos; hair in long ribbed locks. Face turned to right. Drapery covers left arm and lower body to feet; slight indication of folds across legs. Right hand lies on raised right knee. Left elbow rests on low folded cushion; small fruit in hand. Low couch.

From the same deposit.

**58** (KH57). Reclining figure with fruit. Plate 38. H. 0.062. L. 0.072. Lower end broken off.

Reddish clay. Buff slip. Round head with indistinct features and short hair. Drapery falls from left shoulder, crosses breast and passes under right arm; drawn over legs in series of parallel folds. Right arm along side. Left elbow rests on small oval cushion; fruit in hand. Side of figure, under left shoulder, marked with diagonal folds.

From the court of the Terracotta Factory.

From this mould was probably made a group of figurines, including XIV, 7, from the Potters' Quarter, three of them from the Terracotta Factory. These are all slightly smaller, but they are of identical type and much may be allowed for shrinkage. None of the figurines shows signs of re-working.

**59** (KH58). Large reclining figure with kantharos. Plate 39. H. 0.118. L. 0.166. Lower left-hand corner broken off. Several small breaks in surface.

Hard, light gray-green clay. Short hair, worn in large scallops over forehead. Drapery wrapped around body from waist to feet and drawn across left arm, with end hanging over front of couch.

Right arm stretched along side. Left elbow supported on double cushion; kantharos in hand. Knees slightly bent; right knee not drawn up as usual, but lies parallel to left. Mass of drapery at waist marked with zigzag fold. Nude parts of body well modelled. Mould much worn and details blurred.

From Deposit 3 of the Terracotta Factory. Fortunately, in the Potters' Quarter was found a figurine, XIV, 13 (Plate 40, top), from this mould and a fragment of a second, which show better than the mould the excellence of the original type.<sup>128</sup> In the figurine the modelling of the body and the details of the drapery are clear and sharp. The kantharos, only dimly seen in the mould, is beautifully clear in the figurine. In the latter also the fine modelling of the arm and breast is quite striking. It is probable that the figurine was made from the mould before it became so worn, or even possibly from an earlier version of the mould, but much of the excellence of the modelling in the figurine is also the result of skilful re-working. The fact that the figurines came from the Circular South Shrine and the Circle Deposit, both dated in the late 5th century, and the mould from a deposit of about the third quarter of the 4th century gives the type a life of more than fifty years.

**60** (KH59). Lower end of large reclining figure. H. 0.071. L. 0.10. Backing layer gone, and surface in poor preservation.

Very soft, bright green clay, almost a *Fehlbrand*.

From the same deposit, and apparently identical with the preceding.

**61** (KH60). Seated boy. Plates 28 and 40. H. 0.072. W. 0.06.

Hard pinkish buff clay. Low square base. Left leg bent double and resting on base; right leg drawn up to body. Left hand on base, right on knee. Hair short. Face long and narrow with indistinct features and large eyes. Back of mould shows clear traces of scraping with instrument. At left edge of back five short broad grooves close together; at lower edge three similar grooves. Near top of back two wide, shallow, horizontal grooves. Below these large letter K.

In appearance this mould is the most archaic of the seated boy types from the Potters' Quarter.

<sup>128</sup> Another fine fragment, XIV, 14, from the Circular South Shrine, is identical in type. It is, however, so much smaller than the mould that in order to derive it from the latter we should have to assume an almost impossible degree of shrinkage.

The hardness and pinkish color of the clay indicate an early date, possibly in the late 6th century. In any case, the mould is certainly older than the Terracotta Factory moulds of the same type. Four figurines from the Potters' Quarter, XVI, 1, and three identical figurines, are very similar to this mould and were possibly made from it, but the inclination of the head seems slightly different and the figurines are all a little smaller.

**62** (KH61). Seated boy. Plate 41. H. 0.066. W. 0.067.

Red clay. Yellowish buff slip. Pose same as that of preceding. Body much fatter, with strong division between breast and abdomen. Head turned slightly to right. Hair long.

From Deposit 3 of the Terracotta Factory. Several figurines from the Potters' Quarter are very similar to the mould. The slight differences may be the result of re-working after the figurines were taken from the mould. Of these figurines XVI, 4, is closest but, since it was found in the earlier deposit of the Circular South Shrine, it may have been made from an earlier version of the mould.

**63** (KH62). Seated boy. Plate 41. H. 0.067. W. 0.066.

Hard yellowish buff clay. Practically identical with preceding, except that head is turned somewhat more to right and outlines of body are slightly sharper.

From the same deposit.

**64** (KH63). Fragment of seated boy. H. 0.046. W. 0.039. Fragment includes center of body and part of legs.

Green clay. Very similar to two preceding moulds. XVI, 4, though slightly smaller, was perhaps made from this mould instead of from No. 62.

From Deposit 8 of the Terracotta Factory.

**65** (KH64). Part of very large seated boy. Plate 40. H. 0.087. W. 0.137. Lower part of figure and base preserved.

Reddish buff clay. Pose similar to that of other moulds of same type. Calf of right leg disproportionately large. Feet small. High base consists of high upper step and shallower bottom step.

From Deposit 6 of the Terracotta Factory. The mould, when complete, was of unusual size, probably *ca.* 16 cm. or 17 cm. in height.

**66** (KH65). Front of jointed doll. Plates 28 and 41. H. 0.08. W. 0.036. Small break on back.

Yellowish buff clay. Neck included in mould. At knees three projections form sockets for suspending legs. On back of mould large letter Λ, deeply cut with pointed instrument; the letter can be read either as λ or υ.

From Deposit 4 of the Terracotta Factory. A mould for the front of a doll was found at Olynthos.<sup>129</sup>

**67** (KH66). Back of same doll. Plates 28 and 41. H. 0.078. W. 0.035.

Similar clay. On back of mould similar letter Λ with short horizontal stroke<sup>130</sup> above it.

From the same deposit. There are no holes or grooves to indicate that the two parts of the mould were tied together. Moreover, the edges of the moulds do not fit. We must assume that the two halves of the doll were made separately and joined before baking by a thin layer of semi-liquid clay. In the dolls which have been found in the Potters' Quarter the neck seems to have been included in the mould for the head rather than in that for the body. The sockets at the knees have rounded ends instead of being cut straight across, as is the case in the moulds. The heads of Corinthian dolls were apparently usually attached to the shoulders with clay, instead of by strings. Holes appear at this point in only two of the dolls from the Potters' Quarter.

**68** (KH67). Upper part of back, probably of jointed doll. Plates 28 and 42. H. 0.052. W. 0.041.

Soft brown clay, partly turned gray. Mould does not include neck. Modelling more elaborate than in preceding mould. Shoulder blades and hip bones indicated, also heavy rolls of muscle over hips and two dimples at base of spine. On back of mould letters ΠΑΙ, possibly for παιδός. Letters carelessly gouged as if with small stick. Also on back, setting-lines at right angles to edges, two close together at either side and one at top.

The setting-lines must indicate that the front and back of the figurines were made together, instead of being stuck together afterward, as was apparently the case with the preceding.

**69** (KH68). Right leg of jointed doll. Plate 42. H. 0.082. W. 0.029.

Buff clay. Mould includes front half of leg from knee down. At top projecting boss through

<sup>129</sup> *Olynthus*, IV, pl. 57, no. 415.

<sup>130</sup> The latter may have appeared also on No. 66, but the break occurs just at that point.

which hole would be punched for suspension. Leg slender; toes very carefully modelled.

This mould, like Nos. 70-72, is too large to fit either the moulds or the actual dolls found. Moreover, the dolls' legs found in the Potters' Quarter are invariably handmade. For mouldmade legs, cf. *A.J.A.*, XXXIV, 1930, p. 466, figs. 15 and 16.

**70** (KH69). Left leg of jointed doll. Plate 42. H. 0.079. W. 0.028.

Yellowish buff clay and slip. Resembles No. 69 very closely, except that modelling is more clumsy. Similar projection at top for suspension.

From Deposit 3 of the Terracotta Factory.

**71** (KH70). Right leg of jointed doll. Plate 42. H. 0.077. W. 0.023.

Red clay. Resembles preceding except in size. No projection above knee.

From the same deposit.

**72** (KH71). Left leg of jointed doll. Plate 42. H. 0.067. W. 0.03. Backing layer gone. Surface much worn.

Red clay. Smaller than others, but of same type. No projection above knee.

From the corridor north of the Altar Room of the Terracotta Factory.

**73** (KH72). Left arm. Plates 28 and 42. L. 0.10. W. 0.037.

Yellowish gray clay. Arm cut off straight a little below shoulder and at base of fingers. Forearm very thin. Palm broad and flat with prominent heel. On back of mould inscription which may be read IX<sup>Y</sup><sup>131</sup> (or XY, if we consider that the upright stroke, which indeed is shallower than the others, does not belong to the inscription). Three short setting-lines at various points along edge.

From the same place as the preceding. There are three possible explanations for the arm. The first is that it was part of a jointed doll. In the case of No. 68, as we have seen, the mould for the body included the upper part of the arm. It is possible also to consider this a mould for an ex-voto, where hand and shoulder might well be omitted. The set-

ting-lines, however, seem to indicate that the arm was intended to be modelled in the round, whereas an ex-voto would be more likely to be in relief. The third possibility, and perhaps the most likely, is that the arm was part of a large and elaborate figurine which would have required a number of moulds.

**74** (KH73). Upper part of back of nude figure. Plate 42. H. 0.047. W. 0.038. Mould includes shoulders and back as far as hips. Right side broken away.

Soft yellowish gray clay. Short hair indicated at back of neck. Arms outstretched to sides. Modelling of back hasty but vigorous.

From the upper levels of the Altar Room in the Terracotta Factory.

**75** (KH74). Male head. Plate 42. H. 0.038. W. 0.032.

Yellowish buff clay. Back of mould painted red. Hair juts forward sharply over forehead. Eyebrows lifted in peaks; forehead furrowed. Eyes very sketchily indicated, left eye not at all except for shallow depression under brow. Nose very short and broad. Lips very thick and slightly parted. Short rounded beard.

The nose and lips give the face a distinct negroid cast. It is quite possible that this is an attempt at portraiture of a negro or barbarian type.

**76** (KH75). Head of negroid type. Plate 42. H. 0.058. W. 0.043. Most of right half of face missing. Upper and lower edges broken off.

Hard yellowish gray clay. Extremely low forehead. Eyes very small; lids indicated by short ridges, set so close together that eye appears nearly closed. Nose straight, but broad at base. Lips very thick and slightly parted. Cheeks full and pulled up in slight smile. Part of shoulders included in mould. Hair partly covers ears.

From the area immediately south of the Terracotta Factory. While the low forehead, small eyes, broad nose and thick lips all tend to indicate that the artist was attempting to portray a head of negroid character,<sup>132</sup> the hair, the straight profile of

<sup>131</sup> If the mould is reversed, the inscription looks as if it might be AXI (or AX), but it is more probable that the scratches which appear to complete the A are accidental.

<sup>132</sup> The following terracotta heads of negroes are of approximately the same date as our mould and have various features in common with it: *Mon. Ant.*, XXI, 1912, p. 134; Sieveking, *Terrakotten der Sammlung Loeb*, I, pl. 29; Heuzey, *Fig. ant. Louvre*, pl. 55, 6; Derewitzky, *Museum der Kaiserlich Odesaer Gesellschaft, Terrakotten*, II, pl. XII, 1.

the nose and the vertical facial angle belie this impression. We may, however, suppose that the artist, being no anthropologist and perhaps never even having seen a negro, introduced into his representation the features which seemed most characteristic to him, omitting the others. The large size of the head in proportion to the neck and shoulders probably indicates that the figure was intended for a grotesque.

**77** (KH76). Head of monkey. Plate 43. H. 0.044. W. 0.036.

Soft red clay and slip. Very heavy ridges over eyes with short bar connecting them at inner ends. Eyes round and flat, encircled by shallow incisions. Nostrils indicated by long grooves. Mouth wide with curved lines at corners. Ears large with thick rims. Lower part of face projects strongly.

From the Northwest Room of the Terracotta Factory. Of the various figurines of monkeys surviving from the Greek period, this is one of the most carefully studied and best modelled.<sup>133</sup>

**78** (KH77). Monkey. Plate 43. H. 0.056. W. 0.04. Broken off at waist. Mould comprises head, chest, left shoulder and arm.

Soft red clay with gray core. Inner layer of clay unusually thin. Head narrows at temples, and then swells out into very round cheeks. Muzzle does not project as strongly as in preceding mould; mouth shorter. Eyes, unmodelled, sunk under heavy brows. Flat ears, not indicated in detail. Arm bent at elbow; hand of human type.

This mould, although not found in the Terracotta Factory, is probably of the same date as the preceding, but is much inferior to it.

**79** (KH78). Upper part of winged horse. Plate 43. H. 0.063. W. 0.044.

Hard yellowish gray clay. Mould complete, but comprises only head of horse, right shoulder and beginning of wing, and part of forelegs. Body in profile, head in three-quarters view. Erect ears, partly concealed by thick crest, vertically grooved. On forehead double horizontal ridge, interrupted in center. Eyes lie on surface; formed by small incised circle inside larger one. Nostrils indicated by shallow round depressions; wrinkles between them.

Mouth consists of very deep incision, carried much further up on left side than on right. Outlines of body indefinite. Left foreleg bent upward against breast. Right leg bent, but not as sharply. Wing starts at shoulder, with long ridge curving upward from elbow of right leg. Few faint indications of feathers at edge.

From the Northeast Room of the Terracotta Factory. The mould is much more closed than any of the others. Even allowing for the shrinkage of the figurines, it must have been very difficult to withdraw them from the mould without breaking it. It is, of course, for this reason that the neck of the horse could not be completely modelled, nor could the ears project to the normal degree. The Pegasus type is not common in figurines, although it appears in a Melian relief (Jacobsthal, *Melische Reliefs*, pl. 44). The Pegasus protome is a common motive on earlier bronze vases.<sup>134</sup> It is employed also on a terracotta acroterion from Caere.<sup>135</sup>

**80** (KH79). Part of horse's leg. Plate 43. H. 0.055. W. 0.028. Broken diagonally across top and bottom.

Hard yellow clay. Mould has straight sides; edges finished with curved strokes, indicating probable existence of mould for other side of leg. Mould is for right hindleg from hock to hoof. Modelling done with considerable detail and much delicacy.

**81** (KH80). Left hindleg of horse. Plates 28 and 43. H. 0.09. W. 0.061. Foot broken off.

Red clay, partly turned buff on back. Side edges of mould finished with curved grooves, indicating two moulds probably used for leg.<sup>136</sup> Back of mould crossed by several thin lines, apparently cut by pressing string into damp clay; doubtless made to give better purchase to strings which tied moulds together. At upper edge of back, letter  $\square$  (B). Upright strokes deeply cut with sharp pointed instrument; horizontal strokes broad and shallow, made by holding same instrument in slanting position.

The use of tie-lines and the archaic form of the letter B are evidence of the early date of the mould.

<sup>133</sup> Cf. Winter, *Typen*, I, p. 224, no. 10 (from Corinth); *Olynthus*, IV, pl. 59, 420 (a mould of about the same date as ours).

<sup>134</sup> *Ath. Mitt.*, LXIII-LXIV, 1938-9, pls. 34, 1, 36, 37, 1-4, 39, 45, 1. Cf. also Lamb, *Greek and Roman Bronzes*, pl. XXXVIII, a.

<sup>135</sup> Van Buren, *Figurative Terra-cotta Revetments in Etruria and Latium*, p. 38, pl. XVII, fig. 2.

<sup>136</sup> The fact that these grooves do not appear at the upper edge shows that the leg was to be attached to the body after both were removed from their moulds.

**82** (KH81). Foot of bull. Plate 43. H. 0.047. W. 0.015. Broken off across top.

Soft brown clay. Foot in front view. Long slender hoof with two heavy ridges above it. Foot in very low relief, but mould itself is of unusual depth. Two short horizontal grooves opposite each other at edges of mould near lower end are probably setting-lines, showing existence of mould for back of foot.

**83** (KH82). Head of Gorgon. Plate 43. H. 0.034. W. 0.032. Right side of neck slightly chipped.

Light brown clay with fine buff slip. Hair parted in middle and lies in broad, somewhat asymmetrical scallops on forehead. Arranged in two layers with parallel edges, both marked with vertical grooves close together. Behind either ear curious projection of hair from head, marked with more widely spaced grooves. Polos probably intended to be completed by hand. Ears small and appear to grow out of temples. Forehead low and broad with depression down center. Eyebrows strongly marked; two tiny, curved, parallel ridges join inner ends. Eyes shallow, with sharp lids and strongly convex eyeballs. Nose large, broad at base, with upper part finely wrinkled. Tongue lies flat on center of lower lip. Lips slightly curved in smile which pulls cheeks up.

Found in the court of the Terracotta Factory, just east of the fourth pier. There is no reason to take this head out of its 4th century context. It is archaic in appearance because the very character of a Gorgoneion prevents naturalism of treatment. At the same time the head does not display the tusks and glaring eyes of earlier Gorgons, but rather the conciliatory expression of a monster whose claws have been clipped. An exact parallel for the

type does not seem to exist. The ridged bar between the eyes is only occasionally a feature of the Gorgon type.<sup>137</sup> Sometimes the bar is obviously formed by two wrinkles; in other representations the ridge, as in our mould, has no naturalistic explanation. The mould may have been intended for making clay disks, possibly in imitation of jewelry,<sup>138</sup> or perhaps reliefs on small clay shields.<sup>139</sup> A mould for a Gorgon head which was found in the main excavations of Corinth<sup>140</sup> is of later date.

**84** (KH83). Disk with head of Athena Parthenos in relief. Plate 44. H. 0.033. W. 0.036.

Soft yellowish brown clay and slip. Circular disk bordered by low rounded ridge. Head in very high relief, facing front. Face round with heavy chin and indistinct features. Helmet has low, triangular forehead piece, or μέτωπον. Cheekpieces turned up. Crest on top of helmet in center, with crest of same height on either side. Heavy double necklace.

From Deposit 4 of the Terracotta Factory. Although this medallion adds nothing to our information about the Parthenos type, it is an interesting version. It follows the normal type in most of the details, the turned up cheekpieces, the three crests, the narrow μέτωπον, and the heavy necklace. The date, which is probably not later than the middle of the 4th century, makes it one of the earlier versions of the Athena Parthenos type. The three other moulds<sup>141</sup> which represent the same subject are, of course, much later. Clay disks decorated with the Athena head occur not infrequently. Some of these are obviously copied from gold ornaments,<sup>142</sup> while others are vase reliefs.<sup>143</sup> In none of them, however, is the head in high relief as it is in the mould.

<sup>137</sup> Payne, *Necrocorinthia*, fig. 27 A; *Perachora*, pl. 34, 1; *Mon. Ant.*, XXV, 1919, pl. 16; *ibid.*, p. 615, fig. 210; *Arch. Zeit.*, XXXIX, 1881, pp. 281-293, pl. 17, 1; *N. d. Sc.*, 1885, pl. IV, 1; Roscher, *Lexikon der griechischen und römischen Mythologie*, p. 1716 (upper figure); *Ath. Mitt.*, XXI, 1896, pl. I. The bar may be present in *Ath. Mitt.*, LX-LXI, 1935-6, pl. 99, 2, and de la Coste-Messelière, *Delphes*, fig. 44 C.

<sup>138</sup> Cf. *Ant. Denk.*, I, pl. XII, 12; *B. M. Cat. Jewellery*, pl. XLII, 2150; Danish National Museum, *Catalogue of the Terracottas*, pl. 71, 583.

<sup>139</sup> A shield from the Potters' Quarter, XXXVI, 4, has a Gorgoneion in relief.

<sup>140</sup> *A.J.A.*, XLI, 1937, p. 551, fig. 12.

<sup>141</sup> *A.J.A.*, XV, 1911, pp. 484-495 (from Corinth); Fröhner, *Terres cuites d'Asie de la collection Gréau*, pl. 95, 1; Minns, *Scythians and Greeks*, fig. 265, I, 4 (from the Chersonese).

<sup>142</sup> Cf. *Cat. du Mus. d'Alexandrie*: Breccia, *Necropoli di Sciatbi*, pl. LXXVIII, 251 and 253; Furtwängler, *Sammlung Sabourowff*, II, pl. CXLV (left); *Ath. Mitt.*, VIII, 1883, pl. XV, 3; *B. M. Cat. Terracottas*, D 397 (fig. 72), C 101, C 833, C 848, C 849; *B. M. Cat. Jewellery*, pl. XLII, 2134-2143, 2147-2149; Danish National Museum, *Catalogue of the Terracottas*, pl. 71, 569. I am indebted to Miss Berta Segall for the Breccia reference.

<sup>143</sup> Cf. *Ath. Mitt.*, XXXIII, 1908, Beilage to p. 113, fig. 1; Pagenstecher, *Calenische Reliefkeramik*, pl. 21; *B. M. Cat. Terracottas*, p. 441, E 72 (a mould for making such reliefs); Walters, *B. M. Cat. Vases*, IV, G 124.

**85** (KH84). Disk with dove in relief. Plate 44. D. ca. 0.03.

Deep buff clay. Thin raised line surrounds relief. Dove in profile facing right. Right wing lifted. Left foot on ground, right lifted and advanced. Tail consists of four broad feathers, lengthening toward top. Wings formed by two rows of short triangular feathers and a single row of longer ones.

From Deposit 3 of the Terracotta Factory. This charming relief was doubtless inspired by the dove type of Sikyonian coins. On these the dove is usually represented as flying. In the mould the dove is evidently in the act of alighting, a pose which occurs less frequently in the coins.<sup>144</sup> The lifted foot does not seem to appear on the coin types.

**86** (KH85). Upper part of seated female figure. Plate 44. H. 0.048. W. 0.044. Broken off below knees.

Yellow clay, partly turned gray. Neck and chin included in mould. Upper arms close to sides; forearms doubtless intended to be added by hand. Modelling of breast indicated, with few folds of drapery below. Heavy fold crosses body at waist. Knees close together. At right side appears part of thin-legged stool.

From Deposit 3 of the Terracotta Factory.

**87** (KH86). Seated female figure. Plate 44. H. 0.08. W. 0.053. Edges chipped. Upper part broken off across shoulders. Surface badly worn.

Orange-red clay, with slip of same. Lower arms not included in mould. Himation wrapped around body, beginning at waist, with lower edge falling diagonally from right hip to below left knee. Modelling of legs under drapery sketchily indicated.

**88** (KH88). Fragment of female figure. Plate 44. H. 0.045. W. 0.043. Feet and part of lower legs preserved.

Brown clay. Heavy fold of drapery hangs between legs just below knees. Drapery covered with horizontal grooves, roughly parallel. Feet clumsily modelled, with long toes.

In style this fragment is very similar to a reclining male figure, XIV, 21, which was found in the late 5th century deposit of the Rectangular South Pit. Since, moreover, the style of Nos. 88–90 is not unlike that of No. 21 which is certainly of 5th century date, I think we may assign all three

mould fragments to this period. The presence of No. 89 in a mid 4th century deposit may have been accidental.

**89** (KH89). Similar fragment. H. 0.036. W. 0.044. Corner of low square base preserved with left foot.

Red clay.

From Deposit 6 of the Terracotta Factory. Very similar to No. 88, but of somewhat better style.

**90** (KH90). Similar fragment. H. 0.043. W. 0.046. Soft red clay.

Found east of the East Room of the Terracotta Factory. Similar to the preceding except that the base is somewhat higher.

**91** (KH91). Fragment of large draped figure, probably seated. Plate 45. H. 0.056. W. 0.066. Only lower edge preserved unbroken. Fragment includes feet and legs from knees down.

Red clay. Buff slip on back. Right foot slightly advanced. Feet together, but knees widely separated. Edge of drapery turned back in heavy roll along either side of bare right leg. Drapery over left leg covered with horizontal grooves as in preceding fragments. Toes branch off directly from ankle. Legs very badly proportioned; distance from foot to knee much too short. Low square base.

Found east of the East Room of the Terracotta Factory. The technique is very similar to that of the three preceding fragments.

**92** (KH92). Fragment of large standing female figure. Plate 44. H. 0.095. W. 0.067. Fragment comprises left leg from knee down, part of right and part of base. Only lower edge preserved intact.

Reddish buff clay. Figure heavily draped in himation, with finely pleated chiton appearing underneath. Weight on left leg, right knee bent. Few large diagonal folds across right leg; himation falls in heavy roll down left side. Toes roughly indicated.

This fragment is of better style than those immediately preceding. Its large scale, the broad folds of the himation, and the effectively rendered contrast between the heavy woollen himation and the finer material of the chiton, give the fragment an impression of great dignity which, of course, might be destroyed if we had the rest of the figure. When

<sup>144</sup> Cf. Babelon, *Traité des monnaies grecques et romaines*, II, 3, pl. CCXXII, figs. 1–5 (dated at 400–300 B.C.); B. M. Cat. Coins, Peloponnesus, pl. VIII, 18; Grose, *Catalogue of McClean Collection of Greek Coins*, II, pl. 219, 27 and 28.

complete, the figurine must have been about 30 cm. in height.

**93** (KH93). Half of large seated female figure. Plate 45. H. 0.125. Depth of base: 0.085. Right half of figure preserved. Broken off at chin.

Very coarse gray clay, full of small pebbles. Thin layer of finer clay inside, turned red in firing. Seat and leg of chair outlined by groove; front edge slightly concave. Chair rests on low base which projects far forward. Probably head was included in mould. Upper arm close to body, forearm not included in mould. Body completely draped in peplos; corner of overfold falls in swallow-tail fold. Edge of garment indicated by narrow raised band around neck and down arms. Upper part of body too large in proportion to legs. Lower leg and foot very clumsily modelled. Side edge of mould finished with curved strokes, probably indicating that there was a second mould for back of figure.

**94** (KH94). Fragment of female figure. H. 0.05. W. 0.026. Upper right half of figure preserved. All edges broken. Surface badly preserved.

Very soft gray clay, burned red on outside. Hair in heavy mass round head. Head inclined forward. Large round earring.

From immediately east of the East Room of the Terracotta Factory.

**95** (KH95). Fragment of standing male figure. Plate 45. H. 0.044. W. 0.038. Left leg to knee, part of right, and part of base preserved.

Soft red clay. Buff slip. Feet close together on small square base. Toes indicated.

From Deposit 3 of the Terracotta Factory. It is possible that this is a fragment of a comic actor, perhaps related in type to No. 49.

**96** (KH96). Fragment of horse and rider in relief. Plate 45. H. 0.033. W. 0.031. Lower right-hand corner preserved, with forelegs of horse and foot of rider.

Red clay, fired brown outside. Horse advances to right. Left foreleg raised, right rests on low base.

Several figurines from this mould were found in the Potters' Quarter. The general type, of course, is very common, but the particular variety found in the Potters' Quarter differs not only from the types found on other sites but even from those found elsewhere in Corinth. The standing position, with the horse facing right, the left foreleg lifted to the level of the chest, and the foot of the rider projecting slightly in front of the right foreleg of

the horse, seems to be peculiar to the Potters' Quarter reliefs.

**97** (KH97). Upper part of back of small nude female figure. Plate 45. H. 0.04. W. 0.018. Broken off across hips.

Yellow clay and slip. Figure stands with arms at sides. Hair piled in heavy mass on head. Round earrings. Excessively long neck and extremely heavy arms. Back strongly concave at waist. Back of mould has small boss at upper end to keep it in horizontal position. Edges of mould too irregular to allow another mould to be fitted to it. Two halves of figure, therefore, moulded separately.

Found in the court of the Terracotta Factory, between the second and third piers.

**98** (KH99). Back of large female head. Plate 45. H. 0.054. W. 0.068. Broken off at shoulders.

Very hard, light brown clay. Upper half of head not included in mould; perhaps to be added by hand. Hair pulled up straight from neck, and probably arranged in knot on top. Thin, irregular vertical grooves divide strands. Neck short. Although lower edge broken, mould probably included no more of figure. Edges finished with curved grooves, presumably to help in fitting front and back halves of mould.

**99** (KH100). Fragment of seated female figure. Plate 45. H. 0.044. W. 0.055. Fragment includes lower left corner of mould, comprising legs of chair and bit of drapery.

Hard reddish brown clay. Legs of chair curved inward and spreading at bottom. Figure appears to be wearing himation with pleated chiton under it.

From the Shrine of the Double Stele.

**100** (KH103). Fruit or nut? Plate 46. H. 0.059. W. 0.042. Part of left side broken away. Edges chipped.

Very hard grayish yellow clay. Object egg-shaped. Surface covered with tiny, slightly raised bosses. Possibly representation of almond. Three horizontal setting-lines on outside, parallel to each other and at right angles to edge.

The hardness and color of the clay, as well as the presence of the setting-lines, indicate that the mould is probably archaic.

**101** (KH104). Unknown object. Plate 46. H. 0.045. W. 0.031. Surface much worn.

Light yellowish gray clay. Spot of red paint

outside at smaller end. Mould very deep. Object egg-shaped with long raised boss on top.

Found in the Terracotta Factory, in the upper levels of the Altar Room.

**102** (KH106). Lower part of relief of faun and maenad. Plate 46. H. 0.024. W. 0.045. Only legs preserved.

Orange-red clay. Low relief. Figures stand on shallow exergue, facing each other. Girl on right side, standing on tip-toes, with drapery blown back. Youth on left, nude, with very heavy legs. Between his feet appears end of staff with small projections, perhaps thyrsos.

The mould is obviously later than the others, and is one of the few objects found in the Potters' Quarter which are later than the 4th century B.C. It was probably a mould for making small reliefs to be applied to vases, such as those which appear on Calenian and other late vases,<sup>145</sup> and occasionally on earlier vases.<sup>146</sup> A group of moulds from Smyrna,<sup>147</sup> formerly in the Gréau collection, served the same purpose. Another mould for making relief ornaments, which was found at Agrigentum,<sup>148</sup> also has a design of a maenad, and in style may be compared with No. 102. The Potters' Quarter mould may be assigned roughly to the 3rd century. One may compare the drapery of a maenad engraved on a bronze mirror from Corinth,<sup>149</sup> dated by Züchner in the first half of the 3rd century. The style of the mould is similar to that of a number of Neo-Attic reliefs,<sup>150</sup> and shows a particularly strong resemblance to those of a base in Berlin.<sup>151</sup> This has on one side a maenad whose drapery is nearly identical with that of the female figure on the mould; the legs of a faun on another side of this base resemble very closely in their modelling those of the faun on the mould.

**103** (KT66-1). Fragment of large disk with lotos

blossoms and spirals. Plate 46. D. 0.362. Thickness: 0.025.

Yellow clay, rather powdery. Single well-cut zigzag round edge. Frieze inside rim consists of large spiral, lotos blossom, similar spiral reversed, and lotos bud. Blossom has lozenge-shaped core (raised in mould), long, curved outer leaves, and three round-tipped central leaves (sunken in mould) of nearly equal length. Bud has core (raised) with three straight sides and curved lower edge; above it, single lozenge-shaped leaf (sunken). On back of disk appears mould for rear end of large horse in flat relief. Horse stands, facing left, on narrow exergue line and must have filled entire surface of disk. Thin tail, cut off square at tip.

This mould, and the three following, were designed for making circular decorative disks of a type of which many examples were found in the Potters' Quarter. Such moulds could also be used for stamping a circular design on a square plaque, as in the case of MF1950 from Temple E in Corinth. Also near Temple E was found a fragment of a large mould for making circular disks. This differs from all the other disks and moulds for disks found at Corinth, since it has inside the zigzag border a floral design with a long, curved stem and a rosette-like flower instead of the more usual lotos and palmette frieze.

A fragment of a mould rather similar to No. 103 was found in the cave at Pitsa, showing that moulds for such disks were exported, probably because the usual procedure of cutting away the background around the design made the disks themselves too fragile for export. A mould, found at Olynthos,<sup>152</sup> for a disk with a horse as central motif, bordered by a single tooth pattern, is possibly also a Corinthian export.<sup>153</sup>

**104** (KT66-4). Fragment of large disk with lotos

<sup>145</sup> Cf. Pagenstecher, *Calenische Reliefkeramik*, especially pl. 3, a, and Chase, *Loeb Collection of Arretine Pottery*, pl. IX, 2 and 3.

<sup>146</sup> An oinochoe with a relief disk, representing a satyr's head, applied to its neck (Schefold, *Untersuchungen zu den Kertscher Vasen*, fig. 12) is dated by Schefold in the middle of the 5th century.

<sup>147</sup> Fröhner, *Terres cuites d'Asie de la Collection Gréau*, pl. 92; no. 6 in its pose and drapery resembles the female figure of our mould (for a drawing see Fröhner, *Collection Gréau*, 1891, p. 213, no. 1043). Compare a mould of a dancing female figure, also from Smyrna, in Copenhagen (Danish National Museum, *Catalogue of the Terracottas*, pl. 60, 489).

<sup>148</sup> *Röm. Mitt.*, XII, 1897, p. 276, no. 6.

<sup>149</sup> Züchner, *Griechische Klappspiegel*, p. 97, fig. 49.

<sup>150</sup> Cf. British School at Rome, *Sculptures of the Museo Capitolino*, pl. 27, 14; Gerhard, *Antike Bildwerke*, pl. CVIII, 1 (second figure from right); Hauser, *Die neu-attischen Reliefs*, pl. I, 20, and pl. II, 30.

<sup>151</sup> Königliche Museen zu Berlin, *Beschreibung der antiken Skulpturen*, pp. 420 f., no. 1056.

<sup>152</sup> *Olynthus*, VII, pl. 45.

<sup>153</sup> Cf. also a fragment from Metapontum (*N. d. Sc.*, 1940, p. 109, fig. 49, left).

and palmette frieze. Plate 46. H. 0.104. D. about same as that of No. 103.

Pebbly brown clay with finer slip of same color inside. Single zigzag at edge. Palmette has small lozenge-shaped core, volute at either side, and eleven round-tipped leaves; all except central leaf curve outward. Lotos has two large, curved outer petals and three small inner ones.

From Deposit 2 of the Terracotta Factory.

**105** (KT66-2). Fragment of large disk with lotos and palmette frieze. Plate 46. H. 0.086. D. *ca.* 0.33.

Hard buff clay, polished on back. Fine zigzag,

carelessly cut, around edge. Large palmette with seven large, round-tipped leaves. Lotos has two long, pointed outer leaves and three round-tipped inner leaves, of which central one is longer. Edge of back of mould strongly curved.

MF637, from the main excavations of Corinth, may be compared; it is similar except that it has a double zigzag around the edge.

**106** (KT66-8). Small fragment of disk with double zigzag. L. 0.061.

Very hard buff clay. Around edge double zigzag, not very well cut.

## CHAPTER IV

### Metal and Glass Objects

**A**BOUT a hundred and fifty metal and glass objects were inventoried. Others which were not inventoried consisted of unidentifiable bronze and iron bars, disks, etc., all fragmentary, and various fragments from lead and bronze sheets or plaques. A few small bits of glass were left uninventoried, but the total yield of glass from the excavation was very small.

The number of metal objects, exclusive of the coins,<sup>1</sup> is certainly not very large, but, on the other hand, it is probably not abnormally small for the size of the excavation. The most interesting feature of the collection is its great variety. Except for some of the jewelry, a few types of nails and one variety of arrow head, each object is usually the sole example of its kind. The reason for this wide variety and for the lack of duplication among the metal objects is probably that they were intended in the main for purely domestic and personal use. A certain amount of duplication and a distinct limitation of the number of types found would be expected if the objects were designed as votives. Except in the case of the few bronzes (Nos. 1 and 47) from the Aphrodite Deposit and a thin bronze ring from Stelai Shrine A, none of the metal objects could be identified certainly as votive offerings. The few from the Circular South Shrine, an iron sandal reinforcement (No. 71), an iron spike (No. 26) and part of an iron chain (No. 68), have no possible religious significance and their presence in the shrine is doubtless accidental.

Since in general the metal objects were not found in deposits, most of them cannot be dated from their contexts. The exceptions, in addition to those already mentioned, are the pins and hair spirals from the Geometric graves, the spear head from the North Dump, and some of the objects from the Terracotta Factory. The chronological evidence which can be obtained adds little to that already observed at other sites, notably at Perachora.

Since Corinth is known to have been one of the chief centers for the manufacture of bronzes and since none of the terracotta figurines in the Potters' Quarter, with one or two possible exceptions, and comparatively little of the pottery were imported from outside Corinth, we are probably justified in assuming that most, if not all, of the bronzes from the Potters' Quarter are of Corinthian origin. The iron objects are also very possibly of local manufacture, although we know little of that phase of Corinthian industry. The glass is more likely to have been imported.

The probability that the metal objects are of Corinthian provenance is not particularly significant in itself, since nothing of a sculptural nature was found and none of the

<sup>1</sup> The coins, 103 of which were found, will be published with those from the other excavations of Corinth.

bronzes has any special artistic value. One would, of course, hardly expect to find beauty in the iron objects. There is, however, a certain interest to be derived from knowing what types of metal tools, jewelry, etc., were produced in the factories of Corinth, in addition to the far better-known bronze statuettes, mirrors and other works of art. The conclusions reached from a study of the rich deposits of metal objects at Perachora are in the main confirmed by the Potters' Quarter material. Much of the Perachora material is, of course, entirely without parallel in the Potters' Quarter and a few of the Potters' Quarter types are not found at Perachora. In general, it is probably safe to say that any bronze from Perachora which finds a parallel in the Potters' Quarter was probably made at Corinth. To a lesser degree the same statement may be true of the iron objects. In the same way one may probably strengthen the claim of Corinth to be the point of origin of many metal objects from other sites, notably the Argive Heraion. The further one gets from Corinth, however, the less likely it is that parallels from the Potters' Quarter will have much significance, since bronze and iron objects of very similar appearance were without doubt manufactured contemporaneously in many places. Particularly would this be true of those which served a purely utilitarian purpose, and it is in this category that a large proportion of the metal finds from the Potters' Quarter belong.

## VASES

**1** (KM1). Bronze bowl with inscription. Plate 47. Several fragments, largest measuring 0.093 in width and 0.038 in height. Diameter of bowl ca. 0.104.

Fabric extremely thin. Preserved fragment of bottom shows that bowl was flat underneath, without base. Sides flaring and slightly convex. Edge of rim bent slightly outward. At one side, just under rim, is a carefully incised inscription: τὰς Ἀφροδίτας ἐμί.

Found in the Aphrodite Deposit (p. 23), outside the southeast corner of Stelai Shrine A. The bulk of this deposit appears to be datable in the second half of the 6th century and early 5th. The shape of the vase was probably similar to that of a Cypriote bowl in New York.<sup>2</sup> An archaic dedicatory inscription, similarly placed under the rim, appears in a Boeotian phiale,<sup>3</sup> the shape of which, ex-

cept for the central boss, is very close to that of our bowl.

**2** (KM40). Miniature bronze phiale. Plate 47. D. 0.049. H. 0.007. Several fragments missing.

Very thin fabric. Vase shallow, with small boss in center.

Found in the area of the Erosa Shrine (p. 29), to which it may have belonged. In that case, its date is probably not earlier than the late 5th century. Similar bronze phialai of miniature type are not uncommon.<sup>4</sup> Many are from temple deposits.

**3** (KM4). Bronze kylix handle. Plate 47. L. 0.06. W. (top) 0.036.

Well made and in perfect condition, with fine dark green patina.

From the North Room of the Terracotta Factory. Its provenance may possibly indicate that it should be dated in the 4th century. Similar handles have been found at various sites.<sup>5</sup>

<sup>2</sup> Richter, *Metrop. Mus. Bronzes*, p. 221, no. 613.

<sup>3</sup> Ἐφ. Ἀρχ., 1896, p. 243, fig. I<sup>2</sup>.

<sup>4</sup> *Arg. Her.*, II, pls. CXIII and CXIV; *Olympia*, IV, pl. LII, no. 879; *F. de D.*, V, p. 90, fig. 304; *ibid.*, II, pt. 3, fig. 102 (at right); *A.J.A.*, XLIII, 1939, p. 414, fig. 5 (from Prosymna); *Perachora*, pl. 57, I, 2, 5, 11, 18, 20; Valmin, *Swedish Messenia Expedition*, p. 449; *Lindos*, I, pl. 31, no. 749; Ἀρχ. Δελτ., I, 1915 (παράρτ.), p. 27, figs. 23, β and γ, and 24, β and γ (from the Acropolis).

<sup>5</sup> *Olympia*, IV, p. 196, no. 1263; Carapanos, *Dodone et ses ruines*, pl. XLVI, 11; Πρακτικά, 1932, p. 49, fig. 3, nos. 5 and 7 (also from Dodona); *A.J.A.*, V, 1890 (1st series), pl. XV, nos. xxix and xxxi (from Anhedon); *Perachora*, pl. 66, 5; *Olynthus*, X, pl. LIII, 644-647.

**4** (KM36). Bronze situla handle. Plate 47. L. 0.056. H. 0.051. Lower edge broken off.

Very heavy fabric, in good condition. Heavy, plain ring, attached to plaque which was originally shield-shaped with bosses at upper corners. Two small rivet holes at lower edge of preserved portion.

Probably of 6th century date. One of the similar handles from Olympia has an archaic  $\Delta$  inscribed on it,<sup>6</sup> and a complete situla from the same site<sup>7</sup> with handles of similar type is described as of "relativ hohes Alter." The handles of the latter lack the bosses which appear on our handle. Of the other handles from Olympia, nos. 871 and 872 have the bosses and no. 873 does not. The bosses appear on a similar handle from Lindos.<sup>8</sup> On a handle from Perachora<sup>9</sup> they are omitted. We may compare also a handle from the Acropolis,<sup>10</sup> in which a slight widening of the plaque replaces the bosses.

**5** (KM39). Bronze vase handle with leaf-shaped pendant. Plate 49. L. 0.04. D. (ring) 0.024.

Thin, circular ring, one side of which is encircled by thin band, developing into thin, heart-shaped pendant which hangs free from ring.

From the East Room of the Terracotta Factory, and therefore perhaps of 4th century date. Similar handles have been found at Dodona,<sup>11</sup> Olynthos<sup>12</sup> and Lokroi Epizephyrioi.<sup>13</sup> The latter was found in a grave with objects of about the end of the 5th or beginning of the 4th century.

**6** (KM47). Circular bronze handle. Plate 49. D. 0.02.

Similar to preceding, but heavier.<sup>14</sup> Thinner

<sup>6</sup> *Olympia*, IV, no. 871 (cf. also 872 and 873).

<sup>7</sup> *Ibid.*, no. 868.

<sup>8</sup> *Lindos*, I, pl. 31, no. 778.

<sup>9</sup> *Perachora*, pl. 66, 15.

<sup>10</sup> *Αρχ. Δελτ.*, I, 1915 (παράρτ.), p. 24, fig. 14, ε.

<sup>11</sup> *Πρακτικά*, 1931, p. 85, fig. 2 (right), and 1932, p. 50, fig. 5 (lower left).

<sup>12</sup> *Olynthus*, X, pl. LXIV, 810.

<sup>13</sup> *N. d. Sc.*, 1912 (Suppl.), p. 8, fig. 6 (upper left).

<sup>14</sup> Cf. *Mon. Ant.*, XVII, 1906, p. 723, fig. 555, lower left (from Gela); *Olynthus*, X, pl. LXI, 804; *Arg. Her.*, II, pl. CXXI, 2121, 2131, 2138, etc.

<sup>15</sup> *Πρακτικά*, 1929, p. 123, fig. 12 (lower left).

<sup>16</sup> Furtwängler, *Aegina*, pl. 117, no. 17.

<sup>17</sup> *Αρχ. Δελτ.*, I, 1915 (παράρτ.), p. 27, fig. 25, β.

<sup>18</sup> *Olynthus*, X, pls. LXXXVIII, 1313-1315, and LXXXIX, 1330 and 1331.

<sup>19</sup> *N. d. Sc.*, 1935, p. 341, fig. 14, e.

<sup>20</sup> *N. d. Sc.*, 1931, p. 456, fig. 76. Cf. *Annali dell' Instituto*, LIII, 1881, tav. d'agg. Q, no. 2, also of iron and of similar type, but with only one nail.

<sup>21</sup> Cf. *Dodone*, pl. XLVIII, 8; *Olynthus*, X, pls. XCVIII, 1567-1572, and XCIX, 1573-1582; *Hesperia*, Suppl. VII, p. 100, fig. 45, no. 29.

at one side where pendant ornament, now lost, was attached.

**7** (KM71). Bronze handle. Plate 47. L. 0.145.

Two narrow strips, joined to make one which is round in section. Ends flattened into broader tip, through which hole is bored for attachment to vase.

This was probably the handle of a small situla. An identical handle was found at Dodona<sup>15</sup> and another, in which the original curve of the handle is better preserved, at Aegina.<sup>16</sup>

**8** (KM64). Bronze repair clamp. Plate 47. L. of strips: 0.042. L. of nails: 0.019.

Two thin strips, rectangular in shape with rounded corners, connected by two double-headed nails.

This clamp was obviously intended for mending a vase of very heavy fabric. Very similar bronze clamps have been found on the Acropolis<sup>17</sup> and at Olynthos;<sup>18</sup> there is another from Veii.<sup>19</sup> Another of very similar type but made of iron also comes from Italy.<sup>20</sup>

**9** (KM13). Lead repair clamp. L. 0.10.

Two heavy, bent lead pipes, hemispherical in section, connected by two lead struts. Clay filling space between is probably part of pithos repaired by clamp.

Similar lead clamps for mending vases are often found, especially on pithoi.<sup>21</sup>

#### TOOLS AND IMPLEMENTS

**10** (KM3). Bronze fishhook. Plate 48. L. 0.02. Upper end broken off.

Fishhooks of the classical period are very commonly found on Greek sites. Examples which are closely similar to ours have been found in Greece,<sup>22</sup> and also in Italy and Sicily,<sup>23</sup> and in Egypt.<sup>24</sup>

**11** (KM35). Bronze fishhook. Plate 48. L. 0.025. Barb broken off.

Several scratches around upper end, probably to keep line from slipping.

From the North Room of the Terracotta Factory, and therefore perhaps to be dated in the 4th century.

**12** (KM69). Bronze netting needle. Plate 47. L. ca. 0.10. Prong at one end broken off.

Implements of this kind, consisting of a thin cylindrical shaft with two prongs at either end and used for making nets, occur throughout the Greek world.<sup>25</sup>

**13** (KM85). Iron pruning hook. Plate 48. L. 0.101.

Pointed tip; blade wide at center and slightly narrower again at handle. Two holes at lower end for fastening handle.

Ancient pruning hooks occur in a wide variety of shapes.<sup>26</sup> The wooden handles may be attached with rivets, as in No. 13, or they may be inserted into a long, tubular socket at the base of the hook. The examples from Perachora are said to have had no means of attaching handles and hence perhaps to have been used as tokens or a form of currency.<sup>27</sup>

<sup>22</sup> Cf. *Aegina*, pl. 115 (two examples at lower right); *Délos*, XVIII, pl. LXIX, 551; 'Αρχ. Δελτ., II, 1916, p. 95, fig. 40 (from the sanctuary of Apollo Korynthos in Messenia); *ibid.*, p. 210, fig. 34 (from Chios); *Perachora*, pl. 80, 6; *Olynthus*, X, pls. CXVII and CXVIII; Frödin and Persson, *Asine*, fig. 227, no. 5; Petrie, *Tools and Weapons*, pl. XLIII, 96-98 (in Athens).

<sup>23</sup> *Mon. Ant.*, XXXIV, 1932, p. 343, fig. 15, 4 (from Populonia); *Atti e memorie della Società Magna Grecia*, 1932, p. 110, fig. 63 (lower left); Marconi, *Agrigento Arcaica*, fig. 49; *Mon. Ant.*, XXV, 1918, p. 581, fig. 170.

<sup>24</sup> Petrie, *Naukratis*, I, pl. XI, 8 and 9; Petrie, *Tanis*, II, pl. XXXVIII, 14.

<sup>25</sup> Cf. *Olympia*, IV, pl. LXV, 1130; *Lindos*, I, pl. 15, no. 406; 'Αρχ. Δελτ., II, 1916, p. 95, fig. 40 (from temple of Apollo Korynthos); *ibid.*, p. 210, fig. 34 (from Chios); 'Αρχ. Έφ., 1906, p. 78, fig. 2 (from Aetolia); *Délos*, XVIII, pl. LXIX, 550, 1-12; *Hesperia*, IX, 1940, p. 418, fig. 61, 3 (from Halai); *Olynthus*, X, pl. CXVI; British Museum, *Guide to Exhibition Illustrating Greek and Roman Life*, fig. 181; *F. de D.*, V, p. 117, fig. 426; Petrie, *Tools and Weapons*, pl. LXII, 27 (from Athens); *Metrop. Mus. Bronzes*, no. 1705 (from Cyprus); Wiegand, *Priene*, p. 387; Petrie, *Naukratis*, II, pl. XVI, 17; *Jahrbuch*, XXIX, 1914, Arch. Anz., p. 215, fig. 19 (from South Russia).

<sup>26</sup> Those most closely resembling No. 13 are: 'Αρχ. Δελτ., X, 1926, p. 23, fig. 14 (from Aetolia); *Perachora*, pl. 86, 16-19; *Olynthus*, X, pl. CIV, 1624; Wiegand, *Priene*, fig. 504; Petrie, *Naukratis*, I, pl. XI, 11.

<sup>27</sup> *Perachora*, pp. 189 f.

<sup>28</sup> *Mon. Ant.*, XVII, 1906, p. 723, pl. LIV, 7.

<sup>29</sup> A knife blade of fairly similar shape was found in Egypt (Petrie, *Tanis*, II, pl. XXXVIII, 6).

<sup>30</sup> Compare, however, a dagger from Corinth (Naue, *Vorrömischer Schwerter*, pl. V, 3).

**14** (KM8). Bronze knife. Plate 48. L. 0.172.

Blade slightly concave with recurved back. Widest near point. Handle also of bronze; probably originally had two leaves, of which one is preserved. No traces of attachment for wood or bone handle.

Found just outside the west wall of the Terracotta Factory, and hence possibly to be dated in the 4th century, although it may equally well be earlier, since this area is really outside the limits of the Terracotta Factory. This knife is of a shape which appears to be unique in bronze. An iron knife from Gela<sup>28</sup> is somewhat similar.

**15** (KM88). Iron blade. Plate 48. L. 0.071. W. 0.035. Only upper end preserved.

Very broad, flat blade, sharply pointed at tip.

This blade is probably from a knife,<sup>29</sup> possibly from a dagger, although the broad dagger is rarely found in Greece after the Mycenaean period.<sup>30</sup>

**16** (KM84). Iron tongs. Plate 49. L. 0.44.

Thin handles, flattened where they cross and fastened by single iron rivet. Bars narrow again to tips, and are turned so that broader surfaces face each other; broad surfaces of handles lie on same plane.

From Deposit 6 of the Terracotta Factory. The tongs are probably, therefore, to be dated near the middle of the 4th century. Tongs are, of course, represented on black-figured and red-figured vases

long before this period.<sup>31</sup> There are several existing examples of tongs of the Greek period,<sup>32</sup> in addition to these from the Potters' Quarter, so that Petrie's<sup>33</sup> statement that no tongs have been found which are dated before the Roman period is no longer true. The early Roman tongs<sup>34</sup> are of much the same type as the Greek. Both Greek and Roman examples differ from No. 16 in having much shorter heads.

**17** (KM91). Small iron hammer. Plate 49. L. 0.035. Much rusted. Smaller end probably broken.

Blunt at one end. Widens at center, with hole for inserting wooden handle.

The small size of this implement makes it probable that it was used in metal working. It was probably originally blunt at one end and pointed at the other.<sup>35</sup> Other Greek hammers are blunt at both ends.<sup>36</sup> With the latter type compare an early Roman hammer from Cáceres.<sup>37</sup>

**18** (KM90). Small iron shovel. L. 0.068. W. 0.058.

Heavy, flat plaque, square in shape, with small point turned up at one end for attachment to handle.

**19** (KM37). Bronze and ivory mirror handle. Plate 47. L. 0.14. W. (at top) 0.04. Surface of ivory handle much damaged, and parts missing. Fragments missing from bronze sheet which carries design.

Handle proper consists of thin rod of bronze, square in section, tapering to bottom where short cross bar is attached. On this handle is a flat, perforated, floating disk, which probably rested at bottom of rod and held ivory handle in place. Junction of handle and mirror consists of two very thin sheets of bronze cut to same shape. Lower sheet

formed from same piece as handle; upper one much thinner and attached separately. Latter bears delicate stamped design of palmette rising from between two volutes, with second pair of volutes at upper corners where mirror was attached. Ivory handle large (ca. 0.025 m. in diameter), but with very thin walls. It swells outward slightly in center and has wide raised band around bottom. A small section at bottom which happens to be uncorroded shows that surface of handle was highly polished. Inside tinged green from contact with bronze.

From the Northeast Room of the Terracotta Factory. Since it was not found in any of the deposits in the factory, the mirror does not necessarily belong to the 4th century, but may equally well be of earlier date. A mirror in Corinth (MF1138) must have been cast from the same mould as our fragment. The handle is missing, but the mirror itself is preserved and is 0.124 m. in diameter. The same arrangement of volutes and palmettes, more elaborately developed, appears on two bronze mirror handles from Lokroi Epizephyrioi.<sup>38</sup> We may also compare a mirror in Athens<sup>39</sup> which must originally have had an ivory or wooden handle. Volutes and palmettes, though quite different in design from those of No. 19, mark the junction of the handle and mirror. It is very unusual for the bone or ivory handle of a mirror to be preserved. In both the other two mirrors in which it still exists it is of a more elaborate type. One of these mirrors is from the Peloponnesos and dated in the middle of the 5th century.<sup>40</sup> The other is probably also of 5th century date.<sup>41</sup>

**20** (KM62). Bronze strigil handle. Plate 50. L. 0.105. Parts missing at both ends. Fragment comprises thin bar which forms back of handle, together with part of wider main part of handle.

<sup>31</sup> Cf. Welcker, *Alte Denkmäler*, III, pl. XXXVI; *Monumenti Inediti*, XI, pl. XXIX, 2; *J.H.S.*, XXXIII, 1913, pl. XI.

<sup>32</sup> *N. d. Sc.*, 1931, p. 439, fig. 44 (assigned by the writer to the 5th century); Wiegand, *Priene*, fig. 511; *Metrop. Mus. Bronzes*, no. 673 (from an Etruscan tomb of the 4th-3rd centuries); *Mon. Ant.*, XXXVII, pt. 2, 1938, p. 915, pl. XLI, 7 (from Italy); *Museo italiano di antichità classica*, I, pl. VIII a, 12.

<sup>33</sup> *Tools and Weapons*, p. 41.

<sup>34</sup> Cf. *Jahrbuch*, XLVII, 1932, *Arch. Anz.*, p. 362, fig. 7, no. 2 (from Cáceres in Spain); Petrie, *op. cit.*, pl. XLV, 124, 125, 127 (from Pompeii); Ceci, *Piccoli bronzi del Real museo nazionale*, pl. X, 20 (from Pompeii).

<sup>35</sup> Cf. Wiegand, *Priene*, fig. 498; and *Délos*, XVIII, pl. LXX, 565.

<sup>36</sup> Cf. 'Αρχ. 'Εφ., 1917, p. 195, fig. 7 (from Sounion).

<sup>37</sup> *Jahrbuch*, XLVII, 1932, *Arch. Anz.*, p. 362, fig. 7, no. 12.

<sup>38</sup> *N. d. Sc.*, 1911 (Suppl.), p. 23, fig. 19 (bottom).

<sup>39</sup> 'Εφ. 'Αρχ., 1884, pl. 6, no. 5.

<sup>40</sup> *Jahrbuch*, XXV, 1910, *Arch. Anz.*, p. 52, fig. 6.

<sup>41</sup> Tarbell, "A Greek Hand-mirror in the Art Institute of Chicago" in *Decennial Publications of the University of Chicago*, VI, pp. 1-4, pl. I.

Very thin fabric. At wide end appears part of slightly sunken rectangle in which are two lines of letters in indistinct relief.

The inscription appears to run as follows: AM KVO. The first two letters are fairly certain; those in the lower line are practically illegible. Inscribed Greek strigils are not uncommon,<sup>42</sup> but most are of fairly late date.

**21** (KM6). Bronze nail. Plate 48. L. 0.042. D. (head) 0.015.

Flat, thin, circular head. Shank square in section and quite thin.

Two bronze nails from Dodona<sup>43</sup> are quite similar in shape. Compare also *Olynthus*, X, pl. XCIV, 1425.

**22** (KM5). Bronze nail. Plate 48. L. 0.047. D. (head) 0.018. Tip broken off.

Very heavy nail, round in section, with thick circular head, flat on top.<sup>44</sup> Thin, raised ridge round edge of under surface of head.

**23** (KM7). Bronze nail. Plate 48. L. 0.04. D. (head) 0.01. Tip broken off.

Shank as heavy as that of preceding, but head much smaller. Shank round near head, but slightly flattened below.

Very similar nails have been found at various sites.<sup>45</sup>

**24** (KM38). Bronze nail. Plate 48. L. 0.02.

Thin, very short point with broad head.<sup>46</sup>

**25** (KM25). Bronze nail. Plate 49. D. (head) 0.016.

Very thin shank, now curled up, with very thin head of unusual breadth.

**26** (KM96). Iron spike. Plate 48. L. (extended) 0.105. Point broken off. Shank bent at right angles.

Thick shank, square in section, and small conical head.

From the Circular South Shrine. Although the presence of the spike in this deposit is probably accidental, the fact that it was found there probably indicates a date somewhere before the end of the 5th century.

**27** (KM97). Iron nail. L. 0.065. D. (head) 0.01.

Thin shank, square in section, and broad, thin head.

**28** (KM98). Iron nail. L. 0.033.

Short shank and heavy head, convex on top. Head rectangular, apparently cut to this shape from original round form.

**29** (KM107). Iron nail. Plate 48. L. 0.028. D. (head) 0.04.

Short, thin shank with very large, round, mushroom-shaped head.

This is probably a studding nail of the kind used on doors. Examples in both bronze and iron exist at many other sites.<sup>47</sup>

## WEAPONS

**30** (KM19). Bronze spear head. Plate 48. L. 0.104. D. (socket) ca. 0.02. Small piece missing at lower end. Fine green patina.

Point rounded. Blade not much wider than socket, which is very large and is continued to tip of blade in broad, tapering mid-rib. Halfway up either side of socket is small round hole for riveting head to wooden shaft.

This spear head was found in the North Dump (p. 13) and may, therefore, be as early as the third quarter of the 7th century. The shape, with a point which is rounded in outline and rather thick, is not a common one. A somewhat similar spear head was found among the objects from the earliest Artemi-

<sup>42</sup> Cf. *Olympia*, IV, pl. LXV, no. 1101 a; *Dodone*, pl. LIII, 1, and pl. XXVI, 8; *Perachora*, p. 180; *Olynthus*, X, nos. 517, 520, 523, 526, 546; *B. M. Cat. Bronzes*, p. 28, nos. 254-256 (the first of these is of 6th century date); Babelon and Blanchet, *Catalogue des bronzes antiques de la Bibliothèque Nationale à Paris*, no. 1809; de Ridder, *Bronzes antiques du Louvre*, II, no. 1571; de Ridder, *Catalogue des bronzes de la Société archéologique d'Athènes*, nos. 532-541; Schumacher, *Antike Bronzen Karlsruhe*, nos. 214 and 215; Fröhner, *Catalogue des bronzes de la Collection Gréau*, 1885, no. 402; *N. d. Sc.*, 1935, pp. 35 f., fig. 6 a; *Bulletino d'Istituto*, 1863, pp. 21-24.

<sup>43</sup> Πρακτικά, 1929, p. 121, fig. 11 (third from right), and 1932, p. 49, fig. 3 (second from left).

<sup>44</sup> For nails of this type, cf. *Lindos*, I, pl. 26, no. 627, and *Swed. Cyp. Exped.*, III, pl. CV, 57.

<sup>45</sup> *Lindos*, I, pl. 26, no. 628; *Olynthus*, X, pl. XCII, 1399 and 1400; *Swed. Cyp. Exped.*, III, pl. CV, 32.

<sup>46</sup> Cf. *Olynthus*, X, pl. XCIV, 1454-1456.

<sup>47</sup> Cf. *Aegina*, pl. 115 (lower right-hand corner); *Lindos*, I, pl. 26, no. 626; *Olynthus*, X, pl. LXXVI, 1186; 'Αρχ. Έφ., 1932, p. 76, fig. 41, 1 (from Herakleia in Macedonia); 'Αρχ. Δελτ., III, 1917, p. 244, fig. 176, center (from Thebes). *Mon. Ant.*, XVII, 1906, p. 453, fig. 322 (from Gela).

sion at Kyrene.<sup>48</sup> It has the same wide socket and rounded tip, but differs in the greater angularity at the point where the blade joins the socket and in the fact that the mid-rib stops before reaching the tip. A spear head which closely parallels ours in shape, in spite of its earlier date, was found in a Proto-Geometric amphora in the Kerameikos at Athens.<sup>49</sup>

**31** (KM80). Iron spear head. Plate 48. L. 0.168. D. (socket) 0.015. Point slightly bent.

Long socket, widening toward bottom, and equalling blade in length. Blade leaf-shaped, with narrow mid-rib and sharp point.

From Deposit 2 of the Terracotta Factory, hence perhaps datable in the middle or third quarter of the 4th century, although it might antedate the rest of the material in the deposit. Spear heads of this general type are, of course, fairly common, although there are not many of exactly the same shape. Those most closely related appear to be one from Dodona<sup>50</sup> and one from a grave at Trebenische.<sup>51</sup>

**32** (KM81). Iron spear butt. Plate 48. L. 0.225. D. (socket) 0.038. Tip broken off.

Heavy, tapering tip, rectangular (nearly square) in section, and only very slightly wider than socket at point of junction. Socket cylindrical, very broad at bottom and slightly longer than tip.

Found east of the Terracotta Factory in an area which abounded in fairly early sherds, particularly Geometric Proto-Corinthian and Early and Middle Corinthian. We may assume, therefore, that the spear butt dates from the 7th century, or possibly the early 6th century, an assumption which

is borne out by the generally archaic date of similar objects from other sites.<sup>52</sup>

Objects of this kind have been variously identified. Petrie<sup>53</sup> apparently regarded them as pikes. Daremberg<sup>54</sup> called them spear heads, and Bosanquet<sup>55</sup> and Richter<sup>56</sup> have argued for their identification as spear butts. Many vase paintings illustrate double-ended spears. In some cases, the ends appear to be more or less identical,<sup>57</sup> so that they could be used indiscriminately for thrusting. In still other cases, the lower end of the spear is merely capped to protect the wood.<sup>58</sup> Sometimes, however, the lower end carries a tip which is apparently of our type.<sup>59</sup> Since the single-ended spears invariably carry a leaf-shaped blade, and since our thin pyramidal type appears only in representations of double-ended spears, I think it is quite clear that it is intended as a butt rather than a thrusting point. It is highly probable that it could also be used as a weapon; its great weight would certainly make it very effective for this purpose.

As has been stated above, the greater number of spear butts of this particular shape is archaic, and many of them bear dedicatory inscriptions. It has been argued that the presence of the inscription proves that these are spear heads and not butts, on the ground that the "less noble part" would not be selected to bear the dedication.<sup>60</sup> It is more likely that the butts were selected because the four flat faces offer a suitable field for inscription, whereas it would be more difficult to inscribe the irregular surface of an ordinary spear head. The sites which have yielded spear butts of related shape, with pyramidal points and cylindrical sockets, are numerous.<sup>61</sup> Most of these butts are of bronze rather than of iron. Some are of the simple type of No. 32, but many are more elaborately

<sup>48</sup> *Africa Italiana*, IV, p. 195, fig. 21.

<sup>49</sup> *Jahrbuch*, XLVII, 1932, *Arch. Anz.*, p. 207, fig. 11 (upper right).

<sup>50</sup> Πρακτικά, 1929, p. 124, fig. 13 (right).

<sup>51</sup> *Jahrbuch*, XVIII, 1933, *Arch. Anz.*, p. 478, fig. 17 b.

<sup>52</sup> Some from Olympia (*Olympia*, IV, pl. LXIV, nos. 1050-1056) are dated by Furtwängler (p. 175) as late as the 5th century and second half of the 6th. Most spear butts of this type, however, appear to be earlier.

<sup>53</sup> *Tools and Weapons*, p. 32.

<sup>54</sup> *Dictionnaire des antiquités grecques et romaines*, s.v. hasta, p. 36.

<sup>55</sup> *Essays presented to William Ridgeway*, pp. 275 f.

<sup>56</sup> *A.J.A.*, XLIII, 1939, pp. 194-201.

<sup>57</sup> Cf. Benndorf, *Griechische und sicilische Vasenbilder*, pl. XXXVIII, 1.

<sup>58</sup> *Ibid.*, pl. XXXVIII, 2.

<sup>59</sup> Cf. Gerhard, *Auserlesene Vasenbilder*, III, pls. CLI and CLXXXIV.

<sup>60</sup> *J.H.S.*, II, 1881, p. 73.

<sup>61</sup> From Greece: *Olympia*, IV, pl. LXIV, nos. 1050-1055; *Arch. Zeit.*, XXXIII, 1875, pp. 181 f., no. 3 (from Olympia); *Arch. Zeit.*, XXXVI, 1878, pp. 140 f., pl. 18, 4 (from Olympia); *Arch. Zeit.*, XXXVII, 1879, pp. 160 f., no. 310 (from Olympia); *A.J.A.*, XLIII, 1939, pp. 194-201, figs. 4 and 5 (probably from Arcadia); *J.H.S.*, II, 1881, pp. 77-81, pl. XI, center (said to have come from the Peloponnesos); 'Αρχ. Δελτ., II, 1916, p. 88, fig. 24 (from the temple of Apollo Korynthos in Messenia); de Ridder, *Bronzes de*

decorated with flutings or channellings on the socket or with moulded rings at the junction of socket and point.

**33** (KM<sub>21</sub>). Bronze arrow head. Plate 48. L. 0.025. In perfect condition. Fine green, nearly black patina.

Three-bladed type, concave between blades. Round, hollow socket, continued in mid-rib part way up each face of arrow head. Sharp point, slightly thickened. Hole pierced through upper part of socket for fastening head to wooden shaft.

Arrow heads of exactly the same type, three-bladed, without barbs, and with a socket instead of a tang, have been found at many sites, including battlefields, in Greece and the islands,<sup>62</sup> and in Asia Minor.<sup>63</sup> The type remains substantially unchanged throughout the classical period. Similar

arrow heads have been found as far afield as Egypt,<sup>64</sup> Palestine,<sup>65</sup> Syria,<sup>66</sup> Persia<sup>67</sup> and South Russia.<sup>68</sup> It is not entirely certain whether the type is oriental in origin, or whether it developed in southeastern Europe.

**34** (KM<sub>20</sub>). Bronze arrow head. Plate 48. L. 0.017.

Triangular in section, with three narrow blades which end in barbs. Hole for insertion of wooden shaft, but no socket proper.

The origin of the three-barbed arrow head is also not certain, although it is possible that it was developed in southeastern Europe, perhaps in Greece. It has been found at various sites in Greece and elsewhere,<sup>69</sup> although not as frequently as the preceding variety. A similar type with a socket is perhaps somewhat more common.<sup>70</sup>

*l'Acropole*, nos. 277–292, 307–309, figs. 62, 63 and 68; de Ridder, *Bronzes de la Soc. Arch.*, nos. 499 and 500; *F. de D.*, V, nos. 459–467, figs. 328–330; *B.C.H.*, XLVI, 1922, p. 292, fig. 45 (from Thespiæ); *Arch. Zeit.*, XL, 1882, pp. 387 f. (with a dedication apparently to Ptoan Apollo); 'Αρχ. Ἐφ., 1932, p. 77, fig. 45, 7 (from Herakleia in Macedonia).

From Rhodes: *Lindos*, I, pl. 23, no. 600.

From Cyprus: *Swed. Cyp. Exped.*, II, pl. CLXXIV, 11; *ibid.*, III, pl. LXXXVII, 7; Babelon and Blanchet, *Cat. br. ant. Bib. Nat.*, no. 2142 (with Phoenician inscription); *Metrop. Mus. Bronzes*, p. 398, no. 1450.

From Sicily: *Mon. Ant.*, XXXII, 1927, p. 364, figs. 157 e and 158 a.

<sup>62</sup> *Olympia*, IV, pl. LXIV, no. 1083, and many other examples (*ibid.*, p. 178); *Jahrbuch*, LII, 1937, Bericht über die Ausgrabungen in Olympia, p. 51, fig. 20; 'Αρχ. Δελτ., I, 1915 (παράρτ.), p. 29, fig. 29, θ, ι, κ (from the Acropolis); *Hesperia*, II, 1933, p. 242, fig. 13, a–c, and *Hesperia*, IV, 1935, p. 114, fig. 4, 1–7 (from the north slope of the Acropolis, and probably dating from the Persian invasion); Dodwell, *Tour through Greece*, II, p. 159 (from Marathon); Schumacher, *Ant. Bronzen Karlsruhe*, pl. XIV, 28 (from the battlefield of Marathon); *A.J.A.*, XLIII, 1939, p. 698, fig. 3 (from Thermopylai); *B.C.H.*, XLV, 1921, p. 389, fig. 40, no. 179 (from the sanctuary of Athena Alea at Tegea); *Olynthus*, X, pl. CXXV, 2073–2093, pl. CXXVI, 2027–2048; *Lindos*, I, pl. 23, no. 608 (from the Great Deposit of 525–400 B.C.); *Clara Rhodos*, VI–VII, p. 335, fig. 81, no. 34; *Swed. Cyp. Exped.*, II, pl. CLXXIV, 22; *Swed. Cyp. Exped.*, III, pl. XLV, 12 and 13, pl. LXXXVII, 9, pl. CXLIX, 4 and 5; *B. M. Cat. Bronzes*, fig. 80 F; *Metrop. Mus. Bronzes*, p. 404, nos. 1487–1491; Fröhner, *Catalogue des bronzes de la Collection Gréau*, p. 142, no. 711 (second from right in upper row).

<sup>63</sup> *Papers of Archaeological Institute of America*, Classical Series, II, 1882–83, p. 45, fig. 2 (from Assos).

<sup>64</sup> Petrie, *Tools and Weapons*, pl. XLII, 220 and 224; Petrie, *Tanis*, II, pl. XXXIX, 9; Petrie, *Naukratis*, I, pl. XI, 2.

<sup>65</sup> *Quarterly of Dept. of Antiquities in Palestine*, II, 1933, p. 56, fig. 14 c (from 'Atlit).

<sup>66</sup> Woolley, *Carchemish*, II, pl. 22 b (third and fourth from right in lower row).

<sup>67</sup> Bulanda, *Bogen und Pfeil*, fig. 29.

<sup>68</sup> Minns, *Scythians and Greeks*, fig. 82, no. 33.

<sup>69</sup> Cf. Schumacher, *Ant. Bronzen Karlsruhe*, pl. XIV, 35 (from the battlefield of Marathon); *Olynthus*, X, pls. CXXV, 2120, and CXXVI, 2130; *B. M. Cat. Bronzes*, fig. 80, G; Minns, *Scythians and Greeks*, fig. 82, no. 40; *Jahrbuch*, XLV, 1930, p. 300, fig. 17 (from a late 5th century tomb at Baschova-Mogila in southern Bulgaria); *Atti e memorie della Società Magna Grecia*, 1932, p. 110, fig. 63 (lower left).

<sup>70</sup> Cf. *Olympia*, IV, pl. LXIV, nos. 1089 and 1090; *Aegina*, pl. 117, 42 and 44; *Délos*, XVIII, pl. LXIX (lower right); Helbig, *Homerische Epos*, p. 245, fig. 94 (from Megalopolis); *Olynthus*, X, pls. CXXV, 2103 and 2113, and CXXVI, 2104–2109, 2124–2129, 2131–2134; *J.H.S.*, III, 1884, pl. XLVI, 5 (from Kertsch); Berlin S. Museen, *Altertümer von Pergamon*, IX, pl. 60 e, 2 and 4; *Atti e memorie della Società Magna Grecia*, 1932, p. 110, fig. 63 (upper right); Petrie, *Tools and Weapons*, pl. XLI, 66–69, 71; Macalister, *Excavation of Gezer*, III, pl. CCXV, 56.

**35** (KM18). Iron arrow head. Plate 48. L. 0.085. Flat, leaf-shaped blade with thin tang. Raised boss, triangular in outline and semicircular in section, slightly above base of blade on either side.

The boss doubtless served the purpose of stopping the end of the wooden shaft when the tang was driven in. The plain, leaf-shaped blade without the boss is much more common than this type. Since it is far more usual for an arrow head moulded with a boss also to have barbs,<sup>71</sup> it is not impossible that our example also was barbed and now appears to be leaf-shaped only because of its poor state of preservation. There is, however, an iron arrow head from the Acropolis<sup>72</sup> which has a narrower blade than ours, but which is leaf-shaped, is without barbs, and has a triangular boss at the base. A similar arrow head was found in Cyprus.<sup>73</sup>

**36** (KM77). Large iron arrow head. L. 0.074. Badly rusted. Incomplete at both ends.

Similar in shape to preceding, with triangular boss on either side. Original size of arrow head unusually large.

**37** (KM108). Iron arrow head. Plate 48. L. 0.052. Tip broken off.

Similar to the two preceding. Boss better preserved, showing semicircular section.

**38** (KM79). Iron arrow head. Plate 48. L. 0.076. Tip broken off.

Similar. Boss here set at base of blade. Thick tang.

**39** (KM78). Iron arrow head. Plate 48. L. 0.059. Tip broken off.

Small, leaf-shaped blade with thick tang. Does not appear to have had boss.

### JEWELRY

**40** (KM42). Bronze pin. Plate 49. L. 0.176. Edge of disk chipped.

Long, thin shank, square in section at top,

cylindrical below. Flat disk at top, with tip of shank projecting slightly above it. Ball short distance below disk; tiny ring above and below ball.

Found in Grave II (p. 7), a late Geometric child burial of the second half of the 8th century. This type of pin, decorated with a disk and a ball which are set at some distance from each other, is very characteristic of the Geometric period. In pins of the classical period, e.g., No. 46, the disk and ball are closer together and are separated by moulded rings. There are usually more than one disk and often more than one ball. A very close parallel to No. 40 was found in a Geometric grave on Tenos,<sup>74</sup> and there is another from Tegea.<sup>75</sup> Other pins of similar type have been found on many sites.<sup>76</sup>

**41** (KM73 A and B). Two iron pins. (A) Plate 49. L. 0.116. (B) L. 0.112. Both badly rusted, and with points broken off.

Similar to preceding, with disk at top and ball below. Shank projects above disk.

Found in Grave IV (p. 8), one of the same group of 8th century graves, and probably nearly contemporary with the preceding.

**42** (KM74). Iron pin. L. 0.073. Badly rusted, with point missing.

Probably of same type as preceding.

Found, together with fragments of bronze hair spirals (No. 49), in a grave (VI) of Geometric type in a trial trench (p. 10) north of the graves just mentioned.

**43** (KM41). Piece of bronze pin. L. 0.037. Most of shank gone.

Short distance below top is round ball, with ring on either side. Probably Geometric type, like No. 40.

**44** (KM12). Bronze pin with rolled end. Plate 49. L. 0.055. In good condition with point still very sharp. Slightly bent.

<sup>71</sup> Compare, for example, the following, all of bronze: *Olympia*, IV, pl. LXIV, no. 1093; *Aegina*, pl. 117, no. 45; *Dodone*, pl. LVIII, 18; *Perachora*, pl. 82, 20; Petrie, *Tools and Weapons*, pl. XLI, nos. 126-129, 131.

<sup>72</sup> De Ridder, *Bronzes de l'Acropole*, p. 105, no. 314, fig. 70.

<sup>73</sup> *Swed. Cyp. Exped.*, II, pl. CLXXIV, 15.

<sup>74</sup> *Annuario*, VIII-IX, 1925-26, p. 215, fig. 15.

<sup>75</sup> *Ath. Mitt.*, V, 1880, pl. IV.

<sup>76</sup> Cf. *Aegina*, pl. 114, nos. 28 and 30; *Arg. Her.*, II, pl. LXXXIV, nos. 739, 756, 765; *Perachora*, pl. 17, 3, 4, 6-8, 20, 21; Hall, *Vrokastro*, p. 144, fig. 85, G-L; *B.C.H.*, XLV, 1921, p. 378, fig. 40, no. 124 (from Tegea); *F. de D.*, V, fig. 414; *A.J.A.*, XLII, 1938, p. 152, fig. 5 (from Corinth); *A.J.A.*, XLIII, 1939, p. 421, fig. 9, second from bottom (from Prosymna).

Very slender shank. Head formed by flattening top of shank and rolling it into loop.

This type of pin seems to be of very early origin, but has a long span of life, extending from the prehistoric period down into the archaic period. The two chief varieties of the rolled pin, that in which the rolled end is flat in section, as in No. 44, and that in which the end continues round in section, seem to occur at all periods, although the second type appears to be somewhat more common in the prehistoric period. Both types are very widely distributed, being found in Central Europe,<sup>77</sup> Asia Minor,<sup>78</sup> Mesopotamia,<sup>79</sup> Syria and Palestine,<sup>80</sup> Africa<sup>81</sup> and Cyprus,<sup>82</sup> as well as in Greece and the Greek islands.<sup>83</sup>

**45** (KM11). Bronze pin with wrapped head. Plate 49. L. 0.079. In perfect condition.

Thin shank with very sharp point. Head formed by thinning shank to about half its normal diameter, making loop at top and winding end eight times round shank.

The pin was found in the neighborhood of the Circular South Shrine, but must be much earlier than the deposit in the shrine. This type is also of

early origin, and probably roughly contemporary with the type which has the simple loop at the top (No. 44). It is far less common, but there are examples from a few Greek sites,<sup>84</sup> and a very similar variety of pin has been found in Central Europe.<sup>85</sup> In other related pins the head is formed by more than one loop.

**46** (KM14). Bronze pin. Plate 49. L. 0.041. D. (top) 0.015. Most of shank missing.

Large double disk at top, with tip of shank projecting slightly above it. Two rings just under disk, and two more at either side of large, slightly flattened ball below. Under ball is small disk with ring on either side.

This is an example of the type of pin which is most common in the classical period. The numerous variations in the size, number and arrangement of the disks and balls afford some evidence as to date. This particular variety, in which a single ball is placed between a large disk and a very small one, is probably archaic. It is paralleled by a number of examples from other Greek sites,<sup>86</sup> especially in the Peloponnesos. Similar pins have also been found in Italy<sup>87</sup> and at Kyrene.<sup>88</sup>

<sup>77</sup> Cf. Sacken, *Grabfeld von Hallstatt*, pl. XVI, 2; Centralmuseum in Mainz, *Altertümer Heidnischen Vorzeit*, V, pl. 2, no. 22; Déchelette, *Manuel d'archéologie préhistorique*, II, p. 317, fig. 122, 6. For other references, see Lamb, *Excavations at Thermi*, p. 167, note 3, and Dunand, *Fouilles de Byblos*, I, p. 247, note 1.

<sup>78</sup> Schliemann, *Ilios* (1881 edition), p. 630, nos. 1231, 1234, 1236, and p. 653, no. 1351; Dörpfeld, *Troja und Ilion*, I, p. 356, fig. 294 f and g; Schliemann, *Troja*, p. 139, nos. 62 and 63; *A.J.A.*, XLVII, 1943, p. 11, fig. 11 (from Mersin).

<sup>79</sup> See Lamb, *loc. cit.*

<sup>80</sup> *Syria*, XIII, 1932, pl. XL (lower right); Lamon and Shipton, *Megiddo*, I, pl. 84, 11-13; Dunand, *op. cit.*, fig. 220, 3616, fig. 278, 5157, pl. CIII, 1935, pl. CIV, 3320, pl. CV, 5196 and 1757; Woolley, *Carchemish*, II, pl. 27, 7.

<sup>81</sup> Petrie, *Tools and Weapons*, pl. LXV, 103-104, 106 and 107 (from Egypt); *Africa Italiana*, IV, 1931, p. 196, fig. 21 (from Kyrene).

<sup>82</sup> *Swed. Cyp. Exped.*, I, pl. CXLIV, 8; *ibid.*, II, pl. IX, 78.

<sup>83</sup> *B.C.H.*, XLV, 1921, p. 377, fig. 39, 109 (from the sanctuary of Athena Alea at Tegea); 'Εφ. 'Αρχ., 1888, pl. 9, 25 (from Mycenae); *Hesperia*, IX, 1940, p. 418, fig. 61, 1 and 2 (from Halai); *Olynthus*, X, pl. CXV, 1756, 1759-1762; *Aegina*, pl. 115 (lower right); *Ath. Mitt.*, XXXV, 1910, pp. 17-36, fig. 13 (from a Geometric grave at Salamis); *Thera*, II, p. 302, fig. 490 a (from the Schiff grave); *B.S.A.*, XL, 1939-40, pl. 32, no. 35 (from Praisos); Lamb, *op. cit.*, pl. XXV, 32.15 and 32.46; *Greek and Roman Life*, p. 137, fig. 162 a (from Kalymnos).

<sup>84</sup> *Perachora*, pl. 76, 3; *Swed. Cyp. Exped.*, I, pl. LXIX, 30; *B.S.A.*, XL, 1939-40, pl. 32, no. 34 (from Praisos), and pl. 29, no. 34 (from Palaikastro); Dörpfeld, *Troja und Ilion*, I, p. 356, fig. 294 d.

<sup>85</sup> Petrie, *Tools and Weapons*, pl. LXII, N 5, 6 and 7; Déchelette, *Manuel d'archéologie préhistorique*, II, p. 319, fig. 124, 1 and 2.

<sup>86</sup> *Arg. Her.*, II, pls. LXXX, 431 and 439, and pl. LXXXI (many examples); *Olympia*, IV, pl. XXV, no. 485; *B.C.H.*, XLV, 1921, p. 381, fig. 20, no. 134 (from the sanctuary of Athena Alea at Tegea); *Jahreshefte*, IV, 1901, p. 54, fig. 96 (from Lousoi); *A.J.A.*, XLIII, 1939, p. 413, fig. 3, and p. 436, fig. 25 (from Prosymna); *Aegina*, pl. 114, no. 52; *Perachora*, pl. 74, 12, 15, 17 and 19; 'Αρχ. 'Εφ., 1917, p. 207, fig. 18, no. 7 (from the temple of Athena at Sounion); *Hesperia*, IX, 1940, p. 418, fig. 62, 2 and 5 (from Halai); *Lindos*, I, pl. 12, no. 315.

<sup>87</sup> Cf. *Mon. Ant.*, XXIII, pt. 2, 1916, p. 899, fig. 139 (from Caulonia).

<sup>88</sup> *Africa Italiana*, IV, 1931, p. 196, fig. 21 (at right).

**47** (KM43). Bronze pins with disks. Plate 49. D. (disk) 0.016. Two complete disks and seven fragments found, and twenty-five small fragments of shanks.

Disks extremely thin with sharp edges. Top of disk decorated with row of small raised bosses close together all around edge and another row of six around projecting tip of shank.

These fragments were found all together inside an oinochoe which stood just outside the southeast corner of Stelai Shrine A. They belong presumably to the Aphrodite Deposit, and therefore were buried in the 5th century, though they are probably earlier. They were evidently whole when they were put into the oinochoe, since the heads were found in the earth at the mouth of the oinochoe and the fragments of shanks below. More or less similar pins have been found elsewhere,<sup>89</sup> again particularly in the Peloponnesos.

**48** (KM30). Head of bronze pin. D. 0.016.

Very thin disk with small hole in center. From pin similar to preceding, but undecorated. Two other heads of this type were found.

**49** (KM26). Bronze hair spirals. Plate 49. D. (heads) 0.006. Three heads found, and several fragments of coil.

Heads small, round, and flat on top, attached

to thin wire which appears to have been coiled in circle. Probably head at either end of coil.

From the same Geometric grave in which No. 42 was found. All the fragments were found beside the skull and are probably from spirals for fastening the hair, although even spirals of thin wire, such as these, have sometimes been considered to be earrings. On an ivory statuette from Ephesos<sup>90</sup> one may see how these spirals were employed. The hair is drawn behind the ears and the spirals are placed in a horizontal position just above the ear. In an article by Studniczka (*Jahrbuch*, XI, 1896, pp. 248-291) one may see many illustrations of how these spirals were also used to fasten the ends of the hair.<sup>91</sup> Spirals of thin wire have been found at Troy,<sup>92</sup> Rhodes,<sup>93</sup> Chios,<sup>94</sup> Aegina,<sup>95</sup> Perachora,<sup>96</sup> Mycenae,<sup>97</sup> Delphi,<sup>98</sup> in Geometric graves on Salamis,<sup>99</sup> and in Etruria.<sup>100</sup> These spirals may or may not have the disk ends. They are usually round in section, but occasionally may be flat.<sup>101</sup>

Other kinds of spiral ornaments, usually much heavier than these, appear to have been employed as earrings. A simple type seems to occur chiefly in the archaic period and is found on many sites.<sup>102</sup> There are many other types which are more elaborate, with the ends terminating in rosettes, animal heads, etc.; these usually seem to be of later date. A terracotta head from Kameiros<sup>103</sup> shows that these heavy spirals were used as pendants from a

<sup>89</sup> *Aegina*, pl. 114, nos. 56 and 57; *Arg. Her.*, II, pl. XCIX, nos. 1663-1670; *Ath. Mitt.*, LII, 1927, Beilage VIII, 6 (from Amyklai); *Perachora*, pl. 17, 17.

<sup>90</sup> Hogarth, *Excav. at Eph.*, pl. XXII. Spirals appear to be similarly used on a marble head in the Louvre (*Gaz. arch.*, XII, 1887, p. 89, pl. 11).

<sup>91</sup> Compare also *B. M. Cat. Jewellery*, p. 118, fig. 28, an antefix from Capua.

<sup>92</sup> Dörpfeld, *Troja und Ilion*, I, p. 358, Beilage 43, V, a-f.

<sup>93</sup> *Clara Rhodos*, III, pl. V, Grave LVII, 3 (from Ialysos).

<sup>94</sup> *B.S.A.*, XXV, 1934-35, pl. 32, nos. 33 and 34.

<sup>95</sup> *Aegina*, pl. 116, nos. 51-54, 59.

<sup>96</sup> *Perachora*, pl. 18, 4, from the Geometric deposit. This is of gold, but similar in type to ours. Others (pl. 79, 24-26) from the archaic deposit of Hera Limenia are plain spirals without terminal disks.

<sup>97</sup> Schliemann, *Mycenae*, p. 401, no. 529.

<sup>98</sup> *F. de D.*, II, pt. 3, fig. 56.

<sup>99</sup> *Ath. Mitt.*, XXXV, 1910, pp. 17-36, figs. 25, 26, 28.

<sup>100</sup> *B. M. Cat. Jewellery*, pl. XVI, 1311; *N. d. Sc.*, 1940, p. 379, fig. 3, 8.

<sup>101</sup> Cf. *Ath. Mitt.*, LII, 1927, Beilage VIII, 11 (from Amyklai); *Jahrbuch*, XI, 1896, p. 285, figs. 16 and 17 (from Boeotia and Italy); *B. M. Cat. Jewellery*, pl. XVI, 1320-1321 (from Etruria); *Metrop. Mus. Bronzes*, nos. 1150 and 1151; *Annuario*, VIII-IX, 1925-26, p. 213, fig. 11 (from Tenos).

<sup>102</sup> Cf. *A.J.A.*, XLII, 1938, p. 152, fig. 5 (from a Geometric grave at Corinth); *Thera*, II, p. 298, fig. 488 e (from the 7th and 6th century Schiff grave); Hogarth, *Excav. at Eph.*, pl. XVIII, 38 and 39; *Ath. Mitt.*, LII, 1927, Beilage, VIII, 10 and 12 (from Amyklai); *B. M. Cat. Jewellery*, pl. XII, 1173 (from Kameiros); *Clara Rhodos*, VI-VII, p. 336, fig. 82, no. 51, and p. 340, fig. 86 (both from Kameiros); *Swed. Cyp. Exped.*, II, pl. LXIII, 15, pl. LIX, 2, and pl. LXVI, 3; Myres, *Catalogue of Cyprus Museum*, pl. VII, no. 4115; *Lindos*, I, pl. 12, nos. 271, 273, 274; *Compte-Rendu*, 1876, pl. III, 32; *B.S.A.*, XXXV, 1934-35, pl. 32, nos. 35 and 36 (from Chios); Minto, *Populonia*, pl. XLVII, 1 and 2.

<sup>103</sup> *B. M. Cat. Jewellery*, p. 96, fig. 21. On an Etruscan Canopus vase (*Jahrbuch*, XI, 1896, p. 286, fig. 18) a thin spiral earring of about three loops is passed through a single hole in the ear.

disk which was affixed to the ear. The disk and a hook for fastening it through the ear, as well as the spiral pendant, are preserved in two earrings from Kameiros.<sup>104</sup> Sometimes, however, spiral ornaments of this kind are represented as passing through two or more holes in the lobe of the ear, as on a terracotta male figure from Cyprus,<sup>105</sup> another terracotta in the Cyprus Museum,<sup>106</sup> and a statue from Hagia Irini in Cyprus.<sup>107</sup> It does not, however, seem likely that they can often have been worn in this fashion, since many of the actual earrings found are so thick and the terminating disks so broad that it would have been impossible for them to have passed through a hole in the lobe of the ear. Probably most of these ornaments were not attached directly to the ear, but suspended from a hook. It seems reasonable to suppose that it was only the heavier spiral ornaments which were used as earrings or as pendants for earrings. The spirals of thin wire, such as No. 49, were probably hair ornaments.

**50** (KM17). Bronze earring. Plate 49. L. 0.017. Wire for attaching to ear is missing.

Rather heavy cylinder bent into crescent shape, swelling slightly in center, and terminated at either end by small ring. Our example probably dates from the 6th century. Earrings of the same type are not infrequently found.<sup>108</sup>

**51** (KM16). Bronze fibula with incised rings. Plate 49. L. 0.047. Only bow preserved.

Bow long, and bent in flattened arc. One end

flattened and originally bent upward to hold end of pin. Other end where pin was attached is more pointed. At regular intervals three groups of incised rings, three rings in each group.

Since the fibula began to fall into disuse in Greece by the end of the 7th century,<sup>109</sup> our example is probably not later than the 7th or early 6th century. Fibulae of similar type have been found at Dodona,<sup>110</sup> Lindos,<sup>111</sup> Ephesos,<sup>112</sup> and even at Hallstatt.<sup>113</sup> The fibula from Ephesos, which is closest to No. 51, is probably to be dated in the late 8th or early 7th century; the Potters' Quarter fibula might also be of the same period.

**52** (KM15). Small bronze fibula. Plate 49. L. 0.025. Only bow preserved.

Thin bow, arched in semicircle. One end shows part of coil at point where pin was attached. Other end flattened and bent upward in groove to hold pin.

Very similar fibulae have been found at Lousoi,<sup>114</sup> at Lindos<sup>115</sup> and at Selinos.<sup>116</sup>

**53** (KM22). Small bronze fibula of beaded type. Plate 49. L. 0.015. Pin missing.

Bow arched in semicircle; formed of four beads set close together with thin rings between.

Other fibulae of similar type have been found at various sites.<sup>117</sup>

**54** (KM24). Part of large bronze fibula. Plate 49. L. 0.073. Only bow preserved.

Bow very large and heavy; cut in rhomboidal

<sup>104</sup> *Clara Rhodos*, VI–VII, p. 212, fig. 255, and p. 58, fig. 58.

<sup>105</sup> *B. M. Cat. Jewellery*, p. 165, fig. 46.

<sup>106</sup> Myres, *op. cit.*, p. 156, no. 5561, and p. 122.

<sup>107</sup> *Swed. Cyp. Exped.*, II, pl. CLXXXIX.

<sup>108</sup> Cf. *Jahreshefte*, IV, 1901, p. 54, figs. 87 and 88 (from Lousoi); 'Αρχ. Δελτ., II, 1916, p. 209, fig. 32, no. 11 (from Chios); Hogarth, *Excav. at Eph.*, pl. XVIII, 14 and 26; Hadaczek, *Ohrschmuck der Griechen und Etrusker*, fig. 38 (from Kyme); Cesnola, *Atlas of Cesnola Collection*, III, pt. 1, pl. XIX, 23.

<sup>109</sup> Blinkenberg, *Fibules grecques et orientales*, p. 14.

<sup>110</sup> *Dodone*, pl. L, no. 19. The rings are more numerous and closer together.

<sup>111</sup> *Lindos*, I, pl. 4, no. 41. Here again there are three groups of rings, but they are set at irregular intervals.

<sup>112</sup> *B. M. Cat. Jewellery*, pl. X, 1038. This fibula is closest to that from the Potters' Quarter, having three groups of rings at regular intervals.

<sup>113</sup> Sacken, *Grabfeld von Hallstatt*, pl. XIII, 11. This example is nearly identical with that from Dodona.

<sup>114</sup> *Jahreshefte*, IV, 1901, p. 52, fig. 81.

<sup>115</sup> *Lindos*, I, pl. 7, no. 93.

<sup>116</sup> *Mon. Ant.*, XXXII, 1927, p. 363, fig. 155 c.

<sup>117</sup> Blinkenberg, *op. cit.*, figs. 78 and 79, Type III, 10 and 11; *F. de D.*, V, fig. 396; *Aegina*, pl. 115 (upper right); Böhlau, *Aus ionische und italische Nekropolen*, pl. XV, 10 (from a 6th century grave in Samos); *Clara Rhodos*, VI–VII, p. 339, fig. 85, no. 10 (second from bottom in lower left corner); Cesnola, *Atlas of Cesnola Coll.*, III, pt. 1, pl. LXIII, 8; Hall, *Vrokastro*, pl. XX, B.

section. Tapers slightly at ends. No traces of attachment for pin preserved.

From the Terracotta Factory, although doubtless antedating it. This type of fibula is apparently one of the latest, appearing not before the beginning of the 6th century.<sup>118</sup>

**55** (KM23). Bronze bracelet. Plate 49. D. ca. 0.04. W. 0.005.

Flat strip, bent into circle. Ends lapped over each other without fastening.

For a bracelet of this type see *B.S.A.*, XXIII, 1918-19, p. 21, fig. 13 (from Macedonia). One from Olympia (*Olympia*, IV, pl. XXIII, no. 391) is similar, except that the ends terminate in knobs.

**56** (KM61). Bronze bracelet. Plate 49. D. ca. 0.04. W. 0.005.

Identical with preceding and found with it.

**57** (KM10). Bronze ring with bezel. Plate 49. D. 0.019. Small piece of hoop missing.

Very thin hoop. Bezel narrow, elongated and strongly convex; inner surface follows curve of hoop. Roughly engraved with small crescent-shaped design of uncertain import (possibly dolphin).

This ring is probably to be dated in the late 6th or early 5th century, by analogy with two similar rings in the British Museum.<sup>119</sup> Other rings of the same type have been found at the Argive Heraion,<sup>120</sup> Perachora<sup>121</sup> and Olynthos.<sup>122</sup>

**58** (KM55). Bronze ring with bezel. Plate 49. D. 0.018. Part of hoop missing.

Ring slightly larger than preceding, with longer bezel, narrow and convex, which follows curve of hoop.

This ring is very similar to the preceding and is probably of the same date.

**59** (KM50). Bronze ring with bezel. Plate 49. L. (bezel) 0.014. W. (bezel) 0.01. Most of hoop missing.

Hoop slightly flattened. Bezel oval in shape, thin and flat on top, concave underneath. Engraved design, apparently representing two objects, possibly seated female figure holding shield or other object in front.

The part of the design which appears to represent a female figure shows rather fine details of drapery. Several rings from Olynthos<sup>123</sup> appear to have the same shape as No. 59.

**60** (KM9). Bronze ring with bezel. Plate 49. D. (hoop) 0.021. L. (bezel) 0.017.

Hoop circular in section, thickening slightly at points where bezel is attached. Ends of hoop perhaps represented snakes' heads. Bezel elliptical in shape, with flat top and pointed ends; three small holes pierced horizontally into one edge. Upper surface roughly engraved with uncertain design, perhaps human figure.

The date is probably again in the 5th century.<sup>124</sup>

**61** (KM75). Iron ring with bezel. Plate 49. D. (hoop) 0.024. L. (bezel) 0.02. Much rusted.

Ring large, with thick hoop. Oval bezel, concave underneath and flat on top.

Another ring from the Potters' Quarter (KM76), also of iron, is very similar in shape. A similar iron ring in the British Museum<sup>125</sup> is dated in the 4th century. An iron ring from Dodona<sup>126</sup> may also be compared.

**62** (KM54). Part of bronze ring. D. 0.021. W. 0.009. About half preserved.

Hoop very broad and flat, slightly convex on outer surface. Probably plain ring without true bezel.

**63** (KM53). Bronze ring. Plate 49. D. 0.015. W. 0.006. Small piece missing.

Similar to preceding, except that hoop is entirely flat with no convexity.

The small size may indicate that this was a

<sup>118</sup> Blinkenberg, *op. cit.*, p. 80, fig. 70, Type III, 4.

<sup>119</sup> Marshall, *Catalogue of Finger Rings, Greek, Etruscan and Roman, in Department of Antiquities, British Museum*, nos. 36 and 39.

<sup>120</sup> *Arg. Her.*, II, pl. LXXXIX, 966.

<sup>121</sup> *Perachora*, pl. 79, 32.

<sup>122</sup> *Olynthus*, X, pl. XXVII, 485.

<sup>123</sup> *Olynthus*, X, pl. XXVII, 460, 470, 471.

<sup>124</sup> Cf. *B. M. Cat. Finger Rings*, pl. XXX, nos. 1229 and 1230, and Πρακτικά, 1931, p. 85, fig. 2, no. 6 (an iron ring from Dodona).

<sup>125</sup> *B. M. Cat. Finger Rings*, no. 1454.

<sup>126</sup> Πρακτικά, 1931, p. 85, fig. 2, no. 5.

child's ring. A ring from the Argive Heraion<sup>127</sup> is of similar type.

**64** (KM51). Bronze ring. Plate 49. D. 0.016. W. 0.003.

Hoop round in section. Ring about same size as preceding.

**65** (KM13). Large bronze button. Plate 49. D. 0.032. H. 0.011.

Button hemispherical. Thick, curved piece of wire fastened inside, with another piece of wire hooked around it.

A button from Cyprus in the Metropolitan Museum in New York<sup>128</sup> is of similar type. Both resemble a button from Hallstatt.<sup>129</sup>

#### MISCELLANEOUS OBJECTS

**66** (KM2). Bronze object. Plate 48. L. 0.052. Small fragment missing from one end.

Flat, oval disk with long, thin handle, which flares into triangular end through which hole is pierced.

From the Circle Deposit, and hence perhaps to be dated in the late 5th century. The use of the object is uncertain, although it may be a spoon or implement of some kind. The hole may have served to suspend it from a wire or string with other objects. A very similar object from Megara Hy-

blaia,<sup>130</sup> dated ca. 480 B.C., is called a pendant.

**67** (KM28). Part of bronze snaffle-bit. Plate 50. L. 0.027. D. 0.02. Small piece missing from one edge. Fine green patina.

Thin-walled cylinder, encircled by three thin projecting rings with scalloped edges.

Elsewhere have been found two objects which are exactly similar to this; one is from Olympia<sup>131</sup> and one from the cave deposit at Pitsa. At Olympia<sup>132</sup> another bronze cylinder was found, similar in shape and size, but with three rows of blunt spikes instead of the scalloped rings. Cylinders of this spiked type also exist in a number of other places.<sup>133</sup> Other related cylinders<sup>134</sup> have projections of still other kinds, most frequently one which takes the form of a blunt, pyramidal spike. Obviously, whatever explanation is found for one type of cylinder must apply also to the other types. There is still another closely related group of cylindrical objects; these have spikes and protuberances of one kind or another, but are much shorter.<sup>135</sup>

The cylinders have been variously explained as heads of battle maces,<sup>136</sup> cattle goads, wheel axles, sockets, and parts of horse bits. The latter identification is certainly correct. Similar objects may be seen actually in place on bits which have been preserved from Greek times.<sup>137</sup> An example in

<sup>127</sup> *Arg. Her.*, II, pl. LXXXIX, no. 964.

<sup>128</sup> *Metrop. Mus. Bronzes*, no. 1855.

<sup>129</sup> Sacken, *Grabfeld von Hallstatt*, pl. XVIII, 9.

<sup>130</sup> *Mon. Ant.*, I, pt. 2, 1889, p. 940, no. 409.

<sup>131</sup> *Olympia*, IV, pl. LXVI, no. 1251.

<sup>132</sup> *Ibid.*, pl. LXVI, no. 1250.

<sup>133</sup> Cf. *Aegina*, pl. 117, no. 5; *Perachora*, pl. 82, 24; *Mon. Ant.*, XX, 1911, p. 808, fig. 65 (from Sicily); *Mon. Ant.*, XXXVII, pt. 2, 1938, p. 914, pl. XLII, 9 (from Italy); *B. M. Cat. Bronzes*, nos. 2880-2886; de Ridder, *Bronzes antiques du Louvre*, II, nos. 1190-1198, 1201-1203; Babelon and Blanchet, *Cat. br. ant. Bib. Nat.*, no. 2111; Schumacher, *Ant. Bronzen Karlsruhe*, pl. XIV, 60; Bieber, *Antike Skulpturen und Bronzen in Cassel*, nos. 522-525, pl. LVII; *Kunstbesitz eines bekannten norddeutschen Sammlers* (Munich, 1910), IV, no. 179 (three examples); Lindenschmit, *Altertümer heidnischen Vorzeit*, I, pt. VIII, pl. 2, no. 4.

<sup>134</sup> Cf. *Dodone*, pl. L, no. 24; *Olynthus*, X, pl. CLXVI, 2602; Babelon and Blanchet, *op. cit.*, no. 2112; *Kunstbesitz norddeutschen Sammlers*, IV, nos. 180 and 181; Lindenschmit, *op. cit.*, pl. 2, no. 6; Smirnov, *Schatz von Achalgori*, pp. 53-57.

<sup>135</sup> Cf. Schumacher, *op. cit.*, pl. XIV, nos. 58 and 59, and p. 150, no. 779; de Ridder, *op. cit.*, nos. 1199 and 1200; *Kunstbesitz norddeutschen Sammlers*, IV, no. 176 and 177 (latter cast in one piece with part of mouthpiece of bit); Lindenschmit, *op. cit.*, pl. 2, no. 7.

<sup>136</sup> It is true that in Central Europe somewhat similar objects have been found in conjunction with a cylindrical socket, but all of these are considerably heavier and have much larger spikes. Cf. Lindenschmit, *op. cit.*, pl. 2, nos. 1-3, 5; Lehner, *Führer durch das Provinzialmuseum in Bonn*, pl. VI, 2; Hettner, *Führer durch das Provinzialmuseum in Trier*, p. 116, no. 18; de Ridder, *op. cit.*, pl. 68, 1189; Daremberg and Saglio, *Dict.*, s.v. clava, fig. 1581.

<sup>137</sup> *B.C.H.*, XIV, 1890, p. 386, fig. 2; *Greek and Roman Life*, fig. 206 (bit of 5th or 4th century from Achaia, with two narrow spiked cylinders at either side); de Ridder, *op. cit.*, pl. 71, no. 1524 (from

which the spiked cylinders are cast in one piece with the rest of the mouthpiece was found on the Acropolis.<sup>138</sup> In all these bits the cylinders happen to be of the spiked type, but the ringed cylinders must also have formed parts of bits, although obviously far less commonly used.

**68** (KM82). Iron chain. Plate 50. L. 0.063. Three links preserved.

Each link bent to form loop at either end, turned so that loops are at right angles to each other.

From the Circular South Shrine, and datable before the end of the 5th century. There are examples of chains of this type, all in bronze, from several Greek sites.<sup>139</sup> Another from Cyprus<sup>140</sup> is very similar, but in this chain the loops are firmly welded, instead of being merely bent.

**69** (KM27). Bronze cone. Plate 50. H. 0.041. D. (larger end) 0.03. Small piece missing at smaller end.

Cone with thin walls, open at either end. Rim at smaller end bent outward very slightly. Two round holes pierced in sides opposite each other.

**70** (KM63). Strip of bronze with wire attached. Plate 50. L. 0.056.

Very narrow, flat strip with rounded ends through each of which small hole is pierced. Piece of bronze wire looped through one hole and then twisted on itself.

The object is possibly intended for sealing the cover of a jar, around the neck of which the wire might be fastened. A similar bronze bar (KM67) with a hole in one end was also found. One may compare a similar bronze strip from Olympia,<sup>141</sup> also with a hole at either end. In this case, however, the ends are of different shapes and a rivet replaces the wire.

**71** (KM101). Iron sandal reinforcement. Plate 50. L. 0.101. W. 0.086. Ends broken.

Iron band, bent roughly in shape of horseshoe. Seven nails, or cleats, with high, gable-shaped heads. One nail, nearly completely preserved, has very thin shank.

From the Circular South Shrine, and therefore presumably to be dated in the latter part of the 5th century. The object is certainly part of the reinforcement for the sole of a sandal. Such reinforcements were added to a leather, wood or metal sole; they have been found at various sites,<sup>142</sup> particularly in Etruria. Some of the binding strips studded with nails, which have been found at many Greek sites, may have served the same purpose. Soles which were made entirely of metal, often bordered by a nail-studded reinforcement, have also been found in various places,<sup>143</sup> again, it will be noted, chiefly in Etruria.

**72** (KM70). Twisted bar of bronze. Plate 50. L. 0.052. One end broken.

Thin bar, originally round in section, twisted

Corinth); McClees, *Daily Life of Greeks and Romans*, p. 108, fig. 132; Winckelmannsprogramm, 56, pls. II and III; Petrie, *Tools and Weapons*, pl. LXXI, 41 (with two narrow spiked rings at either side). Several German museums contain bits of Germanic origin on which very similar cylinders were used; bits with movable spiked cylinders also occur in Russia (cf. Smirnov, *Schatz von Achalgori*, pp. 53–56).

<sup>138</sup> *B.C.H.*, XIV, 1890, p. 385, fig. 1 (found in the Kimonian fill near the Parthenon, and thus to be dated before the Persian invasion). Cf. *Olynthus*, X, pls. CLXII and CLXIII, 2554. A bit from the Caucasus (*Rev. arch.*, XI, 1888, I, p. 59, fig. 7), said to be of the Bronze Age, is, however, remarkably similar to those found on the Acropolis and at Olynthos.

<sup>139</sup> *Olympia*, IV, pl. LXVII, no. 1200 (of Roman date); *Olynthus*, X, pl. XVI, 253, 257–259; *Délos*, XVIII, pl. LIII, 403; *B.S.A.*, VI, 1899–1900, p. 112, fig. 46 (from the Diktaian cave in Crete).

<sup>140</sup> *Metrop. Mus. Bronzes*, no. 1850.

<sup>141</sup> *Olympia*, IV, pl. XXXVI, no. 673.

<sup>142</sup> See Böhlau, *Aus ionischen und italischen Nekropolen*, pl. XV, 3 (from Samos); de Ridder, *Bronzes antiques du Louvre*, II, pl. 121, no. 3733 (from Italy); Friederichs, *Kleinere Kunst und Industrie*, p. 325, nos. 1552 b and c (from Etruria); *Mon. Ant.*, I, pt. 1, 1890, pp. 274 f., pl. X, nos. 29–30 (from an Etruscan cemetery at Marzabotto).

<sup>143</sup> De Ridder, *op. cit.*, pl. 121, no. 3732 (from Eretria); *Jahrbuch*, XIX, 1904, Arch. Anz., p. 27, no. 25 (from Eretria); de Ridder, *Bronzes de la Soc. Arch.*, pp. 96 f., nos. 489 and 490 (from Attica and Argolis); *Mémoires de la Société nationale des antiquaires de France*, 6th series, II, 1891–92, p. 5 (from Etruria); *N. d. Sc.*, 1881, p. 167 (from Etruria); *N. d. Sc.*, 1886, p. 145 (from Etruria); Dennis, *Cities and Cemeteries of Etruria*, II, p. 484, figs. 1 and 2 (from Etruria); *ibid.*, p. 484, note 8 (two more examples from Etruria); Schumacher, *Ant. Bronzen Karlsruhe*, pp. 30 f., pl. III, 21 (from Etruria); *B. M. Cat. Bronzes*, p. 351, no. 2869 (from Ruvo).

spirally. Preserved end is flattened and bent at slight angle.

A throne from Chiusi<sup>144</sup> shows a very similar bar in use as a reinforcing strut between the arm and the back. Our fragment may have served some related purpose. Twisted bars like this were also found at Olympia<sup>145</sup> and Dodona.<sup>146</sup> Similarly twisted bars were sometimes used as situla handles,<sup>147</sup> but our fragment does not appear to have been curved.

**73** (KM57). Bronze rod. L. 0.126. Incomplete at both ends.

Rod circular in section at wider end and gradually becomes square at narrower end. Bent twice at obtuse angles, forming very flattened Z. Perhaps part of key?<sup>148</sup>

**74** (KM65). Rectangular bronze plaque. Plate 50. L. 0.06. W. 0.027. One corner broken off.

Thin plaque, very slightly convex in center. Small hole punched in each corner and two near center.<sup>149</sup>

Another bronze plaque (KM66), incomplete, also had holes in the corners. The head of a small-headed nail was preserved in one hole. Another fragment (KM68) bore a stamped design along one edge.<sup>150</sup>

**75** (KM58). Bronze plaque. L. 0.05. W. 0.044. Flat, tongue-shaped plaque of thin fabric.

**76** (KM31). Part of bronze disk. L. 0.04. W. 0.024. Less than half preserved.

Flat disk with hole through center.<sup>151</sup>

**77** (KM89). Part of iron bit? Plate 50. L. 0.086.

D. 0.045. Small piece of ring missing. Much rusted.

Large, flattened, circular ring, passed through smaller ring. Attached to latter is short, cylindrical bar with knob at end. Ring end formed by looping bar back on itself.

From the court of the Terracotta Factory, and presumably of 4th century date. The object may have formed part of the mouthpiece of a simple bit, including the ring through which the reins were passed,<sup>152</sup> although it is perhaps from some other part of the harness. Similar objects have been found at Dodona<sup>153</sup> and the sanctuary of Apollo Korynthos,<sup>154</sup> and in Spain.<sup>155</sup> There are others, somewhat similar, from Olynthos.<sup>156</sup>

**78** (KM104). Iron star. Plate 50. L. 0.022.

Small, flat object in shape of six-pointed star with hole in center.

It is unlikely that this star comes from a spur, unless it is of post-classical date, since the rowels in the Greek period were usually simple points.<sup>157</sup>

**79** (KM83). Iron instrument, possibly key. Plate 50. L. 0.27. Tip of smaller end broken.

Long, heavy rod, rectangular in section, bent roughly into sickle shape. Tapers toward one end. Other end slightly flattened and pierced by small hole.

From the court of the Terracotta Factory. Two fragmentary rods (KM87 A and B), probably similar to No. 79, were found in the same place. A probable date in the 4th century is indicated by their provenance. They are very similar to a bronze object from the Argive Heraion,<sup>158</sup> called a hook.

**80** (KM86). Iron implement. L. 0.206. Much rusted.

<sup>144</sup> *Annali dell' Instituto*, L, 1878, pl. Q, 1a. This was found in a grave with Late Proto-Corinthian lekythoi. For a photograph of the throne see Randall-McIver, *Villanovans and Early Etruscans*, pl. 45.

<sup>145</sup> *Olympia*, IV, pl. XXXVI, no. 674.

<sup>146</sup> *Dodone*, pl. LIII, 13. A rivet is preserved in the hole at one end. Another bar from Dodona (*Πρακτικά*, 1929, p. 123, fig. 12, center) has the flattened ends, but is not twisted.

<sup>147</sup> Cf. *Perachora*, pl. 69, 1 and 4.

<sup>148</sup> Compare the representation of a key on a late R. F. vase in *Compte-rendu*, 1863, pl. VI.

<sup>149</sup> Cf. *Olynthus*, X, pl. LXXXVII.

<sup>150</sup> Cf. *Arg. Her.*, II, pl. CII, no. 1750.

<sup>151</sup> Cf. *ibid.*, pl. XCIX, 1601-1614.

<sup>152</sup> Cf. *Mon. Ant.*, XXXVII, pt. 2, 1938, p. 915, pl. XLII, 12 (from Italy).

<sup>153</sup> *Πρακτικά*, 1929, p. 117, fig. 8, no. 10.

<sup>154</sup> *Αρχ. Δελτ.*, I, 1916, p. 92, fig. 31.

<sup>155</sup> *Jahrbuch*, XLVII, 1932, p. 366, fig. 7, nos. 8 and 9 (from Cáceres).

<sup>156</sup> *Olynthus*, X, pl. CLXVIII, 2626-2628.

<sup>157</sup> Cf. Daremberg and Saglio, *Dict. ant. gr. et rom.*, s.v. calcar, p. 815, figs. 1008 and 1009.

<sup>158</sup> *Arg. Her.*, II, pl. CXXXIII, no. 2715.

Rod bent at one end where it ends in small knob.

From Deposit 2 of the Terracotta Factory. Most of the material in this deposit can be dated in the middle or third quarter of the 4th century. A similar object, bent in a slight ogival curve, and part of a third were found in the same deposit.

**81** (KM112). Small lead weight. Plate 50. H. 0.02. D. 0.018.

Small round ball, slightly flattened on bottom, with small projection at top.

From the Northwest Room of the Terracotta Factory. A very similar lead weight was found at Olynthos<sup>159</sup> and there are several examples from the Pnyx.<sup>160</sup> Another from Olympia,<sup>161</sup> although very similar in appearance, does not appear to be of lead.

**82** (KM115). Large lead plaque. Plate 50. D. (greatest) 0.132. Several small pieces missing.

Heavy plaque, roughly circular in shape, with irregular edges. Pitted all over with small holes, mostly circular, of varying sizes and depths. Iron studs, some very small, others larger, still preserved in some holes.

From the North Room of the Terracotta Factory, hence perhaps of 4th century date. Its identification is uncertain, although it might have been used as a patch on some large object.

**83** (KM114). Small lead disk. Plate 50. L. 0.023. W. 0.015.

Thick flat disk, originally circular, with one side cut off in irregular line.

**84** (KM116). Strip of lead. L. 0.054. W. 0.011. Ends incomplete.

<sup>159</sup> *Olynthus*, X, pl. CLXI, 2546.

<sup>160</sup> *Hesperia*, Suppl. VII, p. 100, fig. 45, nos. 19-22.

<sup>161</sup> *Olympia*, IV, pl. XXIV, no. 467.

<sup>162</sup> Cf. Filow, *Archaische Nekropole von Trebenischte*, fig. 112; *B.S.A.*, XIV, 1907-08, pl. XII, b (from graves at Rhitsona); *J.H.S.*, XXIX, 1909, p. 327, fig. 11 (from the same place); *Clara Rhodos*, VI-VII, p. 513, fig. 40 (from Nisyros).

<sup>163</sup> *Jahrbuch*, XLV, 1930, p. 316, fig. 42 (from Muschovitza-Mogila in southern Bulgaria); *Mon. Ant.*, XVII, 1906, p. 515, fig. 361 (from Gela); *N. d. Sc.*, 1882, p. 51 (from Chiusi); *B.S.A.*, XXXII, 1931-32, p. 64, fig. 13 (from Antissa).

<sup>164</sup> *Clara Rhodos*, IV, p. 118, fig. 108 (from Kameiros). Another group of vases from Kameiros (*ibid.*, p. 237, fig. 256) may be of similar date.

<sup>165</sup> *Olynthus*, V, pl. 196, 1124; *Mon. Ant.*, XXII, 1913, pl. CXVII, 9 and 10 (from Cumae); *Mon. Ant.*, XIV, 1904, pl. XVII, p. 188. The latter is from Sardinia, where it was found in a deposit with vases of the late 5th and the 4th century, but was dated by "style" in the 7th and 6th centuries.

<sup>166</sup> Fröhner, *Verrerie antique* (Charvet Collection), pl. II, 7, 8 and 11 (from Corinth); Stackelberg, *Gräber der Hellenen*, pl. LV; *F. de D.*, V, fig. 946, nos. 767-769; *Délos*, XVII, pl. LII, C and D, 4-10; *Annuario*, VI-VII, 1923-24, p. 322, fig. 215 (from Ialysos).

Thin, broad, flat plaque, bent along middle and folded together.

**85** (KM136). Object of unknown metal. L. 0.07. W. 0.048.

Semi-cylindrical in shape, with thick walls and hollow running down center. Metal extremely heavy, and light purplish red in color.

From the court of the Terracotta Factory.

## GLASS

**86** (KM117). Fragments of glass vase. Plate 50. Four fragments, all of dark blue glass. (A) H. 0.04. W. 0.042. Zigzags and bands of light blue and yellow. (B) Similar decoration. (C) Light blue and yellow stripes. (D) Plain.

All four fragments were found in the vicinity of the Circular South Shrine, and probably are to be dated in the late 5th century. Vases of identical glass, in the form of oinochoai, hydriai, amphoriskoi and alabstra, are extremely common on many sites over a wide area of the Mediterranean. The earliest examples appear to date from the end of the 6th century.<sup>162</sup> Several vases of this type are datable in the early 5th century<sup>163</sup> and others in the latter part of the century.<sup>164</sup> The same type apparently continued in use at least into the 4th century,<sup>165</sup> probably even later. It has occasionally been found on other sites in Greece and the islands,<sup>166</sup> in addition to those already mentioned.

**87** (KM118). Fragment of white glass. Plate 50. W. 0.035. H. 0.03.

Thick, slightly opaque glass. Small chips gouged out all over surface, leaving small, elongated, hexagonal depressions close together.

- 88** (KM119). Fragment from rim of small glass vase. D. (mouth) 0.06.  
Pale bluish green glass. Walls extremely thin. Flat, thin lip with rounded projection below.
- 89** (KM121). Fragment of green glass. Plate 50. L. 0.042. W. 0.022.  
Piece in shape of flat rectangular plaque with rounded edges. Probably handle of large vase.
- 90** (KM123). Fragment of blue glass. L. 0.038.  
Originally very pale blue transparent glass. Probably from large vase.
- 91** (KM137). Large glass bead. D. 0.014. H. 0.011. Much disintegrated.  
Pale yellowish color. Cylindrical shape with strongly convex sides. Very broad in relation to height. Large hole through center.
- 92** (KM131). Large blue glass bead. Plate 50. D. 0.014.  
Beautiful, dark blue transparent glass. Spherical in shape with large hole through center and edges of hole rounded off.
- 93** (KM130). Hexagonal glass bead. L. 0.007.  
Light greenish glass, now iridescent with gold on surface. Long thin cylinder, cut to hexagonal shape on outside. Small hole through center.
- 94** (KM128). Fragment of large glass gem. L. 0.02. W. 0.026.  
Gem circular in shape and flat on both sides. A few lines appear to be scratched on upper surface.
- 95** (KM129). Blue glass gem. Plate 50. D. 0.011.  
Intense ultramarine blue. Gem circular, flat on bottom and convex on top, with rounded edges.
- 96** (KM125). Blue glass gem. Plate 50. D. 0.015.  
Pale blue glass. Circular, flat underneath and convex on top, with sharp edges.  
Rather similar gems have been found at Delos.<sup>167</sup>
- 97** (KM126). Fragment of large glass gem. L. 0.027. W. 0.018.  
Green glass. Gem very large and originally circular. Flat on bottom, convex on top.
- 98** (KM127). Green glass gem. Plate 50. D. 0.011.  
Very pale bluish green glass. Circular in shape, convex on top and flat underneath.

<sup>167</sup> *Délos*, XVIII, pl. XC, 794, 796-798.

## INDEX

## INDEX

- ABDERA**, 81<sup>61</sup>  
**Achaia**, 127<sup>187</sup>  
**Achalgori (Russia)**, 127<sup>184, 187</sup>  
**Aegina**: altar, 67; coin, 48; metal objects, 116, 117<sup>22</sup>, 119<sup>47</sup>, 121<sup>70</sup>, 122<sup>71, 76</sup>, 123<sup>83, 86</sup>, 124, 125<sup>117</sup>, 127<sup>133</sup>; sculpture, 92  
**Aetolia**, 98, 127<sup>25, 26</sup>  
**Agrigentum**, 92<sup>59</sup>, 99, 102, 112, 117<sup>23</sup>  
**Akrai (Sicily)**, 68  
**Albania (Feniki)**, 55<sup>85</sup>  
**Alexandria**, 60, 64 f., 109  
**Altar**: rectangular, 49, 68 f., 77 f.; round, 27 f., 67, 69, 77 f.; triglyph, 41 f., 67–69, 77, 79  
**Amorgos**, 8<sup>5</sup>  
**Amyklai**, 89, 124<sup>89, 101, 102</sup>  
**Ancyra**, 60  
**Anthedon**, 115<sup>5</sup>  
**Antioch**, 60  
**Antissa**, 130<sup>163</sup>  
**Aphrodite**, 23, 51 f., 115  
**Apollo Korynthos**, sanctuary of, 117<sup>22, 25</sup>, 120<sup>61</sup>, 129  
**Arcadia**, 120<sup>61</sup>  
**Argive Heraion**: metal objects, 115, 116<sup>14</sup>, 122<sup>76</sup>, 123<sup>86</sup>, 124<sup>89</sup>, 126, 127, 129; pyxis head, 93  
**Argolis**, 128<sup>143</sup>  
**Asine**, 9<sup>8</sup>, 34, 117<sup>22</sup>  
**Assos**, 121<sup>63</sup>  
**Athena**, 52, 109  
**Athens**: Acropolis (metal objects: 89, 115<sup>4</sup>, 116, 120<sup>61</sup>, 121<sup>62</sup>, 122, 128; sculpture: 90<sup>53</sup>, 91<sup>56</sup>, 92<sup>59</sup>, 94); Agora, 29, 31: bronzes, 117<sup>22, 25</sup>, 118, 119<sup>42</sup>, 120<sup>61</sup>; coins, 48; influence on Corinth, 87; Pnyx, 86<sup>11</sup>, 98<sup>90</sup>, 103<sup>119</sup>, 130; terracottas, 100<sup>103</sup>, 102, 103; Tritopatreion, 47  
**'Atlit (Palestine)**, 121<sup>65</sup>  
**Attic grave monuments**, 71, 99, 101  
**Auxerre**, Cretan statuette from, 88 f., 90
- BARBARIAN types**, 96, 107  
**Bernardini tomb**, 88  
**Boeotia**, 46, 91, 115, 124<sup>101</sup>  
**Booths**, 15, 18  
**Bosses for supporting moulds**, 83, 97, 104, 111  
**Bulgaria**, 121<sup>69</sup>, 130<sup>163</sup>  
**Byblos**, 123<sup>77, 80</sup>  
**Byzantine church**, 4
- CÁCERES**, 118, 129<sup>165</sup>  
**Caere**, 108  
**Capital, Doric**, 39, 69 f., 80  
**Capua**, 124<sup>91</sup>  
**Carchemish**, 121<sup>66</sup>, 123<sup>80</sup>  
**Carthage**, 65<sup>7</sup>  
**Caucasus**, 128<sup>138</sup>  
**Caulonia**, 24, 123<sup>87</sup>  
**Central Europe**, 123, 127<sup>136</sup>  
**Chersonese**, 86<sup>11</sup>, 109<sup>141</sup>  
**Chios**, 117<sup>22, 25</sup>, 124, 125<sup>108</sup>  
**Chiusi**, 129, 130<sup>168</sup>  
**Cistern**, 26 f., 63<sup>1</sup>, 67, 73 f., 76 f.  
**City Wall**, 4, 14, 38, 47, 53–62  
**Clay**: beds, 3; types used in moulds, 82; working and storing of, 16, 17, 40  
**Coins**, 5, 6, 39, 46 f., 48  
**Collections**: Gréau, 104<sup>127</sup>, 109<sup>141</sup>, 112, 119<sup>42</sup>, 121<sup>62</sup>; Lecuyer, 99<sup>97</sup>, 102<sup>115</sup>, 103<sup>125</sup>; Loeb, 103<sup>122</sup>, 108<sup>132</sup>, 112<sup>145</sup>; McClean, 110<sup>144</sup>; Sabouloff, 99, 109<sup>142</sup>  
**Corinth**: Acrocorinth, 3, 4, 61; art, 87, 94; Asklepieion, 98, 100, 101; coins, 6, 46; connection of Aphrodite and Hermes with, 52; glass, 130<sup>166</sup>; grave monuments, 71; Isthmian Gate, 61; lamps, 102<sup>117</sup>; metal objects, 117<sup>80</sup>, 122<sup>76</sup>, 124<sup>102</sup>, 127<sup>137</sup>; metal objects, exportation of, 114 f.; mirrors, 99, 101, 112, 118; moulds, 109, 112; siren, popularity of, 70; stele in Agora, 65; Temple of Apollo, 69; terracottas, 98, 100, 102<sup>115</sup>, 108<sup>133</sup>, 112, 113; walls, 56, 61 f.  
**Cover slabs over graves**: Geometric, 7–10; post-Geometric, 23–25, 33 f., 59  
**Crete**, 88  
**Cumae**, 130<sup>165</sup>  
**Cyprus**: grave monuments, 64<sup>2</sup>, 71; metal objects, 115, 117<sup>25</sup>, 119<sup>44, 45</sup>, 120<sup>61</sup>, 121<sup>62</sup>, 122, 123, 124<sup>102</sup>, 127, 128; sculpture, 87, 125; terracottas, 125
- DELOS**: altar, 67; glass, 130<sup>166</sup>, 131; metal objects, 117<sup>22, 25</sup>, 118<sup>85</sup>, 121<sup>70</sup>, 128<sup>189</sup>; Nike, 92<sup>58</sup>; oil press, 33<sup>41</sup>  
**Delphi**: bronze kouros, 88 f.; bronzes, 115<sup>4</sup>, 117, 120<sup>61</sup>, 122<sup>76</sup>, 124, 125<sup>117</sup>; glass, 130<sup>166</sup>; Knidian Treasury, 92<sup>58</sup>; terracottas, 100<sup>103</sup>, 102 f.  
**Deposits**: moulds, 36 f., 45, 95–111, 113; sherds,

- 5, 13, 15, 18, 21; vases and figurines, 16, 21<sup>23</sup>, 23, 31, 32, 36 f., 42 f., 45, 50  
 Diktaian Cave, 128<sup>189</sup>  
 Dionysos, 81  
 Dipylon: Geometric graves, 8<sup>5</sup>, 10, 24, 120; post-Geometric graves, 34; moulds, 86<sup>11</sup>  
 Dodona (metal objects), 115<sup>5</sup>, 116, 119, 120, 122<sup>71</sup>, 125, 126, 127<sup>184</sup>, 129  
 Doll, jointed, 84, 85, 100, 106 f.  
 Dumps of potters' refuse, 13, 18, 43, 45, 46  
 Dystos (Euboea), 48
- ECHOKLES (potter's signature), 21  
 Egypt, 83<sup>4</sup>, 123<sup>81</sup>  
 Elateia, 100  
 Eleusis, 8<sup>5</sup>, 47, 61, 102  
 Eleutherai, 61  
 Ephesos, 124, 125  
 Eretria, 94<sup>75</sup>, 128<sup>148</sup>  
 Erosa, dedication to, 29, 51 f.  
 Etruria (bronzes), 118<sup>82</sup>, 124, 128
- FIGURINE: male, 50, 52; seated female, 95, 100 f.; wagon group, 50  
 Floor, 16 f., 25, 31, 39 f., 42 (see also Pavement)  
 Fortification wall (7th century), 14 f., 19, 20, 21, 62, 87 (see also City Wall)  
 Foundation sacrifices, 59 f.
- GATE: early fortification wall, 14 f., 21; City Wall, 55, 56, 57, 58 f.  
 Gela, 116<sup>14</sup>, 117, 119<sup>47</sup>, 130<sup>163</sup>  
 Gezer, 59, 121<sup>70</sup>  
 Grave marker, 8  
 Graves: Geometric, 6–10; later, 23–25, 29 f., 33 f., 59 f.
- HALAI, 34, 88<sup>24</sup>, 117<sup>25</sup>, 123<sup>83, 86</sup>  
 Hallstatt, 123<sup>77</sup>, 125, 127  
 Hephaistos, 52  
 Herakleia (Macedonia), 119<sup>47</sup>, 120<sup>61</sup>  
 Herakles, comic type of, 102 f.  
 Hermes, 52  
 Himera, 67  
 House, 31, 33  
 Human sacrifices (see Foundation sacrifices)
- IALYSOS, 8<sup>5</sup>, 64<sup>2</sup>, 124<sup>93</sup>, 130<sup>166</sup>  
 Identification of shrines, 29, 32, 51 f.  
 Ilios (see Troy)  
 Inscriptions: on bronze bowl, 115; on moulds, 84, 94, 98 f., 100, 102, 104, 105, 106, 107, 108; on strigil, 119; on vases, 12, 21, 23, 29
- Italy: bronzes, 116, 118<sup>82</sup>, 124<sup>101</sup>, 127<sup>183</sup>, 128<sup>142</sup>, 129<sup>152</sup>; terracottas, 64<sup>2</sup>  
 Ithaka, 98
- JERICHO, 59
- KALYMNOS, 123<sup>88</sup>  
 Kameiros, 25, 64<sup>2</sup>, 90, 124, 125, 130<sup>164</sup>  
 Kandianika (Lower Messenia), 17, 21<sup>21</sup>  
 Kephallenia, 8<sup>5</sup>, 34  
 Kephisodotos, 102  
 Kerameikos (see Dipylon)  
 Kerkyra, 68  
 Kertsch, 121<sup>70</sup>  
 Knossos, 8<sup>5</sup>  
 Kore, standing, 84 f., 86<sup>9</sup>, 104  
 Kos, 9<sup>8</sup>  
 Kyme, 125<sup>108</sup>  
 Kyrenaika, 99  
 Kyrene, 119 f., 123
- LAODICEA, 60  
 Lindos: metal objects, 115<sup>4</sup>, 116, 117<sup>25</sup>, 119<sup>44, 45, 47</sup>, 120<sup>61</sup>, 121<sup>62</sup>, 123<sup>86</sup>, 124<sup>102</sup>, 125; terracottas, 64<sup>2</sup>, 103<sup>125</sup>  
 Lokroi Epizephyrioi, 116, 118  
 Loomweights, 37, 44  
 Lousoi, 123<sup>86</sup>, 125
- MACEDONIA, 126  
 Malalas, 60  
 Mantinea, 55<sup>85</sup>, 62<sup>120</sup>  
 Marathon, 121<sup>62, 69</sup>  
 Masonry: rubble without cut blocks, 13, 15, 18, 19 f., 21 f., 44; rubble with cut blocks, 12, 13, 18, 20, 21, 28, 29, 35, 37, 38, 42; rubble with fitted blocks, 35, 41, 47 f.; of early fortification wall, 14; of City Wall, 53–57  
 Masons' marks, 55 f., 58<sup>93</sup>, 62  
 Megalopolis, 67, 121<sup>70</sup>  
 Megara Hyblaia, 127  
 Megiddo, 59, 123<sup>80</sup>  
 ΜΕΛΙΣ stamp on loomweights, 37  
 Melos, 102  
 Mende, 81<sup>61</sup>  
 Mersin, 123<sup>78</sup>  
 Mesopotamia, 123  
 Messene, 60<sup>106</sup>  
 Metapontum, 112<sup>153</sup>  
 Methymna, 60  
 Millstones, 31, 33  
 Miniature vases, 5, 33, 50, 102<sup>117</sup>, 115  
 Mirrors, bronze, 70 f., 99, 101, 112, 118

Model, use of in making moulds, 82 f., 94, 96, 97  
Motya, 65<sup>7</sup>

Mould-types: actor, comic, 102-104, 111; arm, 94, 107; Athena Parthenos, head of, 109; child, head of, 102; decorative disk, 112 f.; doll, jointed, 106 f.; dove, 110; female figure, archaic, 87-95; female figure, post-archaic, 95 f., 98-102, 110 f.; Gorgon, 109; horse and rider, 111; Kore, seated, 104 f.; Kore, standing, 104 f.; Kore, head of, 94, 95; leg, bull, 109; leg, horse, 108; leg, human, 94, 106 f.; lion, 97; male head, archaic, 89; male figure, post-archaic, 107, 111; mask, female, 97; monkey, 108; negroid head, 107; nut or fruit, 111; old man, head of, 96; Pegasos, 108; reclining figure, 105; relief of faun and maenad, 112; seated boy, 105 f.

## MUSEUMS

Acropolis (see Athens)

Ashmolean (Oxford), 90, 91<sup>57</sup>

Berlin: sculpture, 112; terracottas, 70, 97, 99<sup>97</sup>, 100; vases, 90

Bibliothèque nationale (Paris), 119<sup>42</sup>, 120<sup>61</sup>, 127<sup>138, 134</sup>

Bonn (Akademisches Kunstmuseum), 70<sup>40</sup>

Bonn (Provinzialmuseum), 127<sup>138</sup>

Boston, 81<sup>61</sup>, 89

British Museum: antefix, 124<sup>91</sup>; bronze objects, 117<sup>25</sup>, 119<sup>42</sup>, 121<sup>62, 69</sup>, 124<sup>100-102</sup>, 127<sup>138</sup>, 128<sup>143</sup>; coins, 110<sup>144</sup>; jewelry, 99<sup>91, 92</sup>, 109<sup>138, 142</sup>, 125<sup>112</sup>, 126; moulds, 86<sup>12</sup>, 90<sup>43</sup>, 109<sup>143</sup>; terracottas, 90, 102<sup>120</sup>, 124<sup>103</sup>; vases, 70<sup>40</sup>, 90, 109<sup>143</sup>

Capitoline (Rome), 96, 112<sup>150</sup>

Cassel, 127<sup>138</sup>

Danish National Museum (Copenhagen): moulds, 86<sup>12</sup>, 112<sup>147</sup>; terracottas, 64<sup>2</sup>, 100<sup>103</sup>, 109<sup>138, 142</sup>; vases, 70<sup>40</sup>

Fitzwilliam (Cambridge), 70<sup>41</sup>, 90

Karlsruhe, bronzes, 119<sup>42</sup>, 121<sup>62, 69</sup>, 127<sup>138, 135</sup>, 128<sup>143</sup>

Louvre: bronze objects, 119<sup>42</sup>, 127<sup>138, 135-137</sup>, 128<sup>142, 143</sup>; sculpture, 124<sup>90</sup> (see also Auxerre, statuette from); terracottas, 92<sup>59</sup>, 100<sup>103</sup>, 108<sup>132</sup>

Lykosoura, 67<sup>10</sup>

Mainz (Centralmuseum), 123<sup>77</sup>

Metropolitan Museum (New York): bronzes, 101, 115, 117<sup>25</sup>, 118<sup>32</sup>, 120<sup>61</sup>, 121<sup>62</sup>, 124<sup>101</sup>, 127, 128<sup>140</sup>; sculpture, 92<sup>61</sup>, 97; vases, 90, 91<sup>57</sup>

Munich, 70 f.

Naples, 71, 96

National Museum (see Athens)

Odessa, 108

Palermo, 71<sup>54</sup>

Trier (Provinzialmuseum), 127<sup>138</sup>

Vatican (Rome), 97

Würzburg (Martin von Wagner Museum), 50<sup>78</sup>, 69<sup>36</sup>

Mycenae, 8<sup>5</sup>, 89, 90, 123<sup>88</sup>, 124

Myrina, 64<sup>2</sup>, 98

NAGIDOS, 81<sup>61</sup>

Naukratis, 117<sup>24-26</sup>, 121<sup>64</sup>

Neandria, 8<sup>5</sup>

Negro, 107

Nimrud, 87

Nisyros, 130<sup>162</sup>

North Long Building, 15, 20 f.

Nyssa, 60

OFFERING table, 27 f., 41, 66 f., 76 f.

Offerings in sanctuaries, 23, 32, 50-53

Oil press, 31, 33

Olympia: altar, 68, 77<sup>60</sup>; Gelan Treasury, head from, 71<sup>56</sup>, 92<sup>59</sup>; Hera, colossal head of, 92<sup>59</sup>; metal objects, 89, 90, 115<sup>4, 5</sup>, 116, 117<sup>25</sup>, 119<sup>42</sup>, 120<sup>52, 61</sup>, 121<sup>62, 70</sup>, 122<sup>71</sup>, 123<sup>86</sup>, 126, 127, 128, 129, 130

Olynthos: graves, 25, 34; houses, 31<sup>38</sup>; metal objects, 115<sup>5</sup>, 116, 117<sup>22, 25, 26</sup>, 119, 121<sup>62, 69, 70</sup>, 123<sup>83</sup>, 126, 127<sup>134</sup>, 128<sup>138, 139</sup>, 129, 130; moulds, 86<sup>11</sup>, 100 f., 106, 108<sup>133</sup>, 112; terracottas, 98, 103<sup>125</sup>

Opuntian Lokris, 46 f.

Orientation of graves, 7, 10, 23, 25, 30, 33, 59

PAESTUM, 69

Pagasai, 65

Palaikastro, 71<sup>56</sup>, 123<sup>84</sup>

Palmette, 112 f., 118

Pausanias of Damascus, 60

Pavement: cement, 20, 30; crushed stones and sherds, 11, 18

"Pegasi," 46, 48

Peloponnesos, 118, 120<sup>61</sup>, 124

Peparethos, 48

Perachora: altar, 67, 68<sup>22</sup>; metal objects, 109<sup>137</sup>, 115, 116, 117, 119<sup>42</sup>, 122<sup>71, 76</sup>, 123<sup>84, 86</sup>, 124, 126, 127<sup>138</sup>, 129<sup>147</sup>; promontory of, 3<sup>8</sup>; terracottas, 88, 89, 90, 91, 92<sup>59</sup>, 93

Pergamon, 121<sup>70</sup>

Persia, 121

Phoenicians, 59, 87 f.

Phokis, 46

Pithos, 26 f., 39, 43 f., 116

Pitsa, 98, 112, 127

Pompeii, 69<sup>36</sup>, 81<sup>61</sup>, 118<sup>34</sup>

Populonia, 117<sup>28</sup>, 124<sup>102</sup>

- Porto Raphti, 67  
 Pottery: amount found, 5; Attic, 31, 45; Corinthian imitation of Attic, 31; Corinthian Conventionalizing, 21, 27, 29; Corinthian Orientalizing, 13, 15, 16, 18, 21, 70, 89, 90; 5th century Corinthian, 21, 30, 33 f., 45, 50; 4th century Corinthian, 44, 50; Geometric, 6, 7-10; Geometric Proto-Corinthian, 10, 11, 12, 13, 14; Proto-Corinthian Orientalizing, 12 f., 14, 88 f., 90; (see also Miniature vases)  
 Praisos, 123<sup>83, 84</sup>  
 Priene, 67, 69, 103, 117<sup>25, 26</sup>, 118<sup>82, 85</sup>  
 Prosymna, 115<sup>4</sup>, 122<sup>76</sup>, 123<sup>86</sup>  
 Pyxis heads, 90, 91, 92, 93
- QUARRY, 4, 63
- RECLINING figures, 84, 85, 105, 110  
 Repairs in antiquity, 74 f. (stele), 91 (mould)  
 Reservoir, 11, 18 f., 27  
 Rhitsona, 24, 34, 130<sup>162</sup>  
 Road, 3, 4, 14, 15, 17, 20, 21, 59  
 Roman remains, 4, 5
- SALAMIS, 46, 123<sup>83</sup>, 124  
 Samos, 125<sup>117</sup>, 128<sup>142</sup>  
 Sarcophagi, 30, 33 f., 59 f.  
 Sardinia, 65<sup>7</sup>, 130<sup>165</sup>  
 Schimatari, 65  
 Seated boys, 64<sup>2</sup>, 84 f., 105 f.  
 Selinos, 67<sup>10</sup>, 68, 69, 93, 125  
 Sendschirli, 88<sup>16</sup>  
 Setting lines: moulds, 83, 94, 96, 106, 107, 109, 111; walls, 54, 57  
 Shelves: surrounding graves (Geometric), 7-10, 24; on long sides of graves (post-Geometric), 23-25  
 Shields, terracotta, 23, 109  
 Shrines: Circular South Shrine, 31 f., 61, 74; Cistern Shrine, 27 f., 53, 73 f., 76 f.; Shrine of Double Stele, 49-53, 61, 75 f., 79 f., 102<sup>117</sup>; "Erosa Shrine," 28 f., 73; Shrine in Terracotta Factory, 41 f., 53, 74 f., 77, 79; Stelai Shrine A, 22-25, 51 f., 72; Stelai Shrine B, 25 f., 52 f., 72 f.  
 Sicily, 92<sup>59</sup>, 93, 120<sup>61</sup>, 127<sup>133</sup>  
 Signature, potter's, 21  
 Sikyon, 3<sup>1</sup>, 46, 48  
 Siren, 31, 70 f., 80 f.  
 Skillous, 93  
 Smyrna, 64<sup>2</sup>, 112  
 Socles, rock-cut, for setting walls, 12, 35, 37, 43, 44  
 Sounion, 47 f., 118<sup>86</sup>, 123<sup>86</sup>
- South Long Building, 15-17, 21<sup>22</sup>, 22  
 South Russia, 100<sup>108</sup>, 102, 117<sup>25</sup>, 121  
 Sparta, 71<sup>60</sup>, 89  
 Stairways, City Wall, 54, 58  
 Stelai: panelled, 23, 25, 27 f., 32, 49-51, 63-66, 72-76; other types, 41 f., 49, 74 f.  
 Stucco, marble dust, 31, 33  
 Sybrita, 81<sup>61</sup>  
 Syracuse, 67 f., 70<sup>40</sup>  
 Syria, 123
- TA'ANNEK, 59  
 Tanagra, 102  
 Tanis, 59, 117<sup>24, 29</sup>, 121<sup>64</sup>  
 Tarentum, 86, 91<sup>57</sup>  
 Tarsus, 60  
 Tegea, 121<sup>62</sup>, 122, 123<sup>88, 86</sup>  
 Tegulae mammatae, 5  
 Tenea, Apollo of, 92  
 Tenos, Geometric cemetery at, 9<sup>6</sup>, 10, 122, 124<sup>101</sup>  
 Terracotta Factory: building, 11, 12, 34-49, 61 f., 63, 74 f., 77, 79; moulds from, 82, 86 f., 96-113  
 Terracotta figurines, 5, 50, 51, 52, 64<sup>2</sup>, 84-87, 93  
 Thasos, 92<sup>58</sup>  
 Thebes, 24 f., 64<sup>2</sup>, 65, 119<sup>47</sup>  
 Theophanes, 60  
 Thera, 8<sup>5</sup>, 69, 123<sup>83</sup>, 124<sup>102</sup>  
 Thermi, 123<sup>77, 78, 88</sup>  
 Thermopylai, 121<sup>62</sup>  
 Thespiiai, 120<sup>61</sup>  
 Thrace, 60  
 Tie-holes for joining moulds, 83, 95 f.  
 Tile graves, 24 f., 34  
 Towers of City Wall, 56-59  
 Trebenische, 120, 130<sup>162</sup>  
 Tripods from kilns, 13, 18  
 Troizen, 46  
 Troy (Ilios), 123<sup>78, 84</sup>, 124
- VARI, 99  
 Varnava, 61  
 Vases in graves, broken in antiquity, 7  
 Veii, 116  
 Vrokastro, 122<sup>76</sup>, 125<sup>117</sup>  
 Vroulia, 8<sup>5</sup>
- WASTERS, 16, 17  
 Water channel, 5, 11, 12, 16, 20, 26, 33, 39, 40 f.  
 Well, 5, 6, 12 f., 28 f., 30 f., 33, 45  
 Well curb, 6, 30 f., 45
- YARD, 17, 29, 63

## PLATES



A. Acrocorinth from the Potters' Quarter

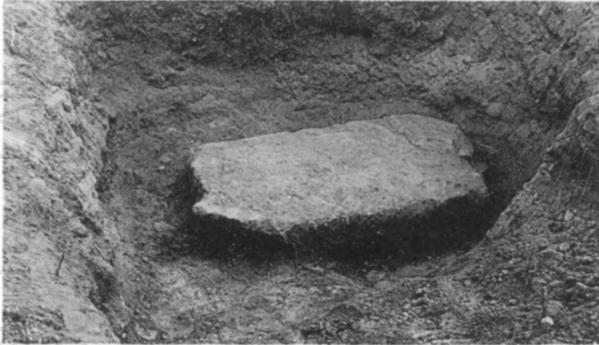


B. View from Acrocorinth, Showing the Potters' Quarter

PLATE 2



A. Vases Outside Geometric Grave V



B. Cover Slab of Geometric Grave VI



C. Interior of Geometric Grave V



D. Early 7th Century Fortification Wall



A. Early Fortification Wall (Left) and South Long Building



B. Building of the Second Half of the 7th Century



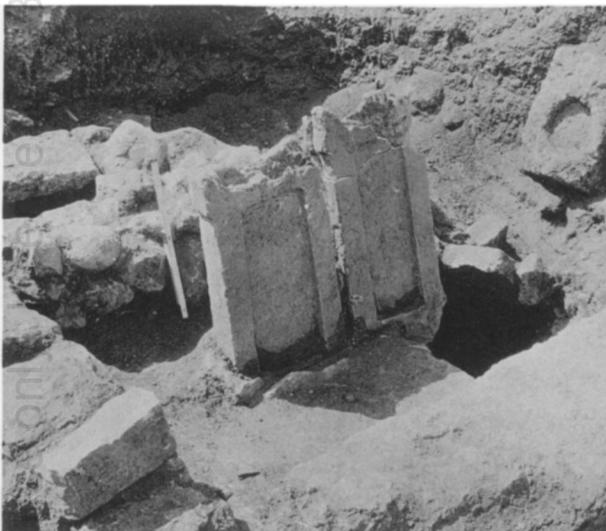
A. North Long Building (Foreground), Third Tower of City Wall, and South Long Building (Upper Left)



B. Modern Pottery Factory in Lower Messenia



A. Double Water Channel



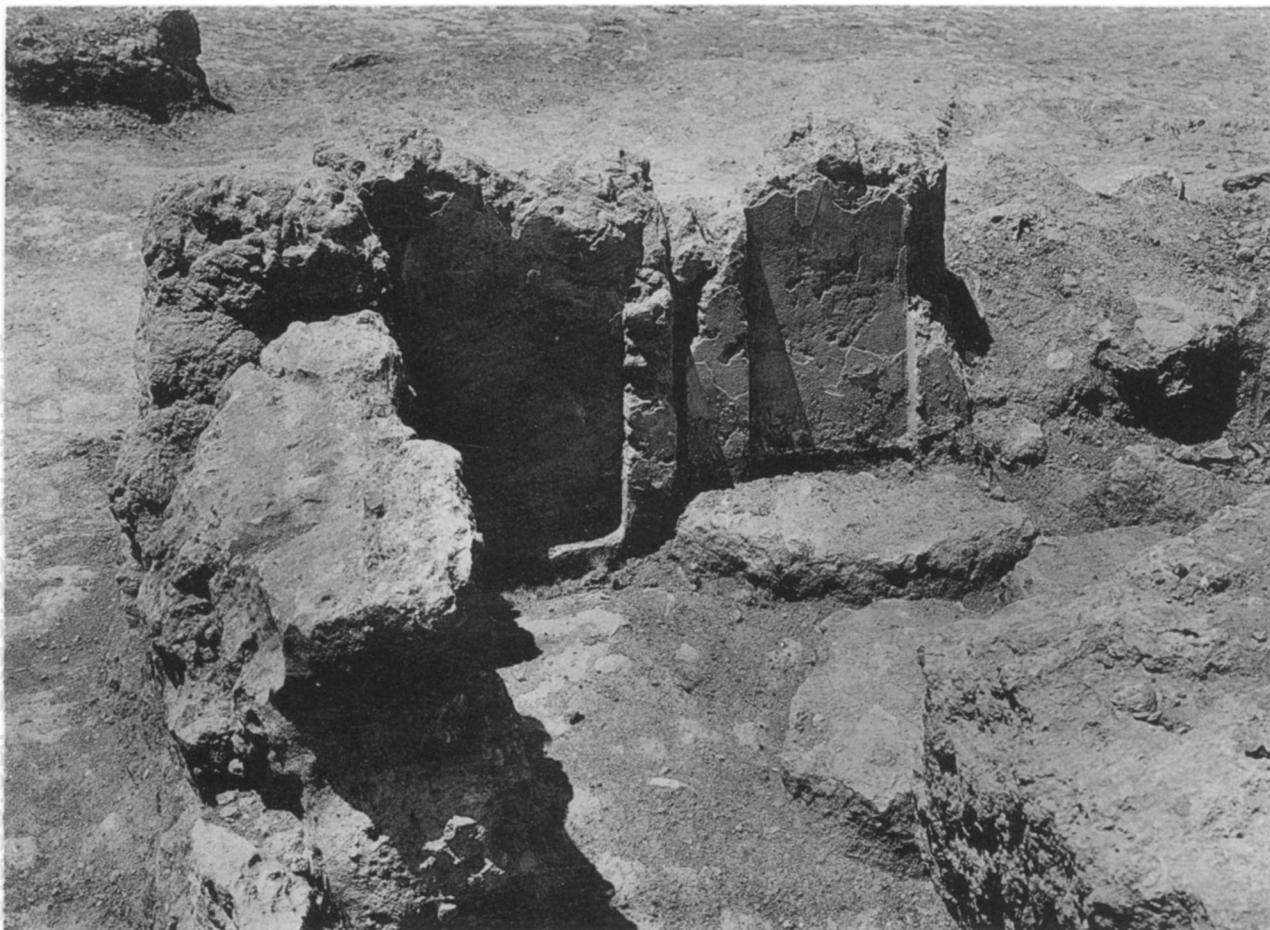
B. Stelai in Stelai Shrine A



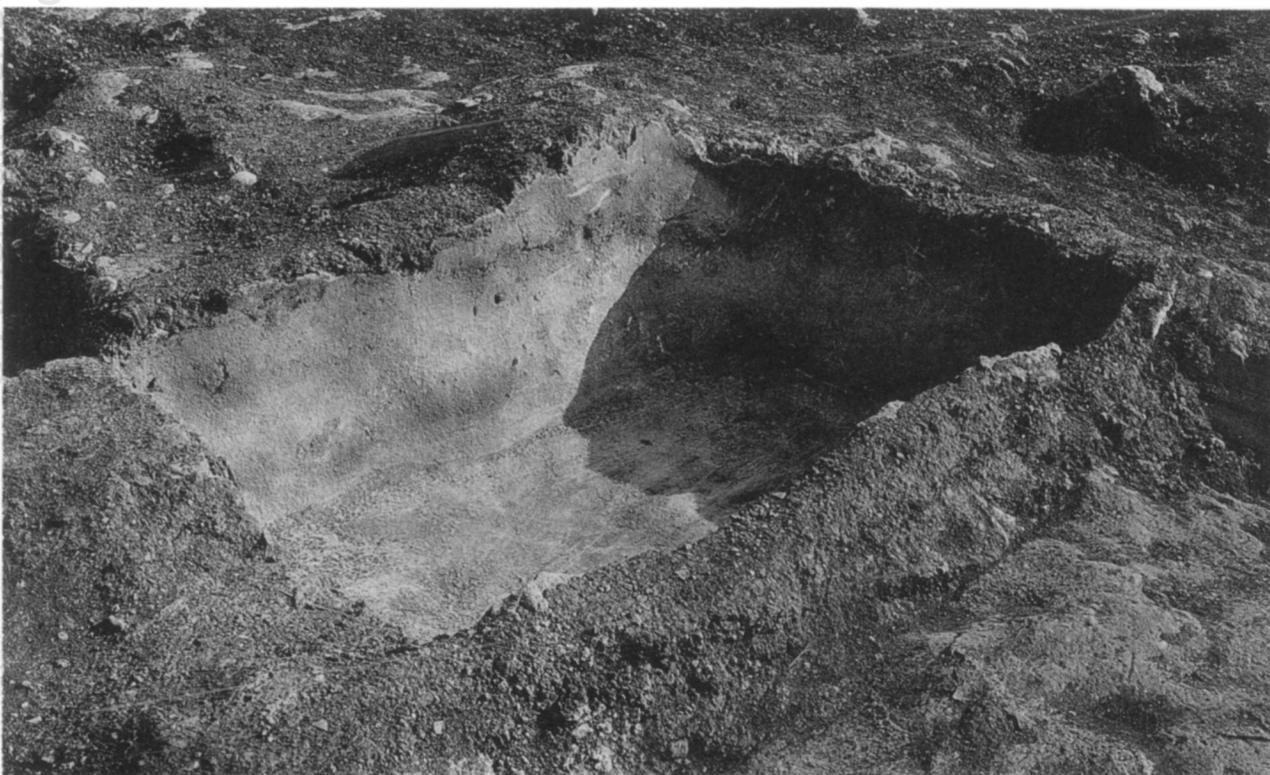
C. Stelai Shrine A



D. Stelai Shrine A and Graves 1, 2 and 3

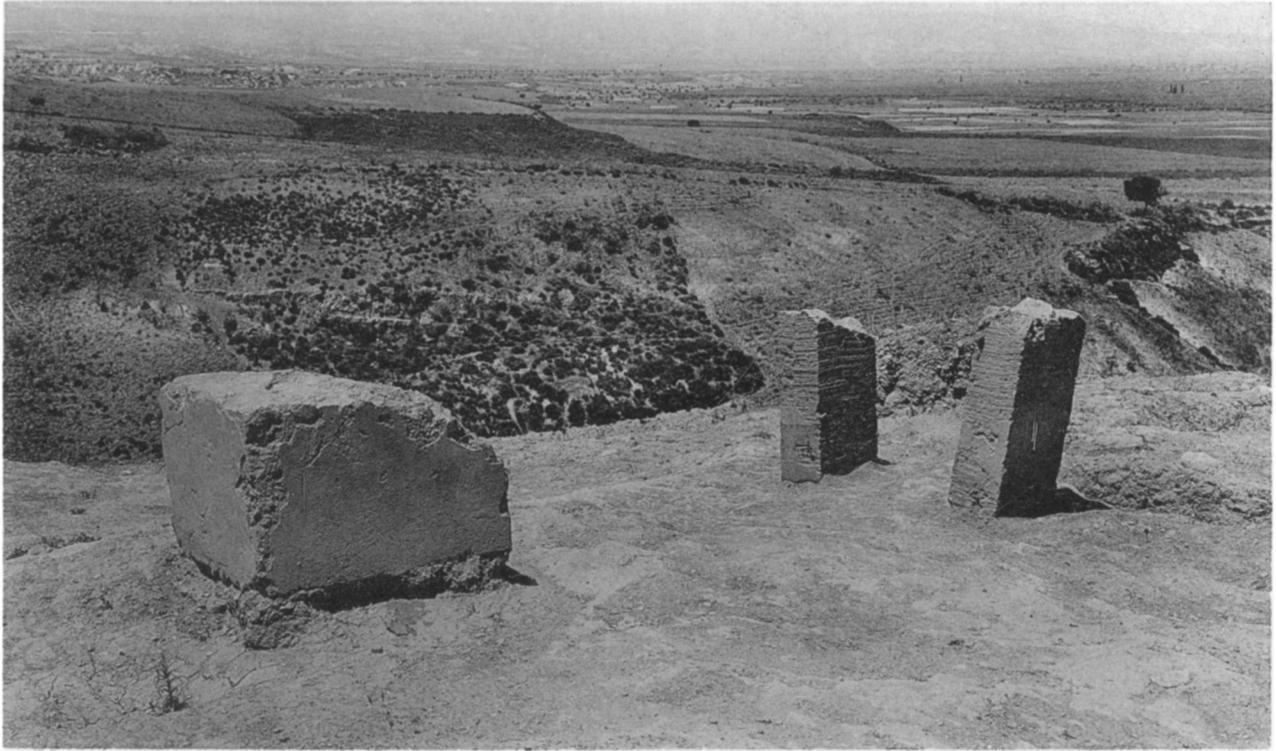


A. Stelai Shrine B



B. Reservoir Southeast of the Terracotta Factory

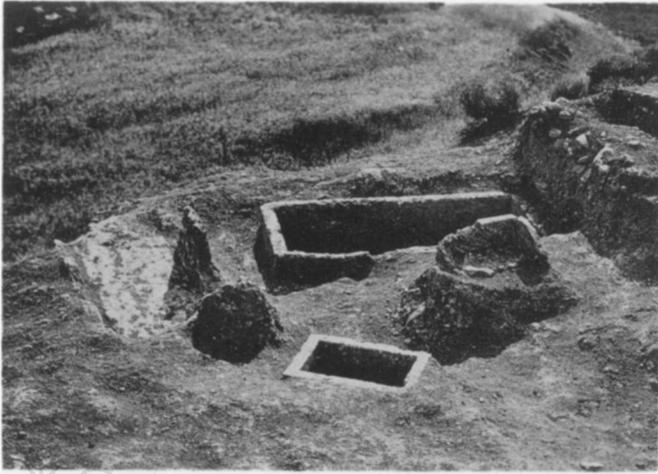
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A. Stuccoed Block and Offering Table Supports near the Cistern



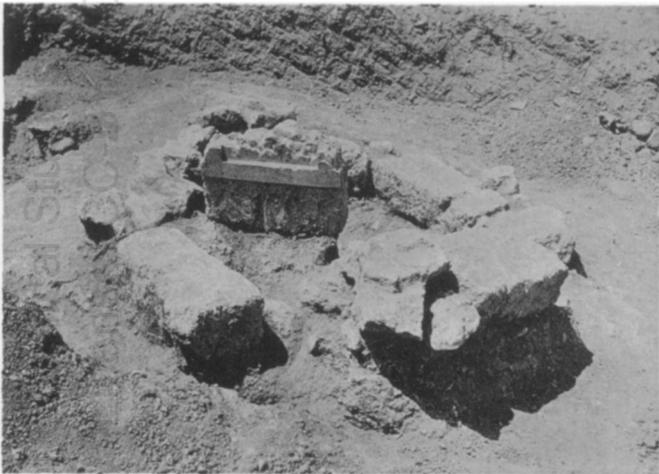
B. "Erosa Shrine"



A. South Cemetery



B. Circular South Shrine from the Northwest



C. Circular South Shrine from the East



D. Circular South Shrine from the Southeast



E. Cement Floor and Well



A. Terracotta Factory from the North



B. Terracotta Factory from the South



A. Terracotta Factory from the Northeast



B. Court of the Terracotta Factory



A. Exterior Face of the West Wall of the Court



B. Piers and West Wall of the Court



A. Northwest and North Rooms of the Terracotta Factory



B. South Room and Part of the Court



A. Northeast Room, Showing Capital in West Wall



B. Northeast Corner of the Terracotta Factory



A. Altar Room of the Terracotta Factory



B. South Room



A. Shrine of the Double Stele



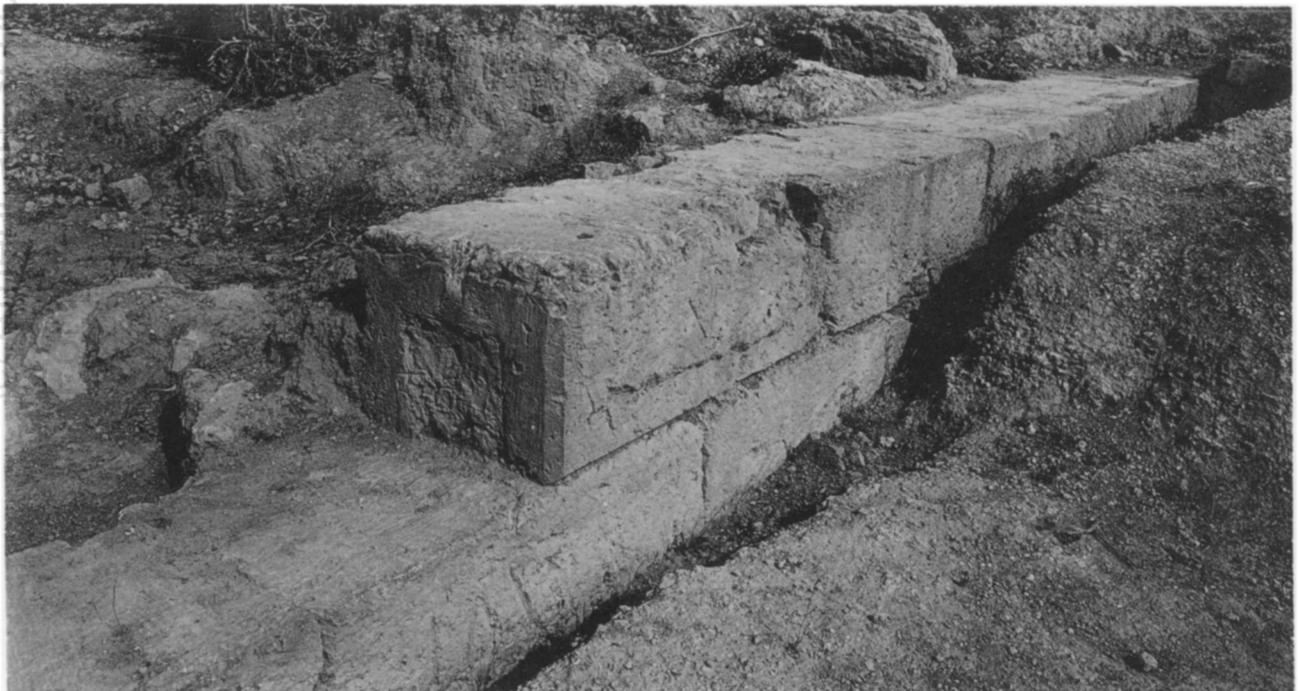
B. Shrine in Process of Excavation



C. West City Wall at North Stairway



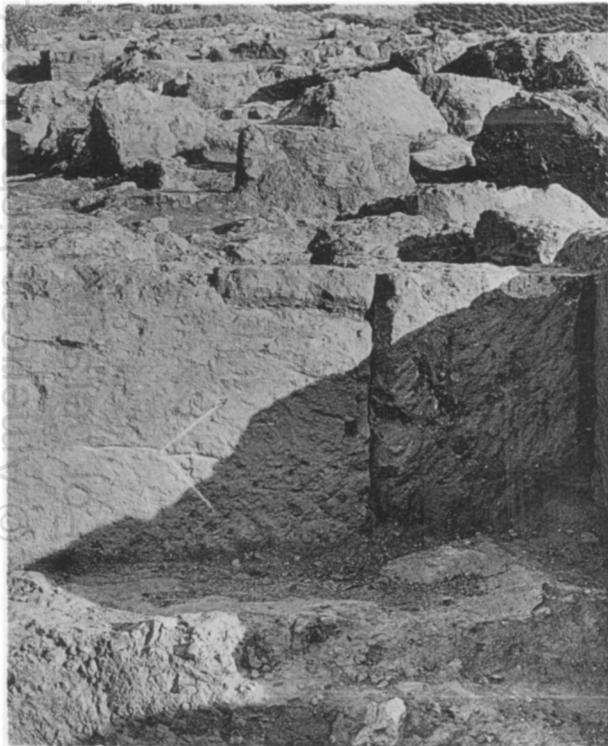
A. Outer Face of City Wall at North Stairway



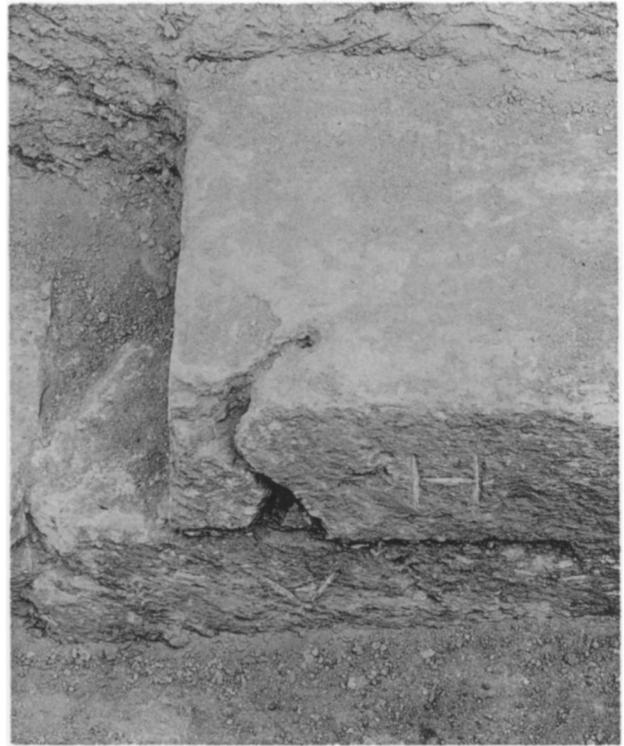
B. City Wall North of Second Tower, Showing Masons' Marks



A. Detail of Outer Face of West City Wall



B. Mason's Mark at End of North Stairway



C. Masons' Marks on Outer Face of North City Wall



A. Outer Face and Fill of North City Wall



B. North Side of Third Semicircular Tower



A. Third Semicircular Tower of West City Wall



B. Second Semicircular Tower



A. Rectangular Tower at Northwest Angle of City Wall



B. Supporting Wall for a Ramp at South Side of Rectangular Tower



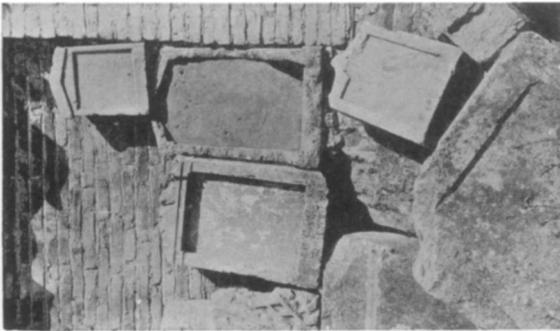
A. South Face of Gate (Foreground) and Second Tower of West City Wall



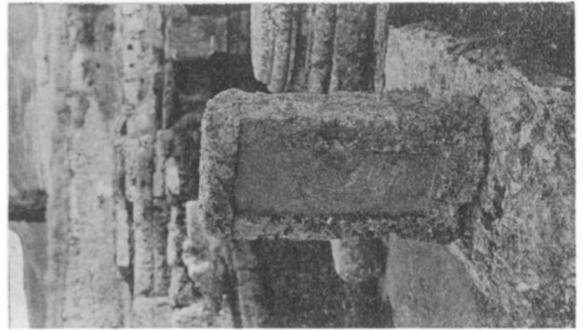
B. Sarcophagus in Fill of West City Wall



C. Interior of the Grave in the City Wall



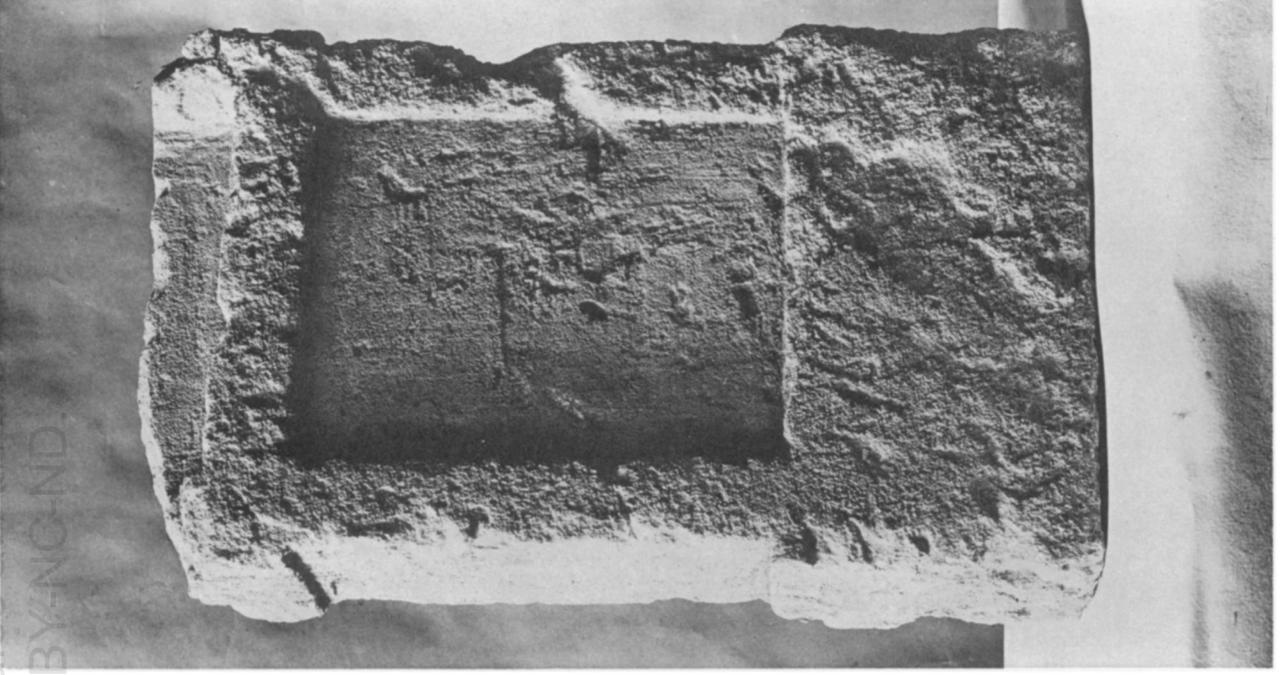
A. Stelai in the Schimatari Museum



B. Stela in the Agora at Corinth



C. Stela from the "Erosa Shrine"

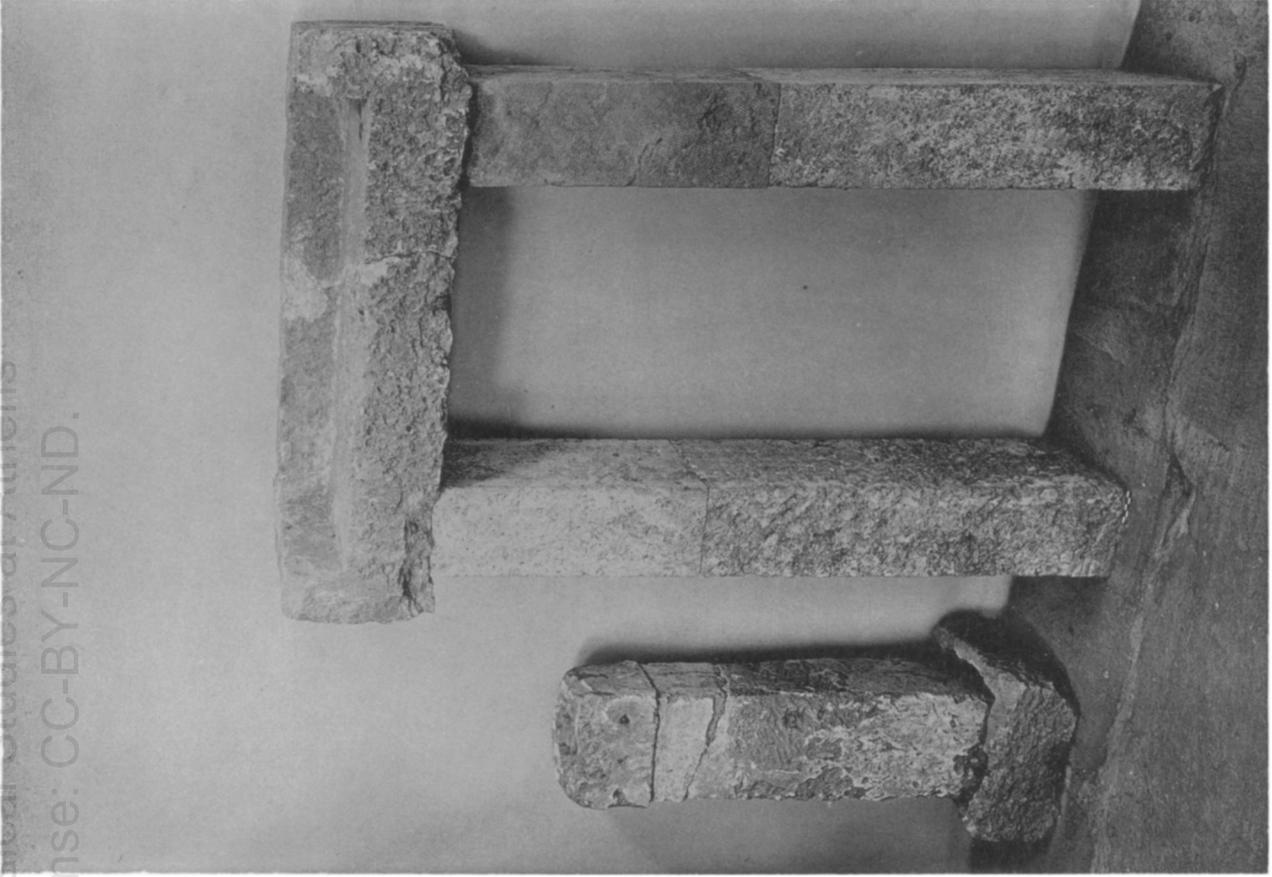


D. Stela from the Cistern

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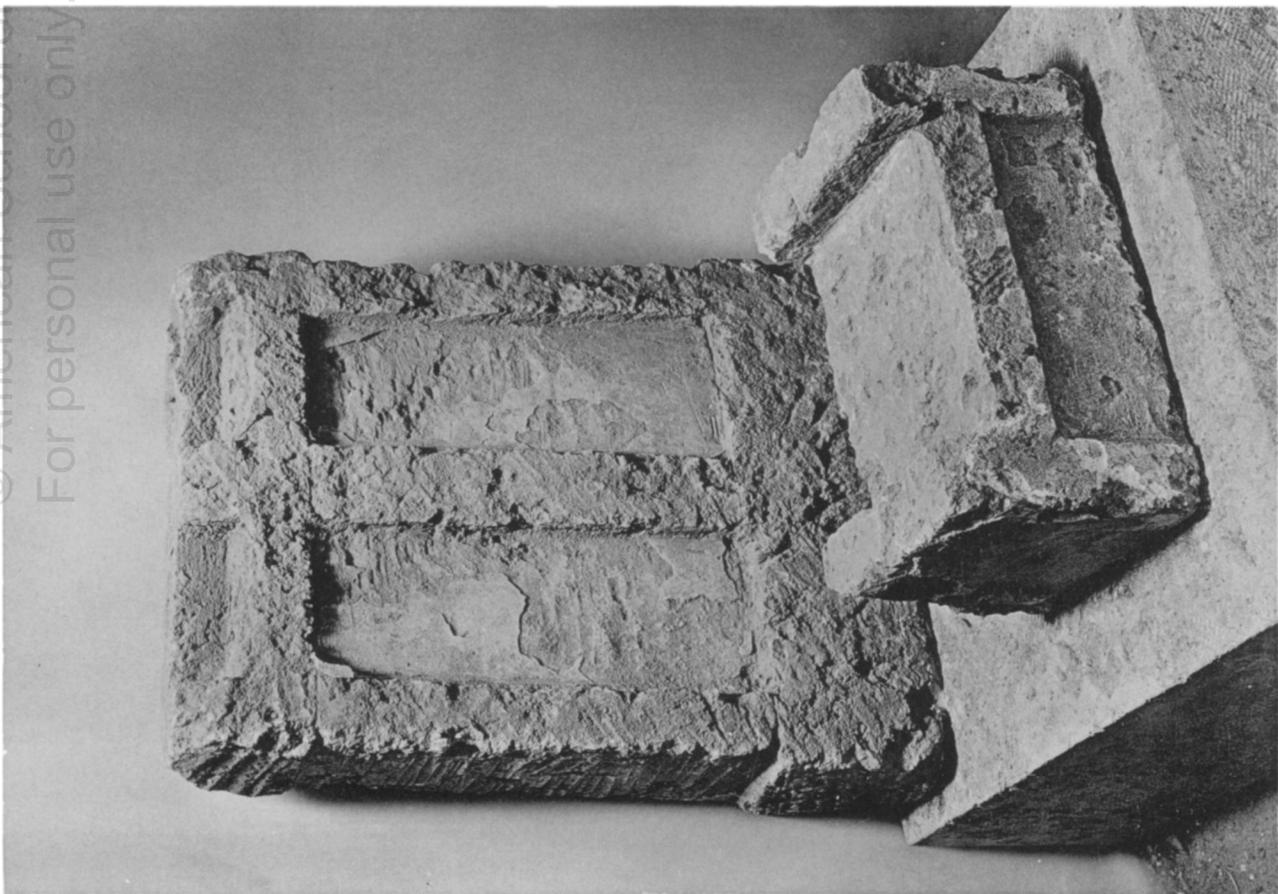


A. Stelai from Stelai Shrine A



B. Stele from the Terracotta Factory and Offering Table from the Cistern

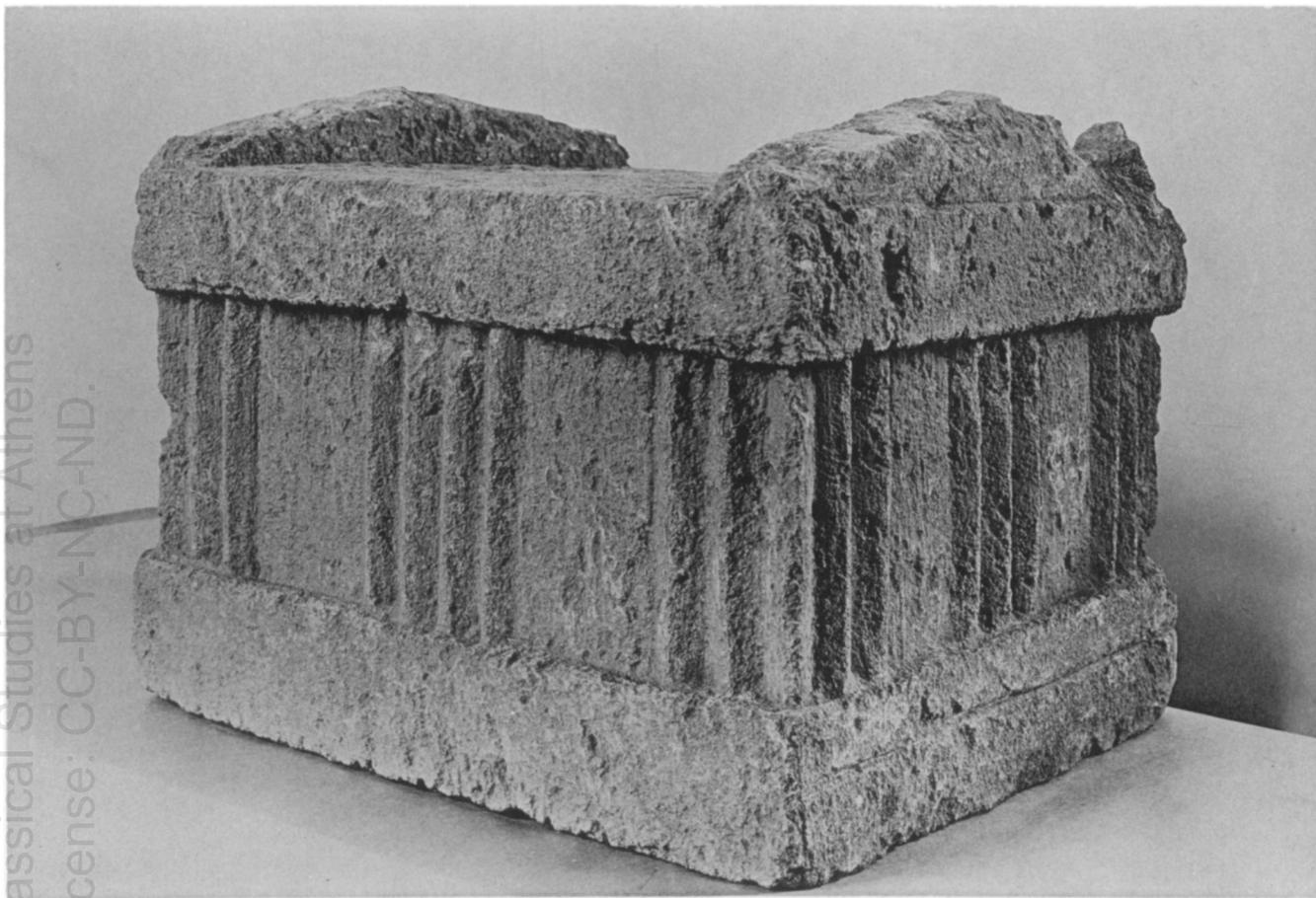
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A. Stele and Altar from the Shrine of the Double Stele



B. Altar from the Cistern



A. Altar from the Terracotta Factory



B. Archaic Doric Capital

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A. Left Side of the Stone Siren



B. Right Side of the Stone Siren



A. Back of the Siren



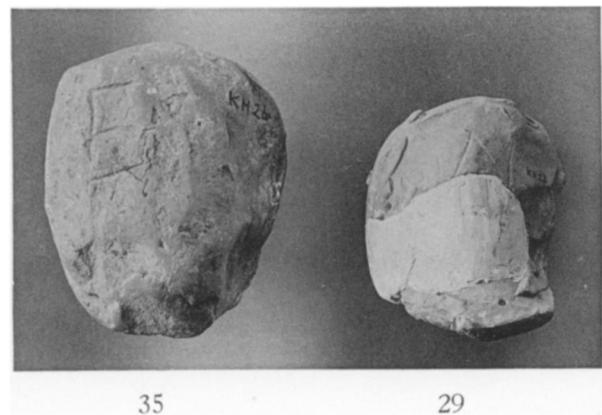
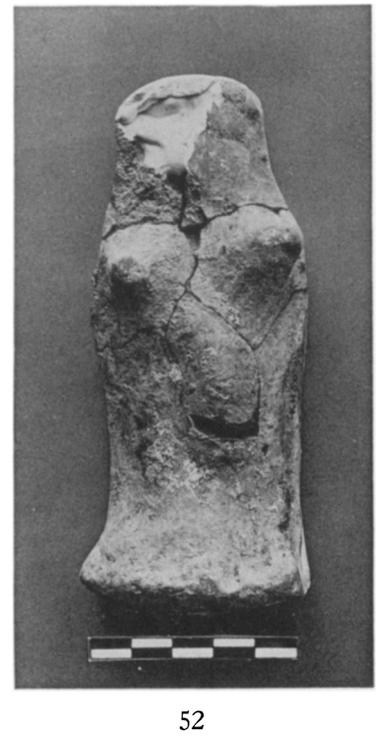
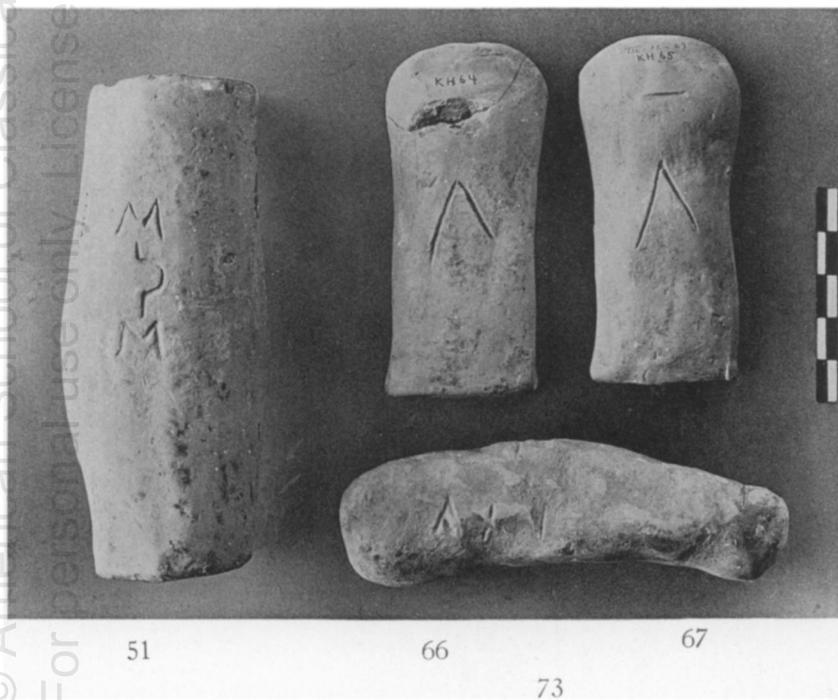
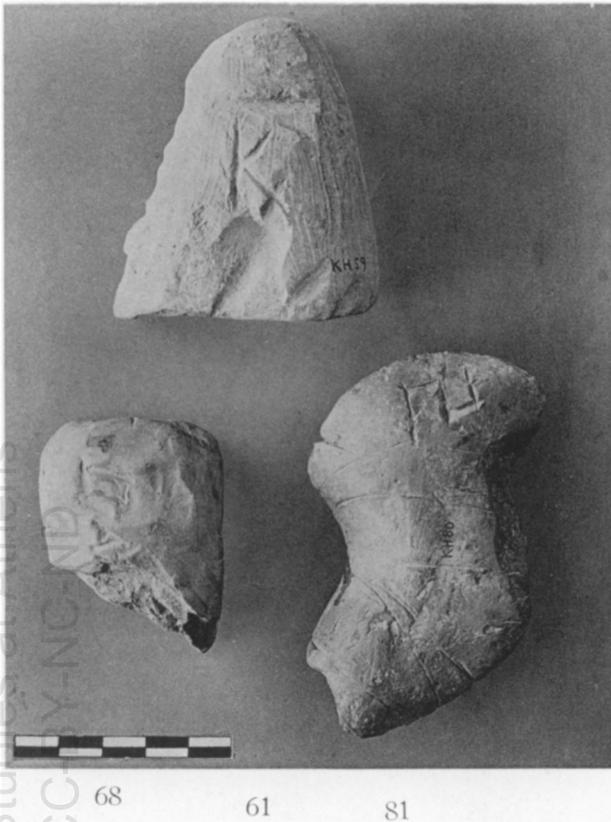
B. Front of the Siren



C. Marble Hand Holding a Kantharos



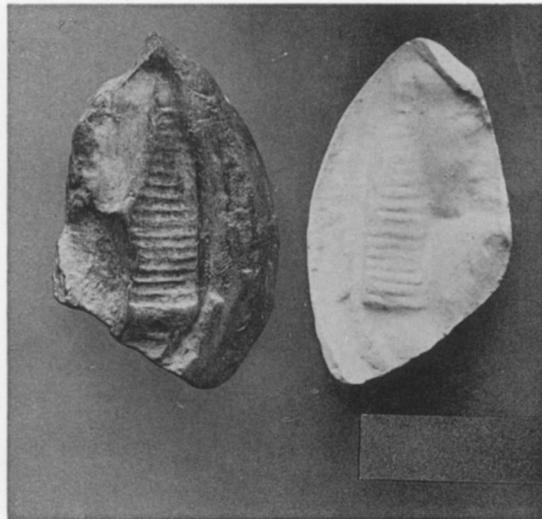
D. Hand Holding a Kantharos



TERRACOTTA FIGURINE MOULDS



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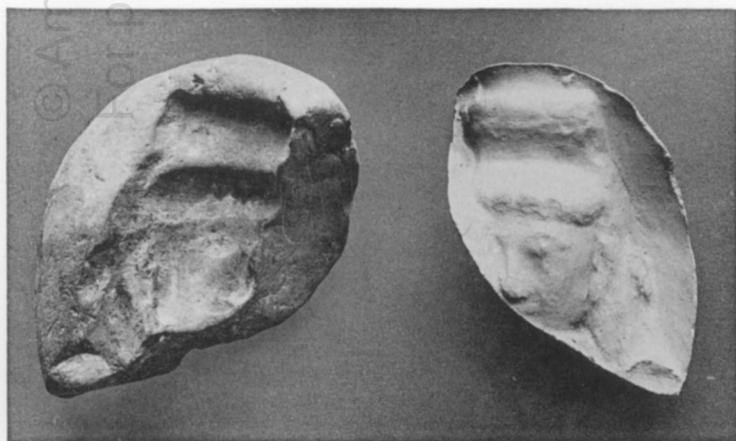
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TERRACOTTA FIGURINE MOULDS



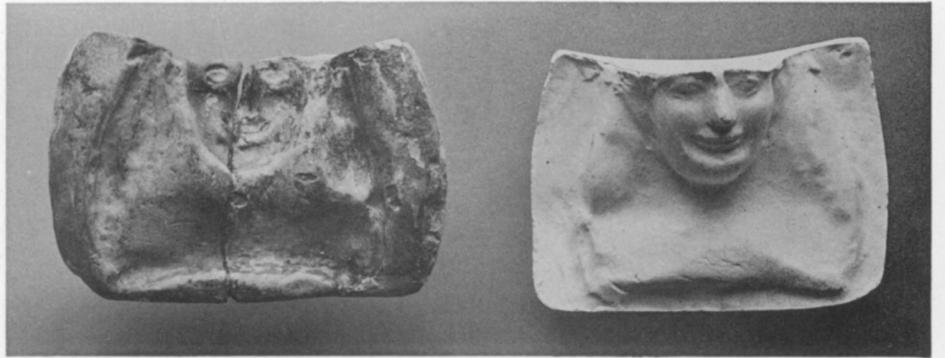
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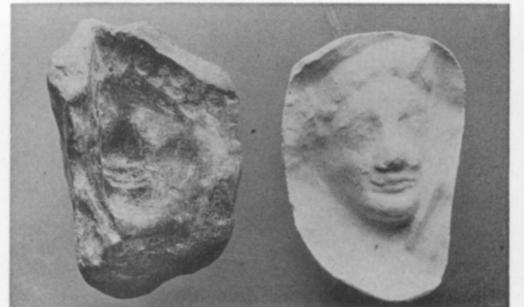
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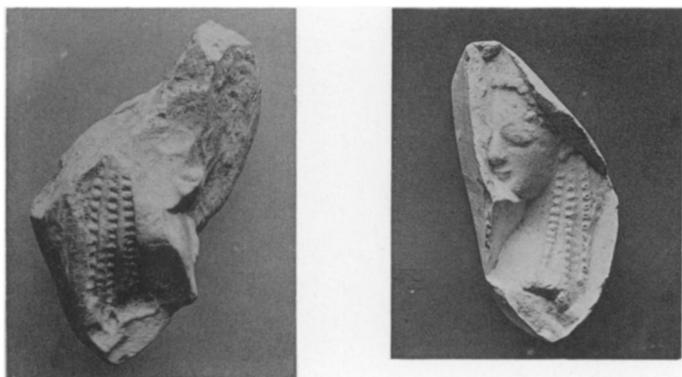
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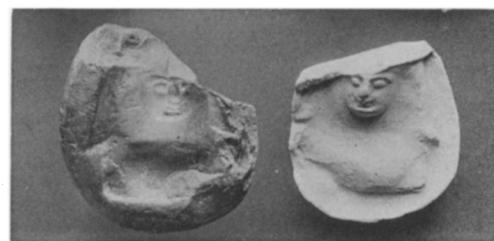
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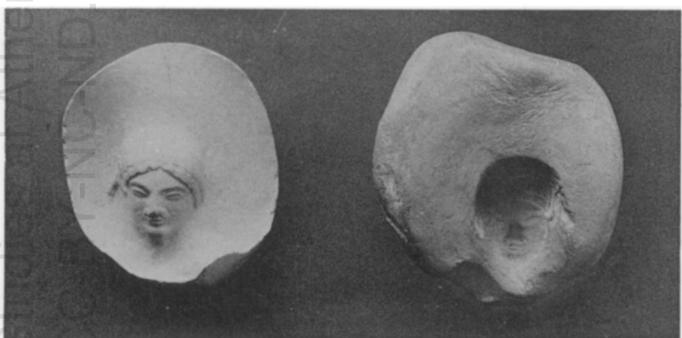
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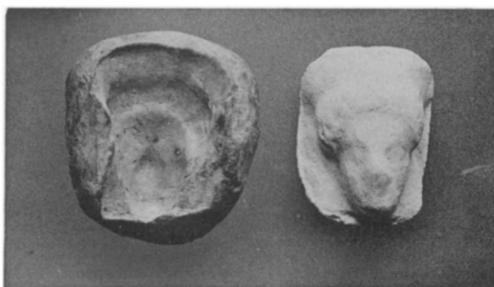
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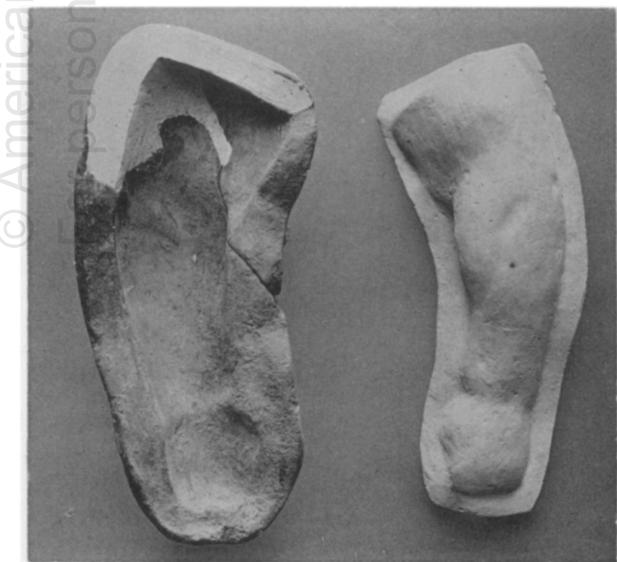
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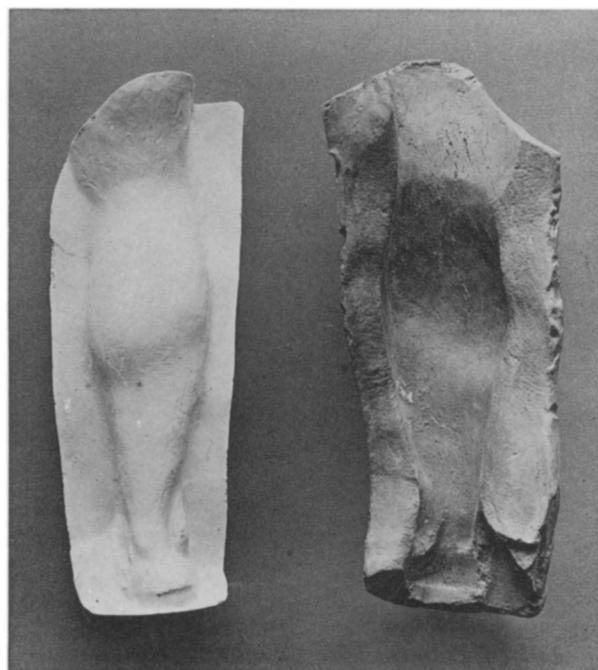
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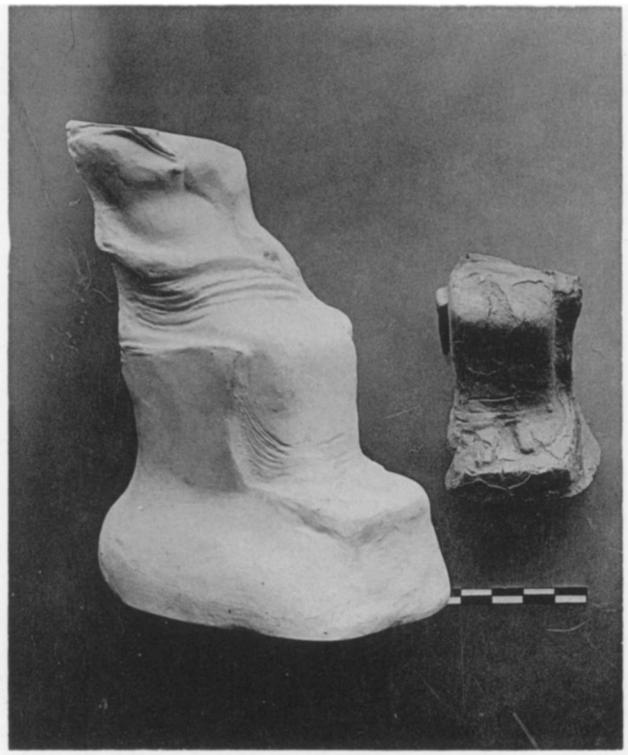
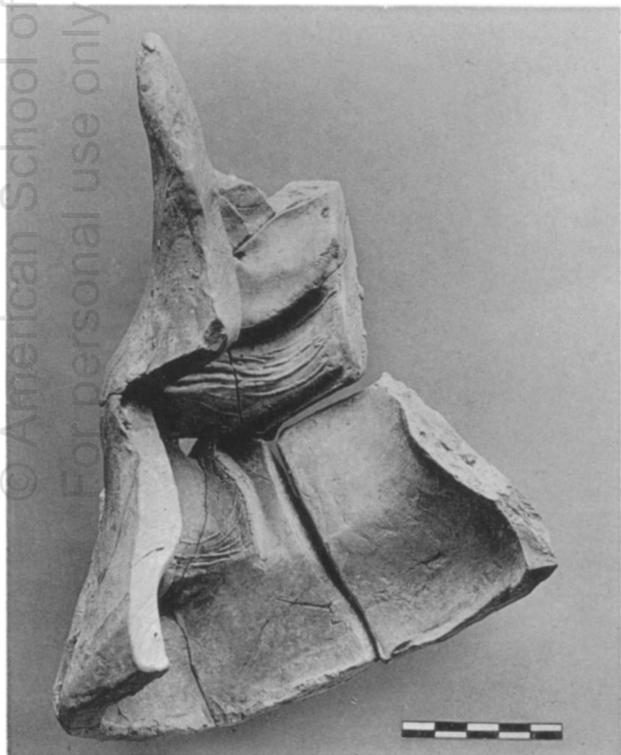
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28



21

TERRACOTTA FIGURINE MOULDS



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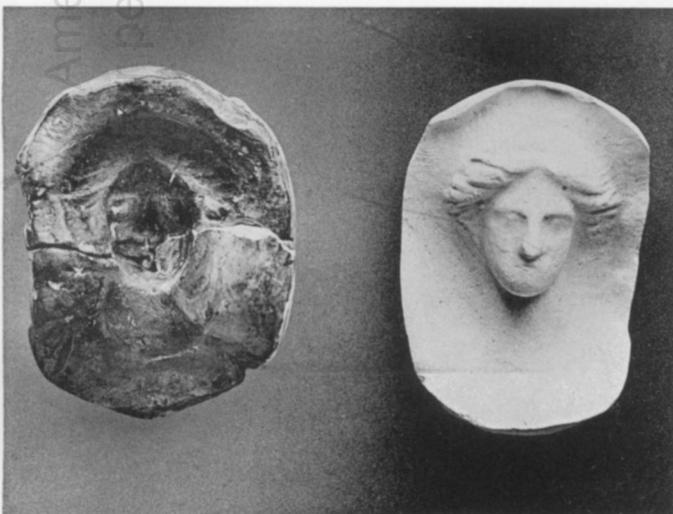
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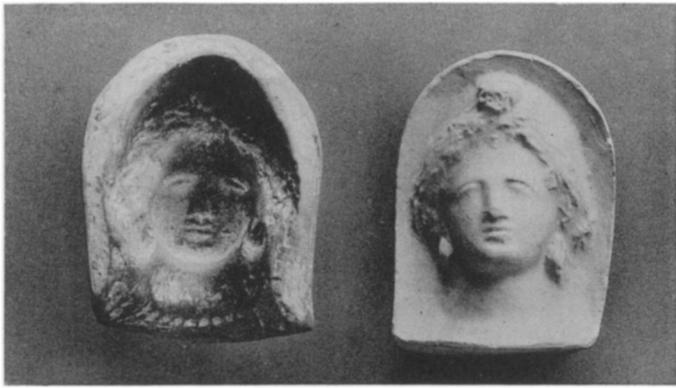


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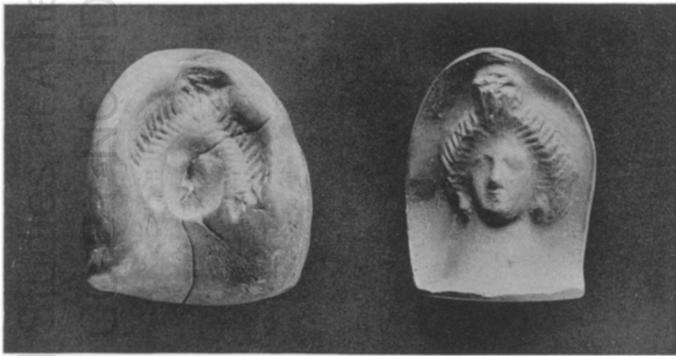
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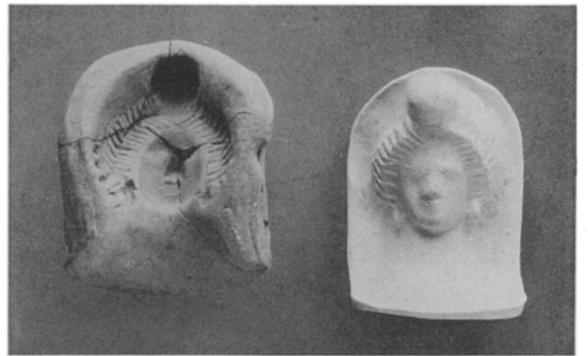
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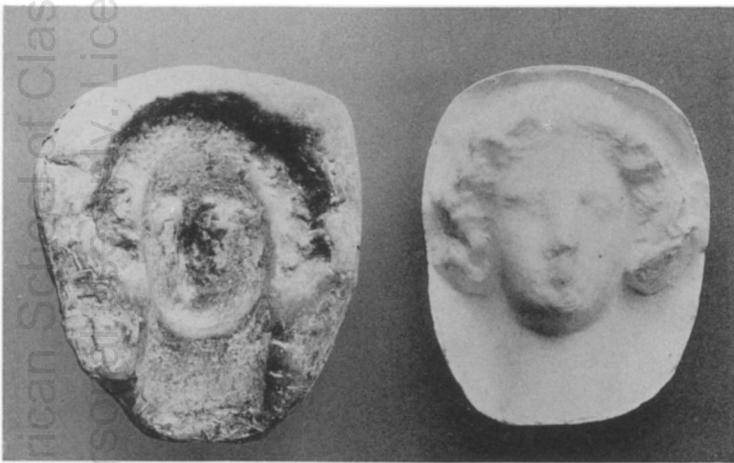
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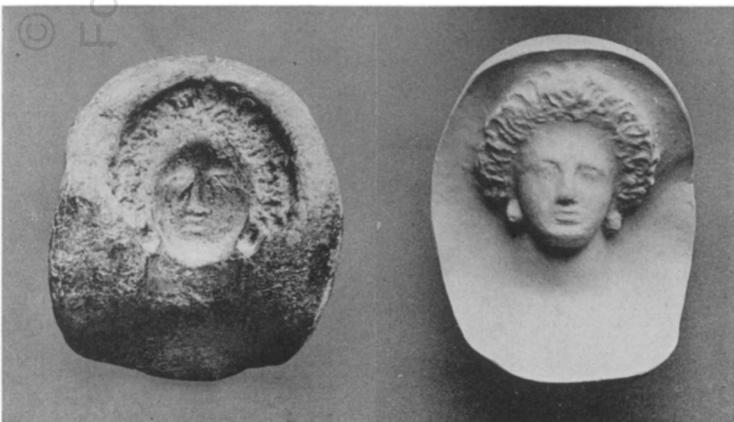
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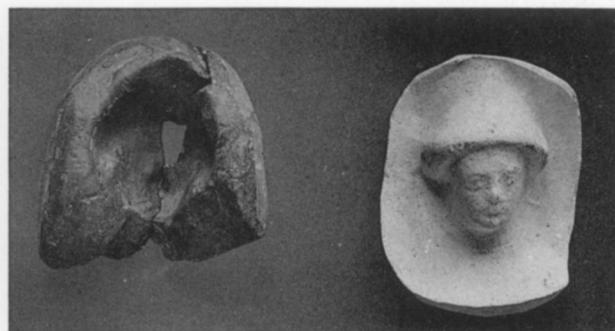
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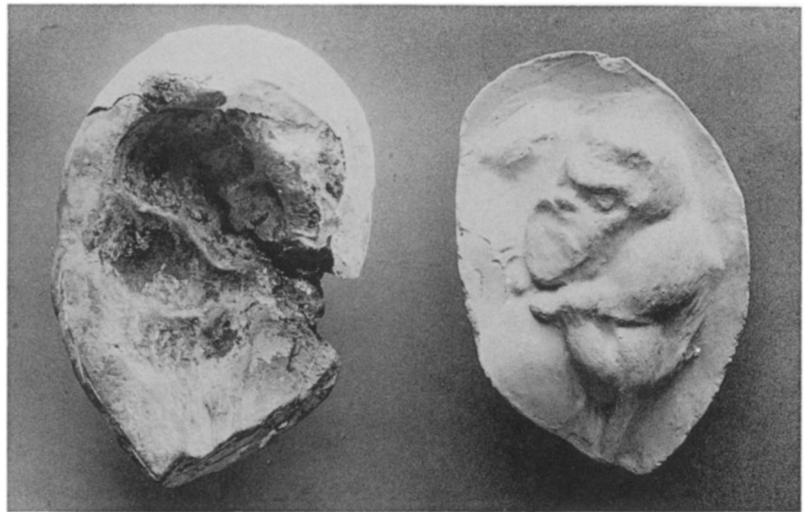
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XIX, 11

TERRACOTTA FIGURINE MOULDS

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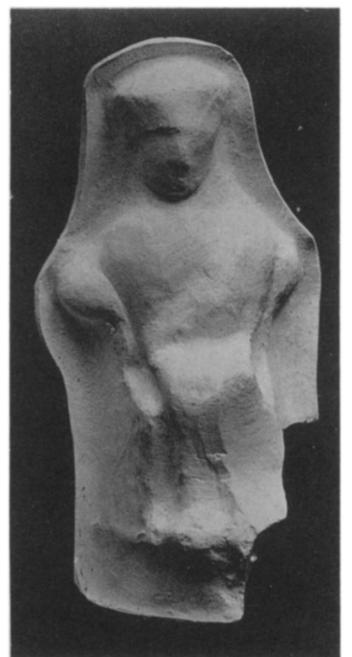
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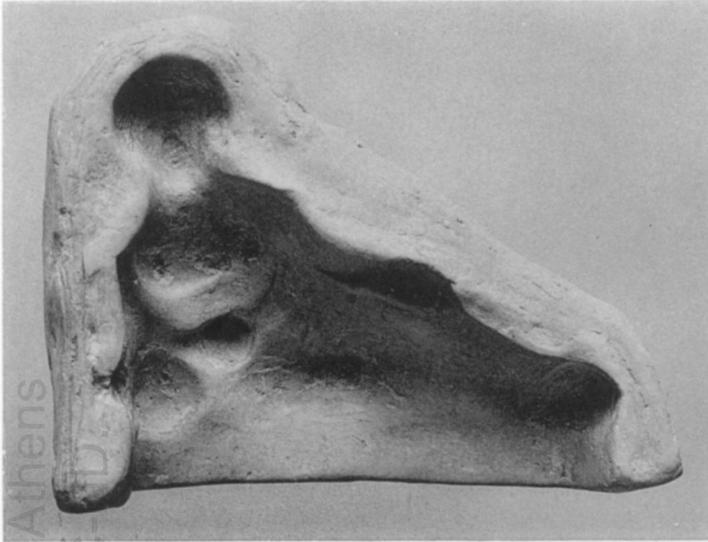


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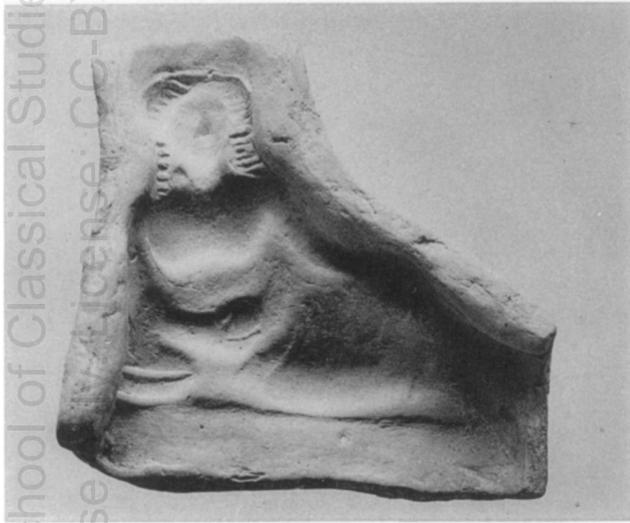


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TERRACOTTA FIGURINE MOULDS



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TERRACOTTA FIGURINE MOULDS



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XIV, 13



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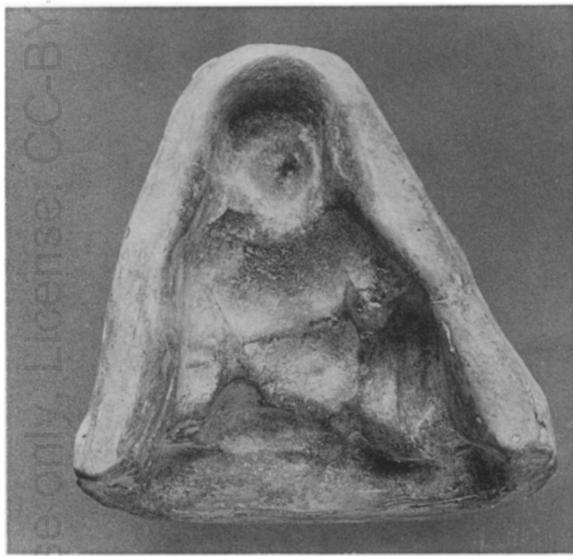


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TERRACOTTA FIGURINE MOULDS



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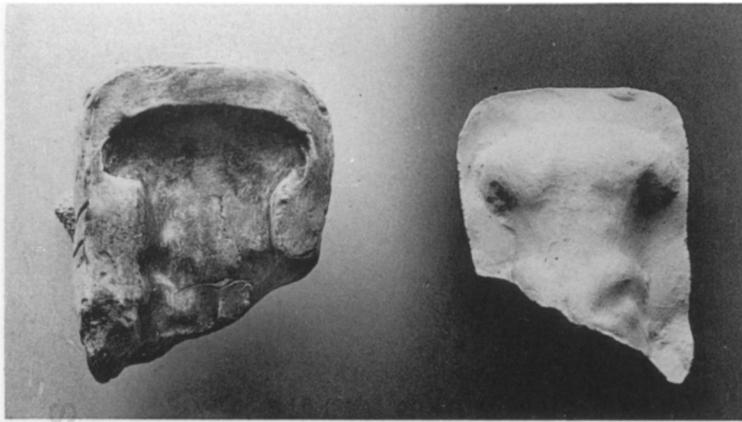
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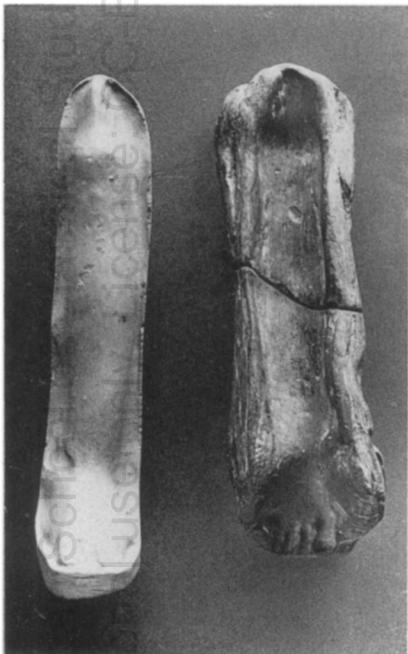
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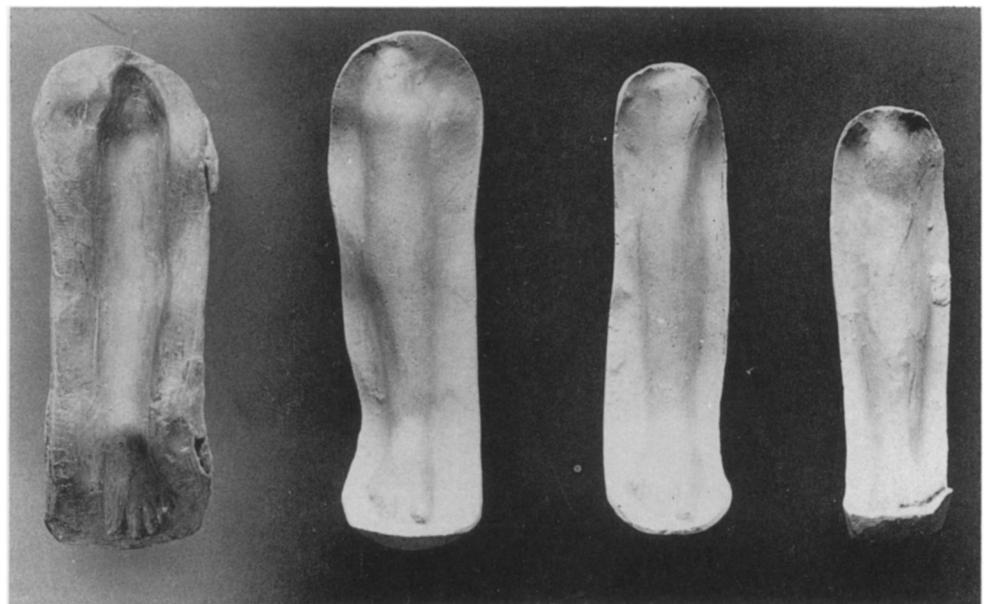
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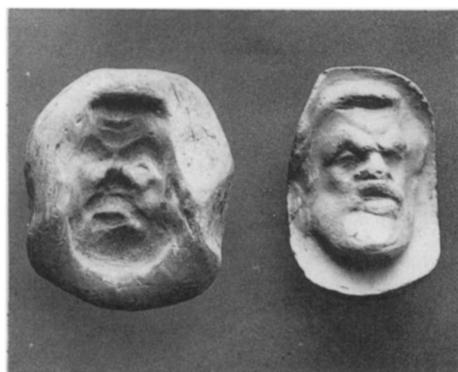
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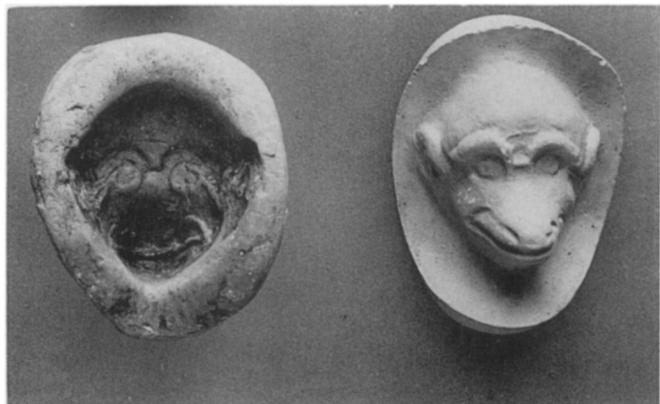


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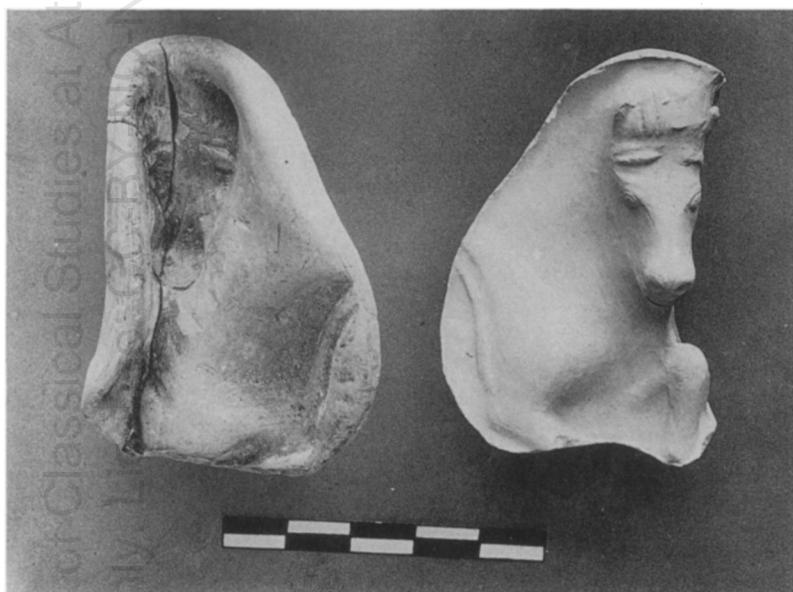
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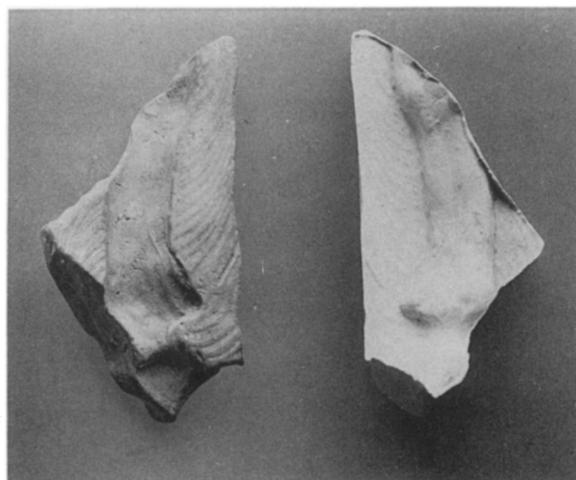
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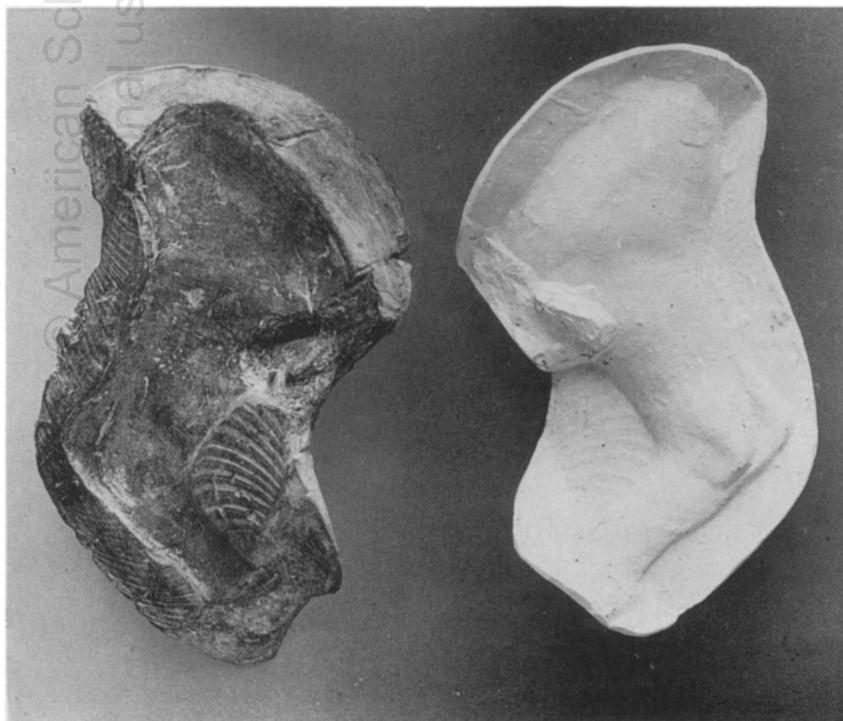
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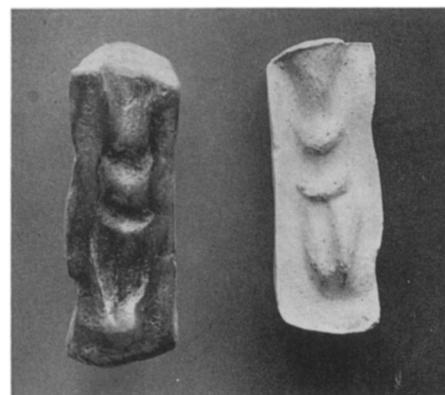
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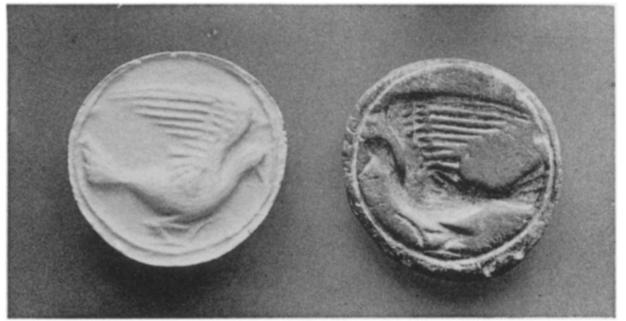


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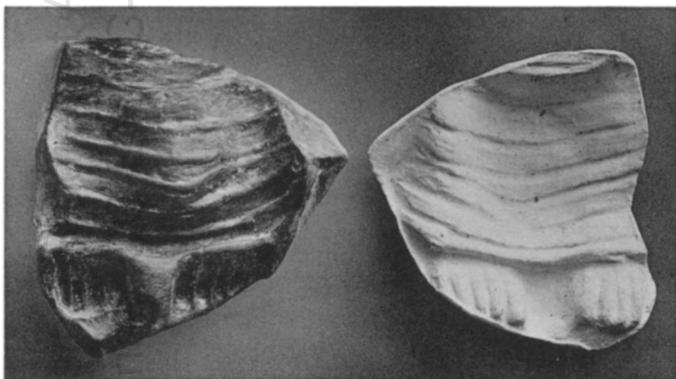
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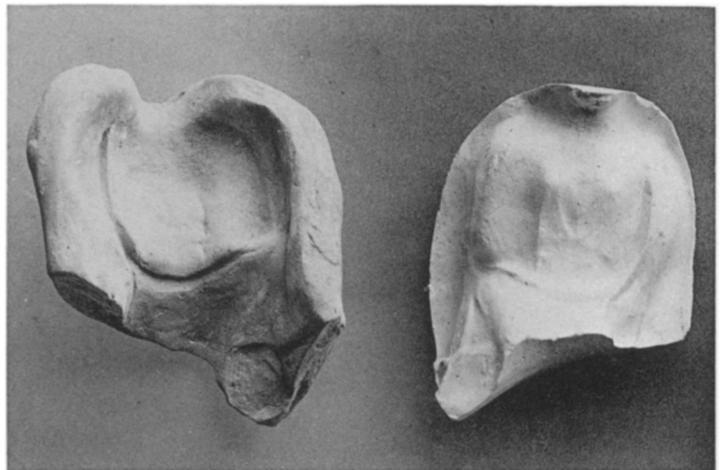
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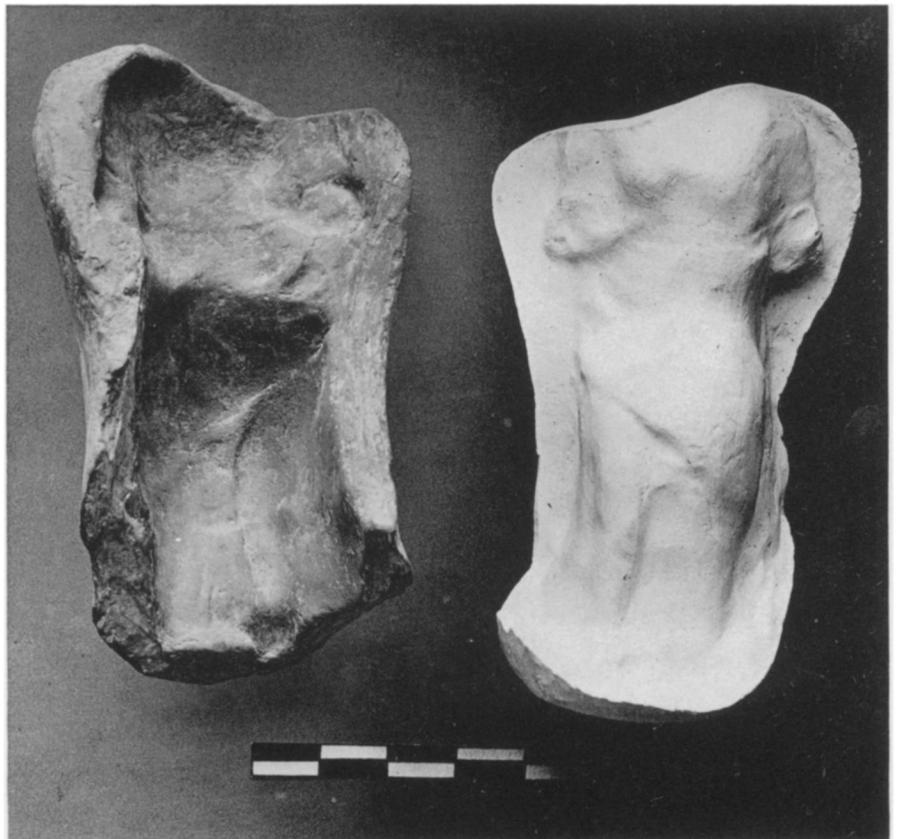
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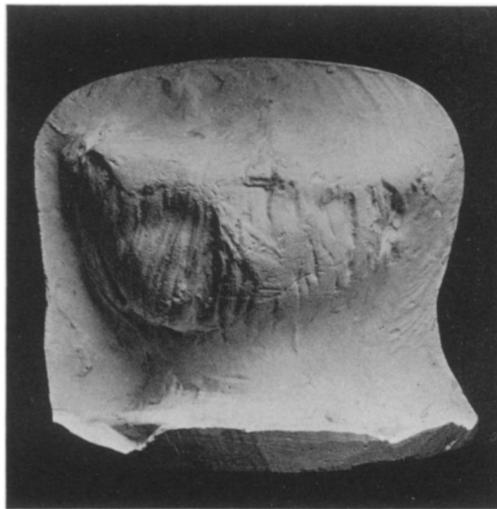
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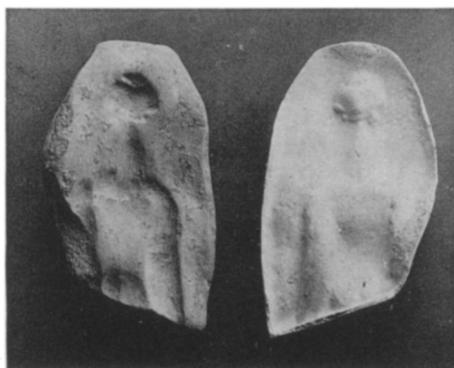
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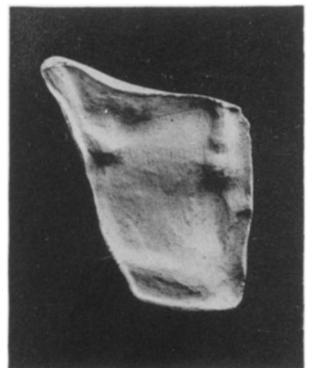
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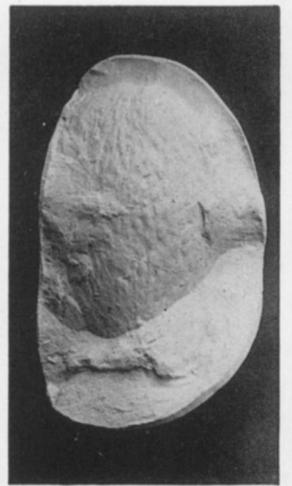
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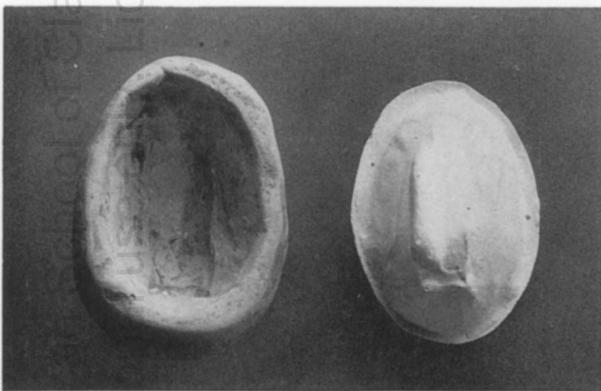
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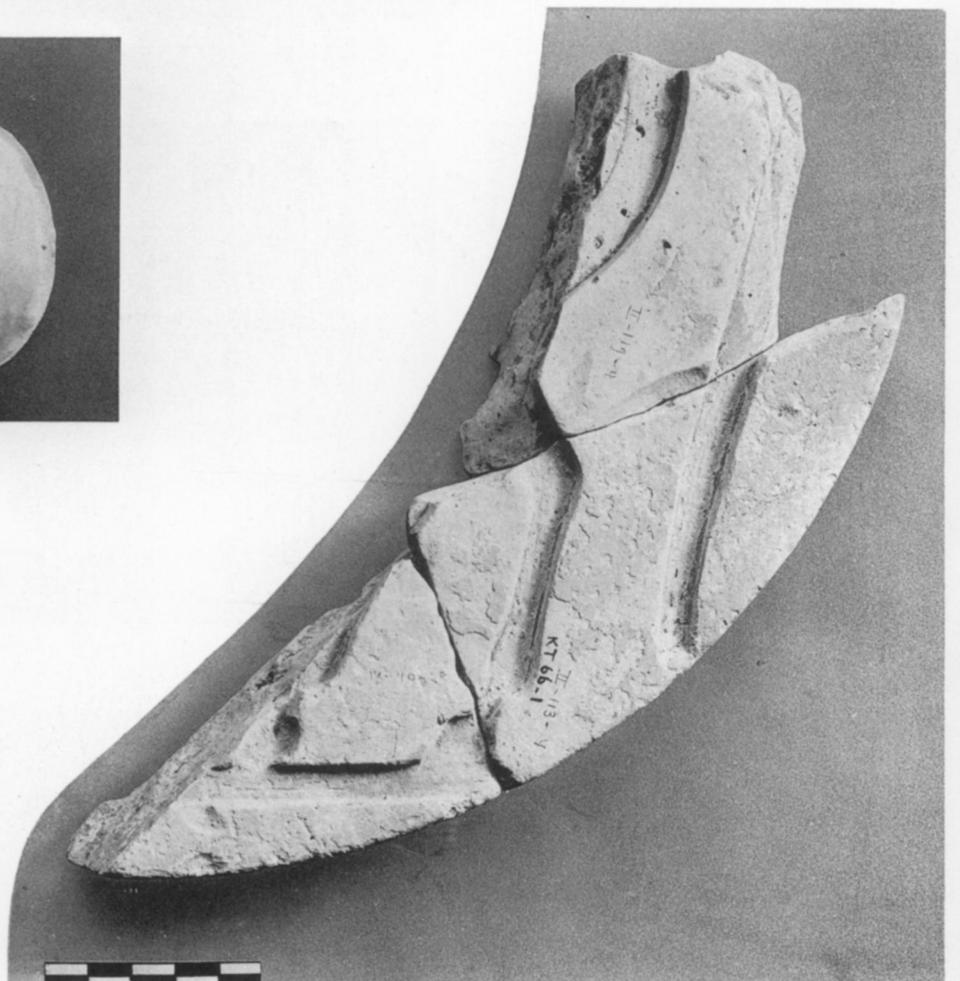
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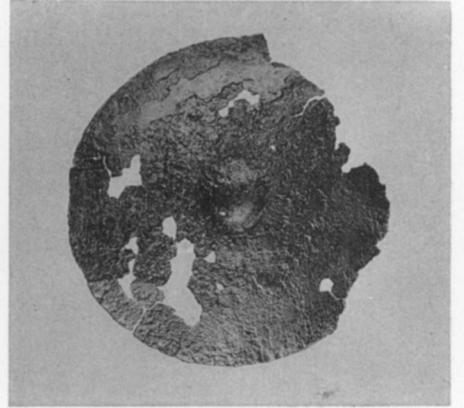
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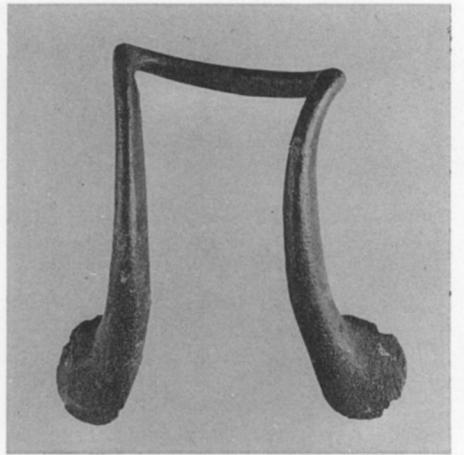
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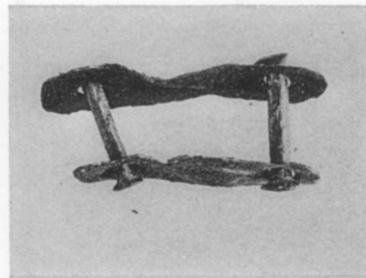
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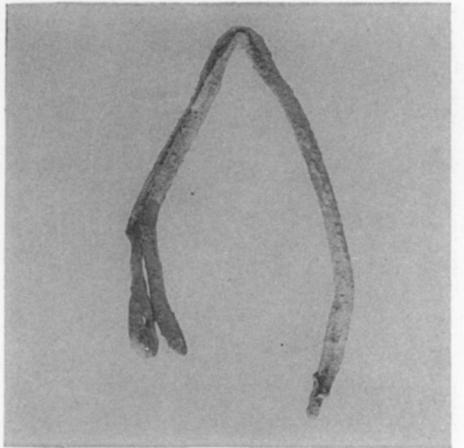
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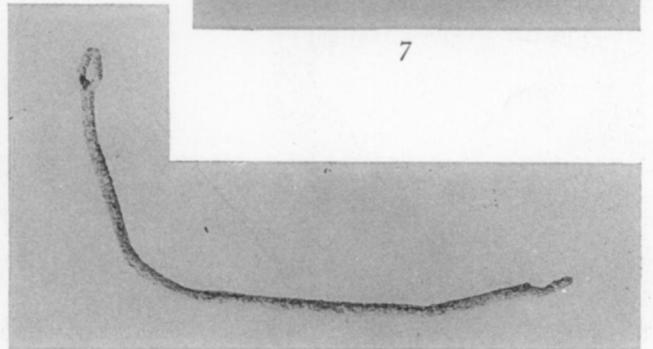
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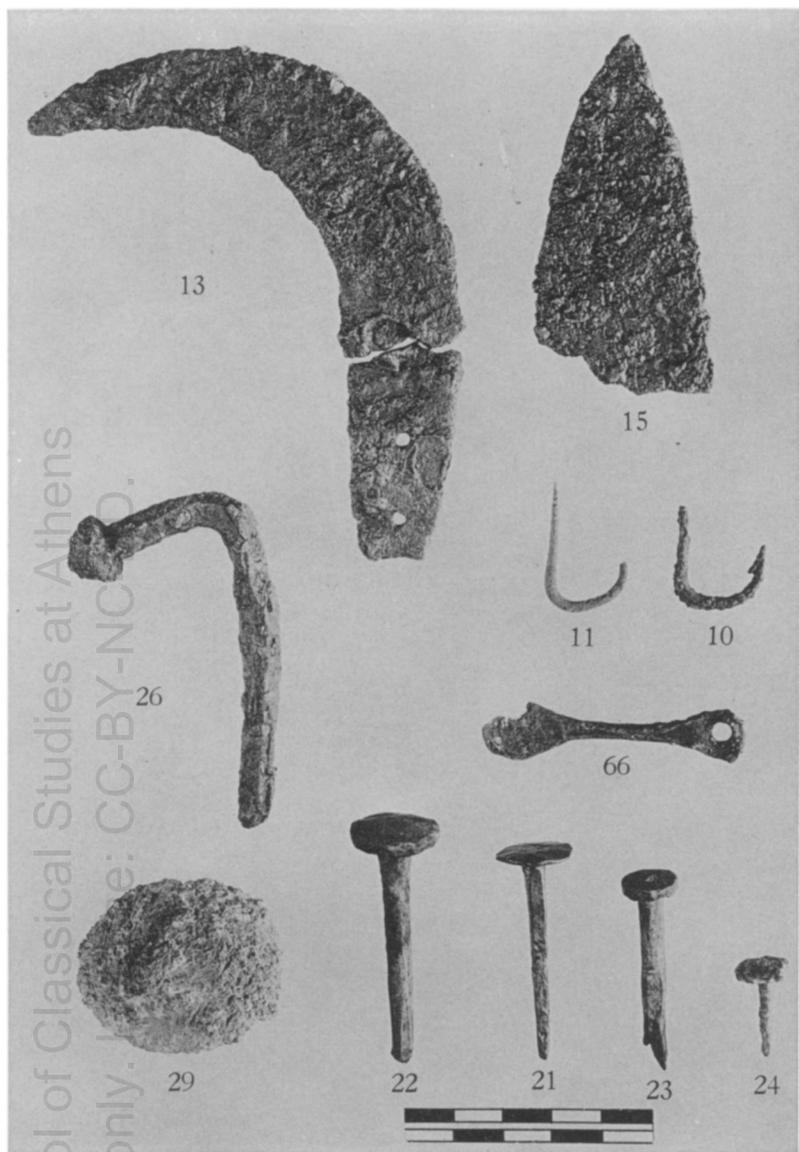


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METAL OBJECTS



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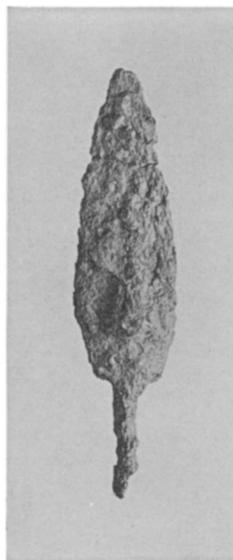
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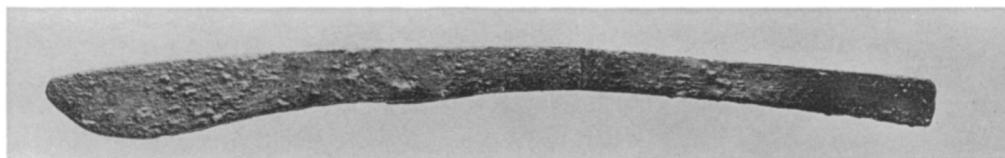
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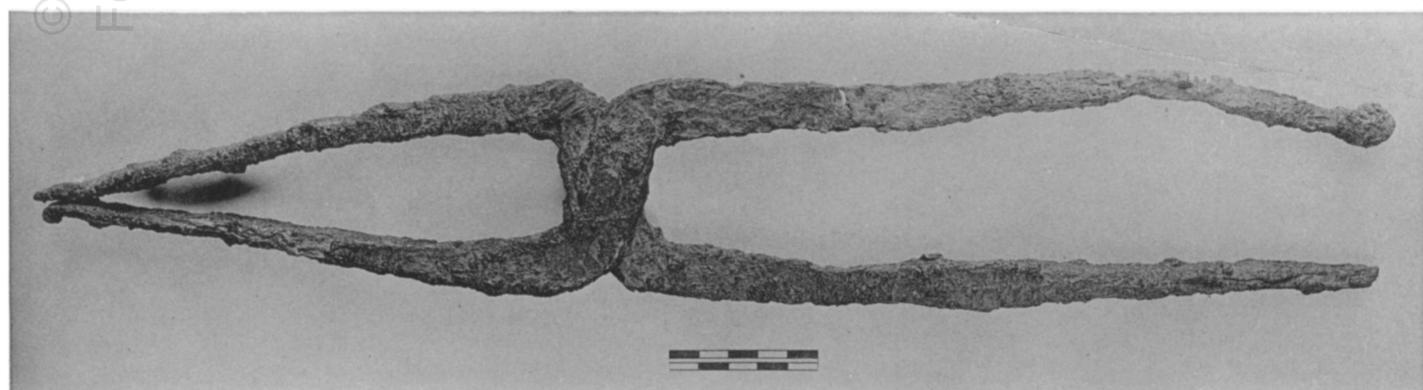
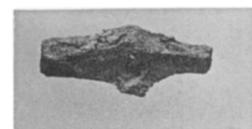
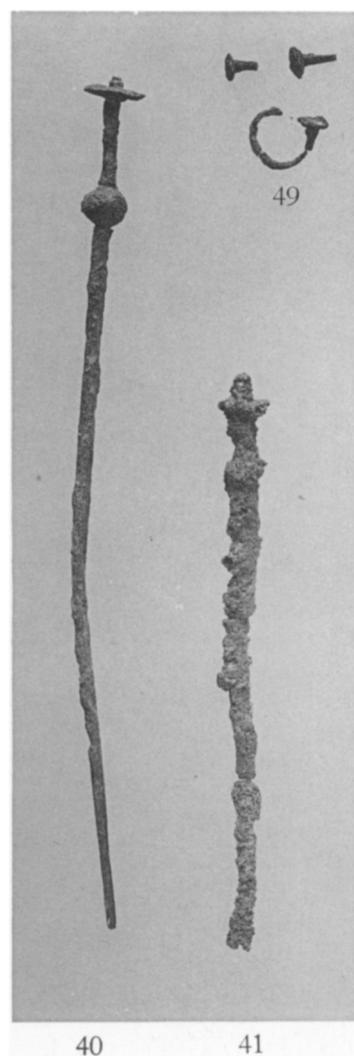
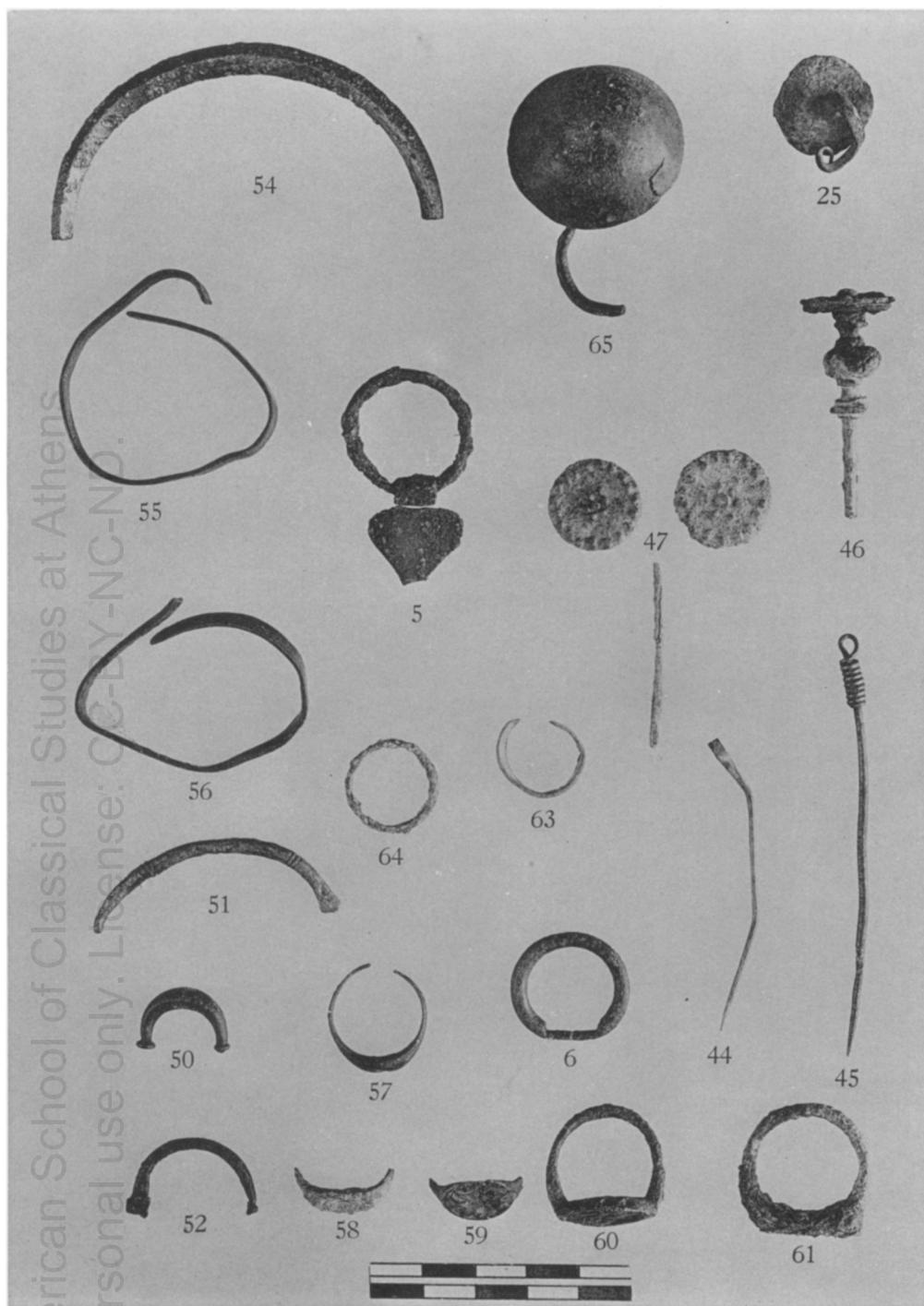


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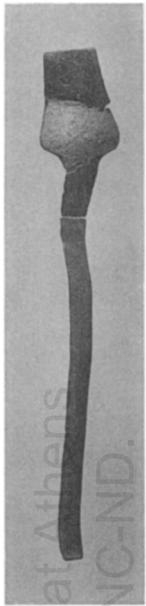
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METAL OBJECTS



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METAL OBJECTS



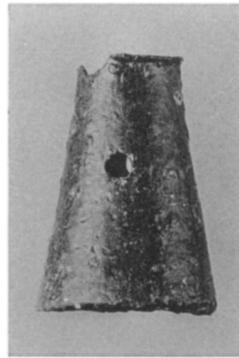
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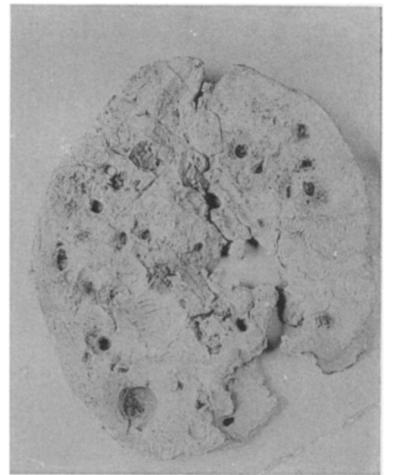
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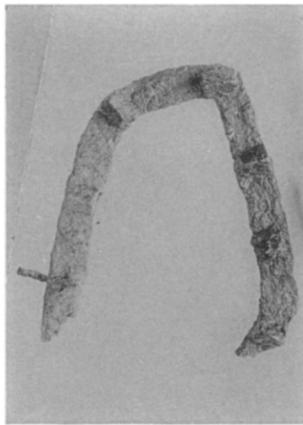
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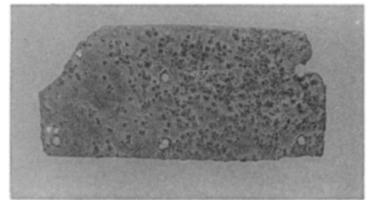
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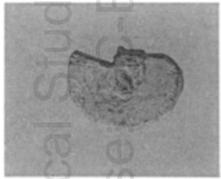
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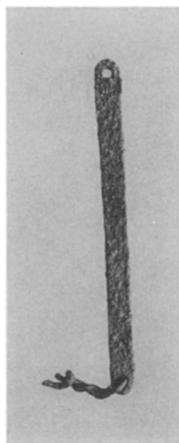
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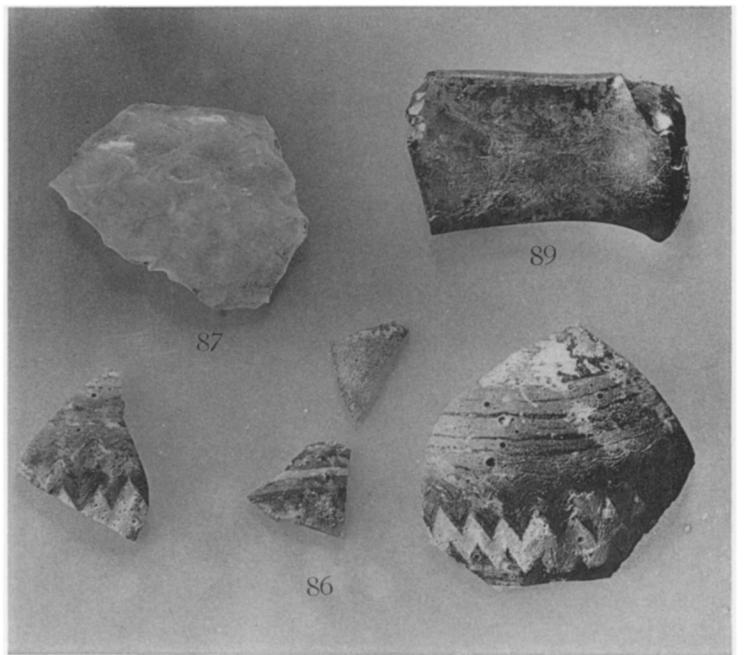
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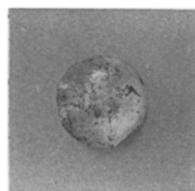
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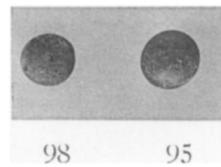
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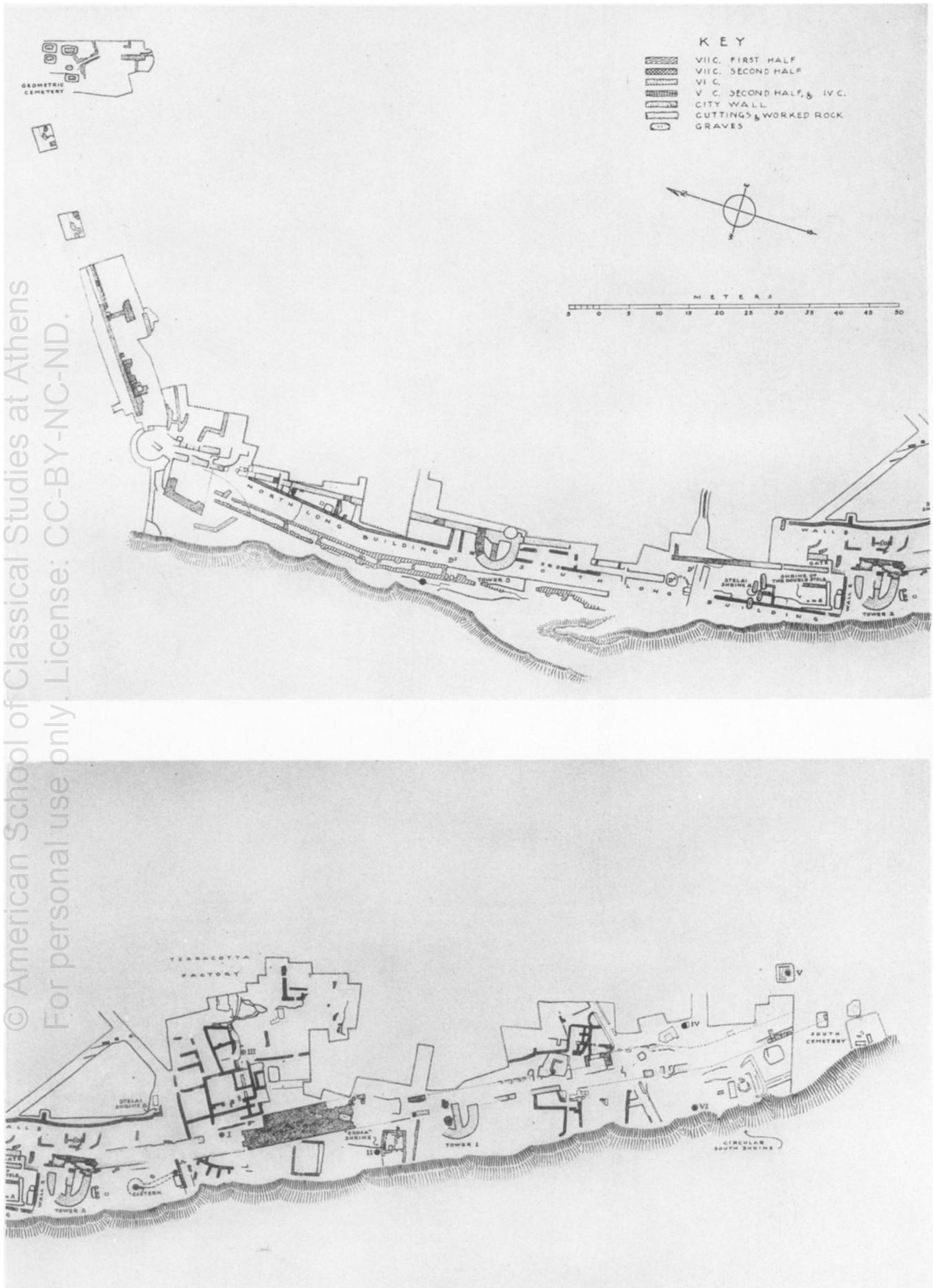
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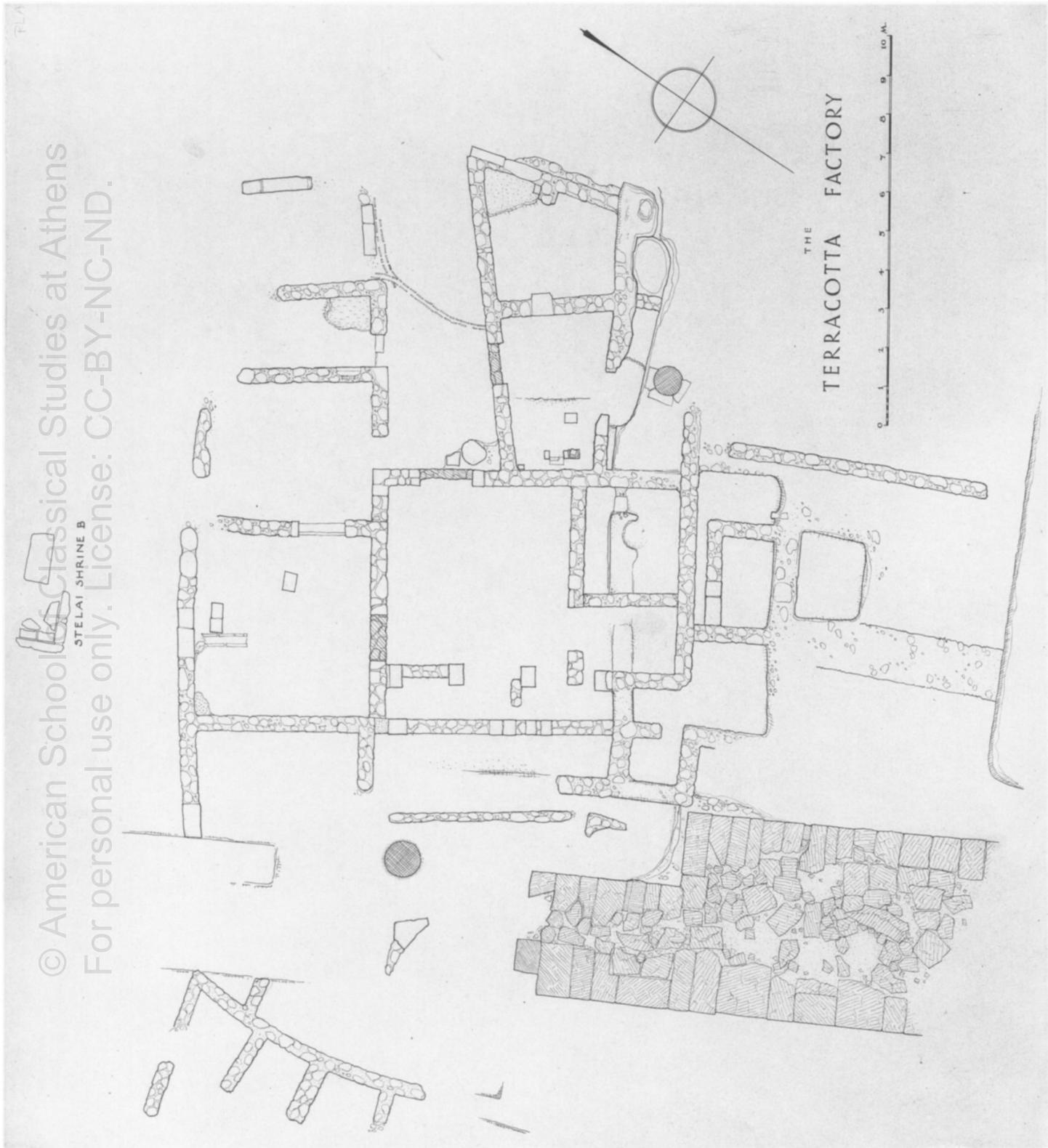
92

METAL AND GLASS OBJECTS



PLAN A. The Excavated Area in the Potters' Quarter

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PLAN B. The Terracotta Factory

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