A FRAGMENTARY TEXT FROM TEL APHEK WITH UNKNOWN SCRIPT

by Itamar Singer, with an appendix by Yuval Goren

In the first excavation seasons at Tel Aphek, an inscribed clay fragment (reg. no. 47111.10) was found in an early Iron Age context, Stratum X10, above Late Bronze Age strata. Stratum X10 is characterized by pits and thick layers of ashes containing organic material and a mixture of Middle Bronze, Late Bronze, and early Iron Age sherds, including some Philistine pottery and “Ashdoda”-type figurines. This extensive burned layer, lacking recognizable evidence of occupation, was identified by the excavators as a threshing floor covering the entire surface of the higher mound. It is sandwiched between Late Bronze Age fills and Iron Age II silos, and is roughly dated to the eleventh century B.C.E. (Beck and Kochavi 1985:30). Despite its clear stratigraphic situation, the fragment was not found in a sealed context, and therefore it might also be residual from an earlier level. Petrographic analysis performed by Yuval Goren indicates that its clay probably originated in Philistia (see appendix).

Description of the Tablet Fragment

The ca. 35 × 30-mm fragment (figure 1) is probably the upper left corner of a rectangular clay tablet that was fired either deliberately or by accident when the threshing floor was scorched. The broken section reveals the method by which the tablet was modeled (figures 1c, 2c). A sheet of light-brown clay was folded over and pressed together to form a plano-convex tablet ca. 12 mm thick. The inscribed obverse has a slightly convex surface, whereas the uninscribed reverse is flat. The writing continues on the partly preserved left edge and is cut abruptly (figures 1d, 2d). From the break to the preserved part of the reverse there is an eroded surface ca. 7 mm wide, which must have contained one or two more signs in each line. The flat reverse is coarse and bears traces of fingerprints (figure 1d).

On the upper edge, there is a series of wedge-like incisions (figures 1b, 2b). This could be simply a decoration, or perhaps some kind of “tallying”—a rough summing up of units prior to writing a total on the tablet itself. Such a counting method has been noted, for example, on Linear B tablets (Bennett 1955:117). The three preserved lines of the inscription are divided by two guidelines. The first was drawn on the tablet, ca. 15 mm from its upper edge, before writing was begun. This is clearly shown by the word-divider, which cuts into the first guideline, separating the first and second compartments. Whether the second guideline was also drawn before writing, or only after the first line was already written, cannot be established. Both guidelines continue to the edge, not as simple prolongations of the long lines, but rather as subsequently added extensions.

The vertical word-dividers take up the whole width of the line and divide it into rectangular compartments of varying size. Six compartments can be distinguished (numbered from I to VI), only one of which (IV) is fully preserved (figure 2d).

The signs, numbered from 1 to 15 (see figure 2d), are written close to the upper margin of the compartment, and one of them, no. 11, actually cuts into the guideline. Some of the signs nearly touch others, but unfortunately none of them actually cuts into a neighboring sign (which could have helped in establishing the direction of writing).

The characters were impressed or punched into wet clay with a thin stylus. Consisting of short strokes without any curved lines, they resemble cuneiform signs more than linear scripts. This observation is best demonstrated by the configuration of the composite signs, the trident-shaped no. 6 and the cross-shaped nos. 2 and 11. Both were executed by four impressions of the stylus rather than by dragging two long intersecting lines. A wedge-like form is typical mainly for signs that may conceivably be identified as numerals (nos. 8 and 12); less so in the remaining characters, which lack a thickened head of a wedge.

It is impossible to determine the original size and shape of the tablet, but the fact that it contained at

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1 The fragment was mentioned in preliminary publications (Kochavi 1981:80–81; Singer 1983:26) and a partial drawing was published in the catalogue of the Aphek exhibition at the Israel Museum (Kochavi 1990:xxiv). The publication of the fragment was first assigned to Prof. David Owen, who participated in the Aphek excavations, and he later passed it on to me, for which I am grateful to him and to Prof. Kochavi. The photographs were made by Pavel Shrago and the drawings by Rodica Penchas, both of the Institute of Archaeology of the Tel Aviv University. This article will also appear in the forthcoming Tel Aphek final report volume, Aphek 2.

2 This observation supersedes the preliminary reports, in which the fragment was described as “linear.”
Figure 1
Figure 2
least three lines seems to indicate a “page-shaped” tablet rather than an elongated “leaf-shaped” (“bar-shaped”) tablet (to use Linear A/B terminology). The latter form, which is found in the Aegean region and is also represented by the Tell Deir ‘Alla tablets and some of the Ugaritic tablets (including those from Beth-Shemesh and Tell Ta‘annek), usually contains only one or two lines.

Orientation and Direction of Reading

How the tablet should be held for reading, whether as portrayed in the figures or upside down, is not obvious. Several observations prompted me to opt for the first possibility: (1) the wedge-like incisions on the edge of the tablet (figures 1b, 2b), whatever their purpose, would be more “in place” on the upper side of the tablet; (2) the first inscribed line has a guideline under it, but not above it—this is quite normal in ruled tablets, wherein the last line is usually followed by a guideline; (3) in impressed scripts, such as cuneiform, characters are closer to the upper edge of the register, whereas in linear scripts, such as ruled Linear B tablets, characters sit at the bottom of the register; since, as noted above, the characters on this tablet are impressed and not drawn, the inscription looks more natural in this position than it does upside-down; (4) the sharpened ends of the wedge-like signs would normally face downwards rather than upwards. In conclusion, I am quite confident that the fragment is the upper left corner of a tablet and not the lower right corner.

Establishing the direction of reading is more difficult. As noted above, I have painstakingly sought (by means of a stereoscopic microscope) evidence for overlapping (signs cutting into each other), but none of the marginal cases seems to be sufficiently convincing. My preference for a right-to-left direction is based mainly on the continuation of the writing at the left edge. Except in cases of later additions, I am not aware of any examples in which a scribe would deliberately begin his lines at the edge of a tablet. On the other hand, continuing a line at the edge (or even on the reverse) is commonplace in cuneiform writing, and is also found occasionally on Cypro-Minoan tablets from Ugarit (RS 20.25; Masson 1974:31). In Aegean scripts, there is no spilling over to the edges of a tablet. If an entry turned out to be too long for the available space, scribes preferred to add missing words in smaller characters above the line where they did not fit (Ventris and Chadwick 1973:111–12).

The Characters

Only fifteen characters are fully or partially preserved on the fragment. Discounting repeated signs and some uncharacteristic traces, we are left with only nine different signs, three of which (or possibly four) are most probably numerals. Obviously, there remains very little to start with in searching for the origins of the script of this tablet. But before we set out on this unpromising venture, it is expedient to add some brief observations on the graphic properties of each character and to attempt some tentative restorations.

No. 1 is the head of a vertical stroke. It could in fact be the beginning of a word-divider, but since it is almost on the same level as no. 2, it seems more likely that it belonged to a sign.

Nos. 2 and 11 are probably identical. As noted above, the four arms of this cross-shaped sign were executed separately by impressing the stylus, rather than drawing two intersecting lines, as in linear scripts. On no. 11, one can discern that the scribe drew the arms in a clockwise direction, with the upper vertical arm cutting into the left horizontal one.

Nos. 3 and 4 are two identical T-shaped characters. Their heads are almost touching each other, producing a fl-shaped character. However, a close examination shows that they fall short of actually touching each other, and appear to be two identical but separate characters. No. 13 is probably the same sign, but the horizontal and the vertical are more distanced from each other than in nos. 3 and 4. Left of the vertical of no. 13, it is possible to discern the trace of another vertical (which does not show up well in the photograph, figure 1e). If so, we may have here a “double-T” sign similar to nos. 3 and 4.

No. 5 is composed of four short strokes in a vertical line. It could be the numeral 4, but such a configuration would be most unusual. Perhaps it should be considered a non-numerical sign, an equally unusual configuration.

The trident-shaped no. 6 consists, as do cross-shaped nos. 2 and 11, of four separate impressed strokes. Once again, this differs from similar signs in linear scripts, where a central axis is drawn in one continuous line.

The “outstretched” Z-shaped no. 7 is followed by two vertical strokes, presumably standing for the numeral 2. The damaged surface to its left could have

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3 For example, no. 10 comes short of actually cutting into the word-divider to its right.
4 As, for example, on a cuneiform fragment from Tell Keisan, in which the number “one” was added as an afterthought at the edge (Sigrist 1982). I am grateful to Wayne Horowitz for this reference.
accommodated another character, perhaps even two, if pressed together.

No. 9 in the second line appears to be a numeral consisting of two superimposed rows: five short strokes in the upper row and two heads preserved in the lower one. This configuration could only belong to the numeral 9, as restored in figure 2d. For parallels to this configuration, which may perhaps have some diagnostic value, see the discussion of numerals below.

The two right-angled bars forming no. 10 come short of touching each other. At first, I considered the possibility of separating them, combining the right one with the bar to its right. However, this long vertical stroke is almost certainly a word-divider since, like other word-dividers, it cuts into the guideline above it.

No. 11 is identical to no. 2, though a bit larger. No. 12 consists of three vertical bars, the middle one lower than the others. This could perhaps represent a regular sign, but the numeral 3 seems a more likely interpretation.

Compartment V has been described under nos. 3–4 above. The worn-away surface following it could have accommodated one, or possibly two, signs.

Compartment VI in the third line has the heads of five strokes all together. The two on the right are bent, the three on the left are vertical. It is difficult to say how many and what kind of characters they represent, but a numerical sign is quite likely. Here, too, as in the previous lines, one or two characters may be missing.

**General Observations and Comparisons**

**The Signary**

With only a half-dozen signs at our disposal (discounting the numerals, see below), it would be preposterous to attempt an identification of the script, not to mention a “decipherment.” What is more, even these few signs are schematic and simple, a “cross,” a “trident,” a “T,” an “outstretched Z”—all basic geometrical forms that are found in most writing systems around the world. Take, for example, the cross-shaped nos. 2 and 11, which could represent a West Semitic taw, a Ugaritic h, a cuneiform ti, a Linear B lo/ro, a Cypriot lo, an Egyptian wn, a Hieroglyphic Luwian CRUX, and so on. The fallacy of futile “resemblance hunting” has duly been emphasized by specialists in ancient scripts and their decipherment.5

What may complicate speculation over the form of the signs on this fragment even more is the distinct possibility that wedge-like characters are in fact derived from linear shapes of some primary script, in which case the signs may be distorted in relation to their original forms.6

In short, I prefer to heed the warning of many experienced epigraphers “against placing too great a reliance on formal similarities between characters in attempting to trace the relationships among different writing systems” (Palaima 1989:38). A more useful approach would, I believe, be to consider carefully the internal traits of the inscription, such as orientation, word-dividers, numerical notation, and structure. Cumulative evidence from such observations, combined with appropriate comparisons, may lead to more reliable results than could be achieved by a mechanical comparison of a few isolated signs.

**Word-Dividers**

The practice of word-division is normal in the majority of ancient Near Eastern and Aegean writing systems (Millard 1970; Naveh 1973; Duhoux 1999). In most scripts, the units are separated by a space (cuneiform), a dot (West Semitic), or a vertical stroke (Hieroglyphic Hittite, Ugaritic, South Arabian, Aegean, and Cypriot). In rarer cases, three vertically placed dots function as word-dividers (archaic Greek, Lycian, Phrygian, and on the Proto-Canaanite Lachish ewer [see Millard 1970:12; Naveh 1973:206]).

Division by means of long vertical lines that traverse the entire width of a ruled register, as in the Tel Aphek fragment under discussion, seems to be quite rare. In fact, the only close parallels known to me are on the unique disc from Phaistos on Crete (Naveh 1982:19), with its spiral inscription, and on tablets from the Jordan Valley site of Tell Deir ʿAla (ibid., p. 22). Long word-dividers also appear on a single-line inscription from Qubur el-Walayda in Philistia (ibid., p. 36) and on the Gezer Calendar (ibid., p. 63), but these Semitic inscriptions do not have a division of space into compartments. The Phaistos Disk and the Tell Deir ʿAla tablets have not yet been deciphered, despite numerous attempts, and are therefore of little help in our quest for defining the script on the Aphek fragment.7

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5 See, e.g., Gelb 1963:144 (and fig. 77 on p. 142) in which he compared the signs of Semitic writing with signs of seven other scripts picked at random from around the world.

6 Such a development has been claimed, for example, for the Ugaritic script (Dietrich and Loretz 1999).

7 I suppose that some might claim a Philistine origin for all three scripts, referring to the biblical evidence for a Cretan origin of the Philistines (e.g., Amos 9:7). However, as most scholars have observed, the unique Phaistos Disk is intru-
Direction of Reading

Sinistroverse writing prevails in the Near East only towards the end of the second millennium B.C.E. Most earlier writing systems are either dextroverse (cuneiform, Linear A and B, Cypro-Minoan) or boustrophedon (Hieroglyphic Hittite). Hieratic Egyptian, written as a rule from right to left, constitutes a notable exception, and its influence must have been dominant in the development of new writing systems in the Egyptian-controlled Levant. Byblos, for example, the main Egyptian outpost on the Levantine coast, developed its own writing system, written as a rule from right to left. The linear alphabet, which slowly evolved in Egyptian Canaan, fluctuated between the directions from which it was written, and eventually settled on right to left. That became the standard direction in most Semitic scripts (Naveh 1982:42).

The influence of sinistroverse writing in the Egyptian-controlled parts of the Levant can even be felt in the rare Aegean-type inscriptions recently discovered in Israel (Singer 2000:25). Whereas an earlier inscription from Tel Haror maintained an invariable tradition of the Aegean region by being written from left to right (Oren et al. 1996), by the time a later inscription from Lachish was written, it was from right to left (Finkelberg et al. 1996). A similar development occurred in Iron Age Cyprus, where second-millennium B.C.E. Cypro-Minoan was written from left to right, while its first-millennium B.C.E. descendant, Cypriot Syllabic, changed direction, probably under Phoenician influence.

The situation at Ugarit, outside of the Egyptian-controlled zone, is more complex. Under the prevailing influence of Akkadian cuneiform, a standard 30-letter Ugaritic alphabet was written from left to right. In the late thirteenth century B.C.E., however, a reduced 22-letter Ugaritic alphabet developed that was written from right to left (Bordreuil and Pardee 1995). The few Ugaritic inscriptions discovered outside the kingdom of Ugarit are either sinistroverse (Beth-Shemesh, Mount Tabor) or dextroverse (Sarepta, Kamid el-Loz, Tell Ta‘annek).

This brief summary demonstrates that in Late Bronze Age and early Iron Age contexts along the Levantine coast, one may encounter inscriptions written in either direction. However, under Egyptian influence, a right-to-left direction gradually prevailed for local scripts, and in this respect the Tel Aphek fragment and the Deir ‘Alla tablets, both written, in my opinion, from right to left, fit well into the general picture of late second millennium B.C.E. scripts.

Numerals

On first inspection, it was obvious that some of the characters on the Tel Aphek fragment probably represent numerals, indicating some sort of administrative tablet (Singer 1983:26). This is quite clear with regard to nos. 8, 9, and 12; it is less clear in the case of the traces preserved in Compartment VI. The group of three verticals (no. 15) could belong to a numeral, and perhaps also the two slants preceding them (no. 14). As for the peculiar sign no. 5, an unusual configuration of the numeral 4 is not impossible, but does not seem to be very likely.

Short vertical bars represent units in most scripts. Thus, no. 8 should be a 2 and no. 12 a 3. There may be some hesitation with regard to the latter interpretation because the middle bar is lowered, but such a disposition of the numeral 3 is occasionally found in inscriptions.

The numeral in Compartment III, which can only be restored as a 9, was probably preceded by some noun, now lost. Quite surprisingly, this numeral turned out to be more diagnostic than other signs on the fragment. In scripts that do not use a special sign for 5 (e.g., hieratic), the nine strokes of 9 can theoretically be drawn in six different configurations: nine strokes in a row; 8+1, 7+2, 6+3, or 5+4 in two rows; or 3×3 in three rows. The most popular dis-

8 Sinistroverse or boustrophedon writing is not extant in general picture of late second millennium B.C.E. scripts.


10 For example, a slanted line represents 100 in Hieroglyphic Cretan (Dow 1954:12).

11 For a convenient, though not entirely accurate presentation of notations for nos. 1 to 9 around the world, see Ifrah 1985:137–41. I strongly object to Ifrah’s statement (p. 136) that the reason for breaking up a row of single units after four strokes is “because the people who used those notations were unable to read a row of more than four identical signs at a glance.”
positions are $9 \times 1$, $12$, $5+4$, and $3 \times 3$ while some scripts use all three. Remarkably, Linear A and Linear B of the Aegean differ in their notation of 9, and, as far as I can see, this distinction has not been noted in the past. With few exceptions, Linear A writes $5+4$, whereas Linear B writes $3 \times 3$. I have no idea what might have caused this difference, but even if it were purely accidental and trivial, it could be useful in tracing down possible origins of related scripts.

Structure of the Script

The inscription is neatly segmented into its structural sections by dividers defining rectangular compartments. Most of them, including the only fully preserved compartment, IV, contain numerals. The numerals 2 and 3 in Compartment IV are preceded by non-numerical signs that must stand for nouns indicating some type of commodity, personnel, or the like. If I am right in assuming a right-to-left direction of reading, the numerals follow a modified noun, as is customary in Aegean scripts (Ventris and Chadwick 1973:36; Olivier 1986:379; Bennett 1999:161), for example, “oxen,” “sheep,” etc. The same order is probably also found in Cypro-Minoan (Palaima 1989:44). By contrast, the cuneiform tradition usually has the opposite order, “2 oxen,” “3 sheep,” etc., and the same applies to cuneiform Ugaritic.

In Compartment IV, the numeral 3 is preceded by two signs, nos. 10 and 11. These probably represent phonetic signs, syllabic or alphabetic, but a logographic compound cannot be ruled out entirely. On the other hand, the numeral 2 in partly preserved Compartment II is preceded by a single sign, the “outstretched Z”-like no. 7. This probably represents a logogram, or perhaps a phonetic abbreviation, as found in Aegean scripts (Ventris and Chadwick 1973:48–50; Palaima 1989:41; Bennett 1996:128–29) and probably also in Cypro-Minoan (Palaima 1989:43). Ideograms are a rarity in West Semitic scripts (except for symbols for weights), but we do find, for example, the abbreviation š, probably signifying šeqel (§ 30) on an inscription from Tell Qasile (Cross 1980:3).

The first compartment, with five fully preserved signs, seems to be different from the rest. It is longer and apparently does not end with a numeral. If it contains a numeral at all, it must be the sign no. 5 with its oddly superimposed four bars. The T-shaped sign preceding it resembles the Linear B fractional measure “T” (Ventris and Chadwick 1973:50, no. 112), but this should not be duplicated, as in this inscription. In short, we must reckon with the possibility that this compartment does not have a numeral at all, at least not in the preserved segment. If so, the five or six signs in this compartment could all be phonological, alphabetic or syllabic, perhaps even word-syllabic. Also, one must reckon with the possibility that all the signs in the compartment do not belong to

12 For example, Phoenician and Aramaic (Pettersson 1996:801). Ancient Hebrew usually employs hieratic Egyptian numerals, but note the rare occurrence of nine strokes (followed by a hieratic S) on an ostraca from Arad (Aharoni 1981:102, Inscription 87). Quite often in West Semitic writing, numbers are spelled out phonetically.

13 For example, Proto-Elamite, Sumerian, and Linear A (see below).

14 For example, Hieroglyphic Egyptian, Akkadian cuneiform, and Linear B (see below). In Hieroglyphic Egyptian there are also some rare configurations, such as $6 \times 3$ in the writing of the “Nine Bows” (Gardiner 1957: 566), or $5+4$ on a potsherd from Kahun (Gelb 1963:127, fig. 65).

15 For example, Hieroglyphic Luwian (Laroche 1960:212, no. 395) and Ugaritic (Gordon 1965:42, §7.2; Pardee 2001:252, recto ii, lines 20 and 31).

16 For Cypro-Minoan there is, unfortunately, not enough evidence. See Palaima 1989:42–52 for a collection of data on Cypro-Minoan numerical ideograms. Since this script developed primarily out of Linear A (ibid., p. 53), I would expect the $5+4$ configuration to be prevalent in Bronze Age Cyprus.

17 In a table of Linear B numerals in Deroy 1962:34, the numeral 9 is inaccurately drawn.

18 Fourteen of fifteen occurrences of the numeral 9 are written as $5+4$ (Godart and Olivier 1976–1985, vol. 1: HT 1; 13; 14; 24a; 26b; 27a; 58; 104; 109; 114b; KN 28a; vol. 3: ARKH 4b; KH 30; ZA 6a). The only exception is HT 10b with nine consecutive strokes in the last line, probably conditioned by lack of space. A similar configuration appears on a Hieroglyphic Cretan tablet from Malia (Olivier and Godart 1996:172).

19 Out of some eighty occurrences of the numeral 9 in the Linear B inscriptions from Knossos, only three tablets have $5+4$ (Chadwick et al. 1986:vol. 1 no. 298, vol. 3 nos. 138 and 164); the remainder are all $3 \times 3$. At Pylos, 26 cases are written $3 \times 3$ and only two (Eb 297; Ua 25 rev) as $5+4$ (Bennett 1955). The sole example from Mycenae is written $3 \times 3$ (Bennett 1958:no. 107). I did not find any examples of 9 on tablets from Tiryns and Thebes (Melena and Olivier 1991; Aravantinos, Godart, and Sacconi 2001).

20 For example, in the various administrative tablets found in Israel: Aphek (Rainey 1975:128), Hazor (Horowitz and Shaffer 1992; Horowitz and Oshima 2002:183–84), Hebron (Anbar and Nàaman 1986–87), and Tell Keisan (Sigrist 1982). For the cuneiform accounting system in general, see, e.g., Nissen et al. 1993.

21 See Gordon 1965:42, §7.2. There are, however, exceptions, for example, texts 65 and 110, where the numbers indicating quotas or taxes follow the names of the respective towns. In ancient Hebrew we encounter both orders (Renz 1995:50–51).
one vocable, but rather to a *compositum* or *scriptio continua* that combines several grammatical elements (for *scriptio continua* in Mycenean Greek, see Du houx 1999:232–35).

Despite the aberrant appearance of the first compartment, it seems likely that the text is of the accounting type, listing some enumerated entities such as personnel or commodities. It is not easy to add anything more on the nature of this small fragment, except to recall that another tiny fragment from Aphek has an administrative text (Rainey 1975:128). On that cuneiform Akkadian fragment, however, the quantities (of some unknown commodity) are counted in hundreds and thousands.

Conclusions

To speculate excessively on a tiny fragment written in an unknown script in an unknown language is both unwarranted and unwise. Still, it is worthwhile to sum up the few observations made over the course of the preceding examination.

Generally speaking, some of the features of this inscription are more in line with Near Eastern writing traditions, whereas others seem to point towards Aegean and Cypriot traditions. To the former category belong its “cuneiform appearance” (the way the writing was applied by punching short strokes into the clay) and the continuation of the writing at the edge of the tablet. Such spillover from the face of the tablet is totally foreign to Aegean traditions, though it is occasionally found on Cypro-Minoan tablets from Ugarit, probably due to local cuneiform influence.

Closer to Aegean tradition is the “noun + numeral” order of accounting. The sign forms are not sufficiently distinctive to justify a meaningful comparison with other scripts. The only exception could be the 5+4 configuration of the restored numeral 9, which is the common form in Linear A, but which is very rare in Linear B. (In Cypro-Minoan, there are simply not yet enough examples to establish its preference for one form or the other.) If this distinction be considered significant, it could perhaps indicate a Cretan-derived influence on the script of the Aphek fragment.22

Line-by-line ruling is a feature often found on Near Eastern tablets, and also in late Mycenean texts, but only sporadically in Linear A (Brice 1991:42). Long word-dividers partitioning the register into neat compartments are a rarity in this region. In this respect, the closest parallels to the Aphek fragment are found in the Tell Deir Āl tablets, and indeed, in preliminary reports (Singer 1983:26) excessive weight was put on this resemblance. On closer examination, however, the Aphek fragment differs considerably from the Deir Āl tablets, both in shape (the former is page-shaped, the latter is bar-shaped), and in the forms of the signs (punched strokes on the former, curving linear signs on the latter). Judging by their outward appearance, I doubt the two are written in the same script.

The direction of writing from right to left (provided that my conclusion is correct) is foreign to the Linear A and Linear B, Cypro-Minoan, and cuneiform writing traditions. It becomes, however, increasingly widespread in the Late Bronze Age Levant, probably under the influence of Hieratic Egyptian.

All in all, the conflation of affinities with both eastern and western writing traditions is probably the most typical feature of the Tel Aphek fragment. Cypriot writing is also characterized by multiple sources of influence, from east and west,23 but in other respects, the script of the Tel Aphek fragment can hardly be associated with any of the writing systems of Cyprus.

The turbulent transition period from the Bronze Age to the Iron Age saw various writing experiments in the Levant, or to use the words of a leading authority in grammatology, there were “many attempts to create systems which everywhere in this period began to spring up like mushrooms after the rain” (Gelb 1963:27). Tel Aphek, where various Near Eastern writing systems met,24 may well be one of the places where a new venture was begun, adapting Aegean and Cypriot elements to Near Eastern writing traditions. Unfortunately, without additional evidence it is impossible to establish just how, when, and by whom this new experiment was initiated. Taking into ac-

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22 This would be in line with the Cretan tendency to disseminate scripts to other areas in the Aegean region and to Cyprus. It is also worthwhile to note that the two inscriptions from the Aegean region recently discovered in Israel (at Tel Haror and Tel Lachish) are closer to Cretan than to Mycenean writing traditions (see Finkelberg, Uchitel and Ussishkin 1996:204–5; Finkelberg 1998:267–69).

23 For affinities of Cypriot scripts with Near Eastern scripts, see, e.g., Palaima 1989:42; Smith 2003:277, 284; Sherratt 2003:227, but note Palaima’s recent reservations with regard to the alleged “cuneiformization” of Cypro-Minoan signs (Palaima 2005:36).

24 For the Late Bronze Age inscriptions from Aphek, which include cuneiform Akkadian, Hieroglyphic Egyptian, and Hieroglyphic Hittite, see Kochavi (1978:15–17; 1981:79–81), Kochavi et al. 1978; Singer 1983; Owen et al. 1987). See also Yasur Landau and Goren (2004) for a Cypro-Minoan potmark incised on a pot handle from Tel Aphek.
count the traits of the fragment, its stratigraphic context and its petrographic analysis, the Philistines (or one of the other “Sea Peoples”) are plausible candidates as creators of this inscription, but no more than that.

**The Aphek Fragment and the Problem of Philistine Writing**

The sparse results achieved in identifying the script of the Aphek fragment are in sharp contrast to its potential importance. If, as noted in the last sentence of the conclusions, the script could tentatively be identified as Philistine, then it would arguably constitute the best evidence for the very existence and character of a Philistine (or Sea Peoples) script. This statement requires a brief justification.

Whatever view one follows concerning the possible lands of origin of the Sea Peoples, there is no doubt that literacy existed there during the Late Bronze Age. Thus, it is logical to assume that the Sea Peoples were using some kind of script when they came to the Levant. If so, they must have abandoned it quite early in favor of the local alphabetic script (Singer 1994:335). It is difficult to establish when this cultural shift might have occurred, since most inscriptions found in Philistia are dated rather later (Naveh 1985; Kelm and Mazar 1990:56; Gitin 1993:250–53; Gitin et al. 1997). However, the fact that, despite extensive excavations in the large Philistine cities, no early Philistine inscriptions (from the late second millennium B.C.E.) have been found, may indicate that the adoption of the local alphabet occurred shortly after their settlement in Philistia.

In addition to the Aphek fragment, the only inscriptions for which an early Philistine script has been suggested are the Tell Deir Alla tablets and two seals from Ashdod. The Deir Alla tablets, the number of which has recently doubled (Ibrahim and van der Kooij 1997:108; 2001), should probably not be considered in this context because of lack of supporting evidence that they are related in any way to the Philistines. This is not the place to dwell upon these highly intriguing inscriptions, but in passing it should be noted that there is nothing in the archaeological record that requires a Sea Peoples connection, nor is the script itself intrinsically Aegean or Cypriot.25

Two objects from Ashdod, a cylinder seal and a pyramid-shaped seal, which allegedly bear “Philistine” characters resembling Cypro-Minoan script,26 have been referred to in various publications, most recently in a brief paper by T. Dothan (2000) dedicated to the first appearance of writing in Philistia. In her widely cited publications, Dothan disregards other viewpoints on the subject, notably, M. Shuval’s convincing demonstration that the stamp seal bears schematic representations of animals rather than characters of a script.27 The same may apply to the cylinder seal portraying three seated figures. In the spaces between them, some incised linear symbols have been interpreted as script signs. On closer examination, however, the resemblance of these schematic symbols to any known Aegean or Cypriot signs is superficial at best. Indeed, in the last excavation report of Tel Ashdod, D. Ben-Shlomo suggested a more convincing iconographic interpretation of these symbols (Dothan and Ben-Shlomo 2005:166).

In the last analysis, the Aphek fragment remains in its splendid isolation as the sole unquestionable inscription with an actual claim to represent an early Philistine (or other Sea Peoples) script. However, faced with the paucity of evidence from other, much larger Philistine sites, we must retain a healthy degree of skepticism concerning this interpretation.

**APPENDIX:**

**PROVENANCE STUDY OF THE TEL APHEK FRAGMENT**

by Yuval Goren

The fragmentary tablet with an unknown script from Tel Aphek was subjected to petrographic examination in order to disclose its possible provenance. The analysis followed sampling and examination procedures that have been presented by Goren, Finkelstein, and Na‘aman (2004) in their study of the Amarna tablets.

Petrographically, the fragmentary tablet is typified by the following features: the matrix is carbonatic, tan in PPL and optically active with speckled b-fabric, with some foraminifers. The silt (~10 percent) contains essentially quartz but with the addition of millennium local scripts used for early, local Canaanite dialects.

25 The prudent study of Weippert (1966) sheds serious doubts on the various “decipherments” and merely suggests that in this period and location one should probably expect some Northwest Semitic script (ibid., p. 302). See also Knauf (1987:15), who defines the script as “Proto-Canaanite” in a loose sense pertaining to various second-

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26 For references, see Dothan and Ben-Shlomo 2005:166. The Cypro-Minoan comparisons have been credited to R. A. Stieglitz apud Dothan and Porath (1993:81, n. 84; stamp seal) and to J. Faucounau apud Dothan and Ben-Shlomo (2005:166; cylinder seal).

27 Given in Keel, Shuval, and Uehlinger 1990:157, no. 79. This conclusion has meanwhile been supported by specialists, such as O. Masson apud Keel (1997:672, no. 27).
calcite and opaque minerals and rarely muscovite, zircon, and hornblende. The inclusions are made of moderately sorted sand ($f/c$ ratio=$0.062mm$=90:10) including subrounded to subangular quartz, up to 300μm, sometimes with undulose extinction and mineral inclusions, foraminiferous chalk, sub-rounded, up to 800μm, nari containing clay and some quartz silt, rounded and up to 600μm, and some fossilized mollusc shell fragments.

The matrix of this tablet combines the petrographic properties of loess (silty-carbonatic wind-blown, clay loam) and brown rendzina soil. The inclusions contain chalk and nari from the mother-rock of the rendzina soil, and some wind-blown quartz sand. This combination is typical of pottery assemblages from the southern lower Shephelah region of Israel. In the study of the Amarna tablets, it was found to characterize the tablets of Shuwardatu, the ruler of Gath, which is identified as Tel Zafit (Goren, Finkelstein, and Na’aman 2004:279–86). Therefore, the origin of this tablet may be sought in this general area.

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