ACCOUNTING PROCESSES IN PALESTINE DURING THE TENTH-EIGHTH CENTURIES B.C.E.

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ABSTRACT

This article aims at determining what, if any, accounting processes were employed during the first millennium B.C.E. in Palestine, focusing on the tenth to the eighth centuries B.C.E., and whether they conform to the components of the definition of accounting, which comprise: (a) to select relevant information; (b) to perform calculations; (c) to record the information; and (d) to give account. The evidence from Arad, Samaria and Tell Qasîle demonstrates that the adopted processes can be regarded as accounting processes since they conform to at least three of the four components of the definition of accounting.

INTRODUCTION

Though there is evidence that records were kept in Palestine,[2] what importance, if any, did *accounting* itself as an autonomous skill, not merely as recordkeeping, enjoy in the region? Does the available evidence from the first millennium B.C.E. indicate that what is referred to as "recordkeeping" by scholars can actually be regarded as "accounting"?

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[1] PhD (Biblical Archaeology) student. This article is derived from the author's MA (Biblical Archaeology) dissertation (Cornelius 2015). The chief aims of this master's study were to determine the accounting processes that were employed during the first millennium B.C. (1000–332 B.C.) in Palestine, whether these were the result of the socio-economic requirements of the various centralised polities operative in Palestine during this period, how these processes developed over the course of the first millennium, and whether they conformed to the definition of accounting.

[2] The term "Palestine" has been in common usage since Neo-Assyrian times and is well attested in classical sources, first and foremost in the *History of Herodotus* (sixth century B.C.E.) (Lemche 1997:153; see Thompson 1999:80). To Herodotus, it was simply the southern Syrian region which lay between the Phoenician cities and Egypt. For the sake of convenience, "Palestine" will thus be used in this article.

It is possible that Palestine, as a newer nation-state than Mesopotamia from where the Assyrians, Babylonians, and Persians originated, may have experienced some influence from the surrounding regions regarding the manner of administration and the development of accounting systems. Furthermore, being subject to foreign rule under the Assyrians, Babylonians, and Persians from approximately 732 B.C.E. should also have had some effect on the manner in which these systems further evolved in the region.

Epigraphic and archaeological evidence reflecting the manner in which economic transactions were recorded was produced mainly as a result of the requirements of the various centralised polities in Palestine, which required that records be kept of state affairs such as the collection of taxes and the distribution of supplies for the upkeep of state, religious and military resources (Cornelius 2015:221–222). Unfortunately, much of the evidence dates from the ninth century B.C.E. and later – there is not much evidence from the time of David and Solomon. There is, however, reasonably abundant epigraphic evidence from the Assyrian and Persian periods. The only significant archives discovered in Palestine to date include the Lachish, Arad and Samaria Ostraca, and the Wâdi ed-Dâliyeh papyri, but even these are limited in scope when compared to evidence from other ancient Near Eastern cultures.

TERMINOLOGY

"Accounting" is defined as "the principles and methods involved in keeping a financial record of business transactions and in preparing statements concerning the assets, liabilities and operating results of a business" (Reader's Digest Universal Dictionary 1987:21). The word is derived from the French word *acompt*, which took its origin from the Latin word *computare* and means "to calculate" (Reader's Digest Universal Dictionary 1987:21, 329). Latin is made up of various Indo-European languages and originated in 1000 B.C.E. when people from these different language groups moved from central Europe to the region of Latium, where Rome was located (Palmer 1954:38). One of the earliest known Latin inscriptions dates to the sixth

century B.C.E. (Clackson and Horrocks 2007:2, 86–87). However, the Roman Empire began its rule in Palestine only from 37 B.C.E. (Currid 1999:19, Fig. 1). Between the end of the Persian Empire and the beginning of the Roman Empire in Palestine, Greek was the *lingua franca* (Clackson and Horrocks 2007:86).

The term for "accounting" in ancient Greek is *logistikos*, which concerns the practical science of calculation, and is derived from the ancient verb *logidzomai*, which means "to count", "to calculate" or "to bring to account" (Richard 2010:6). The root of *logistikos* is "log", which means "to gather", "to pick", "to sort", "to count", "to number", "to say", "to mean" and "to read". *Computare* is made up of *com*, which means "with" or "together", and *putare*, which means "to make clean", "to evaluate" and "to weigh" (Richard 2010:23). Both ancient Hebrew and the Arabic language developed from the Phoenician alphabet, albeit in different forms (Richard 2010:4). In spite of this, there is a tie between the two languages for the word "accounting". In modern Arabic, the word for "accounting" is *mouhâssaba*, which is derived from the verb *hassaba* of which the root is *hsb*, meaning "to count". In modern Hebrew, the word for "accounting" is *hèshbonaout* and is derived from the root *hech*, meaning "to think". It contains the consonants *h*, *sh* and *b*, which match the Arabic root *hsb* (this root is found in Gen 15:6[3] which reads "Abram believed the Lord, and he counted it to him for righteousness", Richard 2010:4).

From the above meanings, the different components of the definition of accounting may be determined as follows (Richard 2010:21–25):[4]

- to select relevant information ("to gather/pick/sort");
- to perform calculations ("to count/calculate/number");
- to record the information (for others "to read"); and
- to give account ("to say").

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[3]   The King James Version has been quoted in this article.

[4]   This definition was derived from Richard's (2010) study of sixty-five languages wherein he studied the word bases or stems together with their roots that were used to denote accounting.

Each of the above steps involves some form of evaluation and reasoning. The comparison of these components with the modern version of the definition of "accounting", shown below, indicates that these two versions correspond:

- to identify financial information;
- to measure financial information;
- to record financial information; and
- to report financial information (AICPA 1953:9; AAA 1966:1; Myburgh, Fouché and Cloete 2012:2).

THE EVIDENCE FROM THE TENTH TO EIGHTH CENTURIES B.C.E.
Arad Ostraca

A large number of Hebrew, Aramaic, Greek and Arabic inscriptions were found in various strata on the citadel mound at Arad, a site that, during the monarchical period, comprised a Judaean military fortress as well as a temple and storehouses, which were altered or rebuilt during successive periods (Aharoni 1981:3–4, 122–123; Herzog et al. 1984:8, 10–13, 22). In total, 88 Hebrew and 85 Aramaic inscriptions were found. Of the Hebrew ostraca, 15 are whole and 25 are partly preserved, while only a single word is preserved in another 28 and only a single letter can be observed in the remaining 20. The majority (45) of the Aramaic ostraca have been preserved in part, but the script of the rest is virtually illegible. The Hebrew and Aramaic inscriptions that are relevant to this discussion comprise administrative documents dating from the tenth century B.C.E. (Stratum XI) until the late eighth century B.C.E. (Stratum VIII) (Aharoni 1981:4, 9).

The earliest, partially preserved, Hebrew ostracon (No. 76) was discovered in Stratum XI (tenth century B.C.E.) in a building east of the temple; it contains seven lines of script comprising some names with measures of grain noted down alongside each name (Figure 1) (Aharoni 1968b:10; 1981:5, 98):

1. Son of …
2. Son of … *ḥeḳat* 10
3. Son of … 100 *ḥeḳat*
4. *ts*
5. *qt*
6. *zg*   [*ḥeḳat*] 2[0]
7. *g*
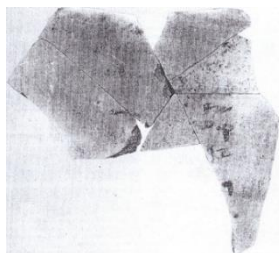
Figure 1: Arad ostracon No. 76
(Aharoni 1981:99)

Another ostracon (No. 79) from Stratum XI bears the last part of a personal name followed by the letter *bêt* and three strokes, the first of which is the abbreviation for the *bath* measure and the last two represent the number "2" – "…*aḥ* 2 *baths*" (Aharoni 1981:100).

Of the ostraca from Stratum X (ninth century B.C.E.), only two (Nos. 67 and 72) may possibly bear information concerning the issue or receipt of commodities (see Aharoni 1981:93, 96). Ostracon Number 67 contains only portions of personal names, each of which is followed by the number "1" or "2". Ostracon Number 72 contains five rows of names and numbers:

1. Nakonyahu 2, Menahem 1
2. Pepi 1, Aḥimelek 1
3. Gada 1, (no name) 3
4. ʿUzza 3
5. (no name) 2.

Ostracon Number 60, found in a Stratum IX (eighth century B.C.E.) building located between the storehouse and the temple, may concern the weighing of an amount of grain, either barley or wheat, as denoted by *ḥeḳat*, the measure for grain (Aharoni 1981:90):

Obverse   Reverse (continuation of previous line)

As all … I took (or weighed) 2+25 ḥeḳats   [-riyahu] 6

Shebanyahu 1

Mikneyahu, give to Gab-

Some of the ostraca (Nos. 50–57) from Stratum VIII (late eighth century B.C.E.) concern the administration of the temple at the site and bear only names of recognised Levite priests (Aharoni 1981:87; Herzog et al. 1984:32). According to Aharoni (1981:87), the texts of these ostraca may refer to the assignment of priestly duties in the temple. Another ostracon (No. 42) mentions the receipt of an unknown quantity (*lethech*) of a commodity from a place named Yagur, which is mentioned in Joshua 15:21 (Aharoni 1981:76). Ostracon Number 49 was found in a building next to the entrance of the temple and forms part of a bowl; the ostracon contains rows of numbers and names, one of which (Korah) is a well-known Levite family name and another (Gilgal) is the name of the sanctuary near Jericho (Aharoni 1981:81). Aharoni (1981:148) suggests that the names and numbers may be a list of offerings for the temple.

Samaria ostraca – dating

Sixty-three ostraca, written in Palaeo-Hebrew script, were found by the Harvard Expedition at Samaria in the Ostraca House, an administrative structure that was named for the ostraca discovered in its floor (Crowfoot, Crowfoot and Kenyon 1957:9; Kaufman 1982:231). The site was established as the capital of the northern kingdom from the time of the division of the monarchy (Crowfoot, Kenyon and Sukenik 1942:8; Wright 1959:75–76; Franklin 2004:200–201; 2008:46). Franklin (2004:196; 2008:51) asserts the "Ostraca House" was built during Building Period II, which she attributes partly to Jehu. In light of the years recorded on the ostraca (ninth, tenth, fifteenth and possibly seventeenth), they have been dated by various scholars to the reigns of Jehoahaz (Maisler 1948:131), Jehoahaz and Jehoash (Shea 1985:16), Jehoash and Jeroboam II (Aharoni 1968a:323–324; 1970:42; Rainey 1988:69), Jeroboam II (Birnbaum 1942:108; Cross 1975:8; Kaufman 1982:235) or Menahem (Yadin 1961:22–23; 1962:66).

The differences between the two groups of ostraca are summarised as follows: ninth and tenth year ostraca are referred to as Group 1 and fifteenth year ostraca as Group 2 (Shea 1985:13–14):

- Group 1 mentions commodities, but not Group 2 (except for No. 44);
- Group 1 generally mentions only one personal name, but Group 2 mentions two personal names, the second of which is not preceded by *lamed*;
- clan names appear only rarely in Group 1, but frequently in Group 2;
- in Group 1, town names appear at the beginning of the date formula, but at the end in Group 2;
- the personal names do not overlap between the two groups;
- patronyms are used rarely in Group 1, but frequently in Group 2; and
- Hebrew numerals are used in Group 1, but hieratic numerals are used in Group 2.

Since the date of the ostraca determines their historical significance and purpose, it is important that this is first established (Shea 1977:17). However, as the discussion below will demonstrate, this is nigh to impossible and only speculations regarding this can be made.

Kaufman (1982:231–234) considers the evidence from three different angles, namely archaeological, palaeographical, and the use of Egyptian hieratic numerals. The ostraca were found in the fill of the floor of the corridors of the Ostraca House, which was later modified and eventually destroyed in 722/721 B.C.E. Based on this information, Kaufman (1982:231–232) advises, at least, a "mid-century" date for the ostraca. Furthermore, the level in which the ostraca were found antedates the appearance of water decanters which first appeared in Pottery Period VI (Crowfoot et al. 1942:108; Kaufman 1982:233). As only a small amount of pottery can be attributed to Pottery Period V, which Kenyon (in Crowfoot et al. 1957:199) associates closely with that of Pottery Period VI, most of the ostraca has been assigned to Pottery Period IV. Crowfoot et al. (1957:470) attribute the Pottery Periods as follows: IV – from the beginning of the eighth century B.C.E., V – within the first half of the eighth century B.C.E., and VI – the last half of the eighth century B.C.E. This correlates approximately with Tappy's (1992:253) conclusions. Holladay (1976:271), on the other hand, attributes the periods as follows: IV – circa 842–760 B.C.E., V – circa 760–745/735 B.C.E., and VI – circa 745/735–722 B.C.E. From a palaeographical

point of view, the writing on the ostraca reflects the beginning of cursive writing using a split-reed pen and ink (Kaufman 1982:233; Yeivin 1960:205).

By also studying the development of the Palaeo-Hebrew script during the ninth and tenth centuries B.C.E. and by comparing the script on the Samaria Ostraca with that of the Mesha Stele (circa 840 B.C.E.), a group of inscriptions from Kuntillet Ajrud (circa 800 B.C.E.) and a later group of ostraca found at Samaria from Pottery Period VI, Kaufman (1982:233–234) proposes placing the ostraca in the second quarter of the eighth century B.C.E. The numerals for "5" and "10" that appear on the ostraca for the fifteenth year are hieratic numerals, as proved by Aharoni (1966:17–18), and not for the numbers "4" and "5" in the Old Hebrew script, as originally proposed by Yadin (1961:20–21).

It is, therefore, necessary to find a king who ruled for at least fifteen years during the ninth to eighth centuries B.C.E. The kings who qualify are Jehoahaz/Jehoash and Jeroboam II. Shea (1985:16) suggests attributing the ninth and tenth year ostraca to Jehoahaz based on the different date formulae used in these ostraca compared to that of the fifteenth year ostraca which he attributes to Jehoahaz's fifteenth year, at the time when his son, Jehoash, was serving as co-regent. The designation of the ostraca to two kings is also supported by Rainey (1988:69–71) and Aharoni (1968a:323–324) who suggest that the fifteenth year ostraca be attributed to Jehoash and the ninth and tenth year ostraca to Jeroboam II. They, therefore, switch the two groups in contrast to other scholars, placing the fifteenth year ostraca earlier than those from the ninth and tenth years. In spite of the differences, Kaufman (1982:238) maintains that "cursive developments" appear in the ostraca from all three years. Consequently, he dates the ostraca from the three years to the time of Jeroboam II (early-mid eighth century B.C.E.; Kaufman 1982:234). Shea (1985:14) has taken Kaufman's concerns regarding the script as well as the differences between the two groups into consideration and suggests that, due to a political development, the first group should be attributed to Jehoahaz and the second group to Jehoash. He attributes this political development to the initial adoption by the northern kingdom of the Egyptian practice of co-regency, which he maintains led to the use of hieratic numerals in the second group. Galil

(1996:50), on the other hand, suggests that Jehoahaz already served as co-regent with his father, Jehu, and was crowned during Jehu's twenty-third year at a time of Aramean expansion when Jehu needed to strengthen his reign and ensure the continuity of his dynasty. This is also supported by Yeivin (1979:152) and Na'aman (1986:92). Consequently, the precise dating of the ostraca remains enigmatic, but they can be dated broadly from the late ninth to the mid-eighth century B.C.E.

Samaria ostraca – function

The texts on the ostraca include regnal years, sixteen place names, seven clan names, several personal names and the commodities of oil and wine; however, not all the texts include all the information (Table 1)[5] (Aharoni 1968a:315, 318–321). According to Reisner, Fisher and Lyon (1924:231–232), the ostraca are only temporary notes that accompanied the commodities and contain only the minimum required information.

Table 1: Information contained in the Samaria Ostraca (Aharoni 1968a:318–321)

No.	Year	Place	Clan	"l-men"[6]	"non-l-men"	Commodity
1	10	*Poraim		to *Shamaryau	Pega (son of) Elisha Uzza (son of) Kabesh Eliba Baala (son of) Elisha Yedayau	2 jars (*nebel*) of old [wine][7] 1 1 2 1
2	10	*Azzah		to *Gaddiyau	Abibaal Ahaz Sheba Meribaal	2 2 1 1

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5   The names marked with an * are non-biblical names or ones that differ from known biblical forms; the other proper names are given in their biblical form (Aharoni 1968a:317).

6   Aharoni (1968a:318-321) uses the words "recipient" and "sender" in the place of "l-men" and "non-l-men" respectively. Since there is disagreement among scholars on whether the "l-men" were the owners or the recipients of the goods and the "non-l-men" were the senders or merely servants of the owners, I have opted to use the terms "l-men" and "non-l-men", being terms that all scholars agree on.

7   Aharoni (1968a:318-321) uses the spelling *nebel*, while Stern (2001:199) uses *nevel*.

No.	Year	Place	Clan	"*l*-men"[6]	"non-*l*-men"	Commodity
3	10		Shemida	to [. . .]a Baala A[. . .]		jar of [ol]d wine
4	9	*Kozoh		to Gaddiyau		jar [of old wine]
5	9	*Kozoh		to [Gaddi]yau		jar of old wine
6	9	*Kozoh		to Gaddiyau		jar of old wine
7	?	?		to Gaddi[yau]		[jar of o]ld wine
8	9	Geb[a]		[to Ahino]am		jar of [ol]d [wine]
9	9	*Yazith		to A*h*inoam		[j]ar of old wi[ne]
10	9	*Yazith		to Ahinoam		jar of old wine
11				[to Ahi]noam		[j]ar of wine
12	9	*Siphtan		to *Baalzemer		jar of old wine
13	10	*Tetel (?)	Abiezer	to *Shamaryau to *Aś[a ?]		jar of old wine [?]
14	9	A[zn]oth-*Par'an		to *Shamaryau		jar of old wine
15		Hazeroth		to [. . .]		jar [of . . .]
16	10	Sepher		to *Gaddiyau		jar of fine oil
17	10	*Azzah		to *Gaddiyau		jar of fine oil
18	10	Hazeroth		to *Gaddiyau		jar of fine oil
19	10	Yazith		to Ahinoam		jar of fine oil
20	10	*Cherem-hatte[l]				[jar of] fine oil
21	10	*Tetel (?)		to *Shamaryau		jar of fine oil
22	15	Hazeroth	Helek	to *Aśa (son of) Ahimelech	Helez	
23	15	Hazeroth	Helek	to *Aśa (son of) Ahimelech	Helez	
24	15	[Ha]zeroth	[He]lek	to *Aś[a] (son of) Ahime[lech]	Rapha (son of) *Anmes	
25		Hazeroth	*Hele*[k]	to *Aśa (son of) A]himele[ch]	Ahazai	
26		Ha[zeroth]	[Hele]k	to *Aśa (son	[Hele]z (son	

No.	Year	Place	Clan	"*l*-men"[6]	"non-*l*-men"	Commodity
				of) [Ahimelech]	of) H[. ? .]n	
27	15	Baal-meon	Helek	to *Aśa (son of) Ahimelech	*Baala (the) Baalmeonite	
28	15	*Elmattan	Abiezer	to *Aśa (son of) Ahimelech	*Baala	
29	15	Sepher	She[mida]	[to] *Aśa (son of) Ahimelech	*Ke*dar	
30	15		Shemida	to Helez (son of) Gaddiyau	Gera (son of) *Hannia*b*	
31	15		Shemida	to Helez (son of) *Aphzech	*Baala (son of) Zecher	
32	15		She<m>ida	to Helez	*Ahima	
33	[1]5		Shemi[da]	to Helez (son of) *Gaddiyau	. . . ?	
34	15		[Shem]i[da]	[to Helez (son of) *Ga]ddiyau	. . . ?	
35	15		She[mida]	to Helez (son of) *Gaddiyau		
36			Shemid[a]		[Ge]ra	[o]ld wine
37	15		Shemida	to *Ahima	*Aśa (son of) *Baalzecher	
38	15		Shemida	to *Ahima	*Ullah (son of) Ela	
39	15		Shemida	[to] *Ahima	[*Aś]a (son of) [Baalzecher?]	
40			Shemida	to ?		
41					. ?.sha (son of) *Egliyau	
42	15	*As(h)ereth	<A>srie[l]	to *Yedayau	*Meronyau (son of) Gaddiya[u]	
43	(h ?)			[to] Hannan . . .	El . . .	
44	15		Shechem			wine
45	15	*Yaz[ith]	Hogla[h]	to Hanan (son of) Ba[ar]a	[*Meron]yau (son of) Nathan	
46	15			to Hanan		

No.	Year	Place	Clan	"*l*-men"[6]	"non-*l*-men"	Commodity
				(son of) Ba[ara]		
47		*Yazith	Hoglah	to Hanan (son of) Baara	?	
48	15	*Yashub	<A>srie[l]	to *Yedayau (son of) Ahimelech	Joshua	
49			[Shemid]a	to He[lez (son of *Gaddiyau]	?	
50	15		Noah	to Gomer/ Gemariah	*Obadyau to *Uriyau	
51	10				*Aha the Judea[n]	
52	15				*Abiyau	
53	10	*Cherem-hattel				wine, in a jar of fine oil
54	10	*Cherem-hattel				wine jar of fine oil
55	10	*Cherem-Yeḥo-eli				jar of fine oil
56	15	*Hatt[el]		to Nimsh[i]		
57			Shem<i>da	Abda	?	
58	15	*Cherem-hattel		to *Bedeyau		
59						jar of f[in]e oil
60		*Cherem-Yeḥo-el[i]				
61	15	*Cherem-hattel				
62[8]			Shemid[a]			wine
63	17[9]	?	Shemid[a]			

One group of names is preceded by the preposition *lamed* (termed "*l*-men"), and the second group has no preposition (termed "non-*l*-men") (Cross 1975:8–9). Eight of the twelve "*l*-men" appear more than once and are associated in many cases with more than one place or clan name.

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8   Numbers 62 and 63 are jar labels (Reisner et al. 1924:227–228).

9   Kaufman (1982:235) states that the number should be read as "at least 12 and no more than 14".

The place names denote the origin of the commodity and either precede or follow the name of the "*l*-man". In the case of the "non-*l*-men", who are further identified with a patronymic (a name derived from a father or paternal ancestor), a gentilic (a name with ethnic or national affiliation, Reader's Digest Universal Dictionary 1987:638, 1135) or a town of origin, the place names follow after their names. In instances where their names appear more than once, these occur with the same "*l*-man" and/or the same town. All the clan names appear in the Bible as the descendants of Manasseh and all the place names are located in the northern part of Mount Ephraim, the traditional territory of the tribe of Manasseh (Aharoni 1968a:324). Aharoni posits that the region may have been an administrative district and Samaria its capital.

There are basically two schools of thought regarding the Samaria Ostraca: those who view the ostraca as tax payments received from owners of estates, and those who maintain they are records of shipments from an owner's estate to the owner for his subsistence in the city of Samaria. A third possibility springing from the tax receipt theory is that the "*l*-men" are tax officials; however, according to Rainey (1979:91) and Kaufman (1982:236), this reflects a disorganised tax collection system since in years nine and ten, one tax collector is responsible for three towns and one clan (Ostraca 1, 13, 14 and 21), while in Ostraca 13 and 21, two tax collectors are responsible for one town. Also in Ostraca 29, 30, 31, 37 and 57 from year fifteen, five tax collectors are allocated to one clan.

Rainey (1979:91–92) views the ostraca as records of shipments to the owners of estates as part of their income from those estates which were either inherited by them or were granted to them by the state. The fact that the ostraca record only small quantities of a commodity may indicate that the owners were either in Samaria for a short "tour of duty" or that, since the city would not have provided sufficient storage for every owner's produce and each owner's own storehouses would, consequently, have rather been located in his own district, the quantities were meant to serve their immediate needs. Furthermore, if the owners were in the employ of the state, it is not unreasonable to presume that the commodities were delivered via the royal storehouse.

Rainey (1967:36–38, 40) compares this to the practice at Ugarit where grants of land were made to loyal subjects who then received the income from the land as payment for their services to the state. The ostraca that do not denote a recipient may indicate that those commodities were meant for the state. 2 Samuel 9:7–10 may illustrate the practice of receiving income from inherited land: David gave the son of Saul, Mephibosheth, all his father's property, the income from which was to be used to provide food for him even though he could "always eat at my [David's] table" (see Rainey 1967:39; 1979:92). The entry in David's records may, therefore, have recorded the year of David's reign, the place name as "Gibeah", the "*l*-man" as "Mephibosheth", the "non-*l*-man" as "Ziba, steward of Saul" and the relevant commodity (Rainey 1979:92). In concurrence with Reisner et al. (1924:231–232) mentioned above, Rainey (1979:91) refers to the Samaria Ostraca as "scratch-pad notations" that were summarised at a later date on papyrus, thereby possibly indicating the reason for discarding the ostraca. In addition, he (Rainey 1979:93) emphasises that the *lamed* in the Samaria Ostraca refers to the recipient and not to the sender as suggested by Yadin (1959:185), who applies the same meaning of *lamed* as in the *lmlk* inscriptions, that is, "belonging to", to the Samaria Ostraca. Rainey (1967:33), however, explains that the *lamed* of ownership does not necessarily indicate "sender". Herzog et al. (1984:31) support this view based on the use of *lamed* in the Arad Ostraca to designate recipients.

This theory is also supported to a certain extent by Niemann (2008:251–252, 262), who maintains that the ostraca do not reflect state administration since they concern only the palace and its immediate surroundings and, consequently, cannot be regarded as tax receipts. They do, however, accentuate a personal relationship between sender and receiver. Niemann (2008:264), therefore, posits that elite members of the surrounding clans were invited to reside at the palace for a short period, occasionally receiving additional supplies from their family units. The idea behind this was "a royal attempt at aligning, influencing and controlling tribal elites" to obtain their loyalty.

Cross (1975:9–10, n. 25), who supports the tax receipt theory, suggests that the "*l*-men" are the owners of estates, either commercial or military officers who received

parcels of land as a reward for their services and, consequently, also received the income from that land. The "non-*l*-men" are their tenants or servants who are attached to a single estate and who deliver the produce as payments of tax made by their owners. It is possible that copies of these tax receipts were given to the owners as proof of payment so that, in cases where the name of a "non-*l*-man" is omitted regarding the delivery of one or two jars, it is to be assumed that "the receipt is proof enough of his full delivery" (Cross 1975:10). Another scholar who agrees that the ostraca are tax receipts is Kaufman (1982:237). He suggests that, since the ostraca were recorded on carefully broken sherds, not on whole jars, and since they were documented in the city of Samaria and not at the place of origin of the commodity, they cannot be regarded as "directives for delivery".

Consequently, they must be records of commodities received as some form of tax from the owners of the estates, the "*l*-men". As Kaufman (1982:237) notes, "this tax went toward the maintenance of high living in the royal palace of Jeroboam II, whose reign was noted for lavish use of wine and cosmetic oil". I would venture to suggest that, if the ostraca were intended as tax receipts, the *lamed* could well have referred to the owner of the goods as the sender, as Yadin (1959:185) asserts and as Cross (1975:10) implies, and the "non-*l*-man" was merely the person who delivered the goods on behalf of the owner to the crown. If, however, the ostraca were intended as shipments for delivery to the owners via the royal storehouse, I disagree with Cross (1975:10) since the recording of the delivery could well have originated at the royal storehouse. On the other hand, if no delivery note accompanied the goods from their point of origin to the storehouse, this allows for the possibility of fraud. However, this could, to a certain extent, be circumvented if a copy of the receipt was handed to the "non-*l*-man" to take back with him.

Nevertheless, Nam (2012:123–124) is of the opinion that both the tax receipt and redistribution theories "reflect a growing centralization in northern Israel" and offers yet a third possibility for the purpose of the ostraca, a variation of both theories. He asserts that the motivation behind the ostraca was to garner political support through the redistribution of goods. The ostraca refer to old wine and fine oil, which require

extra effort and resources to produce. Since aged wine goes through multiple fermentation stages, it requires valuable storage and production facilities. Fine oil is extracted from washing the first batch of oil with water and then skimming the higher grade top layer. This top layer amounts to only a small quantity per batch and thereafter the oil is processed further for general use. Consequently, Nam (2012:124) maintains that the crown used these two specialised commodities for gifts and for building social relations. The small quantities mentioned in the ostraca may reflect this. Furthermore, the geographic distribution of the ostraca covers an area within a day's journey around the capital city, but is concentrated to the west, an area that was plagued by bandits. These commodities were, therefore, procured by the crown and redistributed to neighbouring tribal leaders to solidify political relations, a practice Nam (2012:124) refers to as "competitive feasting". Irrespective of whether the "*l-men*" were senders or recipients, Nam (2012:125) believes that the ostraca "show an inward distribution of product to the capital city of Samaria".

Other than citing a change in administration, none of the above scholars, with the exception of Shea (1985:16–18), address either the reason why the order of information on the ostraca was changed or why no commodities are mentioned in the second group of ostraca. In Group 1, the order is the date, the name of a town preceded by "from", the name of a person preceded by *lamed* and the commodity, either wine or oil. In Group 2, the order is the date, a clan name preceded by "from", the name of a person preceded by *lamed*, a second name and the name of a town, but no commodity. In Shea's opinion, the first group are to be regarded as tax receipts naming tax officials as the recipients (Shea 1985:16–17). With the exception of the place name Tetel, which appears to be attributed to two tax officials, none of the place names overlap with any tax officials, negating the idea of a disorganised tax system. According to Shea (1985:17), the pressures brought to bear on Jehoahaz by Hazael (2 Ki 13:3) necessitated extra provisions collected in the form of tax. Concerning the second group, Shea (1985:17) logically questions why no commodities are listed if this group was also supposed to be tax receipts or even shipments to owners, for that matter. Shea's proposal is that the additional second name listed takes the place of the

commodities in the first group and that these men were, therefore, the "commodities" that were sent as soldiers for Jehoash's army and the "*l*-men" were their commanding officers (Shea 1985:18). He correlates this with Jehoash's military exploits against Ben-Hadad of Damascus and Amaziah of Judah which required that the army that was decimated by Hazael during Jehoahaz's reign be replenished (Shea 1985:19). This also correlates with Dearman's opinion (Dearman 1989:346). Rainey does not recognise a co-regency between Jehoahaz and Jehoash and disregards Shea's proposals, but does not provide specific reasons, merely saying that they are "based on historical misapprehensions" (Rainey 1988:69–70).

Unfortunately, as Rainey states, "there is little hope of ever proving" (Rainey 1988:73) the precise dates and function of the Samaria Ostraca. However, despite the different theories, the ostraca, most likely, reflect the influence and/or involvement of a central authority.

The Barley Letter from Samaria

A group of eleven potsherds,[10] found by the Joint Expedition at Samaria and dated to the third quarter of the eighth century B.C.E., were also written in Palaeo-Hebrew script (Crowfoot et al. 1957:9, 24). Albright (1936:213–214), however, dates these sherds to the first half of the eighth century B.C.E., while Cross (1962:35) dates them to the last days of the city (circa 722 B.C.E.). Nine of the sherds were found at a site located outside the city (Crowfoot et al. 1957:9) referred to as an "Israelite shrine" by Sukenik (in Crowfoot et al. 1942:23-24). Another one was found in an Israelite stratum against the southern outer casemate wall at the site and the last one on the northern side of the site in a disturbed context (Crowfoot et al. 1957:9).

One of the sherds found at the shrine is a fragment from the rim of a shallow bowl, which was inscribed after the vessel had broken and is, therefore, an ostracon (Birnbaum 1957:11, 25). Approximately two-thirds of the ostracon remain, containing

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[10]   Birnbaum (1957:24) explains that an ostracon is a fragment from a broken vessel that is used for writing; however, when an inscription is made on a vessel while it is still whole, any fragments of this vessel that contain writing are not referred to as ostraca.

three lines of writing, each line written by a different person (Albright 1936:211; Birnbaum 1957:11). This inscription, which has become known as the Barley Letter (Figure 2), appears to be an order to, possibly, a slave, instructing him to hand thirteen measures of barley to the bearer of the ostracon. It has been translated by Albright (1936:212) as follows:

1. (O) Baruch, greet[ings] !

2. (O) Baruch, now pay attention and [give X son of]

3. Imnah barley, 13 (measures).

Figure 2: The Barley Letter (Rollston 2010:73, Fig. 3.23)

Ostraca from Tell Qasîle

An ostracon from Tell Qasîle in Philistia (No. 1) which reads "For the King one thousand and one hundred (log of) oil... Ḥiyahu" is written in the cursive Hebrew script of the eighth century B.C.E. (Maisler 1950-51:208). Maisler proposes that the ostracon could be an invoice for a quantity of oil sent by Ḥiyahu, who may have been an inspector at the harbour of Tell Qasîle, from the king's storehouse to one of the coastal towns in Phoenicia or Egypt (Maisler 1950-51:209). A second ostracon (No. 2) from the same period records the delivery of 30 *sheqels* of Ophir gold to Beth Horon: "Gold of Ophir to Beth Horon... thirty sheqels" (Maisler 1950-51:210).
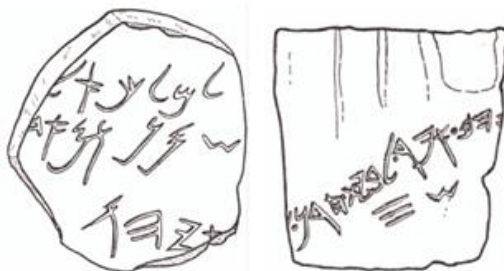
Figure 3: Ostraca from Tell Qasîle: left – No. 1, right – No. 2 (Maisler 1950-51:204, Figs. 13b and 13f.)

CONCLUSION

Table 2: Collation of epigraphic material (Cornelius 2015:213)

Period	Site	Script	Date	Personal or place name(s)[11]	Unit	Item(s)	Qty	Total	Issue (I)/ Receipt (R)/ Record (r)
				Tenth-eighth centuries BC *Ostraca*					
10th BC	Arad (76)	Hebrew	-	√	*ḥeḳat*	grain	√	-	?
	Arad (79)	Hebrew	-	√	*bath*	-	√	-	?
9th BC	Arad (67)	Hebrew	-	√	-	-	√	-	?
	Arad (72)	Hebrew	-	√	-	-	√	-	?
8th BC	Arad (60)	Hebrew	-	√	*ḥeḳat*	grain	√	-	I (?)
	Arad (42)	Hebrew	-	√	*lethech*	-	-	-	R
	Arad (49)	Hebrew	-	√	-	-	√	-	offerings for temple (?)
	Samaria (9th and 10th)	Hebrew	Regnal years	√	*nebel*	oil, wine	√	-	R

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[11] The names could refer either to the receiver or issuer of the commodities.

Period	Site	Script	Date	Personal or place name(s)[11]	Unit	Item(s)	Qty	Total	Issue (I)/ Receipt (R)/ Record (r)
	Samaria (15th)	Hebrew	Regnal years	√	-	men (?)	-	-	R
	Barley Letter	Hebrew	-	√	-	barley	√	-	I
	Tell Qasîle	Hebrew	-	√	-	oil	√	-	I
	Tell Qasîle	Hebrew	-	√	*sheqels*	gold	√	-	I

During the tenth to seventh centuries B.C.E. in Palestine, evidence for accounting processes are reflected mainly in the Arad Ostraca from Judah and the Samaria Ostraca from Israel. Both groups reflect the influence of centralised administrations even, as in the case of Arad, in centres located far from the capital, Jerusalem. Since throughout this period Arad was a Judaean military fortress with a temple and storehouses, while Samaria was established as the capital of the northern kingdom from the time of the division of the Monarchy, the ostraca reveal the need of the central authorities to maintain control of issues and receipts from and to the royal storehouses as well as to retain control of its subjects.

It appears that only ostraca were used to record information during this period. No dates were recorded on any of the Arad Ostraca from this period; however, names and quantities appear on all of them. These comprise either issues or receipts of grain and, possibly, other unknown commodities. One of the ostraca (No. 49) may have concerned offerings for the temple at the site. Taking into consideration that throughout this period, a fortress and storehouses were located at Arad (Aharoni 1981:122–123) and despite bearing only the minimum amount of information, the ostraca reflect a practice of recording transactions of goods being received and redistributed to individuals.

With one or two exceptions, all the Samaria Ostraca bear the regnal years of a king. If, as Franklin (2004:196; 2008:51) states, the Ostraca House was built during Building Period II, which she attributes, at least partly, to Jehu, the rest of this

building period must be attributed to those following him, which would be any one of Jehoahaz, Jehoash and/or Jeroboam II. Since Kaufman (1982:231) has determined that the ostraca are older than the building and have been dated by him to the second quarter of the eighth century B.C.E., this must then imply that the Ostraca House must have been built, at the very least, during the latter part of Jeroboam's reign, in other words, after year fifteen of his reign. This also allows sufficient time for the modifications to be made to the building and for its destruction in 722/721 B.C.E. (Kaufman 1982:232). Rainey (1988:69–71) and Aharoni's (1968a:323–324) suggestion to attribute the ostraca to Jehoash/Jeroboam is not improbable since the building could still have been constructed during Jeroboam's reign and remodelled at a later stage. Dating the ostraca to the time of Jehoahaz or to Jehoahaz/Jehoash would suggest that the construction and modifications of the building could also have been carried out before its destruction. The final answer, however, must be left to the experts for further consideration or must await possible additional information. Nevertheless, other information found on the ostraca are names and quantities of old wine and fine oil that were received by the royal storehouses at Samaria; however, only the ostraca from years nine and ten record the commodities, which leaves Shea's (1985:18) suggestion open for consideration. Irrespective of the intended use for these commodities, the ostraca record the necessary information for accounting purposes, such as what was received, when and how much was received and from whom it was received. As Crowfoot et al. (1957:9) state, it is possible that these ostraca were merely temporary records to be summarised on another document at a later stage.

The three remaining ostraca from this period, the Barley Letter, found near a shrine located outside the city of Samaria, and two ostraca from Tell Qasîle, located on the Phoenician coast, do not bear any dates, but do contain information regarding what and how much was issued and to whom.

The above discussion shows that specific information was selected. In many cases, not all the information is legible or it is absent. This can be due to a number of factors: only fragmented pieces have been preserved; time and environmental factors have reduced the legibility of the writing; and the amount of information recorded was

deemed at the time to be sufficient for the immediate purpose since the authors of these documents would not have thought of their importance for the far distant future. The recording of amounts or quantities can also be observed on the various artefacts; the majority contain quantities issued, received or counted. The information selected was recorded for others to read and, as already mentioned, it was most likely sufficient for the purpose a specific artefact was to serve. It is, however, more difficult to determine whether the last component of the definition of accounting has been achieved, namely, to give account or to report on the information. Unfortunately, there is no archaeological evidence to provide an answer. The opinions of Reisner et al. (1924:231–232) and Rainey (1979:91) regarding the Samaria Ostraca can also be applied to the other evidence, namely, that the ostraca could have been temporary notes that were meant to be summarised at a later stage on papyrus, which is not as conducive to preservation as clay.

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