

pp. 48-49, the action and the implements must have differed to some extent; a rotary quern can be adjusted to grind either finely or coarsely, but the rotary quern was not used in Mesopotamia until Seleucid or Parthian times.

It is not clear how Salonen arrives at the distinction on pp. 101-102 between tweezers for plucking hairs and those for pulling thorns out of the feet. Neither does he give a reference for the functional distinction between water-skins with the hair outside and skins for alcoholic drinks with the hair inside (p. 162); none of the terms listed refers to this feature.

The great number of terms for wooden boxes and for baskets shows the archaeologist how much he has missed—and what, in the Mesopotamian climate, he will probably never find.

On pp. 253-54 Salonen gives reasons for supposing that the *šādūf* was not used in Assyria, and that it went out of use beginning at least in the Old Babylonian period; I have referred above to its depiction on a relief of Sennacherib.

In the section on measuring instruments, Salonen suggests the interpretation "reckoning board" for several words. If such objects actually existed, it seems likely that parts of them might eventually be found; although the words are written with the determinative *GIŠ*, abacus-like instruments might have clay beads, while boards with diagrams on them might have been imitated in clay. Such objects are things that archaeologists might be on the lookout for.

Salonen is mistaken in stating, on p. 279, that no parts of scales have been found; in Starr, *Nuzi*, Pl. 142, F, 1-2; Haines, *Nippur*, I, Pl. 153, 3; and Woolley, *UE*, 9, p. 131 are published objects identified as scale pans. It is interesting to find what are probably weather cocks listed on pp. 294-95.

The criticisms made above should not be taken as an attempt to deny the value of the book as a whole. The lexical listings are of the greatest value to the archaeologist and student of physical culture, as giving a picture of aspects of Mesopotamian culture that have not been, and in some cases never will be, thoroughly investigated on the basis of the artifacts. Specialist studies are necessary to reach dependable conclusions about specific areas of technology, but a careful compilation of the lexical material is an important preliminary step, and in this respect Salonen has here made another valuable contribution to our knowledge of the physical culture of ancient Mesopotamia.

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Semitistica, Ricerche IV). Pp. 164. Napoli: ISTITUTO ORIENTALE DE NAPOLI, 1968.

An insightful study on the determinative pronouns, this book provides significant contributions to the syntax of the Semitic pronoun in general. Central to the author's analysis is the distinction between *autonomous* vs. *non-autonomous* pronouns (summarized graphically in a chart on p. 70). The autonomous pronouns include the deictic (personal and demonstrative) and the "quantitative" pronouns (i.e. pronouns for "someone," "none," etc.); they are autonomous in that "even without a qualification they do not lose their particular meaning, and very often they correspond directly to the lexical notions for which they act as substitutes (pro-nouns)" (p. 64). The non-autonomous pronouns, on the other hand, "require the presence of a complementary element, either a complement of specification or a relative clause. [Thus they are] void of a true semantic meaning, and simply serve as nuclei of analytic expressions of nominal character" (p. 65). In other words, the correct approach to a proper understanding of these pronouns is not from a *semantic* point of view (as has normally been the case in traditional Semitic grammar) but rather from a *syntactic* one. The correct term for these non-autonomous pronouns is "determinative pronouns," first introduced by Ungnad in 1904, and since then at home only in Akkadian and Ugaritic grammars, while the grammars of other Semitic languages have been using inaccurate terms such as "relative pronouns" taken from the grammar of European languages.

The first and longest chapter (pp. 1-54) contains a survey of the data, i.e. it lists the usages of the pronouns as *notae genitivi* (NG) occurring as *d* and *š* in the various Semitic languages. Four categories are distinguished:

- (1) the NG occurs between the regens and the rectum, e.g. (Akkadian) *bēl ḫubullim ša mutiša* "the creditor [that] of her husband";
- (2) same as the preceding, except that the rectum is preceded by a preposition, e.g. (Imperial Aramaic) *zr^c zy lh* "theseed that of him" = "his descendants";
- (3) the NG and the rectum precede the regens, e.g. (Akkadian) *ša re²i u nāqidi ... uz ēšun* "of the shepherd and herdsman their ears" = "the ears of the shepherd and herdsman";
- (4) there is no regens, e.g. (Akkadian) *ša ilim* "that of god."

To this scheme it may be observed that (2) is merely a subtype of (1), with the preposition used to express the genitive in languages lacking a morphological marker for the genitive case. Hence types (1) and (2) could be subsumed under the same category and called "normal sequence," while (3) would correspond to an "inverted sequence" and (4) to an occurrence in "isolation."

The main thesis, outlined at the beginning of this review, is contained in chapter II (pp. 55-70).

The following three chapters develop certain corollaries implicit in the main thesis, the most important being in chapter III (pp. 71-93). Here the author analyzes the relationship between the prepositive article and the determinative pronoun in *d*. First he notes that the genitival usage of the determinative pronoun (types 1-3) is incompatible with the prepositive article, and is in fact not attested in languages which exhibit the latter: the reason is that both particles have an identical determinative function. He then studies in detail the parallel usages of determinative pronoun and prepositive article (to pp. 78-9 one may add Akkadian *ša lām abūbi* "the one before the Flood" Gilgamesh I i 6, as parallel to Hebrew *vš-he-ālēhā* "and the one upon it"), and concludes (pp. 82-93) with five different phenomena of "renouvellement" of the earlier syntactical system of the determinative pronouns in languages which began to admit the prepositive article. (Hence this section is very interesting for the question of the origin of the article.)

Chapter IV (pp. 95-103) argues in favor of an interpretation of pronouns in *m* and ²*ay* as non-autonomous, and similarly chapter V (pp. 105-45) with respect to the Arabic pronouns *man mā* and ²*ayyūn*.

In terms of transformational grammar, the author deals essentially with surface, rather than deep-structure. In my view, this reduces the potentiality of the author's inquiry, for reasons similar to those adduced by C. G. Killean in her review of M. Piamenta, *Studies in the Syntax of Palestinian Arabic*, in *JAOS* 89 (1969) pp. 458-60. The limitations of a non-transformational approach are particularly visible because Pennacchietti emphasizes the importance of syntax vs. semantics. Thus the whole usage of the genitive becomes much more meaningful from a syntactical point of view if described in terms of nominalization transformations—a point which cannot be elaborated here, but which I have tried to elucidate, for Akkadian, in a grammar of Babylonian which I am preparing at present for publication. However, this does not invalidate the results obtained by Pennacchietti, since a transformational approach would not run counter, but rather help to develop in a more powerful manner the original and stimulating insights contained in his book.

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Nairi e Ir(u)atri. Contributo alla storia della Formazione del regno di Urartu. By MIRJO SALVINI. (Incunabula Graeca, Vol. XVI), Pp. 111, Pls. VIII. Roma: EDIZIONI DELL'ATENEO, 1967. Lire 3,000.

Looking at a map of the Near East, it is almost with

disbelief that one realizes that Tušpa, the capital of Urartu on the shores of Lake Van, is only about 130 miles as the crow flies from Nineveh, i.e. about *half* the distance between Nineveh and Babylon. Urartu was, in other words, by far the closest to Assyria of all the powerful foreign countries. No wonder, then, that Urartu should play a considerable role in the accounts of Assyrian wars. In fact, the entire reconstruction of Urartian history leans heavily on Assyrian sources—and so does, too, the present book by Salvini on the origins of Assyria's powerful neighbors. After an introduction with a short history of the problem, the author first discusses the sources (chapters I-III) and then gives a historical reconstruction of the alternating fortunes of the two main regions of Urartu, i.e. Nairi and Uruatri (= Urartu proper in later times) from the 13th to the 9th century (chapters IV-VII). An appendix discusses the localization of Ḫabḫi, which the author places immediately north of Assyria and south of Lake Van. (Another geographical area the localization of which is discussed at some length throughout the book is Tumme, i.e. *Tum-me* instead of the traditional reading *Num-me* or *Nim-me*, which is placed south of Lake Urmia = Rezayeh, pp. 2., 49, 54-58, 75.) Very useful are the four maps which depict the ethno-political geography of the region at various points during the period considered in the book. Indexes of names and sources conclude the book.

Basic to the author's position is the distinction between Nairi and Uruatri as two separate and autonomous entities during the period from the 13th to the 9th century, wherein he differs from the conception held by other scholars (e.g. Meyer, Schmökel, Beran, see especially pp. 6, 64) who consider Uruatri as a portion of Nairi. Nairi is located west of Lake Van, Uruatri or, in its later form, Urartu proper is in the area of Lake Van itself. The geographical extension and the political fortunes of the two regions vary with the times. With the beginning of the documentation in the early 13th century Uruatri is the first one to be mentioned, in the inscriptions of Shalmaneser I; but soon afterwards, Nairi appears with greater prominence in the inscriptions of Tukulti-Ninurta I, an ascendancy which was probably favored by the general demise of Ḫanigalbat around the same time. No sources are extant from the 12th century, but toward the end, under the reign of Tiglath-Pileser I, it is still Nairi which occurs prominently, whereas Uruatri is not even mentioned. The latter reappears, instead, under Aššur-bēl-kala, a successor of Tiglath-Pileser I, and this time to the exclusion of Nairi. After another period of darkness from the middle of the 11th to the end of the 10th century, both regions are mentioned again, at first as relatively unimportant entities; but it seems clear that Nairi had reached the high point of its development at the turn of the 12th century under Tiglath-Pileser I, and that from then on it was the area of Lake Van, beginning then to