

EXCAVATIONS AT NEMEA, 1978

(PLATES 19-40)

Summary

Near the southwest corner of the Temple of Zeus, evidence was found for a destruction phase of the temple in the Byzantine period, for a 6th-century B.C. construction date for the earlier temple, for a building of the Geometric(?) period, and perhaps for the Peribolos of Opheltes. Two wells produced significant epigraphic material and important evidence for the history of the sanctuary during the Hellenistic and middle Roman periods. South of the oikoi, more evidence was found for bronze casting and marble working, and two wells produced

evidence for the history of the sanctuary in the Classical period. South of the Xenon, parts of two buildings (priests' houses?) together with evidence for the history of the sanctuary in the late Classical and Hellenistic periods were found. The stadium produced the 300-foot markers along the sides of the race track, and the vaulted entrance tunnel was uncovered and partially cleared. Its date of construction is in the last quarter of the 4th century B.C., its walls are covered with graffiti, and it gives an indication of the line of a Sacred Way connecting the Sanctuary of Zeus with the stadium.

THE WORK at Nemea in 1978 was concentrated on the south side of the Sanctuary of Zeus and in the Stadium.¹ As in past years, this report will be arranged topographically.²

¹ The staff consisted of James Clauss of the University of California at Berkeley, Elissa Lewis of Bryn Mawr College, and Richard Parker of the University of California at Santa Barbara as excavators; Dr. Caroline Belz of the University of California at Los Angeles as both excavator and museum technician; Nancy Stuart of Michigan State University as photographer; and Professor Stella G. Miller of Stanford University as Assistant Director. All of these worked extremely hard, well, and carefully, and it is difficult to express sufficient gratitude to them.

Our thanks for their help also go to the American School of Classical Studies at Athens and to its Director, Professor H. R. Immerwahr; to the Greek Archaeological Service and its then Inspector-General, Professor N. Yialouris; and to the Nauplion Ephoreia of Antiquities and its Ephor Mrs. K. Krystalli-Votsi. The support of the University of California at Berkeley and of its Chancellor, A. H. Bowker, has remained steadfast, and has been essential to the progress at Nemea. We are very grateful.

The operating expenses at Nemea in 1978 were supported by a gifts-and-matching grant from the National Endowment for the Humanities, and by gifts from 107 different private donors. We would express sincere gratitude for this vital support, and for its indication of confidence in Nemea. Our deep gratitude also goes to those donors whose generous response this year has made the final stage of property acquisition at Nemea possible.

² For previous work at Nemea, see "Excavations at Nemea, 1973-1974," *Hesperia* 44, 1975, pp. 144-172; "Excavations at Nemea, 1975," *Hesperia* 45, 1976, pp. 174-202; "Excavations at Nemea, 1976," *Hesperia* 46, 1977, pp. 1-26; and "Excavations at Nemea, 1977," *Hesperia* 47, 1978, pp. 58-88. In the following presentation specific references to previous work will be made in the case of particularly important or argumentative points.

SOUTHWEST CORNER OF THE TEMPLE OF ZEUS

Late Antiquity in Sections J 14 and K 14

Because of the promising results of work within Section K 14 during the excavations of 1977, it was decided this year to remove the fallen blocks at the southwest corner of the temple. The positions of some 65 blocks were thus recorded in drawings and photographs, and the blocks themselves then removed. Excavation in the debris under the fallen blocks produced immediately interesting results. There emerged clear evidence that this corner of the temple may have fallen as late as the 13th century after Christ,³ and that it surely fell later than the 6th century after Christ. This was shown by the appearance, beneath the fallen blocks, of a series of the all too familiar shallow oblong farming trenches. The 6th-century date for these trenches which had been determined elsewhere in the sanctuary was confirmed in Section K 14 by pottery and coins.⁴ This does not disprove the previously suggested date of *ca.* A.D. 370 for damage to the temple,⁵ but it does show that it is incorrect to think of the destruction as occurring in a single phase at a single time. It is clear that the temple's destruction has been the result less of man's active malicious efforts than of man's indifference and nature's steady onslaught. This is hardly surprising when one remembers the decay visible already in the 2nd century after Christ when the roof had fallen in.⁶

As always in these areas of Early Christian disturbance, many earlier artifacts had been churned up from earlier levels. Particularly interesting is the fragmentary cup foot of the early 5th century B.C. with inscriptions on outer, inner, and resting surfaces: ΑΙΣΧΥΛΟΣ ΚΑΛΟΣ ΙΑ, ΧΡΥΣΟΙ ΚΑΛΑ, and ΑΠΕΤΑΙΟΣ ΚΑΛ[ΟΣ], respectively (P 328, Pl. 19: c).⁷ Also from these disturbed contexts came fragments of inscribed stelai (I 48, Pl. 19: a; I 71).

With the removal of these later layers, several interesting features appeared. Among them were two wells in the southwest corner of Section K 14 at K/2, 3-14/17, 20 in a north-south line (Fig. 1; Pl. 19: b, d). At the time of their discovery, the northern of these was open although filled with earth, the southern closed by a massive block and surrounding packing.

Well - Deposit K 14: 3

This, the northern of the two wells, has a double head of finely worked blocks implying at least two periods of use. In addition, the upper of the two wellheads is

³ Pottery lot K 14:75.

⁴ Pottery lots K 14:76-79; coins C 1173, C 1210.

⁵ B. H. Hill, *The Temple of Zeus at Nemea*, Princeton 1966, p. 1; cf. *Hesperia* 47, 1978, p. 59.

⁶ Pausanias, II.15.2: . . . Νεμείου Διὸς ναὸς ἐστὶ θεᾶς ἄξιος, πλὴν ὅσον κατερρήκει τε ὁ ὄροφος καὶ ἄγαλμα οὐδὲν ἔτι ἐλείπετο.

⁷ One might note, although a close connection cannot be established, the Argive Aischylos of the early 5th century known to have been an athlete; cf. M. Th. Mitsos, *Ἀργολικὴ Προσοπογραφία*, Athens 1952, p. 21.

clearly composed of re-used blocks 0.29 m. high and with "ice-tong" lifting holes. As will be noted below, this should provide a *terminus post quem* for the upper well-head of the latter part of the 4th century B.C. Both wellheads have an inside diameter of 0.84 m.; below them, the rubble construction of the well gradually expands the diameter to about 1.48 m. at a depth of 8.25 m. (+324.06) at which point the rubble lining ends. The fill in the well continues, however, to a greater depth although the crumbling of the earth walls forced digging to be stopped at a depth of 10.05 m. (+322.23) until future reinforcing can permit completion of the well excavation. This continuation of the well below the rubble lining raised the suspicion that the well originally extended only to the end of the lining, but was later cleaned out and dug to a greater depth. This suspicion is increased by the material found in the well which is clearly to be dated to the 3rd and 4th centuries after Christ, a period of activity not previously noted at Nemea.⁸ The closing date of the well appears to be in the 4th century after Christ, and the closing fill contained many fragments of the Temple of Zeus, which shows that there must have been a destruction at that time, although it is now known (see above) that this was not the only period of temple destruction. The period-of-use levels of the well also contained debris from the temple (e. g. fragments of geison, frieze, and Doric capital) as well as large quantities of pottery all of which appear to belong to the late 3rd or early 4th century after Christ. Examples of this pottery are P 344 - P 346, P 349, P 372, P 374, L 34, L 41 - L 43 (Pl. 20: a). The lamps also fit into this chronology with L 42 (Pl. 20: b) of the mid-3rd century after Christ,⁹ and L 41 (Pl. 20: c) of the second half of the 3rd century.¹⁰ Such chronological evidence in context with many fragments of the Temple of Zeus suggests that there had been damage to the temple even earlier than *ca.* A.D. 370. As suggested above, this is not surprising but it must also be admitted that one lamp (L 43) may place the date of the upper fill of the well as late as the second half of the 4th century after Christ.¹¹

In this well there also emerged artifacts of intrinsic interest. These included a bronze gear or snaffle bit like those found in 1977 east of Oikos 9 (BR 544, Pl. 19: e),¹² a bronze situla (BR 587, Pl. 20: d), and fragments of inscriptions (I 49, Pl. 20: e; I 72 a-d, Pl. 20: f). The latter is potentially of considerable significance, although it must be admitted that the association of the four different pieces is not secure. This is because of the quality of the veined limestone and of the vagaries of the mason's hand. On fragment a, for example, the letter heights vary from 0.007 to 0.011 m., and the alphas usually have sagging crossbars, but there are two alphas with broken crossbars. The text for I 72a:

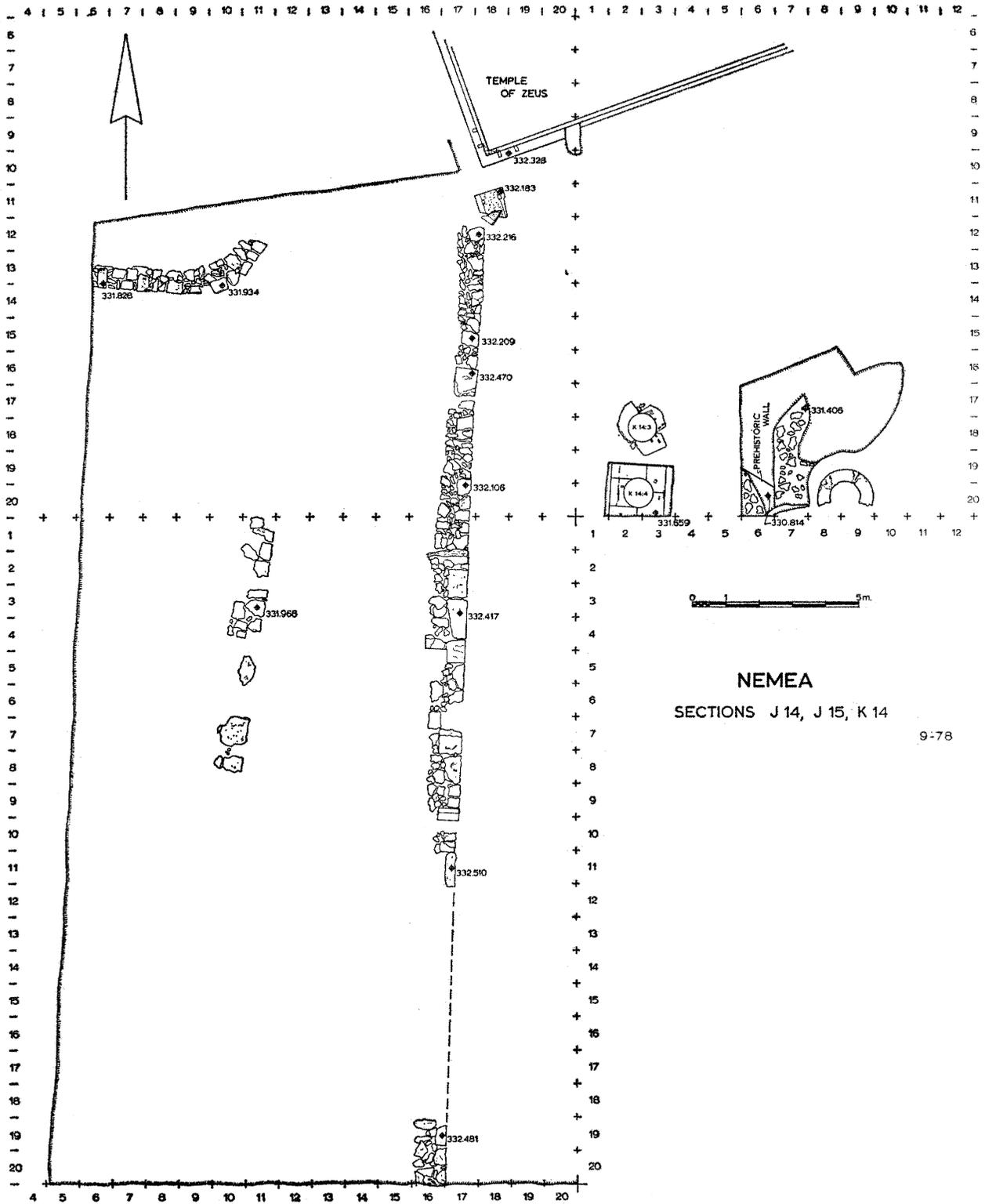
⁸ Pottery lots K 14:29-74.

⁹ J. Perlzweig, *The Athenian Agora*, VII, *Lamps of the Roman Period*, Princeton 1961, no. 653.

¹⁰ *Ibid.*, no. 857.

¹¹ *Ibid.*, no. 1918.

¹² Cf. *Hesperia* 47, 1978, pp. 73-75 (BR 456 and BR 457).



NEMEA
SECTIONS J 14, J 15, K 14

9-78

FIG. 1. Sections J 14, J 15, K 14.

-]πάτον καὶ τρία
 -] τοῖς συνέδροις
 -]ΣΕΙΣΑΤ.ΑΣ τοὺς
 -]ΤΑΣ ἐπὶ τὸ κρι-
 -]ς Νεμέας καὶ
 -ἀνα]γράψαι
 -]ΤΟΥΕ

It would seem that, following a heading which included a dating formula and a reference to the *synedroi*, there is a reference to a decision or judgment concerning Nemea. The similarity of content, plus a general similarity of letters and of stone, suggest that I 72a (and perhaps the other fragments as well) are to be associated with the Mummius inscription found in 1924 in the southern part of the sanctuary (Section M 19).¹³ For the moment, however, the suggestion can be only very tentative.

Well - Deposit K 14:4

The southern of the two wells in K 14 had been closed deliberately in antiquity, for it was discovered with its mouth sealed by a very heavy stone slab and smaller stone packing. Beneath this, the well was empty for the first 1.67 m. (to + 329.98). A date for the closing of the well did not emerge, but it clearly (see below) must have happened in the late Hellenistic period. The mouth of the well is formed by five well-worked blocks forming an external rectangle 1.40 x 1.60 m. (Pl. 19: d) with a mouth diameter of 0.88 m. Below the mouth a rubble lining continues to the bottom of the well at a depth of 8.05 m. (+323.61) where the diameter has expanded to 1.46 m.

Although the precise date of the closing of the well was not clear, the closing fill did produce material of significance. This included a part of a boukranion (BI 10, Pl. 21: a) and a bronze locket (BR 648, Pl. 21: b). Two fragmentary inscriptions also came from this fill: I 74 (Pl. 21: c) and I 73 (Pl. 21: d). The latter joins physically with another fragment (I 29) found in 1976 some 40 meters east of this well.¹⁴ The two pieces together yielded a tantalizing text:

--]ΝΕΣΦΑ[--
 ·]ΑΣ τοὺς Παρον[--
 ἐξ μὲν εἰς Πελοπ[όννησον --
 λων, ἐξ δὲ εἰς Ἀμβ[ράκιαν --
 [.] Ἀκαρν[άνιαν --

Is this, in a Nemean setting, to be taken as a reference to the *theoroi*, or heralds, of the Games who are to be sent out to different but specific parts of Greece to announce

¹³ D. W. Bradeen, "Inscriptions from Nemea," *Hesperia* 35, 1966, pp. 326-329, no. 7.

¹⁴ *Hesperia* 46, 1977, p. 6, and pl. 2: g.

the impending Games? This obviously is far from proven, but another inscription to be discussed below may lend support to the suggestion.

Below this fill of the well, which must represent a period of abandonment or of deliberate filling, a troubled period in the history of the well emerged at depths between 6.50 and 7.80 m. (+325.16 to +323.86). At these levels appeared many artifacts which would not normally be associated with a well during its use. These included a fragment of a Corinthian capital which does not belong to the Temple of Zeus interior order (A 147, Pl. 21 : e), a large terracotta sima of advanced and rather careless profile and decoration (AT 69, Pl. 21 : f), and the shaft with a single torus base of an Ionic / Corinthian column which was fluted only on one side and which displays a narrow vertical cutting in one of its flutes (A 146, Pl. 21 : g). Epigraphical debris was not lacking from these levels, and included the uninscribed stump of a hard limestone stele still leaded into its base (I 76, Pl. 22 : a) and three joining fragments of another hard limestone stele (I 75, Pl. 22 : b). The surface of the latter is poorly preserved and very difficult to read. Although it will take considerable study to produce an acceptable text, enough is now legible to define the inscription as an Argive decree of the 4th century B.C., which appears to honor a person or persons from Aspendos. The privileges extended to the honorees clearly include some rights at the sanctuary of Zeus at Nemea, for there is the expression: *τοῖ Διὶ τοῖ Νεμέαι*.¹⁵

Yet another epigraphic text from these levels is considerably easier to read. This is a marble stele, broken across the top, which contains a list of names and places in two columns (I 85, Pl. 22 : c). Although a full presentation cannot be offered here, a few observations can be made, especially in the context of the history of the well and of Nemea.

First of all, there are two hands at work in the inscription. The earlier of these sets forth a list of towns divided into geographical regions: Kypros, Akarnania, Korkyra, Leukos, Makedonia, and the Hellespont. The number of towns within these regions varies greatly and most of those on the stone are in Akarnania which has a total of 13 different towns listed. At least one personal name together with patronymic is given for each town; the number per town ranges up to four, although the norm is two. The second hand appears twice on the stone as now preserved. Its secondary nature is shown by the fact that it writes in spaces left open by Hand I and in areas where Hand I has been erased, and by the miltos which still remains in many of its letters whereas the red pigment has disappeared entirely from the letters of Hand I. Hand II occurs in a gap fairly high in column A, and at the end of column B. This hand also lists towns and names within towns, but in a geographically random fashion. It seems to be updating the list.

¹⁵ There are some apparent similarities between this text and a series of proxeny decrees from Argos recently published by P. Charneux, "Inscriptions d'Argos," *BCH* 77, 1953, pp. 387-400; "Inscriptions d'Argos," *BCH* 80, 1956, pp. 598-604; and "Inscriptions d'Argos," *BCH* 82, 1958, pp. 1-15. There are, however, also several differences which seem to preclude our text from being a proxeny decree.

Among the names, two are particularly interesting for the present discussion. One is the work of Hand I high in column A: Ἐγ Κύπρωι, Ἐν Σαλαμι (*sic*) / Νικοκρέων Πινναγόρα. Nikokreon was the last of his family to rule Salamis, reigning from at least 331 to 311/10 B.C. when he died by his own hand.¹⁶ This gives a date for the original list and, since Hand II makes no update for the Salamis entry (see below on Stratos) and Nikokreon was presumably still alive when Hand II was at work, Hand II may well be dated before 311/10 B.C.

The second name of interest is written by Hand II near the bottom of column B: Ἐν Στράτῳ / Μεννέας / Καρφίνα. This entry is apparently a revision for or an addition to an earlier entry by Hand I in column A: Ἐν Στράτῳ / Διοσχιῶν Ἀδμάτορ (*sic*) / Εφέσιος Ἐχεκράτεος. Of these names, one is known. Karphinas, the father of Menneas, is almost certainly the Akarnanian who was honored by the Athenians shortly after Chaironeia.¹⁷ As the son of a prominent father, Menneas is clearly at home in an inscription such as ours. A date for him in the text, and thus for Hand II, before 311 B.C. (roughly a generation after his father's activity at Chaironeia) seems quite possible and would tend to confirm the dating of Hand II suggested above.

Thus the list contains the names of at least two prominent men, and one of them, Nikokreon, had such good relations with Argos that he was rewarded with a statue there.¹⁸ This, plus basic similarities between our catalogue and both an earlier one at Epidauros and a later one at Delphi,¹⁹ suggests that our list was, like those, a catalogue of the *theorodokoi* of the Nemean festival who were scattered throughout Greece. The heralds, going out to announce the Games and the Truce, would be able to consult the list and know who would receive them and play host to them in the various towns. It does not require too much imagination to posit a series of stelai like the one just discussed which will have been used by the various groups of six heralds as suggested by the fragmentary I 74 + I 29 presented above.

One more conclusion can be drawn from I 85. Since it is clear that the Nemean Games were back at Nemea at the time of this inscription, and since it emerges from this text that Nikokreon, a friend and patron of Argos, was in a similar position vis-à-vis the Nemean Games, it might well follow that the Nemean Games were still under the supervision of Argos. This would mean that, contrary to the explanation offered last year,²⁰ the late 4th-century B.C. shift of the Games back to Nemea did not

¹⁶ M. N. Tod, *Greek Historical Inscriptions* II, Oxford 1948, pp. 269-270, no. 194.

¹⁷ *Ibid.*, pp. 231-234, no. 178.

¹⁸ *Ibid.*, pp. 269-270, no. 194.

¹⁹ *IG* IV², 1, lines 94-95; and A. Plassart, "Inscriptions de Delphes, la liste des Théorodokes," *BCH* 45, 1921, pp. 1-85. An Argive list of *theorodokoi* confirms the identification of the type of the Nemean inscription; it also gives the names of three *theorodokoi* who are also on the Nemea example; cf. P. Charneux, "Liste argienne de Théarodokes," *BCH* 90, 1966, pp. 156-239, 710-714. The Nemean text confirms beyond all doubt Charneux' corrected restoration of column I, line 16 (p. 710), to [Κόρκ]υρα.

²⁰ *Hesperia* 47, 1978, p. 83.

represent a simultaneous shift of control of them to Kleonai. Such a conclusion would also explain the presence of the Argive decree (I 75, see above) at Nemea.²¹

Out of the well, together with this architectural / epigraphical debris layer, came an iron sword in a fairly good state of preservation (IL 296, Pl. 22: e). Its handle is fairly well preserved as is a gold inlaid design on the blade near the hilt (Pl. 22: d). The troubled nature of this period, as suggested by the debris itself, is emphasized by the sword.

The pottery from this level belongs to the second half of the 3rd century B.C.²² It included a cup (P 382), a bowl (P 381), and an askos (P 384) and, from the bottom of this layer, a mug (P 386), a kantharos (P 383), and a blisterware jug with impressed ivy-leaf design (P 389, Pl. 23: a). Of the coins from this level, several were too worn to be identifiable, and others, such as C 1312 and C 1313 (Pegasos / Trident of Corinth, Pl. 23: b), cannot be dated with sufficient precision to be helpful. There were, however, three coins which are chronologically useful: C 1287 and C 1314 (Ptolemy III Euergetes, 247-222 B.C.), and C 1288 (silver, Sikyon, 250-146 B.C., Pl. 23: b). It is thus clear that the architectural / epigraphical debris layer is to be dated to the 240's or somewhat later. As has been noted previously for the well in Section N 17,²³ so too the debris in K 14:4 may be associated with the violent, anti-Argive, shift of the Games back to Nemea and to the control of Kleonai by Aratos of Sikyon in ca. 235 B.C. after an earlier shift of the Games to Argos (see below). The violence which attended this shift back to Nemea was noted in antiquity,²⁴ and the well in K 14 seems to be another reflection of it. One almost gains the impression of Aratos dumping Argive monuments and inscriptions down the well.

At the bottom of these layers came a variety of bronze objects: a kantharos base (BR 650), the base of a situla (? , BR 651), and three hydria bases (BR 652, BR 656, BR 657, Pl. 24: a); three situla handles (BR 653a, BR 653b, BR 654) and three handle attachments (BR 647, BR 655a, BR 655b, Pl. 24: b); and two heavy attachments (BR 584, BR 646, Pl. 24: d). All of these artifacts were originally parts of water vessels and show that, immediately before the architectural / epigraphical debris was dumped into the well, there was a period of use which included many bronze pots.

²¹ It is of considerable interest that, in most of the proxeny decrees from Argos cited above (footnote 15), the formula appears: *πρόξενον ἡμεν καὶ εὐεργέταν τᾶς πόλιος τῶν Ἀργείων καὶ θεαροδόκον τοῦ Διὸς τοῦ Νεμέαι καὶ τᾶς Ἑρας τᾶς Ἀργείας*. This should mean that the Argives are appointing *theorodokoi* to the Games at Nemea, and that a list such as ours would represent, at least in part, a compilation of many such decrees. Charneux, however, has dated all the proxeny decrees to the 3rd century B.C., and one as late as ca. 209 B.C. (*BCH* 77, 1953, p. 392) by which time the Games were certainly back in Argos and one would have expected a phrase something like *θεαροδόκον τοῦ Διὸς τοῦ Νεμείου* rather than the phrase which actually does occur in the texts with the locative force of *Νεμέαι*. Either the Argives are using the phrase in a rather euphemistic way, or Charneux' dates, which are based upon letter forms, should be re-examined.

²² Pottery lots K 14:129-138.

²³ *Hesperia* 45, 1976, pp. 190-191.

²⁴ Plutarch, *Aratos*, 28.3-4.

At the very bottom of the well (+323.71-323.61) came a relatively small amount of pottery which will require further study.²⁵ It does, however, include a fish plate (P 391) and a kantharos (P 385, Pl. 24: c) which imply a brief original period of use of the well during the late 4th century B.C. It would thus appear that the well saw a gap in its use from the late 4th century to, probably, 235 B.C. As suggested above, this probably represents the shifting of the Games to and from Argos. The further question of a more precise date for the shift to Argos (in the late 4th or early 3rd century) will, it is to be hoped, be better answered by further study of the material from the bottom of this well. For the moment we can say only that the shift to Argos probably happened considerably earlier than the 251 B.C. *terminus ante quem* noted previously.²⁶

The Sacred Square and Early Levels

In the open area south of the temple, in the western part of K 14 and the eastern part of J 14, removal of late layers revealed immediately the construction layers of the Temple of Zeus. Such a stratigraphical jump in time has been noted elsewhere in the sanctuary and is surely a reflection, at least in part, of the later history of Nemea with the Games essentially in Argos during Hellenistic and Roman times. The pottery of the construction layers of the 4th-century temple was, as usual, relatively uninformative, although one skyphos base (P 353) does belong to the second half of the 4th century B.C.²⁷ The numismatic material of these construction layers consisted only of a silver coin of Tanagra (C 1177, Pl. 25: e) dated to *ca.* 387-374 B.C. and thus too early to be helpful in refining the date of the temple. These layers did produce a large broken block with "ice-tong" lifting holes (A 140), which almost certainly came originally from the early temple and was intended for re-use in the later temple. This implies that similar blocks with "ice-tong" lifting holes found elsewhere at Nemea in re-used positions (e. g. wellheads of K 14: 3, L 17: 2, stadium proedria) will have been available for re-use only after the destruction of the early temple in the late 5th century B.C., and perhaps only during or after the period of construction of the present temple in the third quarter of the 4th century B.C.

Other artifacts from the construction layers of the 4th-century temple included a lead "tool" (IL 242, Pl. 25: a) with the enigmatic inscription: ΛΑΚΤ. As is to be expected in any layer which was created in part by the digging of deep foundations, much earlier material also came from this construction debris such as a miniature terracotta horse (TC 90, Pl. 25: c).

Directly below the construction layers of the 4th-century temple, in the eastern part of the area excavated in K 14 during 1978, more was revealed of the sacrificial debris layer uncovered first in 1977 and dated to the late third quarter, or perhaps the

²⁵ Pottery lot K 14:139.

²⁶ W. Vollgraff, *Mnemosyne* 44, 1916, pp. 65-69, 221-232.

²⁷ Pottery lots K 14:83-87; J 14:5.

early fourth quarter of the 5th century B.C.²⁸ This again consisted of black earth, some ash and burnt bone, and large quantities of badly broken pottery which was mostly from drinking shapes. It once again produced a miniature terracotta head, this time of a satyr playing the pipes (TC 95, Pl. 25: g). It also produced a lead strip with the inscription: ΔΜΑΙΘΙΠΠΙΟΔΑΙ / [. .]ΡΣΙΑΣ (IL 259, Pl. 25: d).²⁹

This sacrificial debris layer did not extend over the whole of the open area in K 14, but toward the west it gave way gradually to a basically contemporary layer which contained broken blocks, heavy red earth, and eight bronze arrowheads (BR 516-BR 520, BR 524, BR 525, BR 642 a and b, the latter a fragment of the wooden arrow shaft found still in the bronze point; Pl. 25: f). This layer is to be dated in the fourth quarter of the 5th century B.C. and it is surely to be associated with the destruction layer of similar date found elsewhere in the sanctuary.³⁰ This layer also produced a lead strip with the inscription: ΝΙΚΟΔΑΜΟΣ / ΑΡΚΟΙΔΑΣ (IL 260, Pl. 25: b).

This region of the Sacred Square produced, at a lower level, a heavy layer of construction debris which, although cut through by the foundations of the 4th-century temple, probably represents the construction of the earlier Temple of Zeus. The pottery in this layer included a few pieces of the early 6th century B.C., which helps to confirm the date suggested previously for the earlier Temple of Zeus.³¹ Unlike the similar construction layer found at the southeast corner of the present Temple of Zeus in 1977, however, this layer at the southwest corner of the temple produced much earlier material including pottery of the Mycenaean and Geometric periods, and very large quantities of early 7th-century ceramics. This suggests that this region of the sanctuary had concentrations of earlier material which were disturbed by the construction of the earlier Temple of Zeus.

These indications, together with a concentration of stones in the south part of K 14, led to a test trench in the area K/8, 9-14/16, 19 (Fig. 1; Pls. 19: b, 26: a). In the extreme southwest corner of this trench there appeared a part of a wall. Limitations of time prevented further exploration of this wall so that our present knowledge of it is limited and subject to revision after future excavations. The width of the wall appears to be at least 0.55 m. It consists of a heavy foundation of small pieces of soft yellow poros which have been packed hard together. This foundation carried a mud-brick wall some of which is still *in situ*, and the total average preserved height of foundation and wall is 0.64 m. The pottery from the use periods of the wall was nondescript and not datable, but the destruction date of the wall is clear as being in the late 8th or very early 7th century B.C.³² Indeed, a layer over the wall's

²⁸ Deposit K 14:1; pottery lots K 14:15 and 88; cf. *Hesperia* 47, 1978, p. 64.

²⁹ For Δμαίπριδαι as the name of one of the Argive phratries, see P. Charneau, "Inscriptions d'Argos," *BCH* 82, 1958, pp. 7-8.

³⁰ Pottery lots K 14:89-91; J 14:6; cf. *Hesperia* 46, 1977, pp. 9-10.

³¹ Pottery lot K 14:97; cf. *Hesperia* 47, 1978, p. 63.

³² Pottery lots K 14:115 and 120 (use); 112 and 114 (destruction).

destruction contained, among other pottery, a stemless cup of this date (P 380, Pl. 26: b).⁸³

In this test trench, lower layers through which the wall had cut were also of considerable interest. These layers produced an obsidian blade (ST 386), a flint chip (ST 387), and pottery of exclusively Early Neolithic date.⁸⁴ Two tentative conclusions emerge: 1) the chronological gaps in the prehistory of Nemea are beginning to be filled in as the excavations move westward in the sanctuary, and 2) the general region of the western end of the Temple of Zeus may, because of the earlier and longer periods of habitation, have been particularly venerable in the Classical era.

The "Peribolos"

During the 1977 excavations in J 15, a long and rather amorphous north-south wall of rubble was uncovered.⁸⁵ The 1978 excavations in Section J 14 revealed that this wall continued right up to the southwest corner of the Temple of Zeus (Figs. 1, 2; Pl. 26: c). Covered in part by fallen blocks of the temple, much has now been learned about the wall. Re-using cut blocks in some places, it has a good straight east face, but is very irregular on the west. It is preserved to an average height of 0.35 m., and has no proper foundation, but rests directly upon a very hard, concrete-like surface. This surface, which extends both east and west of the line of the wall in J 14, has not yet been tested for date, but it must be earlier than the last quarter of the 6th century B.C. at which time a pit was dug through it east of the wall (area J/19, 20-14/16).⁸⁶ Such a general period for the wall is also indicated by a mid-5th-century layer which accumulated against it, and by the clear traces of damage to the wall in the last quarter of the 5th century B.C.⁸⁷

The wall is thus earlier than the present Temple of Zeus, and the stratigraphy at the north end of the wall showed clearly that the builders of the 4th-century temple took considerable pains to respect the wall. These builders also made an adjustment at the north end where a re-used block was set at the time of the 4th-century temple construction. This block (Pl. 26: d) was set upside down with its original bottom anathyrosis on top. It was also set parallel to the south side of the Temple of Zeus, and clearly was intended to adjust the alignment of the wall to that of the temple. The block was also provided with a pair of rectangular cuttings which are 0.06–0.075 m. in width, 0.121–0.133 m. in length, and 0.107–0.124 m. in depth (Pl. 27: a). The massive foundation block immediately beneath the euthynteria at the southwest corner of the temple exhibits similar cuttings which are, however, much shallower

⁸³ Cf. E. T. H. Brann, *The Athenian Agora*, VIII, *Late Geometric and Protoattic Pottery*, Princeton 1962, no. 179.

⁸⁴ Pottery lots K 14:117-119.

⁸⁵ Note that the tentative date given for this wall in *Hesperia* 47, 1978, p. 67, is now known to be incorrect. See further below.

⁸⁶ Pottery lot J 14:9.

⁸⁷ Pottery lot J 14:8 and 6.

than those of the re-used block (0.033–0.049 m. in depth). There is one pair of these cuttings on the south side of the temple, another on the west.³⁸ Although these three pairs of cuttings do not align precisely with one another, they give the distinct impression of belonging together and of providing a framework for a gate or doorway in the 0.76 m. gap between the block and the temple foundation.

The function and purpose of this wall can, for now, only be suggested, but its age, place, and the reverence shown to it in the 4th century B.C., despite its poor quality of construction, perhaps justify some speculation. Pausanias, having mentioned the Sacred Grove of cypress trees around the temple (*κυπαρίσσων τε ἄλλος ἐστὶ περὶ τὸν ναόν*), next mentions the death of Opheltes as having occurred here (*ἐνταῦθα*).³⁹ After a brief mythological and historical digression, Pausanias returns to his topographical description and again says that the tomb of Opheltes is here (*ἐνταῦθα ἔστι μὲν Ὀφέλτου τάφος*), presumably thinking of the same location as for the death of Opheltes. The word *ἐνταῦθα* does, to be sure, allow a considerable degree of ambiguity, and one should hesitate to place too strict an interpretation upon it, but the fact that Pausanias repeats it, and that it follows upon his mention of the Sacred Grove of cypress trees, might allow one to understand that he is seeing the Tomb of Opheltes within the Sacred Grove. Since we now know that the Sacred Grove extended slightly southeast of the temple and may have extended far west of the temple into Sections C 14, C 11, D 11, and E 12 (Fig. 7),⁴⁰ it would be possible to think of the Tomb of Opheltes as located in the general region west of the temple. More compelling, however, is Pausanias' description of the Tomb of Opheltes as surrounded by a peribolos with altars which was defined by a *θριγκὸς λίθων*, or a fence of stones (*περὶ δὲ αὐτὸν* [i. e. the Tomb of Opheltes] *θριγκὸς λίθων καὶ ἐντὸς τοῦ περιβόλου βωμοί*). The wall in J 14 and J 15 is certainly not suitable for any heavy construction on top of it, but it would be quite suitable for a "fence of stones." It is thus possible that the wall in J 14 and J 15 is a part of a much longer wall which defined the peribolos of Opheltes. The fate of this suggestion must, of course, await further excavation, but it seems possible that the wall will turn to the west in J 16 or J 17 and, having defined a large area west of the temple, return to connect with the northwest corner of the temple. Such a peribolos, of at least Archaic date, would help to explain the source of the orientation of the *oikoi* which one might have thought would have taken their orientation from the Temple of Zeus (Fig. 2).

West of the "peribolos" wall, in area J/1, 6-14/8, another wall was uncovered just at the end of the 1978 season (Fig. 1; Pl. 27: b). Little can be said about this

³⁸ Cf. Hill (footnote 5 above), pl. III, where one of the southern pair of cuttings is omitted. Note that similar cuttings also exist at the northwest corner of the temple, and at the northeast corner where they are not, however, so well preserved. The southeast corner of the temple remains covered by fallen column drums; cf. *Hesperia* 47, 1978, pl. 13.

³⁹ Pausanias, II.15.3.

⁴⁰ Cf. *Hesperia* 44, 1975, pp. 153-154, and *Hesperia* 47, 1978, p. 65. Analysis of the material from the planting pits southeast of the temple has confirmed that they did, indeed, contain cypresses. I would thank Dr. N. Yassoglou of the University of Athens for his analysis of this material.

wall now, except that it is constructed of rubble, averages about 0.65 m. in width, and extends east-west (as now exposed) for some 3.50 m. before curving to the north to form an apparent apse at the east. The northern part of this curve is broken through, although it is not clear whether or not this interruption was original to the wall's construction.

THE SECULAR FRINGES ON THE SOUTH SIDE OF THE SANCTUARY

Sections K 17, L 17, and M 17

An area north of the Xenon and of the Baptistry of the Christian Basilica, and south of Oikoi 1-4 was investigated in 1978 (Fig. 2). Its general character can be defined as very similar to that of the analogous area to the east explored in earlier years: a space outside the sacred precinct for light and sporadic industrial activity equipped with several wells.

As elsewhere, later activity in the area had been responsible for churning up earlier material including several silver coins (C 1162 of Argos, C 1118 of Sikyon, and C 1214 of Corinth, Pl. 27: c), although in this case the numismatic material included a coin of the period of churning itself (C 1218, John I of Nicaea, A.D. 1222-1254, Pl. 27: c). Two Byzantine walls also cut through this area (Fig. 3): one is a north-south wall in L 17 which extends the line of the west wall of the Baptistry and contains a column drum from the Temple of Zeus along with other re-used ancient blocks (Pl. 28: a); the second wall is an east-west wall in K 17 which extends the line of the north wall of the Basilica proper. (The latter, having been recorded, has since been removed.) Activity more nearly contemporary with the original period of the Basilica was documented by, among other things, a fragment of a lamp (L 31, Pl. 28: b) of the 5th century after Christ.⁴¹

In area K/9, 11-17/14, 16 three Early Christian tombs were found (Pl. 28: e). Their proximity, basic contemporaneity, and the fact that one was an infant's grave suggest that this may have been a family plot. As is usual in this period, the graves were poor, although it would appear that one had a pair of shoes, for at the foot of the grave were found a concentration of 52 iron hobnails (IL 292, Pl. 28: d).

With so much disturbance in the area, only a fragmentary picture of earlier activity emerges. Nonetheless, it was clear that the eastern part of L 17 and the western part of M 17 saw considerable sculptural bronze casting in the 2nd century B.C.⁴² This conclusion is based upon a series of 25 casting pits, lead and bronze drippings, tools such as a pair of tweezers (BR 508, Pl. 28: c), and several fragments of terracotta statue molds such as TC 88 (Pl. 29: a). From this same area and levels came

⁴¹ Although I have been unable to find a precise parallel for this lamp, the rim decoration shows general similarities to others known from elsewhere; cf. Perlzweig (footnote 9 above), no. 334; and A. Bovon, *Études péloponnésiennes*, V, *Lampes d'Argos*, Paris 1966, no. 625.

⁴² Pottery lots L 17:25; M 17:33-44.

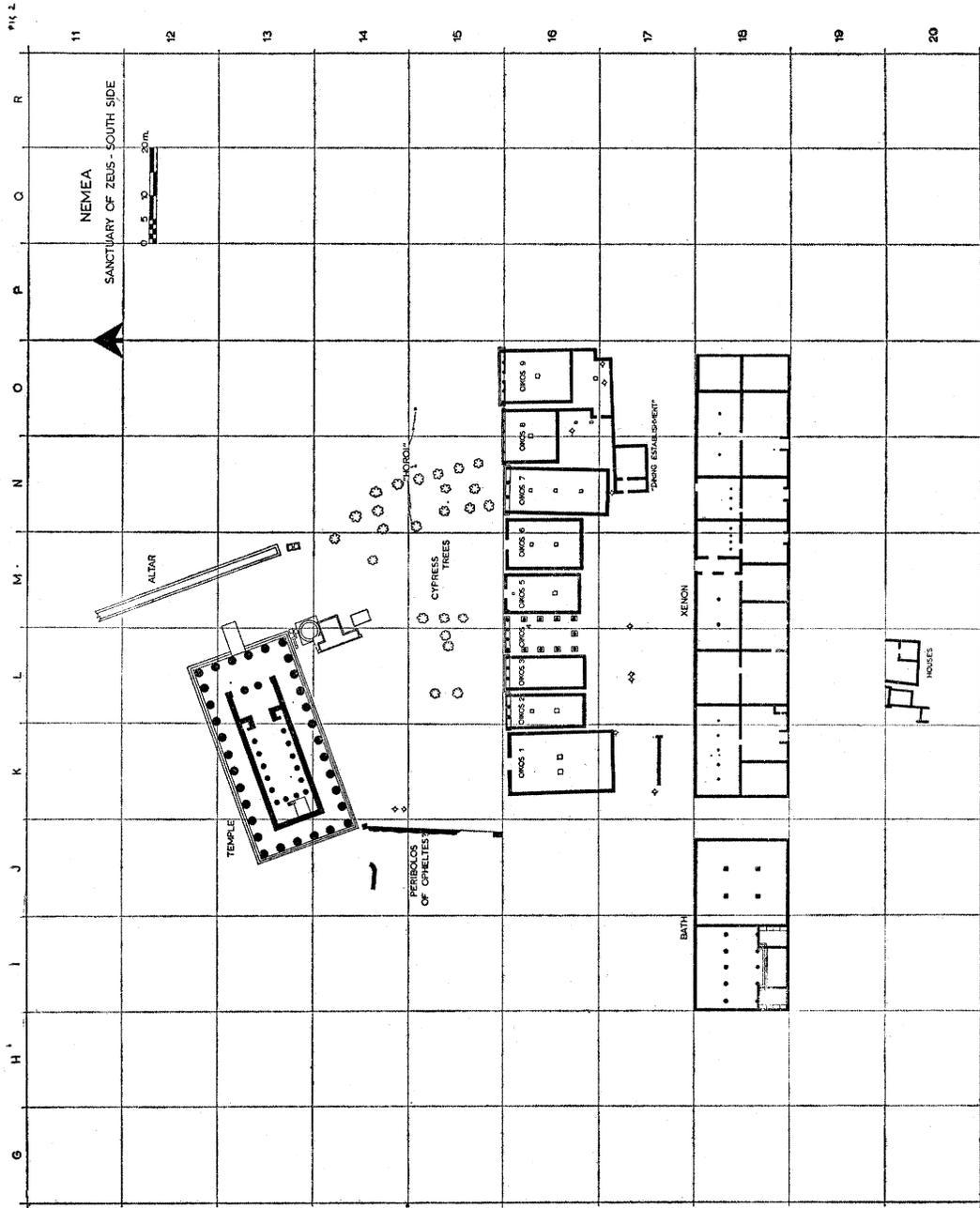


FIG. 2. Restored plan of south side of Sanctuary of Zeus, Archaic to Hellenistic periods.

the head of an earlier terracotta figurine (TC 91, Pl. 29: b). Much of the original paint of beard, hair, eye, and cap is preserved, and the figurine is almost surely to be identified as a representation (or caricature?) of a Persian.

The southern part of K 17 yielded clear evidence of marble working in the form of two large pits filled with chips. One of these, at K/8, 10-17/17, 20, produced no distinct ceramic date, but it did contain a bronze coin of Philip II (C 1321, Pl. 29: c). The second marble-working-chip pit, at K/19, 20-17/16, 18, was somewhat larger and deeper than the first, and produced significant quantities of pottery from the third quarter of the 4th century B.C. including two lamps, a stamped plate and a stamped bowl (L 39, L 40, P 369, P 370; Pl. 29: e).⁴³ The marble chips themselves do not allow a precise definition of the nature of the work in the pits (sculptural or architectural), although the marble *sima* of the 4th-century Temple of Zeus is certainly an obvious candidate for the work in this area. It is apparent that the work did have the official approval of the sanctuary, for a thin lead rectangle from the second pit seems originally to have been hammered over the end of some (wooden?) object, and then nailed to it as seen in the three nail holes. Ownership of that object is proclaimed by the inscription on the lead sheet: IEPO (IL 279, Pl. 29: d).

Earlier activity in this area included the construction of a rubble wall running across Section K 17 in an east-west direction (Fig. 3, Pl. 29: f) for a preserved length of 10.50 m. It averages 0.60 m. in width and appears to turn to both north and south at its eastern end, although more recent disturbances make this less than completely clear. The western end of the wall appears to have been interrupted by the construction of the later well at K/6, 7-17/12, 13.⁴⁴ The function of this wall is, as yet, unknown, but it had been constructed by the middle of the 5th century B.C., and it was no longer in use in the 4th century; it is doubtful that it survived the 5th century.⁴⁵

Well - Deposit M 17:2

As has been noted before, there must be an underground river running through this part of the sanctuary in a basically east-west line, and it was tapped in several places at different times (cf. Fig. 2). Three wells in this basic line were discovered in 1978. One of these, at K/18, 20-17/4, 6 appears to re-use a column drum of the Temple of Zeus as a wellhead (Fig. 3). Since this well has collapsed badly, it was not excavated. A second well was discovered on the west edge of Section M 17 at M/1, 2-17/6, 7. At the time of discovery it was apparent that it had been deliberately closed in the late 3rd or 2nd century B.C. (Pl. 30: a).⁴⁶ Among the blocks which had been used to close the well was an unfinished Ionic column which has, however, a completely finished torus-scutia base (A 138, Pl. 30: b).

⁴³ Pottery lot K 17:28; Deposit K 17:2.

⁴⁴ Deposit K 17:1; cf. *Hesperia* 47, 1978, pp. 81-82.

⁴⁵ Pottery lots K 17:34 and 35 (construction); 29, 31, 33 (destruction).

⁴⁶ Pottery lot M 17:46.

The well itself is constructed of rubble with a total depth of 9.80 m. (+332.676 to +322.876). Its diameter expands from 0.70 m. at the mouth to 1.21 m. at the bottom. Empty for the first 3.26 m., the next 5.67 m. contained dumped fill of the 4th century B.C.⁴⁷ This fill contained many earlier architectural pieces including an antefix (AT 65, Pl. 30: c). The period of use of the well was represented by less than a meter of fill, and is to be dated to the second quarter of the 5th century B.C., although most of its pottery was coarse ware (P 332, P 357, P 358, P 375-377, P 393; Pl. 30: d).⁴⁸ This use fill also produced a bronze hydria base (BR 529, Pl. 30: e). The limited use of this well and its closure as much as 300 years later raise questions not only about the history of Nemea, but also about the control of these wells. One begins to wonder if their control lay not with the general supervision of Nemea, but with individual oikoi, or rather with the city-states who controlled the individual oikoi. Improbable as such a suggestion may be, it is strange that other, nearby wells should be constructed and used at times when a perfectly usable well such as that in M 17 was open.

Well - Deposit L 17: 2

The third well discovered in this region in 1978 was in Section L 17 immediately west of the well excavated in 1977 (Fig. 3).⁴⁹ It was 9.90 m. deep as preserved (+332.637 to +322.737), although the mouth had clearly been disturbed in Early Christian times. At an earlier date this well had a head formed of re-used blocks each of which has a pair of "ice-tong" lifting holes and a dowel hole on its top surface, and a height of 0.29 m. (see above, pp. 81). One of these was found lying alongside the mouth of the well (Pl. 31: a), another is built into the wall which extends the west line of the Baptistry northward, and a third was found in the well itself at a depth of some seven meters (+325.60). The well has a very narrow preserved mouth of 0.58 m. diameter, but expands to a diameter of 1.35 m. at the bottom.

Empty at the time of discovery for the first 2.38 m. of its depth, an opening was seen on the south side of the well at a depth of 0.80 m. This opening measures 0.17 x 0.32 m. and has a tile of Laconian type used on its bottom as a gutter. This seems to have served as the egress for the drain of the baptismal pool in the Baptistry which, when re-excavated in 1964, was found to have a small lead pipe as a drain on its north side (Fig. 3; Pl. 31: b, cf. Pl. 28: a). This appears to have been the source of some of the Early Christian material in the higher layers of the well, and of a piece of modern contamination in the form of a small medallion advertising "22" brand filter cigarettes.⁵⁰ The mouth of the well as discovered in 1978 was certainly covered by undisturbed Early Christian fill which precludes the mouth as the entrance point of the modern contamination.

⁴⁷ Pottery lots M 17: 47-49, 56-58.

⁴⁸ Pottery lots M 17: 50-55, 59.

⁴⁹ Cf. *Hesperia* 47, 1978, pp. 82-84.

⁵⁰ Pottery lots L 17:31-35, 43.

At a depth of just over seven meters, and just below the fallen wellhead block, a new layer began. The pottery of this layer which belongs in the late 4th century B.C. included (Pl. 31: c) parts of an amphora with a palmette stamped at the base of each handle (P 401 a and b), a mug (P 399), and a ribbed black-glaze oinochoe with palmettes stamped around its neck (P 398).⁵¹ From this same level came the base of a bronze hydria (BR 639, Pl. 30: e), and a fragment of a very large terracotta palmette akroterion (AT 74, Pl. 31: d). At the bottom of this layer (or, more properly, at the top of the next layer) came a section of a painted terracotta raking sima (AT 75, Pl. 32: a) which is from the same series as the corner sima found in the contiguous well during the 1977 season (AT 55).⁵²

At a height of some 0.60 m. above the bottom of the well (+323.337), the fill changed in nature, and its pottery jumped in time to roughly the middle of the 5th century B.C.⁵³ The ceramic evidence for this chronology includes a skyphos (P 397), a one-handler (P 402, Pl. 32: b), and two lamps (L 45⁵⁴ and L 46; Pl. 32: c).

Thus, the two neighboring wells in L 17 had very similar histories: both were used initially in the 5th century B.C., and then left unused until the late 4th century B.C. Once again, there is no trace of activity during the later 5th century nor the whole of the first half and more of the 4th century B.C. The hypothesis advanced last year,⁵⁵ that the Nemean Games had been moved to Argos during that time, gains some support.

Sections L 20 and K 20

As noted during the 1964 excavations, there is an ancient east-west road running along the south side of the Xenon.⁵⁶ In 1978 the northern part of Section L 20 was excavated, and preliminary clearing took place in Section K 20, with the purpose of determining whether any ancient buildings might lie along the south side of this road. Earlier tests in the area of the new museum in M 22, M 23, O 22, O 23, O 24, P 22, P 23, and N 26 had revealed no sign of any antiquities nor of ancient levels further to the south.

The first feature which was revealed in K 20 and L 20 was a stream bed running basically from east to west with the obvious ultimate goal of joining the Nemea River further west (Fig. 4; Pl. 32: d). The pottery in the various gravelly layers of this river bed indicates that it was flowing in the Early Christian period of the 5th and 6th centuries, and that it probably had formed on this course during the 3rd century after Christ.⁵⁷ Such a history was also indicated by an Early Christian drain which

⁵¹ Pottery lots L 17:36-38, 44, 45.

⁵² Deposit L 17:1; cf. *Hesperia* 47, 1978, pl. 26: c and d.

⁵³ Pottery lots L 17:39, 46.

⁵⁴ Cf. R. H. Howland, *The Athenian Agora*, IV, *Greek Lamps and Their Survivals*, Princeton 1958, Type 21B.

⁵⁵ *Hesperia* 47, 1978, pp. 82-83.

⁵⁶ C. K. Williams, "Nemea," *Δελτ* 20, 1965, *Χρονικά*, p. 154.

⁵⁷ Pottery lots L 20:10, 15-18, 23.

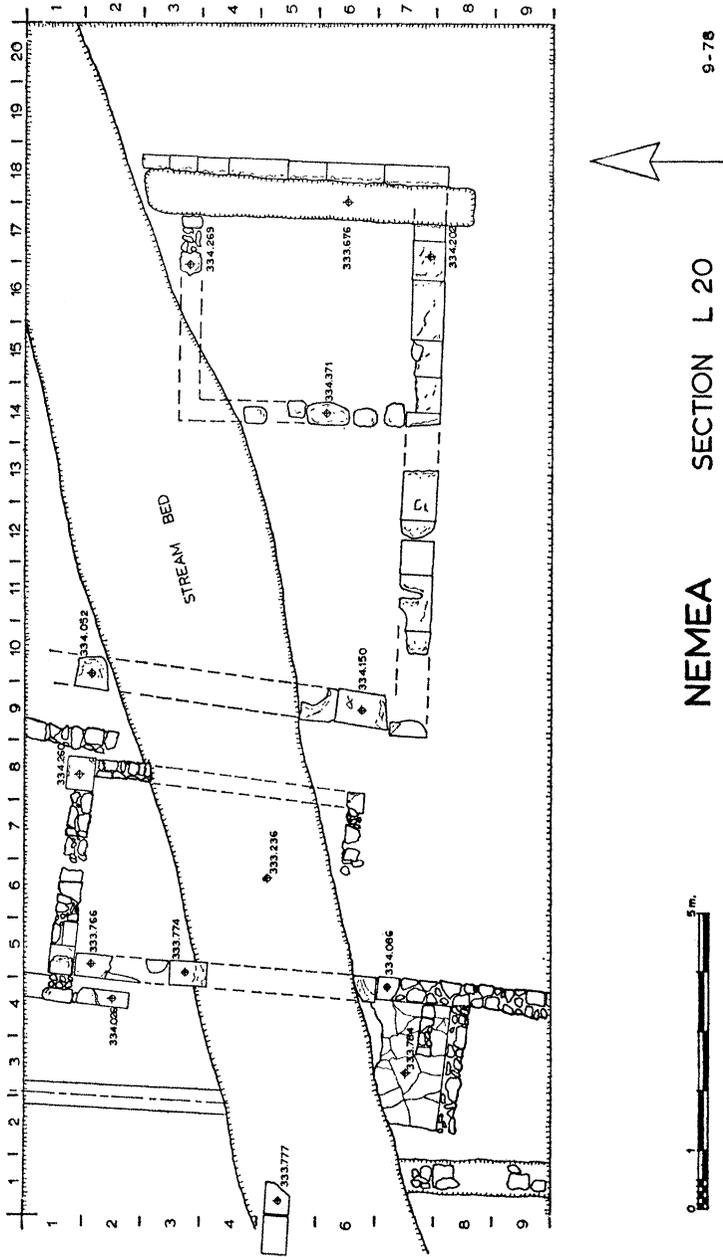


FIG. 4. Section L 20.

flowed into the river from the north, presumably from the Basilica. Built into this drain was a fragment of the marble sima of the 4th-century Temple of Zeus (A 152, Pl. 32: e). Unlike previously discovered sima fragments, this comes from the center of the rear of a sima block, and preserves the marble stop for the line of cover tiles which rose behind the lion's-head waterspout of the sima.⁵⁸

The river bed and its banks were littered with blocks from earlier structures, mainly from the Temple of Zeus, but also from other buildings. Examples included a curved blue-black marble step block with excellent anathyrosis preserved on one end (ST 382, Pl. 33: a), and a Hellenistic triglyph block of relatively small size (A 149, Pl. 33: b).

With the removal of the river fill, an earlier building was discovered in the north-east part of L 20. Continuing out of this Section to the north, the building consists of foundations of soft yellow poros blocks which have been cut through by the river, and by a north-south trench of Roman date which took off the west side of the whole of the east wall (Fig. 4; Pl. 33: c). The building is 9.60 m. wide at the south, but the west wall, respecting an earlier structure to the west, forms an acute angle with the south wall and the building consequently narrows toward the north. In the south-east corner of this structure two lightly built rubble crosswalls formed a room *ca.* 3.60 x 3.50 m. The ceramic evidence suggests a construction date for this building in the 3rd century B.C. and perhaps in the second half of that century, and a destruction date before the 1st century after Christ.⁵⁹ The pottery from the use levels of the building included a late blisterware jug with impressed ivy-leaf design (P 337, Pl. 33: d). The similarities of its design with that of P 389 from well K 14:4 (above, and Pl. 23: a) date P 337 to the third quarter of the 3rd century B.C. and show that the structure was in use by that time.

West of this poros building is a network of walls of another, earlier structure. Bisected by the river, and extending out of the excavated area to north, south, and probably west, the plan of the building cannot be easily extracted at this stage of the excavation. In addition, the building was remodeled several times so that the various sets of walls are not easily matched up. Nonetheless, a general outline of the building's history is clear. The original construction phase appears to belong in the last third of the 5th century B.C.⁶⁰ and to be represented by a combination of rubble walls and nicely worked hard limestone blocks used at corners and doorways (Pl. 34: a, b). To this period belong the long north-south wall at L/5-20/2, 9, the north-south wall at L/8-20/1, 2, the east-west wall at L/5, 8-20/1 which has a central doorway later blocked (Pl. 34: a), the east-west wall at L/2, 4-20/8, and probably a north-south wall at L/1-20/7, 9 which was robbed out in Roman times.

From that original phase until the latter part of the 4th century B.C. there is no evidence for any activity in this structure. During the last quarter of the 4th century

⁵⁸ For the position see Hill (footnote 5 above), pl. XIII.

⁵⁹ Pottery lots L 20:26 and 21, respectively.

⁶⁰ Pottery lots L 20:28-31, 44, 45.

there is much activity represented ceramically by, among other pieces, a saltcellar (P 405, Pl. 34: c), a ribbed black-glaze skyphos (P 408, Pl. 34: d), and a peeling black-glaze skyphos (P 404, Pl. 34: e).⁶¹ At that time, the door in the east-west wall at L/6-20/1 was blocked, a paving of hydraulic cement put down in the room at L/2, 4-20/7, 8, the northern part of the long wall at L/5-20/2, 3 was replaced by a parallel wall just west of it (cf. Pl. 34: a, b); a similar replacement seems to have occurred with the north-south wall at L/8-20/1, 2, and the poorly preserved east-west wall at L/6, 8-20/6, 7 was probably constructed.

This spurt of activity was once again followed by a period of quiet from which no artifacts have been found. The quiet was broken in the third quarter of the 3rd century B.C. by a brief period of activity,⁶² represented architecturally by the scrappy, east-west wall which was built over the paving at L/3, 4-20/8.

There may be a final level of activity from the second half of the 2nd century B.C.,⁶³ but the evidence is not sufficient to allow a firm statement. It is clear that, as the Roman period began, the site had been abandoned. Signs of erosion begin to appear and they culminate in the river which cut through the region.

There are, then, at least two buildings in Section L 20 on the extreme southern fringes of the sanctuary. Although their function is not clear as yet, the architecture (and especially the hydraulic cement paving) and the cooking pottery and loom weights discovered throughout the area suggest a basically domestic character. These buildings might, then, be the houses of priests or of caretakers. If so, then the chronological gaps in their use would suggest that movements of the Nemean Games to Argos were accompanied by an absence of a permanent staff at Nemea. Perhaps Argos, with control of the Games and with the Games themselves at Argos, felt little need to maintain the sanctuary at Nemea.

THE STADIUM

The Race Track - Sections CC 27, CC 28, DD 27, DD 28, DD 29, EE 27, EE 28

Work in the stadium in 1978 took place in basically three areas. That on the track succeeded in clearing the latter beyond its mid-point (Fig. 5, Pls. 35, 36: a).⁶⁴ Notable artifacts in this area were sparse, but did include a fine silver coin of Sikyon (C 1331, Pl. 27: c). The "sidewalk" and the storm drain were found to continue along the west side, and the water channel along both sides of the track, in their usual

⁶¹ Pottery lots L 20:32, 33, 49.

⁶² Pottery lots L 20:39, 41, 52.

⁶³ Pottery lot L 20:25.

⁶⁴ Because of the length of the stadium, and of technical difficulties of reproduction at a legible scale, it seems inadvisable in these preliminary reports to attempt to present the plan of the whole length of the stadium. I therefore present here the middle third of the track, together with the entrance and tunnel, and rely upon the reader to piece this plan together with that of the southern third of the track in *Hesperia* 47, 1978, p. 85, fig. 7.

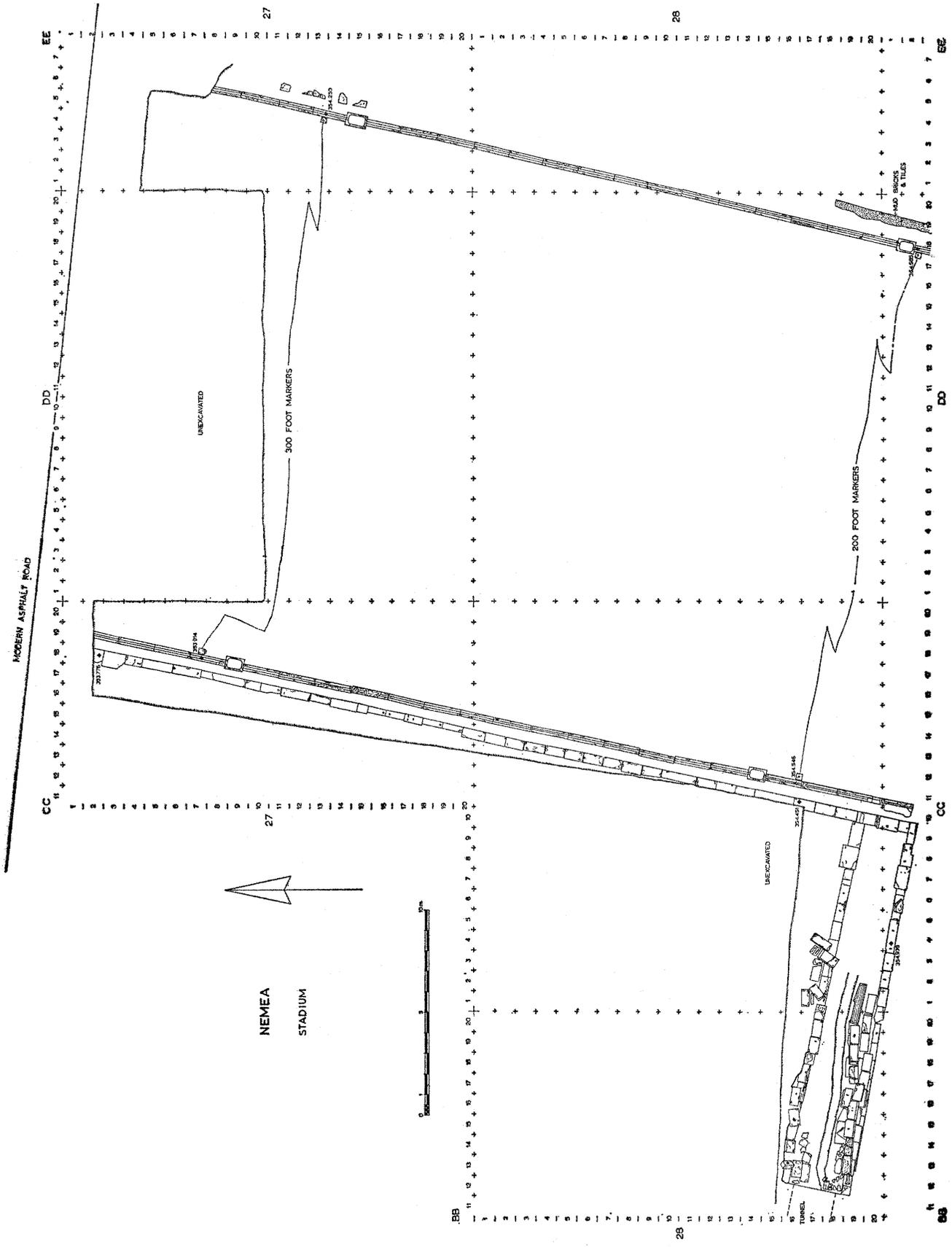


Fig. 5. Stadium, central area of track.

fashion. The "sidewalk" continues to exhibit re-used material, including blocks with "ice-tong" lifting holes. The water channel is interrupted twice in its course, uncovered in 1978 on both sides of the track, by typical settling basins which are essentially opposite one another. In addition, the 300-foot markers were discovered still *in situ* on both sides of the track, although neither is in a good state of preservation. This may well be a reflection of the general state of preservation which deteriorates toward the north end of the stadium. The 300-foot marker on the east side of the track (Pl. 36: b), although broken at the top and preserved only to a height of 0.38 m. above the track surface, was originally square in plan, measuring about 0.27 m. on a side. It is located, on center, 29.78 m. north of the 200-foot marker on the same side of the track. The 300-foot marker on the west side of the track is even less well preserved than that on the east (Pl. 36: d). Its dimensions are similar to its eastern mate, however, and it is located 29.71 m. north of the western 200-foot marker. It would thus appear that the Nemean stadium foot of 0.296+ m., regarded last year as firmly established, has stretched as it travels further north. The situation is, then, like that in the stadium at Epidauros where the 100-foot markers are placed at varying distances, although the differences at Epidauros are greater than those so far discovered at Nemea.⁶⁵ This lack of precision, and lack of apparent concern for precision, appears to be characteristic of the ancient attitude toward athletics. So, too, it mattered not that there was a marked slope in the length of the track (nearly a full meter in the southern half of the racecourse), so long as everyone had the same handicap of running half his laps uphill. It is also true that we cannot be certain of the purpose of these markers. If they were merely visual aids to athlete and spectator for marking progress in the races, precision will not have been so necessary.

The clearing of the track in 1978 has made two other observations possible. First, east of the 200-foot marker on the east side of the race track is an area of decomposed mud brick parallel to the water channel. This is very like the mud brick in a similar position behind the 100-foot marker and the judges' stand on the east side.⁶⁶ East of the 300-foot marker, in a position analogous to that of the mud brick at the 100- and 200-foot markers, are several limestone blocks (cf. Fig. 5; Pl. 36: b). If these remains are to be interpreted as relevant to subsidiary judges' stands, as seems quite possible, then certain rather cynical implications emerge vis-à-vis the staging of the races and the need for judges at regular intervals along the track.

Secondly, as has been noted before, the width of track expands steadily along its distance, although it is now clear that the expansion lessens as the mid-point in the track's length is approached. At the southern starting line, the width between the water channels is 23.52 m., at the 100-foot marker it is 25.58 m., and it is 26.66 m. at the 200-foot marker. This expansion continues to the 300-foot marker, but at a much reduced rate, and the width of the track at this, the middle of the racecourse's

⁶⁵ Cf. P. Kavvadias, *Τὸ Ἴερόν τοῦ Ἀσκληπείου*, Athens 1900, pp. 108-109.

⁶⁶ Cf. *Hesperia* 46, 1977, p. 24.

length, is 26.93 m. Presumably the track will begin to narrow again further to the north.

The Entranceway and the East End of the Tunnel - Section BB 28

On the west side of the race track, just south of the 200-foot marker, the beginning of an entranceway had been found in 1977, and at that time excavated for a distance of some 15 meters west of the track. The excavations of 1978 revealed that this entranceway continues westward from the track for a total of some 19.35 m. It was littered along both sides with fallen blocks from the retaining walls, especially that of the south side. The central area of the entranceway had, however, been partially cleared in the 2nd century after Christ for the placement of a terracotta water channel (Pl. 36: c).⁶⁷ The blocks which remained along the south side were recorded, and then removed this year with the ultimate goal of a small reconstruction (Fig. 6). Several additional pieces of information were thus recovered. First, it is clear that the south wall had collapsed before the 1st century after Christ, and perhaps as early as the late Hellenistic period.⁶⁸ Secondly, it became clear from the dozens of bronze statue fragments that a statue had been in this area and was crushed by the collapsing wall. Although the digging of the later water channel disturbed some of these fragments, nearly 200 have now been recovered. Those found in 1978 are essentially nondescript and the part of the statue from which they came cannot be identified, although future study will be repaid. Exceptional in this regard are four fragments of finely worked hair (BR 553, BR 602, BR 607, BR 596, Pl. 38: c).

Thirdly, the removal of the fallen blocks showed clearly that, even though several blocks of the wall are missing, this wall had a coping which followed the slope of the hill to the top of the mouth of the tunnel (Fig. 6).

Finally, it was revealed that the entranceway widens slightly toward the west, from a width of 2.08 m. at the east to 2.61 m. at its western end.

The excavation of the foundation trench for the south wall of the entranceway also had important results (Pl. 37: a). First, some additional ceramic evidence was found for the construction date of the wall. This evidence confirms the date suggested last year as in the last quarter of the 4th century B.C. and includes the base of an early Hellenistic plate and the lip of a skyphos of similar date (P 355 and P 364, respectively; Pl. 37: b). Secondly, at least four of the blocks in the wall were reused there. Two of these (B-14 and B-15, Fig. 6; Pl. 37: c) are water-channel blocks very different from those of the 4th-century stadium. The other two blocks (C-4 and C-6, Fig. 6; Pl. 37: d) appear to be seat blocks from some sort of theatrical arrangement. The original place of use of these blocks is, at present, unknown.

⁶⁷ Cf. *Hesperia* 47, 1978, pp. 87-88. The conclusion reached in 1977 about the function and direction of this water channel was incorrect. It now appears that the channel did not flow from west to east, but in the opposite direction, and apparently it tapped the fresh water supply of the water channel along the west side of the race track. This must mean that the fresh water supply for the stadium was still available in the Roman period.

⁶⁸ Pottery lot STAD:86.

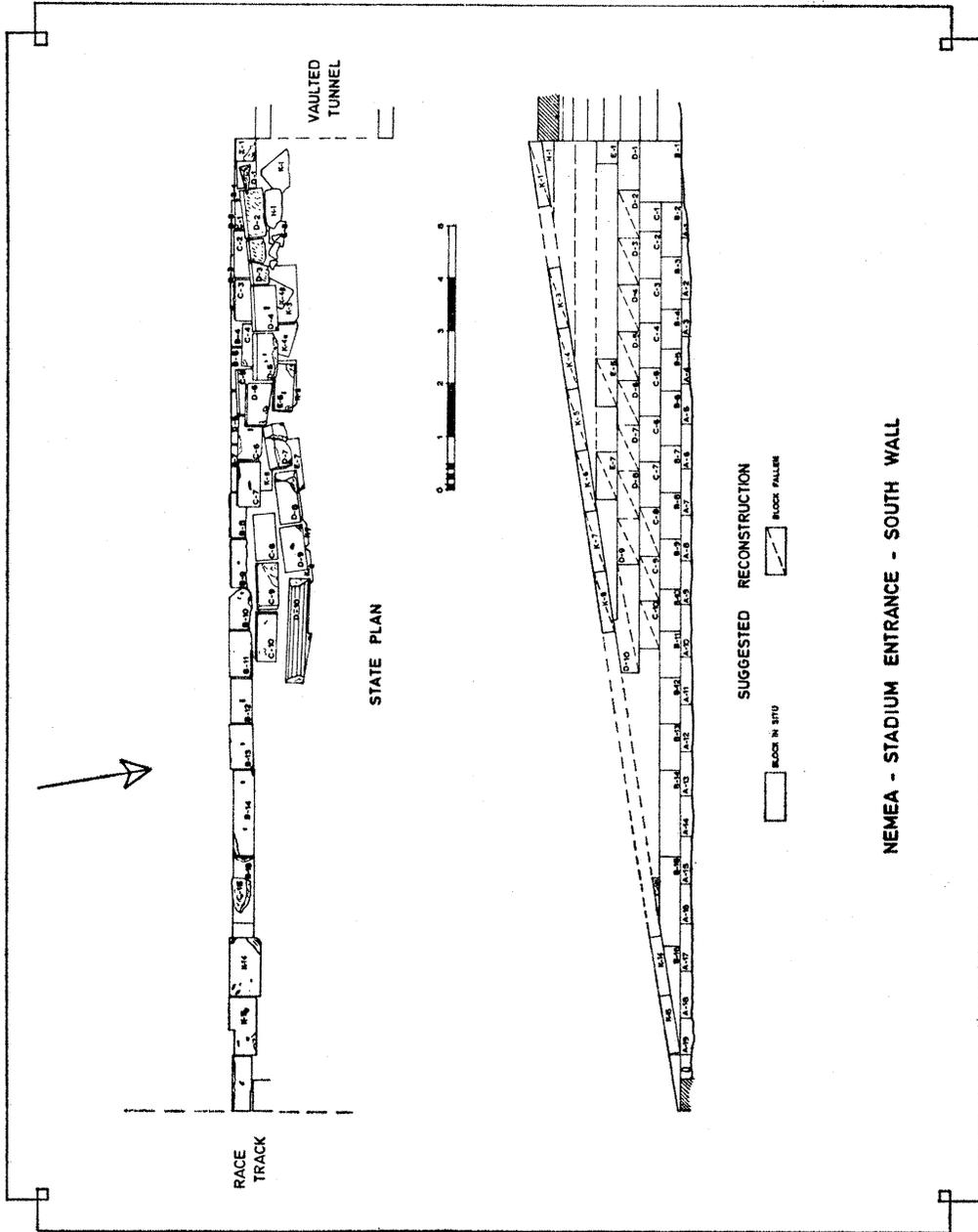


Fig. 6. Stadium, south wall of entranceway, actual state plan and restored elevation.

The west end of the open entranceway is marked by the beginning of a vaulted tunnel running westward through the stadium hillside (Pl. 36: c). It has a total length of 36.35 m. and a height above the original floor level of 2.48 m. The side walls continue to a depth of about 0.30 m. below the floor and give a total construction height for the vault of some 2.78 m. The tunnel has an interior width of 2.07 m. and is perfectly horizontal in its coursing. The side walls are, on average, 0.44 m. thick. Constructed of a red sandy, relatively soft limestone, the vault forms a perfect half circle with a diameter of 2.07 m. On either side of the keystone, four courses of voussoirs carry the vault up from the top course of the wall, which also serves as the springer of the vault. The blocks of the vault range from 0.86 to 0.90 m. in length, but vary (where visible) in thickness from 0.38 to 0.44 m. The surfaces of all nine vault courses are very smoothly finished, and the corners of their long sides have been beveled in order to avoid chipping. The springer course on both sides of the tunnel has a very distinctive surface tooling made by a chisel 0.06 m. wide. This has left smooth bands cut slightly obliquely to the vertical with sharp ridges of stone between the chiseled bands (cf. Pl. 40: a). The bottom four courses on both sides of the tunnel are worked with a chisel 0.13 m. wide struck in horizontal rows, but leaving sharp vertical chisel marks from each individual stroke, as well as the horizontal ridge at the overlap of the rows. This decoration, which was done after the blocks were in place in the tunnel walls, is slightly changed on some, but not all, of the blocks by a drafted margin 0.05-0.06 m. wide along the bottom of the block (and at the outside corners of the end blocks, Pl. 38: a). There is no evidence of any façade at the east end of the tunnel; the vault simply begins where the entranceway ends. On the first block of the fourth course of the walls on both sides of the tunnel, at a height of about 1.10 m. above the floor, are pierced holes through the corners of the blocks, roughly worked with the diameter varying from *ca.* 0.06 m. on the surface of the stone to about 0.02 m. at the middle of the hole (Pl. 38: a, b). These holes apparently served to hold a rope or chain across the mouth of the tunnel. There is a letter next to the hole on the east face of each block: a delta on the south wall (Pl. 38: a), and a chi on the north (Pl. 38: b, I 84). The significance of these letters is not immediately apparent.

The state of preservation of the tunnel is essentially good, although two blocks (the keystone and the neighboring voussoir to the north) have fallen in about 25 meters from the east end. This area has been braced pending a decision about the method of conservation to be employed here. In addition, the bottom two voussoirs on either side of the vault have split and cracked in several places and will need conservation work. The situation has, however, improved markedly since the opening of the tunnel and the consequent reduction of the heavy humidity present at the time of discovery. It is clear from the broken blocks lying on the uppermost fill of the tunnel that they fell after the tunnel was closed, and that humidity together with root action has been the most serious enemy of the tunnel's preservation.

When first uncovered, the easternmost keystone and the flanking voussoir blocks were missing, the former having been cut through deliberately.⁶⁹ That, together with the stratigraphy over this end of the vault, made it clear that the tunnel had been broken into. Since the tunnel was filled completely only at the ends, and the silt sloped downward toward the middle where there was, at the time of discovery, a free height of roughly 1.65 m. between ceiling and fill, it was clear that the tunnel could have been used for shelter in later times. That this had, in fact, happened emerged from the many scattered animal bones and the many examples of cooking pottery in the uppermost silt in the tunnel. The latter included P 368 and P 394 (Pl. 38: d) of the Early Christian period.⁷⁰ From the same level came two bronze coins: C 1246 of Justinian, and C 1244 of either Justin II or Tiberius II (the state of preservation does not allow for a more precise immediate identification, Pl. 39: a). This places the date of this latest activity within the tunnel in the 570's or 580's after Christ. The chronological situation is, then, the same as for the violent destruction of the Early Christian settlement south of the sanctuary in Sections G 37 and H 36.⁷¹ It is tempting to think that the Slavic invasion of that time caused one or more Early Christians to seek refuge in the tunnel. Whatever the cause for the entry, one of the many graffiti on the tunnel walls belongs to this period, and gives a nice Early Christian name: ΑΙΘΕΡΙΖΩΗΣ (I 52a, Pl. 40: b).

Considerations of time and safety prevented the excavation of the full length of the tunnel, and only the first seven meters at the east end were excavated this year. This has been sufficient, however, to give a general outline of the history of the tunnel, at least in Roman times. The Early Christian intrusion was preceded by a long period of abandonment during which the tunnel silted shut.⁷² In the late 1st, or more likely the early 2nd century, after Christ, the terracotta water channel, parts of which had been found further east last year, was set into the earlier floors of the tunnel, and along the latter's south wall. Although most of the channel is missing, its course is clear and one piece was found still close to its original position (TC 98, Pl. 39: b). The layer deposited immediately preceding the placement of the channel, and through which the trench for the channel had been cut, was very rich ceramically. Its contents included a Pergamene plate (P 365), an unguentarium (P 360), and two lamps (L 36, L 38, Pl. 39: c).⁷³ Although these shapes are well known, they all have a long life and it is difficult to derive a precise date for this level of the tunnel. It clearly belongs in the early Roman period, and on the basis of the relatively earlier plate

⁶⁹ Because of the danger of collapse, reinforced concrete has been used to replace these missing blocks. Thus the appearance of the mouth of the tunnel as seen in Plate 36: c has now been altered, but the preservation assured.

⁷⁰ Pottery lots STAD: 58, 70-72, 78, 79, 85.

⁷¹ *Hesperia* 45, 1976, p. 202.

⁷² Pottery lots STAD: 59, 63, 64, 73, 74, 80, 81.

⁷³ Pottery lots STAD: 76, 77, 82, 83. For the unguentarium, see H. S. Robinson, *The Athenian Agora, V, Pottery of the Roman Period*, Princeton 1959, nos. M6, M7. For the lamps see O. Broneer, *Isthmia, III, Terracotta Lamps*, Princeton 1977, pp. 26-28, Type XVI.

(P 365), ought perhaps to be dated to the 1st century B.C., but the unguentarium (P 360) probably places the true date of the layer in the first half of the 1st century after Christ. This is a period for which activity at Nemea has not yet been otherwise documented and, since the entranceway walls had already fallen by this time, it seems likely that the activity within the tunnel is to be understood as something in the nature of squatting by a small group of people.

Immediately below this layer came the original floor of the tunnel which had apparently been kept clean during its use, with the result that the Hellenistic history is stratigraphically unknown here. The floor itself produced pottery which could not be dated more precisely than to the 4th century B.C.⁷⁴ This does not, at least, contradict the late 4th-century date which now seems clear for the tunnel's construction.

Even though the Hellenistic period may not be represented stratigraphically within the tunnel, it is represented epigraphically. The bottom two voussoir courses (where their surfaces are preserved) on both sides of the tunnel are covered with graffiti. These are, by their very nature, basically light scratchings and very difficult to read in most cases. They will require much study and only a few examples of the dozens of graffiti so far recognized can be presented here.

On the easternmost block of the lowest voussoir course of the north wall are traces of at least three different hands (Pl. 40: a). At the upper left corner of the block, in a light hand with a letter height of 0.025 m., is ΑΤΙΣ(I 59a). At the same level, but to the right, in letters 0.045-0.05 high is νικῶ, followed by the beginning of another word which is broken away. Below νικῶ, and perhaps in a different hand but with the same letter height is ΚΑΛΟ[Σ] (I 59b). Across the bottom of the block is yet another name, this time inscribed in relatively crisp and bold letters 0.045-0.065 m. high: Τ[Ε]ΛΕΣΤΑΣ. Considering the letter forms and the date of the tunnel, it may be possible to identify this Telestas with the Olympic victor in the boys' boxing, from Messene, whose victory has previously been dated to ca. 340 B.C.⁷⁵ If this identification is correct, then the date of Telestas' victory at Olympia will have to have been slightly later than previously thought, or he will have to have written his name while competing in the men's category at Nemea.

Another example of the difficult nature of these graffiti is on a block of the first voussoir course of the south wall some eight meters from the east end of the tunnel (Pl. 40: b). At the upper left corner of this block, in letters 0.025-0.035 m. high, and clearly later than the other graffiti on this block because this contains less encrustation, is the Early Christian name noted above: ΑΙΘΕΡΙΖΩΗΣ (I 52a). Toward the right side of the block, partially broken away and beginning under the sigma, is another graffito with a letter height of 0.09 m., and characterized by a crossing at the top of the diagonal strokes of alpha, delta, and lambda: ΑΙΔΙΣΚΑ[--]/ΔΑΟ[--]ΙΠΠΟ[-

⁷⁴ Pottery lot STAD: 84.

⁷⁵ L. Moretti, *Olympionikai*, Rome 1957, p. 125, no. 453. The only other name which has been read in the tunnel and which could possibly be identified with a known athlete is ΜΟΣΚΟΣ (I 64a) who might be the same as the *periodonikes* in the boys' boxing, from Kolophon; cf. Moretti, *op. cit.*, p. 143, no. 602.

-/-]ΑΟΝΑ[- (I 52b).⁷⁶ Toward the bottom of the stone, partly superimposed upon and therefore later than I 52b, with letter heights of 0.06-0.10 m., is ΕΠΙΚΡΑΤΗΣ ΚΑΛΟΣ (I 52c). It should be noted that the majority of the names so far read on the tunnel walls are, like this example, kalos-names.

A third example is on a block of the second voussoir course of the north wall about 6.50 m. from the east end of the tunnel (Pl. 40: c). On the upper left corner of this block are a few letters, 0.04-0.05 m. in height: ΚΑΙ[-- (I 63b). Partially written over these letters, and clearly later than them, is a bold graffito, with letter heights of 0.06-0.085 m. and covering most of the block: ΑΚΡΟΤΑΤΟΣ / [Κ]ΑΛΟΣ (I 63a). At the end of the latter word, in a light and scratchy hand with smaller letters (height 0.035-0.05 m.) has been added the comment: ΤΟΤ ΓΡΑΨΑΝ[ΤΟΣ]. It would seem that ancient opinion of Akrotatos was not unanimous, but the name does reappear elsewhere in the tunnel (I 69).^{76a}

Finally, the latest graffito in the tunnel (except for I 52a) is located near the west end of the first voussoir course of the north wall, 35.30 m. from the east end of the tunnel (Pl. 40: d). It is deeply carved with letters 0.12 m. high, and goes beyond the typical graffiti of the tunnel in form if not in sentiment: ΜΑΡΤΙΑΛΙΣ (I 68). The letter forms are of such a date that an identification with the Roman poet Martial would be theoretically possible, but since there is no indication that he ever traveled to Greece, and since the name is not uncommon, such an identification seems extremely doubtful.

The West End of the Tunnel - Section Z 28

Having established the length of the tunnel, a trench was cut in Section Z 28 in order to uncover the west end (area Z/12,17-28/8, 14). This trench ultimately reached a depth of more than 6.50 m., and uncovered nearly all of the western mouth of the tunnel (property restrictions prevented an uncovering of the west face of the north wall, Pl. 40: e). As on the east face of the tunnel, here, too, no trace was found of any architectural façade. More surprising is the absence of any sign of a retaining wall outside the tunnel. Apparently there was some ancient confidence in the stability of the soft bedrock which had been cut through in a line west of and aligned with the south wall of the tunnel. Future excavation will, it is to be hoped, clarify this situation.

As at the east end of the tunnel, it is clear that the west end was entered during

⁷⁶ It is to be hoped that the tentative nature of many of our preliminary readings in the tunnel will be recognized. They are subject to improvement.

^{76a} The name Akrotatos is rare, and I have been able, after a preliminary search, to discover only two known instances of it. Both men are members of the Lakedaimonian royal house and are grandfather and grandson. The elder Akrotatos predeceased his father in 305 B.C. or earlier; the younger held the throne from ca. 265 B.C. until his death before 252 B.C. Cf. Diodorus Siculus XIX. 70; Plutarch, *Agis* 3; Pausanias, I.13.5, III.2-3. Either Akrotatos could be identified with the one celebrated on the Nemea tunnel wall, and the later comment added on the wall might thus have political overtones.

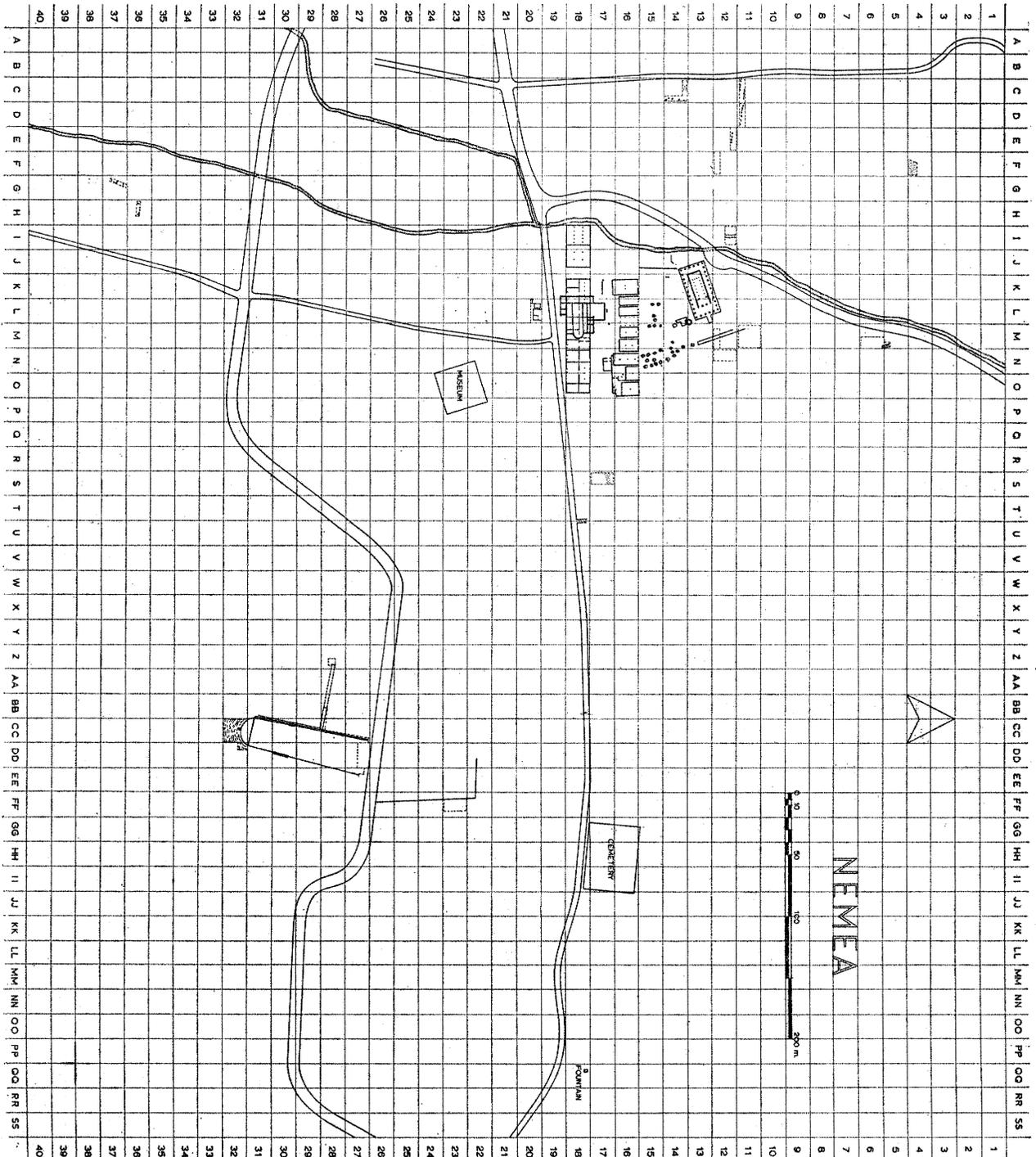


FIG. 7. Grid plan of sanctuary and stadium areas.

the Early Christian period.⁷⁷ Here, however, the keystone and its flanking voussoirs have not been broken through, but show signs of heavy wear on their lower surfaces as from the backs of men and / or animals. Again, the stratigraphy and the graffito (I 68) showed that the tunnel was essentially clear until the 2nd century after Christ, but that it had silted full by the 6th century.

The position of the tunnel relatively close to the south end of the stadium is, at first glance, somewhat surprising, for it occasioned a considerable amount of digging through the hillside as well as difficult construction work. It is obvious, however, that the tunnel was intended as an entrance for athletes and judges coming from the sanctuary. It is precisely equivalent to the tunnel at Olympia, characterized in antiquity as a hidden entrance,⁷⁸ and one can imagine the enthusiastic response of the thousands of spectators to the sudden and dramatic appearance of the athletes running out onto the track (Pl. 35: b). At the same time, the tunnel implies that there must have been a Sacred Way between it and the sanctuary for the procession of the athletes, when they had made their sacrifices at the Altar of Zeus in front of the temple, to the stadium. Without excavation, the line of such a putative Sacred Way can be predicted only in the most general terms. Nonetheless, the contours of the present surface of the land suggest that an ancient road, with or without a vestibule of some sort at the west end of the tunnel, will have gone off to the north. Furthermore, aerial photographs reveal a definite change in the soil color and in the vegetation in a north-south line from the west mouth of the tunnel.⁷⁹

The vaulted tunnel itself, as least as the evidence now indicates, obviously stands as an important architectural monument, especially since its date in the last quarter of the 4th century B.C. seems quite secure. If, as has been recently argued, it is correct that the arch was first introduced to Greece as one of the results of Alexander's campaign to the East,⁸⁰ then the Nemea stadium tunnel will have been one of the most immediate results of the introduction of this new architectural form. It will also imply a Macedonian influence at Nemea which is shown, for example, by Cassander's presidency at the Games of 315 B.C.⁸¹ Perhaps we are to understand this Macedonian influence as a continuing phenomenon which was first responsible for the return of the Games to Nemea and the beginning, shortly after the battle of Chaironeia, of a large construction program which included the stadium with its vaulted tunnel, the Temple of Zeus, and many other structures such as the Bath and the Xenon as well as those still waiting to be discovered.

STEPHEN G. MILLER

UNIVERSITY OF CALIFORNIA,
BERKELEY

⁷⁷ Pottery lots STAD: 88, 89.

⁷⁸ Pausanias, VI.20.8: ἣν Κρυπτὴν ὀνομάζουσι ἔσοδον.

⁷⁹ See *Hesperia* 47, 1978, pl. 9, where this line can be seen in the vineyard south of the modern asphalt road about 35 m. east of the white automobile on that road. This north-south line can also be seen, *ibid.*, pl. 28, six vines east (left) of the right margin of the photograph.

⁸⁰ T. D. Boyd, "The Arch and the Vault in Greek Architecture," *AJA* 82, 1978, pp. 88-89.

⁸¹ Diodorus Siculus, XIX.64.1.



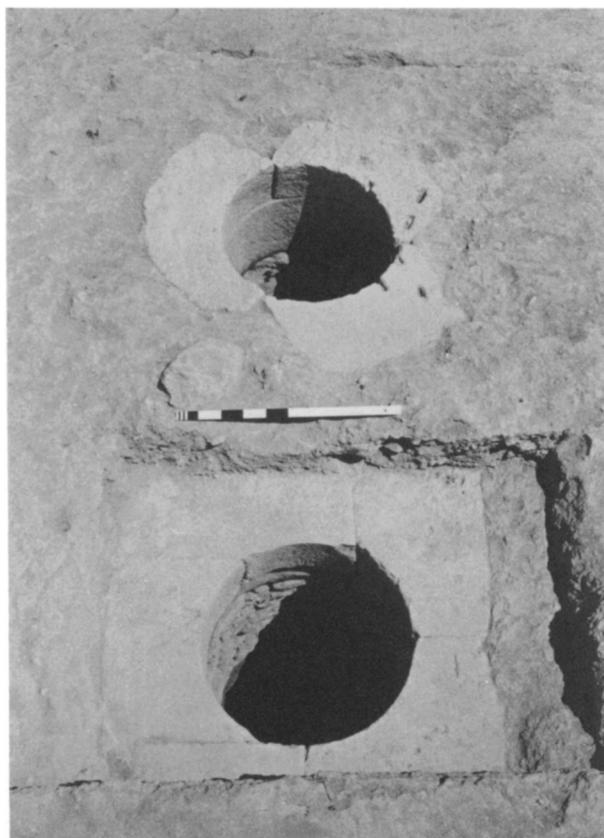
a. I 48



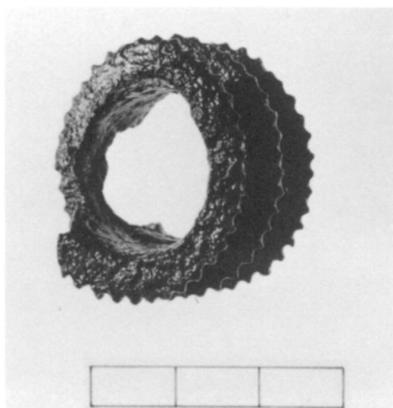
b. Wells in southwest corner of Section K 14, from north



c. P 328, side and bottom



d. Wells K 14:3 and K 14:4, from south



e. BR 544



a. P 374 P 346 P 345 P 344
 P 372 P 349 L 41 L 43 L 34 L 42



b. L 42



c. L 41



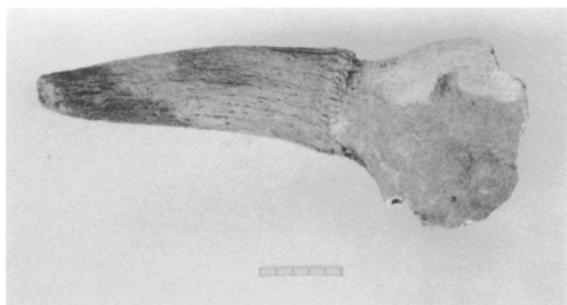
d. BR 587



e. I 49



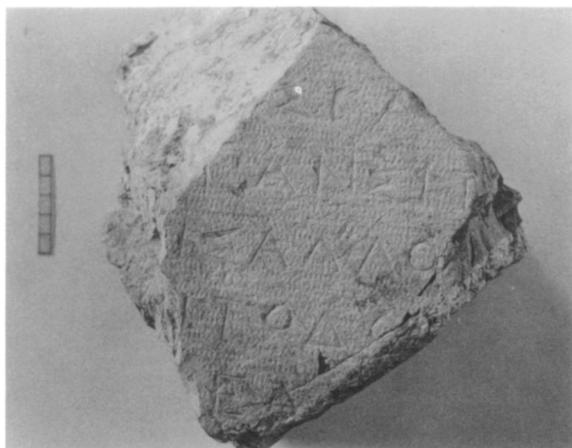
f. I 72



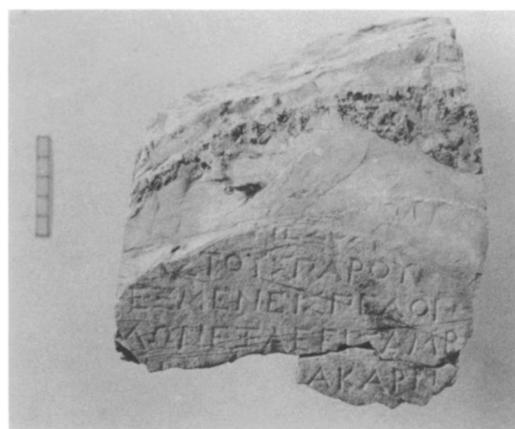
a. BI 10



b. BR 648



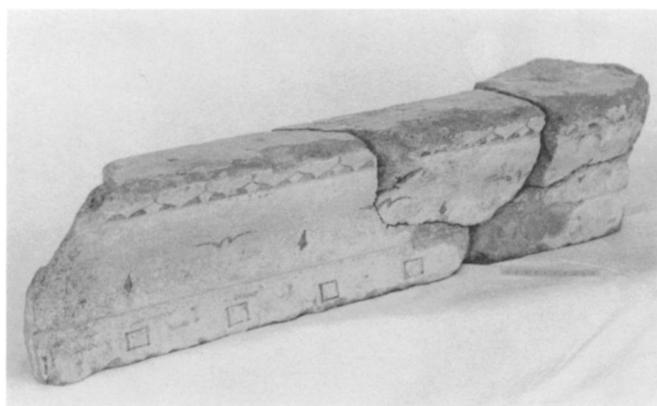
c. I 74



d. I 73



e. A 147



f. AT 69



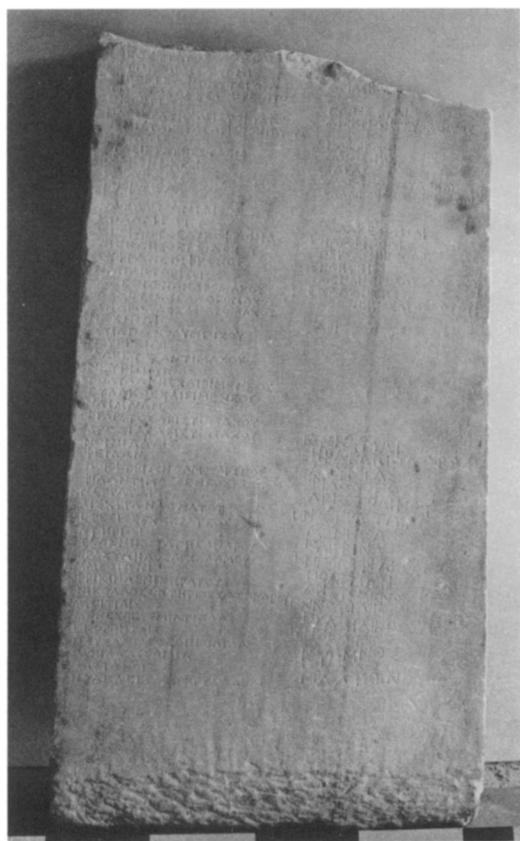
g. A 146



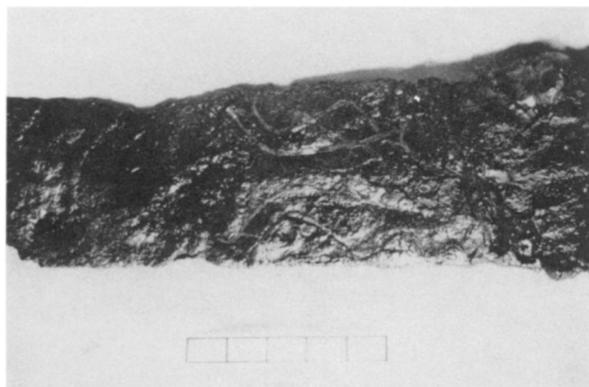
a. I 76



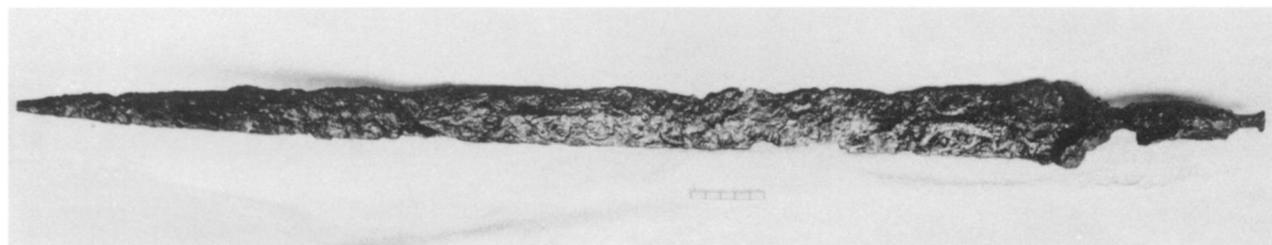
b. I 75



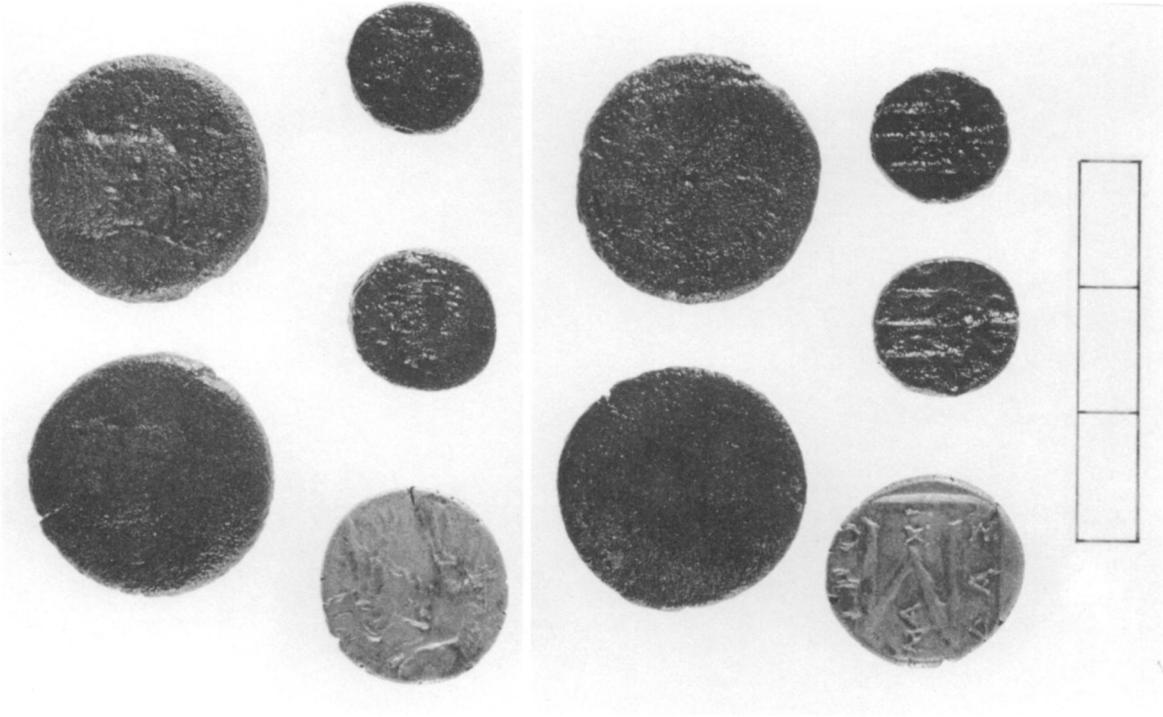
c. I 85



d. IL 296, detail of handle



e. IL 296



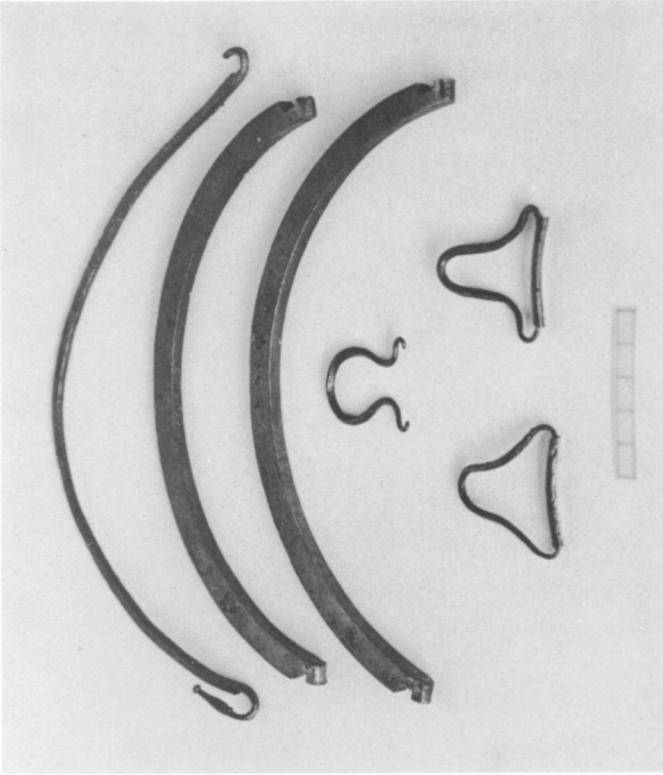
b. C 1287 C 1314
C 1288 C 1312 C 1313
(obverses above)



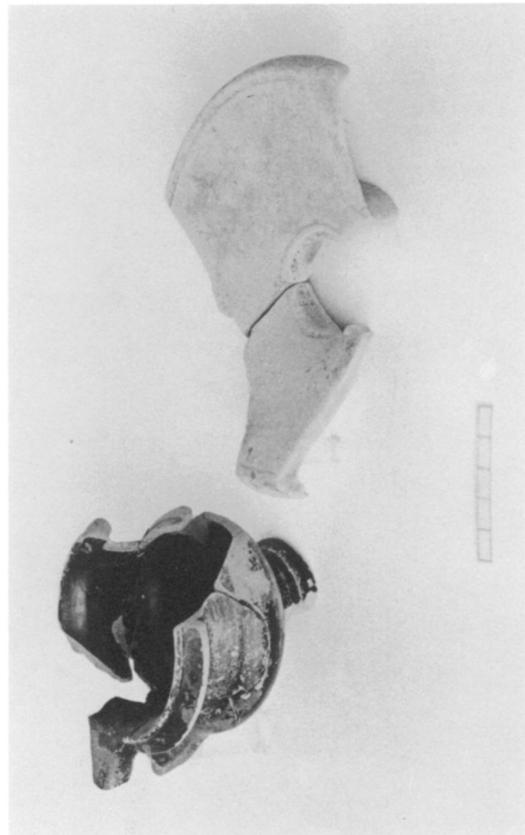
a. P 386 P 389 P 382 P 383 P 384 P 381



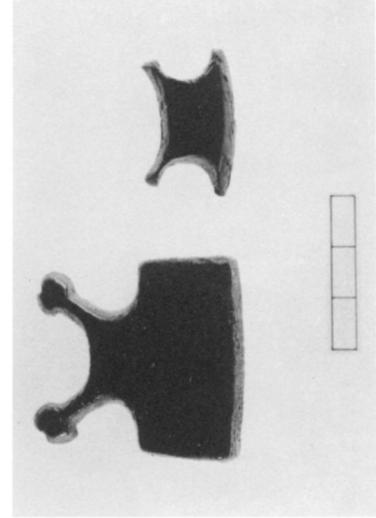
a. BR 652 BR 657 BR 650 BR 656 BR 651



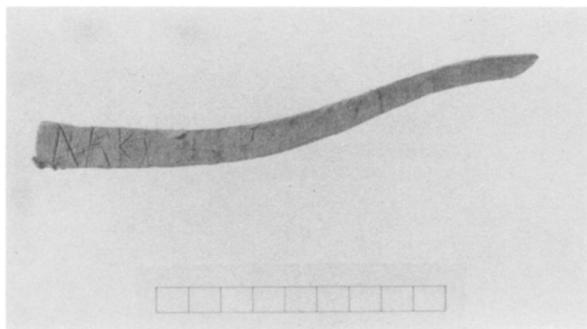
b. BR 654
BR 653a
BR 653b
BR 647
BR 655 a,b



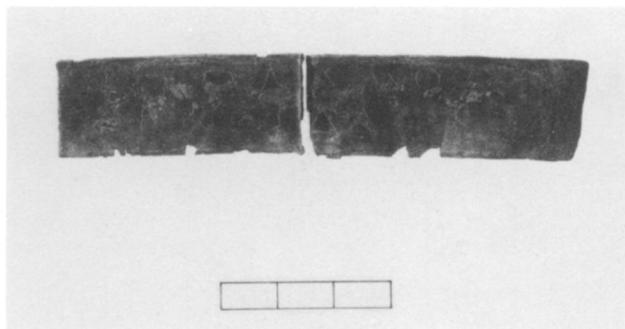
c. P 385



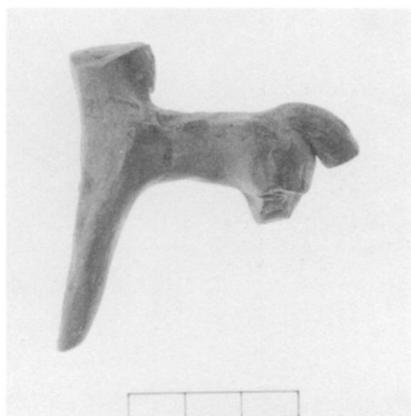
d. BR 584 BR 646



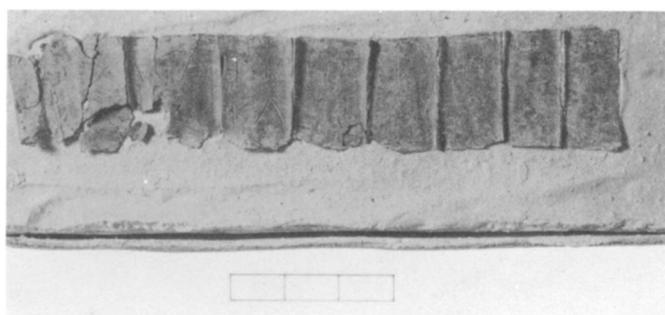
a. IL 242



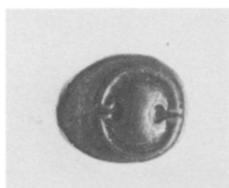
b. IL 260



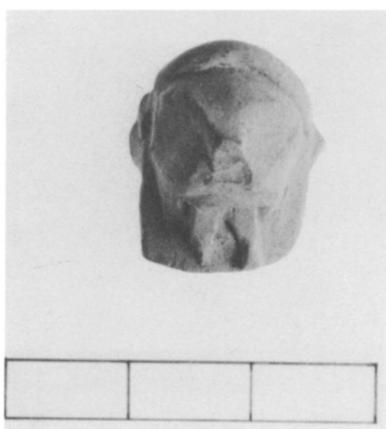
c. TC 90



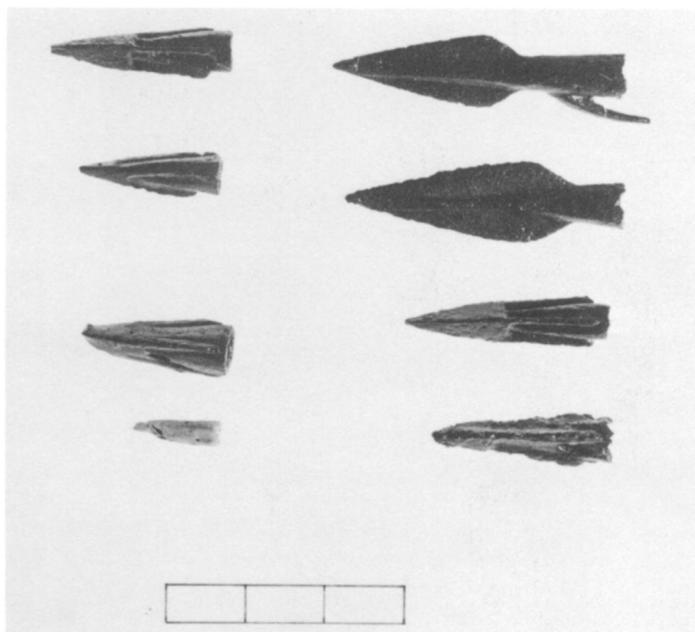
d. IL 259



e. C 1177
(obverse above)
scale 3:2



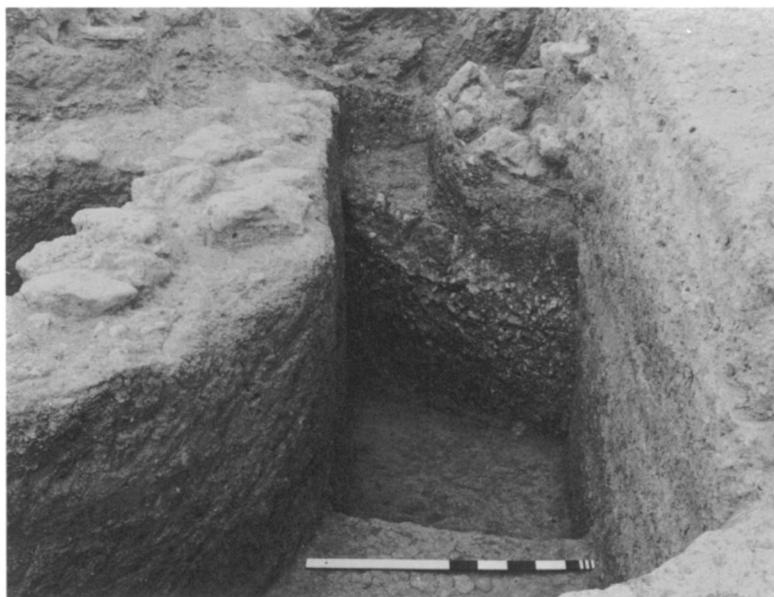
g. TC 95



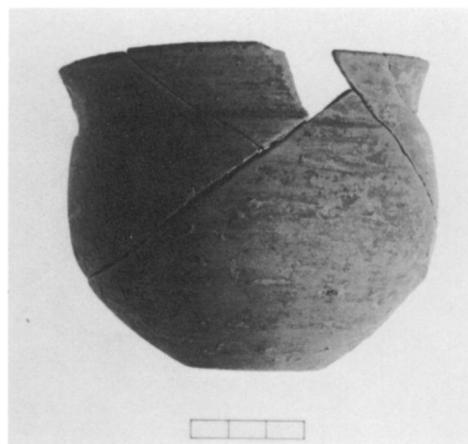
f. BR 519
BR 524
BR 642a
BR 642b

BR 517
BR 518
BR 520
BR 525

PLATE 26



a. Test trench in K 14. Prehistoric wall from north



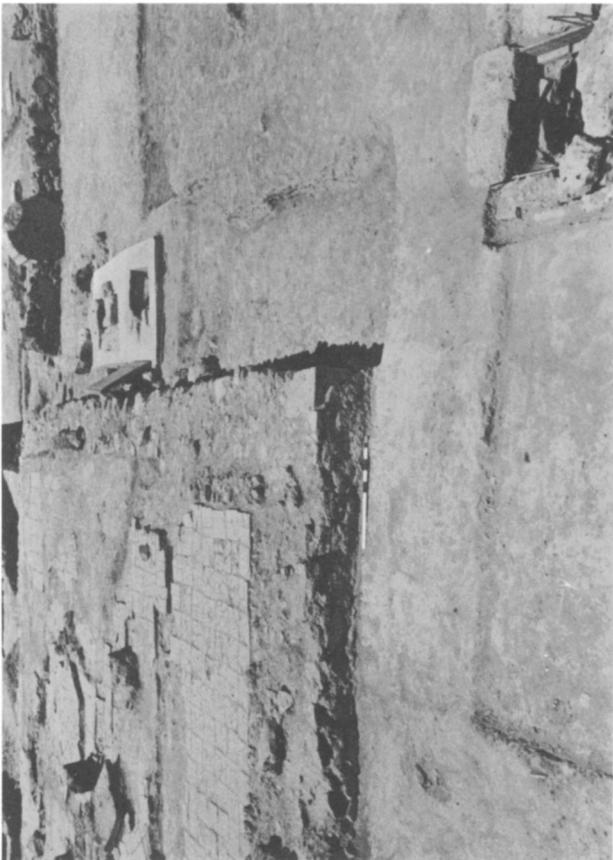
b. P 380



c. "Peribolos wall" from south



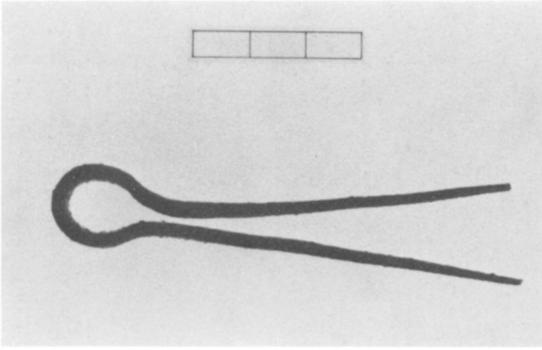
d. "Peribolos wall" from north



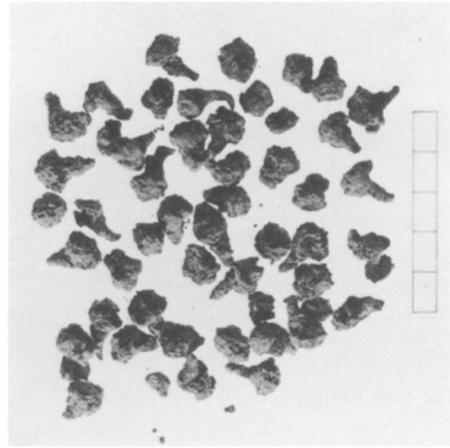
a. Section L 17 and Baptistry, from east



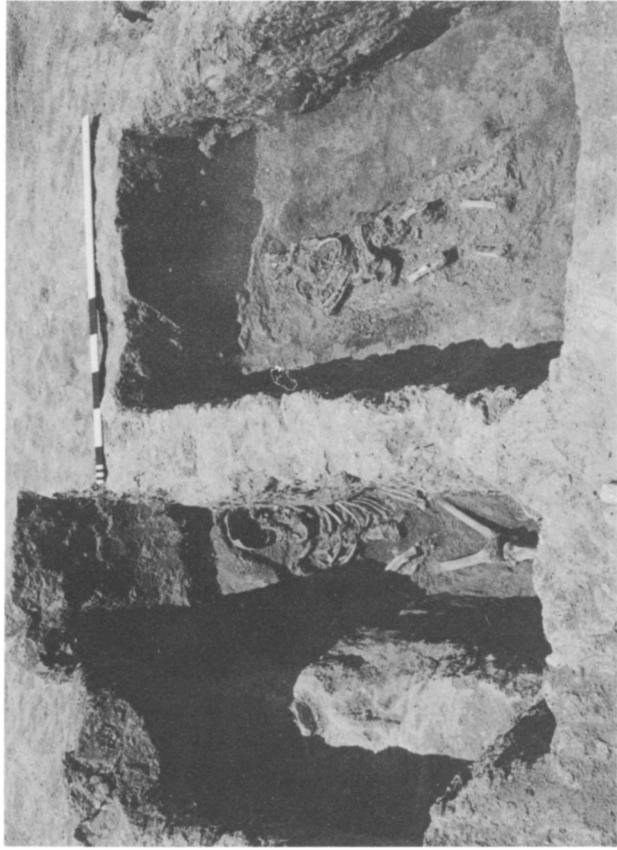
b. L 31



c. BR 508



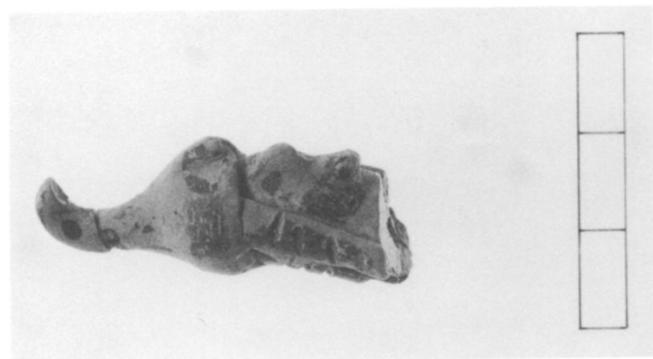
d. IL 292



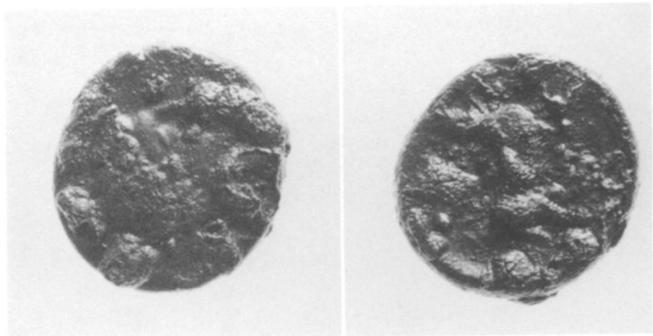
e. Early Christian graves in Section K 17, from east



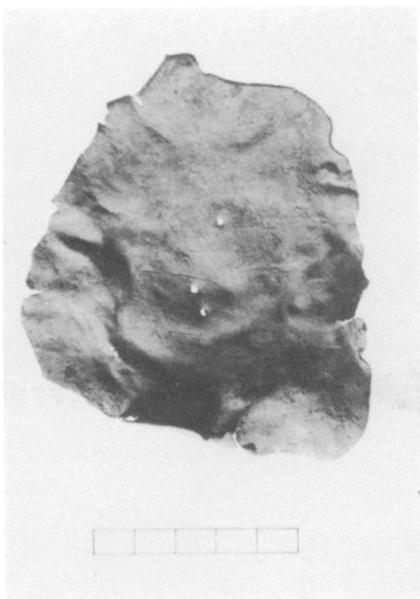
a. TC 88



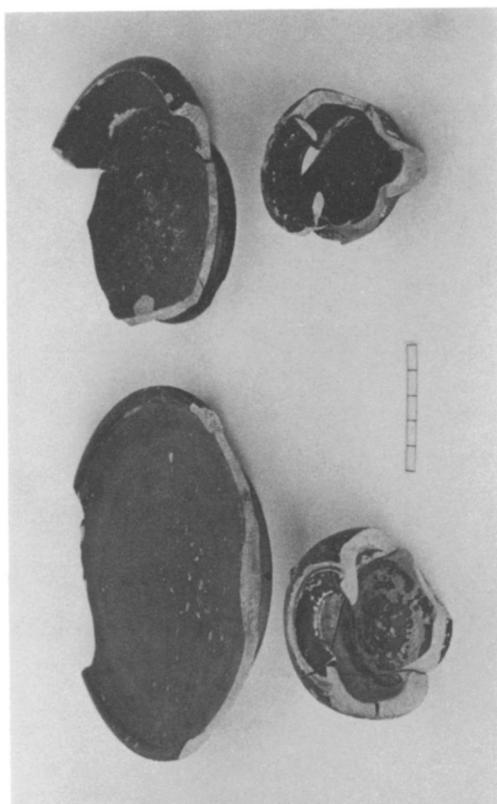
b. TC 91



c. C 1321
(obverse above)
scale 9:4



d. IL 279



e. L 39 P 370 P 369 L 40



f. Section K 17 from south



a. Well M 17:2 with A 138 *in situ*, from west



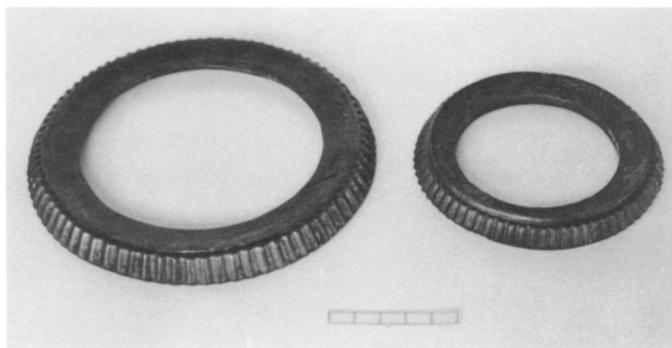
b. A 138



c. AT 65



d. P 332	P 358	P 377	P 376
P 375	P 393	P 357	P 359



e. BR 529

BR 639



a. Well L 17:2 from south



b. Baptistry from south



c. P 399 P 398

P 401a, b



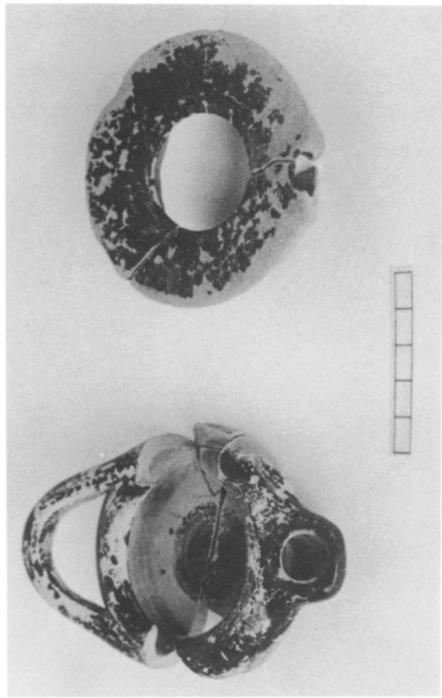
d. AT 74



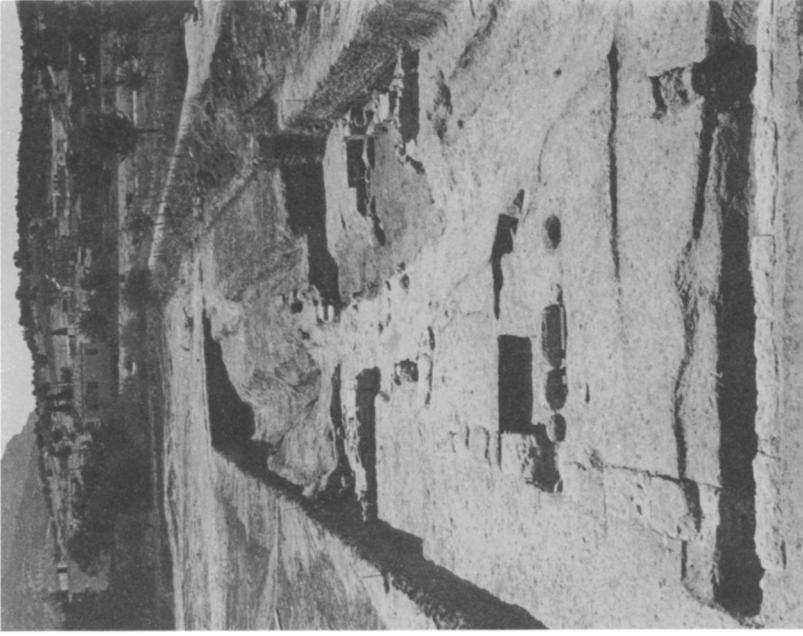
a. AT 75



b. P 397 P 402



c. L 45 L 46



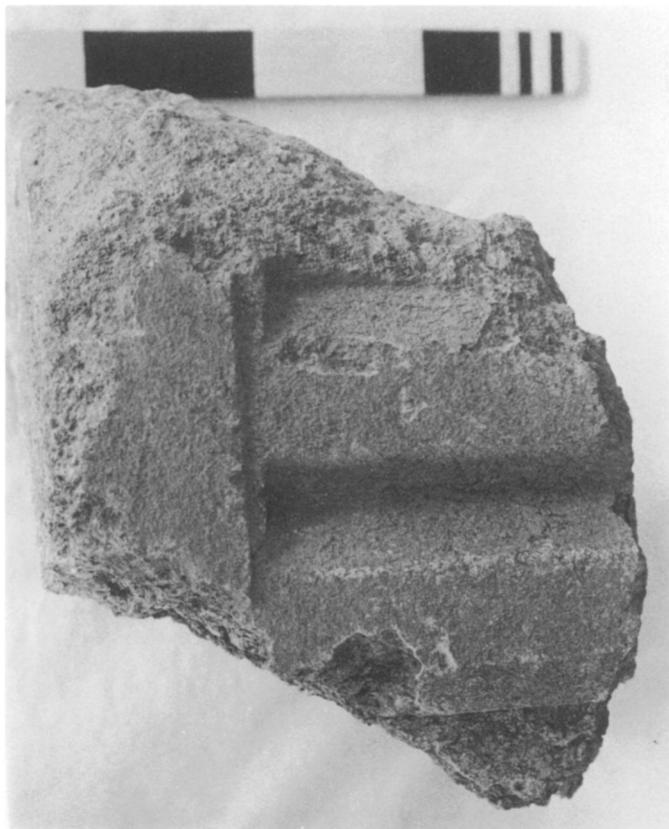
d. Sections L 20 and K 20, from east



e. A 152



a. ST 382



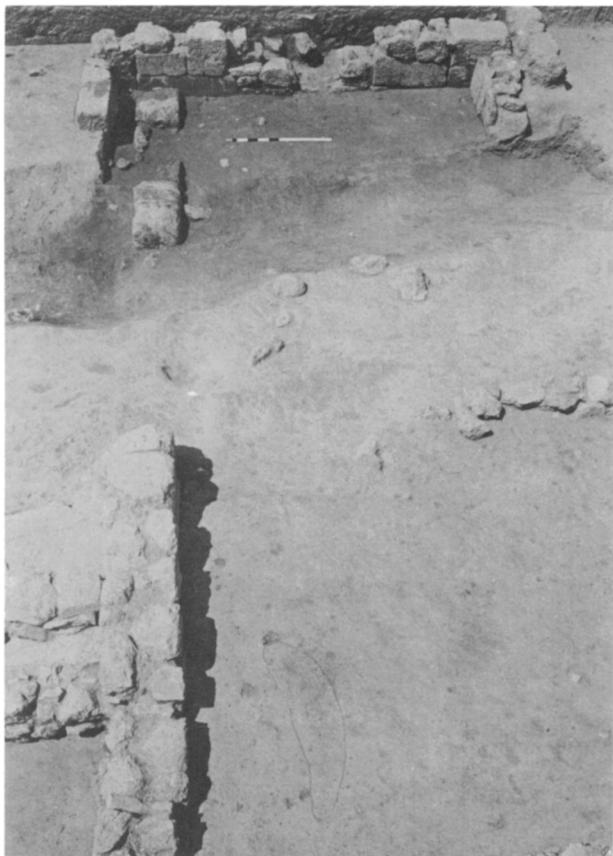
b. A 149



c. Building in northeast corner of L 20, from east



d. P 337



a. Building in northwest corner of L 20, from south



b. Building in northwest corner of L 20, from north



c. P 405



e. P 404



d. P 408



a. Stadium from south



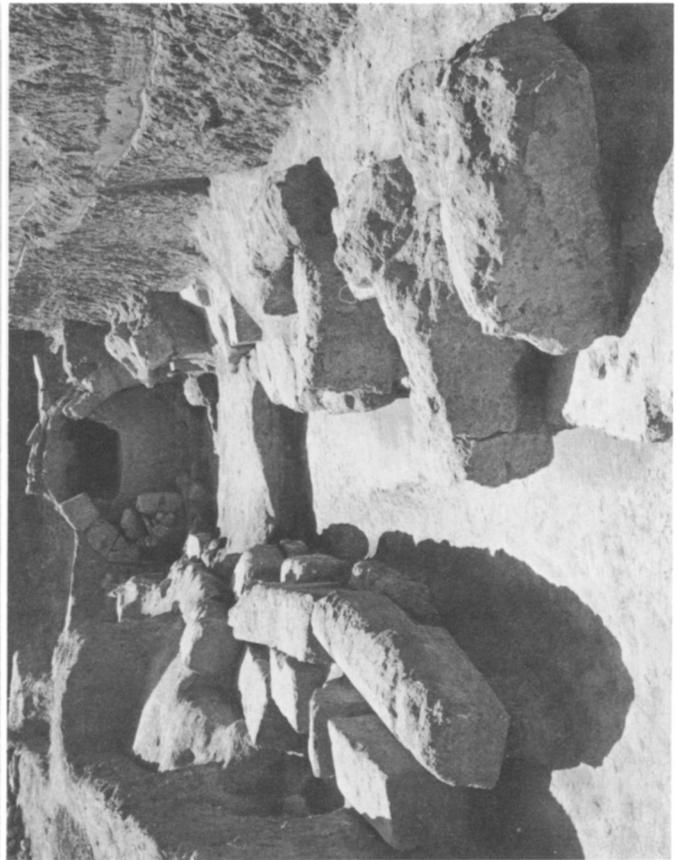
b. Stadium from east



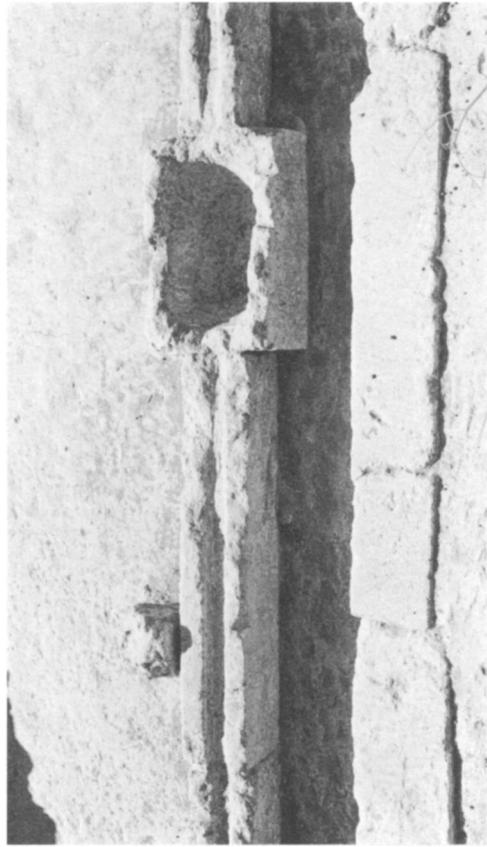
a. Stadium from north



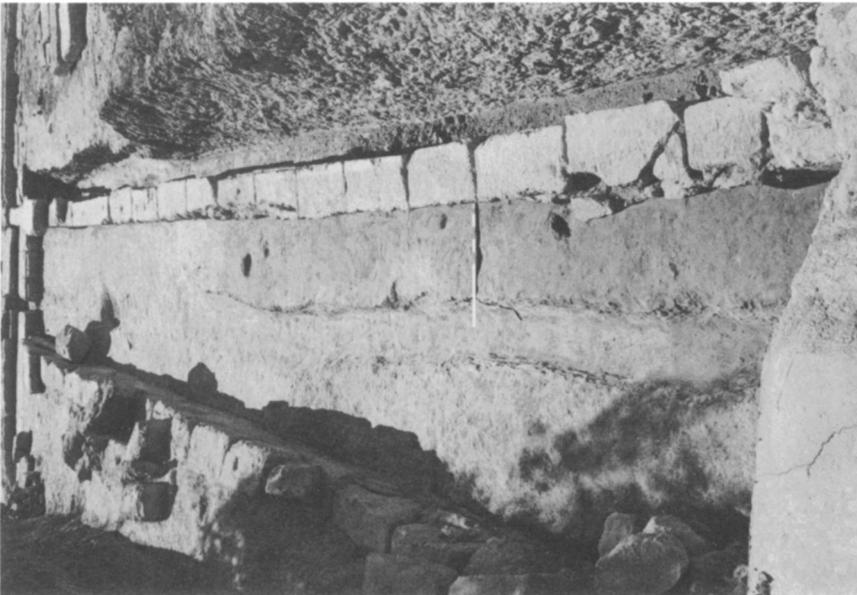
b. Eastern 300-foot marker of stadium track, from west



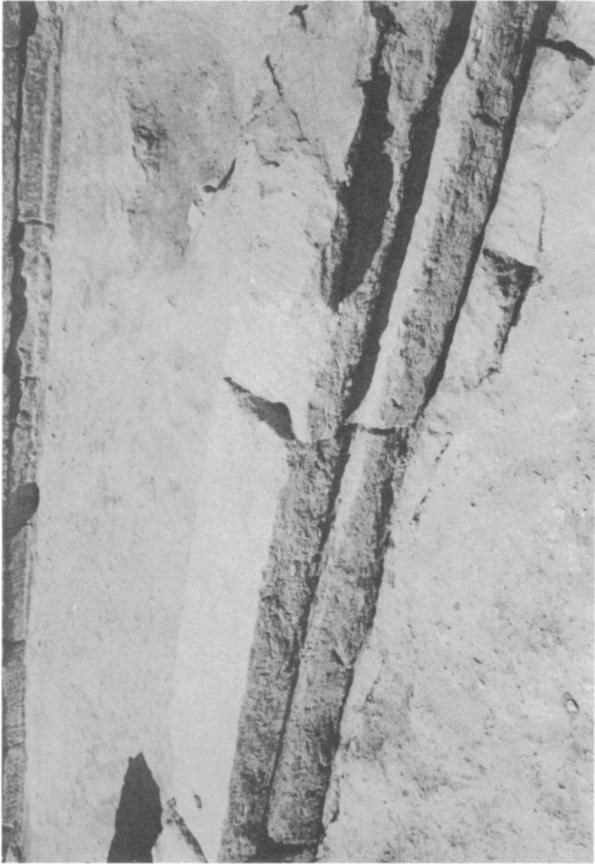
c. Stadium entranceway and tunnel, from east



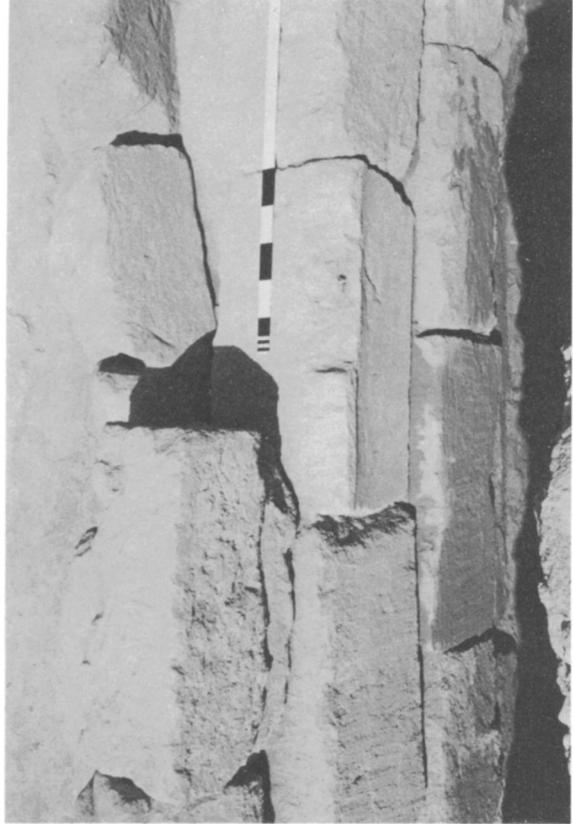
d. Western 300-foot marker of stadium track, from west



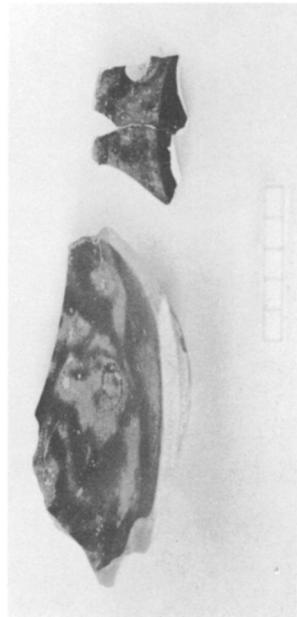
a. Stadium entranceway with fallen blocks removed, from west



c. Re-used blocks (B-14, B-15) in south wall of stadium entranceway, from south

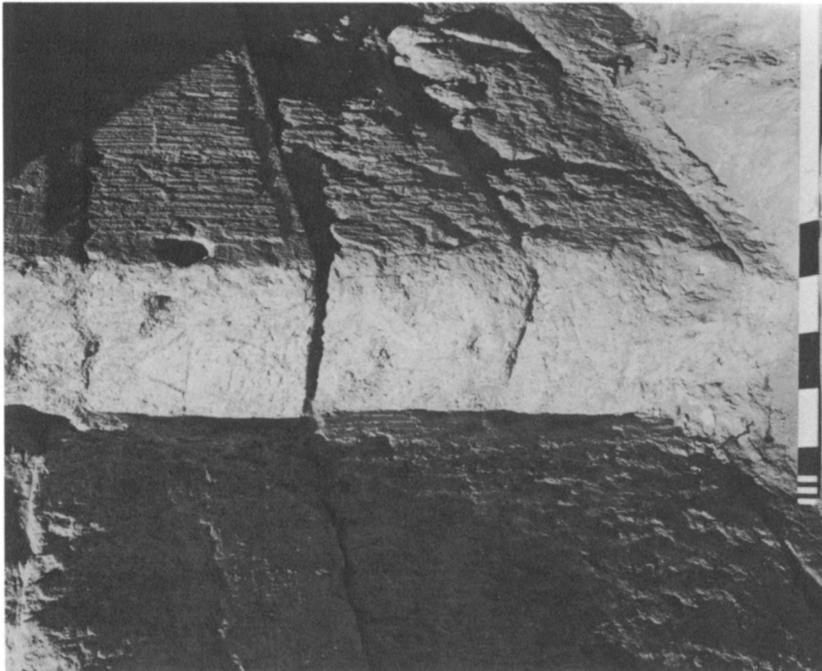


d. Re-used block (C-6) in south wall of stadium entranceway, from south

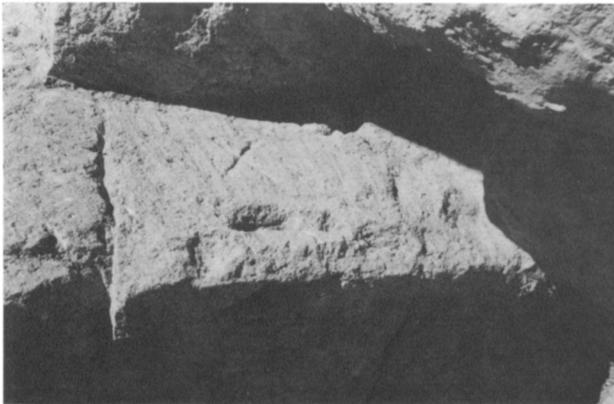


b. P 364

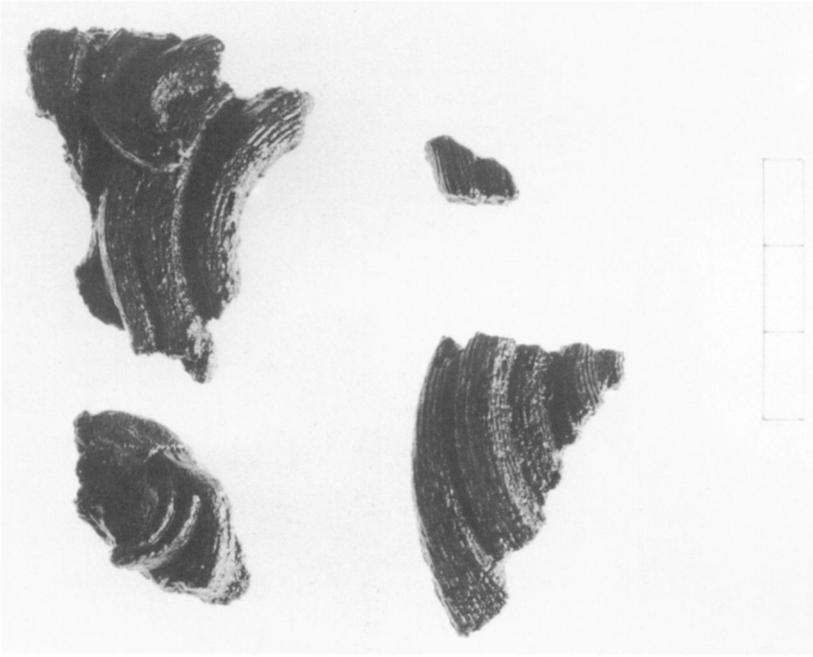
P 355



a. South wall of eastern end of tunnel, from east



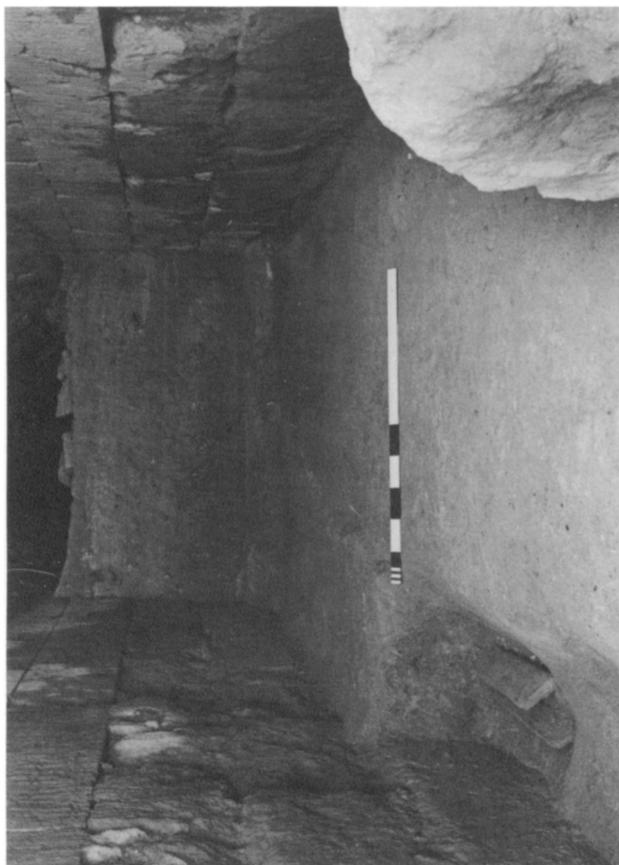
b. North wall of eastern end of tunnel, from east



c. BR 602 BR 553
BR 596 BR 607



d. P 394 P368



b. Interior of tunnel during excavation. Water channel *in situ*



c. P 365

P 360 L 38 L 36



a. C 1246

C 1244



a. I 59



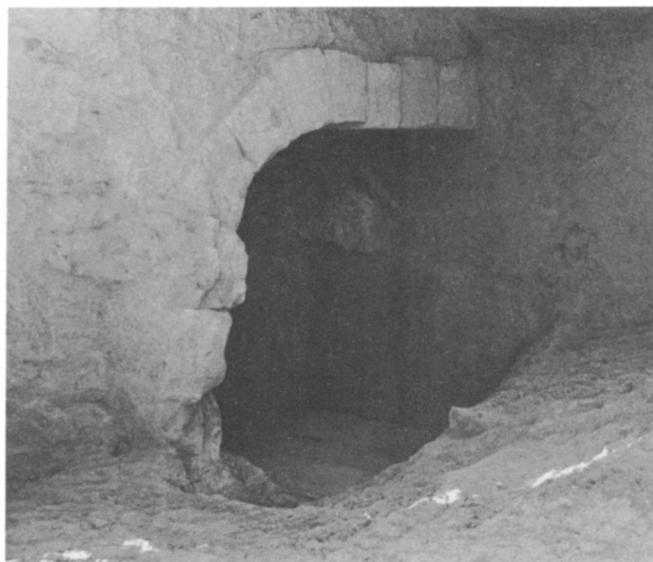
b. I 52



c. I 63



d. I 68



e. Western end of stadium entrance tunnel, from west