

Colless, Brian E.

Proto-alphabetic inscriptions from the Wadi Arabah

Antiguo Oriente: Cuadernos del Centro de Estudios de Historia del Antiguo Oriente Vol. 8, 2010

Este documento está disponible en la Biblioteca Digital de la Universidad Católica Argentina, repositorio institucional desarrollado por la Biblioteca Central "San Benito Abad". Su objetivo es difundir y preservar la producción intelectual de la institución.

La Biblioteca posee la autorización del autor para su divulgación en línea.

Cómo citar el documento:

Colless, Brian E. "Proto-alphabetic inscriptions from the Wadi Arabah"[en línea]. *Antiguo Oriente: Cuadernos del Centro de Estudios de Historia del Antiguo Oriente* 8 (2010). Disponible en: <http://bibliotecadigital.uca.edu.ar/repositorio/revistas/proto-alphabetic-inscriptions-wadi-arabah.pdf> [Fecha de consulta:.....]

(Se recomienda indicar fecha de consulta al final de la cita. Ej: [Fecha de consulta: 19 de agosto de 2010]).

PROTO-ALPHABETIC INSCRIPTIONS FROM THE WADI ARABAH*

BRIAN E. COLLESS

collesseum@gmail.com

Massey University

Palmerston North, New Zealand

Summary: Proto-alphabetic Inscriptions from the Wadi Arabah

Three early West Semitic inscriptions from the Arabah valley are studied here, all of them apparently connected with the Egyptian copper-mining activity in the region, notably at Timna, in the period of the Ramessides. The most striking detail in these texts is a sign corresponding to an Egyptian hieroglyph (N6B[Ⓢ]) which depicts two serpents guarding the sun-disc, and another with one serpent (N6,); these never appear on conventional tables of early alphabetic letters; this leads to a critical reappraisal of current identifications of the original picture-signs, and elaboration of a new system of interpreting early Canaanite inscriptions, involving recognition that the signs could sometimes stand for whole words and could also be used as rebuses.

Keywords: Acroponogram – Consonantogram – Rebogram – Logogram

Resumen: Inscripciones proto-alfabéticas del Wadi Arabah

En este trabajo se estudian las primeras tres inscripciones semítico-occidentales del valle de Arabah, que estuvieron conectadas aparentemente con la actividad minera egipcia de la región, especialmente en Timna, durante el período ramésida. El detalle más sorprendente de estos textos es el signo que corresponde al jeroglífico egipcio (N6B[Ⓢ]) en el que dos serpientes custodian al disco solar y otro con una serpiente sola (N6,). Estos signos no aparecen nunca en las tablillas convencionales de las cartas alfabéticas tempranas, lo cual conduce a una evaluación crítica de las identificaciones actuales de los imágenes-signos originales y a una elaboración de un nuevo sistema para interpretar las inscripciones cananeas tempranas, a partir del reconocimiento de que los signos pudieron significar palabras completas y usados como jeroglíficos.

Palabras clave: Acrofonograma – Consonantograma – Rebograma – Logograma

* Article received: October 14th 2010; approved: November 5th 2010.

Antiguo Oriente, volumen 8, 2010, pp. 75-96

INTRODUCTION

The copper mines at Timna (in the Wadi Arabah/Arava, in Israel) have yielded a number of early West Semitic inscriptions, and some interesting and instructive examples will be examined here. They can assist us in solving the problem of the identification of *š*, *ṭ*, *s*, *d*, *z*, *ḏ*, *ṣ*, *q*, *g*, and *p* in the proto-alphabet (the West Semitic prototype of the Phoenician consonantal alphabet and of all alphabets).¹

There is an important first step to be taken when examining such inscriptions: given that there were three West Semitic scripts in use in the Late Bronze Age, we have to ask which one is present in a particular inscription. The latest was the cuneiform consonantary, found at Ugarit abundantly, but also appearing throughout Syria-Palestine; on my table of signs (see below, Figure 5, the Canaan column) it is clear that cuneiform “wedges” have been employed to depict the pictorial signs of the proto-alphabet;² obviously none of the inscriptions to be studied here fit into this category, but the cuneiform alphabet will be mentioned here occasionally, for insights it offers.

The oldest of the three systems was the syllabary, especially known through a small corpus from Gubla (Byblos), and in my opinion this script has been substantially deciphered by George Mendenhall;³ as two-thirds of the letters of the proto-alphabet already existed in the Byblos syllabary (see the BS column of my table, Figure 5)⁴ we have to decide whether we are looking at a syllabic inscription or a consonantal (proto-alphabetic) text. (1) The Timna rock inscription has *l* (a shepherd’s crook), which is not attested in the syllabary. (2) The Timna stone inscription has the *l*, and also a fish (*s*), and neither of these occurs in the syllabary. (3) The Arabah plaque inscription has

¹ The two main treatises on the letters of the early alphabet (and its inscriptions) are by Benjamin Sass (1988) and Gordon Hamilton (2006); many of their identifications for the sound-values of the signs differ from mine, as can be seen from a comparison of their charts (Sass 1988: 180-182, Tables 3-5; Hamilton 2006: 254-268, Figure 2.77) with mine (Figure 5 below). Their detailed discussions of the individual signs (Sass 1988: 106-133; Hamilton 2006: 29-253) are to be contrasted with mine (see “Alphabet and Hieroglyphs” at: <cryptcracker.blogspot.com>), which has the advantage of access to two copies of the proto-alphabet on documents from Thebes, in southern Egypt.

² On the connection between the pictophonograms of the proto-alphabet and the cuneiform characters see “Cuneiform Alphabet” at: <sites.google.com/site/collesseum>.

³ Mendenhall 1985.

⁴ Colless 1992; see also “West Semitic logosyllabary” at: <sites.google.com/site/collesseum>; and “Canaanite syllabary” at: <cryptcracker.blogspot.com>.

m (water), *n* (snake), *q* (cord wound on a stick), and *t* (cross), all of which have a place in the syllabary; the tied bag (*sadey*) has not been seen in the known syllabic inscriptions, and the *z* (|-) is not in the syllabary. So we have three proto-alphabetic consonantal texts awaiting our scrutiny. Note that my interpretations of other proto-alphabetic inscriptions from Sinai and Canaan will be mentioned, and these have been published in *Abr-Nahrain*;⁵ the reader should refer to these for details of the case I have made there, and on the website <cryptcracker.blogspot.com>.

(1) TIMNA ROCK INSCRIPTION (Figure 1)

In August 2009, Joseph Otto of Stone Watch (Society and Academy for Conservation and Documentation of Rock Art) reported the discovery of this inscription, and said that the Egyptologist Stefan Jakob Wimmer would publish it. Wimmer's detailed study of the inscription and of its location has now been published⁶ conveniently available on the internet, and the present article should be studied in conjunction with Wimmer's photographs, drawing, table, and references to the ideas of other scholars who have endeavoured to interpret early West Semitic inscriptions, notably the Wadi el-Hol graffito; here I will simply suggest other possibilities for interpreting the Timna text, based on my own published work on early West Semitic writing. Remember, the pictures of this inscription are viewed from above; it is not on a vertical wall but on a horizontal rock face.

The inscription looks very Egyptian, with two ovals resembling "cartouches", one showing an eye (the eye of Horus?), and the other displaying a double serpent, protecting the sun (like hieroglyph N6B10, though the sun disc is not shown here). Cartouches imply that an important person would be named in the text, but Wimmer says that they could not be Egyptian cartouches enclosing royal names, since they lack the mandatory horizontal line at the bottom. Nevertheless, he reads the inscription as the signature of a Canaanite scribe. The language is West Semitic, and the writing is not Egyptian but belongs to the same family as the pictorial characters from the Sinai turquoise mines, the so-called "Proto-Sinaitic" script, though I would call it the Canaanite proto-alphabet, or more technically the West Semitic pictophonographic acrophonic logo-consonantary (a system of pictorial signs which can stand for single

⁵ Colless 1988; 1990; 1991.

⁶ Wimmer 2010.

consonants or whole words); it is represented by numerous inscriptions in Syria-Palestine and Egypt, as well as the Sinai Peninsula and the Wadi Arabah (particularly Timna), from the Late Bronze Age, and possibly also from the Middle Bronze Age.⁷

Wimmer suggests that the two “ovals” (though they have the shape of a hippodrome) might depict tablets (like the two tablets of Moses, and, incidentally, he proposes to find a word for “tablet” in the one on the left); or, he says, they could be footprints, with the name of the person engraved on them (and this might make it a “Kilroy was here” graffito).⁸

Right Oval

In Wimmer’s view, the oval on the right (R) has the following signs (reading from the top): R1 ϵ (*ayin*), an eye; R2 z (two horizontal lines, properly \underline{d} , as he himself acknowledges); R3 r (a human head); R4-5 $m m$ (two water signs, vertical here, but usually horizontal); R6, a seated person: the human figure is not upright in the exulting pose (A28 C), with arms raised, to represent the letter h , but seated, and therefore possibly a classifier borrowed from the Egyptian repertory, indicating a male person (A1 !). So this would be a man’s name: ϵrmm (“the Mighty One is high”, is one possible meaning for it). However, as the sign is actually \underline{d} not z , we should read $\epsilon \underline{d}rmm$; but whereas $\epsilon \underline{d}r$ (“help”) can combine with El and Yah to form personal names (Azariah, for example), a deity named mm is not known.

Left Oval

The other oval (L) has a sun symbol at the top (L1, hieroglyph N6B ☉), two uraeus serpents encompassing the sun, though here the sun-disc is omitted), and Wimmer has accepted my argument (first published in 1988, but ignored by scholars in this field, he notes) for seeing hieroglyphs representing the sun (r^c) as the source of proto-alphabetic \check{s} -signs (\check{s} , acrophonically from *shimsh* “sun”).⁹ Since 1988 I have found cases where the sun-disc is still present, and the example on the Timna stone (see inscription 2 below) will suffice to illustrate this.

⁷ Examples are found in Sass 1988: 8-105; Hamilton 2006: 323-400; Colless 1990 and 1991.

⁸ Wimmer 2010: 6b.

⁹ Wimmer 2010: 5b; Colless 1988: 51; 1990: 5; 1991: 30-31; 1992: 90-91 (at this point, in distinguishing $\check{s}a$ and $\check{s}i$, in the West Semitic syllabary, separating *shad/thad* “breast” and *shimsh* “sun”, I realized that the consonantary had a sign for \check{t} as well as \check{s} , and they are now differentiated on my table, Figure 5 below).

Wimmer compares the sun-sign here with the character that appears twice on the Wadi el-Hol inscription¹⁰ (vertical line, Figure 4 below), with two circles joined by a curved line (which he has always thought to be š, but without making this connection with the sun), and he sees that as a variant of what we have here: the two snakes without the sun disc.¹¹ However, whereas *here* the serpents have heads of the same size, *there* the scribe has in each case made the circle on the right considerably smaller than the one on the left, suggesting that one represents the sun-disc and the other is the head of the snake. Thus, as I see it, *there* we have an example related to hieroglyph N6, , with only one serpent, but *here* we have N6B with two. This is a crucial point for dating West Semitic inscriptions: the hieroglyph with two snakes (N6B), but the single-serpent icon does not appear before the New Kingdom, and this should mean that the Wadi el-Hol inscription can not be assigned to the Middle Kingdom, where it can maintain its supposed position as the oldest-known alphabetic inscription. The trouble with that “document” is that it does not have the complete set of letters; it has 17 out of the total of 27; it lacks the frequently occurring *k* (though Wimmer notes that *k* is erroneously considered to be a possibility for this š), and it has neither *q* nor *sadey*, but fortunately one of the texts presented here has both (Figure 3 below).

The Wadi el-Hol horizontal line has an example of *t* (Horizontal 10, on Figure 4 below); it looks like *m* but is differentiated from the three cases of *m* (V 1, H 5, H 14) by having only two peaks, not three or more. Clearly it represents *t* (from *tad* “breast”); it has a counterpart (horizontal stance) in Sinai inscription 375: *tl̄t̄* “three” (referring to handfuls of grain from the store).¹² The similarity between the signs for š and *t* creates confusion, but we know that the breast-sign became š/ś in the Iron Age alphabet, since its position is that of *t*, preceding *t*, at the end of the list, whereas š (sun) was between *k* and *l*.

Now, the typical š-sign in the Sinai collection does not include the sun-disc, and because it curls round at each end, the two-serpent hypothesis seems to fit the case, rather than seeing a head at one end and a curly tail at the other, but this is not certain; N6, has a straight tail, and this feature does not appear on the Wadi el-Hol examples. However, the disc is not always omitted, as

¹⁰ Regarding the Wadi el-Hol inscription, see Wimmer 2010: 5b, 9b n.4, Hamilton 2006: 324-330.

¹¹ Wimmer 2010: 7a, Figure 8. For two cases of a single serpent with the sun disc in Canaanite inscriptions from Thebes, go to “Timna inscriptions” at: <cryptcracker.blogspot.com>.

¹² Colless 1990: 42-43, though the true reading *tl̄t̄* “three” (rather than šlš) is not given at that point; cp. n. 9 above; see also “Sinai rations” at: <cryptcracker.blogspot.com>.

shown on the inscribed Timna stone that I am examining here (see Figure 2 below): it has head, sun, and straight tail (like N6 ,).

On oval L, the other set of symbols is puzzling: three horizontal parallel lines, three oblique lines, and a character with a curly tail; for Wimmer this sign on the bottom left is L, a crook (like Hieroglyph S38 ũ, rather than S39 ý which is simpler, not curved backward; see the example on inscription 2 below), though it is inverted here;¹³ with its long straight stem it is not so likely to be in imitation of hieroglyph V1 V, a coil of rope.¹⁴

The trio of strokes might represent the spinal column (the Egyptian *djed*, “stability”), used for the letter *samek* (“support”), though the fish-symbol is more often found for *samek*, until the Phoenician alphabet settled on the column as *s*, which passed into the Greek alphabet as *xi* (consult the table at the end, Figure 5). The vertical stem is not clear, but Wimmer accepts its presence (weathering and eroding are invoked to account for its invisibility);¹⁵ but this *s*-sign never has its three crossbars deviating from a horizontal stance (if it really does represent a spinal column with ribs, standing for support and stability, this is a monstrous version of it).

The three horizontal lines are taken to be fingers of a hand, hence *k* (*kap* “palm of hand”), though the arc that Wimmer adds at the end of the right side (making it look more like a hand) is not readily visible on photographs.¹⁶ He compares this with Sinai 358, and I would add Sinai 365A (middle column), and 379 (according to my 1990 drawings).¹⁷

Finally, the three oblique strokes are provided with a stem, and instead of making a connection with the Egyptian *djed* column (R11 Å) and the letter *samek* (as I have suggested above), or interpreting it as another *k*, he invokes the hieratic version of V28 μ with strokes not circles for this double-helix sign.¹⁸ However, there is a serious problem here: although this hieroglyph stands for Egyptian *h*, it does not have this value in the proto-alphabet;

¹³ Wimmer 2010: 6a.

¹⁴ Hamilton (2006: 126-137) and Sass (1988: 123) favour V1 as the model for the letter *lamed*.

¹⁵ Wimmer 2010: 6a.

¹⁶ Wimmer 2010: 6a, and Figure 7.

¹⁷ Wimmer 2010: Figure 8; Colless 1990: Fig. 5 (35 = S358); Fig. 2 (08 = S365); Fig. 3 (10 = S379).

¹⁸ Wimmer 2010: 6a. On the use of this hieroglyph V28 in the proto-alphabet, see Colless 1988: 38-41, Sass 1988: 117-120, Hamilton 2006: 57-60, and notice particularly his n. 41, in which he refers to hieratic versions of V28 with zigzag tops (see his Fig 1.1 on p. 9) as being dissimilar to alphabetic *h*, and he also expresses surprise that Wimmer had elsewhere re-introduced the value *h* for this letter.

this character (a hank of thread or a wick) represents \underline{h} in proto-alphabetic inscriptions in Egypt, Sinai, and Canaan, and also in the cuneiform alphabet, where \underline{h} is a cluster of three vertical wedges, obviously based on this pictophonogram (see the \underline{h} and \underline{h} lines on my table, Figure 5, at the end of this article).

The resulting sequence is given as $\check{s} k l \underline{h}$ (properly \underline{h}). The proposed interpretation is (reading *sin* for *shin*):

$\check{s} k l (l) \underline{h}$ “tablet-expert” (Hebrew *škl* “have insight”; *luah* “tablet”)

The difficulty is that the Ugaritic evidence clearly has lh not \underline{lh} for “tablet”,¹⁹ but here the sign would be \underline{h} , if it is a hieratic form of V28 μ . Nevertheless, there may be a way out of this dead end: in the shorter “linear” version of the pictorial alphabet the sign for \underline{h} disappeared, and \underline{h} coalesced with \underline{h} , but this inscription is presumably from the Ramesside period, when the Bronze Age is ending and the Iron Age is commencing, and things are in a fluid state in the evolution of the alphabet and the phonology of the Canaanite dialects. This principle could be used to cover the \underline{h} for \underline{h} here in oval L, and the \underline{d} for z in oval R. The inscribed stone studied below has $\check{s}ql$ “weight, shekel”, but this should be $\underline{t}ql$ in a Bronze Age setting; and yet \underline{t} (*tad* breast) is the one that survives in the alphabet as *shin/sin*. This is a limited corpus to work with, but the \underline{h} sign (not a fence²⁰ nor a door²¹ but a house with a courtyard, *hašir*) is lacking in it; in the Sinai inscriptions \underline{h} is present but unrecognised, because of confusion with b , a simple house (on Sinai 353, 356, 360, 361, 380)²² and this will be the one that remains (as *het*, between *zayin* and *tet*), while the \underline{h} (thread, wick) will disappear (from its position between g and d). The *zayin* (originally $|\times|$) retained its place there (between *waw* and *het*), but the \underline{d} -sign vanished from its spot (between m and n). Still, there is one more redeeming fact to save Wimmer’s reading: in the reduced version of the cuneiform consonantary it was the twisted thread (V28) that doubled for both \underline{h} and \underline{h} .²³

¹⁹ Gordon 1965: 427b.

²⁰ Hamilton 2006: 97-102.

²¹ Sass 1988: 117-120.

²² Colless 1988: 38-41, 1990: 4, 1991: 26; Hamilton 2006: 48 has them as “unclassified bêts”.

²³ Gordon 1965: 16.

Strictly speaking, however, Wimmer's interpretation has two weak points (*z/d*, and *h /h*; and the "man" classifier is also suspect, see below); these anomalies could undermine his case, and so other interpretations should be tried. On the basis of my experience of West Semitic syllabic and consonantal inscriptions of the Bronze Age, I submit that the consonantary (the proto-alphabet) functioned like the Egyptian hieroglyphic system, as a logo-consonantary, though much more economically, with only 27 characters.²⁴

In the West Semitic logo-consonantary (the proto-alphabet), each sign was an *acrophonogram* or acrophonic consonantogram (not a typical feature of the Egyptian system, though it did have a basic set of monoconsonantal phonograms, alongside hieroglyphs with two or three consonants); but each character of the proto-alphabet could also act as a *logogram* (*b* as house, *n* as snake), and a *rebogram* (its sounds could be used in rebus fashion for constructing words; thus snake, *nhš*, with *t*, says *n(hš)t* "copper", as in (3) the plaque inscription studied below).

With these three principles in mind, we look again at the eye on the right oval (R1). As a logogram it can say *ʿayin* "eye", and also *ʿayin* "spring"; in three instances in the Sinai inscriptions it can be interpreted as "wellspring" (Sinai 377, in the vicinity of Bir Nasb, the main source of water for the turquoise expeditions, 357, 386).²⁵ If that is the case here, the water signs (R4-5) support this reading; of course, logographically, only one sign would be needed to say "water", but the Semitic words for water were *mu* or *mayim*, and MM could say *mayim* (with the semi-vowel *y* not represented).²⁶

²⁴Peter Daniels (Daniels 2001: 43) states that the term logosyllabary (and likewise logoconsonantary) is "more precisely" expressed as morphosyllabary (and morphoconsonantary) "in which each character stands for a morpheme, and the characters can be used for the sound of the morpheme" (functioning as "rebograms", in my terminology) "as well as for its meaning" (as "logograms"); but, primarily, the characters of the Canaanite logosyllabary and logoconsonantary were "acrophonograms", with only the first syllable or consonant of the represented word (morpheme) being pronounced when reading. Note that Daniels omits "Proto-Canaanite" letters from his table 3.3.

²⁵Colless 1990: 45 (42 = 386) a single sign on a stone inside a mine; 13 (02 = S377), 37-39 (32 = 357); in these two cases *ʿm* ("Spring of the Mother [goddess]"); Hamilton 2006: 382 (with Sass) reads *ʿlm*, and considers my reading "bizarre" (but S377 is a case of a meandering text, where the letters are not in line; see n. 34 below). However, if *ʿlm* is correct, it might be a notice saying "To the water" (Hebrew *ʿel* with logogram M). See also "Sinai irrigation" at: <cryptcracker.blogspot.com>.

²⁶Some 16th century inscribed jars from Gezer have various single letters of the proto-alphabet engraved on them (before baking): two have a single M, but one has a double M, and possibly all three were water jars; Colless 1991: 20, 22 (drawing 01), 28.

Regarding the head (R3), it may simply be the acrophonogram for *r*, but as a logogram *r's* ("head") it could say "top-class" or "prime quality" (as in Hebrew, and as I would argue for two of the three instances on the Wadi el-Hol inscription); hence *r mm* says "excellent water". The two parallel lines may serve merely to divide the text into two parts; but as *d* the phonogram would have a relational force: "which" or "of". Accordingly, we can read the message as: "Spring with excellent water". Then, jumping over to the lower part of the left oval, and accepting the mysterious sign as *samek* (although this scribe has five examples of horizontal lines in his text, and we would expect three more here) we could suppose that *ls* is saying *ls(mk)*, "for support" (with the djed sign as a logogram for *smk* "support").

But what are we to make of the seated person if there is no personal name in the text? Rather than a classifier (determinative sign) for "man" (A1 !), with arms pointing forward, this figure has drooping arms, as in A7 ' , depicting a man sinking to the ground from fatigue, determinative for weariness and weakness. So, the sign reads: "Well with excellent water, for the support of those who are fainting (from thirst)"?

How would the thirsty person draw water from the supposed well? If we sacrifice the "support", and the equally dubious "tablet", we could take the three oblique lines as *nd*: a snake with its head at the lower end; and a door with one or two crossbars, slightly discernible on some photographs. The *l* is clear enough, though it is possible that only the bottom half is *l*, and the upper line is a separate character. However, if we admit the *s* and *k* we have:

s k n d l

The *dl* root refers to drawing water from a well, and *dal* is the common Semitic word for a bucket. The combination *skn* produces the root that signifies "put, place, dwell, be present". The word *m'skn* (used for the Tabernacle in the Bible, the tent where the Shekinah presence of God dwelt, Exodus 25:8-9) is found at the campsite of the Egyptian turquoise expeditions in Sinai (inscription 365A).²⁷ Here it would signal the place where the bucket is to be placed after use.

²⁷ Colless 1990: 18; but Hamilton (2006: 368-369) and Sass (1988: 34) see only a very large K (a big black hand, though Sass considers the possibility that it could be split up into three signs), instead of a ligature of *m s k*, followed by *n t*; the two clear examples of *s* have to be interpreted according to their schema (the currently approved solution) as *t* (theta), based on the hypothetical **tann*, "composite bow"; this is a typical meandering text, and they miss the obvious recurring formula "beloved of Baalat", here *m'hbt b' lt*, meaning that the dwellings or tents are under the aegis of the goddess. See also "Sinai camp site" at: <cryptcracker.blogspot.com>.

Thus, oval R would be a notice proclaiming: “Spring with excellent water (for) the languishing”.

Oval L is a reminder to put the bucket back in its place after use: “Resting place of the bucket”.

It all hangs together, but if it could be shown that there is no possibility of a well having been situated here in the past, then this line of interpretation would fail. Only the writer of an ancient inscription knew for certain what it meant, and two vastly differing interpretations have now been proposed for this text. One is a typical autograph graffito: “Az-romam the scribe”. The other is a public notice concerning a spring located in the immediate vicinity, with a statement on the quality of its water, and a warning that the bucket should not be removed. However, in oval L, instead of “bucket”, *dl* could be an adjective meaning “weak”, and this would perhaps announce this seat as a “resting place for the weak”, and that would go nicely with the picture of the fatigued person in oval R (see Wimmer’s Figure 4, a photograph of a man seated on the platform, beside the inscription; this picture also indicates that the tabletop provided shade for someone sitting beneath it). Finally, the possibility remains that the signs R1-3 (*ḥ d r*) are saying “help”, hence: “Help for the weak, water”.





There are so many variables that no claim to have interpreted this message can be accepted as verified. Would that the author of this puzzle had left the correct solution under the rock (a complete copy of his version of the proto-alphabet would have been a great “help”). Nevertheless, it retains its importance by its inclusion of a sun-sign for *š*, and perhaps also the use of two signs as logograms.

(2) TIMNA STONE INSCRIPTION (FIGURE 2)

This is a sandstone object (about 7 cm in diameter) found somewhere in the Timna area, but unstratified.²⁸ It has characters engraved on both of its flat sides. It is possibly a weight, and indeed the word shekel (*šql*) can be found on it.

The *q* (-o-) is in the middle of the stone, on the first side (on the left of the drawing). The handbooks on early West Semitic writing (most recently Hamilton) have overlooked the real *q*, and assigned the value *q* to the tied-bag

²⁸ Rothenberg 1988: 268; Plate 116, 4-5 (photographs).

sign (hieroglyph V33 ) which is actually *sadey*.²⁹ However, *q* (in the form seen here) survived in the old Arabian script; but it moved into the Phoenician consonantal alphabet without the projecting stroke at the top (see the *q* line on the table, Figure 5 below). It represents a “measuring-line” (*qaw*), a cord wound on a stick (hieroglyph V24 ) and it has an alternative form (V25 ): an end of the cord pokes out at the top (see the table), and this is found on the sphinx (Sinai 345)³⁰ from the Sinai temple of Hathor (an earlier counterpart of the shrine at Timna); it has not been recognized by previous observers (but note the dot in the middle of the main stem, representing the wound up cord, and the other projecting line on the left). This later form (V25 ) does not appear in Egypt before the New Kingdom (Late Bronze Age), and this should mean that the inscription on the sphinx can not be dated to the Middle Kingdom (Middle Bronze Age). The example we see here on the Timna stone seems to have only one projecting line at the top, though it is easy to imagine another one among all the marks. In the development of the letter *q*, all lines above the circle fell away, as in Roman *q*. There is another example on the inscribed plaque (Figure 3) in an unusual horizontal stance.

²⁹ On Sadey and Q, see Colless 1988: 48-49, 49-50. Hamilton 2006: 209-221, works from the Hebrew name Qôp (“monkey”) to make the bag match hieroglyphic representations of baboons and monkeys, a fruitless task. For Sadey (196-209) he chooses “clump of papyrus”, illustrated by an inverted H and some examples of what I interpret as variants of K. In n. 254 (p.197) he refers to my choice of V33 and V34 (the tied bag), following A. van den Branden, as “bizarre”. When faced with the true Q, on Sinai 376 (Hamilton 2006: 378-380), with its projecting line at the top, he calls it W, as also the Waw right next to it (without a projection); he finds a monkey Q in what is a pretty clear wick (X); he turns the bag (*sadey*) into a house, hence B; and confronted by a door (*d*) and a fish (*s*) side by side, he allows them both to be D (as allographs), but this is most unlikely in one and the same inscription. Sass 1988: 103; figures 276 and 277 provide depictions of the inscription; he brands it as Thamudic, possibly because the Q was not recognized as belonging to the West Semitic consonantary. However, if it is in fact a Thamudic text (type D), then the M becomes N (producing *zn*, this, usually with a personal name following), and the N becomes R (though the stroke is relatively long for R), and my argument collapses; nevertheless, the Sadey and Qop would remain to show the original tied bag and the cord on a stick; and an example of the snake-sign as a rebogram for copper is found in Sinai 352 (see n. 34).

³⁰ Colless 1990: 13-15; Hamilton 2006: 332-334, sees the Q as a snake (*n*), but it would have to be a horned viper standing up on its tail. My reading is *d ngy* “this is my offering”. For photographs go to “Sinai sphinx speaks” at: <cryptcracker.blogspot.com>. This bilingual sphinx provided the first clue to decipherment of the proto-alphabet; it bears an Egyptian motto: “beloved of Hathor (Lady) of turquoise” corresponding to *m’hb’ l[ti]* “beloved of Baal[at]”, written below it; the Egyptian word for “turquoise” (*mfk3t*) is found as *mpkt* on Sinai 375a: “Sinai turquoise” at: <cryptcracker.blogspot.com>.

The š sign is the sun with a serpent (N6 , , see the š/ṯ section of the table, Figure 5 below); here the tail is on the right, and the head (not quite clear) is on the left, with the sun-disc in between. The presumed l stands next to the q; it is a simple crook (see the L line on the table, Figure 5). Strictly speaking, the word should be spelled *ṯql*, but we are moving into the Iron Age, and the shorter consonantary is being used, we may presume; even so, it was the breast-sign (*tad*) that survived for *šin/ sin*. Again, as with the coalescing of *h* and *ḥ* in the shorter cuneiform alphabet, the one that survived in the Phoenician consonantary was the one that was dropped in the cuneiform system; similarly the cuneiform sun-sign was dominant over the breast sign in the reduced inventory, and it was represented by the sun-disc (a circle, an odd cuneiform character).³¹

It may be necessary to look for a new interpretation of the collection: *l q š s g*.

The stone might have been used for winding a cord around it, and perhaps *sg* is *sagi* “big, large”: “for [*l*] a line [*qaw*, logogram] which [*š*] is big [*sg*]”. Interesting, but problematic.

Apparently there is a fish below the š, which would represent *s* (not *d* for *dag* “fish”, as commonly supposed; *d* is from *dalt* “door”); but it might be a tied bag, *sadey*, not upright but lying (like the example in inscription 3, below). To the right is a right angle, presumably a boomerang, and thus *g* (*gaml*, not *p*); but it might be a snake, *n*.

On the other face, at least three signs are detectable. From the right, possibly a hook (*w*) or a head (*r*, but the neck seems too long), or another L with the top more curled than the other; in the middle, an ox-head, *’alep*; then perhaps *n* (snake), and *y* (*yad*, arm with hand), or a single sign, *p* (mouth). *’r* could be *’ur*, an instrument of divination (as in Urim and Tummim). Could the word *qsm* “divination” (as in Kismet) be lurking in the mess of marks on the other side?

Whatever the legend may mean, the inscription itself has been valuable, in offering examples of š and q.

³¹ Gordon 1965: 16. This cuneiform circle was one of the clues that led me to see that š went with *šinš* “sun”; Colless 1988: 50-51, and see n.9 above.

(3) ARABAH PLAQUE INSCRIPTION (FIGURE 3)

This is an incised stone plaque from the Arabah; background information is provided by Sass.³² The interpretation I will offer would indicate that it was from a copper-mining area.

There are two columns of script, but the marks on the left column of writing, are not as clear as the characters on the right. At the top there is perhaps an eye (another spring, as possibly in (1) the rock inscription above?); then comes a door (horizontal stance), and *l* (another bucket, *dal*, for drawing water from a well?). The assumed *d* might be another *q*; the three parallel lines beneath the *l*, or even including the supposed *l*, might be *k* (hand) as on the Timna rock inscription above. The remainder of the text is a blur, and until a better photograph is available this section of the inscription remains enigmatic.

The bottom sign on the right column is obviously *t* (+), beneath *n* (*n ḥ š* “snake”); then *q* (*qaw*, cord wound on a stick, as on (2) the Timna stone, above, and as I argued in 1988).³³ The next one is an excellent example of *sadey* (*širar*, a tied bag, as in Genesis 42:35; I first proposed this identification in 1988, before this instructive inscription was known to me; see the Egyptian original on the table, Figure 5 below). The wavy line is a short *m* (water). At the top we have a sign shaped like H, which is a late example of *z*, originally made up of two triangles (|><|), not *ḏ*, two separated parallel lines, horizontal but sometimes vertical (see (1) Timna rock inscription, and the *ḏ/z* line of Figure 5).

The sequence of signs would be:

z m ṣ q n t

In the light of the mining and smelting of copper that was done in this area, a connection could reasonably be sought with the root *yšq* (Ugaritic and Hebrew) “pour” or “cast” metal. If *mšq* means “(place of) pouring” or “casting” (Hebrew *mušaq* in 1 Kings 7:37), then *nt* could be analysed as a rebogram plus a consonantogram: *nḥš* (the consonants of the word for “snake”) + *t*, producing *nḥšt*, “copper” or “bronze”. If *z* is “this” (though *ḏ* would be

³² Sass 1988: 103; figures 276 and 277 provide depictions of the inscription; he brands it as Thamudic, possibly because the Q was not recognized as belonging to the West Semitic consonantary.

³³ Colless 1988: 49-50; at that point I had not noticed the example of Q on the Sinai sphinx (345).

expected in the Bronze Age, but these mines belong in the Ramesside period, when some consonants are coalescing) we could interpret the statement thus:

z mšq n(hš)t “This is the copper-smelting place”

The snake rebus for copper (remembering that the Semitic word does not always have the feminine form with *-t*) is possibly also found on Sinai 352: *bn kr nsk n*, “sons of the furnace, copper smiths” (literally “pourers of copper”, with the snake standing for *nḥš* as a rebus for “copper”);³⁴ and this shows that the characters of the proto-alphabet could be used like Egyptian hieroglyphs, that is, as logograms and rebograms (rebuses).

This plaque, with its reference to metal-pouring, can be compared with the Sinai stelae which mention not only mining but also smithing: the term *kbšn mš* or *kbšn mś* (“melt-furnace”) occurs in Sinai inscriptions 361 (Mine N), 380 (Mine G), 360 (Mine K), 350 (Mine L), 351 (Mine L), 353 (Mine L).³⁵

CONCLUSION

These three inscriptions seem to give support to ideas I have been promoting for many years (in the journal *Abr-Nahrain* and on the internet), notably that the proto-alphabet was, in a sense, a Canaanite simplification of the Egyptian writing system, in which the characters could have three functions (examples are supplied):

consonantogram: sun-signs as š, acrophonically from šmš
“sun” (1 and 2);

³⁴ Colless 1990: 35. Note that I had not tried the possibility of N as a rebogram at that point in my research. Incidentally, this is one of the many instances where the letters meander; the paradigm case (which has the first and last N side by side, as possibly here) is the cluster on the side of the statuette Sinai 346 (Colless 1990: 15-16; Hamilton 2006: 335-337, with a useful drawing); *ʾl n`m rb nqbn* is the common reading (with *nqb* as a word for “miner”; see Hamilton 2006: 209, n. 274); but the supposed Qop is actually Sadey (tied bag), and the word means “prefect”; from this error all the rampaging confusion arises.

³⁵ Colless 1990: 20-34. This reading was impossible under the regime of the bow (**tann*), when the two sun-signs would have been read as 𐀓. The discovery of metalworking equipment at turquoise mines with proto-alphabetic inscriptions (Beit-Arieh 1985) strongly supports this reading; smelting furnaces from the New Kingdom (Ramesside) period were also found in the Arabah (Rothenberg 1999: 151-162). See also “Sinai metal melting” at <cryptcracker.blogspot.com>.

logogram: eye-sign as ‘ayin “spring” (1); head for r’š (1);
relogram: snake-sign in nt as nḥšt “copper” (3).

Other examples of logogram usage from Bronze Age texts involve the house-sign, not simply for *b*, but also for *bayit* “house” or “temple”: *lb* “for the temple” (Sinai 347a, on a female sphinx);³⁶ *kn b* “temple stand” (sherd of a cult stand, from the high place at Gezer).³⁷

These three Arabah documents also bolster my identifications of the controversial signs: there are two instances of the true *q* (*qaw*, “line”, string on stick), and one of them (on the plaque) is right next to the false *q* (tied bag) which is actually *sadey*, and occurs in the Sinai texts in such words as *šbtm* “handfuls” (375), *šrp* “crucible” (372), *šrh* “excavation chamber” (356), and *nšb* “foreman” (346, 349, 351).³⁸ The predominant choice to read *nqb* “piercer”, supposedly meaning “miner”, instead of *nšb* “prefect”, causes scholars to overlook the occurrences of the real *q*, in *ql* “inscribe” (376), *qnt* “elegy” (363), *nqy* “my offering” (345, the votive sphinx).³⁹

The problem of the identification of *d*, whether the fish (*dag* “fish” is invoked to justify it as *d*) or (in my view) the door as *d* (*dalt*, Greek *delta*) with the fish (*samk*) as *s*, can be resolved when both are found in the same text; a clear case is on the wall above Bir Nasb (Sinai 376) in the words *dwt* “sickness” together with ‘s (Asa, a name also found on 345, 363, 358)⁴⁰. This text also distinguishes *q* and *sadey*, and shows that the hank or wick is *ḥ* not *h*:

(1 down) *q l ḥ* (2 up) *r š d w t* (3 down) ‘ *s*

“The pickax (*hrš*) has inscribed (*ql*) the sickness (*dwt*) of Asa (‘s)”

This Asa is the man who devoted the sphinx statuette to Baalat (Sinai 345): his name appears on the left shoulder, and his are the words “This is my offering” (*d nqy*), and he is the one who is “beloved of Baalat”.⁴¹

One way of confirming the identification of the pictophonetic signs is to compare them with the forms they were given in the cuneiform alphabet (see the cuneiform characters in the Canaan column of the table, Figure 5). **D** (*d*) is a door (and still has that shape), because the cuneiform character has a

³⁶ Colless 1990: 17; there I use the term “ideogram” instead of “logogram”.

³⁷ Colless 1991: 30.

³⁸ Colless 1990: 5, 6, 16.



³⁹ Colless 1990: 5.

⁴⁰ Colless 1990: 12-13; see also “Asa the Sinai smith” at: <cryptcracker.blogspot.com>.

⁴¹ Colless 1990: 13-15; see also “Sinai sphinx speaks” at: <cryptcracker.blogspot.com>.

rectangular form, with three vertical wedges (the sections of the door) on three horizontal wedges (the door+post); *b*, the square house, has four wedges, similarly arranged. The cuneiform *s* has three wedges, representing a fish, very simply, with head and tail. Note that the alternative form of *samek* (spinal column), which possibly appears in the rock inscription, also has a place in the cuneiform alphabet (as an additional letter).⁴²

Comparing the cuneiform *ṣ* and *q*, the *q* has a horizontal wedge (note the -o- form on the plaque, above) together with a type of wedge that usually represents a circle in the original pictogram (for example, it is employed for the eye of *ʿayin*); *ṣ* has two vertical wedges, representing the bag standing upright, presumably. Additional proof comes from the Arabian forms (last column of the table): *q* has retained the cord and stick (-o-), and *sadey* is still the tied bag. The Phoenician *sadey* shows its origin as the bag tied at the top, but it has burst open, so to speak, though in some examples from Canaan it is deflated.

Cuneiform *š* (sun) and *ṭ* (breast) both have the wedge representing roundness; but *š* has three parts: serpent head, sun, and tail, or else two snake heads with disc; the form with two sun-serpents (N6B ) , seen on (1) the rock inscription above (but with the sun-disc omitted), seems a better model for the typical form of *š* in the Sinai inscriptions, though not necessarily so. Nevertheless, on (2) the stone inscription we see a form of N6A ) , with one head and a tail. The two examples on the vertical inscription of Wadi el-Hol (shown on Wimmer's table and on my chart, Figure 5) both have a small head and a large sun, and no tail. This version resembles the Arabian *ṭ* (o-o), while Arabian *š* is clearly the breast-sign; thus it appears that *š* and *ṭ* have simply exchanged places in the Arabian script (remember the confusion of sibilants between Arabic and Hebrew and in dialects, though the cognate Arabic word for sun is *shams*, and the corresponding breast-word begins with *ṭ*). However, the Arabian *s* (>O<) is surely derived from the fish-sign, and the Arabian *d* is a door, definitely not a fish.

Two other disputed letters are *p* and *g*: the obvious *g*, a boomerang or throw-stick (*gaml*, compare Hebrew *gimel* and Greek *gamma*) has been perversely connected with Hebrew *pe'ah* "corner". The mouth-sign (*peh* "mouth", is the Hebrew name of the letter *p*) is overlooked, and taken as a variation of an eye-sign. The mouth-sign is not frequent, but it appears, for example, in Sinai 358, Asa's obituary: "Asa has done (*p*^l) his work (*mlkth*)".⁴³ The boomerang as *g* is nicely attested in the Sinai collection in the

⁴² Gordon 1965: 14 (No 21).

⁴³ Colless 1990: 40-41; Hamilton (2006: 357-358) refuses to acknowledge the existence of the

word *gn* “garden” (five times).⁴⁴ In the cuneiform alphabet, *p* has two vertical wedges, doubtless representing the two lips of a mouth, as in the vertical version of *p* (𐎍) on the Wadi el-Hol inscription (see Figure 4, H 13); similarly the Arabian *p* is a vertical mouth (without the lip-line), while the Phoenician *p* is a stylized development from that same form. Cuneiform *g* is simply a single upright wedge, which conveys the form of the Egyptian original, a “throw-stick” (T14 6); the Arabian *g* is a boomerang, as also the Phoenician *g*.

A new paradigm for interpreting proto-alphabetic inscriptions has been offered here, and in closing I would like to test it briefly on another text, one which has been mentioned frequently in the discussion: the enigmatic graffito (with a vertical column and a horizontal line) from the Wadi el-Hol (near Thebes in southern Egypt).⁴⁵

[V] “Excellent (*R[’š]*) feast (*mšt*) of the celebration (*H[illul]*) of ‘Anat (*‘nt*). ‘El (*’l*) will provide (*ygš*) [**H**] plenty (*rb*) of wine (*wn*) and victuals (*mn*) for the celebration (*H[illul]*). We will sacrifice (*ngt*) to her (*h*) an ox (*’*) and (*p*) a prime (*R[’sh]*) fatling (*mḥ*).”

To achieve this result, the characters were given the sound values according to my table (Figure 5), and some were interpreted as logograms. The second sign in the vertical column was understood as *š* (sun-disc with serpent), and the word *mšt* emerges (“place of drinking”, hence banquet or feast); note the occurrence of the breast-sign (10 on the horizontal line) as *t*. The head was twice taken as a logogram indicating superiority (“excellent”, “prime”). The *h*-sign, a jubilant person denoting celebration (*hillul*), is apparently employed twice as a logogram, and once as a simple consonantogram. The ox-sign (*’aleph*) is a logogram for ox (*’alp*), but a simple letter in the divine name ‘El. The eye-sign is used as a consonantogram, not a logogram, in the name of the goddess ‘Anat, who is pictured beside the vertical text. The boomerang is allowed to be *g* (twice), not *p*, and the true *p* is 13 on the vertical line, a mouth (note the lips). The *ḥ* (double helix) is present, but not *h*. The *ḥ* and also the *l* show that this is not a syllabic inscription (the rest of the signs are found in both systems, consonantal and syllabic).⁴⁶

mouth as *p* (187, n. 230; 188-189, n. 232) and here (for a mouth, with teeth) he chooses *d* instead of *p*; also Sass 1988:29; see “Death of Asa” at: <cryptcracker.blogspot.com>.

⁴⁴ Colless 1990: 3, 12, 32. See also “Sinai horticulture” at: <cryptcracker.blogspot.com>.

⁴⁵ See n. 10 above, and my article “Wadi el-Hol inscriptions” at: <cryptcracker.blogspot.com>.

⁴⁶ This method of interpretation also seems to work on the text from the Izbet Sartah ostrakon from early in the Iron Age: (1) *’lmd ’t ’(yn)* (2) *k tm ’(yn) rh ’t b ’z[n]*.

Finally, for reference,⁴⁷ here are the original 27 letters of the proto-alphabet (my hypothetical suggestions for the particular word from which each was acrophonically derived appear on the table of signs below); they are presented in the original sequence (known from Ugaritic documents); this order is important for determining which were the characters that were dropped in the Phoenician consonantal alphabet of 22 letters, which followed the same sequence. Remember, there was an extra sign, which was the alternative *s* (spinal column instead of fish); it was present in the logo-syllabary as *sa*, and it survived in the Phoenician alphabet as *samek*, and it took the position of the fish; but both had occupied a place in the cuneiform alphabet.

ʾ(alep) B G H D H W Z Ḥ Ṭ Y K Š L M D N Z S ʿ(ayin) P Š Q R T Ġ T

The letter *h* (between *g* and *d*) fell away, leaving the well-known pair *gimel dalet*, alias Gamma Delta; but *ḥ* (now called *het*, apparently reflecting the name of *hayt*) remained to represent *h* and *ḥ*, following *z* (which came to be known as *zayin*).

z held its position following *waw*, but its partner *d* vanished, leaving the familiar group *lmn* (from which the term *element* was apparently derived, meaning a letter of the alphabet, among other things).

z dropped out and brought *n* and *s* together.

Ġ (known as *ghayin*, because it was now represented by *ʿayin*) lost its position immediately preceding *t*, which was always the last letter in the list.

t and *t* were now side by side, but *ṭ* was replaced here by *shin/sin*, and the sun-sign *š* disappeared over the horizon, bringing *k* and *l* together in the familiar pattern *klmn*.

The most important lesson we have learned in all this is that *š* was the sun (*shimsh*, as the disc alone, or the disc with a serpent, or with two serpents, or simply the snake or snakes without the disc), and *ṭ* was the breast (*thad*); and therefore a composite bow (**thann*) and a thorn (*shayit*)⁴⁸ were never in the picture.

“I am learning (*ʿlmd*) the signs (*ʿtt*); I am seeing (*ʿʿyn*) that (*k*) the eye (*ʿyn*) gives (*ttm*) the breath (*rḥ*) of a sign (*ʿt*) into (*b*) the ear (*ʿz[n]*). Explanatory notes available at: <sites.google.com/site/collesseum/abgadariy>.

⁴⁷ Hamilton (2006) helpfully lists the proto-alphabet at the foot of each page, though combining *š/z*

⁴⁸ Hamilton 2006: 241-244, 125-126. For my detailed response to all of Gordon Hamilton’s suggested identifications of the characters of the proto-alphabet, see “Alphabet and Hieroglyphs” at: <cryptcracker.blogspot.com>.

BIBLIOGRAPHY

- BEIT-ARIEH, I. 1985. "Serâbît el-Khâdim: New Metallurgical and Chronological Aspects". In: *Levant* 17, pp. 89-116.
- COLLESS, B. E. 1988. "Recent Discoveries Illuminating the Origin of the Alphabet". In: *Abr-Nahrain* 26, pp. 30-67.
- COLLESS, B. E., 1990. "The Proto-alphabetic Inscriptions of Sinai". In: *Abr-Nahrain* 28, pp. 1-52.
- COLLESS, B. E., 1991. "The Proto-alphabetic Inscriptions of Canaan". In: *Abr-Nahrain* 29, pp. 18-66.
- COLLESS, B. E., 1992. "The Byblos Syllabary and the Proto-alphabet". In: *Abr-Nahrain* 30, pp. 15-62.
- DANIELS, P. T. 2001. "Writing Systems". In: M. ARONOFF and J. REES-MILLER (eds.), *The Handbook of Linguistics*. Oxford, Blackwell Publishers.
- GORDON, C. H. 1965. *Ugaritic Textbook*. Analecta Orientalia 38. Roma, Pontificium Institutum Biblicum.
- HAMILTON, G. J. 2006. *The Origins of the West Semitic Alphabet in Egyptian Scripts*. Washington, D. C., Catholic Biblical Association of America.
- MENDENHALL, G. E. 1985. *The Syllabic Inscriptions from Byblos*. Beirut, American University of Beirut.
- ROTHENBERG, B., 1988. *The Egyptian Mining Temple at Timna*. Researches in the Arabah 1959-1984, Vol. 1. London, Institute for Archaeo-Metallurgical Studies, Institute of Archaeology, University College London.
- ROTHENBERG, B., 1999. "Archaeo-metallurgical Researches in the Southern Arabah 1959-1990. Part 2: Egyptian New Kingdom (Ramesside) to Early Islam." In: *Palestine Exploration Quarterly* 131, pp. 149-175.
- SASS, B. 1988. *The Genesis of the Alphabet and its Development in the Second Millennium B.C.* Ägypten und Altes Testament 13. Wiesbaden, Harrassowitz.
- WIMMER, S. J. 2010. "A Proto-Sinaitic Inscription in Timna/Israel: New Evidence on the Emergence of the Alphabet". In: *Journal of Ancient Egyptian Interconnections* Vol. 2: 2 <http://jaei.library.arizona.edu>

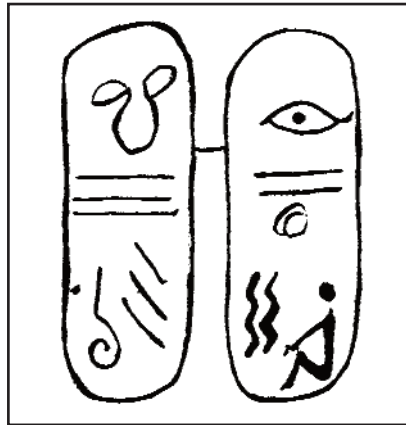


Figure 1. Sketch of the Timna rock inscription.

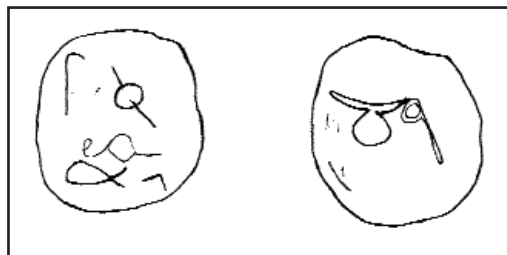


Figure 2. Sketch of the inscriptions on the stone from Timna, based on the photographs in Rothenberg (1988: plate 116, 4-5).

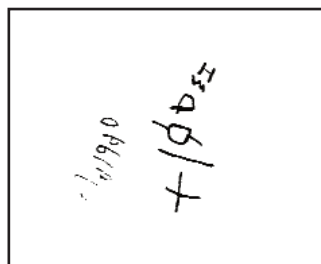


Figure 3. Sketch of the inscription on the stone plaque, made from the photograph and drawing in Sass (1988: Figures 276, 277).

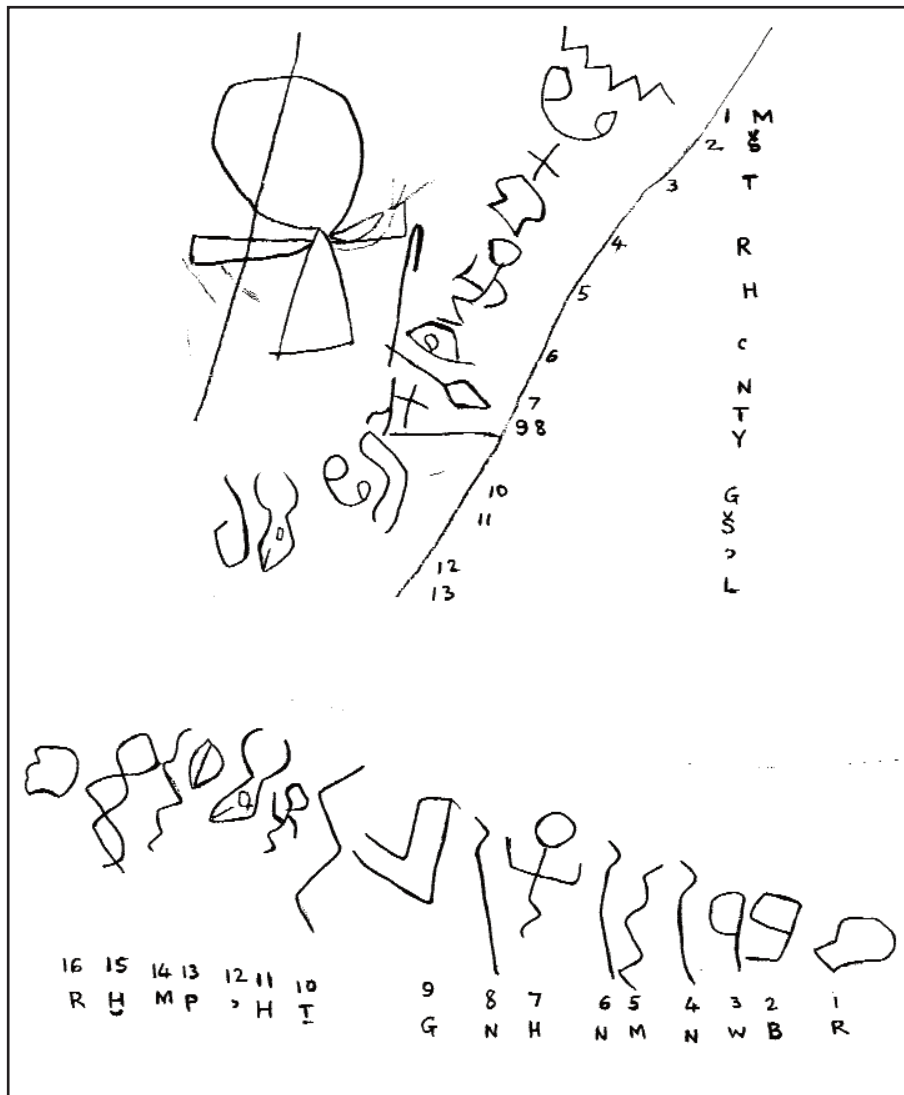


Figure 4. Sketch of inscription from the Wadi el-Hol (Egypt), based on photographs from the West Semitic Research Project.

	EGYPT	SINAI EGYPT	CANAAN	PHOENICIA	GREECE	ARABIA
Α	F1 ox	ox	AAU	Hebrew K	ΑΑ Alpha	ΑΑ
Β	01 house	bayt house	BB	ΒΒ Bet	ΒΒ Beta	ΒΒ
Γ	T14 boomerang	gaml boomerang	Γ	Γ Gimel	ΓΓ Gamma	ΓΓ
Δ	031 door	dalt door	ΔΔ	ΔΔalet	ΔΔ Delta	ΔΔ
Ε	A28 jubilate	jubilate	ΕΕ	ΕΕ He	ΕΕ Epsilon	ΕΕ
Υ		waw hook	Υ	Υ Waw	ΥΥ Upsilon	ΥΥ
Ζ	D13 eyebrow	zayp eyebrow	ΖΖ	ΖΖ Zayin	ΖΖ Zeta	ΖΖ
Η	06 mansion	basir mansion	ΗΗ	ΗΗ Het	ΗΗ Eta	ΗΗ
Θ	V28 hank wick	bayt thread				ΥΥ
Τ	F35 good	tab good	Τ	Τ Tet	Θ Theta	Θ
Ι	D36 forearm	yad hand	Ι	Ι Yod	ΙΙ Iota	ΙΙ
Κ	D46 hand	kap palm	Κ	Κ Kap	ΚΚ Kappa	ΚΚ
Λ	S39 crook	lamd goad	Λ	Λ Lamd	ΛΛ Lambda	ΛΛ
Μ	N35 water	maym water	Μ	Μ Mem	ΜΜ Mu	ΜΜ
Ν	I10 cobra	nahs snake	Ν	Ν Nun	ΝΝ Nu	ΝΝ
Ξ	K1 fish	samk fish	Ξ			ΞΞ
Ο	R11 column	samk support	Ξ	Ξ Samak	ΞΞ Xi	ΞΞ
Ϟ	D4 eye vine	ayn eye	Ϟ	Ϟ Ayin	ϞϞ Omikron	ϞϞ
Π	D21 mouth	pu mouth	Π	Π Pe	ΠΠ Pi	ΠΠ
Σ	V33 bag	sinar bag	Σ	Σ Sade	Μ San	ΣΣ
Ϟ	V24 cord	qaw cord, line	Ϟ	Ϟ Qop	ϞϞ Qoppa	ϞϞ
Ρ	D1 head	ra's head	Ρ	Ρ Resh	ΡΡ Rho	ΡΡ
Σ	N6 sun (ra)	Sam's tad.	Σ	Σ Sin	ΣΣ Sigma	ΣΣ
Τ		+ X + Taw mark	Τ	Τ Taw	ΤΤ Tau	ΤΤ

Figure 5. Table of the development of the alphabet from borrowed Egyptian hieroglyphs.