As Easy as ABC?: A Review of Thomas Schneider's Study of the TT99 Ostracon

Schneider's work advances the discussion of the TT99 ostracon in several important ways. His suggestion that the entries on the ostracon formed a mnemonic verse that could contain grammatical elements is both persuasive and helpful. But, at the same time, his claim that the back of the ostracon lists Semitic words arranged according to the abgad alphabetic sequence suffers from several problems.

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In 2015, Ben Haring published an important 15th century BCE ostracon from Theban Tomb 99 (TT99). Inscribed on both the front and back, the broken ostracon features ten complete entries in syllabic orthography, a special way of transcribing foreign words into the hieroglyphic script.[1] Each entry is also accompanied by a determinative, a non-phonetic sign that communicates semantic information about the preceding word (Table 1).[2] Determinatives are particularly important in largely vowel-less writing systems like hieroglyphics where semantically different words can be written using the same sequence of letters. The Egyptian words for 'priest' and 'to purify', for example, are both written *wꜥb*

[1] For a more detailed discussion of syllabic orthography, see Hoch 1994: 487–504 and Schneider 1992: 360–401.
[2] See https://www.livescience.com/62580-earliest-alphabet-discovered.html for a photo of the back side of the ostracon.

but feature different determinatives: ‘priest’ is accompanied by the seated man determinative, while ‘to purify’ features the water determinative. The determinatives on the TT99 ostracon help scholars identify the semantic value of the syllabically written words.

Entry Number	**Syllabic Entry**[3]	**Determinative**
Front of the Ostracon		
1	*hꜣ whn*	man with upraised arms
2	*rwy*	coil of rope
3	*ḥꜣ rpty*	reed
4	*mwnꜣ*	water
5	*rqpꜣ*	jug
Back of the Ostracon		
1’	*rnttwj*	lizard
2’	*bꜣ bꜣ ytꜣ*	beetle
3’	*gꜣ rw*	bird
4’	*dꜣ jty*	vertical loom
5’	*ḏꜣ r*	jar

Table 1: The syllabic entries on the TT99 ostracon and their accompanying determinatives

In his initial publication, Haring suggested that first four entries on the front of the ostracon were Egyptian words arranged according to the *halaḥam* alphabetic sequence known primarily from Ethiopia and South Arabia. This sequence is named after its first four letters, *h-l-ḥ-m*, and differs considerably from our *a-b-c-d* order (see Figure 1). More recently, Thomas Schneider has advanced a new and potentially ground-breaking interpretation of the ostracon. He suggests that the

[3] Following Schneider, 2018: 110.

first four entries on the back of the ostracon represent Semitic words arranged according to the better known *abgad* alphabetic sequence, the ancestor of our modern *a-b-c-d* order.[4] If Schneider's interpretation proves correct, then the TT99 ostracon preserves the earliest evidence of the *abgad* alphabetic sequence and thus bears witness to the longevity of our alphabetic tradition.[5] In this article, I will review and critique Schneider's proposal, highlighting both its strengths and weaknesses. I will then propose an alternative interpretation of the ostracon that avoids some of the problems with Schneider's analysis.

h l ḥ m ś r s q b t ḫ n ʾ k w ʿ z y d g ṭ ṣ ḍ f

Figure 1: An example of the *halaḥam* alphabet from Ethiopia

Schneider makes several proposals regarding the *halaḥam* sequence on the front of the ostracon that are important for understanding his treatment of the back. He suggests, for example, that the entries on the ostracon formed a mnemonic verse intended to help readers memorize and recollect the alphabetic sequence (2018: 106). To ensure comprehensibility, the mnemonic verse contained a few purely grammatical elements, such as prepositions, that could be discounted for the

[4] In the third century BCE, the letter *g* split into two different letters, *g* and *c*.
[5] Other early examples of the *abgad* alphabetic sequence come from Ugarit on the Syrian coast (13th century BCE), and ʿIzbet Ṣarṭah to the east of Tel Aviv (12th century BCE).

purpose of alphabetization as in the English mnemonic "A is for apple." Accordingly, Schneider (2018: 107) reads the first five entries on the front of the ostracon as a Semitic phrase stressing the importance of proper hydration for basket weavers: "to make pleasant the one who bends reed, water (according) to the Qab" (Egyptian *hꜣ whn rwy ḥꜣ rpty mwnꜣ rqpꜣ* = Semitic ***h**ahāna **l**awi **ḥ**alpat **m**ayin le-**q**ab*). This insight is especially helpful for understanding the fifth entry on the front of the ostracon, *rqpꜣ* (= Semitic *le-qab*). This entry begins with an *r*—which could represent Semitic *r* or *l*[6]—but according to the *halaḥam* alphabets from South Arabia, Ugarit, and Beth Shemesh, the fifth letter in the *halaḥam* sequence should be *q*. To solve this problem, Schneider (2018: 107) argues that the fifth entry consists of the common Semitic preposition *li-* 'to, for' followed by the Semitic word *qabb* 'a unit of dry measure'.

Ethiopia	South Arabia	Ugarit	Beth Shemesh
h	*h*	*h*	*h*
l	*l*	*l*	*l*
ḥ	*ḥ*	*ḥ*	*ḥ*
m	*m*	*m*	*m*
ś	*q*	*q*	*q*
r	*w*	*w*	*w*
s	*ś*	*ṯ*	*š*

[6] The ancient Semitic languages, in general, contain several sounds not found in Egyptian, such as *l* and *d*. As a result, Egyptian signs can often represent more than one Semitic sound and the same sequence of Egyptian signs can represent multiple Semitic words. *rnttwj*, the first entry on the back of the ostracon, for example, offers eight different possibilities for interpretation since Egyptian r can represent Semitic *r, l, d,* and *t* and Egyptian *n* can designate Semitic *n* and *l* (Hoch 1994: 435).

q	*r*	*r*	*r*
b	*b / ǵ*	*b*	
t	*t*	*t*	*t*
ḫ	*š*	*d̲*	
n	*k*	*š*	*s*
ʾ	*n*	*k*	*k*
k	*ḫ*	*n*	*n*
w	*ṣ*	*ḫ*	*ḫ*
ʿ	*s*	*ṣ*	*ṣ*
z	*f* (< **p*)	*ś*	*ś*
y	*ʾ*	*p*	*p*
d	*ʿ*	*ʾ*	*ʾ*
g	*ḍ*	*ʿ*	*ʿ*
ṭ	*g*	*ḍ*	*ḍ*
ṣ	*d*	*g*	*g*
ḍ	*ǵ / b*	*d*	*d*
f (< **p*)	*ṭ*	*ǵ*	*ǵ*
	z	*ṭ*	*ṭ*
	d̲	*z*	*z*
	y		*d̲*
	t̲	*y*	*y*
	ẓ		

Table 2: The orders of the various *halaḥam* alphabets[7]

Schneider's main proposal concerns the back of the ostracon. He reads the first four entries on this side of the ostracon as a series of Semitic and Egyptian words arranged according to the more common *abgad* alphabetic sequence, the ancestor of our modern *a-b-c-d* order: (*ʾ*)*elṭāʾat,* ***b****ibiya-taʾ* ***g****aru,* ***d****āʾat* (Schneider 2018: 109). Like the entries on the front of the ostracon, the entries on the back

[7] I have taken the liberty of writing the Ancient South Arabian consonants normally transliterated as s^1, s^2, and s^3, as *š*, *ś*, and *s* respectively in order to make the parallels between the different alphabetic traditions clearer.

form part of a mnemonic verse, this time listing various animals: “the lizard, the earth snail, the dove, the kite…” ((ʾ)*elṭāʾat, **b**ibiya-taʾ **g**aru, **d**āʾat*).

Schneider’s interpretation of the backside of the ostracon it is not without problems, however. The fifth entry, *ḏ r*, does not fit the traditional *abgad* sequence, no matter how we construe the Egyptian consonants. This entry begins with the Egyptian sign *ḏ*, which can represent either Semitic *z* or *ṣ* (Hoch 1994: 437), but neither of these letters follows *d* in the standard alphabetic order (see Figure 2). *z* appears after *h* and *w*, and *ṣ* occurs some 13 letters after *d*. And while order of the *abgad* sequence wasn’t entirely fixed in antiquity, all of its attested variants involve the interchange of two adjacent letters.[8] Letters never jump several places.

ʾ b g d h w z ḥ ṭ y k l m n s ʿ p ṣ k r š t

Figure 2: The order of the traditional *abgad* alphabet

Second, several of the Semitic words that Schneider identifies on the ostracon are rare and seem out of place in a mnemonic verse, which we would expect to employ common, iconic words. This caveat is particularly true of the first entry on the back of the ostracon, (ʾ)*elṭāʾat* ‘lizard’. As parallels for this word, Schneider cites Biblical Hebrew *ləṭāʾâ* ‘lizard’, Targumic Aramaic *halṭātāʾ*

[8] In the 12th century ʿIzbet Ṣarṭah abecedary, for example, *z* and *ḥ* have switched places.

'lizard',[9] Samaritan Aramaic *lṭʾy* 'lizard', and Mishnaic Hebrew *halṭātāʾ* 'lizard'. A review of the evidence, however, suggests that most of these words are citations or transcriptions of a rare word that is found only once in Biblical Hebrew; they are not independent attestations of (ʾ)*elṭāʾat*. Biblical Hebrew *ləṭāʾâ* occurs in the dietary laws found in Leviticus 11:30, Targumic Aramaic *halṭātāʾ* appears in the corresponding verse in Targum Onkelos (Jastrow 2006: 352), Samaritan Aramaic *lṭʾy* occurs in the corresponding verse in the Samaritan Targum (Tal 2015: 435), and Mishnaic Hebrew *halṭātāʾ* is confined to two passages discussing Leviticus 11:30 (Pes 88b, Ḥull 122b; Jastrow 2006: 352). Because of its rarity, using (ʾ)*elṭāʾat* to represent ʾ in a Semitic mnemonic verse is akin using "axolotl" to stand for "a" in an English alphabetic verse.

Schneider's proposal also suffers from several linguistic problems. It is unlikely, for example, that the first entry on the back, (ʾ)*elṭāʾat* ever began with ʾ (the sound found in the middle of "uh-oh!"). The Biblical Hebrew and Samaritan Aramaic forms of this word both lack an initial ʾ, while the Mishnaic Hebrew and Targumic Aramaic forms begin with an *h*, which seems to be a transcription of the Biblical Hebrew definite article *ha-* attached to *ləṭāʾâ* in Leviticus 11:30, and not an integral part of the word.

[9] Targumic Aramaic *halṭātāʾ* also appears as *ḥalṭātāʾ* in some manuscripts of Targum Onkelos due to the graphic similarity between *h* (ה) and *ḥ* (ח) in the Aramaic script.

In light of these problems, I would like to suggest an alternate interpretation of the TT99 ostracon. I suggest that the entries on both the front and the back of the ostracon represent traditional letter names arranged according to the *halaḥam* sequence along with a few grammatical elements required to form a mnemonic verse. Table 3 summarizes my reading of the ostracon and compares the entries on the ostracon with the traditional letter names.

Entry Number	**Syllabic Entry**	**Determinative**	**My Interpretation**	**Traditional Letter Name[10]**	**Meaning of the Letter Name**
Front					
1	*hꜣ whn*	man with upraised arms	*hô han-*[11]	*hôy*	an exclamation
2	*rwy*	coil of rope	*lāwiyu*	*lawi* or *lāwiyu*	coil of rope
3	*ḥꜣ rpty*	reed	*ḥalpata*	*ḥawt* or *ḥayt*	enclosure
4	*mwnꜣ*	water	*mawūna*	*mêm*	water
5	*rqpꜣ*	jug	*li-qôpi*[12]	*qôp*	monkey
Back					
1’	*rnttwj*	lizard	*daltu*	*dalt*	door
2’	*bꜣ bꜣ ytꜣ*	beetle	*bi-bayti*[13]	*bayt*	house
3’	*gꜣ rw*	bird	*gallu*	*gaml*	throw-stick
4’	*dꜣ jty*	vertical loom	*ṭaytu*	*ṭayt*	spindle
5’	*ḏꜣ r*	jar	???	*zayn*	ax

Table 3: My interpretation of the TT99 ostracon

[10] See Hamilton, 2006: 50–51, 56–7, 74–5, 84–6, 96–7, 101–102, 144, 220–221; Fischer-Elfert and Krebernik 2016: 170, 173–74.
[11] *han-* represents a form of the Semitic definite article attached to the following word.
[12] *li-* is a common Semitic preposition meaning ‘to, for’.
[13] *bi-* is a common Semitic preposition meaning ‘in’.

Three of the entries in the table require comment. Clearly, the third entry on the front of the ostracon, *ḥʒ rpty*, cannot represent the traditional letter name *ḥawt* or *ḥayt*. Instead, it seems to be an otherwise unattested letter name for ḥ derived from the Semitic word *ḥalpatu* 'reed' as Hans-W. Fischer-Elfert and Manfred Krebernik (2016: 170–71) and Schneider (2018: 106) have proposed. The presence of an alternative letter name on the TT99 ostracon is not entirely unexpected. The alphabetic tradition, after all, occasionally preserves multiple names for a single letter as well as multiple letters for a single sound. The Northwest Semitic and Ethiopic alphabetic traditions, for example, transmit two different names for the letter n: *nûn* 'fish' in the Northwest Semitic tradition and *näḥäs* 'snake' in the Ethiopic one. Likewise, the early alphabetic inscriptions from Serabit el-Khadem use two different letters to represent *d*, one in the shape of a fish (*dagg-*) and one in the shape of a door (*dalt-*) (Hamilton 2006: 61–63).

The fourth entry on the front of the ostracon, *mawūna*, also differs from the traditional letter name, *maym*. But in this case, there is no need to postulate a previously unattested letter name. Rather, it seems that the shift of *mêm* to *mawūna* was triggered by the acrophonic principle, the systematic relationship between the form, name, and phonetic value of a letter within the earliest alphabetic traditions. According to this principle, letters took the form of easily recognizable pictures, which furnished the name of each letter. The value of a

letter, in turn, reflected the first sound of its name. A hypothetical example of the acrophonic principle would be using a picture of an apple to represent 'a' in English.[14] In the earliest alphabetic inscriptions, the letter *m* depicts waves of water (Figure 3) because the various Semitic words for water all began with an *m*. *mêm* was one of those words, but so too was *mawūna*. Given the semantic equivalence of *mêm* and *mawūna*, I suggest that the community behind the alphabetic tradition preserved on the TT99 ostracon recognized the letter *m* as a depiction of water and substituted their native word for water for the inherited letter name. The Ethiopic alphabetic tradition provides a good parallel to this phenomenon: as Gordon Hamilton (2006: 144) notes, *māy*, the Ethiopic name for *m* does not come from earlier *mêm*, but instead reflects the Ethiopic word for water *māy*.

[14] The acrophonic principle is incredibly important for scholars working with early alphabetic inscriptions. By working backward from traditional letter names, they can identify the pictographic form of letters within these inscriptions. If, for example, the traditional name for 'a' in English were 'apple', then—according to the acrophonic principle—we would expect the earliest forms of the letter 'a' to take the form of an apple.

Figure 3: An early alphabetic *m* from Sinai 361

The third entry on the back of the ostracon consists of the traditional letter name *gamlu* 'throw-stick' with assimilation of the medial *m* to the final *l*. Although such a phonetic change is unattested with the name of this letter, regressive assimilation is found in the Greek alphabetic tradition—*gamlu* > *gamma*—and indicates that such a sound change is theoretically possible.

In the case of four entries on the ostracon—*qôpu*, *daltu*, *bayti*, and *gallu*—interpreting the syllabic component of the entry as a Semitic letter name creates a discrepancy between the semantic value of the entry and its determinative: the word for monkey ends up being classified as a jug, the word for door is categorized as a lizard and so on. This discrepancy, I believe, can be explained by linguistic

reinterpretation (Schneider 1992: 403-5). In the case of *q*, for example, the writer of the ostracon may have reinterpreted Semitic *qôp* 'monkey' as the phonetically similar Egyptian word *qabb* 'a unit of measurement' and supplied the entry with a more suitable determinative. Similar folk etymologies can be envisioned for *b*, and *g*, based on Haring and Schneider's interpretations of these entries as Egyptian words (Haring 2015: 193; Schneider 2018: 108):

Semitic *bi-bayti* 'in the house' > Egyptian *bꜣ jbꜣ j tꜣ* 'earth snail'

Semitic *gallu* 'throw-stick' > Egyptian *gr* 'dove'

If my interpretation proves correct, then the entries on the back of the ostracon approximate the sequence *g-d-b-ṭ-z* found toward the end of some Ancient South Arabian *halaḥam* alphabets. The only difference is that *g* follows *d* and *b* rather than preceding them: i.e., *d-b-g-ṭ-z*. The variable placement of *g* does not occasion too many problems, however, since the *halaḥam* alphabetic sequence exhibits far more variance than the *abgad* order. As Table 3 shows, none of the attested *halaḥam* alphabets preserve exactly the same sequence of letters, and in some cases the position of an individual letters varies drastically between the different traditions. The letter *d*, for example, is the 19th letter in the Ethiopic tradition, the 22nd letter in the Ancient South Arabian alphabet, and the 23rd letter in the Ugaritic and Beth Shemesh *halaḥam* alphabets. Given this variability, it would not be surprising for the TT99 ostracon to preserve a variant order not found

in the previously attested *halaḥam* alphabets. At the same time, the presence of letters from near the end of the *halaḥam* sequence on the back of ostracon suggests that the TT99 ostracon may have originally contained the entire alphabet before it broke.

Taken together, the entries on the TT99 ostracon may form part of a mnemonic verse intended to facilitate the memorization and recollection of the *halaḥam* alphabetic sequence as a Schneider first suggested. If my interpretation of the ostracon proves correct, then the front of the ostracon can potentially be read as a humorous description of basket-weaving gone awry: "Alas, O bender of the reed, a monkey has the water," ***h****ō han-****l****āwiyu* ***ḥ****alpata* ***m****awūna li-****q****ōpi*. The back, on the other hand, can be read as an inventory of household items: "the door in the house, the throw-stick, the spindle" (***d****altu bi-****b****ayti* ***g****allu* ***ṭ****aytu*).

Schneider's work advances the discussion of the TT99 ostracon in several important ways. His suggestion that the entries on the ostracon formed a mnemonic verse that could contain grammatical elements is both persuasive and helpful. But, at the same time, his claim that the back of the ostracon lists Semitic words arranged according to the *abgad* alphabetic sequence suffers from several problems: 1) the fifth entry does not conform to the *abgad* order, 2) several of the Semitic words he identifies on the ostracon are incredibly rare and would be out of place in a mnemonic verse, and 3) some of the entries are linguistically

problematic. In light of these difficulties, I have argued that the TT99 ostracon records traditional Semitic letter names arranged according to the *halaḥam* alphabetic sequence along with a few grammatical elements required to form a mnemonic verse. The front of the ostracon records the first five letter names in the *halaḥam* sequence, while the back contains five letters from near the end of the alphabet. The presence of both initial and final elements suggests that the ostracon may have once recorded the entire alphabet before it broke. Should this interpretation prove correct, the TT99 ostracon would be the earliest witness to the traditional letters names by approximately two centuries.

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