"Tracing the Biblical Accounting Register. Terminology and the Signification of Quantity"

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No economy can grow in scope and complexity unless adequate accounting methods are developed to record its activity, and to communicate accurate information about the extent of its wealth. *The Economist* of April 26, 2003 contains a special report entitled “The future of accounts” (pp. 61-63), which discusses “the crisis in accounting” in the United States, and what is being proposed to correct for the loss of faith in current procedures. Alongside those who merely seek to fix what is wrong in the current system are others who propose more pervasive change:

Looking further into the future, however, some see the crisis in accounting as an opportunity to change the *shape* and *content* of accounts more fundamentally (page 61; italics mine).

The report goes on to say that present-day economies, on a global scale, have become too complex for the existing accounting systems, which seem unable to record with clarity and accuracy such factors as revenue recognition, market value, the reliability of estimates, and the like. When this happens, new forms and methods must be put in place so as to manage further economic development.

The generative role of written accounts in antiquity was succinctly analyzed by C.C. Lamberg-Karlovsky (1999), in a study of some of the earliest Mesopotamian household economies, showing how the utilization of accounts contributed to urban growth, both economic and political. Long before the invention of writing, as a matter of fact, the use of figurative seals had made extended communication and recording possible. Over the millennia, the great economies of the ancient Near East, those of Egypt, Syria and Mesopotamia, produced myriads of administrative records and fiscal accounts, and even the smaller societies of the West-Semitic sphere, operative during the Late Bronze and Iron Age, left financial records that are highly informative.

In a broader sense, information about ancient economies can be retrieved across generic lines, not only from records specifically fashioned for this purpose. One can glean such information from epics and chronicles, treaties and law codes, and rituals and narratives. To do so makes it necessary, however, to perfect proper methods for evaluating the realism of such sources, so as to correct for ideological *Tendenz* and imaginative depiction. Thus it is that we can approach biblical texts, as an example, with economic questions in mind, if we have reliable methods to distinguish between history and tradition. An excellent paradigm is the study of Ezekiel’s oracles against Tyre and Sidon (Ezekiel 26-28) by Igor Diakonoff (1992), in which that scholar verifies, in historical terms, that the Phoenician city-states traded in the very commodities enumerated in the biblical prophecies during the contemporary period. In the same vein, my former student, Martin Corral (2002), inspired in large measure by Diakonoff’s example, accomplished an informative doctoral dissertation, in which he elucidates the economic
background of these same prophecies of Ezekiel. For my own part, I have investigated the economic aspects of land tenure and urbanism in biblical Israel, endeavoring to evaluate the realism of the biblical references (Levine 1996, 1999). In the present study it is my purpose to explore biblical accounting terminology, as well as the systems of quantity signification employed in biblical reports, as we have them.

My interest in ancient accounting stems from the comparative study of biblical cult and ritual, directing my attention to Near Eastern temple records and economic texts, which often tabulate allocations for cultic use. This interest was first expressed in a study of the priestly Tabernacle texts of the Pentateuch (Levine 1965), and has since informed much of my work. It should be borne in mind that there are virtually no original records in the Hebrew Bible; all have been adapted in some degree to narrative style, making it necessary to visualize what their original form might have been. The challenge is to establish a correlation between biblical terminology and formats, and those employed in epigraphic texts discovered in archeological excavations. Because the extent of Hebrew epigraphy is so limited, and because inscriptive materials in the most proximate Canaanite languages of the biblical period are also scarce, it becomes necessary to reach out to comparative sources, principally to Aramaic and Phoenician-Punic epigraphy, but also to a wider range of western sources in several languages and scripts. My ultimate objective is to identify the “register” of adapted biblical accounting texts, and their constituent formulas. In a recent study of Egyptian writing systems, my colleague, Ogden Goelet, defined “register” as follows:

Register is a term used to describe the variety of language employed according to such social factors as class and context. For example, the way in which people speak and write in academic discourse, in religious contexts, or in legal documents are all considerably different from each other and different from how those same individuals might speak in their daily lives. Each situation represents a different register (Goelet 2003: 4).

In earlier studies, I have been able to trace some biblical cultic terminology back to the royal administration. Thus, the term יָםָן “regular, daily offering” (Exod 29: 42) essentially means “daily ration, allocation” (2 Kings 25: 29), specifically, what royal captives of the Babylonian king received. The cult of the First Temple of Jerusalem was sponsored by the royal establishment, and the same was true in northern Israel, and the Second temple served as the central administrative agency in the post-exilic period, under Persian imperial rule. It should be no surprise, therefore, coming from the other direction, to find that most biblical accounting terms, and numeration sequences are concentrated in courtly and priestly texts. This is their “register.”

Selected Biblical Accounting Terms
Note: The list of terms to follow will not include numbers and fractions, or weights and measures, both of which are of importance in comprehending biblical accounting procedures. The reader is referred to two recent, and informative entries in the *Anchor Bible Dictionary* (1992): “Numbers and Counting” by Joran Friberg (4: 1139-1146), and “Weights and Measures” by Marvin A Powell (6: 897-908). These articles provide extensive bibliography, and are comparative in scope.

1) 'abhūz ( = 'āhūz) “(amount/unit) withheld” (Num 31:30, 47; 1 Chron 24:6). The Hebrew verb 'āhūz means “to hold, take hold” so that the Qal passive participle, 'āhūz would mean “held, taken,” hence, in context: “held apart, withheld.” 1 Chron 24:6 yields a clear meaning, even though the Massoretic text probably reflects a scribal error. This reference comes within a register of priestly “divisions,” and the listing of their respective assignments. Thus, we read: בָּאָרָם אֶל אֶלֶּה רִכְּשֵׁהוּ אֶל אֶלְּדָּם אֲחֹרָם אֲלֵהוּ אֲחֹרָם אֲלֵהוּ אֲחֹרָם אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲלֵהוּ אֲл Relevant passage: “And they do not keep an accounting of the men ( לְאֵל הַשְׁוָא הָאֲשָׁרִים ), through whom they remit the
silver to be paid to the craftsmen, for these perform under terms of trust” (2 Kings 12:16). For the rest, we have only the 3rd masculine singular, in the inverted perfect, occurring in priestly laws governing land tenure. Thus, Lev 25: 27: “He shall compute the years since its sale.” Or, Lev 27: 18: “The priest shall compute for him the silver according to the years remaining.” The term occurs three times in Koheleth (7:25, 27, 9:10), where it seems to mean “a reasoned calculation.” In his search for wisdom and meaning, the Sage arrives at such awareness in steps: “One by one to arrive at a reasoned calculation (אחת השיב tienes, לאתו-LengthNIC) - Koh 7:27). In Post-biblical Hebrew usage, the term was taken to mean “account, calculation” (Kasovsky 1957, 2: 737-738), and Pi’el forms continued to be used with the same Biblical Hebrew connotation. Later dialects of Aramaic also attest nominal forms. Thus, the term ḫsbn occurs in the great Tariff from Palmyra, line 155 (=PAT 1259= C3913), and see ibid., Glossary, 369, s.v. ḫsb v., and ḫsn, and DNWSJ 411, s.v. ḫbın. In the same Tariff, line 53 we read: mk’s dy qaḥ’ ḫy ḫy ḫb lnmtḫsbw “The tax on butchers must be computed in dinars” The form lnmtḫsbw represents the Ithpa’al, a reflex of the Pi’el. Also note the form ḫbw “account, calculation” in Jewish Babylonian Aramaic (DJB 443). The term occurs in an Aramaic signature to a Greek legal document from the Babatha archive at Nahal Hever:

χρηματισμός ἐν τοις πληρωμαῖς τῶν ἀρχών τῆς ἐλίτ

“That I have received from PN on account; a deposit of silver (in the amount of) 300 dinars” (Greenfield 1989:141, s.v. no. 17, line 41).

Important evidence also comes from Arabic sources, which attest the title, or office known as ḫsb, plural ḥsbım “accountant, treasurer; the exchequer.” (PhPD 277-278, s.v. MIṢ). Thus KAI 160 lists various officials associated with the sodality, including: ḥsb “the treasurer/accountant of the sodality (apud PhPD 277, and cf. ibid, 476, s.v. S’T). More specifically, the plural ḥsbım (cf. Latin quaestores), taken as a collective, can designate the exchequer, the agency that imposes fines, and collects taxes.” The legend on some Carthaginian coins from Sicily attests this title.

3) כ (kāl) “total.” The technical meaning is restricted to contexts in which quantities are tallied, and where it would be insufficient merely to translate “all, all of.” Our attention is directed, therefore, to the very types of biblical texts that give evidence of having been adapted from records. We may compare Sumerian šu.nigin, Akkadian napḫarru, Ugaritic tgmr (DUL 2003: 861-862), all of which mean “total.” Clear examples of this technical sense include the following: (a) The absolute form כ כל (kāl):[a] Jos 21: 39: “Total: twelve cities.” [a'] 2 Sam 23:39: “Total: thirty seven” (following the list of David’s elite warriors). [b] 2 Chron 26:12: “Total number of the heads of the patrilineal (households), of elite warriors: two thousand and six hundred.” (b) The construct form כ כל (kāl): [b'] Gen 46:22: “Total of persons: fourteen.” (cf. Gen 46:26-27, Exod 1:5). [b''] Num 2:9: כ absolute LengthNIC: Total of the musters of the Judahite encampment: 186,400,
by their divisions.” Numbers 7, the record of the Tabernacle dedication, attests both the absolute and construct forms. Also note the total: one hundred thirty and nine,” concluding a list of personnel (Ezra 2:42, and see below, “The Signification of Quantity”).

4) "mekes" (סמס) “customs, tax rate” (Num 31: 37-41); cf. feminine סמסה (±mikshah) “quota, calculated amount” (Exod 12:4, Lev 27:23). In the war narrative of Numbers 31, this term refers to the rate of taxation to be applied to spoils of war, so as to determine what percentage of the spoils was to go to the priests and Levites (see above, no.1, 38). On the precise meaning of the feminine form, סמסה in Lev 27:23, see below, no.8, under סמסה. In Exod 12:5, סמסה is best translated “to reckon, keep an account” in Lev 27:23. The priest was to calculate the value of the field depending on how many years remained until the Jubilee. Punic attests a likely cognate, MKS (= mūkēs?) “customs official.” (PhPD: 281, s.v. MKS II). Akkadian attests mākisu “tax collector” (CAD M I:129-130), and verbal makāsu “to collect a tax, a share” (CAD M I: 127-128), and the term miksu “tax, share of the yield” (CAD M II: 63-65). Of considerable interest is the fact that Aramaic also attests the term סמס in two actual accounts, one a brief record from Saqqara, dated 416 B.C.E. (TAD III, C 11), and the other from Elephantine (TAD III, C 28), an extensive record pieced together from many fragments, and dated to the 3rd century B.C.E.

TAD III, C11 contains two headings: סמס על יד בנה (line 1), and: סמס על יד בנה (line 8). One entry under the latter heading reads: סמס על יד בנה (X) (line 8). A second reads: סמס על יד בנה (line 10). TAD III, C28, records several types of transactions, including sales of wine and wheat, and deposits of various sorts. Column 4 (consisting of lines 47-50) is not entirely comprehensible; it lists quantities of unidentified items in the house of a person named Yashib, and “in our house,” as well as סמס על יד בנה, presumably “objects of bronze,” and then in line 50 we read:

4) “This year, (owed) in tax: karš 8, shekels 4.”

The most elaborate Aramaic source relating to the term mks is the great Tariff from Palmyra (PAT 0259= C3913), variously preserved in Greek and Palmyrene Aramaic. The Tariff is dated 147 C.E. and was written on stone slabs. It was issued by the council (Greek boulē, Aramaic bw’l’), and provides us not only with a Greek equivalent for Aramaic mks, namely, telos, but with composite terminology, including: nmws’ dy mks’ “the law of taxation” (col.II, line 1), the formulas mks’ gby “the tax shall be levied” (col. II, line 14), mks’ lyb’ “liable for tax, owes tax” (col.II, line 146, and cf. the negative: mks’ l’ lyb’ “not liable for tax.”), and more. The determined plural, mksy’ “taxes” is also attested (col.II, line 194), and the nomen agentis, participial mks (=mākēs) “tax collector.”
It is clear that Aramaic *mks* derives from Akkadian *miksu* (Kaufman *ALA* 72), but the question remains as to the derivation of Hebrew *mekes*, fem. *mikšah*. In our view, the priestly Torah texts in which these terms occur exclusively are post-exilic, and date from the Achemenid period, which dating, if correct, would suggest that this terminology may have entered Hebrew via Aramaic, not directly from Akkadian. In any event, the term *mekes* is connected to the Aramaic accounting system, evidence its frequent occurrence in later Aramaic dialects. Note the rare occurrence of feminine *mekes* in a Hebrew tenancy agreement from Murabba’at, originally edited by J. Milik in *DJD* II, 1961, 122-134; Yardeni 2000, 107, s.v. Mur 24, col. VI, line 11).

5) מַרְבִּית (= *marbit*), also: מִרְבָּה (= *tarbit*) “interest, increment” Lev 25: 36-37, Ezek 18:8, *et passim*; Prov 28:8). All attested forms derive from the Common Semitic root *r-b-3rd* – weak - *rabû* in Akkadian, *r-b-y* (secondarily Hebrew *r-b-h*) in West-Semitic. “to grow, increase.” The primary law in Lev 25:36-37 pertains to indebtedness incurred by a fellow Israelite, in which case it is forbidden to charge interest, or to take a ‘bite,” (Hebrew *nāḥ*). More specifically, the term *mekes* applies to foodstuffs that are supplied to one in need, in which case no increment could be demanded in repayment (see Levine 1989: 178, s.v. Lev 25:36). The formula is: *mekes* נִתְנָה מַרְבִּית “to give out with interest.” In a sort of “Holiness Code,” presented as a wisdom mashal, Ezekiel 18 includes among the virtues of the righteous person the avoidance of *mekes* נִתְנָה מַרְבִּית (Ezek 18:8), whereas the proverbial, wicked son is guilty of this very offense (Ezek 18:13). Finally, Prov 28:8 cautions the greedy that their unjust gain will ultimately be lost to a truly generous person: “He who aggrandizes his wealth by ‘bite’ and interest (בֵּן־שֶׁךָ נִתְנָה מַרְבִּית), will have amassed it to (the benefit of) one who is gracious to the needy.”

The Aramaic cognate מַרְבִּית is well-attested in Aramaic loan documents from Elephantine (*DNWSI*: 690, s.v. *mrby*, and *TAD* II, xxxiv, Glossary. s.v. *mrby*). In no. 9, below, it is explained that this term contrasts with זו (“capital, principal sum.” In Elephantine Aramaic we find the formula: נִתְנָה מַרְבִּית “to give out (=to lend) with interest,” parallel with the Hebrew - נִתְנָה מַרְבִּית (Lev 25: 37, cf. *TAD* II, B3.1, lines 2-3). In another loan document from Elephantine (*TAD* IV, D2.18, lines 1-2), we read that the obligation of paying interest was considered part of the overall debt, so that one’s heirs inherited the interest obligation as well as the principal. The same terminology is evident in Judaean Desert documents from the 1st and 2nd centuries C.E. Late Hebrew and Aramaic attest the form מְרַבִּית “interest.” Thus, in a Nabatean-Aramaic debenture, Papyrus Yadin 1, line 19, we read: מְרַבִּית וְיָשַׁלָּם מִן הַמְּרָבִּית “And the mortgage on these properties, and its interest” (*JDS* III: 178, and cf. in *JPA* and *JBA* (*JDA* 513; s.v. מְרַבִּית). In the COMMENTARY to Papyrus Yadin 1 (*JDS* III: 192-193, s.v. lines 16-18) the specialized sense of the verb *r-by*, namely, “to accrue as interest” is explained against the background of the Elephantine Aramaic material. We may add that this provides the most direct link to Akkadian usage of the cognate verb.
rabû “to grow, increase.” CAD R: 43-44, under rabû A, meaning 4, cites many sources, from various periods, where this verb refers specifically to the accrual of interest. Also see Y.Muffs 1969; reprint 2003: 185 for a discussion of the functional equivalence of the Aramaic and Akkadian formulas. Thus, Akkadian KU.BABBAB ina muḫḫiṯa i-raḇ-bi = Aramaic “The silver of - will accrue (as interest) against me / to my debit” (cf. TAD II, B4.2, line 2).

6) Aramaic npq̱în = nipq̱ōtā’ “expenditure, costs; what was paid out” (Ezra 6:4,8), literally “what goes out,” from the Aramaic verb n-p-q. This term has a long and full history in the Official Aramaic of Elephantine (DNWSI 743-744, s.v. npq̱în). It is also attested at Palmyra, in the masculine plural npqyn. The most recent Nabatean evidence comes from Nahal Hever, in P. Yadin 1, line 40: “וכו דברי תשמיש: “And any return or expenditure (or: “any ‘scattering’ or expenditure)” See JDS III: 198-199, where there is reference to Arabic nafaqatun “expense, maintenance” at Hirbet Mird. Also see DJPA 3 358.

7) שך, in hā‘ūdēp (= hā‘ūdēp) “which is in excess; surplus.” (Exod 16: 23, 26:12-13, Lev 25:27, Num 3:46, 48-49, Hiph’il נפֹׁקָר “to exceed” in Exod 16:18). Biblical Hebrew usage refers to excess of number and quantity, namely “surplus,” which is our interest here, and also to measurements, such as greater length. The provisions of Lev 25:27 may be explained as follows: All sales of ancestral land were functionally equivalent to long-term leases, which would terminate at the next, scheduled Jubilee year. One who wished to redeem land he had sold under stress was obliged to compute (the Pi‘el ḫiššēḇ; see no. 2, above) the value of the crop years since its sale, “and pay (only) the excess (אָדוּדֶה עַד-עָבֹד) to the one to whom he had sold it.” In other words, the redeemer of the land could deduct for the years that the purchaser had already benefited from his purchase, and didn’t have to pay the entire purchase price to get his land back. Numbers 3 ordains that the tribe of Levi is to be devoted to Tabernacle service in payment to the God of Israel for having spared the firstborn of the Israelites in Egypt. A census indicated, however, that there were 273 more firstborn Israelites than there were adult, male Levites, so that five shekels a head, totaling 1,365 shekels, had to be collected from the firstborn of Israel and remitted to Aaron, the priest. Those 273 firstborn are referred to as העדים על הלויים “who were in excess of the Levites” (Num 3:46). We also find formulas such as העדים על הלויים “the redemption payments of those among them who were in excess” (Num 3:48), and העדים על הלויים “those in excess of the redemption payments of the Levites” (Num 3:49). Imagine an account like the following:

Total firstborn males among the Israelites:

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>(one month of age and over)</td>
<td>22,273</td>
</tr>
<tr>
<td>Subtract total males among the Levites</td>
<td>20,000</td>
</tr>
<tr>
<td>“those in excess:”</td>
<td>273</td>
</tr>
<tr>
<td>“redemption payments”</td>
<td></td>
</tr>
<tr>
<td>(at 5 shekels a head X 273)</td>
<td>1,365 shekels</td>
</tr>
</tbody>
</table>
Comparative evidence on the root ‘-d-p is elusive. All we have are later Hebrew and Jewish Aramaic forms based on this root, and a very rare, though often cited Arabic cognate, *gadafa* “to be profuse” (Lane 2232). Later Hebrew preserves interesting connotations reflecting the theme of abundance, profusion and surplus, but I have not found usage as an accounting term until quite late (Ben-Yehudah, *Thesaurus V*: 4343–4346; and see *DJB A* 846, s.v. שדפה). The origin of the Biblical Hebrew forms remains unknown.

8) (‘erek) “assessed value, equivalent” (Lev 27:3, et passim; 2 Kings 12:5; cf. the bound form דרכון, and verbal Hiph’îl תִּשְׂרַךְ “to assess, assign a value.” It is probable that all meanings share a semantic field, and derive from a common root ‘-r-k “to set up, arrange.” Specialization would account for the connotations “to fix a value, to assess; to offer (as a sacrifice); to array (for battle),” and more. Forms of this root are attested in Ugaritic (*DUL* 182-183), in Classical Hebrew and Phoenician-Punic, but only rarely in Aramaic (*HALAT* 837-838, *DNWSI* 887-888). Speiser (1960: 30-33) explained the suffixed דרכון, literally “your assessed value” as a bound form, on the analogy of תaversable “your coming, as you arrive” hence: “as far as, all the way to” (Gen 10:19, 1 Kings 18:46, etc.). He also notes Akkadian mimma šumšu “whatever be its name,” which can be declined as mimmušunšu –ya “my ‘what’s its name,” namely, “anything of mine.” One may add (if the Massoretic text is accepted) the Hebrew תִּשְׂרַךְ הָעֶשֶׂרֶךְ “the thigh-section and the ‘what’s on it,’” namely: “its covering” (1 Sam 9:24). Once bound, the form דרכון can be determined, yielding: תִּשְׂרַךְ הָעֶשֶׂרֶךְ “the ‘your value,” hence: “your value,” and it can also be prefixed: בְּדַרְכָּן “in/according to the value” (Lev 5: 15, 18), and the like.

This terminology is discussed briefly in my Leviticus commentary (Levine 1989: 30-31, s.v. Lev 5:15, and *ibid.*, 192-200, on Leviticus 27). For the most part, the context pertains to the votary system of biblical Israel. It was customary, as an act of piety, for Israelites to devote their established value (דרון) to the Temple, a value scaled according to age and gender. They also donated animals and property to the Temple, whose values were fixed by the priesthood for this purpose. In most cases, the Temple wanted cash, so that the donors would pay the Temple the value of what they had donated, with a surcharge added, according to the laws of Leviticus, and thereby “redeem” it. This system is outlined in detail in Leviticus 27. In several instances, one guilty of certain offenses was required to bring a sacrificial offering, with the option of paying for the animal “according to the fixed value” (דרון) in silver shekels (Lev 5:15-26).

Technical usage of the verb ‘-r-k and related forms with the meaning “to assess” is not limited to priestly texts; it was part of the administrative vocabulary. Pertaining to the votive system we read in 2 Kings 12: 5: “All of the silver brought into the House of YHWH, in silver currency, as sacred donations, the silver of each person’s ‘life equivalent’ (אש מנו תִּשְׂרַךְ דָּוִד), all silver that a person may be minded to bring to the House of YHWH.” In 2 Kings 23: 35 we read that Jehoiakim, after having been installed by Pharaoh Neco “made an
assessment on the land (כִּיסֶא אֵל-אָדָם),” and that “he exacted from the people of
the land the silver and gold to be paid Pharaoh Neco, according to each man’s
assessment (כִּיסֶא עָנָי).”

There is additional West-Semitic evidence bearing on forms of the root ‘-r-k.
We will begin with Ugaritic usage, citing KTU 4.728, lines 1-3: ‘rk b’l. ṭḥb dt. l ytm. šmn “Prepared account of citizens of HLB (Aleppo?) who did not deliver oil” (DUL 182, s.v. ‘rk I, n.m.). Although this source does not attest the specific
meaning “value, equivalent” for the term ‘rk, its occurrence in and list of persons
who have not met required deliveries makes it relevant to the biblical term under
discussion. Later Punic evidence demonstrates the survival of the old West –
Semitic vocabulary, but it is relatively sparse, and at times difficult to interpret
confidently. In a Neo-Punic statuary inscription from Tripoli in North Africa,
dated to the early 1st century B.C.E., we read: “The senate and the entire nation of
Lepcis mutually resolved to pay back to that gentleman, to Aderbal, for his
contributions at the expense of the city, in accordance with the full valuation
(דָּלָי שָׁנָו) of [the statue <that Aderbal made>, as is] incumbent upon them”
(KAI 119, lines 4-6, apud PhPD 387). Under a separate entry, Krahnkalkov (PhPD
387) lists the feminine form ‘RKT which he renders “bureau of public works,
following a suggestion by M. Dahood that ‘רֶכֶס means “building.” An alternative
interpretation, followed by others (cf. DNWSI 888, s.v. ‘rkh) would take the form
רֶכֶס to mean: “bureau of assessment.” One Phoenician and two Punic sources
attest this form. Thus, RSF 7 (1979), no. 48, col. I, lines 1-2 (from Nebi Yunis):
“This is the Molk-offering table that the bureau of assessment (רֶכֶס)… devoted
and presented to their lord, Esmun.” A Punic text from Malta (KAI 62, lines 1-4),
dated to the 2nd century B.C.E., reads as follows: “The people of Gaulos rebuilt
these three sanctuaries during the time of the chief of the bureau of assessment
[Latih Censor], PN son of PN.” Finally, KAI 130, lines 5-6, also from Tripoli, tentatively dated 180 C.E. reads: “The bureau of assessment in
charge of the ports (רֶכֶס עַל הַמֹּסְמִים) made four of the benches with (funds
derived from) fines.”

In summary, the specialized meaning of ‘-r-k “to assess,” and related nominal
forms, belong to the West-Semitic vocabulary, not specifically to the Aramaic
vocabulary, as is true of many of the accounting terms examined here. Biblical
terminology is utilized extensively in Rabbinic Hebrew sources, where legislation
governing priestly activity is a major concern, and even rarely in JBA and in
Syriac (DIBA 881, s.v. 1# שָׂם, LS² 548) for the same reason.

9) שָׂם (= rō’î) “capital, principal, original amount” (Lev 5: 24, Num 5:7). Biblical
usage is limited to two priestly Torah texts (in Rabbinic Hebrew “head” is
replaced by “horn,” Hebrew שָׂם). Operative verbs are Pi’el “to pay out,
repay,” and Pi’el “to make restitution.” Thus Lev 5:24, speaking of one who had
taken a false oath regarding the misappropriation of assets: “And he shall repay it
equal to the amount of its principal (שָׂם אֵל-אָדָם), adding to it one fifth of the
amount.” Or, Num 5:7, speaking of one who misappropriated sancta: “And he must
make restitution for his liability equal to the amount of its principal (שָׂם אֵל-אָדָם).
In 1911, the Assyriologist, Arthur Ungnad, first noted the equivalent connotation of the Akkadian term *qaggadu* “head, principal sum” (*CAD Q*: 109-111, under meaning 6). The correspondence of Akkadian and West-Semitic usage is quite remarkable; in both, “principal” is contrasted with “interest,” *šibtu* in Akkadian, and the accompanying verbs in Akkadian also mean “to pay, repay” (*apâlu, mullû, and the like*).

There is considerable comparative evidence from Aramaic sources, where similarly means “principal, capital,” and *marbuta* means “interest” (cf. no. 5, above) Quite possibly, the biblical usage of Hebrew to mean “principal” is Aramaistic. Thus, in an Aramaic loan document from: Elephantine (5th century B.C.E.) we read, regarding the compounding of interest:

Egyptian, *marbuta* is written יִרְבַּה מִרְבּוֹטָא לִרְשָׁא יָרָבֵב מִרְבּוֹטָא לִרְשָׁא דָּרֵ超额 + מַצְמֵת מִרְבּוֹטָא לִרְשָׁא יָרָבֵב מִרְבּוֹטָא לִרְשָׁא דָּרֵ巨大

“Should the interest reach the (amount) of the principal, the interest (on the interest) shall increase at the same rate as the (interest on the) principal” (*TAD* II: 54, B3.1, lines 6-7, and see above, no. 5, for additional references). A similar clause appears in a broken loan document, *TAD* II, B4, lines 4-5:

Egyptian, *marbuta* is written יִרְבַּה מִרְבּוֹטָא לִרְשָׁא יָרָבֵב מִרְבּוֹטָא לִרְשָׁא דָּרֵ巨大

“And any month in which I do not pay you interest, it shall become principal, and shall accrue (as interest), and I will pay it to you month by month.”

In a business letter from Elephantine (3rd century B.C.E.), we read: יִרְבַּה מִרְבּוֹטָא לִרְשָׁא יָרָבֵב מִרְבּוֹטָא לִרְשָׁא דָּרֵ巨大

”I completed payment covering the principal sums of the real property” (*TAD* IV: 36, D1.17, line 5 = Cowley 82). The same formula, יִרְבַּה מִרְבּוֹטָא לִרְשָׁא יָרָבֵב מִרְבּוֹטָא לִרְשָׁא דָּרֵ巨大. “the principal sum of the real property” occurs in a later Nabatean-Aramaic legal document from Nahal Hever, Papyrus Yadin 1, line 15, dated ca. 103 C.E., (*JDS* III:178). In a deed of pledge from Wadi Daliyeh (late 4th century B.C.E.) we read: יִרְבַּה מִרְבּוֹטָא לִרְשָׁא יָרָבֵב מִרְבּוֹטָא לִרְשָׁא דָּרֵ巨大

”It shall be weighed out as the principal amount of silver; shekel, 1” (*DJD* XXVIII: 98, s.v. *WDSP* 10:7 [text broken]).

The term לתכון נוח (תכון נוח) “weighted, measured currency; convertible wealth” (Nah 2:10; [for different nuances see Ezek 43:11, Job 23:3], and cf. נachable נוחה “the weighted silver” in 2 Kings 12:12). The term has been studied in depth by J.C. Greenfield (2001: 258-262, and literature cited), and we may review his findings in the context of biblical accounting terminology, adding some considerations of our own. Speaking of the flooding of Nineveh at the time of its siege, the prophet declares:

Mother silver! Plunder gold! Plunder silver! Plunder gold! There is no limit to the ready currency (התכון נוח); It is a weighty (hoard) of every precious object! (Nah 2:10).

The etymology of התכון נוח, a term also occurring in Aramaic legal documents from Elephantine (see further) warrants clarification. Ultimately, this form may go back to *k-w-n* “to stand;” more immediately, it derives from a probable secondary root *t-k-n* “to contain; to measure, weigh.” In Isa 40:12, the Pi’el התכון נוח is parallel with
mūdād “to measure,” and in Ezek 43:10 they measure the “plan” of the Temple. Other forms exhibit related meanings (HALAT: 1596-1597, s.v. "mūdād"). The form is one of many Tau-preformatives in Hebrew and Aramaic (cf. "mūdād" (no. 9, below), and literally means: “that which has been weighed, measured.” Functionally, it compares with mas ʿār leḥem “silver transferable to/ current with merchants” (Gen 23: 16), namely, in a form that merchants will accept, such as ingots, or weighted coins. In fact, earlier in the same account, in 2 Kings 12:5, we find the designation mas ʿār “silver currency” (see above, no. 7, s.v. "mūdād").

In 2 Kings 12:12, the form mas ʿār (= motukkām) is denominative of mas ʿār, namely: “made into weighted units.” As noted by Greenfield, the parallel passage recording payments to craftsmen in 2 Kings 22:4 reads: “Go up to Hilkiahu, the chief priest, and let him melt down (read: wēyāṭēk) the silver that has been brought into the Temple of YHWH.” Once the silver had been converted into ingots, or weighted coins, it was dispensed as payment to the craftsmen. Applying this to the statement in 2 Kings 12:12, we read, with Greenfield and others: wāyyisrū “they cast,” namely, they cast the silver that had been collected from the people.

The term mas ʿār occurs in two Aramaic legal documents from Elephantine (TAD II, B2.6, and B3.8) in both the absolute and the determined form (mas ʿār). Pace Greenfield, there is no reason to regard it as a Hebraism. It is more likely a common Hebrew-Aramaic term, which actually draws our attention to Aramaic accounting terminology. TAD II, B2.6 and B3.8 are both contracts of marriage, wherein the items of dowry “brought in” by the wife include: mas ʿār: “weighted coins/ingots of silver,” followed by the specification of value as karš and ḫallur, both measures of weight, along with shekels. This silver was in addition to clothing and other commodities made of cloth, as well as bronze objects.

In summary, both the biblical and the Elephantine contexts pertain to accounting. In renovating the Temple in Jerusalem, funds had to be provided in negotiable form to pay the craftsmen. In fact, 2 Kings 12:16, 22:7 both employ the key verb hāsēb “to reckon, keep an account” (see above, no.2). In the Elephantine marriage contracts the value of the “cash” contributed by the bride is designated “tukānāḥ of silver.” Greenfield directs the reader to important sources of information on methods of casting and minting weighted coins in the Achemenid period, and refers to hoards of such coins and ingots from all over the ancient Near East (Greenfield 2001, notes 13, 16).

11) = tomūrāḥ “item of exchange” (Lev 27: 10, et passim). The form with Tau-preformative connotes the result of the Hiphʿil תמייר “to exchange, replace” (for cultic usage, cf. Lev 27: 10, 33, Ezek 48:14), namely, that which was exchanged. This term is widely used in Rabbinic sources, in laws dealing with cultic materiel. The underlying verb, Hebrew m-w-r, may be cognate with rare NB māru “to buy,” which, in context, functionally connotes “to barter, exchange” (CAD M I, 317, s.v. "māru").
māru), and is listed as an Aramaic loanword. Although it is attested in Syriac (LS² 377, s.v. mr), it is not a typical, Aramaic word.

The above accounting terms, when studied in comparative perspective, indicate that procedures operative in ancient Israel were representative of a West-Semitic system, especially evident in Aramaic and Phoenician-Punic records.

The Signification of Quantity

Accounts register quantities with cardinal numbers (and fractions), sequenced in different ways. Certain languages employ dual forms to register two of an item. In the ancient Near East, as in other systems, ancient and more recent, we find two, primary sequences: (1) quantity + item [Example: “five (5) cows”], and (2) item + quantity. [Example: “cows – five (5)”]. A second factor is the type of numeral employed in a given record. In ancient Near Eastern records we find two, primary types: (1) ideographic numerals, in which case what is written signifies a certain number [Example: “1,” “2,” “3”], (2) non-ideographic, or word numerals, in which case what is written spells out the word for that number [Example: “one”, “two”, “three”]. There are variations on these primary categories, representing specific formats. For example, in certain types of administrative lists numerals may not function as direct modifiers of nouns, but merely to record quantities, or totals of commodities, personnel, and the like, that have been identified in the title of the record. In other words, instead of registering: “Personal Name – cows, 5,” the record will be look something like the following:

Archers:
Place Name A – 5,
Place Name B – 6
Place Name C – 7, etc

It needs to be said that of the two features under discussion, sequence is more significant than the type of numeral used. Whereas it is possible that unrelated cultures would have independently fixed certain forms as ideographic numerals (as for example, a single, vertical marking to signify “1”), the preference for identifying the person, place, or item first, and then the quantity, reflects a discrete perception, or disposition, and may even demarcate between one Kulturkreis and another, as will be seen. And yet, there is a close correlation between the utilization of ideographic numerals and the sequence “item + quantity,” so that the two features are best considered together.

Anticipating the discussion to follow, we can say that in the cuneiform writing system (with the exception of the Ugaritic alphabetic cuneiform), “quantity” precedes “item” in accounting records; in other words, the numeral comes before the noun. In contrast, accounts and administrative records from the Aegean and Eastern Mediterranean, both alphabetic (Ugaritic, Hebrew, Aramaic, Phoenician-Punic) and ideographic-syllabic (Linear A and B) also exhibit the sequence “item + quantity,” variously utilizing both word numerals, and ideographic numerals of various shapes.

a) The sequence “item + quantity” in biblical records.
In manuscripts of the Hebrew Bible there are no ideographic numerals, but it may be that some, or all biblical records which employ the rather abnormal sequence “item + quantity” were modeled after accounts that registered ideographic numerals. The Ugaritic evidence suggests, however, that word numerals might have been employed originally in such records, because there we find exact examples of this pattern (see just below, and under “The Signification of Quantity,” c) In any event, as regards sequence, it is more normal in the Hebrew Bible to find quantity preceding item, meaning that the numeral comes before the noun. This sequence can be formulated in two ways: a) with a word numeral in the construct: שבעה בכר, literally: “seven of sheep” (Lev 23:18); b) with a word numeral in the absolute: שבעה בכר, “seven sheep” (Num 28:27). When item precedes quantity, however, only the word numeral in the absolute is employed, as we would expect.

It is precisely in texts which exhibit the features of accounts, or records that we find the sequence “item + quantity” most often. To illustrate, let us begin with Joshua 12, which preserves a list of thirty-one kings of Canaanite city-states conquered by the Israelites.

מלך יריחו, אחד; מלך חזיר, אחד
מלך ירושלם, אחד;ملך חברון, אחד
כל מלכי ש診ים, אחד

King of Jericho one; King of the Ai, which is near Bethel one
King of Jerusalem one; King of Hebron one, etc.

Total of kings: thirty and one (Jos 12: 9-24, with omissions)

In this record, the numerals do not serve as direct modifiers of nouns, but merely to register quantities. Otherwise, this list, as it is formatted in printed Bibles, is probably the least adapted of all biblical records, once we get past its title, which is part of the introductory narrative (Jos 12: 7-8). Another example of the sequence “item + quantity” is to be found in the report of the donations of the tribal chieftains (Hebrew נושאים) at the dedication of the wilderness Tabernacle. (Num 7: 12-88). We find repetitive entries that are formulated as follows

золבות השלמים:
בשר-בקר
אילים-משה
תורדים-
כוכבים-משה

For the sacred gifts of greeting:

oxen - two
rams - five
he-goats - five
yearling lambs- five

Here we have word numerals being utilized as direct modifiers of nouns. Still another example is Ezra 1:9-11, a list of Temple appurtenances returned to the Judean Premier, Sheshbazzar, by Cyrus pursuant to his edict:

Following is their quantity (ואלה מספרין):
- golden sashes - thirty
- silver sashes - one thousand
- suits of clothes - nine and twenty (תשע ועשרים)
- golden bowls - thirty
- silver bowls (of various types) - four hundred and ten
- other vessels - one thousand

Total of vessels (לכ-כלים) of gold and silver: five thousand four hundred [incorrect]

Additional examples of biblical records and accounts employing the sequence “item + quantity” are to be found embedded in the festival calendar of Numbers 28-29; in the genealogies of Genesis 46; in the town lists of Joshua 15, 18, 19; and 21; and in many of the genealogies of I and II Chronicles.

2) The sequence “item + quantity” in 1st millennium West-Semitic epigraphy:
We can identify near-contemporary models of the type of texts we are positing as the Vorlage of the above biblical reports. The closest in time and place are Hebrew ostraca, such as those found at Lachish, and at Arad in the Negev, largely dating from the end of the 7th to the early 6th centuries B.C.E. As an example, we take Arad ostraca no.1, written in Paleo-Hebrew script. It is a brief letter to one in charge at Arad, instructing him to provide foreign mercenaries from Kition, on Cyprus, with wine and flour. We provide a hand copy, taken from the editio princeps by Yohanan Aharoni (1975: 12), and his transcription into the customary Hebrew script, followed by our English translation. (Figure 1)

Translation of Arad, no.1:
(1) To Eliashib: And (2) now then: Provide the Kittim (3) wine; bat 1, [hin] 3, and (4) register the date. (5) And from the remainder of the flour (6) of first grade you shall (7) mix hōmer 1 of flour (8) to make for them (9) bread. From the wine (10) in bowls you shall provide.

Notes: For our purposes, it is most relevant to take note of the markings used as ideographic numerals. In fact, the Arad ostraca attest two, different sets of ideographic numerals, one West-Semitic and the other Hieratic. We are concerned only with the West-Semitic markings. In line 3, we have the acronym ב , for Hebrew: ב ( = bat), a liquid measure containing approximately 22 liters. The horizontal marking following the letter ב signifies the numeral “1”, of course, and
we assume, from similar designations in other ostraca, that the three following markings, signifying the number “3,” refer to the Hebrew liquid measure הֵין, of which six constituted one פַּסָּה. Hence: “wine, bat [hin] 3,” as translated. In line 7, the first marking is usually taken as an ideograph representing הָוֵמְר, or קַר, a measure containing approximately 220 liters, avoirdupois. On the markings, themselves, see. J. Naveh (1992).

Most importantly, in this ostracon item precedes quantity, although this is not consistently the case in the Hebrew ostraca from Lachish and Arad. Furthermore, there is an observable flexibility in sequence. Thus, in line 7, we do not find: “flour, הָוֵמְר 1,” which would be entirely consistent with the formulation of line 2, but rather: “הָוֵמְר 1 of flour.” And yet, we do not find “1 הָוֵמְר of flour!”

The same markings are employed in Aramaic ostraca from Arad, dating from the Persian period, edited by Joseph Naveh (Aharoni 1975:196), which leads us directly to the Aramaic papyri from Elephantine, dating to the 5th century B.C.E., where one likewise encounters the sequence “item + quantity” (see further). We begin with a brief example, merely to show graphically how this type of record appears. TAD IV, D3.26 dates from ca. 400 B.C.E., and is an inventory of some sort. The papyrus is fragmentary, but the three lines that are preserved should suffice as illustration. It preserves a partial list of boards, or planks, with their length, width and thickness specified. We provide Ada Yardeni’s hand copy, with the transcription given in TAD IV:101, accompanied by our translation (Figure 2).

Translation:

(2) Inside: a [board]: cubits 12; width: cubit 1; thickness: handbreadths 4.
(3) Inside, another board: cubits 9, and a half; width: cubit 1; thickness: handbreadth[
(4) Another board: cubits 5; width: cu[bit 1 + handbreadth] 1; thickness: handbreadth[

Notes: The noun פַּסָּה is common West-Semitic, and has a variety of meanings. The rendering “board” is only conjectural. In line 2, the word for “thickness” is most likely written with a resh, and is to be read פַּסָּה (=consonantal dwrh = dûrha) (DNWSI 243-244). The word for handbreadth, גֶּשֶם, is cognate with Akkadian pušku (DNWSI 946). In line 2, we have in addition to the usual markings for 1, a marking for 10, so that “12” is registered as “10 + 2.”

By far, the most elaborate example of the “item + quantity” sequence is the so-called “Ahiqar Palimpsest” from Elephantine (TAD III: 82-193; C3.7) discovered and ingeniously restored by Ada Yardeni. It is an extensive customs record, dated ca. 475 B.C.E., and composed of numerous columns. I have selected several lines from a relatively well-preserved section (DV 2, TAD III: 186, lines 1-6). These are provided with Ada Yardeni’s hand drawings, with the given transcription, and our translation. The bracketed restorations in the transcription are fairly certain, being based on recurring, conventional entries (Figure 3).
Translation

1) The [duty] accrued as surplus in year 10,
2) Over and above the duty that accrued in year 11:
3) Gold: karš 1, š (=šqâlîn) 9, ūr (=ţallûr) 1, r (=rûbâ‘în) 2.
4) Silver: karšîn 100 + 40 + 10 + 2, š 9.
5) Ionian wine: bowls 100 + 20 + 9 and a half.
6) Sidonian wine: jugs 100 + 40 + 10, etc.

Notes: The acronym “quarter,” a fraction. Two types of containers are mentioned: (1) sappîn (= Hebrew כוס “bowls,” and (kaddîm “jars, jugs.” It has been observed that utilization of the same vessels for particular commodities is not consistent. The sequence “item + quantity,” using ideographic numerals persisted in Aramaic records long after the Achemenid period. It occurs in the great Tariff from Palmyra, to which reference has already been made.

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It also bears mention that some of the same ideographic markings for numerals are to be found in Phoenician-Punic records of the Achemenid period, and thereafter, where we also encounter the sequence “item + quantity.” Thus, in the famous tariffs from Marseille, dated ca. 4th century B.C.E., we find entries such as the following: "For the priests: shekel 1, zar 2, for each one " (CIS 1, 165, line 7; Cooke 1903: 112);

3) Early western evidence bearing on the sequence “item + quantity.”

Whereas the sequence “quantity + item” is a standard feature of cuneiform records, our search for the origins of the sequence “item + quantity” takes us to the Aegean and Eastern Mediterranean of the Middle-to-Late Bronze Age in, first to Linear A, the ideographic- syllabic script of the Minoan language of Crete (ca. 1660-1450 B.C.E.); then to Linear B, the proto-Greek ideographic-syllabic script of Mycenae (ca. 1450-1200 B.C.E.); and finally, to Ugaritic of the Syrian coastal region (ca. 1400-1200 B.C.E.), with its particular kind of alphabetic cuneiform.

Michael Ventris and John Chadwick (1956) deciphered the Linear B script and decoded its language, and they have analyzed script development in the Cretan languages, generally. They conclude that the system of numeral markings used in Linear B is the same as that of Linear A, only more developed (Ventris-Chadwick 1956: 53). What is more, the sequence “item + quantity” in the Cretan scripts harks back to the earlier Cretan “hieroglyphs,” such as those of the tablet from Phaistos (see the hand copy in Ventris-Chadwick 1956: 30). This sequence is also evident in Egyptian hieroglyphic writing (Gardiner 1957: 192, s.v. no. 261). Whatever the putative influence of Egyptian models on the Minoan scripts, it is clear that the sequence “item + quantity” is a western convention, which contrasts
with the eastern, cuneiform convention of registering quantity first, followed by item.

To be specific: C.H. Gordon (1966: 26-27, and Plate VIII) cites two Minoan inscriptions from Hagia Triada (nos. 88 and 122) that exhibit markings signifying numerals. There are verticals for single digits, and horizontals for “10.” In no. 88, we find a list of six personal names, each followed. By the vertical marking for “1”, followed by a total, which Gordon reads: \textit{ku-ro} 6 “Total: 6,” shown as: 2 rows of three verticals, one on top of the other. (Figure 4). Gordon associates Minoan \textit{ku-ro} with Hebrew \textit{ב לש}, “total,” and actually cites Jos 12: 24, as well as determined \textit{ם א} “the total” in Ezra 2:42 (see discussion above, and under “Selected Biblical Accounting Terms,” no.3). The Linear A material is sparse and difficult to decipher with certainty, whereas we possess a sizable corpus of economic and administrative texts, including lists of ritual offerings, in the proto-Greek of Linear B. The consistent pattern is “item + quantity,” indicated by an ideographic numeral. The Linear B accounting system is actually quite sophisticated, and it exhibits ideographic numerals to signify large quantities, weights, and volumes. (Ventris-Chadwick 1956: 53-60). On the primary level, the sequence in Linear B is “item + quantity:” “MAN 1, OXEN 6,” not: “1 MAN, etc. To cite a simple example, we reproduce the transcription of no.206 = Gg705 (D 1), appearing in Ventris-Chadwick 1957b: 310, with our translation: It records a ritual offering.

1) \textit{a-mi-ni-so / e-re-u-ti-ja} ME+RI AMPHORA 1
2) \textit{pa-si-te-o-i} ME+RI AMPHORA 1
3) \textit{ke-ne} ME+RI AMPHORA 1

Translation:

1) Amnisos: To Eleuthia – honey, jar 1
2) To all the gods- honey, jar 1
3) [ broken] – honey, jar 1

Notes: The Linear B script is ideographic-syllabic. Amnisos is a known site near Heraklion, and Eleuthia is the name of a goddess. Vocabulary: \textit{me-ri} = Greek \textit{meli} “honey;” and \textit{pa-si-te-o-i} = Greek \textit{pansi theoi’i} “to all the gods,” a frequent formula of address in the ritual tablets (see Ventris-Chadwick 1957b:303, note ‘P’).

Now, to contemporary Ugarit, where we encounter a particular kind of alphabetic cuneiform used to write a West-Semitic language. The signification of quantity is complex in economic documents, where three systems are in evidence: (1) Quantity + item, using a word numeral. Example: \textit{KTU}^2 4.63, line 34: \textit{tt. qśm w. tn . ql̄m} “six archers and two slingers.” This sequence predominates in Ugaritic, and parallels the normal conventions of Biblical Hebrew. (2) Item + quantity, using a word numeral. It appears that this sequence is not attested in Ugaritic where the numeral serves as a direct modifier of the noun, but only for registering quantity. Example: \textit{KTU}^2 4: 48, lines 1-4, in a list of towns either
receiving or delivering wine, as the list’s total indicates. The units of content are not given.

1) ḥlb ‘prm. ut

Place Name A - six

2) ḥlb qrd. ṭn, ʿšr

Place Name B - twelve

3) qmy arba’. ʿšr

Place Name C - fourteen

4) šq’ arba’ ʿšr

Place Name D - fourteen

(3) Item + quantity, using an ideographic numeral. This sequence is also limited to registering quantity in Ugaritic, but is more frequent than the utilization of word numerals for this type of record. Example: KTU 4: 93, entitled: spr ytnm “a record of cultic servitors,” listing the names of those who received rations of wine, as the total indicates. Once again, the units of content are not given. Lines 2-.5 read:

2) bn ḥlbym 2 Son of A 2

3) bn. ady. 2 Son of B 2

4) bn. ʿtry 2 Son of C 2

5) bn ḥržn 2 Son of D 2

To summarize the comparative evidence: We observe in certain biblical records signs of a system of quantity signification known in the Aegean and Eastern Mediterranean since early times, and which is most evident in Aramaic accounting during the Achemenid period and thereafter.

Summary

We have attempted to investigate aspects of the accounting system of biblical Israel in West-Semitic perspective by focusing on specific features: terminology, and the signification of quantity. It turns out that biblical terminology is thoroughly realistic, and that accounting terms as well as formulas used to signify quantity fit in well with what is known from West-Semitic and other non-Semitic, western languages, such as Mycenean Linear B. The accounting terminology connects most closely with records in Aramaic and Phoenician-Punic, as does the sequence “item + quantity.” Most immediately, this sequence is evident in contemporary Hebrew epigraphy. With respect to sequencing, we observe a cultural divide. In cuneiform cultures, one apparently wanted to know quantity first, whereas in the western sphere, one wanted to identify the item first. It’s a contrast between “What?” and “How many/much?” This is not a script-specific distinction. It is not determined by the direction of writing or the type of script employed, nor is it driven by the syntactic character of any particular language, or language family. All we can say is that it is a distinction expressive of a difference in mentality, perhaps of a different perspective on the organization and presentation of data.
Figures:

Fig. 1
Arad Ostracon no. 1
(From Aharoni 1975:12 Transcription and hand-copy)

Fig. 2
Fragment of an Aramaic Papyrus from Elephantine, dated ca. 400 B.C.E.
(From TAD IV: 101. Transcription and hand-copy)
Fig. 3
From the “Ahiqar Palimpsest” dated ca. 475 B.C.E.
(From TAD III:186)
Fig. 4
A Linear A inscription
(From Gordon 1966, no. 88, Plate VIII)
Reference Bibliography


CAD = The Assyrian Dictionary, *University of Chicago.*

CIS = Corpus Inscriptionum Semiticarum


DJD = Discoveries in the Judaean Desert, Oxford University Press


*JBA* = Jewish Babylonian Aramaic


*JPA* = Jewish Palestinian Aramaic


*RSF* = Rivista di Studi Fenici


