Jalul Ostracon 1

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A sixth-century B.C. Ammonite ostracon with cursive script has been found at Tall Jalul, Jordan. The text appears to be an agricultural economic tally (for taxation or loans?), consisting of personal names, hieratic numerals, and (arguably) symbols for units of measure.

INTRODUCTION

On June 8, 2007, an Ammonite ostracon was found at Tall Jalul (near Madaba), Jordan, in Field D, Square 1 of the archaeological excavation there, directed by Randall Younker of Andrews University (Berrien Springs, Michigan) under the auspices of the Madaba Plains Project. The ostracon was found by the sharp eyes of an Andrews University M.A. student (Amanda McGuire) while sifting dirt during cleanup of interseasonal debris from a location near an Iron II/Persian-period wall. Since it is the first ostracon published from this site, it is designated as Jalul Ostracon 1.

The ostracon is a body sherd (7.7 cm long, 7.9 cm wide, and 0.6 cm thick) from a rather large and fairly rough storage jar. Its pinkish surface is inscribed with black ink and numbers in six lines of text. The lines are unequal in length, with line 6 consisting of only three letters. This last line appears separately after a gap below the first five lines; it is indented to the left, and its letters are thinner than those in the previous lines (figs. 1–3).

Except for some small chips from the top right and bottom edges, the complete surface is fortunately intact, with almost all the inscription preserved. The writing is mostly clear, but it is compromised in some places by the roughness (including some pitting) of the ceramic surface, as well as fading and smudging of letters. Smudging is most noticeable in and around line 5, where small, parallel scrape lines may have resulted from sifting. In the middle of line 5 is a small gouge.

THE TEXT

The fact that the text consists of a list of personal names with numbers and other symbols indicates at the outset that it is some kind of tally, probably with economic significance. The text of the ostracon reads as follows:

1. 20 bn 'h4
2. 20(?) hlš bn 'bwt'b 1
3. 20 h4 3
4. [ ] nms bn 'my' 1
5. 20 whyl' bn 'd' 2
6. 'dl

1. 20 son of 'Aha' 4
2. 20(? ) Hallaš son of 'Abu-ta'ab 1 se'ah(?)
3. 20 Hala' 3
4. [ ] Nemeš son of 'Ummaya? 1 se'ah(?)
5. 20 and BešaPil son of 'Adda'? 2 se'ahs(?)
6. 'Adal

I am grateful to Prof. Younker for assigning publication of this ostracon to me and to David Sherwin for digital photographs of high quality and resolution, including some with enhancement by Photoshop, which have aided examination of the artifact. I am also deeply indebted to Larry Herr and Christopher Rollston for generously contributing corrections and many valuable suggestions.

Because I was digging a few dozen meters from Amanda McGuire’s sift, I saw the ostracon a few minutes after she discovered it.

Although figs. 2 and 3 look like drawings, I produced them from the digital photograph in Photoshop. The procedure was to enhance the contrast of the photograph and then carefully erase all but the dark marks, first of the text along with associated smudges (fig. 2), and then of the text alone, the darkness and clarity of which was enhanced by using Photoshop’s “bucket” tool (fig. 3). While some interpretation was involved in erasing smudges and apparently excessive thickening of parts of some letters and numerals to produce fig. 3, nothing was added in the process.
At the right margin of lines 1–3 and 5 (with a possible trace remaining in line 4) and somewhat separate from each line of text is a single character, apparently representing a number. That these are numerals is reinforced by the fact that the shape of the characters at the beginnings of lines 1, 3, and 5 (resembling our symbol “2”) is similar to that of the hieratic numeral “20” in Hisbân/Hesban Ostracon A1 (= Heshbon Ostracon IV = CAI 80). However, “20” in Hisbân A1 has straighter lines and looks like a tilted (to the left) form of our letter “z” (Cross 1989, for CAI 80, see 214–19, 494). This ostracon has been published by F. M. Cross (2003: 71–79; cf. 1975: 1–18; in press: 29–36). While the Heshbon/Hisbân/Hesban ostraca were numbered and published in the sequence of their discovery (Heshbon I, II, etc.), Cross has rearranged the series in the order of their respective dates: A1, A2, etc. (2003: 71; in press: 29–30).

At the beginning of line 2, the lower part of the numeral resembles the same "20," but at the top there is an extra diagonal stroke (down from right to left) that gives the numeral a zigzag appearance. Since this stroke also appears in the hieratic "20" of palaeo-Hebrew ostracon 6 from Tell Qudeirit = Qadesh-Barnea (Lemaire and Vernus 1983: 303, 304, 306; cols. 2:10 and 4:21), and given the fairly wide variation among shapes of letters in Jalul Ostracon 1 (see below), I tentatively interpret the numeral at the beginning of line 2 as another "20."

Because the number at the right in line 1 is lower than the following letters in this line, and in line 5 the number is higher than subsequent letters, we gain the impression that the numbers may have been
squeezed into the space at the right of the ostracon after the remaining lines of text had already been written.

Following the number at the right, a person is identified simply as bn ?h, “Son of 'Aha.” The word bn indicates that the language of the text is most likely Ammonite, a Canaanite dialect, rather than Aramaic, which would use br for “son” (cf. Hoftijzer and Jongeling 1995: Vol. 1: 170-72, 188-95).

Informal identification of an individual simply with bn plus patronymic is well attested in ancient Semitic languages, including Hebrew (biblical and epigraphic lists) and Ugaritic (Naveh 1990). For examples of “son of X” (rather than “Y son of X”) on ostraca, see Arad 49:3, 11; 56:1 (Aharoni and Naveh 1981: 80, 87). Arad 49, a list of names and numbers, also contains “Sons of 'h” (line 16; Aharoni and Naveh 1981: 80). Lachish 19 similarly lists names, including “son of X” (line 1), followed by hieratic numerals. “Presumably rations or goods of some

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6 Arad 49:1, 2, 4, 16 also contains the plural form “sons of X” (Aharoni 1981: 80).
sort were being distributed to the individuals listed" (Dobbs-Allsopp et al. 2005: 333). Hisbían Ostracon A5 (= Heshbon Ostracon I = CAI 65) also contains three names of this kind.\(^7\)

The personal name \(^3\)h\(^l\), which can be read \('Aha\), is fairly common in Northwest Semitic inscriptions (Reinsler, Fisher, and Lyon 1924: 237 [Samaria Ostracon 51:3]; Lemaire 1977: 36, 218, 220, 275; Herr 1978: 113; Renz 1995: Vol. 1: 57; Dobbs-Allsopp et al. 2005: 585, 768). The name is based on \(^3\)h, “brother/kinsman” (cf. Hofstijzer and Jongeling 1995: Vol. 1: 28–32), with the final \(\aleph\) indicating a hypocoristicon that abbreviates the theophoric element \(^3\)l in \(^3\)h\(^l\) = \(^3\)Ah\(^l\). “(The god) \(^3\)l is (my divine) Brother.”\(^8\) Compare Hebrew \(\aleph\)hiyahu, “YHWH is my Brother” (1 Kings 14:4–6, 18; 2 Chron 10:15), shortened to \(\aleph\)hiyah (1 Sam 14:3, 18; 1 Kings 4:3, etc.). Similarly constructed with \(^3\)h as the theophoric element is \(^3\)Abi\(\aleph\), “God is my Father” (1 Sam 9:1; 14:51; 1 Chron 11:32).

In Ammonite names, hypocoristic \(\aleph\)lep is fairly common and theophoric \(\aleph\)i is very common (Jackson 1983: 63, 89, 106). W. Aufrecht argues that this \(\aleph\) represents the name of the Canaanite high god \(^3\)l and provides evidence from “popular” religion to support the conclusion that “Ammonite religion exhibits characteristics of Canaanite religion, and seems not to have differed from it in any significant way” (1999: 159–60).\(^9\) In line 1 of our ostracon, the personal name is followed by the number “4,” represented by four slash marks at approximately a 45-degree angle, with the first three grouped tightly and the fourth placed at a slightly greater distance. These are functionally equivalent to the vertical lines in Hisban Ostracon A3, which are sometimes grouped in threes (lines 2, 8, 10), and each of which represents “1” (Cross 2003: 71–72; cf. 1975: 2–3; in press: 29, 31). See also the numerals in Hisbían Ostracon A3, which are basically vertical but somewhat slanting to the left, although not nearly as radically as in Jalul Ostracon 1 (Cross 2003: 81–82; cf. 1986: 476, 487, 489; in press: 37–38). In our ostracon, it is not clear how the numbers at the beginning and end of line 1 (“20” and “4”) relate to each other and to the “Son of \(^3\)Aha” named between them.

**Line 2**

The name \(h\)l\(s\), which can be read Halla\(\aleph\), can be derived from a root that refers to vanquishing an enemy (cf. Exod 17:13; Isa 14:12).\(^10\) So the name could mean something like “Vanquisher/Victor.” This kind of sense would suit Ugaritic use of \(h\)l\(s\) as an epithet (adjective or noun) of the goddess \(\aleph\)anat (del Olmo Lete and Sanmartín 2004: Vol. 1: 361). It is less likely that the name means “Weakling” (cf. Joel 4:10 [Engl. 3:10]), “since as a rule names do not emphasize negative qualities” (Layton 1990: 216). The ominous name Mahlon, “Sickness” or “Sickly person” (Ruth 1:2, 5; 4:9, 10), is a special case within the literary context of the book of Ruth (Layton 1990: 216).

Halla\(\aleph\) is the son of \(^3\)bw-t\(\aleph\)h, \(Abu-ta'ab\), which perhaps could mean “(The) Father Has Longed for”\(^11\) (cf. the verb t\(\aleph\)h, “long for.” in Ps 119:40, 174). In this name, the first bet and the following waw are crowded together. For a name similarly constructed with \(^3\)bw, see Nabataean \(^3\)bw-qwmw (Negev 1991: 9).\(^12\) In such names, w in \(^3\)bw appears to preserve the Semitic nominative case ending -\(\aleph\).

While case endings were mostly lost in the first-millenium b.c. Northwest Semitic dialects and W. R. Garr finds no evidence for case endings in Ammonite (1985: 61–63), they were preserved in some Northwest Semitic personal names (Layton 1990: 37–105). S. C. Layton observes that “kinship terms in Aramaic (and Phoenician and Punic), in contradistinction to Hebrew, are characterized by the retention of the nominative case vowel in the construct state and before suffixes” (1990: 102; cf. Hofstijzer and Jongeling 1995: Vol. 1: 1–3). But he has identified several Canaanite compound personal names in the

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\(^7\) This ostracon has been published by Cross (2003: 87–90; cf. in press: 43–46). See also Aufrecht 1989: 174–76.

\(^8\) S. L. Gogel interprets \(p\) simply as “Brother,” as if the final \(\aleph\)lep represents the Aramaic definite article (1998: 298). Aharoni understands the name in Arad 49:16 as “a diminutive of the name Ahiyahu (Ahijab)” (1981: 82). According to J. K. Stark. Palmeryere \(p\) is “not the status emphaticus of \(p\), ‘brother’, but the status absolutus of \(l\), ‘sister’” (1971: 66).

\(^9\) For the argument that El/l (rather than Milkom) was the chief deity of the Ammonites, see earlier Daviau and Dion 1994: 164.

\(^10\) The alternative that the third letter is \(\sin\) is weakened by lack of evidence for a root \(h\)l\(s\).

\(^11\) For analysis of \(\‘ab\), “father,” and \(\‘ah\), “brother,” as theophoric elements in Semitic names, see Noth 1966: 65–75.

Hebrew Bible that probably contain archaic survivals of the nominative case ending -\textit{u} in medial position (e.g., Betu'el in Gen 22:22; Layton 1990: 50–87, 104).\footnote{A dubious example of this case ending is \textit{hagay}, “Abigail,” in the consonantal text of 1 Sam 25:18, which may represent corruption of the name \textit{Abigail} (1 Sam 25:3, 14, 23, 32, 36, etc.) due to confusion of \textit{w} and \textit{y} in the “Aramaic” square script. However, the interchange of \textit{w} and \textit{y} also occurs in the names Penuel/Peniel and Hamital/Hamital, in which it appears that the \textit{w} forms are genuine. Aside from the variant \textit{Abugayil}, biblical names beginning with the element \textit{lab} have \textit{labi} (e.g., \textit{Abimelek}) rather than \textit{labu} (Layton 1990: 87–88).}

Following identification of the person and the numeral 1 (a single slash), there is a symbol that looks like the letter \textit{lamed} with a dot under it. The same \textit{lamed}-shaped symbol with dot also appears at the ends of lines 4 and 5, where persons are identified by name and father, but not in lines 1 and 3, which lack one or the other of these elements. In lines 2, 4, and 5 the “\textit{lamed}” symbols follow slashes, each of which indicates “1,” so it does not appear that the “\textit{lamed}” is a larger number unit, which we would expect to precede the smaller units (cf. Hísban Ostracon A1; Cross 2003: 71–72; 1975: 2–3; in press: 29, 31).

In Arad Ostracon 41:1, 7, Aharoni and Naveh have interpreted a somewhat similar \textit{lamed}-shaped symbol, following a dot that apparently represents a word divider, as “\textit{se'ah},” a measure of grain (1981: 75).\footnote{See a more angular version of this sign, not following a dot.} I would suggest that the symbol in Jalul Ostracon 1 also refers to a unit of measure, possibly “\textit{se'ah},” but the dot under it must be part of the sign rather than a word divider. Perhaps the dot is to indicate that the “\textit{lamed}” is an abbreviation.

\textbf{Line 3}

Following the numeral, line 3 contains only the name of a person, without his father’s name, plus three slashes indicating the number “3.” For simple names without patronymics, see Arad 49:7, 8, 9, 14, 15 (Aharoni and Naveh 1981: 80) and Lachish 19:2, 4, 5 (Dobbs-Allsopp et al. 2005: 333) in lists that also include “son of X” names (see above).

The name \textit{hl}, Hula, means “(The god) ‘Il is (my divine) Maternal Uncle.” It is a hypocoristicon of \textit{hl} (= Aufrecht 1989: 310). The same name also appears in an Ammonite seal belonging to Hala, son of Hawšî (<\textit{y}>1).\footnote{J. K. Stark interprets \textit{hl} in Palmyrenean simply as “Maternal Uncle” (1971: 88). The element \textit{hl}, “maternal uncle” (Hoftijzer and Jongeling 1995: Vol. 1: 372), appears as \textit{hal} in Amorite names (Ha-lî-qIM, Ha-la-ta-an, etc.; Huffman 1965: 194–95; cf. Arabic \textit{hal}).} In our ostracon, perhaps the name could be read \textit{‘Ummaya}, a hypocoristicon for “Tribes of (the god) \textit{Il}.” See Hebrew \textit{‘ummah}, “tribe” (plural in Gen 25:16; Num 25:15; and Ps 117:1). Alternatively, the name could be \textit{‘Ummaya}, simply “Nations,” like its meaning is unexplained there (Stark 1971: 5, 69).

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We could further speculate that, as in 'ḥ' (line 1) and 'ḥl' (line 3), the final 'aleph of 'my' could indicate a hypocoristicon, but in this case it would need to refer to a female deity, as in "The Goddess is my Mother." However, if the hypocoristic 'aleph represents 'l, as it does elsewhere in our ostracon, there is a problem because W. Aufrecht has shown that in Ammonite names, the theophoric element 'l represents the name of the male deity 'Il (1999: 159–60). A name "'Il is my Mother" would be strange.

**Line 5**

At the beginning of this last line of the main list, a personal name follows the numeral "20" and the conjunction w. For the conjunction reserved for this position preceding the final name in a list, see, e.g., 1 Chron 1:4; 4:15; 5:27 (Engl. 6:1).

In an Ammonite context, the name bšl'il, Bešal'il, would mean "In the Shadow of (the god) 'Il." In the Bible, bšl'il, "Beša'el" (e.g., Exod 31:2; 35:30; 36:1; 2 Chron 1:5; Ezra 10:30) refers to protection by Israel's deity (cf. Ps 91:1). The name is distinguished by the fact that the first main element šl, "shadow" (cf. Hoftijzer and Jongeling 1995: Vol. 2: 967), is preceded by a preposition, in this case b, "in" (Noth 1966: 32, 152—citing the similarly constructed Babylonian name Ina-šil-ˁA-ä; cf. Renz 1995: Vol. 1: 62). In Arad Ostracon 49:1, bšl = Bešal appears to be a shortened form of biblical Beša'el (Aharoni and Naveh 1981: 80–82).17

Between and slightly below the first two letters of the name 'dš, there are extraneous dark marks that appear to have resulted from smudging of the ink. This name, which could be read 'Adda', is attested in Phoenician (Benz 1972: 55, 260) and Palmyrenean (also under the form 'dy), where Stark interprets it as a hypocoristicon of the divine name "Addu" = Adad (Stark 1971: 2, 65).18 In Amorite, Addu/Haddu could be written Ad-da (Huffman 1965: 157; cf. 130 n. 5). Cf. the West Semitic name Addaya (written an-da-a-ya, ad-da-ia, ad-da-ya, a-da-ya), hypocoristicon of Adad, which appears in the Amarna texts (Hess 1984: Vol. 1: 44, 45).

Between 'dš and the number "2," there is a symbol with a vertical stroke and what looks like an inverted hook at its lower right.19 The hook may have resulted from abrasion, evidence of which continues to the right and slightly downward. Compare a vertical symbol (without hook) in the last line (line 10) of Arad Ostracon 31, immediately after a symbol for the 'ᵉphah measure. Aharoni and Naveh tentatively interpret the vertical as belonging to the measure symbol (1981: 56–58). In Jalul Ostracon 1, however, the vertical does not follow a symbol for a measure. So it must serve another function, which at this point remains unexplained.

**Line 6**

This line, containing only a three-letter word at the left of the ostracon, is separated from the main list by a large gap. Compare Húsíbán Ostraca A3, in which a list of personal names and numbers is followed by a gap and then a word at the bottom, which may be part of a summary notation (line 14).20 Also see Arad Ostracon 31, a list of names and hieratic numerals with a large space before the last line (line 10), which apparently contains the total amount of grain in the list. This inscription "appears to be a list of wheat apportioned to the people whose names are enumerated on it" (Aharoni and Naveh 1981: 56–59).

In Jalul Ostracon 1, the word in the last line appears to be the simple name (cf. line 3) of the scribe. Compare the Gezer Calendar, in which 'byz, perhaps the simple name of the scribe, is written along the bottom left edge of the tablet, separately from the rest of the text and at a 90-degree angle to it (Dobbs-Allsopp et al. 2005: 157, 163; for sketch, see Renz 1995: Vol. 3: Taf. I:1; for photo, see Ahituv 1992: 151).

For line 6 of our ostracon, I suggest the reading 'ḍš, which could be read 'Adad (cf. Arabic 'adil). With the meaning "Just/Fair," the name 'ḍš appears in Old South Arabic (Ryckmans 1934–1935: Vol. 1: 112, 178, 180, 182, 184, 186). But this is radically different from the clear attestations of 'adad (a single curved line) in our ostracon (lines 2, 3, 5).


18 The biblical name 'Iddo ('dv; Ezra 8:17) is similar. Stark finds M. Noth's suggestion that 'Iddo is a hypocoristicon of 'Adon (Noth 1966: 39 n. 3) to be unlikely "because of the gemination of the second radical" (Stark 1971: 65).

19 Late Phoenician and Punic lamed can have a similar vertical and bottom hook shape (Peckham 1968: 6, 8, 10, 44, 66, 68, 108, 112, 178, 180, 182, 184, 186). But this is radically different from the clear attestations of lamed (a single curved line) in our ostracon (lines 2, 3, 5).

20 Cross reads this line: [ ḫबст ] [ ""] to the sheep enclosures [ ""] (see Mic 2:12; Cross 2003: 82, 84; 1986: 476, 480, 489; cf. 1986: 476, 480; in press: 37, 40). Alternatively, the line could possibly contain a geographical name (Aufrecht 1989: 325, citing Hamilton, personal communication).
157–58) and Palmyrenean (Stark 1971: 44, 104). A name ‘*dl is also attested in Ugaritic (Gröndahl 1967: 107; Gordon 1965: 454). The form ‘*dl (‘Adlay) with hypocoristic yod (Koehler and Baumgartner 2001: Vol. 1: 792) is found in 1 Chron 27:29.21

While the initial ‘*ayin of this line is certain, there are other possibilities for the second and third letters. Instead of d, the second letter could be w, r, or s (if the right slanted stroke is abraded: L. G. Herr, personal communication). Notice that d, w, and r are especially similar in Hishân Ostracon A3 (Cross 2003: 81). As at the end of lines 2, 4, and 5, the last letter could be the symbol l with a dot under it, perhaps represented by a trace of ink. The likelihood of this is diminished by the fact that the possible ink trace is about twice as far below the l as in the earlier lines, and below this is a rather similar dark mark with no more apparent meaning than some other spots on the sherd. Furthermore, whereas the symbol l follows hieratic numerals in the earlier lines and may refer to se’âhs (see above), here l appears to be part of a three-letter word. For similarly wide spacing of letters, see hisl at the beginning of line 2. Variable readings of the second and third letters (including internal spacing of letters, see Aufrecht 1989: 353) may refer to se’âhs (see above), here l appears to be part of a three-letter word. For similarly wide spacing of letters, see hisl at the beginning of line 2. Variable readings of the second and third letters (including d, w, r, s for the second letter and l, l for the third letter) generate the following alternatives for which words are attested. None of these are as satisfactory as ‘*dl.

‘*wl Thus far no such Northwest Semitic personal name has been attested. However, there are words from Semitic roots ‘*wl. First, ‘*ul, “suckling,” can refer to animal or human young (Isa 49:15; 65:20; Koehler and Baumgartner 2001: Vol. 1: 797).22 Words from another root ‘*wl have to do with wrongful behavior, such as ‘awel, “perversity, injustice” (Ps 7:4 [Engl. v. 3]; Ezek 18:8) or “dishonesty” in trade (Ezek 28:18) and ‘awwal, “criminal, sinner” (Job 18:21; Zeph 3:5; Koehler and Baumgartner 2001: Vol. 1: 797–98). Cf. the related verbal idea of “trespass” in Hatrean (Hoftijzer and Jongeling 1995: Vol. 2: 856). Although the ideas of “suckling” and “sinner” would make fine pejorative nicknames (cf. Naveh 1990: 116–18, 122), neither would lend itself to a name by which a scribe with healthy self-esteem would likely identify himself.23

‘*rl Hebrew words from this root refer to the “fore-skinned” (Gen 34:14; Exod 4:25) and being “uncircumcised” (Gen 17:14; Exod 12:48; Koehler and Baumgartner 2001: Vol. 1: 885–86). It is hard to see how such a sense could fit the context of the tally on our ostracon. David’s tally of Philistine foreskins (1 Sam 18:27) was a highly unusual situation.

‘*dl If the first two letters constitute a word ‘*dl before the symbol l = se’âh(?), the word could be a substantive “witness” (see epigraphic and biblical Hebrew [Exod 20:16; Isa 8:2] and Ammonite [CAI 66]), “feast” (Palmyrenean), or “lasting future time” (Isa 64:8; Amos 1:11), or the common Semitic preposition/conjunction “to/unto/until” (Hoftijzer and Jongeling 1995: Vol. 2: 825–27; Koehler and Baumgartner 2001: Vol. 1: 786–89; Aufrecht 1989: 177–78). Of these, the strongest possibility for line 6 of Jalul Ostracon 1 would seem to be “witness,” in which case the line would read “witness se’âh(?).” This does not make obvious good sense because the relationship between “witness” and “se’âh(?)” would be unclear. Presumably it could cryptically refer to a legal attestation regarding the measures (of grain?) belonging to (or transferred from?) the persons listed, but with “witness” we expect the name of a person fulfilling this role (as in CAI 66).

‘*r l Biblical ‘*r could be the personal name ‘Er (Gen 38:3, 6, 7; 1 Chron 4:21), which could mean “Protector” or “Protected,” or “Awake” or “Watchful” (Koehler and Baumgartner 2001: Vol. 1: 876; cf. Noth 1966: 228). Alternatively,

21 Stark does not find Noth’s interpretation of OT ‘*Adlay as “Gartenkresse,” a kind of plant (Noth 1966: 231), to be convincing (Stark 1971: 104).


23 The word ‘*wl could theoretically be read ‘*lÚ, “yoke,” with internal w serving as mater lectionis. A yoke was usually placed on a draft animal (Num 19:2; Deut 21:3; 1 Sam 6:7) but could also be used for oppression of human beings (Deut 28:48—“an iron yoke on your neck”; cf. Jer 28:14; Arabic gullu, a neck ring for prisoners). However, Hebrew ‘*il is probably a primary noun that is not from the root ‘*wl (Koehler and Baumgartner 2001: Vol. 1: 827), and it is not written with internal mater lectionis in the Hebrew Bible. Moreover, it is not completely certain that internal w functioned as mater lectionis in Ammonite. For a list of probable and possible mater lectionis in the Ammonite corpus (including internal w), see Aufrecht 1989: 353.
Ar was the name of a town in Moab (Num 21:28; Isa 15:1) or could more generally refer to Moabite territory (Num 21:15; Deut 2:9, 18; Koehler and Baumgartner 2001: Vol. 1: 876). Additionally, a noun *r* means "enemy" (1 Sam 28:16). In Northwest Semitic inscriptions, *r* (bibl. *yr*) can denote "town" (sometimes a temple quarter or citadel), and possibly also "bearded vulture" or "juniper" (Hoftijzer and Jongeling 1995: Vol. 2: 883-84). Of these, the personal and place names or "town" seem most likely for our context. A personal name would make the line read: "Er se'ah(?)". But the relationship between the name and the measure would not be clear. If only one se'ah(?) were meant, we would expect the numeral "1," as in lines 2 and 4. Furthermore, if an *Er* were simply listed along with his se'ah(?), why would this entry be separated from the main list? If the line is "Ar se'ah(?)" or "town se'ah(?)", the unit of measure employed for the tally could be specified and standardized as the (size of) se'ah(?) used in Ar or Moabite territory or "in town" (cf. the seqel of the sanctuary [Exod 30:13; Num 3:47] and royal seqel [2 Sam 14:26]). But why would such uniquely attested specification be necessary in this ostracan?

Words spelled *s* refer to "clothes moth" (Isa 50:9; Job 13:28), "pus" (Hos 5:12), a constellation of Leo (Job 9:9; Koehler and Baumgartner 2001: Vol. 1: 895), "rush," or the verb "to make/do" (Hoftijzer and Jongeling 1995: Vol. 2: 890-91; cf. Heb. *škh*). None of these meanings fit our context.

### THE SCRIPT

Due to the close proximity of Jalul to Hisbān, it is not surprising that the cursive script of Jalul Ostracon 1 is similar to that of some ostraca found at Hisbān, especially those that Cross has identified as Ammonite (rather than Moabite; see especially 2003: 93-94; in press: 48-49). He has identified the dates of these ostraca as follows: A1—ca. 600 B.C.; A2—ca. 575 B.C.; A3—550-525 B.C. (2003: 71; in press: 30). The script of our ostraca also shows some affinities to some Hisbān ostraca identified by Cross as Aramaic (2003: 85, 87, 92; in press: 42-43, 47); A4—525 B.C.; A5—end of sixth century B.C.; A6—end of sixth century B.C. (for dates, see 2003: 71; in press: 30). For analysis of their scripts and comparisons between them and scripts of other inscriptions, see Cross 2003: 72 (fig. 6.2—Ammonite Scripts), 76-79, 80-81 (fig. 6.7—scripts of A1 and A3), 84-90, 92 (cf. in press: 33-36, 37, 40-45, 47). The following brief comments relate noteworthy letters of Jalul Ostracon 1 to the fuller discussions by Cross, and also to some relevant palaeographical work of J. Naveh.

Aleph has a squat "star"-like shape, as in Hisbān A1 and A2 (= Heshbon Ostracon XI = CAI 94), as well as the Aramaic Assur Ostracon (mid-seventh century B.C.) and Saqqarah Papyrus (ca. 600 B.C.; see Naveh 2001: Vol. I: 876). However, there are two exceptions: Bet is closed in the first bet of *bw-pîb* (line 2) and in *bîlî* (line 5), unless the upper portions of these letters are partly abraded. The final bet in *bw-pîb* (line 2) is quite elongated, a trait present in the late sixth century B.C. and, like bet in Hisbān A5, the "top preserves a narrow form with sharp, upward ticks on either side" (Cross 2003: 89). Despite some abrasion, it appears that dalet in line 5 is very small and short-legged and shows little or no tendency toward opening at the top (unlike Aramaic), as in Hisbān A1. Cross comments on this form of dalet, along with a similar closed or almost closed *re*: "These letters stand in strongest opposition to the Aramaic type sequence and leave no doubt of the independence of the Ammonite alphabet over considerable periods of time" (2003: 78). On the other hand, the dalet in line 6 of Jalul Ostracon 1 shows a later development of the Ammonite script: It is open even more than the dalet of Hisbān A3, as in A5 and in Aramaic (cf. Naveh 2001: figs. 2-3). Regarding dalet in A5, Cross observes two features that also describe the same letter in line 6 of our ostraca: "the bold slant of its right leg downward from left to right, a trait of seventh- and eighth-century styles, and the stubbiness of the form, again an early (pre-fifth century) trait" (2003: 89). Waw in lines 2 and 5 is unusual. In the Hisbān ostraca (A1 and A3) this letter follows the Deir 'Allā

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waw, which parallels Aramaic waw (Cross 2003: 78; Naveh 1970: figs. 2–3). In this form of the letter, which developed from an inverted “h” shape (Naveh 1982: 94), a short upper stroke was attached to the left of the vertical stroke. But in line 2 of our ostracon, waw resembles that of the Arad ostraca (Aharoni and Naveh 1981: 133–37), in which the vertical stroke is intersected near its top by a diagonal bar that developed from the right-hand bar of the Y-shaped head that was adopted by Hebrew script (cf. Naveh 1982: 94). In line 5, waw is partly abraded, but thickening near the top seems to preserve evidence of the diagonal bar.

Unlike the two-bar het in scripts such as those of Deir ‘Allâ (ca. 700 B.C.) and Tell Siran (ca. 600 B.C.) and the Moabite Mesha’ Stele (ninth century B.C., written in Hebrew script; Naveh 1982: 101), this letter in Jalul Ostracon 1 has one bar, as in Hisbân A1–3. However, rather than the more advanced mirror-image “N” form in A1–3, het in our ostracon has the bar slanting downward to meet the left leg below its top, rather than at its bottom (cf. the Saqqarah Papyrus; Naveh 1970: fig. 3.1; 1982: 96, 98).

Yod (line 4) is elongated, like the Ammonite cursive yod of Hisbân A1, but it has not yet simplified as in A3 (cf. A4–6), which probably follows the trend of Aramaic (Naveh 1970: figs. 2.7 and 3.1).

Mem (line 4) has a shallow, toothed/zigzag head, as in Hisbân A1 and A2 (cf. the Deir ‘Allâ inscriptions), but unlike the Moabite and Edomite large-headed mem (Naveh 1982: 101–5). The mem of our ostracon is earlier than that of Hisbân A3, “in which the zigzag head is simplified into a bar cut with a single vertical stroke” (Cross 2003: 79), following the lead of the Aramaic cursive scripts (e.g., the Assur ostracan; Naveh 1970: fig. 2.7).

‘Ayin is fully open, as in Hisbân A2 and A3 and Aramaic (Naveh 1970: figs. 2–3), but unlike A1, in which this letter is closed or virtually closed (cf. Hebrew; Naveh 1982: 77).

As in Hisbân A1–3, the cross-bar of taw (line 2) has moved to the right (cf. the Assur Ostracon; Naveh 1970: fig. 2.7), by comparison with the same letter in the Deir ‘Allâ and Tell Siran scripts.

To summarize, the script of Jalul Ostracon 1 is closest to that of the Ammonite sixth-century B.C. Hisbân Ostraca A1–3, which generally follow the Aramaic writing tradition rather than that of Hebrew. The shape of one dalet (line 5) is characteristically Ammonite rather than Aramaic. The shallow-headed mem rules out Moabite and Edomite. Therefore, it is fairly safe to say that the script of our ostracon is Ammonite, in harmony with its provenance (under Ammonite control in the sixth century B.C.) and the language of its text (especially bn for “son”). The Hebrew type of waw could be an idiosyncrasy of the writer, who may have been subjected to some Hebrew influence. Alternatively, it is tempting to speculate that this waw preserves a trace of Hebrew influence in Ammonite writing which lingered from the time when Ammon, like Moab and Edom, had been politically and culturally dominated by Israel-Judah (on this factor in Moabite and Edomite, see Naveh 1982: 101–5).

It appears difficult to date Jalul Ostracon 1 more precisely than the sixth century B.C. because its letters (in some cases even instances of the same letter) relate to somewhat different stages in the development of the Ammonite script. Should we regard the older forms as resulting from an archaizing tendency on the part of a later scribe, or are the newer forms due to Aramaic influence on an earlier scribe? In any case, it is clear that the scribe was choosing elements from competing influences.

CONCLUSION

Like several of the Hisbân ostraca, Jalul Ostracon 1 is almost certainly a sixth-century B.C. Ammonite economic list that relates various measures of agricultural produce to named individuals.25 In lines 2, 4, and 5 the measures may be se’ahs of grain, and in lines 1 and 3 a unit of measure is apparently assumed. It appears that the scribe placed his name below the list. The relationship between the main text and the numbers in the right margin remains unclear. Perhaps the ostracoa is a receipt or bill for taxes or payment of loans, with the main text indicating commodities transferred or still owing, and the numbers at the right indicating total amounts owed. The script, with its variation, hieratic numbers, and other symbols, adds an interesting exemplar to the small corpus of Ammonite cursive writing.

25 On functions of such lists (including distribution and tax receipts), of which there are many Northwest Semitic examples, see Cross 2003: 75–76; in press: 32–33.
REFERENCES

Aharoni, Y.

Aharoni, Y., in cooperation with Naveh, J.

Ahituv, S.

Aulrecht, W. E.

Benz, F. L.

Cross, F. M.


Daviau, P. M. M., and Dion, P. E.

del Olmo Lete, G., and Sanmartín, J.

Dobbs-Allsopp, F. W.; Roberts, J. J. M.; Seow, C. L.; and Whitaker, R. E.

Garr, W. R.

Gogel, S. L.

Gordon, C.

Gröndahl, F.

Herr, L. G.

Hess, R. S.

Hoftijzer, J., and Jongeling, K.

Huffmon, H. B.

Jackson, K. P.

Koehler, L., and Baumgartner, W.

Layton, S. C.

Lemaire, A.

Lemaire, A., and Vernus, P.


Mazar, A.


Naveh, J.


Noth, M.


Peckham, J. B.


Reisner, G. A.; Fisher, C. S.; and Lyon, D. G.


Renz, J.


Ryckmans, G.


Stark, J. K.
