

OLD PHRYGIAN INSCRIPTIONS FROM GORDION: TOWARD A HISTORY OF THE PHRYGIAN ALPHABET¹

(PLATES 67-74)

RHYS Carpenter's discussion in 1933 of the date of the Greek takeover of the Phoenician alphabet² stimulated a good deal of comment at the time, most of it attacking his late dating of the event.³ Some of the attacks were ill-founded and have been refuted.⁴ But with the passage of time Carpenter's modification of his original thesis, putting back the date of the takeover from the last quarter to the middle of the eighth century, has quietly gained wide acceptance.⁵

The excavations of Sir Leonard Woolley in 1936-37 at Al Mina by the mouth of the Orontes River have turned up evidence for a permanent Greek trading settlement of the eighth century before Christ, situated in a Semitic-speaking and a Semitic-writing land—a bilingual environment which Carpenter considered essential for the transmission of alphabetic writing from a Semitic- to a Greek-speaking people. Thus to Carpenter's date of *ca.* 750 B.C. there has been added a place which would seem to fulfill the conditions necessary for such a takeover, perhaps only one of a series of Greek settlements on the Levantine coast.⁶ The time, around 750 B.C., the required

¹ The fifty-one inscriptions presented here include eight which have appeared in Gordion preliminary reports. It is perhaps well (though repetitive) that all the Phrygian texts appear together in one place so that they may be conveniently available to those interested. A few brief Phrygian inscriptions which add little or nothing to the corpus are omitted here. As this is an epigraphical and alphabetical study little attempt is made at interpretation; that is work for the philologists and linguists. With a photograph and a drawing available of almost every inscription they may wish to differ from the readings offered here; at least the texts will be clearly available. For the drawings of the inscriptions I am indebted to Robert D. Barnes, to Helen Trik, and to Maria K. Shaw.

² *A.J.A.*, XXXVII, 1933, pp. 8 f.

³ A. N. Stillwell, *A.J.A.*, XXXVII, 1933, pp. 605 f. (sherds with graffiti from Corinth); C. W. Blegen, *A.J.A.*, XXXVIII, 1934, pp. 10 f. (graffiti from Mount Hymettos); B. L. Ullman, *ibid.*, pp. 359 f.

⁴ The Corinth sherds and graffiti have been dated as late as the sixth century: Carpenter, *A.J.A.*, XLII, 1938, pp. 58 f., and R. S. Young, *Hesperia*, Supplement II, p. 227. Most of the graffiti from Mount Hymettos are scratched on subgeometric cups of types which continued to be made down to the middle of the seventh century and later.

⁵ L. H. Jeffery, *The Local Scripts of Archaic Greece*, 1961, p. 12 footnote 4 lists the dates of the takeover offered by many scholars, from 1200 to 750-700 B.C. A number of these, however, are taken from publications which appeared prior to 1933. But Carpenter remains alone in the list with his dating of 750-700.

⁶ See L. H. Jeffrey's discussion, *op. cit.*, pp. 10 f.; T. J. Dunbabin, *The Greeks and Their Eastern Neighbours*, 1957, pp. 59 f.

bilingual environment, and the place which meets the requirement, have been persuasively suggested by scholars following Carpenter's lead.⁷

For the date and place of the takeover the evidence of the Asianic alphabets—Carian, Lycian, Lydian, Phrygian—has not been adduced, or even considered, in these discussions. All of these alphabets have been regarded as direct offshoots of the Greek,⁸ the Carian and Lycian with additions taken probably from the Cypriote syllabary. And since no inscription which could be dated earlier than the seventh century in any of these scripts was known, these "derivative" Asia Minor alphabets were considered irrelevant to the much earlier time of the formulation of their putative Greek ancestor. Also, since the languages which they express were (and continue to be) unknown, they remained mere symbols for sounds most of which could be identified but from which in combination little meaning could be derived. Inscriptions in Greek-like scripts, some to be dated to the sixth and perhaps even the seventh century, the majority to the fifth and fourth, aroused greater interest among scholars of linguistics and among Orientalists than among Classical scholars. For the last the derivation of the Asianic scripts from the Greek has been taken for granted, and the method of their transmission has been assumed to have been by percolation from the Greek settlements of the Asia Minor coasts to the natives of the hinterland.

If we put credence in the tales of Herodotos (I, 14) and of Pollux (IX, 83) that King Midas dedicated a throne at Delphi, and that he married Demodike the daughter of Agamemnon King of Kyme, we have evidence for contact, casual or regular, between eighth-century Phrygia and the Greek settlements of the west coast. From Aeolis, then, or from Ionia, a Greek alphabet might have come to Phrygia. But the facts do not seem to bear this out: the Old Phrygian alphabet seems to have been neither Aeolic nor Ionic. Moreover the earliest inscriptions we possess from Aeolis are graffiti on sherds from "Larisa on the Hermos" dated perhaps to the seventh century;⁹ and the earliest from Ionia is an abecedarium scratched on a pot found at the Heraion in Samos, which dates from 660 B.C. or thereabouts.¹⁰ The first Phrygian inscriptions are very considerably earlier.

In any case an early Greek alphabet to reach Phrygia from the west coast must have passed through Lydia, a region already in possession of an alphabet of its own certainly by the later seventh century, as is attested by the electrum coins which bear the legend read as *WALWESH* and interpreted by some as the name of Alyattes; but in any case for other reasons attributed to his time.¹¹ The *digamma* or *waw*

⁷ See, however, the review of Jeffery's book by M. Guarducci, *Archeologia Classica*, XVI, 1964, pp. 122 f.

⁸ David Diringer, *The Alphabet*, revised edition 1949, pp. 462 f.; Jeffery, *op. cit.*, p. 374, addendum to p. 21 (Phrygian); Dunbabin, *op. cit.*, p. 67 (Phrygian).

⁹ Jeffery, *op. cit.*, pp. 359 f., pl. 70, 1a-b.

¹⁰ *Ath. Mitt.*, LXXIV, 1959, pp. 23-27, fig. 3, Beilage 57.

¹¹ See Buckler, "A Lydian Text on an Electrum Coin," *J.H.S.*, XLVI, 1926, pp. 36 f.; also

twice used on the electrum coins of Lydia can hardly have come from Ionic, nor is it attested for Aeolic; but it is common in Phrygian. There is no reason, moreover, to assume that the Lydians did not have an alphabet in the earlier seventh or even in the eighth century. We hear of alliances of King Gyges (who died fighting the Kimmerians *ca.* 652 B.C.) with Ashurbanipal of Assyria, and later with Psammetichos I of Egypt; these alliances must have been negotiated through the use of writing of some sort. Lydia, landlocked between Greek Ionia and Aeolis in the west and Phrygia to the east, should have taken either a Greek or a Phrygian alphabet as its model. Its lack of *heth* and *teth* (*eta* and *theta*), its use of *digamma-warw*, and its inclusion of the arrow-like sign ↑ point eastward rather than westward. For the *f* sound Lydia invented a figure-eight symbol of its own instead of borrowing the Greek *phi*. Alphabetically Lydia lay as a barrier between the Greek-writing cities of the west coast and the Phrygian-writing region on the plateau to the east.

The Phrygian alphabet, moreover—if the interpretation of the sign Υ as *chi* is correct¹²—, would be related rather to the West Greek or “red” alphabet than to Aeolic or Ionic.¹³ Among the Asianic alphabets the same sign, Υ, is assigned the value *kh* in Carian, *k* in Lycian, *e* in Lydian.¹⁴ Phrygian, Lycian, and Carian should therefore be equated with the West Greek “red” alphabetic group rather than with their nearest neighbors, the Ionians and Aeolians of the west coast.

That Phrygia in the time of King Midas made its contacts with the Mediterranean rather in the south than in the west has been suggested by Schefold.¹⁵ Off the southwest coast of Asia Minor lies Rhodes, in those days a busy center of trade and later a user of the West Greek or “red” alphabet. Rhodes, too, shows evidence of literacy perhaps by the end of the eighth century in an inscribed subgeometric cup.¹⁶ This uses three times the *qoph* or *koppa* sign which occurs not at all (unless, with Ramsey, in the form ϕ) in Phrygian or in Lycian or in Lydian; in Carian the sign occurs but is assigned a different value. The Rhodian inscription uses also the sign

Robinson, *J.H.S.*, LXXI, 1951, pp. 163 f.; Friedrich, *Kleinasiatische Sprachdenkmäler*, p. 123, Lydian text No. 52.

¹² Υ occurs once in the Old Phrygian inscriptions published hitherto, No. 7b, ΛAYET. This has been equated with ΔAKET which occurs often (though more frequently in the form ΑΔAKET) in Late (time of the Roman Empire) Phrygian inscriptions. The interpretation (*psi* sign with *chi* value) for Phrygian is possibly correct; there are now three more occurrences of the form in Old Phrygian, Nos. 37, 40, and 72 below. But see below, discussion of No. 72.

¹³ The Aeolic alphabet seems to have had normal Ionic values for the signs added after *upsilon*: χ = *chi*, Ψ = *psi*. See Jeffery, *op. cit.*, pp. 360 f. The earliest occurrence is in a graffito from Naukratis, of about the mid-sixth century.

¹⁴ J. Friedrich, *Kleinasiatische Sprachdenkmäler*, Schrifttafel 1-2, pp. 156-157; Diringer, *op. cit.*, p. 463, fig. 204. The sign occurs in Lydian, where it is given the value ē.

¹⁵ *Istanbuler Forschungen*, XVII, p. 133.

¹⁶ Bought in Rhodes, provenience unknown. See Jeffery, *op. cit.*, p. 347, pl. 67,1. The writing is retrograde.

X, followed perhaps by a *sigma*, in the sense of *xi*. It thus seems doubtful that Caria, the nearest mainland region opposite Rhodes, and which used an alphabet supplemented by syllabic signs taken probably from Cyprus, got its alphabet from Rhodes or transmitted it (minus the syllabic accretions) inland to Phrygia. The earliest and by far the most numerous Carian inscriptions are the scribblings found in Egypt of Carian mercenaries who served in the armies of Psammetichos I and II, from the middle of the seventh to the early sixth century B.C. The Carians seem to have had their mixed alphabetic and syllabic way of writing already by the middle of the seventh century. Just as Lydia lay like a barrier between Phrygia and the Greek west coast so too Caria opposed a barrier between Phrygia and Rhodes, the only possible source for a West Greek alphabet in the southwest. Lycia seems hardly likely to have taken its alphabet from Rhodes and transmitted it to Phrygia. The great majority of Lycian inscriptions are local and sepulchral, carved either on the rock façades of tombs, on grave pillars, or on sarcophagi; and there is no reason to date any of them earlier than the sixth century.

A survey of the Asianic alphabets in the present state of our knowledge might suggest that the Carians, by the middle of the seventh century writing in a mixed alphabetic and syllabic script, learned to write rather from Cyprus than from Rhodes. Lycian, which adds only a few signs taken from the syllabary as variant vowel signs (long *a* and long *e*) may very well have been adapted from the neighboring (and earlier) Carian. Lydia lay between the Greek cities of the coast and Phrygia on the plateau to the east; it probably was influenced by both.

Phrygia has now come forth with six alphabetic inscriptions to be dated to the middle and the second half of the eighth century. The alphabet in which they are written demonstrably cannot have come to Phrygia from the Aeolic or the Ionic cities of the coast; nor was it borrowed from Rhodes by way of Caria in the southwest. The source can have been only in the southeast, in Cilicia and the "crescent of the Levant coast" where Greek and Semite were living in close daily contact.

This region was as accessible to Phrygia by overland routes as it was to Greece by sea; and, as has been suggested above, it was a bilingual area suitable for the take-over and adaptation of a Semitic alphabet by peoples who spoke other languages. The Phrygians got their alphabet not at second hand from the divergently developed scripts of Aeolis, Ionia, or Rhodes, but directly from the source of the takeover. While the Phrygian alphabet differs from the Greek scripts of Asia Minor in detail, it agrees in one fundamental innovation: the use of five vowels. These are the same vowels used in the Greek alphabets: *aleph*, *he*, *yod*, *ayin*, signs adopted from the Semitic script but representing Semitic sounds evidently superfluous to Greek (and Phrygian) phonology, and thus at hand and available to be used as signs for the vowels which lack in Semitic. Moreover, to these four a fifth was added, *waw-epsilon*, the first letter added to the Semitic alphabet, in Greek abecedaria tacked on at the end after

taw.¹⁷ Phrygian, then, represents the same stage as earliest Greek, a stage in which four vowels have been adapted and a fifth added. These alterations of the Semitic model must have been made at the place of the takeover, Al Mina or some other settlement (or settlements) on the North Syrian or Cilician coast. The resulting script was disseminated from there overland to Phrygia, by sea to the coasts and islands of Greece. The formulation of this alphabet, ancestral both to Phrygian and to Greek, may thus be assigned with some confidence to this area. Until the conquest of the west by Tiglathpileser III in 738 B.C. Cilicia and the Syrian coast should have been freely accessible to the Phrygians of the interior of Anatolia. After the conquest we have no evidence that communications were cut off, and they can hardly have been cut off completely. But in 717 B.C. we find King Midas pushing Pisiris of Carchemish to revolt from Assyria. Perhaps his chief motive was fear of a too-powerful neighbor across the Taurus Mountains; but there may have been other motives, among them a desire for free access to the Levantine coast. In any case our earliest Phrygian inscription (No. 29 below) almost certainly dates from before 738 B.C. The time for the formulation of an alphabet with five vowels, ancestral both to Phrygian and to Greek, must go back before 750, to the first half of the eighth century; the time for the start of its dissemination northward and westward to the years around 750 B.C.

After that the two alphabets diverged. Each filled the need for sounds not represented in the repertory of Semitic symbols by adding signs taken from other sources: the Greeks *phi*, *chi*, *psi*, *omega*, the Phrygians the sign ↑. In Phrygian the sign ϕ occurs once, evidently as an alternative for ↑; but it does not necessarily represent the sound *f* (see below, No. 25). The sign Ψ occurs several times, apparently with the value *kh*. Among the Gordion inscriptions it does not appear until the sixth century, perhaps by then under Greek influence. Both signs, ϕ and Ψ, occur (once each) on the rock monuments of Midas City, the so-called Midas Monument, and the Arezastis Monument. But there is good reason to date these too in the sixth century.

Old Phrygian inscriptions¹⁸ are few and usually brief. To date twenty-eight have been listed; they include two from the current Gordian excavations. The first

¹⁷ Unfortunately we do not as yet have any recognizable Phrygian abecedaria.

¹⁸ By Old Phrygian inscriptions are meant those written in the Phrygian alphabet and for the most part (since a few have been interpreted as being in Greek) in the Phrygian language. These would date from the eighth century until (probably) some time after the conquest of Alexander the Great. Inscriptions in the Greek alphabet (apart from painted inscriptions on imported Greek vases) begin to appear at Gordion in the fifth century, though influence of the Greek alphabet begins perhaps earlier. The Greek alphabet seems gradually to have replaced the Phrygian. The Late (or "New") Phrygian inscriptions date from the time of the Roman Empire, beginning (probably) in the second century after Christ. They are all sepulchral in character, mixed in language, and written in the Greek alphabet. They demonstrate that although the Phrygian *alphabet* had long since been displaced by the Greek, the Phrygian *language* lived on, at least as far as concerned sepulchral and religious formulae.

nineteen (Nos. **1-19**) were listed by J. Friedrich;¹⁹ these include all the inscriptions of the rock monuments in and around Midas City, four from the region of Alaca Höyük, the "Black Stone" of Tyana, and two graffiti from Gordion first published by the Koertes. In his 1941 article on Phrygian language and script²⁰ Friedrich added four more, Nos. **20-23**: a sherd with a graffito, from Boghazköy; new fragments of the Black Stone of Tyana; an unpublished seal in the collection of Herzfeld; and a clay plaque from Persepolis.²¹ Olivier Masson²² added four more, Nos. **24-27**, one a graffito from Pazarlı, one a sealstone from Boghazköy, and two new inscriptions from Gordion (Nos. **24** and **43**) which have appeared in preliminary excavation reports.²³ The newly-discovered rock inscription at Germanos in the region of Nallihan²⁴ was numbered **28** by its publishers.

To these we now add forty-nine Old Phrygian inscriptions recently recovered in the excavation at Gordion. The sequence of numbers assigned by Friedrich and Haas has been kept and continued, Nos. **29-77**. The new inscriptions are arranged in groups by date, with discussion of the development of alphabetical forms for each group. The dating is given for the most part by clear stratigraphical evidence; in a few cases by the type, decoration, and fabric of the pottery on which the graffiti have been scratched. The two inscriptions listed by Friedrich and Haas (Nos. **24-25**) take their places here with the groups in which they belong, out of numerical order.

CATALOGUE

No. **29**. Fig. 1; Pl. 67. I 336.

A.J.A., LXX, 1966, p. 276, pl. 73, fig. 22.

Found beneath the floor of the inner room of the Phrygian North Building, in a layer containing much early Phrygian pottery mixed with late Hittite. The floor of the North Build-

ing cannot have been laid down much later than the time of alterations made when the open square in front of the building was raised in level and paved with stone slabs: about 750 B.C. or perhaps earlier.

Fragment from the rim and shoulder of a

¹⁹ *Kleinasiatische Sprachdenkmäler*, Berlin, 1932, pp. 123-128.

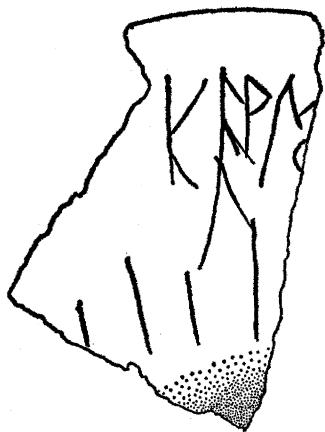
²⁰ Pauly, *R.E.*, Halbband 39, cols. 868-882.

²¹ These are all now illustrated by drawings in O. Haas, *Die Phrygischen Sprachdenkmäler*, Sofia, 1966, pp. 176-177, 184. There is some doubt as to whether the Herzfeld seal and the Persepolis plaque are Phrygian.

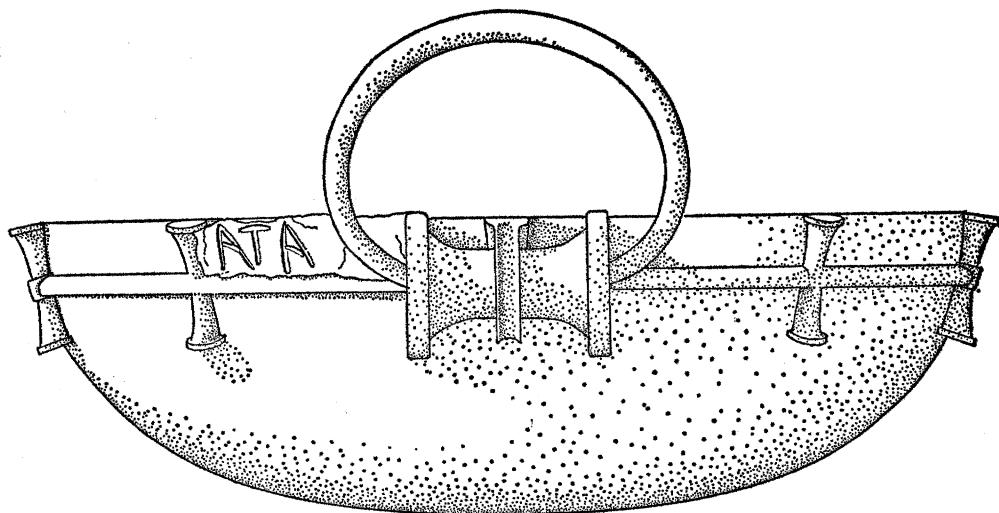
²² *Orientalia*, XXIII, 1954, pp. 441-442. The inscriptions listed by Masson as Nos. **26-27** are actually our Nos. **24** and **43**. The latter was found in 1953 and appeared in the excavation report for that year, though Masson referred to it only as an inscription found in 1953, without identification. We follow the numbering of O. Haas who evidently overlooked Masson's No. **27** (our No. **43**) and substituted for it No. **25** which was found in 1957 and included in the excavation report for that year.

²³ These are now illustrated in drawings in O. Haas, *op. cit.*, 183-184, 198-199.

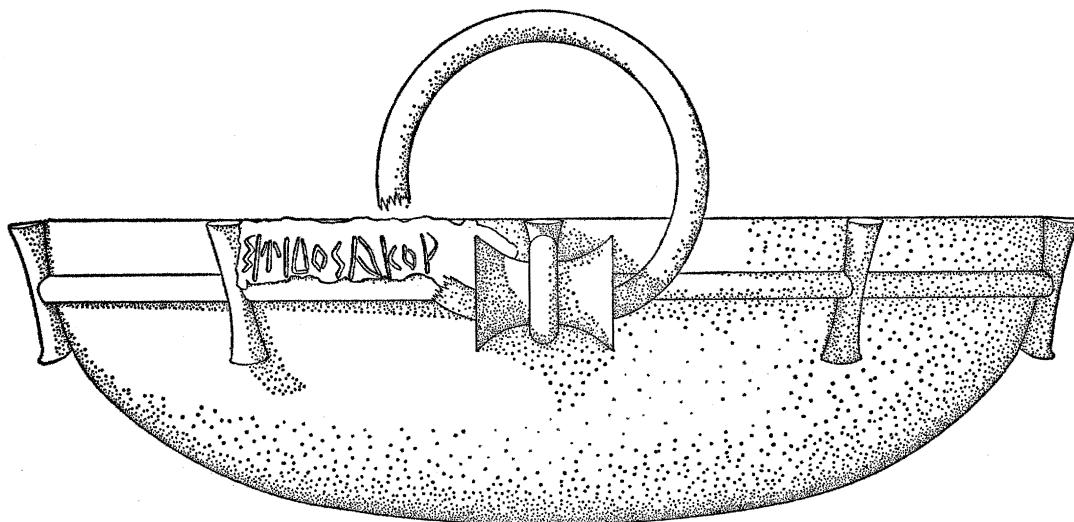
²⁴ L. Tuğrul and N. Firatlı, *A Phrygian Inscription of Germanos*, *Annual of the Archaeological Museums of Istanbul*, No. 13-14, 1966, pp. 236 f. No clear photograph or drawing is given, though a transcription of the text to modern letters is offered, which may be of greater use to the student of philology and linguistics than to the epigraphist.



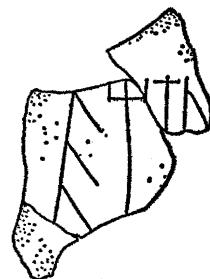
29



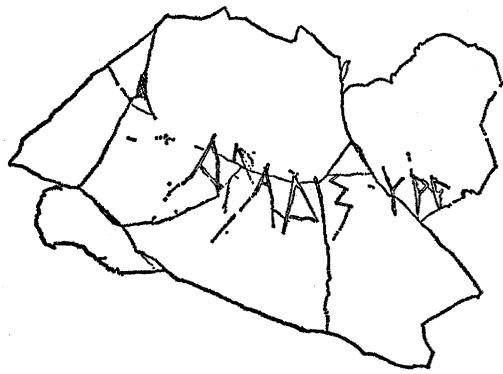
33



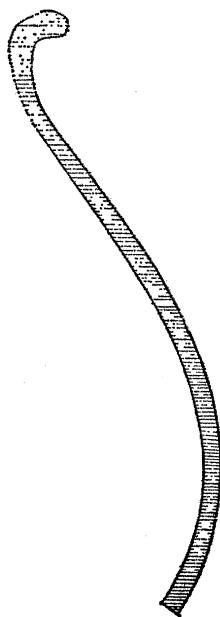
25



37



31



38

FIGURE 1 (1:2)

deep bowl. Coarse gray fabric, the surface summarily polished. Shape and fabric are probably earlier than the pottery found in the destruction levels of the city, though not certainly identifiable.

The inscription was scratched from left to right after the pot had been fired. The beginning is preserved, the continuation broken away. Three letters are preserved complete, the fourth may be mutilated, N or possibly M;

below it is half of a fifth letter, certainly O. We read

KERNQ (or possibly KERMO)

Four straight vertical scratches below the lettering may represent part of a numerical notation, or may be mere decorative scratching. The two diagonals of the *kaph* do not join the vertical at the same point; *he* is written with only three sloped horizontals, and is tailed below.

INSCRIPTIONS FROM THE TOMB BENEATH THE GREAT TUMULUS

Nos. 25 and 30-33

One (No. 30) scratched on the bottom of a bronze omphalos bowl; a second (No. 31) on the shoulder of a pottery dinos bowl; and three (Nos. 32-33 and 25) on smears of beeswax applied to the rims of bronze ring-handled bowls.

The tomb offerings included a bronze lion-headed situla which is the embodiment of similar situlae depicted in the reliefs of the palace of King Sargon II at Khorsabad; studded bronze fibulae of the type shown worn by King Urpallu on the rock relief at Ivriz; and a bronze cauldron with bull-head handle attachments similar to the one found at Altin Tepe, now in the Archaeological Museum at Ankara. The lion-headed situla should be dated in the time of Sargon's reign (722-705 B.C.), or slightly before; fibulae of the type worn by King Urpallu were in use over a long period but certainly during his lifetime in the third quarter of the eighth century (he became tributary to Tiglathpileser III of Assyria in 738 B.C.); and the Altin Tepe cauldron can now be dated to the third quarter of the eighth century through the later discovery in the tomb from which it came of a vessel with an inscription of Urikki King of Cilicia *ca.* 740-732 B.C., dating the tomb to his reign or slightly later.²⁵ The bull-head cauldron type can be carried back to the second quarter of the eighth century by an inscription of Argisti I (*ca.* 786-764 B.C.) on a bronze bell found in a tomb at Alishar on the Iranian bank of the Araxes River together with a bull's head attachment from a cauldron, now in Leningrad.²⁵

Many of the bronzes from the Gordion tomb show damage and repairs, the damage suffered no doubt during a period of use in the palace before they were placed in the tomb. Some (as the cauldrons) must have been made as early as the third quarter of the century, if not earlier. The inscriptions, on the other hand,—three on wax, one on a pottery vessel—were probably written at the time of the closing of the tomb, though the fifth, scratched on bronze, may have been made earlier. That

²⁵ See M. N. van Loon, *Urartian Art*, Istanbul, 1966, pp. 104 f.; Steinherr, *Anatolia*, III, 1958, pp. 97 f.

the tomb was closed before the destructive raid of the Kimmerians (*ca.* 690 B.C.) seems self-evident; so richly furnished a tomb, covered by a mound of such vast dimensions, belongs to a period of prosperity, not to one of adversity. None of the objects found in the tomb, moreover, shows any trace of burning from the holocaust which destroyed the palace; their counterparts which were still in use at the time of the destruction were found crushed and carbonized in the ruins of the palace. The accepted tradition holds that King Midas was on the throne at the time of the catastrophe and committed suicide as a consequence of it. The king buried in our tomb, then, cannot have been that Midas; whatever his name he must have been the immediate predecessor on the throne. Since the first mention of King Midas (Mita of Mushki) occurs in the Assyrian annals for the year 717 B.C. his predecessor must have been dead and buried by then. In consequence his tomb must have been closed before 717; we assume at some time between 725 and 717 B.C. The inscriptions must have been scratched within those time limits.

No. 30. Fig. 2. B 855.

Found on the floor of the tomb, fallen from a table.

A bronze omphalos bowl decorated in relief with a Phrygian petal pattern, one of fifty-four found in the tomb.

The inscription was lightly scratched with a very sharp point on the flat part of the bottom of the bowl, between the hollow of the omphalos and the bases of the petals. The writing was not detected until after the bowl had been cleaned in the Ankara Museum.

Inscription complete in four letters, left to right. We read

EIES

Both specimens of *he* have three sloping horizontal bars and are tailed at top and bottom; the terminal sibilant has seven bars.

No. 31. Fig. 1; Pl. 67. P 1825.

Black-polished spherical jar of gray ware. The vessel was found inside one of the large bronze cauldrons; it had evidently been full of food which on decomposition caused serious deterioration and flaking of the clay; many areas of the pot had disintegrated entirely.

The letters were incised on the shoulder of the pot after it had been fired. A sharp point was used which slipped in many places, prolonging

downward the vertical strokes of the letters. The fourth letter (*daleth*) appears however to have been tailed intentionally rather than by accident, though the bottom horizontal bar was added between the sloped bars at either side.

The beginning of the inscription is preserved, the end broken away. Nine letters, left to right; the top of a tenth unidentifiable letter at the edge of the break at the right. There is considerable space between the sixth and seventh letters, suggesting word division though there is no punctuation to indicate it. We read

AGADIS YRG

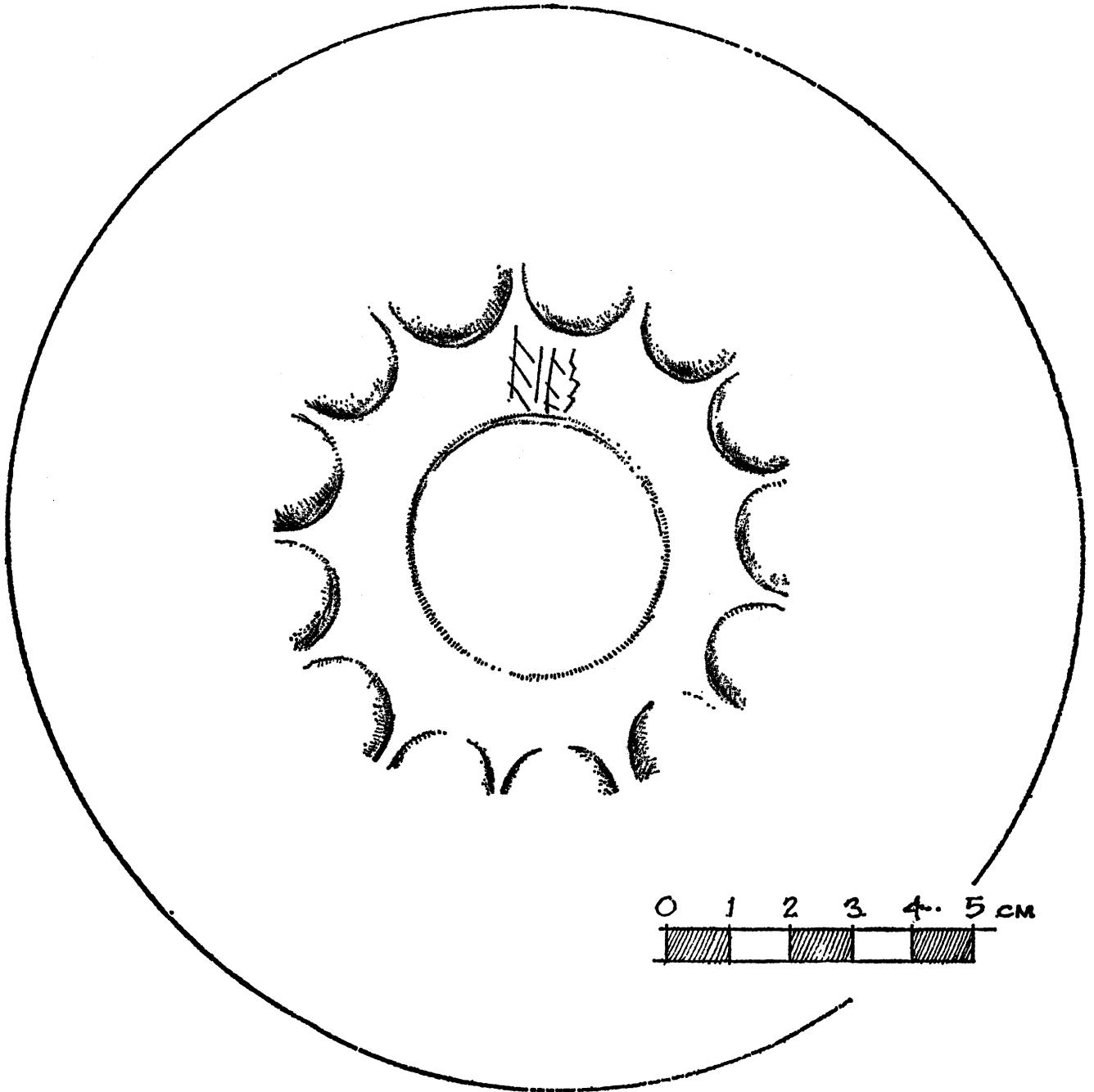
We take the second and the ninth letters to be the same, *gimel*, though *lamed* is possible. The sibilant has five bars. If we read the first word as AGADIS the (Hellenized) name of the Phrygian goddess AGDISTIS comes to mind: see Pauly, *R.E.*, Halbband 39, 1941, col. 870.

No. 25. Fig. 1; Pl. 68. B 818.

A.J.A., LXII, 1958, p. 153, pl. 25, fig. 21.

Numbered 25 in O. Haas, *Die Phrygischen Sprachdenkmäler*, p. 198.

A Phrygian bronze bowl with two ring handles suspended from half-bolsters at opposite sides. The bowl was found close to the south wall of the tomb; doubtless it had been



30

FIGURE 2

suspended by one handle from a nail in the wall, and had fallen. A band of bronze applied against the outside of the bowl below the rim extends outward from each handle attachment, held in place by vertical spools pinned to the wall. Between the rim and the applied band a smear of beeswax extends from the handle bolster to the first spool.

The letters were scratched on the wax surface with a fairly blunt point; the strokes are wide and rather shallow. The inscription is complete in eleven letters, written left to right. We read

SI†IDOZAKOR

The initial sibilant has five bars, the second (seventh letter) only three. Since plenty of space was available to prolong the second the differentiation must have been intentional. The writing is somewhat cursive on the soft wax surface: the bars of the third letter (discussed below) do not meet at the top; the *daleth* was made in two strokes by an L-shaped vertical crooked at the bottom, and a second vertical sloped in the opposite direction. The two *ayins* were made by opposed vertical lunates, and a similar lunate tangent to the vertical forms the two diagonals of the *kaph*. The *aleph* was made in three separate strokes.

No. 32. Fig. 3; Pl. 68. B 1040.

A Phrygian bronze bowl similar to No. 25. The bowl was found on the floor near the center of the tomb; it had evidently fallen when a table on which it rested collapsed. The letters scratched on a smear of beeswax beside one handle. The inscribing seems to have been done with a somewhat sharper implement than the one used for Nos. 25 and 33. Three letter

inscription, complete. The direction of writing is not certain, though probably from left to right since it begins near the left margin of the wax smear. We read

YZD

The *upsilon* made carefully in three separate strokes; the *zayin* tailed below. The *daleth* in three straight strokes, the corners slightly open.

No. 33. Fig. 1; Pl. 68. B 819.

A bronze bowl with a smear of beeswax beside one handle, similar to the two preceding. Found close to the east wall of the tomb, from which it had probably been hung by one handle.

The inscription complete in three letters cut (like those of No. 25) with a somewhat blunt point. The slope of the crossbars of the two *alephs* and the position of the writing at the left edge of the wax smear suggest that the inscribing was done from left to right. We read

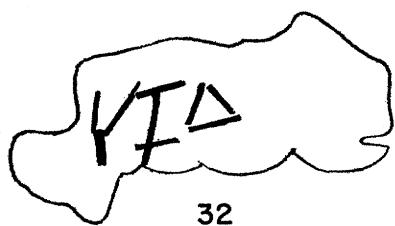
ATA

The word ATA may well be the Phrygian form for the Greek ATTIS (or ATYS), the companion and lover of the Great Goddess, Agdistis or Kybele. Presumably the inscriptions found in the Great Tumulus were made (particularly those on wax) at the time of the entombment of the king; the name of the god (and of the goddess, if the AGADIS of No. 31 may be equated with the Greek AGDISTIS) may well have been invoked for the protection of the dead man in the other world, perhaps with connotations of resurrection. In any case the word (or name) ATA occurs among the later graffiti of Gordion (Nos. 45-46 below, and perhaps in the Greek No. 46a). It was a term which lived on.

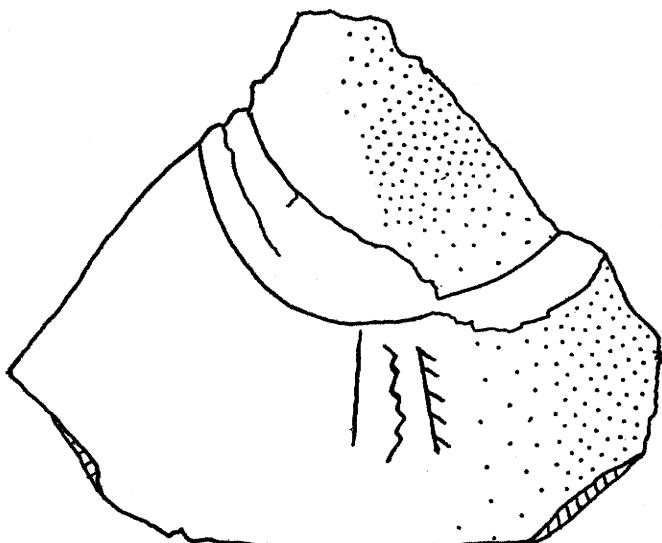
THE PHRYGIAN ALPHABET IN THE EIGHTH CENTURY

If we may pause to summarize at this point we shall find that our first six Phrygian inscriptions, securely dated to the eighth century, show between them twelve of the twenty-two North Semitic letters. One of these, *zayin*, is represented by two variant forms both of which are present in Early Phoenician and Moabite.²⁶ Lacking

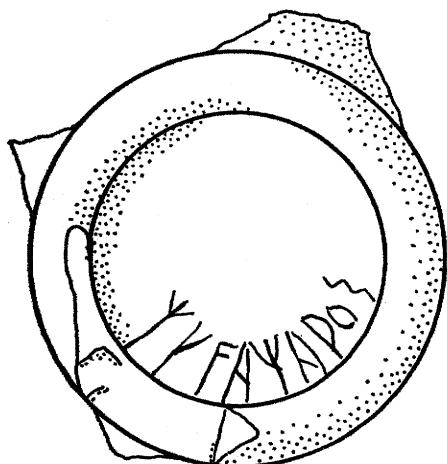
²⁶ We took the differentiation between the two sibilant forms in No. 25 to be intentional,



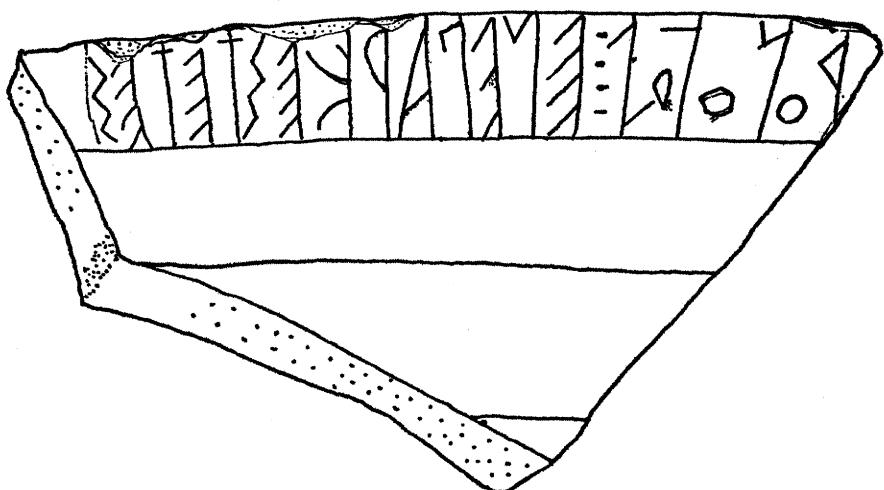
32



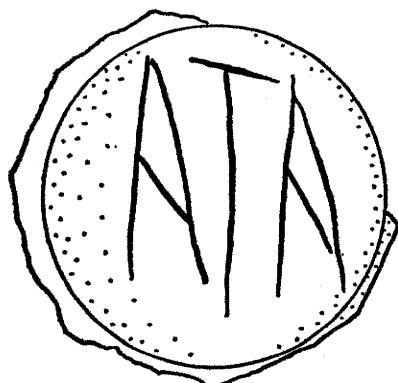
36



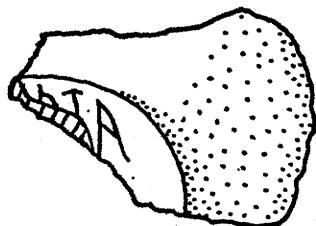
40



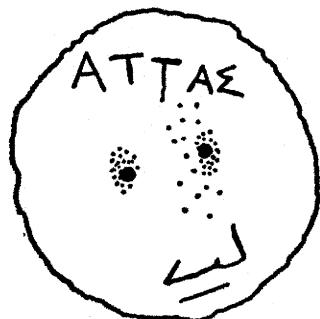
52



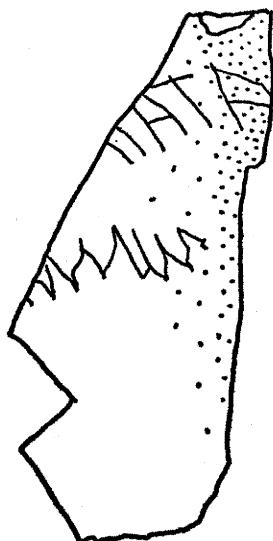
45



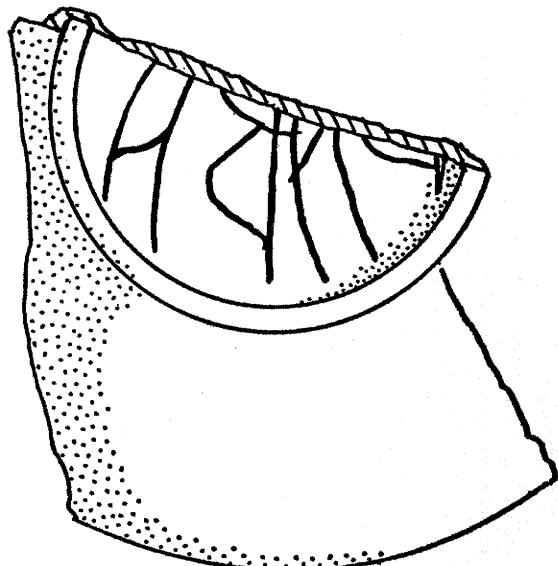
46



46A



47



48

FIGURE 3 (1:1)

are *beth*, *waw*, *lamed*, *mem*, and *pe*; we suppose they are missing through chance, since all are plentifully represented in other Old Phrygian inscriptions. *Heth*, *teth*, and *samekh* also lack, as does *qoph*; but since these never occur in Old Phrygian inscriptions we assume that they were not needed to express sounds in the Phrygian language, and that they had already dropped out of the alphabet from the beginning.²⁷

Other departures from a Semitic model (perhaps several variant models) are shared by Phrygian and by early Greek. *Aleph* (except in the unique case of the Dipylon jug for early Greek) has been stood on its feet instead of left lying on its side as in Semitic. *Aleph*, *he*, and *ayin* are used as vowels, supplemented by two more, the Semitic *waw* sign used for *upsilon*, and a straight vertical bar used consistently in Phrygian (less consistently in Greek) for *yod* or *iota*. This letter replaced the *yod* form of the Semitic, making it available for use as *waw*, whose sign had been pre-empted to make a vowel and in Greek placed at the end of the alphabet.²⁸ Like the *aleph* the sibilant form was stood up in Phrygian, rather than left lying prone. In Greek too those who chose *shin* for their sibilant (calling it *sigma* after the Semitic name for another letter, *samekh*) turned its sign to stand up. But it seems likely that whereas half the Greek world took the *sade* symbol for its sibilant and stood it on end (while the other half chose the *shin* sign and left it as it was without turning it), the Phrygians took a North Semitic *sade* already standing on end and from it developed their own multi-barred sibilant which appears already in the earliest inscriptions with five (No. 25) to seven bars (No. 30).²⁹

Common, then, to early Greek and to Phrygian alphabets was the use of five vowels, each of the five standing in both for the same sound; also the standing on end of the Semitic signs for *aleph* and *sade*. These deviations from the Semitic model, common to both Greek and Phrygian, cannot have occurred independently in both: either the Greek influenced the Phrygian, or the Phrygian the Greek, or both go back to a common ancestor, Greek or Phrygian, devised at that meeting-place on

and interpreted the second as *zayin*. This three-barred form of *zayin* occurs in Early Phoenician; in Cypro-Phoenician (laid horizontally); and in Moabite: see Diringer, *op. cit.*, p. 227, fig. 114, also p. 462, fig. 204. The other form, \mp , appears in our No. 32.

²⁷ The writing of the stele from Lemnos has been identified by some as in the Phrygian alphabet (Kirchhoff, Roberts). Since the letters *heth* and *teth* occur on the Lemnian stele they have been supplied (erroneously) to the Phrygian alphabet from that source. Neither letter occurs ever in the whole corpus of seventy-seven Phrygian inscriptions now before us. The Lemnian inscription is well illustrated by Alf Torp, *Die vorgriechische Inschrift von Lemnos*, Christiania, 1903. But by now the Old Phrygian inscriptions have so increased in number that the consistent absence of *heth* and *teth* suggests that these letters never had a place in the Phrygian alphabet.

²⁸ The temptation to say a *fifth* vowel comes through the Greek abecedaria, where the sign was added at the end of the Semitic series, after *taw*. As we have no Phrygian abecedaria we cannot know whether in Phrygia too it was added at the end (thus becoming in sequential order a fifth vowel) or whether it kept its place, becoming the third vowel after *aleph* and *he*.

²⁹ See Diringer, *op. cit.*, p. 237, fig. 114. The *shin* sign is a consistently prone four-barred creature; the *sade* in North Semitic can stand up, and potentially develop many bars.

the North Syrian coast frequented alike by Semites, Greeks and Phrygians. We have seen that Greek influence on Phrygia from the west or southwest is excluded: temporally because the Phrygian inscriptions are earlier than any Greek inscriptions we possess from the west coast, and geographically because the barriers of variant Lydian and Carian scripts intervened between Phrygian and the Greek coasts and islands. The common ancestor of both Greek and Phrygian must have been developed out of the Semitic in the southeast and precisely in the region of the coast of Syria and Cilicia where lay Al Mina and probably other mixed and bi- or trilingual settlements as easily accessible from Phrygia overland as from Greece by sea. It has always been assumed that it was a Greek who adapted the Semitic alphabet to the use of Indo-European language; now we may see the possibility that it may have been a Phrygian. There is no evidence at present by which we can decide whether it was a Greek or a Phrygian.

To this common ancestor the Greeks then added new letters as needed—*phi*, *chi*, *psi*, *omega*. The “green” alphabetic group (Crete, Thera, Melos) which lacks these has been dated early—probably too early—by reason of this very lack; presumably they got the alphabet before any additions beyond *upsilon* had been made.

In early Phrygian (No. 25) we have an illustration of the same process of addition in the appearance of the non-Semitic sign ↑, which appears nowhere in Greek. In Phrygian the same sign appears three times on the Black Stone of Tyana (No. 19),³⁰ on which has also been read the name MIDA. Surely Tyana could have been a part of the Phrygian Kingdom, or had close relations with Phrygia, only at the time of King Midas before the Kimmerian invasion, so that the Black Stone is with probability to be dated to the eighth century. The same sign occurs once again in an inscription (No. 3) at Midas City, evidently somewhat later than the time of King Midas. The sign thus occurs five times in Early Phrygian; but on its interpretation there has been little agreement.

The sign ↑ has been equated with the sign φ, which occurs only once in Old Phrygian inscriptions. The two forms appear in two inscriptions (Nos. 2 and 3) at Midas City, evidently in the same word: KφIZANAVEZOS (No. 2) and K↑IANA-VEZOS (No. 3). Granted the identity of the two forms, their phonetic identification comes into question.³¹ Assuming Greek influence the possibilities for its identification are two: as *phi* (f) or as *koppa* (q). The alternative form, the arrow-like ↑, on the other hand occurs in all of the Asia Minor alphabets, in Greek not at all; and it is the earlier form. In Lycian it is assigned the value *e*; in Lydian ?*q*; in Carian *i* or syllabic *ti*.³² For Phrygian Friedrich assigns the value *phi* = *f*.³³ The other possi-

³⁰ *L.A.A.A.*, I, 1908, pp. 10-11, 13-16, pl. XIII, 1; the sign appears in lines 3, 5, and 11.

³¹ We may note that the (Greek) φ form occurs in Carian with the assigned value *vo*; it occurs not at all in Lycian or Lydian, and only once (the example cited above) in Old Phrygian.

³² See Diringer, *op. cit.*, p. 463 fig. 204; Friedrich, *Kleinasiatische Sprachdenkmäler*, Schrifttafel 1-3, pp. 156-157.

³³ Pauly, *R.E.*, Halbband 39, col. 872. He equates the forms φ and ↑, assuming the former

bility (drawing from a Greek model), *qoph* or *koppa*, is championed by Ramsey: "coming after *kappa* this symbol can hardly denote anything but a sound like the English W, so that the *kappa-koppa* together are equivalent to *qu*. ↑ would then be an abbreviated form of ϙ, a simple variant of ϙ." ³⁴ We may note that among the Asia Minor alphabets the *qoph* sign ϙ occurs only in Carian where it is assigned the value *he* or *khe*.³⁵

Another possible alternative, in this case with the Greek alphabet the receiver rather than the donor, is suggested by Miss Jeffery ³⁶ who would associate the form with *sampi*, a non-Semitic sign representing SS (and TT) which was added at the end of the Greek alphabet (after *omega*) and which retained its place as a number (900) in the Milesian alphabetic numerical system. The letter under the form Ϟ seems now to be attested for the late seventh century; it was the form first used, then partly erased and altered to *tau*, by the painter of the Nessos amphora in Athens.³⁷ Finally, O. Haas ³⁸ gives the sign the value of a variant of C or S. We have, then, the possibility of reading our No. 25 as SITTIDOZ (or SISSIDOZ) or SIFIDOZ or SIQIDOZ followed by AKOR; the first choice seems infinitely the most attractive.

Phrygian and early Greek, based on a common ancestor, are in substantial agreement up through the letter *tau*, and share a fifth vowel, *upsilon*, placed in Greek after *tau*. In the letters added after that they seem to differ substantially at this stage; the only additional form securely attested for Phrygian in the eighth century is ↑, which is foreign to Greek. But even more striking is the difference in the direction of the writing. While the Greeks for the most part at first followed the retrograde direction of the Semitic models in their early inscriptions, five of the six Phrygian eighth-century texts certainly, and the sixth (No. 32) probably, were written from left to right. They are all very brief notations expressed in a single line; had they been longer it is possible that they would have been written boustrophedon as was

to have been borrowed from the Greek. The latter, however, would seem to be the older form, attested for the eighth century in our No. 25 and by the Black Stone of Tyana. The date of the Midas City monuments and inscriptions, in which the ϙ makes its unique appearance, is disputed; probably sixth century.

³⁴ *J.H.S.*, X, 1889, pp. 187 f. This is hardly very convincing; if the sign had the value of *qoph* the *kaph* preceding it would have been unnecessary and redundant. Note too that the identification of ↑ as *q* in Lydian (now doubted) was based on Ramsey's identification for the Phrygian, and can hardly be used to bolster up this interpretation for the Phrygian.

³⁵ Diringier, *op. cit.*, p. 463 fig. 204; Friedrich, *op. cit.*, *Schrifttafel* 1, p. 156.

³⁶ *The Local Scripts of Archaic Greece*, pp. 38 f.

³⁷ See A. Boegehold, *A.J.A.*, LXVI, 1962, pp. 405-406. The implication of this, I suppose, is that the Nessos Painter was a native of the Asia Minor coast who learned his letters there and later migrated to Athens. The form was used along the Asia Minor coast from Halikarnassos in the south to the Black Sea in the north; the sites at which it is found lie geographically as at the ends of the spokes of a wheel whose center was in Phrygia. But there is no direct evidence to equate the forms Ϟ and ↑.

³⁸ *Die Phrygischen Sprachdenkmäler*, Sofia, 1966, pp. 178 f.

the contemporary Black Stone of Tyana (No. 19). For Phrygian the turn in the direction of writing seems in any case to have been accomplished in the eighth century.³⁹ In this we have tangible evidence of innovation and initiative on the part of the Phrygians in altering their Semitic model. Beyond this it cannot of course be demonstrated whether it was Greeks or Phrygians who were responsible for the other basic alterations in the Semitic which were included in the alphabet which became ancestral to both, devised on the Syrian or the Cilician coast at some time in the first half of the eighth century.

INSCRIPTIONS OF THE SEVENTH (OR EIGHTH) CENTURY

Nos. 34-35

The two inscriptions Nos. 34-35 were found overlying the floors of houses which had been abandoned and which were covered over when Tumulus H was made. The main burial beneath the grave mound contained an East Greek (Rhodian) bird-bowl which can be dated *ca.* 650-640 B.C.⁴⁰ The tumulus, then, must have been piled at some time in the third quarter of the seventh century; the inscriptions must have been written somewhat earlier than that. Since there were traces of burning in the houses covered by the mound and in which the inscriptions were found it is possible that these had been burned at the time of the Kimmerian raid, about 690 B.C. In that case the inscriptions would be of the end of the eighth, or the very beginning of the seventh century. But since there is no definite certainty that the houses were burned by the Kimmerians it is perhaps safer to say that the inscriptions must have been written before *ca.* 640 B.C.

No. 34. Fig. 4. I 40.

The upper part, mended from several fragments, of a large spherical-bodied jug of gray ware, with narrow neck and trefoil mouth. The vessel is similar in shape and fabric to many found in the burned deposits of the city.

The letters scratched with a sharp point on the shoulder near the handle, after the pot had been fired. The inscription is complete in nine letters, left to right. We read

LAGINEIOS

The first letter is differentiated, probably

purposely, from the third by the sharp slope of its upper bar, and perhaps by its placing below the top of the vertical. The fifth letter seems without doubt to be *nin*, carelessly made. The sixth letter, *he*, has seven sharply sloped horizontal bars and is tailed above and below. The final sibilant has four bars, curved.

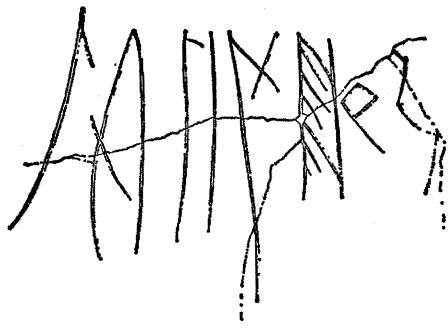
No. 35. Fig. 5. I 41.

The lower body to the shoulder of a tall pithos or amphora with flat base; the body sharp ovoid. Gritty pinkish clay covered by a thin white slip.

Lettering incised on shoulder after firing.

³⁹ Among the earliest Greek inscriptions written left to right would be the fragment of a painted plaque from Aegina (dated *ca.* 710-700 B.C.) and the bronze figure dedicated by Mantiklos (*ca.* 700-675 B.C.): Jeffery, *op. cit.*, pls. 16, 1, 7, 1 (boustrophedon).

⁴⁰ *Univ. Penn. Mus. Bull.*, XVII, 4, 1953, pp. 32 f., fig. 26.



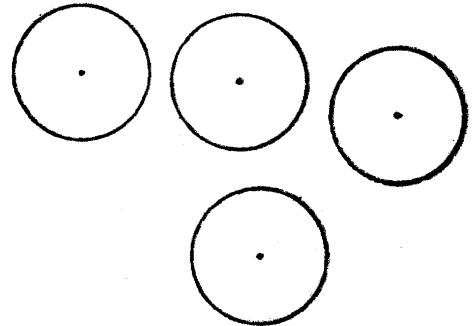
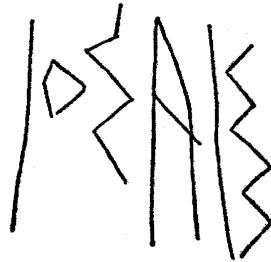
34



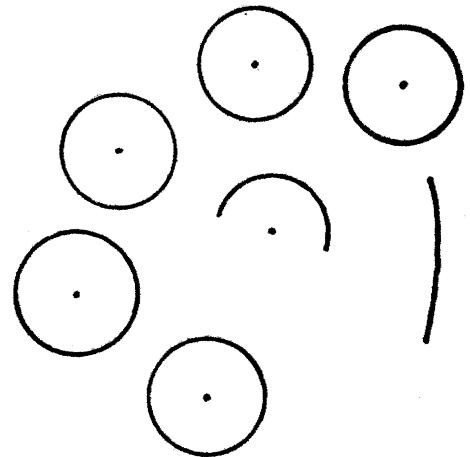
39



41A



41



42



49

FIGURE 4 (1:3)

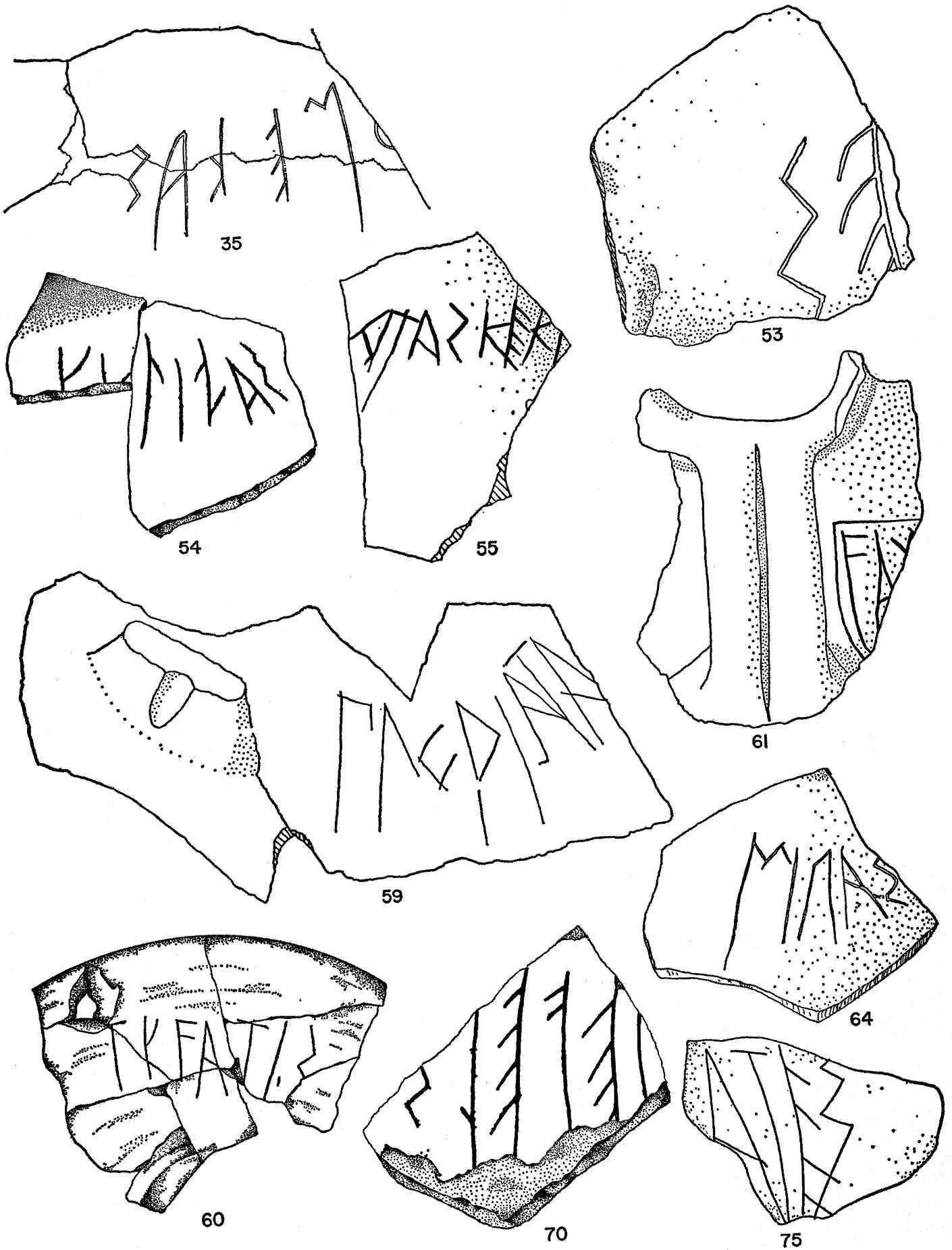


FIGURE 5 (1:2)

Retrograde; the beginning of the inscription is broken away, the end preserved. We read

— **OMEKAS**

Half of the initial *ayin* is missing but the reading seems sure. The *he*, tailed above and below, has three sloped horizontals; and the final sibilant has four bars.

The two seventh-century graffiti give us a *lamed* and a *mem*, not unexpected. They also give us our first retrograde writing, and our first sample of a multiple (seven) barred *he*. The many-barréd sibilant (*sade*) seems to have been characteristic of the Phrygian alphabet from the beginning (Nos. 25, 29, 30) but the multiplication of the bars on the *he* was perhaps a later development: the early inscriptions Nos. 29 and 30 show *he* with only three bars. This multiplication of bars on the *he* sign seems to have been a specifically Phrygian development. By the sixth century the many-barréd sibilant and the many-barréd *he* have become almost hallmarks of the Phrygian alphabet: compare No. 36.

SIXTH CENTURY INSCRIPTIONS

Nos. 36-42

Inscriptions found in the "Lydian Barracks" on the Küçük Höyük, burned near the middle of the sixth century probably by the army of Cyrus the Persian (No. 36); deep under Tumulus E, which was piled up at some time in the sixth century (Nos. 37-38); and in the archaic city, either in the rubble beddings for the foundations of its buildings, or in undisturbed places near the surface of the deep clay layer on which it rested, and which are to be ascribed with confidence to the sixth century (Nos. 39-42). Others (Nos. 43-45, and 24) may be assigned to the same time with all probability, though the dating cannot be proved stratigraphically.

No. 36. Fig. 3; Pl. 70. I 163.

Found in unburned fill against a wall of the "Lydian Barracks" on the smaller mound to the southeast of the city;⁴¹ from its context the inscription should date from the Lydian period and just before the middle of the sixth century B.C.

Fragment of the lower wall and floor, with base-stem broken off, of a "fruit-stand" type pot. Hard clay fired brown; shiny burnished surface.

The inscription incised with a sharp point after the pot had been fired, on the lower wall close to the stem. It is complete in three letters written from left to right. We read

ISE

The *he* has five horizontals, slightly down-sloped; the sibilant has ten bars.

No. 37. Fig. 1; Pl. 69. I 1.

Found near the bottom of a deep cut close to the center of Tumulus E. The tumulus was made in the sixth century; the sherd cannot be later. Three joining fragments from the wall of a large coarse vessel; gritty clay, gray at the core, reddish at the surface.

The letters incised after firing, left to right. The beginning is evidently preserved, the continuation broken off. We read

ΕΥΤΑ —

The initial *he* has only three horizontals. Of the fourth letter only the top remains: *aleph*, *daleth*, *lamed*; the first seems the most prob-

⁴¹ See R. S. Young, *Archaeology*, VI, 1953, pp. 159 f.

able. The second letter we take to be a squared form of Ψ but, followed as it is by a *taw*, with the value of *chi*: see below.

No. 38. Fig. 1; Pl. 70. I 66.

Sherd brought in by a workman who picked it up after hours in the Tumulus E trenches; sixth century.

Fragment from the upper wall of a large coarse closed pot of gray ware. The letters incised left to right after firing; letter heights 0.035-0.045 m. The writing is incomplete, broken off at both ends.

The beginning (as preserved) is somewhat confused; there seems to be a squared *ayin* (but very large in comparison to the fully-preserved one), followed perhaps by a *sayin*; then an *upsilon* crossed at the top of its stem (at the right)—perhaps a *taw*. We read, the first part somewhat tentatively,

— OZTOIPITAVE —

We follow O. Haas in transliterating the Phrygian *waw* sign (F) as V in modern letters. The *he* is tailed and has four horizontals, slightly sloped; the *ayin* is small, and squared.

No. 39. Fig. 4; Pl. 69. I 127

A stone found re-used in rubble packing for the bed of the north wall of Persian Building C. The re-use of the stone as foundation packing suggests that the inscription may possibly go back to the Phrygian period before 690 B.C. Sculptured Phrygian pieces (two lion's heads) and an akroterion of poros were found in the rubble bedding of an archaic building.

Soft white poros, the faces (front, back, top, bottom) shaped roughly with wide chisel-like strokes. Both ends broken off.

H. 0.22 m.; W. 0.41 (as preserved); Th. 0.25. L. H. 0.07 to 0.125 m.

⁴² In a long discussion of No. 15 Haas (*op. cit.*, pp. 179 f.) interprets KAKYIOI, which appears on the top face of the stone, as part of an imprecation against anybody who "does mischief" to the monument. The same interpretation may be offered for KAKOIOI of our No. 43 below. But Haas in his reading of the main face of the stone (No. 15) finds the name Otys, which he equates with a king of Paphlagonia of around 380 B.C. Surely this archaic boustrophedon writing, in every way similar to the inscriptions of the Midas Monument at Midas City, belongs to the sixth century or earlier, not to the beginning of the fourth!

The letters scratched in thin unsure lines with a sharp point. Left to right; nine letters preserved. We read

— KAKYAVYNN —

The restoration of the first letter as *kaph* is fairly sure since the edge of the large pit in the surface of the stone seems to follow the upper diagonal of a *kaph*. Another chip at the upper edge makes it uncertain whether the fourth letter was *upsilon* or *resh*; on the analogy of No. 43 below and of No. 15 from Alaca⁴² the *upsilon* seems the more likely.

No. 40. Fig. 3; Pl. 67. I 107.

Found just to the west of the south end of the Persian Gate Building, in a rubble filling overlying the level that belonged with the gate. The filling is to be associated with the temenos wall which overlaps the south end of the Gate Building, a slightly later addition, probably of the late sixth century.

The base of a gray-ware bowl with finely black-polished surfaces.

Low base ring, the inscription scratched after firing on the bottom within the ring and following its curve. Letter heights 5 to 11 mm. The inscription complete, left to right.

YVVAVAROS

The final sibilant has five bars. The first and fifth letters have the form Ψ (*psi*) probably with the value *chi*.

No. 41. Fig. 4; Pl. 70. P 2082.

A.J.A., LXIII, 1959, p. 265, pl. 65 figs. 9-10.

One of a hoard of sixteen pots, mostly coarse ware kraters, found beneath the floor of Persian Building M, in a layer which immediately overlay the deep clay stratum beneath the Persian city. The hoard of pots perhaps belonged

to a late phase of the occupation of Building M, which seems to have been in use *ca.* 550-500 B.C.

Coarse pithos of orange-red clay, mended complete except for small holes. Ovoid body with everted rim and flat bottom. The surface stroke-burnished.

H. 0.76 m.; Diam. at rim 0.35; Max. diam. 0.542.

The letters incised after firing with a sharp point at the level of greatest diameter. L. H. 0.185 (*beth*), 0.255 (*nin*), 0.03 (*ayin*). The inscription complete, left to right.

BENAGONOS

The *he* tailed at top and bottom, with five sharply sloped horizontals. The *ayin* was made in both cases by opposing lunates. To the right of the final letter and slightly above, a row of three compass-drawn circles, with a fourth below; the diameter of each 0.055 m. It has been suggested that these were capacity marks, and that the pithos held four units (or multiples of units).⁴⁸ Similar marks appear on Nos. 42 and 77 below; a number of sherds found at Gordion (but without alphabetic inscriptions and hence not published here) bear the same compass-drawn circles or capacity marks.

No. 42. Fig. 4; Pl. 70. P 2279.

Found just over the surface of the clay

stratum, in layer 6 above the eastern part of the Phrygian Terrace Building. The area had been disturbed somewhat and a large part of the rim and shoulder is missing. Coarse pithos of orange-red clay, in shape and fabric very similar to No. 41. The surface roughly burnished, with spaced vertical strokes on the lower body. H. 0.839 m.; Max. diam. 0.64 m.

Inscription scratched after firing with a sharp point on the shoulder. L. H. 0.02 to 0.09 m. Complete, left to right.

IOSAIS

The *ayin* squared; the first sibilant with five, the second with seven bars.

To the left of the inscription capacity marks: five compass-drawn circles (diam. 0.045-0.05 m.) arranged around a central half-circle, with a straight stroke at the lower right. The capacity of the pithos would then be $5\frac{1}{2}$ (plus a fraction less than half) units. Its cubic capacity could not be measured since too much of the vessel is missing. Presumably the same unit of measurement would have been used for the two closely contemporary pithoi Nos. 41-42. The capacity of No. 42 should have been nearly half as much again as that of No. 41: $5\frac{1}{2}$ plus units to 4. A third pithos with capacity marks and graffiti, No. 77 below, was found at a later level.

THE PHRYGIAN ALPHABET IN THE SIXTH CENTURY

The seven inscriptions which can be dated to the sixth century give us the letters *beth*, *pe*, and *waw*, completing the Phrygian alphabet. The arrow-like sign ↑ of the eighth century texts does not reappear at Gordion, nor does its presumptive equivalent, Φ. The appearance of the latter sign in Old Phrygian inscription No. 2 at Midas City remains unique for Phrygian; the sign seems never to have gained a regular place in the Phrygian alphabet. At Midas City too appears the sign Ψ, a sign unique among the Old Phrygian inscriptions until the discovery of our Nos. 37 and 40,

⁴⁸ The capacity of the pithos was measured by filling it with wheat; the resulting figure was .095040 cubic meters. This would be 95.04 liters, or 23.76 liters for each unit. If each mark represents say ten units, then a single unit would be approximately two and three-eighths liters.

and No. 72 below. This sign has always been interpreted as representing a *chi* or *kh* sound. The interpretation was based on Old Phrygian inscription No. 7b (the Arezastis Monument) in which the word ΛAYET occurs, set apart by punctuation dots before and after it (above, note 12). On this interpretation was based the assignment of the Phrygian alphabet to the West Greek or "red" group. Perhaps not irrelevant, however, are the values *kh* given to the sign Ψ in Carian, and *k* in Lycian. Its appearance in our Nos. 37 and 40 perhaps strengthens the case for its interpretation *kh* (rather than *ps*) since it occurs in No. 37 before a *tarw*; but our No. 72, where the sign is scratched out and a sibilant substituted for it, might seem to point the other way. In any case our inscriptions show that by the sixth century the non-Semitic sign Ψ has a regular place in the Phrygian alphabet; it is now well attested for the sixth century and thereafter. Its absence in the earlier inscriptions may be due to chance; or (more likely) it may have been adopted under Greek influence at a later stage in the development of the Phrygian alphabet.

The inscriptions of Midas City and its environs show us a complete and developed alphabet cut on stone in a monumental style; on these was based Friedrich's chart of the Old Phrygian alphabet.⁴⁴ The date to be assigned to the Phrygian rock monuments and their inscriptions has been disputed. Most have attributed them to the sixth century, some to the seventh, a few to the eighth. The discovery at Gordion of alphabetical inscriptions belonging to the eighth century will no doubt be used to strengthen the case for an early dating of the Midas City inscriptions. But there are other considerations to be taken into account.

It is now generally agreed that the great rock façade, the so-called Midas Monument, is not a grave but a cult monument. The inscription above the façade (No. 1) mentions King Midas by name and title: $\text{MIDAI LAVALTAEI VANAKTEI}$ —evidently in the dative. As long as the monument was interpreted as a tomb, and the tomb of King Midas (it was, and is, often referred to popularly as the "Midasgrab"), it seemed necessary to date it to some time reasonably soon after his death, perhaps the first half of the seventh century. It is now considered a cult monument; the central niche at the bottom probably once contained a statue of Kybele, long since disappeared. The façade with its inscriptions (Nos. 1, 2, and 4, all evidently cut by different hands) is therefore no longer indissolubly connected with the particular Midas who perished at the beginning of the seventh century after the Kimmerian catastrophe, though after the lapse of a few generations the great king who had

⁴⁴ Pauly, *R.E.*, Halbband 39, col. 872. The next to last sign, Φ , appears only once (No. 2) in Old Phrygian inscriptions; it is not included in Haas's alphabetic table (*op. cit.*, p. 178). Omitted from both tables is the older, and genuinely Phrygian, sign \uparrow which is now known in five examples. Friedrich's last sign, Ψ , known only in No. 7b at the time he wrote, is now represented in four examples; but our No. 72 (below) seems to cast doubt on the inference that it invariably carried the value *kh* or *chi*. The most important of these inscriptions are now well illustrated in E. Akurgal, *Die Kunst Anatoliens*, figs. 67-68, 70, 74, and color plate IVa.

presided over a prosperous past may have become heroized and worthy of association with the current cults. That there were other and later kings by the name of Midas seems to be attested by the tale in Herodotos (I, 35) of Adrastos the son of Gordios the son of Midas, a contemporary of Croesus King of Lydia.

In any case all the Phrygian rock façades (with the exception of the Arezastis Monument) have a central cult niche, that at Aslankaya⁴⁵ still occupied by a sculptured relief of Kybele between lions. The relief sculpture of a number of the façades fixes their date to the sixth century. Some of them⁴⁶ in addition to relief sculpture are decorated with carved geometric designs very similar in type to those of the Midas Monument itself.⁴⁷ The Midas and Arezastis Monuments, and the smaller façade on the acropolis at Midas City⁴⁸ as well as some of the outlying monuments, use a linked-lozenge pattern, especially to decorate their raking cornices, which is highly reminiscent of the sixth century terracotta tiles, moulded in relief and painted, which were used to decorate the buildings of the archaic city at Gordion.⁴⁹ Not a single fragment of an architectural terracotta, or even of a roof tile, has been found at Gordion in that city which was burned at the beginning of the seventh century. Terracotta tiles and revetments seem to have been an innovation introduced into Anatolia only in the sixth century, and under Greek influence.

Sculpture and architecture thus suggest a sixth century dating for the Midas City inscriptions. As we look at the inscriptions themselves⁵⁰ we realize that they were cut by practiced hands; these are no first attempts at writing. Although there are evidently several different hands involved one is impressed by the uniformity of size and form of the letters, and by the neatness of the writing. Typical among all of the inscriptions are the smallness of *ayin* (O), for decorative purposes or to save space usually placed low down, often beneath the upper part of the letter preceding, and word division by vertical rows of three or four dots.

If we look at individual letter forms we observe that *he* and *sade* are inclined to be multi-barred. *He* has sometimes three, less often four, sloping bars. The sibilant has four to five bars according to the inclination of the individual writer; it can face in either direction, sometimes both ways in the same inscription.⁵¹ Likewise the

⁴⁵ Akurgal, *op. cit.*, figs. 52-54.

⁴⁶ Akurgal, *op. cit.*, figs. 52-53, 60, 71-72, 73.

⁴⁷ These were a part of the general Phrygian repertory of geometric decoration, in use from the eighth century into the sixth. For examples of wooden furniture from eighth-century tombs see *A.J.A.*, LXI, 1957, frontispiece to article pp. 319 f.; *A.J.A.*, LXII, 1958, pl. 27 figs. 22-25.

⁴⁸ Akurgal, *op. cit.*, fig. 69. This façade also shows large rosettes in relief in the tympanum of the gable, as does the Arezastis Monument, fig. 70.

⁴⁹ See Å. Åkerstrom, *Die Architektonischen Terrakotten Kleinasiens*, Lund, 1966, pp. 156 f.

⁵⁰ Most are illustrated in drawing by O. Haas, *op. cit.*, pp. 187 f.

⁵¹ The Arezastis Monument (Haas, *op. cit.*, pp. 193 f.) uses consistently a three-barred *he* and a three-barred sibilant. The latter should be interpreted with consistency: Haas reads it twice in line 1 of **7a** as S, and twice in line 2; but at the end of **7b** he reads it as J. He suggests however

peculiarly Phrygian form of *zayin* † is often written in either direction.⁵² The sign itself was evidently developed in Phrygia; it has no parallel in Greek, nor does it bear much resemblance to either of the *zayin* forms of our eighth-century inscriptions Nos. 25 and 32. It would appear to be a later local development. Finally, the forms for *gimel*, *daleth*, and *lamed* by the time of the Midas City inscriptions have been differentiated to the degree that the bottom bar of the *daleth* can often be omitted (Nos. 2, 3, 8—three times—, 17, and 58 below). The reading of this open form as *daleth* cannot be questioned: it occurs twice in the word EDAES, which seems to be formulaic and was written with either closed or open *daleth*; so also in ΛΑΥΕΤ already cited and interpreted as DAKET. This somewhat shorthand way of writing *daleth* must have developed at a time when there was no longer a possibility of confusion with *gimel* or *lamed*; it cannot go back to the time of the beginning of Phrygian writing, when scribes would have been careful to follow an accepted model. In our eighth-century Phrygian inscriptions Nos. 25, 31, 32 the *daleth* is in every case carefully closed at the bottom. The *gimel* and the *lamed* forms consisted of a long and a short, instead of two equal, strokes. Between *gimel* and *lamed* one would like to think that there is a differentiation: the former written with a horizontal short bar set at the top of the vertical, the latter with a downward-sloped short bar, often set below the top of the vertical (as in No. 34 above). But it is often hard to distinguish; the writers were careless, and interpreters have often chosen the more convenient form for their own interpretation of a particular inscription.

The above remarks apply to the monumental inscriptions on stone of Midas City and Alaca. To these we can add three inscriptions cut in stone from Gordion, Nos. 24 and 43-44, all found in the levels of the Persian Empire and of Hellenistic times and very probably (though it cannot be proved stratigraphically) to be attributed to the sixth century. The evidence must be epigraphical; the letter forms (and punctuation) closely resemble those of Midas City. There follow a number of less formal graffiti (Nos. 45-77) which give more substance to our picture of the Phrygian alphabet. Most of them come from a fifth-fourth century environment, though some may be earlier. The last, No. 77, shows that the Phrygian way of writing survived at least until the turn from the fourth to the third century.

that the name Arezastis is Iranian and that perhaps in the Achaemenian period a Phrygian was married to a Persian woman. The monument, and the inscription, are thus probably later than the Midas City rock façades. Haas, following Akurgal, dates the Midas Monument between 585 and 547 B.C. The ϕ of No. 2 (Midas Monument) occurs also on a Greek import to Gordion of about the same time, i. e., the second quarter of the sixth century, the cup painted by Klitias found in Tumulus 5: Koerte, *Gordion*, pl. 7.

⁵² O. Haas, *op. cit.*, pp. 178-179, 198-199 makes a differentiation: when the letter faces in one direction it is *Z*; when it faces in the opposite direction it is *J*. The sibilant is however allowed to face in either direction without affecting its value. Presumably this reflects merely carelessness on the part of the stonecutter or graffito scratcher.

No. 24. Fig. 6; Pl. 69. I 20-I 20A.

Univ. Penn. Mus. Bull., XVI, 1, 1951, p. 10, pl. IV, fig. 2.

O. Haas, *Die Phrygischen Sprachdenkmäler*, pp. 198-199.

Seven fragments of white poros found to the east and southeast of the Persian North Central Building, in fill which had been disturbed in Hellenistic times by stone robbers. The inscription probably belonged to the time of the building, i.e. sixth century.

Six fragments could be joined to make up the larger piece, 1; the seventh fragment, 2, does not join.

The large fragment 1 preserves parts of four original faces: A, probably the top face, inscribed in four lines; B, probably the front, at the bottom in the photograph, also inscribed; C, a side face with letters running vertically upward; and D a small part of the back face (at the top in the photograph), evidently un-inscribed. The left side is jaggedly broken off; the bottom is broken away, irregularly uneven and much worn.

Fragment 1: H. 0.34 m.; W. (as preserved) 0.355 m.; Th. (maximum) 0.082 m. Face A was divided by three horizontal grooves into four roughly equal bands for an inscription in four lines. Since the dividing grooves were not straight the widths of the lettered bands vary: the first 0.09 to 0.097; the second 0.082 to 0.085; the third 0.085 to 0.088; the top 0.074. The letter heights were fitted to the space available: in line 1, 0.08-0.09; lines 2-3, 0.07-0.08; line 4 smaller, but no letter is fully preserved.

The scheme of the inscription is boustrophedon; for the first two lines true boustro-

phedon, retrograde: line 1 runs right to left, line 2 again from right to left but in the opposite direction to line 1 since the letters have been turned upside down. Line 3 runs from left to right; to line 2 it is false boustrophedon, running in the opposite direction but with the letters the same way up. The top line 4 again ran from right to left; which way up the letters were set is not evident since only parts of two are preserved.

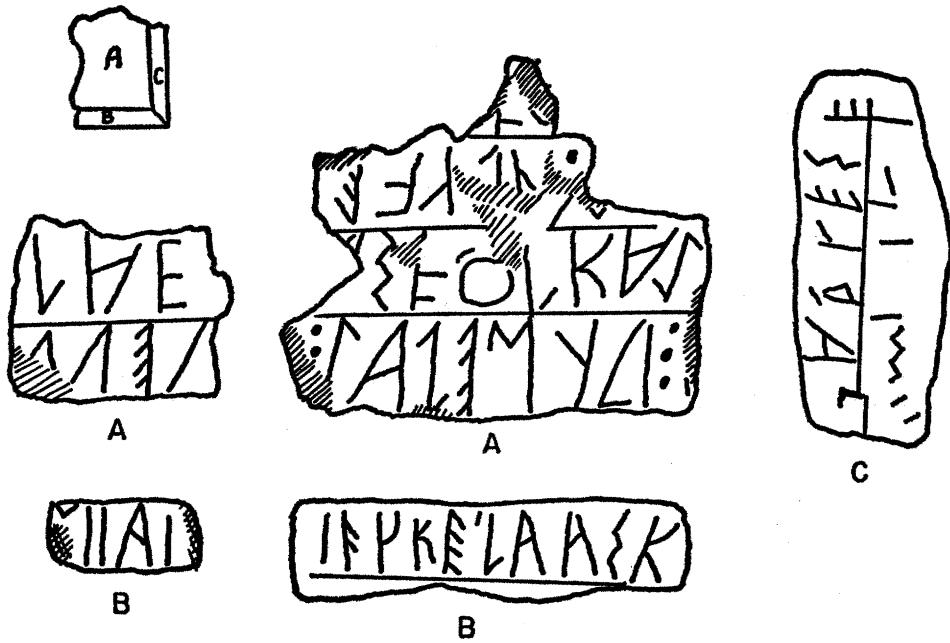
Face B, directly beneath line 1 of Face A, preserves one inscribed band 0.06 m. in width. This was set off from a second inscribed band by a groove; of the second band only a narrow strip is preserved, with the ends of some letters—whether top or bottom ends it is not possible to tell. The heights of the letters of the preserved line, which reads from left to right, vary from 0.05 to 0.06 m.

The smaller *fragment 2* fits into the scheme of the larger. It would seem to preserve parts of lines 1 and 2 of Face A, both with right to left lettering, the upper upside down to the lower. On the under side, Face B, part of the first line is preserved, reading from left to right. We note, however, that on Face B the crossbar of the *aleph* slopes downward from left to right on fragment 2, while on fragment 1 it slopes in the opposite direction. Nevertheless fragment 2 would seem to give a continuation of Lines 1-2 of face A, and of Line 1 of face B. The widths of the bands for inscription correspond on both faces; fragment 2 must be placed to the left of fragment 1, since fragment 1 preserves the right end of the stone, face C—also inscribed, but vertically with letters running from the bottom upward. We read:

FACE A:	<i>Fragment 1</i>	<i>Fragment 2</i>	
Line 1	:DUMEZAZ: —	— DEDA—	(retrograde)
Line 2	— ISVOZKAZ	— ĬAVŸ—	(retrograde; upside down to line 1)
Line 3	NAZYVĖ		(left to right)
Line 4	— VÖ—		(retrograde)

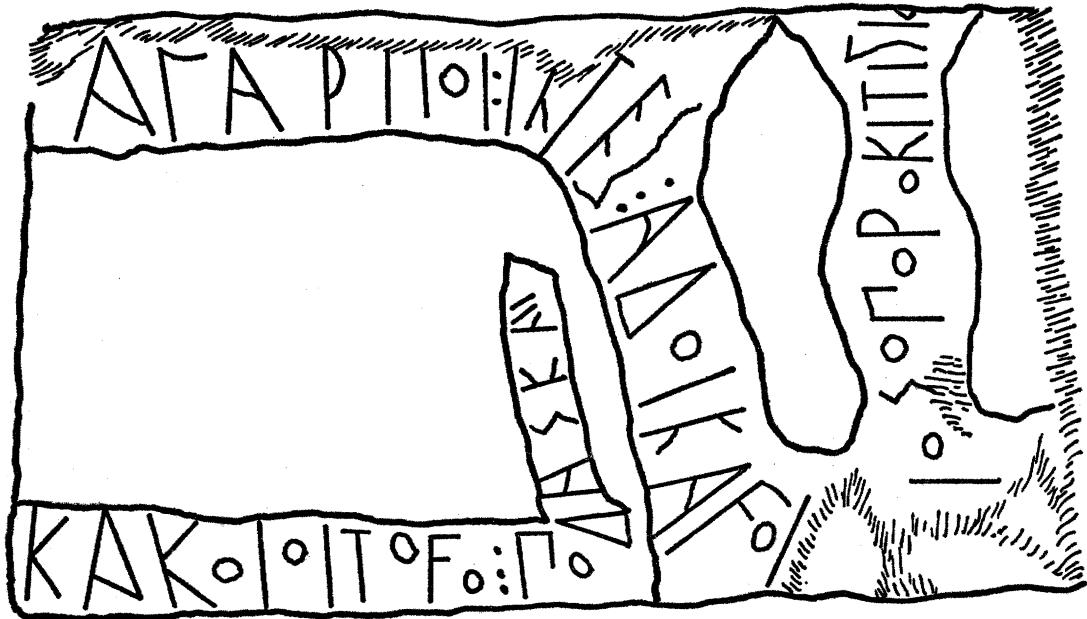
Line 1: on fragment 1 all letters well preserved; a single word, set off by punctuation

before and after. The two *zayins* are faced in opposite directions; to *zayin* faced in one direc-



24

FIGURE 6 (ca. 1:7)



43



44

FIGURE 7 (top 1:5, bottom 1:10)

tion O. Haas (*op. cit.*, pp. 179, 199) would assign the value z, faced in the other, j. On fragment 2 the *he* is the only letter fully preserved. The diagonal which precedes it cannot be the last stroke of a *mem* or a *lamed*, which should be short; nor is it part of another *zayin*. The only possibility seems that of a *daleth* left open at the bottom, though the fully preserved *daleth* of fragment 1 is closed. The letter which follows that *he* too would be of the same open *daleth* form. Of the final letter only the peaked top is preserved: perhaps *aleph*. The scratch across the middle of the last two letters is later, and accidental.

Line 2: the text on fragment 2 should precede the continuation on fragment 1. The first letter, *lamed*, is not preserved at the bottom; *zayin* is possible. The final letter is far from complete; an *upsilon* like the second letter of line 1 is possible.

On fragment 1 the bottom of a letter at the left is not identifiable. The *waw* is certain; the only possible alternative, *he*, would have downward-sloped bars and these are horizontal, tailed above. The stem of the first *zayin* is for the most part lost in a crack where two fragments join, but the top diagonal is clearly preserved.

Line 3: the essential parts of the *nin* are preserved: the bottom and the angle at the tops of the first bar and the third. Beneath the smaller upper part of the letter a punctuation point. The cross-bar and the lower part of the right diagonal of the *aleph* are preserved, and the lower part of the *zayin* (*not*, in Phrygian, a variant form of *lamed*). The bottom of the *he* is missing; it probably had four sloped bars.

Line 4: parts of two letters only are preserved, evidently retrograde, *waw* and *ayin*. Although the fragmentary *waw* gives the direction of the writing we cannot tell which way up it stood: the vertical projecting beyond the horizontal bar could be either the stem, or the upward-projecting tail, of the letter. Hence we cannot tell whether the last two lines, 3-4, were written in true (as lines 1-2) or false boustrophedon.

FACE B:

Inscription in a band 0.06 m. wide, set off by a horizontal dividing groove; a second band below was also inscribed, but of its lettering only the ends of two converging diagonals are preserved. These could be the bottom of an *aleph*, or the top of an *upsilon*, so they can settle neither the direction of writing of the second line, nor the way the letters stood up in relation to line 1.

L. H., line 1: 0.05-0.06 m. Since the writing is from left to right fragment 2 must here precede fragment 1. We read:

Fragment 2

-||A|-

Fragment 1

-IERKEZAASK

Fragment 2: at the left, part of a letter, unidentifiable. There follow two straight verticals, two *yods* or possibly a *pe* which has lost its top, though for *pe* the second vertical should be shorter than the first. The *aleph* is clear and complete, followed by a vertical. Wear and chipping at the edge may have obliterated the diagonals of a *kaph*.

Fragment 1: the tops of the first two letters worn away; the first letter may have been *taw* or *gimel* or *yod*, but the second was certainly *he*, perhaps with a fourth bar missing at the top. The rest of the letters are clear and complete, although the tops of the *kaph* and of the *zayin* are somewhat damaged.

FACE C:

The right face of the stone. Here again grooved lines divide the face vertically into bands for inscription. At its lower end the dividing groove jogs upward for a short distance before continuing to the edge of the stone, making the lower end of the band slightly wider than the rest; average width of band 0.03 m. In the wider end at the bottom a small L-shaped cutting; this was evidently already there when the groove was cut and its line jogged to avoid it. The writing runs upward from the bottom, right to left. L. H. 0.025-0.03 m.

ARKEŞV-

A large chip at the edge obliterates the lower part of the second letter, which may have been *resh* or possibly *beth*; in any case it was tailed at the top. Of the *kaph* the vertical and lower diagonal are preserved. Following the *he* we have three sharply cut bars and at the top a fourth, perhaps a fortuitous scratch in the face of the stone. If the top bar belongs we have a *sade*; if not, a *sayin*. The final *waw* seems clear, tailed above, the line of the vertical continued across the groove by a deep vertical in the second band. Of the second line we have only three vertical lines, widely spaced and unidentifiable as letters. Above the *aleph* there appears to be a four-barred sibilant, *sade*; but it stands at right angles to the *aleph*. This suggests the possibility that the inscription ran all around the outer edge of the stone. There are traces of letters above the first line, none of them identifiable.

No. 43. Fig. 7; Pl. 71. I 118.

A.J.A., LIX, 1955, p. 10, pl. 5 fig. 22.

Found re-used as part of the wall of a built drain channel just to the west of the Persian Gate Building. The drain belonged to a repair and levelling-up later than the time of the construction of the building, perhaps of the second half of the fifth century or later. The inscription was probably made in the sixth century, possibly earlier.

A roughly oblong block of soft white porous stone. The top and front faces smooth-finished, the ends and back left rough. The right end badly chipped and worn at the top; the bottom much worn by water flowing in the drain.

H. 0.385; L. 0.705; Th. 0.23 m. L. H. 0.015 to 0.08 m.

At the right side on top the deeply incised outlines of two feet, left and right, wearing pointed shoes. There is no indication that anything ever stood in these, or was fastened to the surface over them. The foot-outlines were cut before the inscriptions, which wind around and between them. The surface to the left was roughly smoothed; it is possible that some object may have rested on the face of the stone

there, since the writing is confined to the upper and lower edges. But none of the pits in the surface of the stone seems to be the hole for a dowel to fasten anything to it. For the inscriptions bands were sunk below the original surface to a depth of about 3 mm., and smoothed at the bottom for the lettering.

The inscription is in two parts. The first (a) starts at the upper left corner of the stone and runs along its upper edge almost to the first foot-outline, where it turns down to the right, following the outline of the foot to the bottom, rounding the heel, and running upward between the two feet. The writing is left to right throughout; in two places there is punctuation (or word-division) of rows of two or three dots. Some of the letters have lost their tops through chipping at the edge of the stone; one or more letters are missing below the heel of the foot where the surface is chipped. We read (a)

AGARIIOI: IKTES : ADOIKAVOI..
IOZOPÖROKITISI

The tops of the fifth and sixth letters are chipped away; one or the other may well have been a *taw*. The upper part of the first *kaph* is also chipped, but since the edge of the chip seems to follow the line of the upper diagonal the reading is fairly certain. There is room for at least two letters in the chipped space below the heel. The bottom of the *sayin* runs into another chip, and it is possible that there was another bar below; but the three bars are sharply cut and angled in contrast to the rather casually cut and curvilinear sibilants, and another *sade* seems unlikely. The second part (b) of the inscription, written evidently after the first, begins at the lower left corner of the stone and runs along the lower edge, turning up to the right to avoid the vertical part of the first inscription and running parallel to it. The left to right lettering is undamaged; just short of the point where the writing turns upward three dots indicate word division. We read (b)

KAKOIOITOVO: PODAZKA!

The last two letters are worn and incomplete in the shallow and narrow end of the smoothed band; but the *aleph* lacks only the lower end of its right diagonal. The lower half of the sloped final letter, plain at the top, is missing.

There seems to be no reason to doubt that both parts of the inscription were written by the same hand. The use of punctuation and the consistently small size of the *ayins* are shared by both parts. The inscriber could write *aleph* (in both parts) with sharply-sloped cross bar reaching almost to the bottom of the diagonal at the right, or with a nearly horizontal one half-way up. His *daleths* are closed at the bottom, his *zayins* of three bars sharply angled. The *waw* has horizontal bars, the upper longer than the lower. *Kaph* can show the two diagonals meeting at the center of the vertical, or spread widely apart at their inner ends. The single example of *he* has three sloped bars, tailed below. The sibilant, which occurs only in (a), has many bars but is somewhat summarily rendered by wavy lines.

The KAKOIOI of (b) recalls the KAKYIOI of No. 15 and the KAKYAVYNN of No. 39; Haas (*op. cit.*, pp. 180 f. and illustration p. 181) implies imprecation against anyone who does mischief to the inscription or monument.

No. 44. Fig. 7; Pl. 69. I 420.

A.J.A., LXXII, 1968, pp. 235-236, pl. 76 figs. 17-18.

Block of limestone found re-used as a building stone in the wall of a Hellenistic (Level 2) house. Hard large-grained stone, dull gray-white with a pink tinge when dry, muddy gray when wet. Part of the top and left faces preserved; broken off at the right and below. The back hammer-dressed to an approximately flat surface. A large chip broken from the upper left corner of the front face; others at the bottom.

P. H. (max.) 0.37; P. W. (max.) 0.40; Th. 0.28. L. H. 0.08-0.10 m.

The inscription was written boustrophedon in large clear letters. Part of three lines are preserved:

Line 1:	—EVI.	(retrograde)
Line 2:	TATAS!—	(left to right)
Line 3:	—!M̄Z	(retrograde)

The last letter of line 1 completely obliterated by chipping. There was space probably for only one letter.

After the sibilant of line 2 there is a straight vertical stroke, the top of a letter perhaps *yod*. Seemingly the only other possibility would be *kaph*.

The first letter of line 3 was again a straight vertical, of which the top is preserved. It was spaced so close to the following letter that there is hardly room for the diagonals of a *kaph*, and we read it as *yod*. The second letter was clearly *mem*; the first long vertical is chipped away, but the other three bars, all short, seem clear. The final letter, broken off at the bottom, was probably *zayin*. The diagonal at the top is too short, and too steeply sloped, to belong to another *he*, and there is no trace of a second below it. Although *lamed* is a possibility *zayin* seems the more probable reading; its lower diagonal would fit neatly below the *mem*.

The *he* is typical, with four sloped bars. The *waw*, with two horizontals (not sloped) is also characteristic. The sibilant at the end of line 2 seems to have had only four bars; a fifth below would have intruded into the line beneath. The slightly sloped crossbars of the *alephs*, and the short lines of the *mem*, lend a slightly archaic flavor to the writing. The inscription should be assigned probably to the Persian rather than to the Phrygian period.

No. 45. Fig. 3; Pl. 69. I 228.

Found inside Persian Building N, layer 6 close above the top of the clay filling. Mixed pottery, some as late as Hellenistic. The base of a polished-ware bowl: disk-shaped base, slightly concave underneath. Well cleaned clay fired gray at the core, the polished surface mottled.

The letters scratched on the under side of the

base after firing. Complete in three letters, left to right:

ATA

Cf. No. 33 above, and 46.

No. 46. Fig. 3; Pl. 72. I 62.

Found in the area to the west of the north court of the Persian Gate Building, layer 4. Most of the pottery was fifth century. The sherd is from a black-polished bowl; preserved are part of the disk-base and lower wall.

The letters incised after firing on the under side of the base. Parts of three letters left to right; the third complete. The first looks like the top of an *aleph*; the second that of a *taw*; and the third, *aleph*, is complete to read, as in Nos. 33 and 45,

ATA

No. 46a. Fig. 3; Pl. 69. I 131. (GREEK)

From a Hellenistic level west of the Persian Gate Building, layer 2. A disk cut from inside the base-ring of a black-glazed closed pot. The disk was chipped neatly around the edges and pierced by two small holes bored near the center. On the outer side (bottom) an incision below the two holes and a straight line below it may represent nose and mouth, making with the bored holes (eyes) a face. A string passed through the holes may have made a child's whirling toy, or served for lifting a stopper. The Greek inscription above the holes may be older. Complete in five letters, left to right:

ATTAΞ

Perhaps a Hellenized version of the ATA of Nos. 33, 45, and 46.

No. 47. Fig. 3; Pl. 72. I 227.

Found in mixed refill in the trench for the bed of the plundered west temenos wall of the Persian palace area, between buildings M and N.

Sherd from a polished-ware round mouthed jug. Preserved are part of the plain rim, the

tall slightly concave upper body, and the top of the swelling lower body, decorated with wide shallow horizontal fluting. Buff ware, red-burnished outside and part way down the inside below the lip; the vertical marks of the burnisher are conspicuous on the upper body. Ware probably of the fifth century B.C.

Letters scratched with a sharp point after firing, just below the lip outside. Below them an incised irregular decorative zigzag. Three letters are preserved, left to right, and part of a fourth at the left. We read

—ATA—

The letters are complete except for the tip of the first *aleph* and the lower part of the second, at the right. It is possible that the inscription continued toward the right. Two vertical strokes, broken off above, to the left of the first *aleph* could be from the bottom of a *pe*, possibly of a *daleth* left open at the bottom. They seem too closely spaced to be the bottoms of two separate letters.

No. 48. Fig. 3; Pl. 69. I 189.

Sherd found in a discard pile to the west of Megaron 3.

Fragment of a shallow open bowl, preserving the profile complete: low base ring and convex body curving to a plain lip. Gray fabric, black polished at the surface.

The lower parts of four letters preserved, incised after firing with a sharp point on the bottom within the base ring. The inscription complete in four letters, right to left. We read

BABA

The last two letters are sufficiently preserved so that the reading is certain. The first *aleph* is preserved up to and including its crossbar; the bottom of the first *beth* is similar in every way to that of the second.

The word BABA appears on the Midas Monument, No. 2. It may appear also in two other inscriptions, Nos. 3 and 5, at Midas City. Haas (*op. cit.* pp. 190-191) interprets it as a

personal name, twice that of a dedicator, once (possibly) as that of the maker of a *manakium*. But as the name occurs once on a cult monument and once above an altar it would seem more likely to be a name (or an epithet) of the divinity to whom the dedications were made. The discovery of the same name as far away as Gordion and at least a century later (as suggested by the shape and fabric of the pot on which it was scratched) suggests a currency, perhaps religious, wider than that of a local personal name.

No. 49. Fig. 4; Pl. 73. I 384.

Found outside the palace area at the west in a burned filling over the floor of a Phrygian building which had been remodelled and continued in use into Persian times. The deposits over the floor suggested its abandonment around the middle of the fifth century.

Fragment from the shoulder of a large pithos. Coarse clay, slipped and burnished, fired brown at the core, reddish at the surface.

The letters incised after the pot was fired. Their heights vary from 0.053 to 0.09 m. The inscription complete in five letters, right to left. We read

TATES

The *he* has four horizontals, the final sibilant six bars.

No. 50. Fig. 8; Pl. 73. I 346.

From the South Cellar, dug into the clay above Megaron 6. Its filling was mixed, from Phrygian to mid-fifth century B.C. (red figure). Not later than *ca.* 450 B.C.

Shoulder fragment from a closed pot. Clean gray clay, black polished at the surface.

The graffito was scratched in fine lines after the pot had been fired. Letter heights 0.055 m. as preserved; the bottoms of all the letters have been broken off. Four letters written from left to right; the end of the inscription is preserved, the beginning broken away. We read

—ATES

The *he* has six sloping horizontals as preserved; the final sibilant has seven bars.

No. 51. Fig. 8; Pl. 73. I 110.

Found over the rubble bed for the wall of a building (B) of the Persian period. The wall had been plundered.

Sherd from the wall of a large open vessel of dark red micaceous fabric, covered inside and out with red glaze; possibly a Lydian pot.

The letters incised after firing with a sharp point. Three letters preserved, left to right. The inscription probably continued both at the left and the right, where it is broken away.

—ATE—

The *aleph* is sure; the *taw* may have been a *lamed* or a *gimel*; the *he* has five horizontal bars and is tailed above and below.

No. 52. Fig. 3; Pl. 71. I 377.

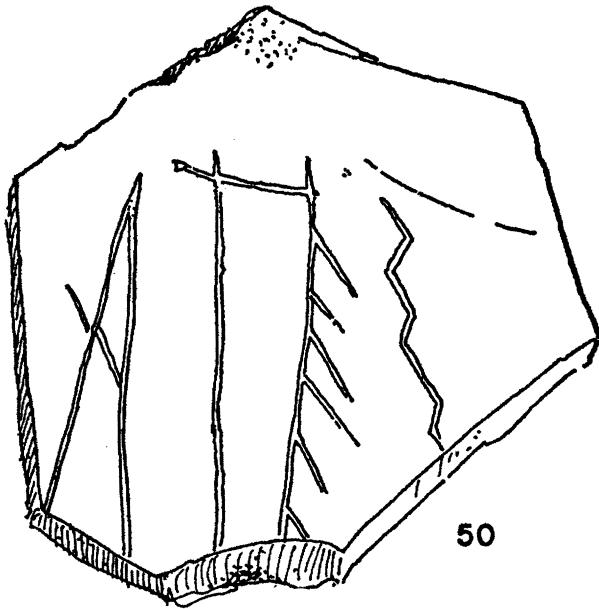
A.J.A., LXXII, 1968, p. 235, pl. 76 fig. 16.

Found over the plundered west enclosure wall of the palace area, in a filling which contained fragments ranging from pre-Kimmerian times into the fourth century. The fragment itself is probably as early as the sixth century.

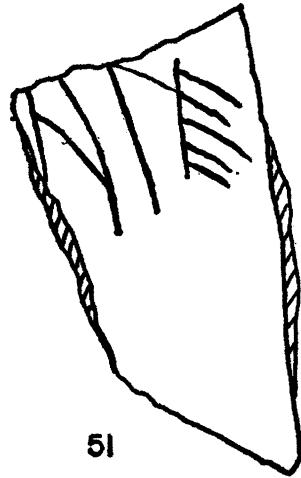
Sherd from the downward-tapering wall of a closed pot of very heavy fabric. The clay coarse and gritty, dull brown-buff at the core, slipped and given a random vertical burnishing at the surface, which fired to red.

The letters were incised after firing, downward between scratched guide lines. Two additional guide lines below the inscription give space for two more lines of writing, which were not used. The fragment is neatly broken along the top, probably along a top guide line; there may have been more writing above, of which no trace remains. The beginning of the writing is broken away at the right; the end is preserved and marked by a lightly scratched vertical line. Four dots served as punctuation to separate words. It is likely that the inscription was made on a sherd, rather than on a complete pot. We read, right to left

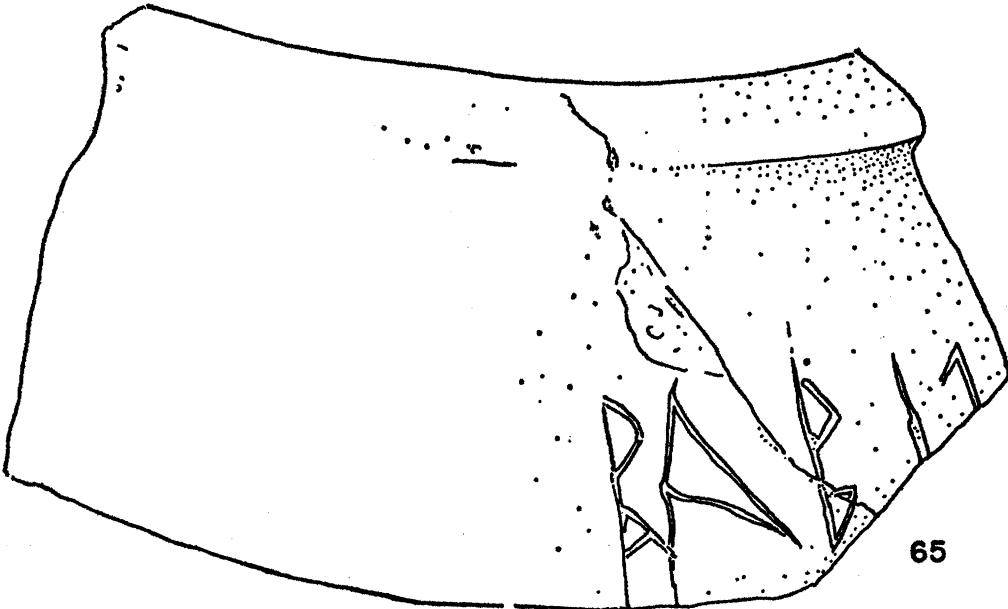
—RONOGOZ; ENEPARKESTETES



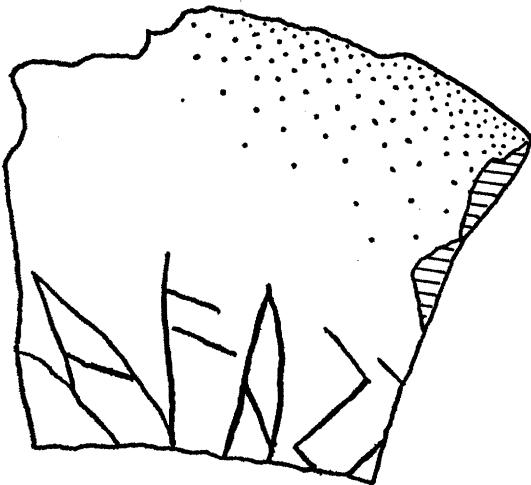
50



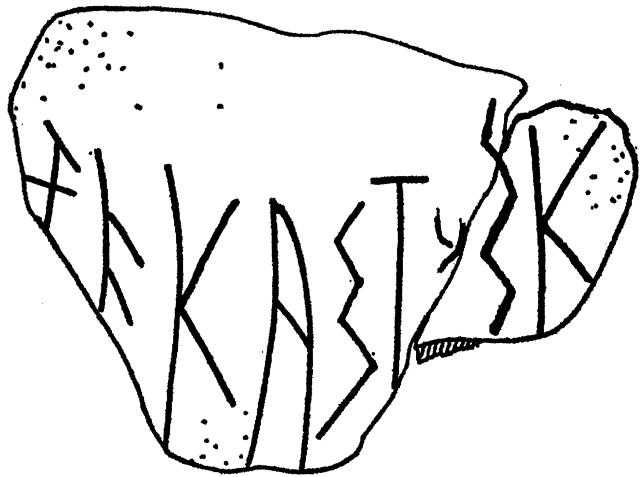
51



65



69



74

FIGURE 8 (1:1)

The *ayins* are all small, tucked in beneath the letters beside them. Of the five specimens of *he* four have four sloped horizontals, the fifth only three. The two sibilants have five bars; they are faced in opposite directions.

In the Late Phrygian inscription No. 31 occurs the word ENEPARKES (Friedrich, *Kleinasiatische Sprachdenkmäler*, p. 132). In Haas (*op. cit.*, p. 103) this becomes EPARKES, the EN which comes before being attached to a preceding word. Thus divided the EPARKES is taken as a Greek word introduced into the Phrygian text. If we follow the original reading of Friedrich we have the same (Phrygian) word, perhaps followed (though there is no indication of word division) by another in agreement: TETES; cf. our No. 49, TATES, a complete word, and our No. 44, -TATAS.

No. 53. Fig. 5. I 392.

Found in the rebuilt Phrygian building outside the palace area at the west, in mixed Phrygian and Persian filling running as late as the mid-fifth century.

Fragment from the shoulder of a pithos of coarse clay fired buff, with a gray streak at the core. The surface burnished.

Letters incised after firing, right to left. The end of the inscription

-ES

is preserved, the beginning broken away.

The *he* has four sloped horizontals, the sibilant five bars (with perhaps a missing sixth below).

No. 54. Fig. 5; Pl. 73. I 31.

Found in the South Trench, a northward extension of the old Koerte trench, in the fifth layer, a layer which contained a large dump of pottery dating from the fifth and fourth centuries.

Two joining fragments from the shoulder, with part of the neck, of a coarse gray ware vessel.

The inscription was scratched on the shoul-

der after firing, from left to right. The lettering may be complete; we read

KYLIZAS

The first two letters, missing their lower parts, can be either *kaph* or *upsilon*; since we do not believe that the inscription started with KK or YY we take the first letter as *kaph*. There are many examples in Phrygian inscriptions where the lower diagonal of a *kaph* is set well below the upper at its inner end.

This reading coincides with that of Old Phrygian No. 16, also found at Gordion; cf. Koerte, *Gordion*, p. 172, fig. 152 (retrograde), and O. Haas (*op. cit.*, p. 198), who states that the inscription is Greek. However that may be, the alphabet used is Phrygian; in addition to the typical Phrygian *zayin* the final sibilant was made with five bars. The same *zayin* appears in both No. 16 and No. 54.

No. 55. Fig. 5; Pl. 72. I 246.

Found in a mixed fill (layer 4) over the area of Terrace Building Rooms 1-2.

Fragment from the upper body of a closed pot of gray ware.

Letters incised after firing, left to right. Beginning and end of the inscription broken away. We read

-ATASKEK-

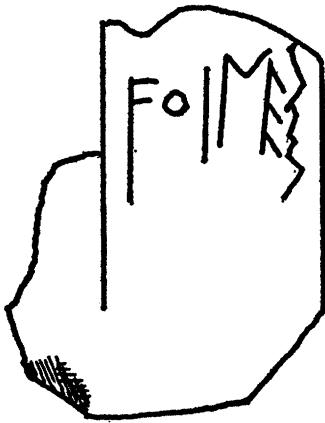
The bottom of a letter following the second *kaph* is not identifiable. The *he* has five sloped bars, the sibilant only three; perhaps a *zayin* rather than a *sade*.

No. 56. Fig. 9; Pl. 73. I 250

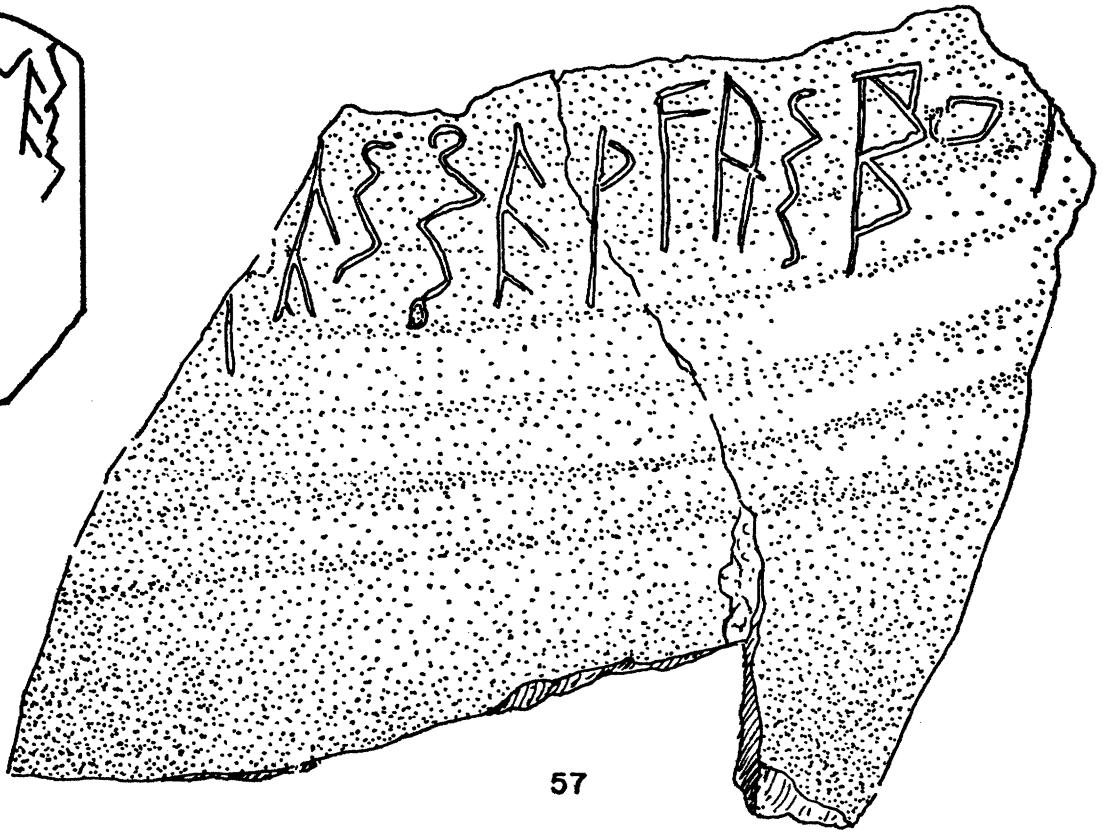
Found in the area above Megaron 4 in layer 7 above the clay.

The lower handle and part of the wall of a gray ware jug, black polished. The lower end of the strap handle stands up in relief from the wall face of the jug at the point of attachment, as if in imitation of metalwork. From shape and fabric the vessel would seem to belong to the fifth century, possibly to the sixth.

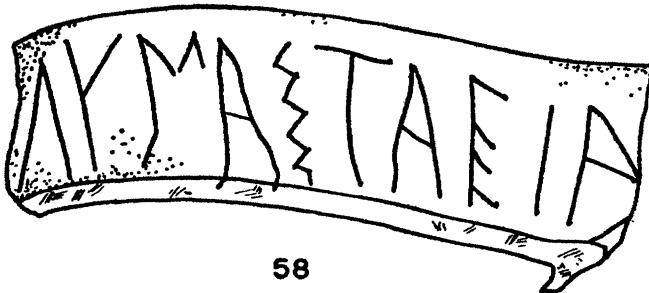
The letters incised after firing across the



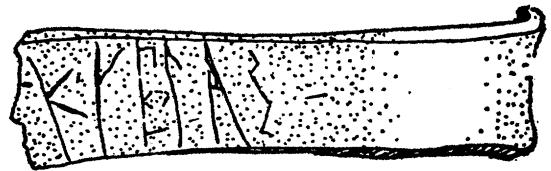
56



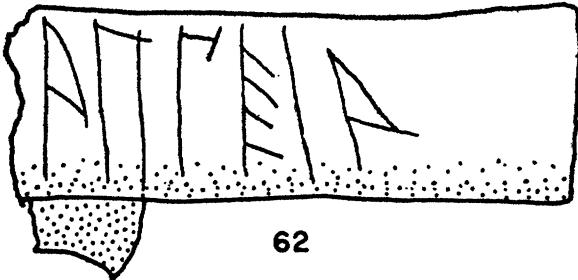
57



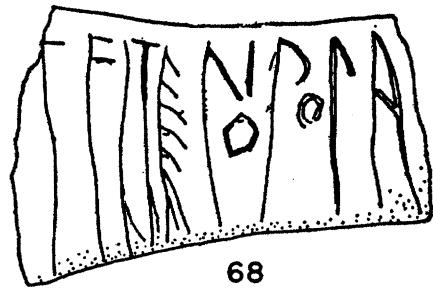
58



66



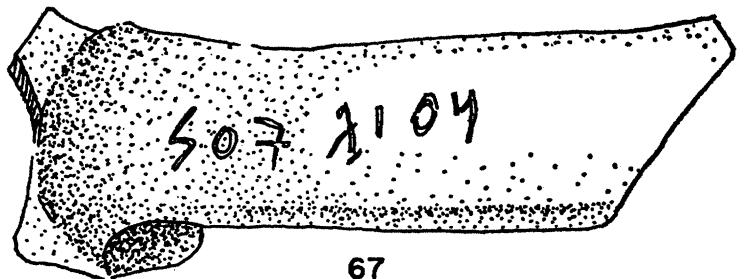
62



68

TAN OJ: MAY BA TYM

63



67

FIGURE 9 (1:1)

width of the handle, just above its base. The inscription is complete left to right:

VOINES

The *he* has only three bars, slightly sloped; the final sibilant, nine.

No. 57. Fig. 9; Pl. 74. I 363.

From the filling of a deep cellar dug into the clay just to the west of Megaron 5 above.

Two joining fragments preserving part of the belly and shoulder of a closed gray ware pot. The upper part of the body decorated with light horizontal fluting; excellent black polish at the surface. Shape and fabric suggest a pot of the fifth century.

The letters incised with a sharp point on the shoulder after firing. The inscription left to right, broken off at both ends where unidentifiable partial letters remain. We read

—ESSERVASBO—

Evidently the next to last letter was first written as *pe*, then corrected to *beth*; the sounds are related. One might suppose a division of words between the two sibilants near the beginning. All the sibilants are carelessly made, with six to seven wavy bars. The *he* in each case has only three sloped bars, and is tailed below.

No. 58. Fig. 9; Pl. 74. I 133.

Found just below the surface of the mound in the area of Persian Building E, in mixed Hellenistic filling.

The strap handle of a gray ware jug, finely black polished at the surface; probably fifth century. Broken across the elbow at the top, and at the lower attachment. Width of handle 0.031 m.

The letters, scratched with a fine point after firing, fill most of the width. They were incised from left to right down the outer face of the handle from top to bottom. The inscription may be complete; it cannot in any case have had more than one additional letter at either end. We read

DYMASTAEIA

The first letter is open at the bottom; since the inscription is in the Phrygian alphabet (the *he* with four sloped horizontals, the sibilant with nine bars) it cannot be *lamed* and should probably be read as *daleth* with the bottom stroke omitted. There are many examples in Phrygian of *daleth* left open at the bottom.

No. 59. Fig. 5; Pl. 74. I 234.

Found in a pit over the area of Megaron 4.

Four joining fragments of a coarse globular pot, probably a jug with trefoil mouth; the lower handle attachment preserved. Gray ware, the surface slightly burnished.

The letters incised after firing in thin scratchy lines. The left to right inscription begins beside the handle, and is broken away at the right. We read

PLORIATA—

The writer used angular forms, avoiding curves. The third letter, *ayin*, was made with four straight lines of which one has become lost in the break. The *resh* was similarly made with straight lines.

No. 60. Fig. 5; Pl. 74. I 65.

Found in a filling of the first half of the fifth century B.C., to the west of the Persian Gate Building (Layer 5b).

About one-fourth of a gray ware bowl, black-polished on its inner and outer surfaces. Flat disk base and plain rim thickened and flattened on top.

The inscription scratched after firing with a sharp point; complete in seven letters, left to right. We read:

TYVATIS

Of the last letter four bars are preserved; there may well have been a fifth, and possibly a sixth, at the bottom.

No. 61. Fig. 5; Pl. 74. I 150.

From the refill in the trench of a plundered

wall bed of a building in the Persian city, above the Phrygian CC Building.

Fragment of a coarse gray ware pot, probably a globular jug with trefoil mouth. The handle and part of the shoulder and neck are preserved; a groove down the outer face gives the effect of a double-rolled handle.

The letters were scratched after firing with a sharp point. The inscription was evidently boxed in an oblong panel; the bounding lines remain at the left and above. Left to right; the beginning is preserved beside the handle, the continuation broken away.

VAY—

The second letter could be *aleph* or *he*; there is no trace of a third horizontal (although there is room for it) so that *aleph* seems the preferable reading. Of the third letter only the top of a sloping diagonal is preserved; it could be *upsilon*, or part of a sibilant.

No. 62. Fig. 9; Pl. 74. I 225.

Found in the (disturbed) surface of the clay layer, to the north of Building I.

Band handle, broken off at the lower attachment, and at the elbow above. Buff-polished ware; fifth century.

The inscription incised left to right upward from the base of the handle, with a sharp point after firing. Letter heights *ca.* 0.03 m. The inscription seems to be complete; we read

AGIPEIA

The reading is not certain since the second and third letters could be taken together as *pe*; it would however be a *pe* very different in form from the fourth letter, for which any interpretation other than as *pe* is difficult. The *he* has four sloped bars, and is tailed at top and bottom.

No. 63. Fig. 9; Pl. 72. S 85.

A.J.A., LXVIII, 1964, pp. 280-281, pl. 83 fig. 6.

Found in the refill in the trench of a plun-

dered wall bed for a building of the Persian level (Building W).

A small sitting hawk of alabaster, H. 0.056 m. The bird wears a collar carved in the alabaster and supplemented by a second of bronze wire. The beak has been broken away. A bored hole at the center of the bottom may have served to peg the bird to some object. Evidently a dedication.

The inscription, scratched with a very sharp point on three faces of the plinth, begins at the left in front, continues along the right side, and ends at the back on the bottom of the bird's wing. Letter heights 0.006 m. The inscription is complete, left to right. Punctuation of three dots follows the fifth letter.

TALOZ: IMAN | BAG | YN

The third letter, with its long diagonal at the right, could be interpreted as *daleth* left open at the bottom rather than *lamed*. That the writing is Phrygian is attested by the *zayin*. In this case it is written in a direction opposite to that of the rest of the writing, so that if we desire the first word to be in the dative (rather than in the genitive) we may (with Haas) read it as *j* rather than *z*. Finally, the third letter from the end, with a short vertical hanging from the end of its horizontal bar, might be read as *pe* rather than *gimel*.

The little hawk cannot be dated definitely, nor does the environment from which it came help to date it. Its rather short plump dimensions suggest an archaic date; the two collars around its neck identify it as the sacred bird of Kybele. They suggest, moreover, two periods of use: first as a decoration or dedication dowelled at the bottom to some other object, later as a dedication suspended perhaps from a ring (now broken away) at the back of its added bronze wire collar. The letter forms, the third *aleph* with its slanted cross bar, *mem* and *nin* with their short right sides suspended in the air, suggest an early date; but two of the *alephs* have nearly horizontal cross bars. We may note that the writing was much more

carefully done at the front than after it turned the corner to side and back.

No. 64. Fig. 5; Pl. 73. I 407.

Found just above (Layer 8) the plundered west wall of the Phrygian city.

Fragment from the shoulder of a coarse closed vessel of gray ware; the outer surface wiped over with a micaceous slip.

The letters incised with a sharp point after firing, left to right. L. H. 0.035-0.05 m. We read

MIDAS

The third letter could be a *pe*; but a reading of *daleth* open at the bottom and with a broken left diagonal is just as likely, and more fun.

No. 65. Fig. 8; Pl. 74. I 411.

Found in a fourth century filling (Layer 5) in the area above Room 8 of the Phrygian Terrace Building.

Two joining fragments from the shoulder and rim of a gray ware dinos bowl; the rim thickened and flattened on top, slightly overhanging at its outer edge. Coarse ware, well slipped and smoothed.

The letters incised left to right after firing on the shoulder below the rim. The beginning of the inscription is preserved, the continuation broken off. We read

BABIZ—

Of the last letter only the top half is preserved; it can hardly have been anything but a *zayin*. In both specimens the *beth* was made with considerable space between the upper and the lower loop. The word may be another form of the BABA of our No. 48 and on Old Phrygian inscriptions Nos. 2, 3, and 5.

No. 66. Fig. 9; Pl. 74. I 374.

Found in a mixed filling outside the Phrygian palace area, above the Persian-Phrygian building beside the west city wall.

The strap handle of a black-polished jug of gray ware, broken off just above the lower

attachment and the elbow at the top. The handle well shaped and carefully finished with good black polish; probably fifth century. The handle width 0.018 m.; the letters fitted to the space available.

The inscription lightly incised with a sharp point from left to right, upward from the base of the handle. The end is preserved; a short horizontal in front of the first preserved letter suggests that the beginning has been lost. We read

—KYPOLAS

The *ayin*, composed of two opposed lunates, is small and lurks beneath the overhang of the *pe*. The final sibilant has five bars; a short horizontal stroke follows it; perhaps at the beginning there was another similar short stroke rather than a letter. One wonders if this could be a barbarous rendering of the name Kybele.

No. 67. Fig. 9; Pl. 71. I 372.

Found in mixed disturbed filling at the west side of the mound.

The handle of a closed pot, broken off at its lower attachment. Fine clay, micaceous and covered with red glaze; probably an import to Gordion.

The letters incised on the outer face, retrograde from well above the base upward almost to the elbow. The inscription is complete.

NOIEVOΣ

The fourth letter is probably a *he* with three bars; the last could be read as *zayin*.

No. 68. Fig. 9; Pl. 69. I 410.

From room 1 of the Persian-Phrygian building at the west side of the mound; mixed filling as late as mid-fifth century.

Part of the handle, broken across the top and at the lower attachment, of a closed pot of gray ware; the surface black-polished. Pottery of the sixth-fifth centuries.

The letters firmly incised with a sharp point, left to right upward from the base. It is likely that the beginning of the inscription is pre-

served, the end broken away. L. H. 0.025-0.03 m.

TVITENOPOLA—

The first letter, broken away to the left at the top, could be *gimel* or *taw*; the eighth *pe* or *resh*. The *he* has seven sloped bars. The *ayins* are small and tucked beneath the letters preceding them.

No. 69. Fig. 8. I 296.

Found in a cellar intruded into the clay layer and filled up around the middle of the fifth century.

Part of the wall and rim of a hemispherical bowl of fine gray clay, black-polished inside and out.

The bottoms of all the letters are broken off; they were probably set just above the missing base. Letters incised after firing with a sharp point, left to right. We read

—AVASS—

The two *alephs* are certain. The *waw*, as always, has horizontal rather than sloped bars. The fourth letter must have been a *sade* sibilant; three bars are preserved and there was room for a fourth below (but not a fifth). The broken last letter looks like a repetition of the fourth.

No. 70. Fig. 5; Pl. 73. I 18.

Found inside the Persian level NC Building, but in a fill which was a mixture of the building's own (yellow) filling and plunderer's disturbance. Probably sixth century.

Fragment from the wall of a coarse pithos; gritty reddish clay.

The large letters (5 to 6 cm. in height) were scratched after firing, from right to left. Incomplete; broken away at both ends.

—EVEIS—

The first letter, only partially preserved, could be *taw* or *yod* or *gimel*. Both specimens of *he* are tailed below and above; both have four sloped horizontals. The final sibilant could

have had six or even seven bars. Open space following it suggests a possibility that this might have been the final letter of the inscription.

No. 71. Fig. 10; Pl. 72. I 111.

Found in the Hearth Building to the north of the Persian Gate; uppermost level, overlying the latest (stone-curbed) hearth. Fifth-fourth century filling.

The bottom of a gray ware bowl or saucer, with excellent black polish inside and out. The bowl rested on a low flaring ring base; probably fifth century ware.

The inscription was scratched on the bottom within the ring, left to right. It is complete; we read

ESTATOIAVYN

The initial *he* has only three horizontals; the sibilant six bars.

No. 72. Fig. 10; Pl. 70. I 264.

From a Hellenistic layer above the area of the street between the Phrygian Terrace and CC Buildings.

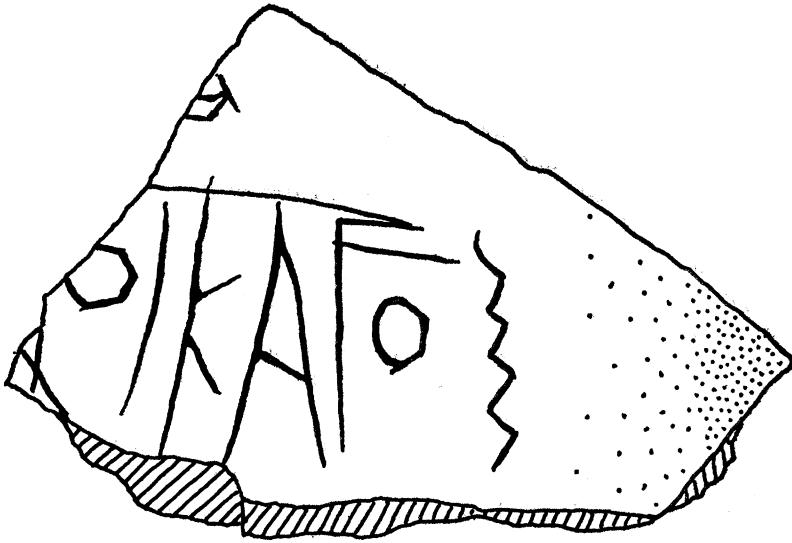
The flat strap handle of a gray ware jug, excellently black-polished. The handle was broken off at its elbow and at the attachment to the pot wall below. Pottery probably of the fifth century.

The inscription was incised after firing with a sharp point, running from the top down the face of the handle. Left to right; the beginning is preserved, the end broken off. We read

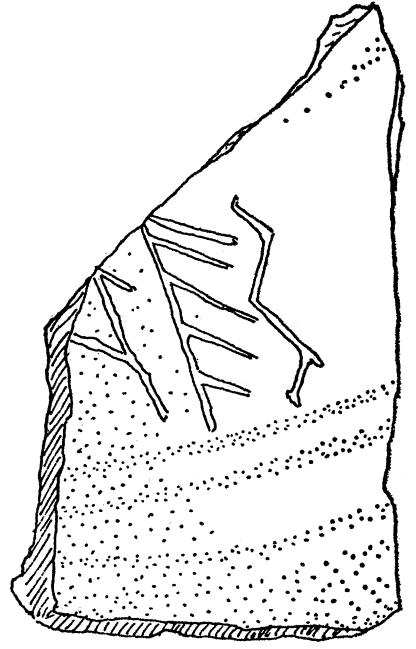
VOINESOY YRIENOISKY. —
S

The eighth letter, originally Ψ , was evidently a mistake; it was lightly scratched out and a sibilant with seven bars was substituted below it. Of the last letter only the end of a vertical is preserved; the letter preceding it, partly broken away at the top, could have been either *resh* or *upsilon*.

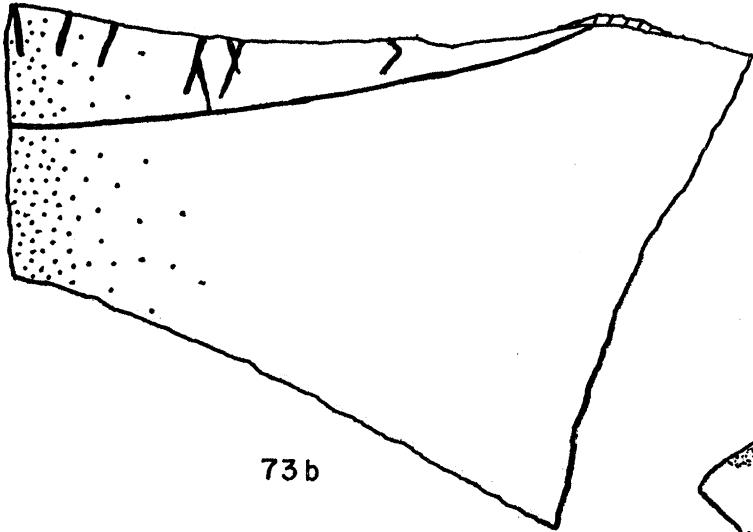
As is normal *ayin* is small and partially tucked beneath the preceding letters. *He* is



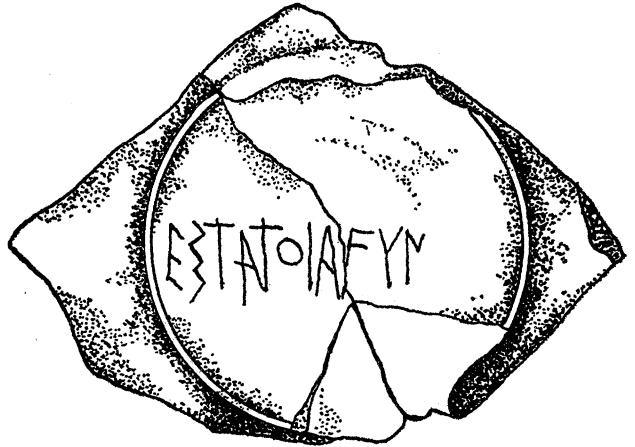
73a



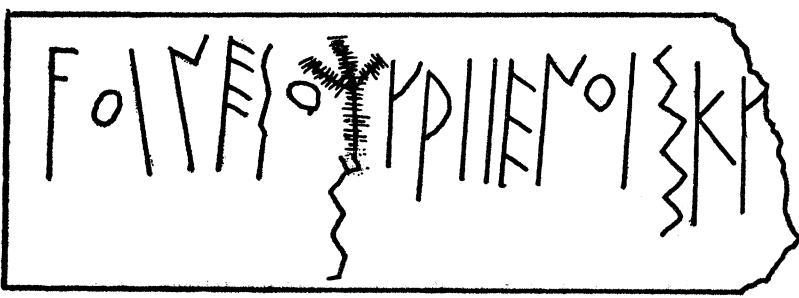
76



73b



71



72

FIGURE 10 (1:1)

written once with three, once with four sloped horizontals; in both cases tailed below. The initial *waw* is very tall, with two horizontals close together at the very top. The sibilants are written with five to nine bars. The erased letter Ψ had a sibilant substituted in its place; and this suggests a value as *psi* rather than *kh* (as in Nos. 37 and 40 above). The same symbol on the Arezastis Monument at Midas City (No. 7b; Haas, *op. cit.*, pp. 194-195) carried the value *k* or *kh*. It would seem that the letter, which occurs only four times in the Phrygian alphabet, was unfamiliar and that there was some confusion about it. Here the mistake was corrected by the substitution of *s*, not of *k*; presumably the value of Ψ was *psi* rather than *chi*. The letter lacks altogether in the earliest Phrygian inscriptions; presumably it was not introduced to Phrygia until the sixth century, and then perhaps under West Greek influence from Rhodes and Ionic influence from the west coast. Conflicting influences and values would have created confusion; if the letter had been in the Phrygian alphabet from the beginning its value would have been fixed and generally understood long before the fifth century.

For the beginning of the inscription, VOINES, compare No. 56.

No. 73. Fig. 10; Pl. 73. I 121.

Found in the same disturbed pocket as No. 71 above.

Fragments from the wall of a closed pot. Medium brown clay fired gray at the surface; unpolished.

The letters incised after firing. Part of a letter is preserved at the left edge near the top; between it and the lettering below a straight horizontal scratched line, evidently a divider between two lines of writing. Not enough is left of the remaining letter of the first line to suggest what it was, or the direction of the writing. A second fragment preserves the bottoms of several letters above a scratched horizontal bounding line. None of the letters is identifiable except the last, evidently the bottom of a *sade*; but it cannot give the direction of

writing of the line. We evidently have fragments of a three-line inscription, each line bounded by scratched horizontals above and below, as in No. 52. The best preserved middle line was written from left to right; its beginning is broken away, the end preserved. We read

— .OIKAVOS

The traces of the first letter are enigmatic. The end of a straight vertical is preserved, crossed near its bottom by a diagonal. The letter cannot have been *he*; there is no sloped horizontal above, though there is room for one. It is likely that we have the remains of the bottoms of two letters, a *he* preceding a *yod* or a *gimel* or a *resh*, its lowest sloping horizontal prolonged to cross the bottom of the next letter. The remaining letters of the inscription are clear. The *ayins* are small; they were evidently scratched as polygons. The diagonals of the *kaph* are rather widely spaced apart. The line dividing this part of the inscription from that above begins at the top bar of the *waw*. The final sibilant has nine bars.

No. 74. Fig. 8; Pl. 73. I 32.

Found in the South Trench (extension of the old Koerte trench) in layer 5 which contained only sixth and fifth century potsherds.

Two joining fragments from the wall of a coarse red pithos.

Letters neatly scratched after firing, left to right. Beginning and end of the inscription are broken away. We read

— .LEKASTOSK—

Of the first letter only the top is preserved: a vertical with a diagonal running downward to the right from its top. The vertical is crossed near the top by another sloped bar, broken off at the left. A reading of *waw* seems most unlikely; *waw* was uniformly written with horizontal bars at the top. Possibilities are *lamed*, with the end of a sloped bar of a preceding letter (*?he*) crossing it near the top; or *mem*. Of the following *he*, tailed at the top,

three sloped bars are preserved; there would seem to be room for at least a fourth below. The two sibilants have each five bars; the *ayin*, small, was made in four approximately straight strokes.

No. 75. Fig. 5; Pl. 73. I 120.

Found between the north end of the Persian Gate Building and the Hearth Building in a disturbed pocket in the clay, below the Persian ground level.

Fragment from the lower body of a large closed pot of heavy fabric; coarse gray-brown clay, gray at the surface and unpolished.

The letters incised after firing, left to right. The beginning of the inscription is broken away, the end preserved. We read

—ATES

The *he* with four sloped horizontals, tailed above and below. The final sibilant has five bars.

No. 76. Fig. 10; Pl. 73. I 364.

Found to the west of the palace area in the refill of a trench cut to plunder a wall of the Persian-Phrygian Building.

Fragment from the shoulder of a closed pot. Fine clay, brownish at the core, light gray at the surface; burnished. Two shallow horizontal grooves on the outer shoulder; shape and fabric should be of the fifth century.

The letters deeply and neatly incised, left to right. The beginning of the inscription broken away, the end preserved.

—AES

The first letter was certainly *aleph*: right side and cross bar are preserved. A horizontal stroke toward the right at or close to the apex is puzzling; it may represent the top of a *taw*, in which case we would have a ligature. Were that so the reading would be the same as that of No. 75. The following *he* has five bars and is tailed below; the final sibilant has five bars, the top one very short.

No. 77. Fig. 11. P 3541.

A fragment of a pithos found in a deposit of pottery over the floor of a house at level 4. The pottery dated from the turn of the fourth to the third century; it must once have been part of the equipment of the house in which it was found. The inscribed pithos belonged to the same group, and must date from the same time.

The rim and shoulder are preserved and restored with plaster; small fragments missing. The shoulder rounds in to a wide mouth with almost no neck; the mouth collared by an everted rim. Coarse clay with large bits, fired orange-red.

Graffiti scratched on the shoulder after firing: one complete (a), one partial (b), and a complete set of capacity marks (c). L. H. 0.036 (initial letter of b) to 0.125 m. (sibilant of b).

(a)—Complete graffiti incised left to right. We read

ASAYAS

The first sibilant has seven bars, the second five.

(b)—Writing broken away at both ends. A fragment or large chip missing across the lower parts of the letters, whose bottoms are preserved below the gap. Left to right; we read

—OLPAVOS.—

The two *ayins* were made by opposing lunettes. The final sibilant has four bars, the bottom one recurved. The form of the last partly preserved letter is not clear. The tops of two letters of a second line remain beneath the *aleph* and the *waw*.

(c)—To the right of b, and below, three capacity marks in the form of compass-drawn circles, side by side. The diameter of each 0.043 m. The same marks of capacity appear on the earlier pithoi Nos. 41-42 above. Our pithos is not sufficiently preserved to allow of measurement of its capacity.



FIGURE 11 (1:2)

CONCLUSION

No. 77 brings us down to the beginning of the third century; until then at least, a generation after the death of Alexander, people still wrote in the Phrygian alphabet. Perhaps Phrygian writing lingered on until the coming of the Galatians in the middle of the third century; perhaps even until the coming of Manlius Volso early in the second. By the time of the Roman Empire the Phrygian language was expressed in the Greek alphabet. The inscriptions offered here cover a period of four and a half centuries, from about 750 to 300 B.C., and they can suggest a history and development of Phrygian alphabet writing.

It was not an offshoot of any Greek alphabet that we know: Ionic, Aeolic, or Rhodian. In early Greek and in Phrygian the letters are the same through *tau*, with the added vowel *upsilon* and with four superfluous Semitic letters transformed into vowels. If Phrygian was derived from any Greek writing it must have been derived from that ancestral alphabet developed out of Semitic in a bilingual land where Greeks and Phoenicians lived together in close daily contact. That the North Syrian and Cilician coasts were as accessible to the Phrygians as they were to the Greeks strengthens the case for the derivation and the transformation of the Semitic alphabet in those parts. But there is no proof (though perhaps a likelihood) that it was Greeks and not Phrygians who first borrowed and then altered it. All that we can say is that an altered version of the Semitic became ancestral to both the Greek and the Phrygian alphabets, and that it was developed in the early eighth, or possibly the late ninth, century in a region equally accessible to Greeks and to Phrygians.

Of the twenty-two Semitic signs the Phrygians took over and used seventeen. *Heth* and *teth* never appear in Phrygian writing; the language was evidently psilotic.⁵³ *Samekh* (or *xi*) likewise has no place in Phrygian, and never appears. *Qoph* too had no place in Phrygian writing.⁵⁴ Finally, of the remaining two of the four Semitic sibilants the Phrygians (having accepted *zayin* and rejected *samekh*) evidently chose *sade* and dropped *shin*. The two sibilant forms which the Phrygians did use, indeed—*zayin* and *sade*—, bear closer resemblance to Semitic models than they do to any Greek derivatives. In our earliest inscriptions, Nos. 25 and 32, it appears that two alternative forms of *zayin* were current: the vertical crossed at top and bottom by horizontal strokes (but tailed below, No. 32) used by the Greeks, and a three-barred zigzag form like an early Greek *sigma*, No. 25, which later developed into the typical Phrygian *zayin* form, 1. The *sade* form adopted was upright rather than prone, and had the potential for developing into a many-barred sign (Nos. 30, 31, and 25).

⁵³ We have noted in footnote 27 that these letters were erroneously attributed to the Phrygian alphabet from the inscription of the Lemnian stele.

⁵⁴ See the discussion above, pp. 265-266 and footnote 34, of the equivalence of the signs \uparrow and Φ , of which the latter makes a single appearance in Phrygian inscriptions. Its interpretation as *qoph*, a figment of the imagination of Ramsey, has by now been rejected.

Two of the hallmarks, then, of Phrygian writing are the distinctive form of *zayin*, and the multiplication of bars (up to eleven) of the sibilant *sade*. Since only one sibilant, *sade*, was chosen there was no need (as in Greek) for alternative forms of *yod* or *mem*; from the beginning the Phrygians used a straight vertical stroke for *yod*. The form for *he* in the earliest Phrygian inscriptions (Nos. **29-30**) was three-barred; with the passage of time it developed more, up to seven, bars, usually downward sloped. *Waw*, on the other hand, had only two strokes at the top, and those horizontal rather than sloped. *Daleth*, usually of normal form in the early inscriptions (Nos. **25** and **32**; perhaps tailed in No. **31**), later becomes on occasion open at the bottom (Nos. **2, 3, 7b**; **58** and **64**), perhaps when it was realized that there was no great danger of confusion with *lamed* or *gimel*. *Lamed* itself, as in many of the early Greek alphabets, was the crooked Semitic form, turned upside down. *Beth* and *kaph* were often (though not always) written with space between the upper and lower loops or diagonals where they join the vertical stem. Finally, *ayin* became almost literally the Greek *omicron*; it was written much smaller than the other letters and often tucked beneath the end of the preceding letter; this is as true of the monumental stone inscriptions as of the graffiti, and it seems to have been characteristic from the beginning (Nos. **29, 25**).

The straight *yod* sign was an addition to the seventeen Semitic signs adopted; the original Semitic *yod* was probably preempted to take the place of *waw* which (in Phrygian as in Greek) was used to make a fifth vowel. To these eighteen letters, seventeen of them Semitic, was added the sign ↑, certainly not Semitic, for which the value has not been established. This is a sign which is common to all the Asianic alphabets and foreign to Greek. The Phrygian alphabet, then, in the earliest phase was composed of nineteen signs—seventeen of them Semitic, plus the straight *yod* ↓ and the sign ↑. Of the signs added to the alphabet after *upsilon* by the Greeks two, *chi* and *omega*, do not appear in Phrygian. The *phi* sign occurs only once, apparently as an experimental alternative for ↑; but as the inscription in which it appears (No. **2**, sixth century) is late a Greek source is possible, though there is no certainty that the sign carried the Greek value of *ph* or *f*. The cup painted by the Attic craftsman Klitias, found by the Koertes in Tumulus V, bears the sign in ΕΛΡΑΦΞΕΝ; it dates from about the same time as the Phrygian inscription. In any case neither the sign ϕ nor the sign ↑ occurs again among the later Phrygian inscriptions. The sign Ψ, the Greek *psi* (or *chi*), appears four times among the Phrygian inscriptions, three of them (Nos. **7b, 37, and 40**) of the sixth century, one (No. **72**) probably of the fifth. In one of these (**7b**) it apparently had the value of *chi*, *kh*; in another (**72**) it was written by mistake, scratched out, and an S (not a K) was substituted for it. There seems to have been some confusion about its value, and this suggests that it was a late comer to the Phrygian alphabet, perhaps under divergent Greek influences, Ionic (*psi*) and West Greek (*chi*). The Phrygian alphabet of nineteen letters thus seems to

have taken on two more under Greek influence in the sixth century: ϕ which was at best transitory, and Ψ which seems to have been divergently interpreted. Whether the original alphabet of eighteen letters was adopted by the Phrygians from an adaptation of the Semitic forged by the Greeks remains to be seen. Certainly the Greeks took and made use of all twenty-two of the Semitic letters rather than just seventeen. Some of these (*waw*, *qoph*, and *shin* which was redundant) later dropped out as sounds, though they were kept (except *shin*) as numbers. The alphabet ancestral both to Greek and to Phrygian was probably devised from the Semitic by the Greeks, who used more of the available signs. The contribution of a study of the early Phrygian inscriptions to the history of alphabetic writing is that it pins down the place of the takeover, and perhaps that it suggests a more accurate estimate of the time when it took place.

RODNEY S. YOUNG

UNIVERSITY OF PENNSYLVANIA



29



40



31

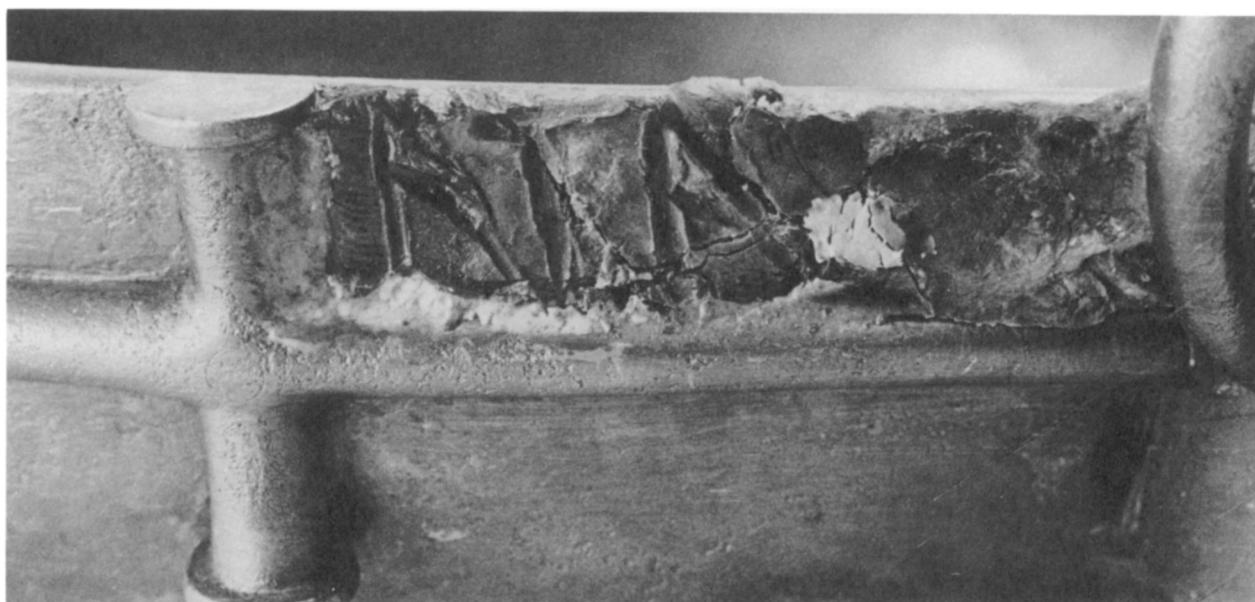
RODNEY S. YOUNG: OLD PHRYGIAN INSCRIPTIONS FROM GORDION,
TOWARD A HISTORY OF THE PHRYGIAN ALPHABET



25



32



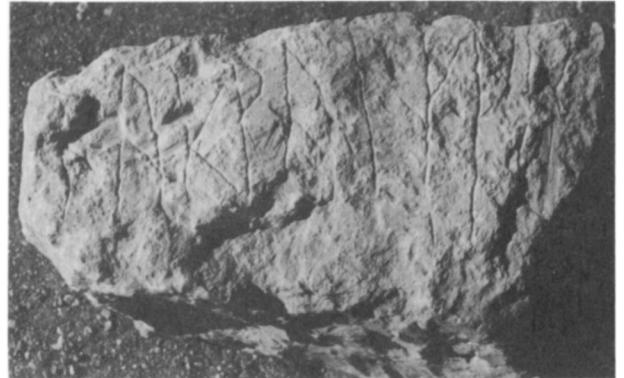
33



24, Frag. 1, Face A



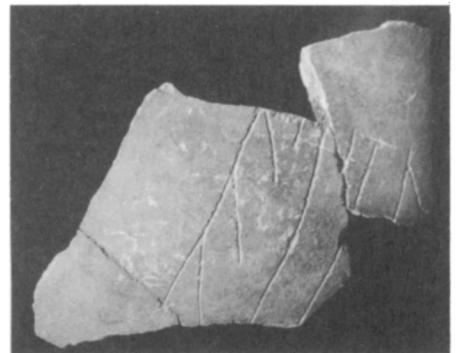
24, Frag. 1, Face C



39



24, Frag. 1, Face B



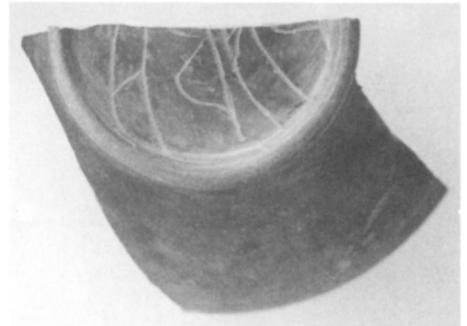
37



24, Frag. 2, Face A



44



48



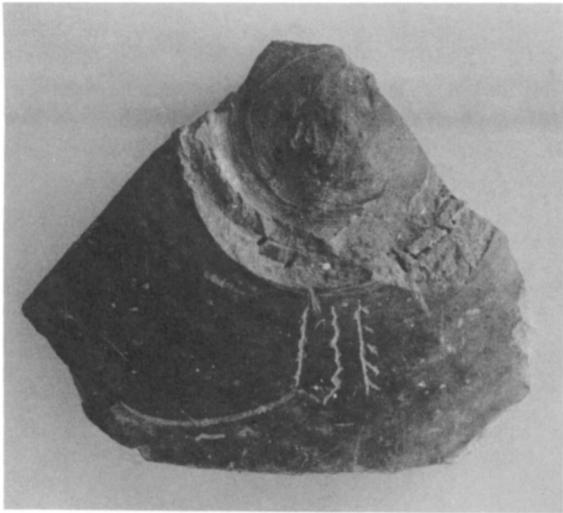
46a



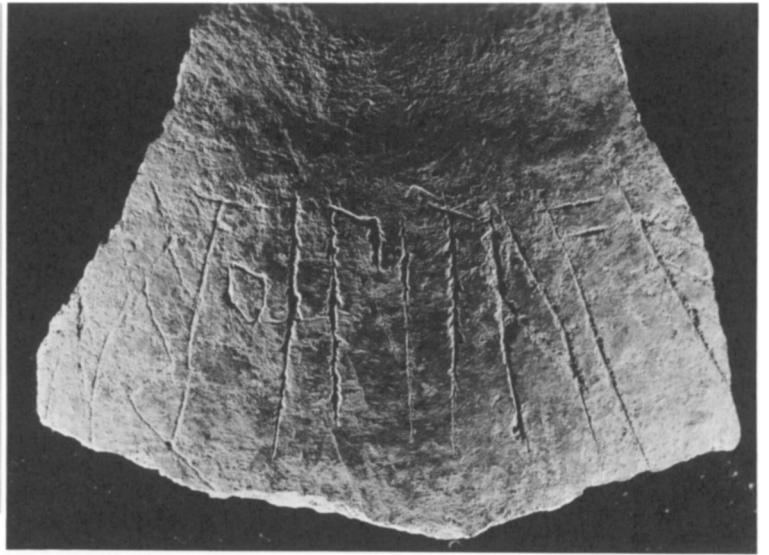
45



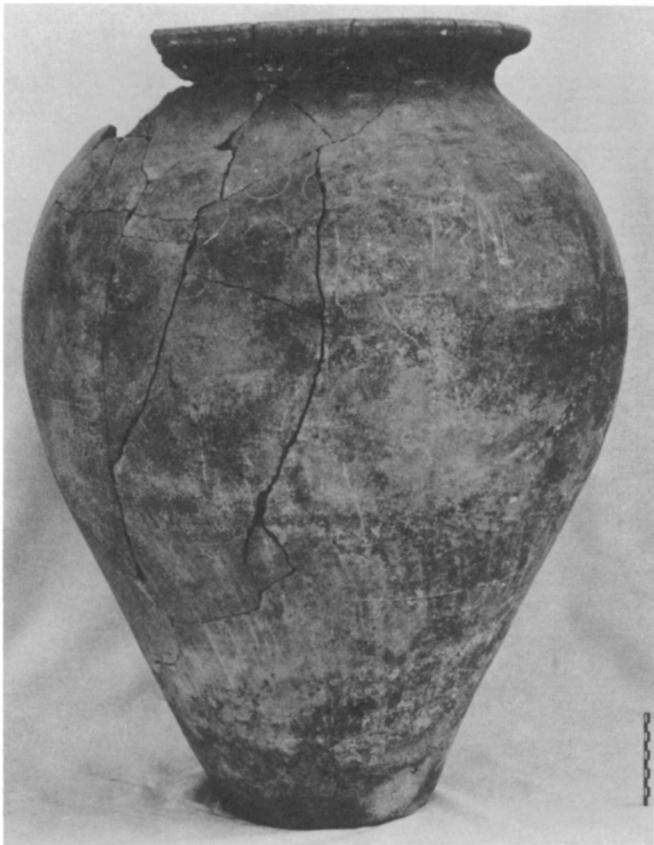
68



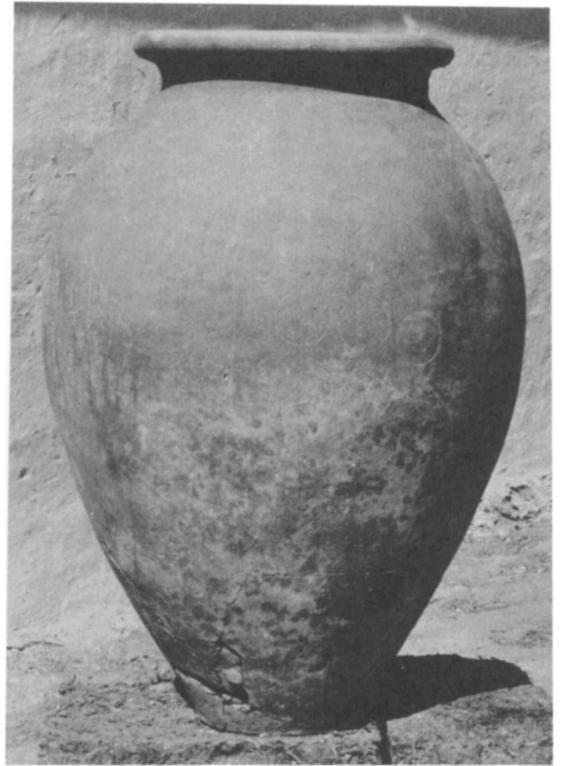
36



38



42



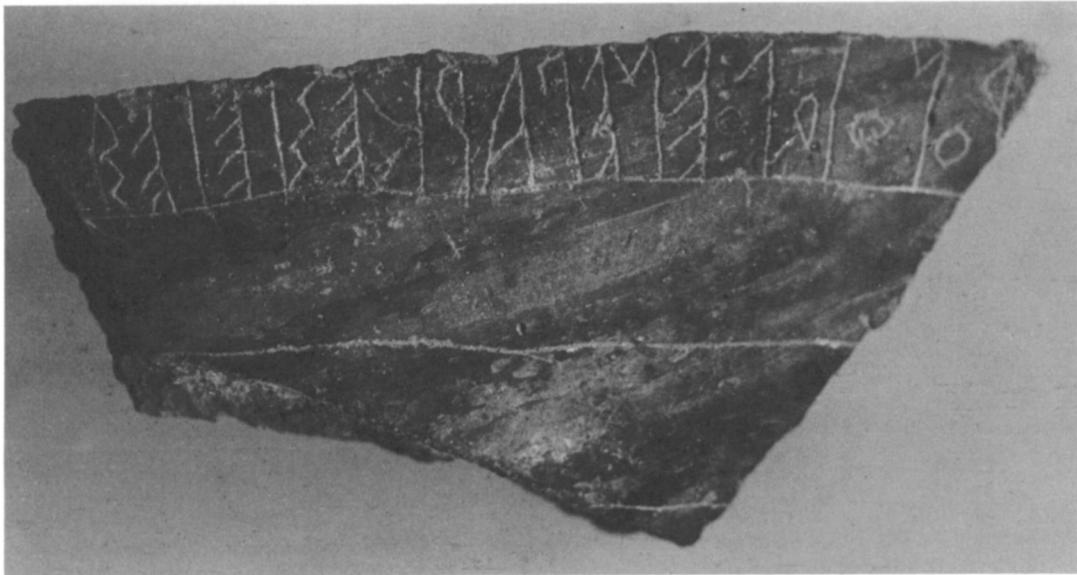
41



72



43



52



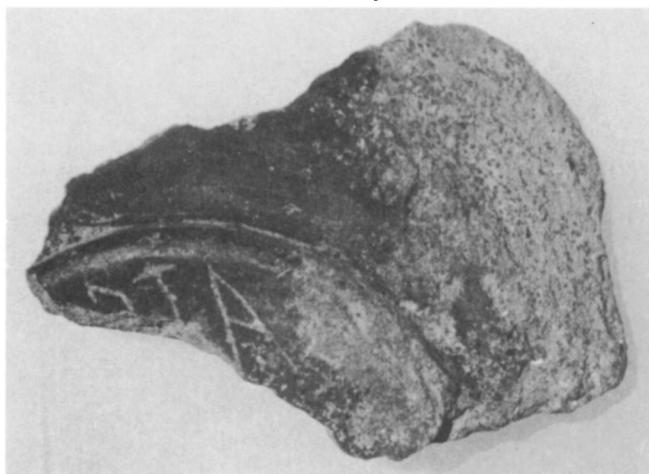
67



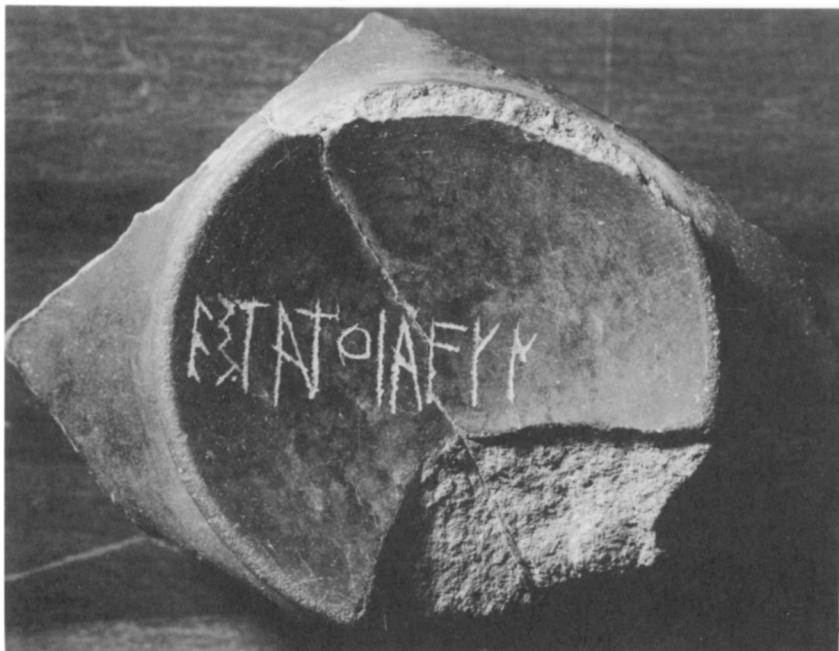
63



55



46



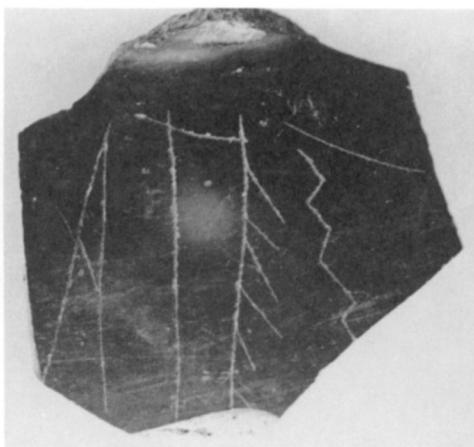
71



47



49



50



51



54



56



73



64



70



74



75



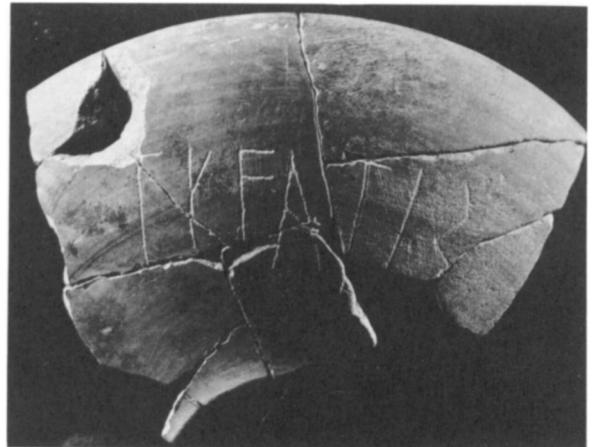
76



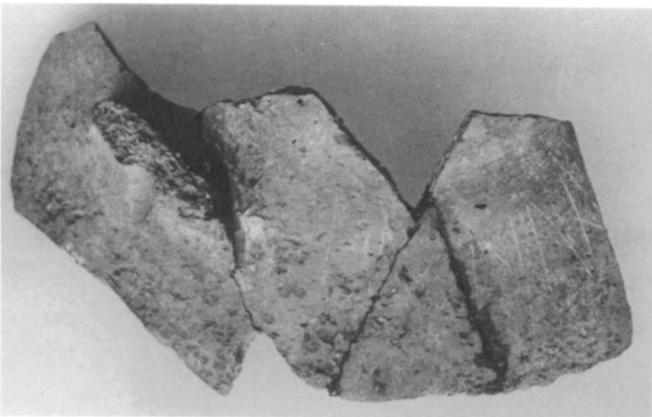
57



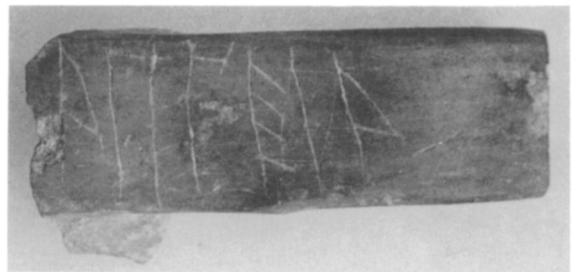
58



60



59



62



61



65



66