HIEROGLYPHS 1 (2023), 251–272

Received July 24, 2023
Accepted October 12, 2023
Published online December 29, 2023

The Proto-Semitic Origin of Tāw and its Meaning

From + and × to † and 𓏏 (ת> 𐤕) to the letter name and its cultural background

Gebhard J. Selz

Vienna University

Abstract. This article is based on Gardiner's "acrophonic" and Goldwasser's "illiterate" hypotheses for the origins of the evolving Proto-Semitic alphabet. It demonstrates that the letter name Tāw originates from the custom of marking/branding animals, a non-linguistic system indicating rights of disposal attested from the 3rd millennium BCE in southern Mesopotamia and still extant with today's Bedouins in the Levant. This custom is perceived as the point of departure for the evolving concept as an (alphabetical) letter in the 2nd millennium. It is further shown that the culturally determined ancestry of the letter Tāw is reflected also in the sources of the Hebrew Bible, thus providing important insights for Biblical exegetical research.

Keywords. letter Tāw; letter names; early alphabet; (animal) marks; mark of Cain; cuneiform script; phonemic segmentation.

1. On the acrophonic principle (Gardiner's and Goldwasser's hypotheses)

In the following we consider the heuristic value of two outstanding hypotheses on the emergence of the Proto-Semitic alphabet. We may term these the acrophonic principle[1] (based on Alan Gardiner's ingenious suggestion of 1916; see also Gardiner 1962) and the suggested *illiterati* hypothesis, that

1 We restrict our elaboration on what Vernus 2015 termed "acrophonie forte," also discussing deviant opinions of other Egyptologists (Darnell, Morenz, Werning); see Vernus 2015: 162, with footnotes 53–54.

is the non-Egyptian origin of the people involved, as argued by Orly Goldwasser.[2] We also briefly address a complete refutation of these hypotheses by some scholars following Ignace Gelb's systematic account in *A Study of Writing* of 1963. In his seminal work, *The Genesis of the Alphabet and its Development in the Second Millennium B.C.* (1988), Benjamin Sass explicitly discusses Gelb's assertion that "true" consonantal writing was an invention of Greek culture. Like another fundamental hypothesis of Gelb—the logocentric conception of writing[3]—the notions persist in public opinion and beyond. Indeed, scholars like Powell in 2009 tried to save Gelb's hypotheses, generally ignoring the rather convincing arguments by Sass and others.[4] Gelb's hypothesis of a syllabic origin of the pre-Greek scripts was recently promoted again by Peter Daniels in 2023 who lucidly discusses several aspects of Gelb's hypothesis.[5] In the past decades a great number of books and articles have specifically addressed the following issues:

2 Orly Goldwasser described this phenomenon in a number of articles from various perspectives: see Goldwasser 2006, 2010, 2011, 2012, 2016a and 2016b, 2017 and quite recently 2022. Needless to say, over time she was able to refine and modify her main thesis which is: *illiterati*, that is people not familiar with the hieroglyphic writing system, invented the Proto-Sinaitic alphabet, most likely at Serabiṭ al-Khadem around 1800 BCE. Her major arguments are succinctly summarized by Ben Haring: "The earliest alphabetic characters persist from the eighteenth until the thirteenth century, when professional scribes developed a standardized linear script. Iconic writing, she proposes, should not be thought of so much in terms of precise graphs, but rather as being worked with recognition cues, making e.g. a human head recognisable as such without sticking to fixed graphic conventions: the signified counted, rather than the precise form of the signifier. […] For the earliest users of alphabetic notation, who according to Goldwasser were not professional scribes, such a notation was relatively easy to master as long as the signifieds and hence the names of the signs were sufficiently internalised (and for this in turn a fixed alphabetic order, such as *h-l-ḥ-m* or *ʾ-b-g*, would have been a help). But what was the initial inspiration for such an iconic script, in which a limited set of pictorial characters was used to represent the consonants of a Semitic language? Ever since the discovery of Proto-Sinaitic at what is basically an Ancient Egyptian site, and a place very much dominated by hieroglyphic epigraphy, that inspiration has been traced by scholars to Egyptian hieroglyphs" (Haring 2020: 63).

3 Compare the discussion in Selz 2022. Gelb's entire concept of writing is formulated from a logocentric view of writing. From a modern, not to say western, perspective, this may be comprehensible in so far as the combination of visual and aural/oral modalities result in the fusion of what we perceive as new medium. Nevertheless, writing is more than fixing sounds, in a similar way as images are more than iconic depictions; see Selz 2022. Especially relevant for our discussion is Haring 2021; see further, e.g., Elleström 2010, who summarizes the issue from the viewpoint of media studies.

4 Sass 1988: 161 writes: "The question of which of these two systems (the Semitic *abjad* and the Greek alphabet) should be called alphabetical is thus mainly semantic. […] Strictly speaking, only the various Semitic consonantal scripts, which *ab initio* have *alep* and *bet*, have the right to be labelled alphabets."

5 Basically, this notion depends exclusively on the *definition* of writing. When one accepts the description of Daniels 2023: 10, "Writing, by the way, is a system of more or less permanent marks used to represent an utterance in such a way that the utterance can be recovered more or less exactly without the intervention of the utterer," then one excludes (*via* the alleged single purpose or teleological focus) all non-logocentric (semasiographic) aspects and gets, at best, half of the information conveyed by the earlier scripts of Egypt and Mesopotamia; compare Selz 2022 and Haring 2022.

- the date and place of appearance of the earliest consonantal writing and the problems with the chronological gap in its documentation after ca. 1800 BCE;[6]
- the cultural environment in which these were invented: by (Egyptian) scholarly circles or rather by illiterate Canaanite workers in the Sinai or by "Asiatic" soldiers;
- the ways in which the earliest consonantal scripts relate to their alleged forerunners in Egyptian writing;
- the discussion of the forms of the various *abcedaries* of the second millennium BCE.

These much-disputed topics have found different solutions in the vast scholarly literature. Scholars like Sass[7] insist that greater Egypt was the birthplace of the earliest "alphabetic" scripts: "Only the earliest, pictographic phase of the alphabet has been found in Egypt, including Sinai. So long as this picture is not overthrown by new discoveries, the archaeological data seem to indicate that quite soon after it was born, the alphabet left Egypt and resurfaced in the Levant" (Sass 2005: 152–153). Sass remarked further that these proto-alphabetic inscriptions "'float' within the entire time-span ca. 2000–1300 B.C." (Sass 2005: 149). He is quite positive on Darnell's scenario that "Asiatic mercenaries in the Egyptian army were exposed to Egyptian writing practiced by the scribes of their units […] [thus producing] potential prototypes for all Sinai and Wadi el-Hol letters."[8] This concurs with Goldwasser's notion that the *form* of the earliest consonantal signs might be derived from the Egyptian script *via* Gardiner's acrophonic principle (but their "reading" was not), and that the script was invented by the mining community of Serabiṭ el-Khadem (Sarabiṭ al-Ḫadim) around 1800 BCE. I have neither a reasoned opinion on the periods covered by these inscriptions nor whether the inscription on a sherd of a Cypriot milk bowl from Lachish (15th century BCE) eventually bridges the alleged documentary gaps (see Höflmayer *et al.* 2021 and below).

Whether the invention of the alphabet connects to Asiatic soldiers (Darnell) or Asiatic miners (Goldwasser) is of minor relevance in our context as both theories posit a non-Egyptian element in its formative phase. At this point Goldwasser's hypothesis that the invention of the alphabet should be attributed to "illiterate miners" (in the Sinai) becomes central. Goldwasser was able to show that the letter names of the alphabet are not related to Egyptian words, but instead are strictly connected to Proto-West Semitic nouns, thus confirming Gardiner.[9] The inventors did not care about any representation of the Ancient Egyptian language—it seems clear that *with respect to Ancient Egyptian*

6 An overview of the discussion of dates for the Proto-Sinaitic scripts is provided by Hamilton 2014 and Haring 2020: 56–58.

7 Sass 1988 and 2005, with an extensive revision including the discussion of new finds from Wadi el-Hol (near Luxor) and Serabiṭ el-Khadem (Sinai copper mines); see also Vernus 2015: 143–144.

8 Sass 2005: 150, with reference to Darnell 2003; see also Darnell *et al.* 2005 and now Le Blanc 2017.

9 Compare Hamilton 2006: 21–25; Krebernik 2007: 135–148 with early literature on page 135; for the Greek letter names and their forerunners see Krebenik 2007: 148–161.

they were indeed illiterate.[10] In other words, the letter names evolved *via* a "You Get What You See" principle: [11] Although at least partially based on hieroglyphic iconic shapes,[12] they were named/described by the inventors of the script in their own language. In conjunction with Gardiner's observations of 1916, it is beyond doubt that these "phonemes" (the proto-alphabet) were developed by "Asiatics" using the principle of acrophony.[13] Besides iconic traces the Egyptian influence is therefore restricted to the fact that the inventors of the alphabet must have been aware that *the hieroglyphs represented language somehow*. The acrophonic principle presupposes phonemic awareness,[14] thus clearly transcending a simplified notion of only syllabic representations.[15]

2. From syllabic to phonemic awareness. General considerations

By definition alphabetic scripts are based on the notion that words are sequences of phonemes and therefore imply and presuppose an analytical process. Perhaps consequential for the evolution of the Proto-Sinaitic alphabet are the hieroglyphic *uniliterals* or *monoliterals* which Gardiner explicitly put in the context of "alphabet"—a notion often rejected today.[16] Likewise, it is possible that the

10 This is my understanding of Goldwasser's arguments; it does not presuppose that these people had no notion of what writing was about—to the contrary. In this and other respects Colless' 2014: 79–80 critique of Goldwasser's hypotheses (7 and 8) does not convince me.

11 This can sometimes be rather complicated. As an example we refer to *nūn* נ (the Phoenician form is more recognisable: 𐤍), which depicts one or two types of a "snake," a "viper" or "a cobra in repose" (Hamilton 2006: 154–171). Hamilton discussed the problem providing evidence that the original letter name must haven bee *naḫaš* "snake," not *nūn* "fish". The reason why this changed in the course of alphabetic history remains in the dark.

12 But only on the surface; see below fn. 21. Highly interesting here is Goldwasser's 2016 observation on how the Egyptian scribes of Lachish modified the early Proto-Sinaitic alphabet.

13 Powell 2009: 181–184 explicitly rejects the acrophonic principle.

14 Compare Powell 2009: 170: "If phonemes are not discrete objective elements of speech, but only a way of talking about speech dependent on the historically conditioned and somewhat haphazard structure of the Greek alphabet, the first writing that allowed the reader to reconstruct the actual sounds of speech, West Semitic writing was not 'alphabetic,' as described in such common charts."

15 It may well be that in the Ancient Near East neither consonants nor vowels—which are only abstractive elements of speech—were *analytically* and systematically identified. Powell 2009: 172 writes: "Surely they did attempt to indicate phonic aspects of speech, but not consonants in a theoretical sense, because consonants are phonemes that 'sound along' (Latin *consono*) with vowels, and 'vowels' as separable units that sound along with consonants are a way of speaking about human speech dependent upon the structure of the Greek alphabet." See also Daniels & Bright 1996: 27: "The Semitic abjads really do fit the structure of Hebrew, Aramaic, and Arabic very well, [more] than an alphabet would […], since the spelling ensures that each root looks the same through its plethora of inflections and derivations."

16 But compare Powell 2009: 154: "There must be a connection between the Egyptian repertory of around 24 uniliteral signs, artificially abstracted from the whole system, and the highly similar inventory of sounds represented by West Semitic writing." And further on p. 164: "If the West Semitic repertory is similar to the 24 Egyptian uniliterals—and even modeled on it in some way—and the West Semitic signary was an 'alphabet'—then an 'alphabet' existed already within the Egyptian logosyllabary." (See Gardiner 1957: 26–28 with table on p. 27.) Nevertheless, Powell strictly opposes this idea; according to Powell 2009: 168–172, our notion of phonemes is a backward "projection

advantages of a consonantal rendering of a language were seen in the sphere of scribes familiar with Akkadian (syllabic) cuneiform or (hieratic) Egyptian, both of which might have helped eventually to spread the new system in the Levant.[17] Even if phonemes are not discrete objective elements of speech, morphophonemic features do play an important role in cuneiform writing. Thus, the combined evidence from Egypt and Mesopotamia suggests that analytical phonemic analyses were *possible* even when there is little direct evidence for their impact in the extant scripts.[18]

This is neither the place nor do I possess sufficient expertise to judge the (possible) role the 22 Egyptian monoliterals had, if any,[19] in the process of isolating consonantal phonemes, an analytical process of historically greatest consequence. Quite recently Powell insisted, as Gelb did, on the syllabic origins of these signs,[20] arguing that their interpretation as 'consonants' is a misinterpretation based on our notion of the Greek alphabet projected back into the second millennium BCE. However, I would argue the opposite: it is our Greek based notion which hinders us in accounting for the covert phonemic analyses, and is also the hurdle for accepting that writing is more than just a means to render speech.

We may therefore summarize: the evolution of the West Semitic "alphabet" started (probably in the Sinai) with the Semitic speaking workers of the mines who described or "read" Egyptian signs in their mother tongue. They thus attributed a meaning to an icon with no phonetic reference to any pronunciation in Egyptian. This seems undisputable, even when their iconic interpretation[21]

of Greek Alphabetic Writing." Orly Goldwasser drew my attention to an article of Pascal Vernus who systematically re-considered the phenomenon of the origin of the Egyptian monoliterals and concluded: "*On peut donc parler de génération du phonogramme mono-consonantique (signe « alphabétique ») à partir d'un logogramme, lequel, le plus souvent, lui coexiste*. […] *Il existe, certes, des phonogrammes mono-consonantiques (signes « alphabétiques ») dont l'emploi comme logogrammes n'est pas attesté, mais on s'accorde en général à penser qu'il s'agit simplement d'une lacune dans la documentation*" (Vernus 2015: 152–153).

17 For an evaluation of the cuneiform tradition in Canaan see the essays in Horowitz *et al.* 2006 and 2018.

18 Paradigm tables attested in the Old Babylonian Grammatical Texts are, however, demonstrating advanced analytical approaches; compare Huber 2008, 2015.

19 This remains rather doubtful; see also Colless 2014: 88.

20 Powell 2009: 168 "The graphic isolation of the consonantal sounds of human speech in Egyptian writing, associated with an unspecified vowel, was therefore an intellectual achievement of the very highest order, but in spite of alphabetic transliterations from Egyptian into Roman characters, the Egyptian signs never stood for consonants as in the IPA. They stood for syllables whose sounds we cannot recover." See also Powell 2009: 114–117.

21 At least on the surface the situation for cuneiform is quite different from the evolving Egyptian system: even in its earlier phases cuneiform signs show less iconicity than Egyptian ones. Certainly, the difference in materiality—clay (reeds), also stone in Mesopotamia; papyrus and stone in Egypt—contributed to these differences but this does perhaps not provide a sufficient explanation; for an overview on this issue see, e.g., Pollock 2016 and Cancik Kirschbaum 2017, also Pinarello 2018. Be this as it may, the set of iconic relations for the archaic cuneiform signs is restricted and remains often opaque. However, they are probably less abstract than we tend to judge. The assumption that we lack the necessary information for the reconstruction of the underlying semiotic process is often more likely; at least the boundaries between iconic and symbolic (arbitrary) signs seem to be fuzzy.

is presently not always perfectly clear.[22] It is, with Goldwasser, the Semitic reading of these pictograms[23] which—in conjunction with Gardiner's "acrophonic principle," with their isolation of an initial phoneme—forms the backbone of all subsequent alphabets. Such a reduction—as it is usually argued—may have implied a theoretical (!) awareness of the salience of the "consonantal root concept" perceived as fundamental of Semitic languages. These people, however, lived on the fringes of the Egyptian and Mesopotamian cultures. Thus it is in fact their ignorance of the Egyptian writing that may have propelled the emergence of the new system.[24] This hypothesis may also help understand why the iconic perception of the miners did not entirely correspond to the iconic background of the hieroglyphs on which their reading was based—not to speak about the discussion amongst modern scholars.[25] And occasionally letter names may even mix up a variety of traditions, as for instance was the case with the letter Nun.[26] A similar phenomenon, the competitional ancestry of *d*—the "fish" **dag*; **digg* or the "door" **dalet*—was recently discussed by Goldwasser (2021: 8–10). As the hieroglyphic reference for this letter, the sign Gardiner 1957: O31 𓉔 is usually provided (Hamilton 2006: 34). On the sherd from the milk-bowl from Lachish the letter has this shape:

Fig. 1. Photo from Höflmayer *et al.* 2021: 713, fig. 7.

22 Quite indisputable examples are: *alep* (𓃾), an "ox" (*aluf*); *bet* (𓉐𓌃𓉐), a "house" (*bayit*); *yod* (𓇋), a "hand" (*yad*); *mem* (𓈖), "water" (*mayim*); *'ayin* (𓁹), an "eye" (*'ayin*), or *resh* (𓁶), a "head" (*rosh*), and so on; see Hamilton 2006 and Goldwasser 2010, 2016. A detailed overview of the palaeography of the Middle Kingdom hieroglyphic forms from Sinai and the Proto-Sinaitic letters is given by Goldwasser 2011: 6, Table 1 and 2.

23 Remarkably, the same phenomenon is also attested for cuneiform: the iconic "water channel" 𒌨 of the earliest Uruk-Period texts (ZATU 432, with the probable Sumerian reading *šitan*) received in the 2nd millennium the syllabic value rad/t/ṭ derived from Akkadian *rāṭu* "water channel; pipe." Thus even the modern sign name RAD for the later form 𒊑 is based on this Semitic reading.

24 See Goldwasser 2011.

25 Powell 2009: 181–184 strictly refutes the acrophonic principle in order to understand the evolution of the Proto-Semitic alphabet (and consequently the transition from a proto-syllabic to an Abjad type of script). I remain unconvinced even though some Proto-Sinaitic readings (letter names) may remain questionable; see the following note.

26 See Powell 2009: 182. However, I am less convinced that there is a general problem with the acrographic hypothesis. I think the documentation that connects, e.g., the Aleph sign with an "oxhead" is quite convincing. It is overstressing scepticism and does not concur with the available evidence when Powell 2009: 182 writes: "We do not interpret the sign as an oxhead because it looks like an oxhead—it is an abstract open angle with a vertical slash—but because its name is *aleph*, which means 'ox': then we look for face and horns." The issue is addressed in a number of important articles collected by Rico & Attucci 2015; significant here is the contribution of Pontecorvo & Rossi 2015.

It is tempting to connect this sign with the cuneiform sign  (Akkadian *daltu*) "door." The original sign was (before being turned 90° anticlockwise)  or  . The second alleged antecedent of the letter name **dag* is Gardiner 1957: K1  (see the discussion by Hamilton 2006: 61, 69—74). Although still hypothetical, the explanation seems clear. Dalet won the "competition" for the letters *name* because it is based, once again, on the "you get what you see principle" of Semitic speaking people: at a certain point the depiction was perceived as the (half-leaf) door in the style of a Western Saloon, well-known from Mesopotamian iconography.

3. From syllabic to phonemic awareness: The evidence from early Mesopotamia

A brief look at the at that time rather dominant type of cuneiform writing may help judge this phenomenon properly. *Phonemic awareness* can be traced in the earliest cuneiform scripts,[27] specifically in the well-known rebus principle based on *homophone* words (or syllables) or only on *homoiophony that is partial homophony* or similar sounding signs.[28] For the evolution of syllabic values it is informative that in Presargonic Sumer (before 2350 BCE) out of ca. 185 syllabic values used over fifty percent of the syllables—all originating from "free morphemes"—show a consonant-vowel structure (CV).[29] From the earliest Uruk period onwards, the arrangement that lexical lists display is, among others, based on *acrographic* principles. The Uruk III period list Archaic Lu-A (Officials; ca. 3000 BCE) provides good evidence for the syllabic structure of the listed words—sometime but not always found in word-initial position (of compounds). This was an important means for ordering the items of the list.[30] We may further mention that the various means to arrange the entries of a list most often relate to their function as mnemonic devices.

In the course of time cuneiform writing developed from its pre-dominantly pictographic and semasiographic (ideographic) origins to a kind of writing that is usually, albeit incorrectly, termed "logo-syllabic."[31] Chiefly *via* the rebus principle applied to its ideographic sources a syllabary to

27 A good overview for attestations of "phonemic awareness" is provided by Tonietti 2015.

28 Compare Selz 2018 and Krebernik 2021.

29 See Zand 2012: 23. *Syllabic awareness* is fundamental in the evolving script systems.

30 Elaborated syllabic awareness eventually led to the acrostichon as demonstrated by Mesopotamian acrosticha, the most famous found in the Middle Babylonian *Babylonian Theodicy*, where the reading of the line-initial signs gives the name of the compiler: *a-na-ku sa-ag-gi-il-ki-[i-na-am-u]b-bi-ib ma-áš-ma-šu ka-ri-bu ša i-li ú šar-ri* "I, Saggil-kīnam-ubbib, the incantation priest, am adorant of the god and king" (Lambert 1966: 63). Although documenting the change from a proto-syllabic to an Abjadic type of script, the acrophonic principle is also documented by several Biblical psalms when the first 22 verses in a acrostichon-like manner follow the letter-sequence of the Hebrew alphabet (Psalm 9, 10, 25, 34, 37, 111, 112, 119 and 145).

31 Please be aware that this may still be a minority vote! The current notion of logograms lacks the wanted precision and is applicable only for later stages of the evolving scripts (see Selz 2021). Egyptologists such as Pascal Vernus (Vernus 2003, Vernus 2015: 148–149) submit similar arguments. Cooper 2004: 90 correctly underlines the primacy of the

represent syllabically written words and word forms developed: the isolation of simple phonemes, however, was never a major aim. And, as remarked, even the application of the rebus-principle often lacked the wanted precision. A sign need not have homophonic qualities; often "homoiophony"—that is, partial homophony—would suffice to establish a sign's use.[32] On a homoiophonic base, permutation of vowels and the occasional lack of distinctions (such as between voiced and unvoiced consonants) are well attested. The reduction of the Old Semitic laryngeals (*ʾ*, *h*, *ḫ*, *ʿ*, and *ġ*) to alephs ($ʾ_{1-5}$) in the course of the history of cuneiform could also reflect the problem of identifying (Sumerian) phonemes.

The interplay of these two unrelated languages, Akkadian and Sumerian, also resulted in problems in rendering Sumerian phonetics "correctly" in writing. From the viewpoint of phonetic segmentation there is, besides the signs notating vowels (*a*, *i/e* and *u*),[33] a very restricted number of signs—only three in fact—which show a tendency to ignore the vocalic element and therefore almost represent a segmented consonantal phoneme. These are  used for the syllables *wa*, *wi*, *we* and *wu* and  for *ah*, *eh*, *ih* and *uh*, also for *á'*, *é'*, *í'* and *ú'*. The second series is later differentiated with  being used specifically for *a'*, *e'*, *i'* and *u'*, as well as for *'a*, *'e*, *'i* and *'u*.[34] These rare examples may indicate that cuneiform writing was on the brink of developing *abecedaries*[35] such as known in the late second and first millennium *abecedaries* (including alphabetical cuneiform from Ugarit[36]).

This important change from a proto-syllabic to an Abjad type of writing almost certainly finds further ancestors in cuneiform syllabaries such as *Syllabary B*. Starting with the syllables *tu – ta – ti*, then *nu – na – ni*, etc., this shows regular vowel permutations and thus indicates the *notion* of an isolated consonantal phoneme. This may indeed point to the possible deletion of the vowel or perhaps better an approximation of the vowels to a shwa [ə], a mid-central vowel. Hence, a segmented

semasiogram—"logogram" in his terminology—"to write substantives, adjectives, and verbs, and reserves phonetic writing for grammatical particles and affixes." Most importantly, he sees here a basic difference with the Egyptian system "which is primarily phonetic, with a heavy dose of semantic determinatives."

32 The derivation of new free morphemes via homophony is usually called the rebus principle. There is, as far as I see, no exhaustive study on homoiophonic derivations—the quasi-rebus principle. The only exception is Zand 2009 who addresses this phenomenon as "partielle Homophonie"; see further Krebernik 2021 and Selz 2018. Most remarkably, what is termed the quasi-rebus principle here compares to what Vernus 2015: 154–157 describes (systematically) as "*rebus « défectif »*."

33 The signs for vowels show phonetic values when simply used to indicate vocalic length.

34 Here we ignore the complex story of the representation of laryngeals from the third millennium onwards as well as the issue of vowel pronunciation and the glottal stop at the beginning of words.

35 We stick to this traditional term ignoring connotations linked to the Greek alphabet; on the terminology see Morenz 2019: 19–26, also Schneider 2018.

36 See Pardee 2007. The (unbroken) continuity of the earlier Proto-Sinaitic inscriptions to the later second millennium was questioned by Sass 2005. Nevertheless, it seems beyond doubt that the different writing systems attested in the Levant at the end of the Bronze Age co-existed since several centuries.

phoneme was within analytical reach.[37] Any teaching of the Alphabet, when done orally, leads to similar patterns of consonants and concomitant vowels, which are inseparable in speech. The use of *bə*, *də*, *(ə)f(ə)* or *yə* in primary schools instead of the more 'educated' forms *ba*, *de*, *eff* or *yod* illustrates the point. Indeed, texts like *Syllabary B* had their place in the first phase of scribal training in the Old Babylonian school. Going even further, the deletion of a vowel from the originally syllabic structure of a sign can now be seen already in the Elba archives, in the third millennium BCE. Tonietti 2015 has correctly observed that the Ebla orthography[38] shows "*une voyelle silencieuse (une solution, au contraire, presque totalement absente en akkadien) ; c'est à dire une séquence de deux syllabes ouvertes, où la deuxième possède dans son noyau une voyelle qui peut répéter ou non celle de la syllabe précédente* (<C_1V_1+$C_2V_{1/2}$> → /$C_1V_1C_2$/): bù-gu-lum/buql-um/ « *malt* »" (Tonietti 2015: 58).

Tonietti further discusses a school text from Byblos, published by Dossin in 1969, which shows the vocalic permutation of *lam*, *lim* or *li*, *lá, lú*. Concluding her discussion, she remarks that the evidence from Ebla and Byblos "*semble montrer déjà au troisième millénaire av. J.-C. dans la région du Levant la présence d'une conscience segmentale par rapport aux constituants consonantiques et vocaliques de la chaîne phonétique*" (Tonietti 2015: 63). This statement has, of course, the outmost significance for any further discussion of the evolution of writing and finally discredits Gelb's hypothesis which was outlined above.

4. The letter Tāw as attested in Proto-Sinaitic texts

On the Tāw "mark" Goldwasser 2016b: 134 remarked: "Even if the identification of the specific referent is not evident, the letter presents a manifestation of its name, thus carrying an almost universal 'recognition cue'."[39] As we will argue in the following, this "near universal" may be situated not just in concrete or real-life situations from which the inventors of the alphabet drew their "inspiration,"[40] but in the case of Tāw even more precisely in their semi-nomadic background. The assumption is here that the "inventors of the alphabet" belonged to the transhumant people roaming the entire Ancient Near East, a lifestyle that formed the core of their world view even if they could have made carriers as soldiers[41] or miners. The issue is less the original iconicity of the letter—which in any case remains opaque—but rather why this sign received the reading Tāw and

37 An important additional piece of evidence, a school tablet from Byblos (21st century BCE), published by Dossin 1969: 245–248, is discussed by Tonietti 2015: 63; on Byblos role (Tonietti 2015 64–67): "In our opinion Daniels' discussion on 'Segments and Alphabets' has no immediate bearing on our discussion here, Daniels 2018: 15–36."

38 Most prominent is the Bilingual Vocabulary List with over 1500 entries in in Sumerian and Eblaite Semitic; see Pettinato 1982.

39 On this function see Goldwasser 2016: 148–150; see also Haring 2020: 63–67.

40 This was already pointed out by Goldwasser 2006: 135–146 and 2016: 128–134.

41 Note, that at the turn from the third to the second millennium BCE the supposedly migrating Amorites most regularly started their carriers within the Mesopotamian army.

the meaning "mark" in the context of the evolution of the Proto-Semitic alphabet. In other words, we will show how this "recognition cue" was and remained culturally determined.

The Proto-Semitic—that is, explicitly, the non-Egyptian—reading of the letter is based on the hypothesis that the letter names originated in a 19th century BCE environment as documented in texts from Serabiṭ el-Khadem. In the course of the following argument, we—along with the majority of scholars—adopt this notion and follow, for instance, Hamilton 2006: 22 who writes: "I consider it entirely likely that these names were part-and-parcel of the creation of the Proto-Canaanite alphabet itself."[42] Their relation to the *abcedaries* seems quite obvious.[43] And as we may note already at this point, both the North-west Semitic or *ʾ-b-g* and the southern *h-l-ḥ-m* variants apparently co-existed in the Levant.[44]

It is generally accepted that the hieroglyphic ancestor of Tāw is, as recollected by Hamilton 2006: 246, the sign in Gardiner 1957: Z11 𓏺, described as "two planks crossed and joined" (Gardiner 1957: 539) or "*gekreuzte Stäbe*" (Hannig 1995: 1100). The forms of this letter are conveniently presented in Hamilton 2006, based on his own research:

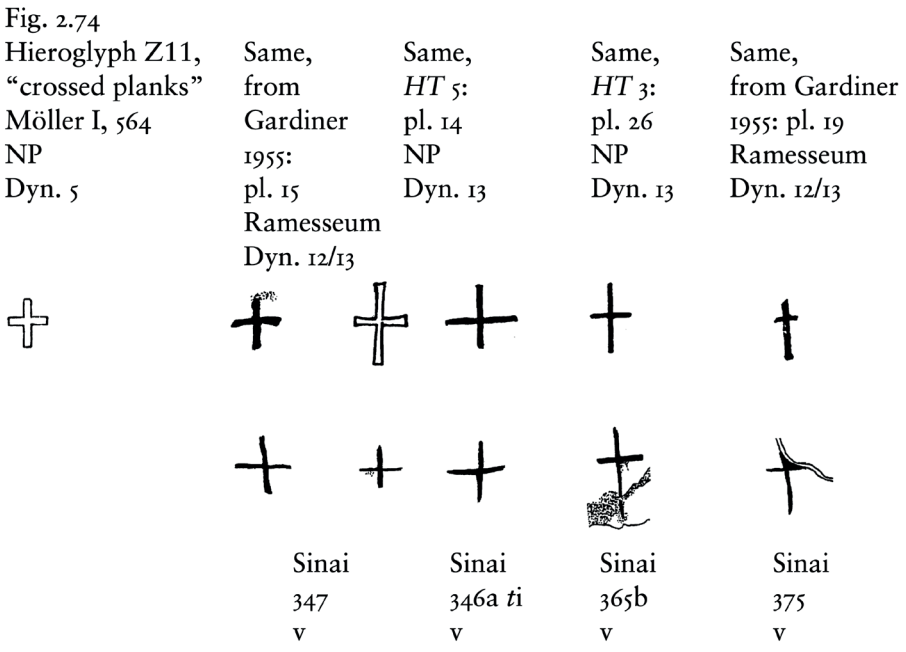

Fig. 2. Hamilton 2006: 248, fig. 2.74

42 See also further bibliographic references provided in Hamilton 2006: 22 with fn. 40; further Demsky 2015: 31–34.

43 Compare here the ostracon from ʿIzbet Ṣarṭah (writing exercise, Samaria, 12th/11th century BCE; see the fundamental discussion in Sass 1988: 66–69) which in line 1 perhaps reads: A-B-G-D and A-T "abecedary (from) Aleph (to) Taw" as Morenz 2019: 22–23 has suggested. Line five provides a complete abecedary: *ʾ b g d h (w) ḥ, (z) ṯ y k l (m) n (s) p ʿ ṣ q q š t* (Sass 1988: 67).

44 Compare the abecedary from Ugarit (and Bet Shemesh), see Cross & Lambdin 1960; Krebernik 2007: 113–114 (with previous literature); see further Haring 2015; Fischer-Elfert & Krebernik 2016; Schneider 2018.

The development of this sign in the Sinai is summarized as follows:[45]

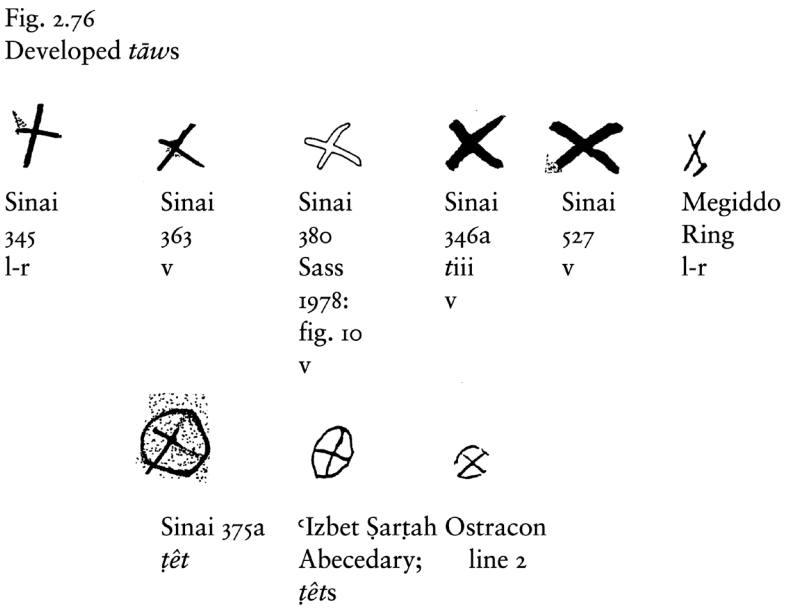

Fig. 3. Hamilton 2006: 249, fig. 2.76

It remains an open question why neither Gardiner 1957: Z9 × nor Z10 𓊹 (understood by Gardiner as a variant of Z9) are usually mentioned in this context, especially as the documented Tāw seems to be closer to the latter's form, which depicts a cross with equal arms, or "decussate" cross.[46] The connection to the rare Biblical Hebrew noun *tāw* תּו (Syriac *tawwā*) is generally accepted. According to Hamilton it "is the only certain instance of a letter name whose meaning bears no relationship with that of its Egyptian prototype" (Hamilton 2006: 253). The same, I think, can also be said of the letter Wāw "hook."[47] Both nouns might have received their meaning in relation to the semi-nomadic origin of their inventors. Krebernik 2007: 161 speculated that the word was derived from the letters name, a phenomenon he also supposes for the letter Wāw (Krebernik 2007: 151).[48]

45 Note that the forms given in the second row are similar to some forms of the forerunners of the letter Ṭet; see Hamilton 2006: 103–108; the hieroglyphic is thought to represent a stylized map of city. The origin of this letter's name remains uncertain.

46 Whether the rotation of the sign "came about through assimilation of the crossbars of some Tāws to those of Ṭêt" is another question. On the supposed origin of Ṭêt see the suggestion in Goldwasser & Naveh 1976.

47 On this see Gesenius [17]1915: 190. The letter name has no connection to the alleged iconic origin of the letter depicting a kind of mace (hieroglyphic sign Gardiner T3). Note that forms from Byblos and Proto-Sinai resembles a throwing stick more (Morenz 2019: 75 "Wurfstock"). In either case the icon refers to an important tool of shepherds. Is it a pure coincidence that the readings of both Wāw and Tāw point to animal herding? Goldwasser 2016: 128 suggested that the form of the letter was perceived with the "widely used Canaanite toggle-pin that may have been called Wāw in Canaanite." This fits with the Biblical attestations of the noun. In this (likely) case Wāw also follows the "You Get What You See principle" and supports the idea of Semitic readings of the Proto-Sinaitic signs.

48 This is unlikely in the light of (possible) cognates (Hamilton 2006: 253). On the letter Wāw Hamilton 2006: 91 remarks: "It seems more likely, therefore, that the rarely attested noun **wāw-* was generated from this letter's name (and

We suggest here that the depiction of "crossed sticks" or "crossed planks" was indeed perceived by "Asiatic" people (e.g., the miners of Serabiṭ el-Khadem) as a "mark," and that its form can be derived from the old and still living tradition of marking goats and sheep to indicate rights of disposal or ownership: in other words, to mark the affiliation of an individual animal to a specific flock and its owner. The intention was to secure such animals from unauthorized access, "mark" being in this respect a sign of protection.

5. Marking/branding animals in Mesopotamia

The suggested origin of Tāw as an animal's marking coincides nicely with the function of the early cuneiform sign for *maš* "goat" , (also), and with Sumerian *maš* being homophonic with *maš* "interest" (Akkadian *ṣibtu*), which probably originates from a form of delivery obligation, a tax on animal herds.[49] Like in the hieroglyphic case the iconic origin of this cuneiform sign remains problematic and the suggestion that both originated from a "tally mark" remains an unproven guess.

The proto-cuneiform sign for goat is often distinguished by additional strokes as , whereby the rhomboid second element could, as Glassner 2000: 255 suggested, iconically refer to the testicles of a billy-goat. The second and economically even more important type of small cattle is the sheep, represented by an encircled goat sign, that is UDU~a or UDU~b , which, surprisingly, is quite similar to the developed Tāw sign represented in Hamilton's chart above.

As with the billy goat, the sheep can be distinguished specifically as ram by adding the same (or similar) rhomboid sign, that is UDUNITA~c. Very systematically the ewe is then rendered as , in Sumerian U_8, where the inscribed signs refer to the animal's udder which has its parallels with the she-goat UD_5~a.

developed shape) and not *vice versa*." However, we may note that a wanted explanation for where these "letter names" come from is never provided. The occurrences of *Wāw* meaning "hook" in the Bible is indeed restricted to Exodus (chapter 26, 27, 36 and 38).

49 Earlier attempts to connect *maš* with Akk. *mišlu(m)* "half" seem less likely. (Selz 2000: 193 stipulates, following Glassner 2000: 254 and based on Glassner 1999, "*daß das Homophon maš im Sumerischen zum einen „halb", die „Hälfte", zum anderen die Tierart „Ziege" bezeichnet*".) The concomitant lexical evidence is grounded in a later attested confusion between *bar* and *maš* and perhaps further motivated by homoiophony; compare *CAD* M/2, 126–127.

At first sight these signs for she-goats look as if derived from the sheep sign UDU above, which, absent the wanted systematics, is somewhat surprising. Therefore, it is proposed here that the square (originally circular) frame mirrors semantically the "roundness" of the animal, being a sheep with wool or a pregnant or milk giving goat. The parallel to both major forms of the Proto-Sinaitic Tāw is evident.

A comparison of the various forms of the Proto-alphabetic Tāws with the goat *and* the sheep sign in early cuneiform may suggest a perhaps common, and certainly a comparable, origin of the sign. Considering space and time, a direct graphic dependency seems unlikely but a shared cultural background is highly probable. This background then has to be sought in the environment, in the real life, from which both the cuneiform signs for goat and sheep and the Proto-Semitic Tāw evolved: animal husbandry and livestock breeding.[50]

As early as in the Presargonic period economic documents from Sumer (Lagas), the branding of animals is well attested, the term being *zag – šuš*.[51] The literal meaning of this phrase is probably "to cover the shoulder/side" and the slightly younger phrase *si-im-da – aka* means "To make/provide (with) a sign." Branding was made by a copper or bronze tool (^{urud}*zag-šuš*$_2$ or ^{urud}*si-im-da* or *zag-šuš*$_2$*-zabar*, *si-im-da-zabar*), which proves beyond doubt that that this marking could be made by branding.[52] By De Maaijer's study (2001) it became evident that the form of these marks was quite diverse, e.g. "fish" mark, "thin boat" mark, "Thunderbird (Anzu)" mark,[53] and, most notably, the marks of several *divinities* (whatever they looked like). Cuneiform sources of the third millennium BCE thus document the right of disposal over animals by economic institutions or temples, but the same procedure must have prevailed in the context of the more tribal-based type of transhumant herding. And in fact, the use of *si-im-da – aka*, an early loan from Akkadian, corroborates this suggestion.[54]

50 Beyond that, animals generally had a prominent position in early Mesopotamian worldview (and elsewhere), see Selz 2019. This ties in nicely with their prominent role in the formation of cuneiform signs as well as in *emic* classification endeavors (see Selz 2023).

51 Note that De Maaijer in his 2001 study begins his observations only with the Old Akkadian period. Highly important in our context is that texts from Umma and Lagas in the Ur III period (in the last century of the third millennium), use, instead of *zag – šuš*, the compound *si-im-da – aka* "an innovation of Ur III Lagas."

52 The copper and bronze instruments in these contexts imply that the "marking" was done by "branding." The textual evidence is quite clear, showing *contra* Glassner 2000: 254, fn. 39 and Selz 2000: 193, fn. 193 that the marks could have been realized by branding.

53 Note that the hybrid thunderbird creature Anzu (a conflation of a lion and an eagle) in early images and texts most commonly symbolizes protection!

54 We may further add that one of the Sumerian words for a herdsman, nagada (in Akk. *nāqidu*), is also an early Sumerian loan (widely attested since the Presargonic period). The Hebrew *nōqēḏ* נֹקֵד is derived from the same root as *naqod* נָקֹד meaning "speckled/marked with points (said of sheep and goat)" and probably refers to marking these animals via puncturing or branding.

Summing up our discussion: as we have seen, it can be assumed that the inscriptions of Wadi el-Hol and Serabiṭ el-Khadem (with its temple of the Egyptian goddess Hathor, *Ḥwt-ḥr*) testify to the first consonantal script which evolved by a reinterpretation of hieroglyphic and hieratic signs.[55] Remarkably, these signs are based on a Semitic reading of the images and show no connection whatsoever to the 24 Egyptian uniliteral signs.[56] They represent consonants derived from the initial phoneme of these words. When and how by progressing segmentation their syllabic origin was neglected is impossible to assess precisely. Powell's suggestion that their interpretation as "consonants" is a misinterpretation of our notion of the Greek alphabet projected back into the second millennium BCE, I find little convincing.

Thus, the Proto-Sinaitic sign forms—standing iconically at the cradle of many derived writings systems—represent a consonantal script (in Peter Daniels' nomenclature an Abjad).

6. Marking (of animals and people): a contextual perspective

In the following I attempt to look at × - ת - 𐤕 not merely as an icon resembling or possibly imitating a "mark" (תָּו), but at the indexical and symbolic aspects—its cue-like function. It may well be that the Proto-Sinaitic × could be "read" in different ways, the reading *taw* being merely one possibility.

In the Hebrew Bible the noun תו *tāw* "mark" appears just three times. In Ezekiel chapter 9, in the narrative of the "slaughter of the idolaters," the attestations are as follows:

וְהִתְוִיתָ תָּו עַל־מִצְחוֹת הָאֲנָשִׁים

(And the Lord said […]) put a mark on the foreheads of the people (Ez. 9: 4).

The text continues:

וְעַל־כָּל־אִישׁ אֲשֶׁר־עָלָיו הַתָּו אַל־תִּגָּשׁוּ

But do not touch anyone who has the mark (Ez. 9: 6).

תָּו here surely designates a sign of protection. The third attestation, in the Book of Job, is less clear[57]:

מִי יִתֶּן־לִי ׀ שֹׁמֵעַ לִי הֶן־תָּוִי שַׁדַּי יַעֲנֵנִי וְסֵפֶר כָּתַב אִישׁ רִיבִי׃

Oh, that I had one to hear me! Here is my mark /signature (הֶן־תָּוִי)!
Let the Almighty answer me!
Oh that I had the document written by my prosecutor! (Job 31: 35).

55 Darnell 2005 et al. discuss (with reference to earlier literature) the influence of "lapidary hieratic" on the Wadi el-Hol and related inscriptions; the issue is also addressed in Hamilton 2006: 7–11, 269–275. Hamilton summarizes: "Proto-Canaanite writing is a mixed script composed of derivatives of both hieroglyphic graphic forms (mostly incised, a few in sunk relief, and a considerable portion of semi-cursive) and fully cursive hieratic forms written on stone, metal, pottery, and wood" (Hamilton 2006: 272).

56 See the assessment of Powell 2009: 168, discussed in fn. 20 above. In our opinion Powell misunderstands the whole idea of the Semitic root concept.

57 We may simply refer here to the discussion of Witte 2004 who, after reviewing the theological literature, elaborated on the connection of תָּו and אוֹת. Even though lacking the wanted expertise I wonder whether this phrase does not actually refer to a signed (marked) promissory note in the hand of Job's hostile creditor.

7. The mark of Cain[58]

Much more common in Biblical sources—and apparently with a broader semantic range—is אוֹת, pl. אֹתוֹת "sign" (altogether 79 attestations), which corresponds, also semantically, to Akk. *ittu*, pl. *ittātu*.[59] With the supposed origin of Tāw as an animal "mark" a connection to the "mark of Cain" becomes obvious. The Biblical passage on the cursing and marking of the farmer Cain after he killed his brother, the shepherd Abel, is informative here. As a punishment for his crime Cain receives the verdict of becoming a נָד "wanderer" and נָע "fugitive" (Gen. 4: 12, 14).[60] But his fear of being killed is countered by the Lord with לָכֵן "even though / not so."[61]

> ("Whoever kills Cain will suffer vengeance seven times over").
> וַיָּשֶׂם יְהוָה לְקַיִן אֹות לְבִלְתִּי הַכּוֹת־אֹתוֹ כָּל־מֹצְאֹו׃
> Then the Lord put a mark on Cain so that anyone one finding him
> should not kill him (Gen. 4: 15).

We note that in contrast to widespread opinions, the Biblical text does not speak of any stigmatization of the farmer Cain. To the contrary, אוֹת is here a sign of protection (by the Lord), much in the same way as we have seen with תָּו. Both the "sign" and the "mark" denote inclusion: the farmer Cain, despite his capital offense of killing his brother, the shepherd Abel, remains under the protection of the Lord. Cain is marked as a member of the Lord's flock. Under consideration here is the antagonism between farmers and shepherds with the specific connotation of the latter as killing animals for offerings. The marking of the farmer Cain is not a mere stigmatization of an outcast—while he is marked, he remains a member of the Lord's flock and must not be killed by others.

Whilst the "pastoral" background of the marking sketched above seems beyond doubt[62] the precise nature of Lord's mark remains in the dark—as was the case with the Mesopotamian divinities' "mark" on animals mentioned above. However, at least the Rabbinic tradition supports the

58 A concise account of earlier interpretation is by Westermann 1976: 381–435, especially "*das Kainszeichen*" (p. 424–428). He also refers to earlier scholars who already understood the mark of Cain as a "*Schutzzeichen*" (Westermann 1976: 426–427). Byron 2011 puts his study in a much broader perspective, including Jewish and Christian accounts of the fratricide.

59 Its use has been studied by Cantor 2018.

60 The meaning seems indeed to be that Cain is told to live a nomadic lifestyle. This long lingering interpretation, *pace* its explicit refutation by Westermann 1976: 419, is most likely in the light of earlier cuneiform sources. Despite the fact that in Old Babylonian Larsa or Babylon rulers of Amorite descent wielded power, the picture of the Amorites as roaming vagabonds was propagated by the scholarly cycles of this time; see Selz (in press). The combination נע ונד "fugitive and wanderer" is attested only here. נע means "the one who moves" and נד is indeed "wanderer," that is, the one who constantly has to move, used still in modern Hebrew. The former farmer will not have a land or place of his own. It is tempting to suggest further that the Cain-Abel narrative (also) provides an aetiology for farmers who in times of economic crises were forced to abandon sedentary lifestyle, a phenomenon which until these days can be observed time and again.

61 With many translators, the phrase has an adversative meaning: "Not so!" Compare Gesenius [17]1915: 351.

62 The metaphor of the Lord as the ultimate shepherd, is described e.g., in the *Book of Zechariah*, chapter 10.

notion that this mark (אות) could have had a *letter-shape* as is evidenced by the following quote from *Pirqe Rabbi Eliezer* (El. 21): [63] "What did the holy One, blessed be He, do? He took one letter from the twenty-two letters, and put (it) upon Cain's arm that he should not be killed, as it is said, 'And the Lord appointed a sign for Cain.'"[64]

This statement obviously implies the existence of an *abecedary*. We may also recall that in all West-Semitic *abcedaries* Aleph א is the first and Tāw ת the last letter. The word אות "sign" in fact alludes to or "mirrors" this order (from א to ת), and presumably this notion stands behind Rabbi Eliezer's interpretation of the "Mark of Cain" as a letter.[65]

8. Additional arguments for the non-linguistic origin of the Tāw "mark"

After having situated the origin of the form of the letter Tāw in the environment of early pastoralists who lived and live at the fringes of the "urban" settled life, we have to mention briefly also the modern research on *wasm* (pl. *wusūm*) of the Bedouins.[66] Until today, the branding of animals is widely in use in the Near East and contemporary evidence demonstrates the broad applications of this non-linguistic animal marking system in today's tribal communities. In 1952 Henry Field collected some 1000 camel marks and compared them with related *graffiti*. Hayajneh 2016 took a similar path, collecting tribal brands on rock drawings in Southern Jordan, discussing them in the frame of Ancient North Arabian inscriptions. Eisenberg-Degen et al. 2016 demonstrated the historical significance of such marks while Eisenberg-Degen et al. 2018 focussed on their topographical information. Quite interesting in our context is the research of Hilden 1991 who demonstrated how these marking systems showed up in weaving. All this research supports the idea elaborated above: these "marks" are signs of inclusion, ultimately they create identity.[67] They *establish* a community, in the case of the Biblical attestations discussed, the community of the People of God.

9. Summary

Our analysis of the origin of the letter Tāw clearly supports Gardiner's notion of the acrophonic principle as well as Goldwasser's hypothesis that the early alphabet was invented by Canaanites

63 Attributed to the Tanna (תנא) Eliezer ben Hurcanus who lived in the 1st or 2nd century in Judea.

64 I owe this *trouvaille* to Byron 2011: 120. The single letter, of course, might have been Tāw ת.

65 I refrain here from delving into the often-speculative elaborations of the nature of the Hebrew saying "form Aleph to Tāw" (and related Biblical acrosticha) and the later "from Alpha to Omega" (with reference to Jesus [as shepherd], often used in the imagery together with sheep/lambs and thus metaphorically alluding to his shepherdship). All the forms of this saying (including from A to Z) evoke the notion of completeness: the Alphabet is perceived as the embodiment of the totality of all things which can be named (and therefore exist). See also Isaiah 44: 6: "Thus saith the Lord the King of Israel, and his redeemer the Lord of hosts; *I am the first, and I am the last*; and beside me there is no God."

66 I am most grateful to Orhan Elmaz (University of St. Andrews) for supplying me with this literature.

67 For ancient Egypt this topic was researched by Haring 2017.

not speaking Egyptian, although in contact with the Egyptian writing system from which they borrowed the notion that this script "somehow" reflects speech. The suggested "You Get What You See principle" occasionally provoked misinterpretations of extant elements of the Egyptian scripts. Still more interesting than the possible iconic forerunners of this new system is its footing in "real life." The meaning of Tāw connects to Semitic speaking transhumant herding people, which was certainly the background of the miners in the Sinai (and perhaps also of the soldiers in Upper Egypt). We have further argued that the early "alphabet" paved the path to phoneme segmentation, thus making the great Greek invention less amazing than usually thought.

Appendix: The Brussels busts and their inscriptions

Fig. 4. Photographs of Sinai 347 (left) and Sinai 347a (right) from Morenz 2019: 354 and 356.

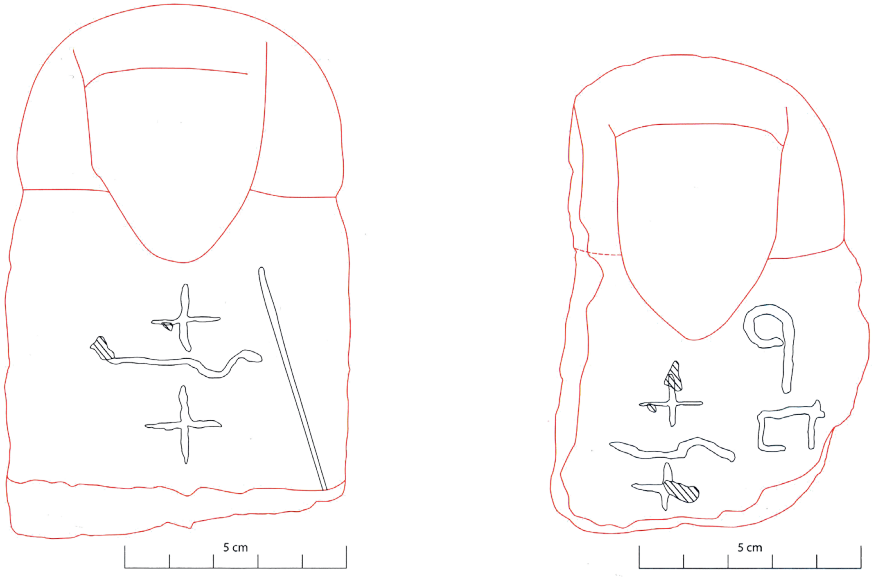

Fig. 5. Drawing of Sinai 347 (left) and Sinai 347a (right) from Morenz 2019: 355 and 357.

The inscriptions of these two busts were probably correctly read by Sprengling 1931: 30, a reading which is supported by the sketch of Sinai 347a (Brussels E.2429) by D. Sabel in Morenz 2019: 357 and by Sprengling 1934: 31. This inscription reads: *tnt lb*[*'lt*] "gift for the L[ady]."[68] It may illustrate the use of the Tāw and the Nun signs discussed above.

References

Byron, J. 2011. *Cain and Abel in Text and Tradition: Jewish and Christian interpretations of the first sibling rivalry*. Leiden, Brill.

Cancik-Kirschbaum, E. 2017. "Writing, Language and Textuality: Conditions for the Transmission of Knowledge in the Ancient Near East." In: *The globalization of knowledge in history: based on the 97th Dahlem Workshop*, ed. by J. Renn: 125–151. Berlin, Open Access.

Cantor, R. 2018. "On the concept of 'sign' in the Hebrew Bible," *Semiotica* 221: 105–121.

Colless, B.E. 2014. "The origin of the alphabet: An examination of the Goldwasser hypothesis," *Antiguo Oriente* 12: 71–104.

Cooper, J.S. 2004. "Babylonian Beginnings: The Origin of the Cuneiform Writing System in Comparative Perspective." In: *The First Writing. Script Invention as History and Process*, ed. by S. Houston: 71–99. Cambridge, Cambridge University Press.

Cross, F.M. & Lambdin, T.O. 1960. "An Ugaritic Abecedary and the Origins of the Proto-Canaanite Alphabet," *Bulletin of the American Schools of Oriental* 160: 21–26.

Daniels, P. & Bright, W. 1996. *The World's Writing Systems*. Oxford, New York, Oxford University Press.

Daniels, P.T. 2018. *An Exploration of Writing*. Sheffield, Equinox.

Daniels, P.T. 2023. " 'Look with thine ears': Why Writing is Syllable-based." *Word* 69: 91–116.

Darnell, J.C. 2003. "Die frühalphabetischen Inschriften im Wadi el-Hol." In: *Der Turmbau zu Babel: Ursprung und Vielfalt von Sprache und Schrift*, vol. IIIA, *Schrift*, ed. by W. Seipel: 165–171. Vienna and Milano, Skira.

Darnell, J.C. *et al.* 2005. "Two early alphabetic inscriptions from the Wadi el-Hol: new evidence for the origin of the alphabet from the western desert of Egypt," *The Annual of the American Schools of Oriental Research* 59/2: 63, 65, 67–71, 73–113, 115–124.

De Maaijer, R. 2001. "Late Third Millennium Identifying Marks." In: *Veenhof Anniversary Volume*, ed. by W. van Soldt: 301–324. Leiden, Nederlands Instituut voor het Nabije Oosten.

Demsky, A. 2015. "The interface of oral and written. The case of abecedaries." In: *Origins of the alphabet: proceedings of the first Polis Institute interdisciplinary conference*, ed. by C. Rico & C. Attucci: 17–47. Newcastle upon Tyne, Cambridge Scholars Publishing.

68 Neither Sass 1988: 15–16 nor Goldwasser 2022: 34 refer correctly to the inscription on Brussels Sinai 347a. *tnt* is not restored there (*pace* Hamilton) and can still be seen in the old picture (Fig. 4, right). On both busts an interpretation of *tnt* as referring to the Phoenician deity Tanit or Tinnit becomes contextually extremely unlikely. To be sure, *tnt* is attested as a Phoenician writing for this goddess (see Hvidberg-Hansen 1979 and now Martin 2018); compare further the various possibilities (including the direction of reading) proposed in Morenz 2019: 206 with fn. 668. However, already Sprengling 1931 collected several inscriptions e.g., S 351 (with parallel formulations like *mt*) which clearly support the meaning "gift" or "presentation" for *tnt*. As for the restoration and because of the available space in Sinai 347a, the restoration of a Canaanite personal name beginning with *lb*[…] might be another good possibility; see Morenz 2019: 205–206.

Dossin, G. 1969. "Trois inscriptions cunéiformes de Byblos," *Mélanges de l'Université Saint-Joseph* 45: 243–255.

Eisenberg-Degen, D. *et al.* 2016. "Inscribing History: The Complex Geographies of Bedouin Tribal Symbols in the Negev Desert, Southern Israel." In: *Relating to Rock Art in the Contemporary World: Navigating Symbolism, Meaning, and Significance*, ed. by L.M. Brady: 157–187. Denver, University Press of Colorado.

Eisenberg-Degen, D., Schmidt, J. & Nash, G.H. 2018. "Signposts in the Landscape: Marks and Identity among the Negev Highland Bedouin," *Nomadic Peoples* 22: 195–221.

Elleström, L. (ed.) 2010. *Media Borders, Multimodality and Intermediality*. London, Palgrave Macmillan.

Eliezer, Rabbi. *Pirqe de Rabbi Eliezer*, online *sub* https: //www.sefaria.org/Pirkei_DeRabbi_Eliezer (accessed 7/7/2023).

Field, H. 1952. *Camel brands and graffiti from Iraq, Syria, Jordan, Iran and Arabia*. New Haven, CT, American Oriental Society.

Fischer-Elfert, H.-W. & Krebernik, M. 2016. "Zu den Buchstabennamen auf dem Halaḥam-Ostrakon aus TT 99 (Grab des Senneferi)," *Zeitschrift für Ägyptische Sprache und Altertumskunde* 143: 169–176.

Gardiner, A.H. 1916. "The Egyptian origin of the Semitic alphabet," *Journal of Egyptian Archaeology* 3: 1–16.

Gardiner, A.H. [3]1957. *Egyptian Grammar*. Oxford & London, Griffin Institute Ashmolean Museum, Oxford University.

Gardiner, A.H. 1962. "Once again the proto-Sinaitic inscriptions," *Journal of Egyptian Archaeology* 48: 45–48.

Gelb, I.J. 1963. *A study of writing*. Chicago, University of Chicago.

Gesenius, [17]1915. *Hebräisches und Armäisches Handwörterbuch über das Alte Testament*. Berlin: Spinger.

Glassner, J.-J. 1999. "Signes d'écriture et classification : l'exemple des ovi-caprides." In: *Les Animaux et les hommes dans le monde syro-mésopotamien aux époques historiques*, TOPOI Supplement 2: 467–475.

Glassner, J.-J. 2000. *Écrire à Sumer*. Paris, Seuil.

Goldwasser, O. 2006. "Canaanites reading hieroglyphs: Horus is Hathor? The invention of the alphabet in Sinai," *Ägypten & Levante* 16: 121–160.

Goldwasser, O. 2010. "How the Alphabet Was Born from Hieroglyphs," *Biblical Archaeology Review* 36/2: 40–53.

Goldwasser, O. 2011. "The Advantage of Cultural Periphery: The Invention of the Alphabet in Sinai (circa 1840 B.C.E)." In: *Culture Contacts and the Making of Cultures: Papers in Homage to Itamar Even-Zohar*, ed. by G. Sela-Sheffy & G. Toury: 251–316. Tel Aviv, Tel Aviv University, Unit of Culture Research.

Goldwasser, O. 2012. "The Miners Who Invented the Alphabet: A Response to Christopher Rollston," *Journal of Ancient Egyptian Interconnections* 4/3: 9–22.

Goldwasser, O. 2016a. "The Birth of the Alphabet from Egyptian Hieroglyphs in the Sinai Desert." In: *Pharaoh in Canaan: the untold story. Exhibition catalogue*, ed. by D. Ben-Tor. Jerusalem, Israel Museum.

Goldwasser, O. 2016b. "From the iconic to the linear: the Egyptian scribes of Lachish and the modification of the early alphabet in the Late Bronze Age." *Alphabets, texts and artifacts in the ancient Near East: studies presented to Benjamin Sass*, ed. by I. Finkelstein, C. Robin, T. Römer: 118–160. Paris, Van Dieren.

Goldwasser, O. 2017. "Cuneiform and Hieroglyphs in the Bronze Age: Script Contact and the Creation of New Scripts." In: *Pharaoh's Land and Beyond: Ancient Egypt and Its Neighbors*, ed. by P. Pearce, P. Creasman & R.H. Wilkinson: 183–193. Oxford, Oxford University.

Goldwasser, O, 2021. "The new 'Dalet ostracon' from Lachish: On the crossroad of the early alphabet and hieratic scripts: Paleographic remarks. A blog entry."
https://www.academia.edu/49307111/The_new_Dalet_ostracon_from_Lachish_On_the_crossroad_of_the_early_alphabet_and_hieratic_scripts_Paleographic_remarks_A_blog_entry (accessed 7/16/2023)

Goldwasser, O. 2022. "The Early Alphabetic Inscriptions Found by the Shrine of Hathor at Serabiṭ el-Khadem: Palaeography, Materiality, and Agency," *Israel Exploration Journal* 72: 14–48.

Goldwasser, O., Naveh, J. 1976. "The Origin of the Tet Symbol," *Israel Exploration Journal* 26: 15–19.

Hamilton, G.J. 2006. *The origins of the west Semitic alphabet in Egyptian scripts*. Washington, D.C., The Catholic Biblical Association of America.

Hamilton, G.J. 2014. "Reconceptualizing the periods of early alphabetic scripts." In: *An eye for form': epigraphic essays in honor of Frank Moore Cross*, ed. by J.A. Hackett & W.E. Aufrecht: 30–55. Winona Lake/IN, Eisenbrauns.

Hannig, R. 1995. *Großes Handwörterbuch Ägyptisch-Deutsch*. Mainz, von Zabern.

Haring, B.J.J. 2015. "Halaḥam on an Ostracon of the Early New Kingdom?" *Journal of Near Eastern Studies* 74: 189–196.

Haring, B.J.J. 2017. "Identity marks in ancient Egypt: Scribal and non-scribal modes of visual communication. Non-scribal Communication Media in the Bronze Age Aegean and Surrounding Areas." In: *The semantics of a-literate and proto-literate media (seals, potmarks, mason's marks, seal-impressed pottery, ideograms and logograms, and related systems),* ed. by A.M. Jasink, J. Weingarten & S. Ferrara: 233–246. Florence, Firenze University Press.

Haring, B.J.J. 2020. "Ancient Egypt and the earliest known stages of alphabetic writing." In: *Understanding relations between scripts II: early alphabets*, ed. by P.J. Boyes & P.M. Steele: 53–67. Oxford, Oxbow.

Haring, B.J.J. 2021: "Marking and writing in an Egyptian workmen's community." In: *The Hidden Language of Graphic Signs. Cryptic Writing and Meaningful Marks*, ed. by J. Bodel & S. Houston: 159–172. Cambridge, Cambridge University Press.

Hayaineh, H. 2016. "Ancient North Arabian inscriptions, Rock Drawings, and Tribal Brands (Wasms) from *Šammāḥ/ʾAyl* (*ʾĒl*) region—Southern Jordan." In: *The Shammāḥ/ʾAyl Survey*, ed. by B. MacDonald *et al.*: 505–541. American Schools of Oriental Research, Archeological Reports 16. Boston.

Hilden, J.M. 1991. "The Use of Wasm (Animal Brands) in Beduin Weavings," *Al-Ma'thurat Al-Sha'biyyah* 22: 1–21.

Höflmayer, F. *et al.* 2021. "Early alphabetic writing in the ancient Near East: the 'missing link' from Tel Lachish," *Antiquity* 95: 705–719.

Horowitz, W., Oshima, T. & Sanders, S.L. 2006. *Cuneiform in Canaan and the Land of Israel: Cuneiform Sources from the Land of Israel in Ancient Times*. Jerusalem, Israel Exploration Society and Hebrew University.

Horowitz, W., Oshima, T. & Sanders, S.L. 2018. *Cuneiform in Canaan: The Next Generation*. University Park/PA, Eisenbrauns.

Huber, P.J. 2008. "The earliest comparative linguists," *Chatreššar, International Journal for Indo-European, Semitic, and Cuneiform Languages* 2008: 47–64.

Huber, P.J. 2015. *On the Old Babylonian Understanding of Sumerian Grammar.* München: Lincom. https: //cdli.mpiwg-berlin.mpg.de/articles/cdlp/1.0.pdf (accessed 7/72023).

Hvidberg-Hansen, F. O. 1979. *La Déesse TNT. Une étude sur la religion canaanéo-punique*. Copenhagen, G.E.C. Gad's.

Krebernik, M. 2007. "Buchstabennamen, Lautwerte und Alphabetgeschichte." In: *Getrennte Wege? Kommunikation, Raum und Wahrnehmung in der alten Welt*, ed. by R. Rollinger, A. Luther & J. Wiesehöfer: 108–175. Frankfurt am Main, Verlag Antike.

Krebernik, M. 2021. "Early Cuneiform: Writing and Language," In: *Signs-Sounds–Semantics—Nature and Transformation of Writing Systems in the Ancient Near East*, Wiener Offene Orientalistik 13, ed. by G. Gabriel, K.A. Overmann & A. Payne: 9–25. Münster, Ugarit.

Lambert, W.G. 1966. *Babylonian Wisdom Literature*. Oxford, Clarendon Press.

Le Blanc, P.D. 2017. *Deciphering the Proto-Sinaitic Script: Making Sense of the Wadi el-Hol and Serabit el-Khadim Early Alphabetic Inscriptions*. Ottawa, Subclass.

Martin, S.R. 2018. "Divinity in Part or in Full? Representations of Tanit in Texts and Art." In: *The Tiny and Fragmented. Miniature, Broken, or Otherwise Incomplete Objects in the Ancient World*, ed. by S.R. Marin & M. Langin-Hope: 72–98. Oxford, Oxford University Press.

Morenz, L. 2019. *Sinai und die Alphabetschrift. Die frühesten Inschriften und ihr kanaanäisch-ägyptischer Entstehungshorizont im Zweiten Jahrtausend v. Chr*, Studia Sinaitica 3. Berlin, EBVerlag.

Pardee, D. 2007. "Ugaritic alphabetic cuneiform in the context of other alphabetic systems." In: *Studies in Semitic and Afroasiatic Linguistics presented to Gene B. Gragg*, Studies in Ancient Oriental Civilizations 60, ed. by C.L. Miller: 181–200. Chicago, The Oriental Institute of the University of Chicago.

Pettinato, G. 1982. *Testi Lessicali Bilingui della Biblioteca L. 2769. Materiali Epigrafici di Ebla* 4. Napoli, Istituto Universitario Orientale.

Pinarello, M.S. 2018. "The Platypus Paradox: An Archaeological Approach to Ancient Egyptian Writing Practices." In: *The Materiality of Texts from Ancient Egypt*, ed. by F.A.J. Hoogendijk & S. van Gompen: 12–26. Leiden, Brill.

Pollock, S. 2016. "From Clay to Stone: Material Practices and Writing in Third Millennium Mesopotamia." In: *Materiality of Writing in Early Mesopotamia*, ed. by T.E. Balke & C. Tsouparopoulou: 277–291. Berlin/Boston, De Gruyter.

Pontecorvo, C. & Rossi, F. 2015. "What Have We Learned about the Transition Phases to the Syllabic and Alphabetic Systems?" In: *Origins of the alphabet: proceedings of the first Polis Institute interdisciplinary conference*, ed. by C. Rico & C. Attucci: 176–191. Newcastle upon Tyne, Cambridge Scholars Publishing.

Powell, B.B. 2009, [2]2012. *Writing, Theory and History of the Technology of Civilization*. Chichester, Wiley-Blackwell.

Rico, C., Attucci, C. (eds.) 2015. *Origins of the Alphabet: Proceedings of the First Polis Institute Interdisciplinary Conference*. Cambridge, Cambridge Scholars.

Sass, B. 1988. *The genesis of the alphabet and its development in the second millennium BC*. Wiesbaden, Otto Harrassowitz.

Sass, B. 2005. "The genesis of the alphabet and its development in the second millennium BC: twenty years later," *De Kêmi à Birīt Nāri* 2: 147–166.

Schneider, Th. 2018. "A double abecedary? Halaḥam and ʾAbgad on the TT99 Ostracon," *Bulletin of the American Schools of Oriental Research* 379: 103–112.

Selz, G.J. 2000. "Schrifterfindung als Ausformung eines reflexiven Zeichensystems," *Wiener Zeitschrift für die Kunde des Morgenlandes* 90: 169–200.

Selz, G.J. 2018. "Scriptura Franca? Zur Rolle einer ideographisch basierten Schrift in einer mehrsprachigen Gesellschaft." In: *Mehrsprachigkeit. Vom Alten Orient bis zum Esperanto*. Dubsar 2, ed. by S. Fink, M. Lang & M. Schretter: 113–127. Münster: Zaphon.

Selz, G.J. 2019. "Reflections on the Pivotal Role of Animals in Early Mesopotamia." In: *Animals and their Relation to Gods, Humans and Things in the Ancient World*, Universal- und kulturhistorische Studien. Studies in Universal and Cultural History, ed. by R. Mattila, S. Ito & S. Fink: 23–56. Wiesbaden, Springer Fachmedien.

Selz, G.J. 2021. "The Puzzling Logogram. Writing and Reasoning in Early Mesopotamia." In: *Signs-Sounds–Semantics—Nature and Transformation of Writing Systems in the Ancient Near East*. Wiener Offene Orientalistik 13, ed. by G. Gabriel, K.A. Overmann & A. Payne: 27–47. Münster, Ugarit.

Selz, G.J. 2022. "Beyond Speech. Advocating a non-logocentric view on the evolution of Cuneiform writing." In: *Image Thought, and the Making of Social Worlds*, Freiburger Studien zur Archäologie & Visuellen Kultur 3, ed. by D. Wengrow: 213–249. Heidelberg, Propylaeum.

Selz, G.J. 2023. "Animal Categorization in Mesopotamia and the Origins of Natural Philosophy." In: *Seen Not Heard. Composition, Iconicity, and the Classifier systems of Logosyllabic Scripts*. Institute for the Study of Ancient Cultures of the University of Chicago Seminars 14, ed. by I. Zsolnay: 9–120. Chicago, Chicago University Press.

Selz, G.J (in press). "Ridiculing the Nomads: On Dehumanizing Strategies in the Old Babylonian School." In: t*o be announced*. Turnhout, Brepols.

Sprengling, M. 1931. *The Alphabet. 1st Rise and Development from the Sinai Inscriptions*. Oriental Institute Communications 12. Chicago, Oriental Institute.

Tonietti, M.V. 2015. "The Assyrian Model: Les syllabaires d'Ebla (2350 av. J.-C.) et les *abjads* du II^{e} millénaire av. J.-C." In: *Origins of the alphabet: proceedings of the first Polis Institute interdisciplinary conference*, ed. by C. Rico & C. Attucci, Claudia: 49–72. Newcastle upon Tyne, Cambridge Scholars Publishing.

Vernus, P. 2003. "Idéogramme et phonogramme à l'épreuve de la figurativité : les intermittences de l'homophonie." In: *Philosophers and hieroglyphs*, ed. by L. Morra & V. Bazzanella: 196–218. Torino, Rosenberg & Sellier.

Vernus, P. 2015. "Écriture hiéroglyphique égyptienne et écriture protosianitique : une typologie comparée. Acrophonie « forte » et acrophonie « faible »." In: *Origins of the alphabet: proceedings of the first Polis Institute interdisciplinary conference*, ed. by C. Rico & C. Attucci: 142–175. Newcastle upon Tyne, Cambridge Scholars Publishing.

Westermann, C. ^{2}1976. *Genesis. Biblischer Kommentar. Altes Testament*. Neukirchen-Vluyn, Neukirchener.

Witte, M. 2004. "Hiobs »Zeichen« (Hiob 31,35–37)." In: *Gott und Mensch im Dialog: Festschrift für Otto Kaiser zum 80. Geburtstag*, ed. by M. Witte: 723–742. Berlin/Boston, De Gruyter.

Zand, K. 2009. *Die UD.GAL.NUN-Texte. Ein allographisches Corpus sumerischer Mythen aus dem Frühdynastikum*. PhD dissertation, Jena.