

## A Botanical Snapshot of Ugarit. Trees, fruit, plants and herbs in the cuneiform texts

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μηδὲν ἄλλο φυτεύσης πρότερον δένδρεον ἀμπέλω

Alcaeus 342<sup>1</sup>

[As yet, there has been no comprehensive study of plants and trees as reflected in the texts from Ugarit. The outline of the present survey is as follows: after a short review of previous studies on this topic (§1) and a note on the significance of any findings (§2), comes a discussion of the sources (§3) and of some of the problems involved (§4). This is followed by an annotated list of trees and timber (§5), fruit (§6), plants, flowers and herbs (§7) and a list of terms in syllabic spelling only (§8). Next come an appraisal of some disputed words (§9), an explanation for an obscure word (§10) and a list of incorrectly identified terms (§11). Three sets of texts are then examined: four medical texts (§12), three difficult texts (§13) and the text relating to the composite bow (§14). Finally come tables and a brief conclusion (§15). New meanings are proposed for over 60 Ugaritic words including *uḫl*, *alz*, *irab*, *arbn*, *urn*, *arspy*, *irynd*, *iḡ*, *bbt*, *bnn*, *gml*, *grgr*, *ḫrr*, *ḫdl*, *ḫlp*, *ḫlpn*, *kbl*, *kakdy*, *kdt*, *klt*, *knkt*, *ksyn*, *kšt*, *ktkt*, *ktmn*, *ktn*, *ktkn*, *ktn*, *ktṛn*, *ldn*, *lrn*, *mḫr*, *mrnn*, *nḡt*, *pkly*, *plḡn*, *plšn*, *ppn*, *sbd*, *sbl*, *shṛ(n)*, *snb*, *šnd*, *sst*, *syn*, *šbry*, *šmt*, *tbq*, *tlḡn*, *tmy(n)*, *tran*, *trbnn*, *trdn*, *tt*, *tḫln*, *tnt*, *trdn*, *tṫy(n)*, *yman*, *yrt*, *zq*, *zrn* and also *ḫarmānu*].

### 1 Previous studies

Previous studies on plant names in Ugarit have only been selective.<sup>2</sup> In 1965, within a longer article on a range of topics, Johannes de Moor devoted a single paragraph to “Arboriculture”. Later he penned a short article on the ash-tree (1971), included a paragraph on “some fragrant herbs” in a note on lexical items (1979: 645-47) and subsequently wrote briefly on marjoram (1985).<sup>3</sup> In 1970, Robert Stieglitz wrote on one particular tree, *šmn* (“the oil-tree”) and a few years later (1979), as part of an article on prices, he dealt with lumber, plants and foodstuffs. In 1972, in his contribution to the Ras Shamra Parallels project, Jack Sasson discussed “Flora, fauna and minerals” in alphabetical sequence. Of the 124 entries, only about 34

1. Translation: “plant no tree sooner than the vine” (Campbell 1983: 34). My thanks to Robert Allan for drawing my attention to this work. Further help with references was kindly provided by Lluís Feliu, Jana Mynarova Alviero Niccacci, Juan-Pablo Vita and José-Ángel Zamora.

2. Lists of fruits, grain and trees are provided in “An English-Ugaritic Index”, prepared by H. A. Hoffner jr. in Gordon, UT, 532, 533 and 566, but there is no reference either to PNN or to TNN. For the latter, see Astour 1980.

3. See now Boda 1993: 14 for a full discussion, and see below (§ 10).

relate to trees, plants, etc., but much of the discussion is now out of date and in any case, on the whole it was very concise and restricted to words with parallels in Hebrew.<sup>4</sup> In 1980, within an article on Syrian place-names derived from names of plants, Michael Astour discussed the syllabic and alphabetic Ugaritic toponyms based on plant names.<sup>5</sup> In the context of discussing Eblaite plant and tree names, Eduardo Zurro (1983) included several references to Ugaritic. More recently, in 1990, in the course of an article on the official called Yabninu (or more correctly, Yabni-šapšu), Jacques-Claude Courtois discussed texts mentioning trees and referred to Yabninu's role in respect of agriculture and the supply of food (see below). Also in 1990, Wilfred van Soldt wrote a long article on fabrics and dyes at Ugarit, which included a discussion of various plants and their products.<sup>6</sup> He has since written more briefly on this topic in the entry "Ugarit: A Second Millennium Kingdom on the Mediterranean Coast" in *Civilizations of the Ancient Near East* (1995). Juan Belmonte (1993) wrote a short note on the plant content of KTU 1.100:64-67 (see below). Using a suggestion first made by Paolo Xella (1982), Juan-Pablo Vita (1995) re-examined the Akkadian word *maswatu*, which had been considered a type of wood (see below). In his contribution to the *Handbook of Ugaritic Studies*, under the heading "Food and agricultural products", Michael Heltzer (1999: 446-48) mentions barley, black cumin, dried figs, emmer, olive oil, raisins, wheat, etc., but without any discussion. Under the heading "Textiles and dyes" he lists "flax", and in addition there is a general reference to timber, trees and reeds. In 2000, Scott Noegel explained *tqb* in terms of Egyptian.<sup>7</sup> In the same year, José-Ángel Zamora's lengthy book on wine, the vine and related topics in Ugarit was published.<sup>8</sup> Some discussion of the terms for trees and wood in the economic text KTU 4.158 is provided by Dennis Pardee (2000a: 30-40).<sup>9</sup> In addition, he mentions an unpublished text that refers to a tree previously unattested in the Ugaritic texts (see Pardee 2002b: 177), which is discussed below. In addition, the many occurrences of plant and drug names in the hippiatric texts (KTU 1.71; 1.72; 1.85; 1.97) has led to intense discussion in the editions and analysis of these texts.<sup>10</sup> All these are only partial studies and it is evident that a full scale survey of this topic has yet to be written.

Studies in related areas include R. Campbell Thompson's *Dictionary of Assyrian Botany* (1949) as well as volume three of the Cambridge series *Bulletin on Sumerian Agriculture*, on various vegetables and shrubs, and volume six in the same series, on trees and timber in Mesopotamia.<sup>11</sup> A few years ago (in 1999) Wolfgang Röllig and Akio Tsukimoto edited some Middle Assyrian texts on herbs.<sup>12</sup> For the texts from Nuzi, Helga Schneider-Ludorff (2002) has provided a very recent study of furniture, which of course includes a discussion of the various types of wood used (with an index). For Hittite there is Harry Hoffner's delightfully illustrated *Alimenta Hethaeorum. Food Production in Asia Minor*, completed in

4. In a brief article, Jacquot (1978) discussed wood found at Ras Shamra, including (Aleppo) pine, oak and willow. Note also the section on trees in Aartun 1991.

5. Where valid, his findings are incorporated in the lists below.

6. Van Soldt (1990: 332) concluded that *pṯ(m)* refers to unspun material, i.e. flax, and that when spun, it is linen; also that *pwt*, 'dyer's madder' (1990: 347-48) is a dye extracted from a plant *tyt (tiyatu)*, "crowfoot" (1990: 348-49). Note also the section on trees in Aartun 1991.

7. I had written a similar (unpublished) article the same year.

8. See also his discussion of KTU 4.244, a document dealing with a series of vineyards (*krm*) in relation to named persons and places (Zamora 2003).

9. He also refers to the unpublished text RS 94.2276.

10. See especially Cohen - Sivan 1983; Cohen 1996; Pardee 1985 and the bibliography in Watson 2004: 255-57. For the plant names *ulpm*, *lby*, *lr*, *hrsn* and *tlb* see Watson 2003c.

11. For an overview see Powell 1999. In addition, see Ebeling's article on herbs in the *Reallexikon der Assyriologie* (1957-71). For a recent discussion of some Sumerian terms for plants see Black 2002 and Molina - Such-Gutiérrez 2004: 6 and 9-16. See also van Zeist - Bottema 1999.

12. For Alalah, see Zeeb 2001: 186-99.

1971 but not published until 1974, with a recent update by the author called “*Alimenta Revisited*” (2001).<sup>13</sup> Also, Fiorella Imparati's article “Private Life Among the Hittites”, in *Civilizations of the Ancient Near East* (1995), has a section on food and nutrition (571-86, esp. 583-84). More recently, Aygül Sül and Oğuz Soysal (2003) have edited a tablet from Ortaköy,<sup>14</sup> which is a “practical vocabulary” containing only plant names. Some of their findings have been incorporated here. And G. Frantz-Szabó (2003a) provides a survey of fruit and vegetables in Anatolia.<sup>15</sup> For Egypt a brief picture is supplied by Leslie Gallery (1978) and a very full listing is given by Gérard Charpentier (1981).<sup>16</sup> As might be expected, for Hebrew there are quite a few publications, including the entries “Flora”, by Irene and Walter Jacob, and “Perfumes and Spices” by Victor Matthews in the *Anchor Bible Dictionary* (1992), but with almost no reference to other languages. And recently, Simon Sherwin has discussed the various types of tree mentioned in Isaiah 44. In addition, the entries “The Flora and Fauna of the Ancient Near East”, by Allan Gilbert and “Vegetables in the Ancient Near Eastern Diet”, by Jane Renfrew, in *Civilizations of the Ancient Near East* as well as the entry “Wood”, by Peter Kuniholm, in *The Oxford Encyclopedia of Archaeology of the Ancient Near East* (2000) provide some general information. From an extensive bibliography on the subject<sup>17</sup> of particular importance is Alexander Sima's book (2000) on animals, plants, stones and metals in the Old South Arabian inscriptions, since it is a model of how to deal with the subject. There, each entry is set out under four headings: occurrences, lexicography, botanical data and scientific data, with particular emphasis on matching these sets of data.

Here, the vocabulary of trees, plants, flowers, etc. is discussed in respect of texts in both alphabetic and syllabic Ugaritic,<sup>18</sup> but with more emphasis on the alphabetic references, largely because there are only a few occurrences in syllabic spelling. More importantly, a distinction has been made between the references provided by the mythological texts and those in the cultic and administrative texts. References outside the mythological texts are more likely to be to botanical specimens that actually existed and either grew in the region or were imported. The same may or may not be true of references in the non-administrative texts, especially the mythological texts.

## 2 Significance

A survey of the lexical data relating to plants, trees, etc. in the Ugaritic texts is of interest not only in respect of botany but also concerns commerce, cuisine, medicine (for humans and also for animals), luxury goods, lifestyle, occupations (e.g. dyers) and even language, since several of these terms in question are loanwords. With some idea of the botanical information included in these texts we can go on to describe, even if only sketchily, the kind of vegetation (trees, etc.) that was known to the inhabitants of Ras Shamra between 1500 and 1200 BCE.

13. For the use of wine in ancient Anatolia see Laneri (2002: 31) who comments: “The grape was one of the most important and valuable agricultural products of South-East Anatolia during the late 3rd millennium B.C.E., and even more strongly in the 2nd millennium B.C.E. ... Vineyards occupied land extending throughout the region south of the Taurus Mountains”.

14. 55 km south-east of Çorum in north-central Anatolia.

15. For Hurrian see Haas - Wilhelm 1974: 88-91 and Haas - Thiel 1979: 350-52 (under §12. “Verschiedene botanische Begriffe”).

16. See also Conti 1978 (unavailable to me).

17. See, for example, Germer 1987, whose list of Egyptian plant remains includes barley, common vetch, emmer, persea, prickly juniper berries, tiger nut and *Zizyphus spina Christi*.

18. A shorter version of this paper was given in the Assyriologisch Instituut in the University of Leiden, in February 2004, at the invitation of Wilfred van Soldt. I take this opportunity to thank all those who provided hospitality in Leiden.

### 3 Sources

The main sources for vocabulary relating to botanical specimens are the medical and mythological texts, lists of personal names and place names.<sup>19</sup> There are also scattered references in the economic documents. The South Palace seems to have had the monopoly in the provision of and trade in raw material and the produce of agriculture, forestry and all kinds of plants, including wood for building, resins, perfumed oils, and medicinal and hippiatric plants. At the head of this administration, where Akkadian was the preferred language, was Yabni-šapšu (*ybn*), since at least four texts that mention his name (two alphabetic and two syllabic)<sup>20</sup> contain references to several different trees.

### 4 Problems

#### 4.1 Problems in the Ugaritic texts

Ugaritic texts are unlike Mesopotamian texts in two respects. First, there are much fewer of them, even if we include the many Akkadian texts from Ugarit. This means that there are fewer occurrences of the words in question, many of which are to be found only once. And second, but more significantly, many of the texts do not provide enough context to help us determine meanings. This applies in particular to terms for trees, wood, plants etc., since many such terms are to be found only in lists or laconic administrative documents. Very few texts specify the purpose for which wood was acquired.<sup>21</sup> An example is KTU 4.402<sup>22</sup> which runs as follows:

1-2	<i>ḥmšm dd n<sup>c</sup>r</i>	fifty <i>dd</i> -measures of tow (?);
3	<i>ḥmšm tišr</i>	fifty cypresses;
4	<i>ḥmšm ktnt</i>	fifty terebinths (?);
5	<i>ḥmš tnt alp<sup>m</sup></i>	five <i>tnt</i> -plants (?) for two thousand (shekels);
6	<i>š<sup>c</sup>rm hbn</i>	twenty ebony(-logs);
7-8	<i>tl<sup>t</sup> mat dd š<sup>c</sup>rm</i>	three hundred <i>dd</i> -measures of barley;
9	<i>mit šmn</i>	one hundred oil-trees;
10-11	<i>š<sup>c</sup>r kt<sup>t</sup> z<sup>r</sup>w</i>	ten flasks of balsam

It seems clear that the whole text refers to botanical items, as the following comments show.

19. For the Neolithic level of Ras Shamra (6500-5250 BCE) there are “Rich remains: einkorn wheat (few); emmer wheat (prevailing); free-threshing wheat (rare); hulled two-rowed barley (frequent); lentil (frequent); pea (rare) grass pea (rare) flax (rare). Wild: *olea europaea*, *Ficus carica*, and *Vitis vinifera* (all rare); numerous seeds of herbs” (Zohary - Hopf 2000: 218). Note that the principle “We can safely assume that anywhere where frankincense trees are found growing today produced frankincense in ancient times” (Groom 1981: 114) can be applied to any type of tree or plant.

20. KTU 4.91; 4.158; PRU 6, 113 and 114; cf. Courtois 1990: 120.

21. Contrast an inscription of Aššurnasirpal II, where the uses of particular trees are specified (text and translation: Wiseman 1952: 30/33, col. i lines 25-29). In addition, it is known that the Assyrian kings actively collected specimens of trees. For example, Aššurnasirpal II included the following trees in his list: cedar, cypress, box (?), pine, juniper, an oak (?), date-palm, ebony, mulberry, olive, a fruit-tree, oak, tamarisk, almond-tree, pistachio, the *murrānu*-tree (ash?), a conifer, Kaniš-oak, willow, a shrub, pomegranate, medlar (or plum)-tree, fir, a fruit tree, pear-tree, quince, fig-tree, vine, plum-tree, a spice-plant, a fruit-tree, willow, Persian lilac, aloes, a garden herb, asafoetida, etc., see Wiseman 1952: 30/33, col. i lines 39-49. For discussion of most of these trees see Postgate 1992.

22. RS 18.142 = PRU 5 no. 102. For the find-spot see van Soldt SAU, 594. The text has been studied by Stieglitz 1970.

*n<sup>c</sup>r*, “tow” (line 2), corresponds to Hebrew *n<sup>ec</sup>oret*, “what is combed off flax, tow” (HALOT, 708a).<sup>23</sup> Another possibility is that it denotes a plant, Akk. *nuḥurtum*, a variety of asafetida (CDA, 257). While comparison with Akk. *nuḥurtum*, a medicinal plant, suits the context, it remains philologically difficult (cf. Ribichini - Xella 1985: 53, n. 73). Another possible equivalent, perhaps, is Akk. *nēru*, denoting a tree (AHw, 780b). The meaning “papyrus”, Akk. *niāru*, *ni/ayāru* (cf. AHw, 784b; CDA, 251; CAD N/2, 200-201), possibly a loan from Eg. *n-i3rw*, “of the reeds” (Millard 2003: 351), seems excluded because of the /<sup>c</sup>/ in the Ugaritic word.<sup>24</sup> See Astour 1980: 5.

■ *ktnt*, “terebinth” (line 4).<sup>25</sup> The presence of clothes (since *ktn* means “tunic”) in a list of trees, plants and the like is strange. Instead, it can be suggested that here it may be a completely different word, meaning “terebinth” or “pistachio”, if it corresponds to Linear B *ki-ta-no*, *Pistacia terebinthus* L.<sup>26</sup> Alternatively, it may correspond to Akk. (LB) *kadānu*, “(a rush-like plant)” (CDA, 140), although listed neither in AHw nor in CAD. While the equivalence of Ug. /t/ to Akk. /d/ is very unusual, it cannot be ruled out, as shown by Ug. *snnt* (“swallow”) and the corresponding variant Akk. form *sinundu*.<sup>27</sup> Another possibility is Phoen. and Aram. *ktn*, “flax” (cf. DNWSI, 547-48).

■ *tnt*, “an aromatic plant” (line 5): cf. Akk. (MA) *šanātu*, “(a plant with an aromatic essence)” (CAD Š/1, 370); *šanā/ātu*, “eine ölhaltige Duftpflanze für Parfüms” (AHw, 1162b); “oil-bearing aromatic plant” (CDA, 355). Note the high price (400 shekels per plant).

*š<sup>c</sup>rm*, “barley” (line 8), is discussed below.

*šmn*, “oil-tree” (line 9), is also discussed below.<sup>28</sup>

*zrw*, “balsam” (line 11): “There can be no doubt that *zu-ur-wa*, a gloss to DUG *riq-qu* «pot of aromatics» in the Amarna letter EA 48:8 is the Canaanite cognate of Hebrew *š<sup>o</sup>ri* «balsam». In Ugaritic the word is *zrw*... Its meaning may be «balsam»” (Stol 1979: 53).<sup>29</sup>

#### 4.2 Problems in identification

Even a cursory reading of books and articles on botany in the ancient world shows how difficult it is to identify with any precision the botanical equivalent of a specific term (see Sima 2000: 5-6). Etymology or similarity of name is often not much help, particularly when the same word has several different spellings. For example, the word for “pomegranate” is spelled *lurmū*, *lurimā’u*, *lurinnu*, *lurīnu*, *lurindu*, *larindu*, *lurimtu*, *nurmū*, *nurumu* and *nurimdu*, in Akkadian,<sup>30</sup> *lrmn* in Ugaritic, *rimmōn* in Hebrew, *rummān* in Arabic and *rōmān* in Ethiopic.<sup>31</sup> It also occurs in Hittite as *nurati*, in Hurrian as *nuranti* and as a loanword in Egyptian,<sup>32</sup> and would appear to be of non-Semitic origin.<sup>33</sup>

23. As proposed by Dahood (1965: 17, 66) and tentatively accepted by Ribichini - Xella (1985: 53). The Hebrew word is also defined as “coarse, flammable fibres of flax after removal from the woody part by pounding or stripping” (DCH 5, 713b *n<sup>c</sup>r* III “to strip”, but with no reference to Ugaritic). Heltzer (1978: 54, n. 48) notes that Ug. *n<sup>c</sup>r* “was necessary in the baking process” and Sanmartín (1989: 343-44) proposed the meaning “roasted or dry flour”, based on Akk. *naḥāru*; cf. DUL, 616.

24. Unless it was a direct loan from Akkadian. See also Pardee 2002b: 171-172, though he does not refer to the possible meaning of “tow”.

25. Words for which meanings proposed here for the first time are marked by the symbol ■.

26. For which cf. Erard-Cerceau 1990: 271, following Melena 1976: 180-83, who notes that the word *ki-ta-no* may be a form of the pre-Greek (Mycenaean) word /*kirtanos*/.

27. Note the presence of an /n/ in both cases.

28. Line 10: *kat* is a mistake for *ktt* (cf. Tropper UG, 58), plural of *kt*, “flask”.

29. See also Pardee 2000b: 794, n. 73 and Sima 2000: 269-70 (correct his second reference, 270, n. 40 to KTU 4.402/11) and HALOT, 1055.

30. It is uncertain whether Akk. *armannu*, etc. also means “pomegranate”, as suggested by Hoch 1994: 25; cf. CDA, 24a.

31. Cf. DUL, 504 and HALOT, 1241-42 for references. See also Kinnier Wilson 1988: 81.

32. It occurs in Egyptian as *inhrm3* (see Hoch 1994: 24-25 §12).

It is well-known that it is difficult to pin down the meanings of words for animals and plants in ancient languages. In addition, a meaning in one language cannot always be transferred to a similar word in another language. This in turn leads to a series of dilemmas in Ugaritic, for example is *ḥswn* “lettuce” or “garlic”? Do we have to translate *ššmn* “sesame” or “linseed”? Even *mr*, the word usually considered to mean “myrrh”, may simply mean “bitter weed”. We cannot always resolve such dilemmas even in a relatively well documented language such as Hebrew. For this reason, in the entry “Flora”, for the *Anchor Bible Dictionary*, Irene and Walter Jacob simply provide a series of alternative meanings for many of the terms. For example, the equivalents they list for Hebrew *tappûaḥ* are “apple”, “pomegranate” and even “quince”. The term *marôr*, literally, “bitter plant”, could mean “chicory”, “dandelion”, “endive”, “lettuce” or “watercress”. Similarly, Hebrew *šôšān* could be “chamomile”, the “lily”, the “narcissus”, the “sea daffodil”, “sternbergia” or the “water-lily”, and there is also the problem of whether the feminine form *šôšānnâ* has the same meaning as its masculine form. It may be a loanword from Egyptian. Not all meanings are as fluid as these, of course, and many terms are undisputed, for example words for coriander, fig-tree, olive and vine.<sup>34</sup>

In the course of this article new meanings are proposed for some forty words (for a list see the summary) and additional cognates are suggested for words with established meanings. As ever, particularly in respect of proper names, there is an element of uncertainty in many cases and some proposals are merely speculative.<sup>35</sup>

### 5 Trees and timber

The general term for “tree” or “plant” is *ʿš*, which can also mean “tree-trunk”, “log”, “wood” and more specifically, “beam” (cf. DUL, 186-87). In the expression *dm ʿšm* (KTU 1.4 iv 38 and par.), literally, “blood of vines”, i.e. “wine”, the word *ʿš* seems to mean “vine” or “vinestock”.<sup>36</sup> Note also *azmr*, “branches” (DUL, 137), *ḥlb*, “forest”,<sup>37</sup> *šrš*, “root” (DUL, 845) and *yʿr*, “woodland” (DUL, 947-48).<sup>38</sup> In order to provide some overall picture of the various kinds of trees and timber known to the people of Ugarit, several tree-names can be listed, as follows.

*adr*, “poplar tree” or *Populus euphratica* (so Postgate 1992: 179), Akk. *adaru* or *adāru*.<sup>39</sup> It occurs once in the expression *mit adrm b ʿšrt*, “one hundred poplar (poles) for ten (shekels)” (KTU 4.158:8). Pardee (2000a: 34) considers the price (ten poles per shekel) to be too low for a tree that grows in the plain as opposed to pine or cypress that grow higher up, on the mountains, but costs less (twelve per shekel). An alternative meaning, therefore, is “fibula” or “pin” for fastening clothes, probably made of metal. If it does mean “poplar”, its use at Ras Shamra is unknown.<sup>40</sup>

33. Possibly Persian; see Hoch 1994: 25, n. 46.

34. According to Biggs (2000: 9): “One of the serious problems facing students of ancient Mesopotamian medicine is the difficulty of identifying the plants whose names are found in the plant lists and in medical and ritual texts”.

35. Meanings cannot be assigned either to *mādm* or to *ydt* (KTU 4.158:19-20 and 9) although they may refer to types of wood or plant.

36. Van Soldt 1989: 651; SAU, 306; Sasson 1994. See also Ug. *gpn*, “vine, vineyard, etc.” (DUL, 304).

37. Akk. *ḥalbam*, “forest” (CDA, 102), unless it means “promontory, massif” (DUL, 390). For compounds with *ḥlb* see DUL, 390-92.

38. See also the TN ■ *tbq* (references in DUL, 887-88), which may mean “greenery” if it is equivalent to Akk. *tabāqu*, “Grünwuchs” (AHw, 1298b; cf. CDA, 392).

39. It is unlikely to be a loan from Sumerian as proposed by de Moor (1965: 362) as was pointed out to me after my lecture, since names of trees were loans in Sumerian. Cf. Postgate 1992: 179; van der Mieroop 1992: 159. Note the entry *adāru*, *aṭāru* or *atāru* in CDA, 4.

40. Used in OB texts to make furniture, doors, and spears, and in Mari to make perfumes.

- almg*, “aloe” ? (KTU 4.91:8) corresponds to Akk. *elammakk/ggu*, “wertvolles Holz” (AHw, 196b), “(a precious wood)” (CAD E, 75-76) and Heb. *'almuggîm*, *'alummîm*, “almug timber”.<sup>41</sup> Postgate (1992: 182) comments: “Our sources are not sufficient even to hint at an identification”. It seems to be a “precious wood used for furniture”, more specifically for veneer and inlaid work (Schneider-Ludorff 2002: 125 and n. 81)<sup>42</sup> and its price is unknown.
- aln*, “oak” or “oak grove” (KTU 1.12 i 20)<sup>43</sup> – the comparative evidence points to “oak”: Heb. *'allôn*, “oak” (cf. HALOT, 54);<sup>44</sup> Akk. *allānu*, “Eiche (?)” (AHw, 37); “oak” (CDA, 12) and even Hitt. *allantaru* (Hoffner 1974: 120).<sup>45</sup> “The tree *allānu* is very rare and occurs in economic texts only in the Ur III period” (CAD A/1, 355b). It has been identified as “*Quercus* sp.” (Postgate 1992: 179). The term also occurs in the syllabic texts (see DUL, 58-59).<sup>46</sup>
- urm* (PN: KTU 4.263:4), *urmn* (PN: KTU 7.42:6) and *urmy* (PN: KTU 3.10:16; 4.791:10) may perhaps be Ug. equivalents of Akk. *urūmu*, a tree of some kind that grows in the mountains (cf. AHw, 1436b; CDA, 427), as proposed by Astour (1980: 7 §59).
- *urn*, “a tree” (PN: KTU 4.90:5), cf. Akk. *urnu*, “laurel”, a West Semitic form of *erēnu* (cf. CDA, 426: “(small) cedar”).<sup>47</sup>
- arz*, “cedar” (KTU 1.4 v 10; 1.4 vi 19, 21; 1.4 vii 41), also as a PN (KTU 4.33:25; 4.63 ii 45; cf. Grøndahl PTU, 29), is the renowned cedar of Lebanon, *Cedrus libani*, Heb. *'erez*, corresponding to Akk. *erēnu*.<sup>48</sup> Its syllabic spelling is *arzu* (PRU 6, 114:3; cf. Ugaritica 5, 153 obv. 1). In the Ugaritic texts it refers to the trees of *šryu* (KTU 1.4 vi 19, etc.) and to the palace of the god Baal, built of this wood (1.4 v 10). It was also the wood used for Baal's weapon (1.4 vii 41). Cedar was intended for making the many columns of the numerous porticos embellishing the south palace of Ugarit and a few residences of worthies (Courtois 1990: 120, n. 82).<sup>49</sup>
- ušy*, “ebony(-coloured)”, occurs as a PN (KTU 4.147:12) with the syllabic spelling *ú-ši-i* (PRU 3, 167:19), i.e. Akk. *ušû*, “(a hard wood)”, possibly ebony (CDA, 429), a word attested in Ugaritic Akkadian, in PRU 3, 184:17 (“ebony seat”) and PRU 3, 184:18 (another piece of ebony furniture).<sup>50</sup> The word for “ebony” (*Dalbergia melanoxylon*) in Akkadian is *ušû*, (Postgate 1992: 185), borrowed from Sum. *esi*, “Dunkelholz” (cf. Steiner 2003: 639, 641). Evidently, ebony was used to make furniture. This is the Semitic word, whereas *hbn*, the other Ugaritic word for ebony, was borrowed from Egyptian.
- lby*, “Zizyphus-tree” (PN: KTU 4.277:6), may correspond to OSA (Sabaeen) *l̄b*, “Zizyphus-tree” (on which cf. Sima 2000: 187-88). Zizyphus Mill., Zizyphus Adans. or Zizyphus spina-Christi, is an evergreen that grows to twelve metres in height “with an oval crown and leathery gray-green leaves”, it has yellow flowers and an edible fruit (Jacob - Jacob 1992: 805).<sup>51</sup>

41. HALOT, 57-58; cf. Greenfield - Mayrhofer 1967.

42. Similarly Meiggs (1982: 486, n. 59): “a precious hard wood used for furnishings rather than a building timber”. The offering-table in Gilg. VIII 215 was made of *elamakku*-wood.

43. All the comparative material indicates doubling of the *-l-*.

44. See also Sherwin 2003: 519-21 on Heb. *'allôn*, “oak” (*Quercus*).

45. See further HSED, 9 §31 and Zurro 1983: 265.

46. It is also a Semitic loanword in Egyptian; cf. Hoch 1994: 23-24 §11; Charpentier 1981 §150.

47. But cf. Mankowski 2000: 40; Sherwin 2003: 521-25.

48. Cf. Sherwin 2003: 516-18.

49. On the cedar of Lebanon see Meiggs 1982: 49-87.

50. The meaning “ebony” is accepted by Nougayrol PRU 3, 184, note to line 17. But Astour (1980: 7) comments on Alalah *ušu(w)a*: “a tree (maple? not ebony, because it grew in the land of Ḫurri)”.  
51. Zohary 1983: 154-55. See below on *ulpm*.

- <sup>c</sup>*md*, a species of tree (KTU 1.169:3), may correspond to Akk. *emdu(m)*, *endu*, “an aromatic tree” (CDA, 71),<sup>52</sup> a proposal of mine accepted by Wyatt (RTU, 444 and n.11), although other meanings are possible (cf. DLU, 164).<sup>53</sup>
- <sup>c</sup>*tqb*, a kind of tree (KTU 1.13:14), identified by de Moor (1971) as the ash, *Fraxinus ornus* L., “the punctured”, from the putative root \**tqb*.<sup>54</sup> However, the meaning and etymology are very uncertain.
- bnt*, “tamarisk” (KTU 1.124:8), can be explained by Akk. *bīnu(m)*, “Tamariske” (AHw, 127); “tamarisk” (CAD B, 239-42).<sup>55</sup> See §12.4 below. This word also occurs in the expression *kpr šb<sup>c</sup> bnt*, “the perfumes of seven tamarisks” (KTU 1.3 ii 2), as proposed by Wyatt (RTU, 72 and n. 15).<sup>56</sup> On *kpr* see §7 below.
- bīm*, “terebinth” (RS 94.2276:10'), co-occurs with *tqdm*, “almonds” (Pardee 2002b: 177), and is a completely new entry in the Ugaritic lexicon. It corresponds to Akkadian *buṭumtu(m)*, *buṭuttu*, *buṭuntu*, *buṭnatu*, also meaning “terebinth”, *Pistacia atlantica* (CDA, 51).<sup>57</sup> There is a differentiation between *buṭnu*, “terebinth” (*Pistacia terebinthus*), used for building, and *buṭuttu*, which is ordinary pistachio (*Pistacia vera*) according to CAD B, 359a. It is a small tree, so the wood is used for panelling (Postgate 1992: 133-34).<sup>58</sup> Following Stol (1979: 1-16), this is not the pistachio (*Pistacia vera*) but the “terebinth” (*Pistacia atlantica*), since the pistachio did not reach the Near East until after Alexander the Great conquered Bactria. The kernel of the nut was used as food and for medicinal purposes.<sup>59</sup>
- dprn*, “juniper” (KTU 4.158:20) – Besides one mention in the economic texts, it occurs as part of two place-names: *gt dprnm*, “Farmstead of the Junipers” (TN: KTU 4.175:9) and *zl dprnm* “Shade(s) of Juniper(s)” (TN: KTU 4.244:13; DUL, 277). It corresponds to Akk. *da/prānu*, *daparānum* or *duprānu*, also denoting a type of juniper, although the spellings in Ugaritian Akkadian are *dī-ip-ra-ni-ma* (PRU 3, 64:4) and *GIŠ da-ap-ra-ni* (PRU 4, 194:10). Postgate (1992: 181) notes that “a western origin is supported by the fact that Assurnasirpal records felling it in the Amanus”. Haas - Wilhelm (1974: 89) consider the word to be Hurrian in origin (as *tabra/i*) with the article (-*ne/i*) and a loanword in Akkadian. In Central Chadic it means “acacia” (HSED, 151 §654). See also §12.1 below (medical texts).
- *gml*, “tamarisk” – see §12.3 below.
- grgš*, “strawberry-tree”, *Arbutus unedo* (PN: KTU 2.67:2; 4.50:14, etc.), if it corresponds to Akk. *gergiššu*, “strawberry tree” (CDA, 91; cf. AHw, 284b; CAD G, 87b), based on Syr. *gargīsā*, or else it may denote a skin complaint (cf. CDA, 91).<sup>60</sup>

52. Although the word may be read *suādu* with a similar meaning; cf. CAD S, 338-40 and CDA, 356, and see the discussion by Kilmer 2002: 283.

53. Alternatively, see OSA <sup>c</sup>*md*, discussed by Sima (2000: 188-93).

54. Cf. Wyatt RTU, 171 and n. 23. It is not to be confused with *tqb*, on which see below.

55. Dietrich - Loretz 1990: 218. The assertion that “*bīnu* does not appear in any other Semitic language [besides Aram.]” (CAD B, 242) now needs correcting. Instead, Aartun (1991: 30-32 §11) proposes the meaning “Geruch, Duft”.

56. Cf. Zurro (1983: 265) for use in magic and possibly cosmetics (from its oil). According to Sima (2000: 198-99, but with no reference to Ugaritic) it is *Moringa Adans* (species *Moringa peregrina*). It is “a native and ubiquitous small tree or shrub whose wood can be utilized only for small objects” (CAD B, 242b, discussion section).

57. Following Postgate (1992: 181), who suggested *Pistacia atlantica* (“terebinth”). For Heb. *bīnym*, “pistachios”, see HALOT, 121.

58. Used in Mari to make a table; see Joannès 1993: 256, n. 15, who refers to ARM IX, 20.

59. See also Millard 1981: 183-84. For Anatolia see Hoffner 2001: 201.

60. The PN *grgs* (KTU 4.33:29; 4.51:9; 4.52:13) may be a variant or it may correspond to Akk. *gergisu/ū*, a plant (CDA, 91). “The alternation of *š* and *s* is understandable if the name has been borrowed from Amorite Babylonian or Assyrian, where *š*



- grgyn*, “pine-tree” or “juniper” (PN: KTU 4.244:27; 4.763:8; 4.337:24), Akk. *kikkirānu*, *kirkirianu* (etc.), an “(aromatic substance)” (CAD K, 351-50).<sup>61</sup> Note the Ugaritian Akkadian spelling *kirkiryannu*, “pine or juniper seeds” (cf. CDA, 157; AHw, 475a), perhaps borrowed through Hurr. *kirkir(y)anni-*, “pine” (cf. GLH, 149).
- hbn*, “ebony” (KTU 4.402:6), is a loan from Eg. *hbny*, “ebony” (see most recently Ward 1996: 44), and the same applies to Heb. *hab<sup>e</sup>nīm* (HALOT, 237).
- *hlp*, “willow” (PN or TN: KTU 4.172:4; 4.266:4; 4.611:11), Akk. *hīlēpu* (AHw, 345a; CDA, 115; CAD H, 185b) or else perhaps Akk. *haluppu(m)*, *huluppu(m)*, etc., denoting a different kind of tree (CDA, 103), possibly an eastern species of oak (cf. CAD H, 55-56).<sup>62</sup>
  - *ktmn*, “tamarisk” (?) (PN: KTU 4.15:8; 4.93 iv 14; 4.224:8; 4.571:5) if equivalent to Akk. *kutmānu*, “a tamarisk” (CDA, 371).<sup>63</sup>
  - *ktn*, “terebinth” or “pistachio”, discussed in §4.1 above.
  - *ktkn*, a tree (PN: KTU 4.245:12; 4.336:5; 4.574:4), Akk. *kiškānū*, a tree of some kind (CAD K, 453; AHw, 491a), a Sum. loanword.<sup>64</sup> See §14 below.
- lbnm*, “terebinth” or “almond” (TN: KTU 1.91:21; 4.68:2; 4.348:10; 4.355:21; 4.610:16; 4.621:1; 4.693:39; 4.770:14, etc.). Although this could be explained by *lbn*, “white”, like *lbnn*, “White Mountain” (KTU 1.4 vi 18, 20, etc.; DUL, 491), an explanation from Akk. *lupānu*, *lubānu(m)*, “(a terebinth)” (CDA, 185) or “sweet almond” (CAD L, 251) cannot be excluded (Astour 1980: 5). See next entry.
- lbnt*, “poplars”: the name may derive from √LBN since “the undersides of the leaves are white” (cf. Jacob - Jacob 1992: 806). This term only occurs in a simile: *tm tpl k lbnt*, “there they fell like poplars” (KTU 1.13:13), but *lbnt* may also mean “white petals” (de Moor 1980: 306), and there are other possible meanings such as “bricks”, etc.<sup>65</sup> The parallel word is *tqbm* (discussed above), which may be some kind of tree. Heb. *libnē* means “storax-tree”, *Styrax officinalis*, or possibly white poplar (HALOT, 518a) but is not necessarily the same as Ug. *lbnt*. Yet another possibility is “incense grains”, corresponding to Heb. *l<sup>e</sup>bonā*.<sup>66</sup>
- *ldn*, “laudanum” (PN: KTU 4.222:14; 4.264:8), Akk. *ladinnu*, etc., “Ladanum-Harz” (AHw, 527a); “(an aromatic phps) ladanum resin” (CDA, 175; cf. CAD L, 36a).<sup>67</sup>
- lty*, “almond” (KTU 1.20 i 8-9), based on Hittite <sup>(GIS)</sup>*leti-*, *liti-*, identified by Güterbock (1968: 68 = 1997: 155) as the almond. According to the Hittite dictionary (CHD 3/1, 72b-73a) it is “(an oil-producing plant)”. This is clearly a foreign word in Ugaritic since the Ugaritic word for almond is *tqd* (see below).
- *mhr*, “a conifer” (TN: KTU 4.100:9), Akk. *miḥru*, *mehru*, “(a fir tree)” (CAD M/2, 60; cf. CDA, 206); “(a conifer)”, possibly *Juniperus excelsa* (Postgate 1992: 183). Alternatively, it may be explained by

often became *s*. Then we may think of Akkad. *girgiššu*, “strawberry tree” or “a skin disease” (de Moor 1969: 105). Cf. also Grøndahl PTU, 129.

61. See Veenhof 1991: 293.

62. One meaning for the PN ■ *klt* (KTU 4.370:38; 4.786:5) is perhaps a tree of some kind, Akk. *kalūtu*, etc. (CDA, 143; cf. CAD A/1, 259), but other solutions are possible. See also the PN *kltn* (KTU 3.5:13, 18).

63. However, the text may be corrupt; cf. CAD K, 610b. Alternatively, cf. Akk. *kudimmu(m)*, *kuttimmu(m)*, a herb of some kind (cf. CDA, 164 and Haas - Thiel 1979: 352).

64. However, cf. Grøndahl PTU, 310; DUL, 471.

65. Survey in Wyatt RTU, 171, n. 21; cf. DUL, 492.

66. For OSA see Müller 1997: 193-95.

67. See also Hoch 1994: 212 §288, but with no reference to Ugaritic.

Hurrian *māhri*, which seems to be a resinous conifer, possibly juniper (see Greppin 1991: 206-207). Unfortunately, as it is a place-name, nothing more can be determined.

*mrrt*, “date-palm”, is found only in the mythological place-name *mrrt tǵll bnr* (KTU 1.19 iii 50, 51), which may mean “Date-palm that produces dates” (Watson 1998: 752). The tree *mrrt* is to be explained by Akk. *marratu*, which means date palm (CAD M/1, 286; cf. CDA, 198). Note the place-names <sup>uru</sup>*mi-ra-ar* and <sup>uru</sup>*me-ra-ar* in syllabic spellings (van Soldt 1996: 678). See also Ug. *bnr* (discussed below).

*nhl*, “date-palm” or “grove of date-palms” (TN: KTU 4.243:24; 4.348:11) as in the various Arabic languages (Yemeni Arabic, Mehri, etc.), where *naḥl* (etc.) denotes one or more date-palms. In OSA however, *nhl* connotes the presence of an enclosing wall and so means “palm-grove” (see Sima 2000: 217-39, esp. 233-34). The Ugaritic place-name probably also means “palm-grove”, but as ever this remains uncertain. The type of date-palm in question may be the fruit-bearing *Phoenix dactylifera L.*, the cultivation of which is documented in Akkadian texts from the 3rd millennium (Sima 2000: 234). See also Hoffner 1974: 118.

■ *pkly*, “a tree” (PN: KTU 4.780:7), if the same as Akk. *pukuli*, “ein Holz ?” (AHw, 878a), a tree of some kind (CDA, 278), a loan from Hurrian.<sup>68</sup>

■ *sbl*, “juniper” (?) (PN: KTU 4.69 i 13; 4.122:17). The spelling *ZU-ba-li* (RSOu 7, 3 obv. 10') indicates Akk. *supālu*, “juniper” (AHw, 1059-60; CDA, 328; CAD S, 390-91), which has several variant spellings, including *subilû* in Ras Shamra, and is of unknown origin.<sup>69</sup>

*sǵy*, “wormwood” (?) (TN: KTU 4.625:7), if it can be compared with Akk. *sīḫu*, a resinous tree (CAD S, 241b-42a), perhaps “wormwood (*Artemisia*)” (CDA, 322; cf. Thompson 1949: 359-64). However, since the cognates are Arab. *šīyāḥ* and Syriac *šīḥā*, and the Akk. word is also spelled *sīḫu*, the equivalence with Ug. *sǵy* remains difficult.<sup>70</sup>

*srd*, “olive-tree” (PN: KTU 4.12:5), Akk. *sirdu*, “olive” (CAD S, 311-12); *serdu(m)*, “olive-tree” (CDA, 321); cf. Ugaritic Akk. *sī-ir-di-ya* (PRU 6, 38:3).<sup>71</sup>

*šmn*, “an aromatic plant” or “oil tree” (KTU 4.158:3; also a TN: KTU 4.610 [ii] 15; *šmny*: KTU 1.91:26; 4.35:24; 4.770:16), first identified by Stieglitz (1970) as an “oil tree” with reference to Heb. <sup>ʿ</sup>*š šmn* (Isa 41:19; cf. Neh. 8:15). Here there is ellipsis of <sup>ʿ</sup>*š*. According to Loewenstamm (1981: 302) it is “a kind of pine”. Perhaps it is the “olive tree, corresponding to <sup>ʿ</sup>*š šmn* because *šmn* is placed next to *tīšr*” (HALOT, 1567-68).

*tīšr*, “cypress” (*Cupressus sempervirens L.*) (KTU 1.92:26; 4.91:7; 4.158:4; 4.402:3; 4.780:15). The identification with Hitt. *ti(y)eššar* goes back to de Moor (1965: 362)<sup>72</sup> and the Hittite word seems to have been borrowed by both Ugaritic and Hebrew.<sup>73</sup> But it is more difficult to determine the type of tree in question.<sup>74</sup> Candidates are the sherbin,<sup>75</sup> thylene or white cedar (Stieglitz 1970: 56, n. 3) and the

68. The PN ■ *sbd* (KTU 4.609:16) remains unexplained (cf. DUL, 752); see perhaps Eg. *spd*, “bois dont on fait un bâton” (Charpentier 1981 §942), which possibly indicates some type of tree or wood.

69. For this tree see van de Mieroop 1992: 160.

70. The PN ■ *šnd* (KTU 4.628:7; cf. 4.415:3) may correspond to Akk. *sindû*, “Indian (wood)”, (CAD S, 284; CDA, 324) although it may be Luwian (cf. Grøndahl PTU, 293).

71. See in general Stol 2003. See also Eg. *srd*, a plant (Charpentier 1981 §982; Hannig HWB, 732).

72. See also Stieglitz (1970: 56, n. 3): “Ug. *tīšr* corresponds to Heb. תישר”, and HALOT, 1677.

73. “In semitischen Sprachen, darunter das Ugaritische, könnte das hethitische Wort für «Wald» (*tīeššar*) entlehnt sein (ugar. *t'isr*, hebr. *t'swr*, Art Zeder oder Fichte)” (Neu 1995: 128). Cf. HALOT, 1677, with a long discussion.

74. “Par l'identification avec l'hébreu *t'asšūr*, il n'y a jamais eu de doute que *tīšr* soit le nom d'un arbre, mais l'identification précise est toujours sujet de discussion, espèce de pin, de sapin, de cèdre ou de cyprès (?)” (Pardee 2000: 30).

75. Van Dijk 1968: 63-64.

cypress. It was used to make an *ušpġt* (KTU 1.92:26), Akk. *uṣpaḥḫu* or *ušpaḥḫu*, a Hurrian loanword denoting a garment of some kind.<sup>76</sup>

*tlb*, “plane-tree” (?) (PN: KTU 4.357:16) and *túl-[b]i-x* (Ugar. 7 pl. 2:15'),<sup>77</sup> perhaps a form of Akk. *dulbu* (also *dilbu*), “Orient-Platane” (AHw, 174-75), “plane-tree” (CDA, 61), “(Oriental) plane tree” (CAD D, 172-73, with etymology). According to Durand (2002: 117) the habitat of this “platane d'Orient” lay to the west and north of Mesopotamia. See also Postgate 1992: 181. Similarly the PN *tlby* (KTU 4.118:4; 4.161:2, 3) and the syllabic spelling *tu-ul-bi-ia* (PRU 6, 78:17).

*tmm*, “date-palm(s)” (TN: KTU 4.355:28) proposed by Zurro (1983: 268); cf. North-West Semitic *tmr* (DNWSI, 1222).<sup>78</sup> Note also the PN *tmr* (KTU 4.69 i 20; 4.724:1) and the gentilic *tmry* (4.126:20), possibly with the same meaning.

*trzy*, “a hardwood-tree” (TN: KTU 4.643:10, etc.). Likely possibilities are “holm-oak” (cf. Aram. *ṯraz*, a hardwood tree, perhaps the stone oak) or “stone pine” or a pistachio. Sherwin (2003: 519 and esp. n. 25) discusses Akk. *tur'azu* (or *tar'azu*), which may denote some kind of *Pistacia*; see also Akk. *šer'azum*, *tu/tar'azu*, “(a nut tree)?” (CDA, 367) and Heb. *trzh*, a hard tree of some kind.<sup>79</sup>

*tškrġ*, “box tree” (PN: KTU 4.391:3; 4.490:2), is possibly a loan from Hurrian *taškarḫi*, “box”,<sup>80</sup> also a loan in Akkadian, as *taškarinnu(m)*, *dašgarinnu(m)*, *t/diskarinnu(m)*, “box tree, boxwood” (CDA, 401; AHw, 1336b-37a). It only occurs as a personal name. “Tiglath-pileser I found it with cedar on Mt. Lebanon, and mount Ammana (perhaps Anti-Lebanon) is called the mountain of *taskarinnu* by his namesake Tiglath-pileser III” (Postgate 1992: 184). On boxwood see Meiggs 1982: 73.

■ *tt*, “mulberry tree” (PN: KTU 4.7:16; 4.102:26; 4.103:19; 4.132:2; 4.160:5), has the syllabic spellings *tu-tu* (PRU 6, 50 *passim*) and *tu-tu-[ ]* (PRU 6, 78:5), which may indicate Akk. *tuttu*, “mulberry tree” (AHw, 1374b).<sup>81</sup> The same explanation may apply to the PN *ttn* (KTU 4.35 ii 21; 4.63 ii 16; 4.69 iii 3; 4.245 i 10).

*try*, “opoponax” (PN: KTU 1.142:2) – cf. perhaps Akk. *ṯūru*, *ṯurū*, *ṯīru*, “a kind of tree or shrub” (CDA, 415) possibly “opoponax” (cf. AHw, 1397b).<sup>82</sup> The topic has been discussed by Stol (1979: 71-74) but without reference to Ugaritic. Alternatively, see Akk. *ṯīru*, “wohl eine Art v[on] Kornelkirschbaum” (AHw, 1392b; cf. CDA, 415).

*tqb*, “a species of the ash-tree” (?), discussed below (§14). See also the PNN *tqbn* (KTU 4.63 i 20; 4.379:100; 4.700:3) and *tqby* (4.7:10).

*tqd*, “almond” (RS 94.2276:10' (Pardee 2002b: 177) and *tqdy*, “almond-tree” (PN: KTU 4.103:49; PTU, 30, 200). There is no doubt about the meaning, shown by the corresponding terms in Semitic: Heb.

76. As *ušpġt tišr*, “a coat of cypress-wooden mail” (de Moor 1970: 311).

77. Huehnergard 1989: 404, 511.

78. For OSA see Sima 2000: 244-46, without reference to Ugaritic. The PNN ■ *tmy* (KTU 4.724:11; 4.761:8) and ■ *tmyn* (4.41:12) may be explained by Akk. *tāmū*, “apple-like tree” (CDA, 397; AHw, 1318b), but this is uncertain. Note also ■ *tran* (PN: KTU 3.7:3), which in view of Eg. *tr3* and *tri(t)*, “willow tree” (DLE II, 215) may also mean “willow”; but cf. Akk. *ter'u*, “eine Pflanze” (AHw, 1351b; cf. CDA, 405). In addition, see ■ *trdn*, a tree (?) (PN: KTU 4.617 [ii] 25), if it corresponds to Akk. *taradū*, a type of tree (AHw, 1324b; CDA, 399), but cf. DUL, 877.

79. Based on Arab. *taraza*, “to be hard”; for discussion cf. Astour (1980: 7); HALOT, 1792a and Sherwin (2003: 518-19 but without reference to Ugaritic); see also Zohary 1982: 113.

80. Defined as “une essence végétale, peut-être 'buis'” (GLH, 259).

81. See Powell 2003: 17b. Note also Eg. *tt*, an unidentified plant (Charpentier 1981 §1410, but cf. Hannig HWB, 942). The TN *tlrby*, “Place of the medlar or plum” (KTU 4.68:12; 4.95:2, 4; 4.244:21; 4.308:5-6; 4.355:43; 4.610 (II) 38; 4.619:3; 4.629:20; 4.686:8; 4.762:8; etc.), proposed by Astour (1980: 7 §44), is based on Akk. *šallūru*, “possibly ... the plum” (CAD Š/1, 253b-54) or the medlar (Hoffner 1974: 118); see discussion in Powell 2003: 18-19b. However, Wilfred van Soldt indicated to me (personal communication) that the location of the Ug. TN *tlrby* does not favour this meaning.

82. But see Ug. *zrw*, “balsam”, “storax” (KTU 1.148:22; 4.402:11) and Mari Akk. *šurūm*, “opoponax”.

*šqd*, Aram. *šgd'*, Akk. *šiqdu(m)*, etc. It occurs in syllabic spelling as GIŠ *šu-uq-du(-)ma*[ ] (PRU 6, 159:4').<sup>83</sup> See §12.1 below.

*trmn*, “cypress” (TN: KTU 1.48:18, etc.), in the place-name *gt trmn*, “Cypress Farmstead”, corresponding to Akk. *šurmēnu*, “cypress” (CAD Š/3, 349-353), *Cupressus* (Postgate 1993: 184).

*ygb*, a tree of some kind (?) (KTU 4.247:23; 9.422:4), if explained by Nuzi Akk. *akabbu*, *akappu*, *agabb/ppu*, “(a tree)” (CAD A/1, 238; CDA, 9; cf. AHw, 15b). For this and other views cf. DUL, 959.<sup>84</sup>

■ *yman*, a deciduous tree (?) (TN: KTU 1.4 i 42; 1.40:27), if it corresponds to Eg. *im3*, “Laubbaum, *Zizyphus vulgaris* or *Zizyphus sativa*” (Hannig HWB, 69; cf. DLE I, 29; Charpentier 1981 §120), though Baum (1988: 183-96, cited by Leitz 1999: 76, n. 239) suggests that it is *Maerua crassifolia*. It may be Hamito-Semitic \**yama*’ (HSED, 537 §2577) but remains very conjectural. Whether or not it is a tree, it seems that “La thèse selon laquelle *yman* désignerait l’Ionie est généralement abandonnée” (Pardee 2000b: 137).

*zt*, “olive-tree” (KTU 1.5 ii 5; 1.24:43; 3.5:8; 4.164:3; 4.764:6-8; 4.399:7, etc.); see DUL, 1001<sup>85</sup> and see §6 under *zt*, “olive”.<sup>86</sup>

## 6 Fruit, nuts and berries

There is only one word for “grape”, namely *gnb*, and curiously this word, which is common Semitic,<sup>87</sup> only occurs in the mythological texts (KTU 1.19 i 42; 1.23:26), but note the PN *gnbn* (4.393:2). The dried form is of course *šmq*, “raisin”, used as food (KTU 4.14:17; 4.751:10)<sup>88</sup> and (when rancid) as a remedy for horses (KTU 1.71:24; 1.72:38; 1.85:31). There are several terms for dates. One is *uḥnp* (TN: KTU 1.91:34, etc.) with the syllabic spelling *uḥnappu* (see DUL, 39), which corresponds to Akk. *uḥinu*, “bunch of unripe dates”.<sup>89</sup> Another term is *bnr*, “date(s)” (TN: KTU 1.19 iii 50, 52), which also occurs in a place-name (see above on *mrrt-tgll-bnr*). It would seem to be a loanword from Egyptian *bnr*, “date(s)”. The third term, *kš* (KTU 1.22 i 15), may mean “date”, Arab. *kuššu*, *kasīs* (del Olmo Lete 1981: 569).<sup>90</sup> The obscure term *rgz* (KTU 1.24:43, etc.) may mean “juniper berries”, but this is uncertain (cf. DUL, 182).

There is no doubt about Ug. *lrmn*, “pomegranate”, *Punica granatum L.*<sup>91</sup> For the distinction between pomegranate “fruit” (KTU 1.23:50) and pomegranate “juice” (KTU 4.751:11) see DUL, 504 (following Thompson 1949: 314-16). “The cultivated pomegranate ... probably originated in north-eastern Turkey and the south Caspian region” (Ward 2003: 530). The fruit of the wild form is smaller than that of the cultivated form. “The pomegranate is deciduous, with shiny oblong leaves growing on many branches”. It grows to 5 metres, has fleshy red flowers and of course produces the pomegranate fruit. Pomegranates (and their seeds) are associated with weddings and with funerals (cf. Ward 2003: 532) in the Middle East. They were also used for dyeing and in medicine. They do not grow wild in the Levant, Egypt, Cyprus or

83. For the etymology see the discussion by Durand 2001: 132 (but with no reference to Ug. *tqd*).

84. Here mention can be made of Eg. *gb*, “leaf” (DLE II, 187).

85. See also Hoch 1994: 395 §594, Krauss 1999: 295-96 and DLE II, 276.

86. See also ■ *zq* (PN: KTU 4.55:8), which may correspond to Akk. *ziqqu*, “an alkaline plant” (CDA, 448), but there are other possible equivalents.

87. See DUL, 323 and Sima 2000: 193-96. It is a Semitic loanword in Egyptian (Hoch 1994: 72 §80).

88. To the cognates given in DUL, 786, add Punic *šmq*, which may mean “raisin” (DNWSI, 970). See also Hoch 1994: 388 §583.

89. Discussed by Rubio 1999: 5. See already Astour 1980: 7 in respect of the Alalah TN *uḥenaše*. See also the PN *uḥn* (KTU 4.39:7; 4.393:10; 4.244:13; 4.619:4).

90. For other possibilities see Wyatt RTU, 322, n. 43 and DUL, 466-67.

91. Possibly the PN ■ *lrn* (KTU 4.298:3) is a variant of this word, cf. Akk. *lurinnu* and *lurīnu* with the same meaning.

the Aegean (cf. Zohary - Zopf 1988: 151). The pomegranate was introduced into Egypt from Syria. The Uluburun ship, which came from Syria (14th century BCE), contained large quantities of pomegranates, but even so the pomegranate seems to have been a luxury food (cf. Ward 2003: 538). Ornaments have also been found at Ugarit depicting pomegranates (see Ward 2003: 533).

The “olive” (*zt*) must have been a staple food<sup>92</sup> and there were at least two types, *zt hrpnt*, “autumnal olive” (KTU 1.114:31) and *zt mm*, “winter olive” (KTU 4.91:14; 4.786:13). Curiously, the fig-tree is not attested in the alphabetic texts from Ugarit, nor are figs. However, dried figs are listed in a few texts (KTU 1.71:27 etc.) as *dbl*, and in one text it means “fig cake” (KTU 4.60:5, 9). “A sort of cake made by mashing up inferior figs serves in parts of the Greek Archipelago as a substitute for bread” (Hoffner 1974: 116). The term is common Semitic (Hebrew, Arabic).<sup>93</sup> On *tph* (“apple” / “apricot”) see §9.4 below.

### 7 Plants, flowers and herbs

General terms related to plants are *ib*, “fruit” or “bud”, used in the expression *yhsp ib*, “the fruit / bud has shrivelled” (KTU 1.19 i 31),<sup>94</sup> and the personal names *prh*, “flower” (KTU 4.88:2; 4.134:7; 5.22:19) and *prhn*, “flower-like” (KTU 2.77:19), as in Heb. *perah* “flower”.<sup>95</sup> The term *l*, “leaf”, is listed as part of a remedy in the hippiatric texts and has the Hebrew equivalent *lh*, also “leaf” and Akk. *artu*, “leaf, foliage”, as noted by Cohen (1996: 138-39).<sup>96</sup> Also unspecified is *d/dr*, “seed, seed-grain” (KTU 1.72:29; 1.103:14, 43, 55; 2.38:17-22; 4.243:12; 4.636:4, 8, 13, 17, 22, 28). Another general term is *šht*, “bush” (KTU 1.100:65 and perhaps 2.18:2).<sup>97</sup> The PN *šsn* (KTU 4.609:14) may mean “blossom”, Heb. *šiš* (cf. HALOT, 1023) but other meanings are possible (cf. Grøndahl PTU, 190).

The plants possibly mentioned in the Ugaritic texts include the following: “anemone”, “artemisia”, *Asa foetida*, “barley” (*Hordeum sativum* L), “black cumin”, “broom”, “buttercup”, “cane”, “caper-bush”, “clover”, “coriander”, “cress”, “cumin” (two different words), “ear, spike (of corn)”, “young ear of corn”, “emmer”, “fennel”, “garlic”, “grain, wheat”, “henna”, “(hound’s) tongue”, “lentil”, “madder”, “marsh plant”, “mint”, “onion”, “primrose”, “ranunculus”, “rocket”, “rush”, “sage”, “seed-corn”, “soapwort”, “spice plant”, “spelt”, “spring grass”, “vetch”, “vine blossom” and “wheat”. These are now considered in alphabetical sequence.

■ *uḫl*, “a plant” (PN: KTU 4.723:11), in view of Akk. *uḫūlu*, an alkaline plant (AHw, 1404b-1405a; CDA, 419).

*akl*, “barley” (KTU 2.71:18; 4.284:4; 4.688:4, etc.), Akk. *ukullū* (etc.), “fodder” for cattle (CDA, 419-20).<sup>98</sup>

*ulpm*, “a plant” (PN: KTU 4.412 iii 2). This meaning is an option since Akk. *ullupu*, “eine Pflanze” (AHw, 1410b; cf. CDA, 421) occurs in lexical texts found in Ugarit (MSL 10, 111, 115) and is reflected in

92. KTU 1.22 i 15; 4.284:8; 4.429:1-5; 4.710:11; 4.143:2; 4.386:13, etc.

93. Note also Eg. *d3bw*, “figs” (DLE II, 239) and *db*, “sweet fig” (*ibid.*, 243).

94. See also perhaps Eg. *ibw*, a plant (Leitz 1999: 94).

95. Also a loan in Egyptian (Hoch 1994: 119-20 §152). Note also Bab. *pirḫa*, “(a plant)” (CDA, 275; cf. AHw, 865b).

Another such term in Ugaritic may be *ur*, “stalk”. It only occurs in the Aqhat Legend (KTU 1.19 ii 17, 27), where Danel addresses the growth in the field: “Stalk, may the hand of hero Aqhat gather you in, may he put you inside the granary!”. Sanmartín (1977: 267-68) suggested that it is a loanword from Akk. *aru*, “Stengel, (kleiner) Stiel” (AHw, 71; cf. CAD A/2, 311-12; AHw, 329), “stalk (of plant)” (CDA, 25). Margalit (1984: 111-13) suggests “*siccaniae*”. For other meanings cf. DUL, 95.

96. Based on a reading of the tablet by Pardee (see Cohen 1996: 138).

97. Besides Heb. *šāḥ*, “shrub, bush” (HALOT, 1319-20), mentioned by Astour (1968:25), see Akk. *šāḫātu*, “(a bush)” (CDA, 311); “(a tree)” (CAD S, 55a), cited by Virolleaud (1964: 65; Ugar. 5, 571), both discussed by Pardee 1978: 94. Note also Punic *šh*, “shrub” (DNWSI, 1120).

98. See Sanmartín 1988: 233; DUL, 44: “grain, fodder (probl. barley)”.

- the syllabic spelling *ul-lu-pí* (PRU 3, 194:11). It may also explain the personal names *ulb* (KTU 4.281:13; 4.628:2) and *ulby* (4.309:2). However, see above on <sup>99</sup>*lby*.
- annh*, “mint” (KTU 1.23:14), Akk. *ananiḫu*, “(a garden herb, phps.) «mint»” (CDA, 17; cf. AHw, 50a; CAD A/2, 111), etc. (DUL, 81-82).
- *irab*, an unspecified plant (TN: KTU 4.48:9; 4.553:2), possibly the equivalent of Akk. *ar’abu* or *ar’ibu*, a plant of some kind (CAD A/2, 209b; CDA, 21b).
  - *arbn*, a plant (?) (PN: 4.133:1) – Akk. *aribānu* or *arbānu*, denoting a plant (CDA, 22, 23; cf. AHw, 68a), unless the name is Hurrian (Grøndahl PTU, 220, 223).
- ardln*, “a plant” (TN: KTU 1.64:25, 29-30, 33; 7.42:4; cf. DUL, 100), if explained by Akk. *arzallu* (cf. Astour 1980: 3 §8), which also has other possible meanings such as a stone, an implement and a piece of jewellery (cf. CAD A/2, 324-25). It remains uncertain.<sup>100</sup>
- utkl*, “bunch, cluster” (KTU 1.87:2). Evidently the reference is to a cluster of grapes (here cut for the god Ilu), as shown by the cognate evidence, e.g. Heb. *škwł*, “bunch (of grapes)” (HALOT, 95) and Akk. *is/šhunnatu*, “bunch of grapes” (CDA, 131; cf. AHw, 387; CAD I/J, 190).<sup>101</sup>
- <sup>99</sup>*bk*, “broom” or “sage”: see §12.1 below.
- <sup>99</sup>*dš/ṭ*, “lentil” (PN: KTU 4.170:15; 4.261:12) as explained by Grøndahl (PTU, 107).<sup>102</sup>
- <sup>99</sup>*lr*, “redflower (?)” (PN: KTU 4.15:5; 4.635:19), possibly Akk. *illūru(m)*, *ellūru*, “(meist rote) Anemone” (AHw, 373a), “(a flower)” (CDA, 127), reflected in the Akk. PNN *illūrānu* and *illūratum* (cf. CAD I/J, 87-88).<sup>103</sup>
- *bnn*, a medicinal plant (PN: KTU 4.258:10; 4.377:16): the spelling *bu-na-ni* (PRU 6, 148:5’) indicates Akk. *b/punānu*, a plant listed in a medical text (AHw, 879b; CDA, 278).
- bšql* (KTU 1.19 ii 13, 14, 15, 16; 1.71:5; 1.85:5) occurs in the Aqhat legend and also twice in the hippiatric texts. The generally recognised meaning is “sprout, shoot; branch” (cf. DUL, 241), corresponding to Hebrew *bšql(wn)* in 2 Kgs 4:42 (cf. HALOT 148). Recently, though, Ahituv has proposed the meaning “grain” since in Arad Letter 3:3-6 Heb. *bšq* means “grain” and not “dough”. He notes: “I propose that *בצק* be equated with Ugaritic *bšql* and with \**bšqln* of 2 Kgs 4:42”... “I suggest that *bāšēq* here is not dough but 'grains of wheat', that is, the contents of the ripe ears. The ripe ears were called *bšql* because they were swollen, from *בצק* 'to be swollen'. The word *bšql* is composed of *bšq* with the suffix *-l*.”<sup>104</sup> This meaning would fit the expression in the hippiatric texts, i.e. *bšql rgz*, which instead of “a branch of the <sup>99</sup>*rgz*-plant” more probably means “grains of <sup>99</sup>*rgz*”, though unfortunately the meaning of <sup>99</sup>*rgz* remains uncertain.<sup>105</sup>

99. The PN ■ *alz* (KTU 4.77:12, etc.) may correspond to Akk. *alluzu*, a plant of some kind (cf. CDA, 13; CAD A/1, 361-62) but the spellings *al-la-zi*, *a-la-an-zu* (cf. DUL, 69) do not support the equivalence and it is probably Hurrian. The syllabic spellings of the TN *amdy* (KTU 4.48:11, etc.) seem to exclude an explanation from either Akk. *amuz(z)innu* or *amuššu*, plants of some kind (CDA, 16).

100. Cf. also ■ *arspy* (TN: KTU 4.52:11), possibly equivalent to Akk. *arsuppu*, a cereal or a kind of apple (CDA, 24; CAD A/2, 307-308). The name ■ *ig* (KTU 4.720:4) may be a form of Akk. *ašāgu* / *ešēgu*, a thorny plant, but whereas in AHw, 77b it is explained by Arab. <sup>99</sup>*ausag*, in CAD A/2, 410-11 it is identified with Arab. *šok*, so the matter remains open. The PN ■ *iry*n (KTU 4.35 I 21; 4.93 iv 16; 4.103:40; 4.229:6) could correspond to Akk. *iriyannu*, a plant or tree of some kind (cf. AHw, 386; CDA, 131, with various spellings) but more probably it is Hurrian (Grøndahl PTU, 226).

101. Less likely is a comparison with Akk. *ušukullatu*, “a reed artefact” (CDA, 427; cf. AHw 1443).

102. Arnaud (1999/2000: 153): “lentille”; see DUL, 151, with Heb. and Arab. cognates, and Hoch 1994: 74-75 §84.

103. The PN ■ *bbt* (KTU 4.382:33) is unexplained, but cf. Eg. *bbt*, a plant, possibly *Inula graveolens* or *Inula spec* (cf. Takács EDE II, 186; Hannig HWB, 251-52).

104. Ahituv 1995: 383; also Tropper UG §51.61b. For Ug. *bšq* see DUL, 241. Cf. also Margalit 1984: 109-11.

105. It is possible but unlikely that in KTU 5.23:14 *dgm* can be equated with Eg. *dgm*, the castor-oil plant (cf. Hannig HWB, 989-90; Sandy 1987; Leitz 1999: 72, n. 208).

- dgn*, “grain, wheat” (KTU 1.16 iii 13; cf. DUL, 267).<sup>106</sup>
- dt̄t*, “fodder, spring grass” (KTU 1.39:9; cf. 1.41:18; 1.87:20), Akk. *d̄šū*, “(spring) growth” (CDA, 61); Heb. *dš*’, “(vegetation)” (HALOT 233-34).
- gb<sup>c</sup>ly*, “flower bud” (PN: KTU 4.177:2; 4.317:5; cf. PTU, 126 §49), based on Heb. *gib<sup>c</sup>ol*, “flower bud” (HALOT, 175).
- gd*, “coriander”, *Coriandrum sativum* (KTU 1.3 ii 2; 1.23:14; 1.89:4), Heb. *gd*, “coriander” (HALOT, 176).<sup>107</sup> See also §12.1 below.
- gdl*, “string (of garlic)” (KTU 4.114:1, 7, 13; 4.426:3, 4), corresponding to Akk. *gidlu*, “string (of garlic)” (CAD G, 66); “Gebinde als Maßeinheit für Lauch” (AHw, 287b), “plaited string”, “«plait» of onions etc. used as a measure” (CDA, 92).<sup>108</sup> Since the noun literally means “twist, string” or the like, with the meaning “string of garlic” peculiar to Akkadian, Ug. *gdl* must be a loanword. On Akk. *gidlu* see also Stol (1987a: 66) who comments: “The word has survived in the Aramaic glosses from the Sassanian texts: in the list of glosses *gdlijn* occurs between «onions» and «garlic»”.
- glbt* is a cereal of some kind (TN: KTU 4.303:2). See also *glb* in *glb špn* (TN: KTU 2.62:5). It is equivalent to Akk. *gulbūtu*, a cereal (cf. CDA, 96). This does not mean, as Hrozný thought (1913: 30, 41) that the grain had to be shaved – even though the verb *glb* means “to shave” in several Semitic languages. Instead, *glb* refers to “the oblique cut of the covering husk” (cf. Powell 1984: 56). Alternatively, see the usage in Nuzi, where *gullubu* means “to clear (a crop from a field)” (cf. CDA, 96). Sumerian *gul-bu*, which though unidentified “was one of the most versatile woods of the Sumerian carpenter” (Powell 1992: 113) is probably unrelated.<sup>109</sup>
- h̄rnq* (KTU 1.24:23): Herrmann (1968: 14) compared this with Akk. *urnuqqu*, a plant (AHw, 1432a; CDA, 426), although he translated it “Obstgarten” (*ibid.* 15).<sup>110</sup>
- h̄tt*, “wheat” (KTU 1.16 iii 9; 4.225:11; 4.269:25, 32; 4.400:4, 9, 13, 17; 4.608:4; 6.61:2, etc.), Akk. *uṭṭatu(m)*, *uṭṭetu(m)*, “grain, barley” (CDA, 431) and cf. perhaps Eg. *it*, “grain, barley, corn” (DLE I, 50).<sup>111</sup>
- h̄lln*, “a fruit” (PN: KTU 4.53:12; 4.335:23), based on Nuzi-Hurrian *ḫalūlu*, denoting a fruit (CDA, 103).<sup>112</sup>
- *h̄lpn*, “milkweed” (?) (PN: KTU 4.77:27), if it is comparable with Akk. *ḫilapānu* (also *ḫilabānu*), “a plant with milky sap” (CDA, 115; cf. CAD H, 184).<sup>113</sup>

106. Cf. Feliu 2003: 278-88.

107. The meaning “saffron” (cf. de Moor 1968: 214, n. 5; also 1971b: 85) is less likely; cf. Renfroe 1992: 104.

108. This proposal for Ug. *gdl* was first made by Dussaud in 1931; cf. Pardee 2002b: 171, n. 36.

109. Whether the PN *h̄rsn* (KTU 4.711:6) can be explained by Akk. *arsānu*, “barley-groats” (CDA, 25) is uncertain. On Akk. *arsānum*, “barley groats”, cf. Postgate 1984: 108.

110. I. e. by synecdoche; it is also understood as “orchard” in DUL, 368. Whether or not the PN ■ *h̄rr* (KTU 4.214:11) and the TN ■ *h̄rr* (4.365:33) are related to Eg. *h̄rry* / *h̄rr.t*, a term for a flower (Charpentier 1981 §76) remains uncertain. See the remarks by Ward 1996: 45 and n.15

111. As proposed by Conti 1978: 103-108, but see the reservations of Ward 1996: 31. It is possible that Ug. ■ *h̄dl* (PN: KTU 4.611:4) may be explained by Akk. *ḫazallūnu*, a medicinal plant (cf. CDA, 113), but there is no final *-n*.

112. See Astour 1980: 4 §16. Note also Ug. ■ *kdt* (KTU 1.174:3) which Robert Allan compares, very tentatively, with Gk *καδύτας*, “parasitic plant, dodder(?)”, a Syrian word” (GEL,751).

113. The names *h̄ri* (KTU 4.125:5) and *h̄ran* (4.33:30; 4.51:10; 4.55:8; 4.90:1) may be explained by Akk. *ḫuri’u(m)* and *ḫuriānum*, which denote a spice plant (AHw, 359; cf. CAD H, 251; CDA, 122). The obscure term *h̄qrn* (KTU 1.48:10) is “[p]ossibly an unidentified plant that “sweetens” “wild” birds for offerings and sacred repast” according to del Olmo Lete (1999: 89, n. 12 = 1992: 68, n. 12). However, the text is very uncertain at this point.

- *kbl*, a medicinal plant (?) (PN: KTU 4.232:40): the spelling *ka-bu-li* (see van Soldt SAU, 120) may indicate Akk. *kabullu* (also *kamullu*), which is a plant of some kind (CAD K, 131; CDA, 145), although the name may be Hurrian (see DUL, 428).
- *kdkdy*, a plant (?) (TN: KTU 4.696:7), has the syllabic spelling [*k*]i-id-ki-di-ia (cf. DUL, 431 for details), but may be compared with Akk. *kudkuddu*, a medicinal plant (CAD K, 493; CDA, 164).<sup>114</sup>
- kkln*, “a plant” (PN: KTU 4.148:4; 4.352:10; 4.609:5),<sup>115</sup> if it corresponds to Hitt. *kukulla*<sup>(SAR)</sup>, as proposed by Grøndahl (PTU, 277), for which the meaning given by Tischler (HEG, 617) is “(eine Pflanze)”.<sup>116</sup>
- kmkty* may be a mountain plant (TN: KTU 4.448:7, 10, 11, 15) if it is the same as Akk. *kamkadu*; *kam/kadu*, *kankadu*, “a plant growing in rock crevices” (CDA, 144; CAD K, 123-24). It was used in pharmacology, medicine and magic (see Astour 1980: 4 §22). Thompson (1949: 166-68) suggests *Colchicum*, used externally (e.g. for ulcers) but also drunk as a remedy for gout.
- kmn*, “cumin” (KTU 4.14:9), the seed of *Cuminum cyminum* L., is common Semitic (cf. DUL, 446).<sup>117</sup> It co-occurs with *sbbyn*, “black cumin” (see below); see Pardee 2002b: 174.
- kpr*, “henna” (KTU 1.3 ii 2; 1.7:15). There is no doubt about the meaning (DLU, 452). Heb. *koper* is the “inflorescence of a shrub with upward pointing blossoms” which was an orange dye for “hair, nails, fingers and toes” (HALOT, 495a). It is equivalent to Mycenaean *ku-pa-ro*, “cyperus, galingale”.<sup>118</sup> Note the expression “henna of seven tamarisks” (KTU 1.3 ii 2), identified by Wyatt; see on *bnt* above. Possibly, the term “henna” is being used here rather loosely.<sup>119</sup>
- kprt*, “henna-plant” (KTU 4.767:2) in the expression <sup>ᶜ</sup>*g kprt*. Instead, Dietrich - Loretz (1988: 252) read *kkb* <sup>ᶜ</sup>*sp kprt*. *y’kl dw*, and translate: “Kakkabu has collected stems of cypress bushes. The sick man will make use of them”. They comment that the stems and leaves of *Lawsonia alba* were ground to a powder which was made into henna, for cosmetic and medical use.<sup>120</sup>
- ksm* and *kšmn*, “spelt” or “emmer” (KTU 1.39:9; 1.41:19; 1.87:20; 4.269:4, 20; 4.608:2; etc.), occurs in ritual and administrative texts. It is grain similar to wheat, *Triticum spelta*, *Triticum sativum*, *dicoccum* (DUL, 462-63). It is used as food, as fodder and in the cult, and is measured by the *dd*. Cf. Heb. *kussetet*, plur. *kuss<sup>e</sup>mîm*, “spelt, grain with split awn” (HALOT, 490). Note that in Mari Akk. *kismu* may mean “stubble” (CDA, 161a).<sup>121</sup>
- *ktn*, “vetch” (TN?: KTU 1.92:28; PN: KTU 4.335:24; 4.694:4; 4.785:15), if it corresponds to Akk. *kiššanu*, *ki(š)ši/ennu*, “a leguminous plant” (CAD K, 456-57), “eine Hülsenfrucht, deren Mehl verbacken wird” (AHw, 492b). Note the syllabic spellings *ki-ši-na* and *ki-še-na* of the Ug. PN (cf.

114. But compare the variants *kukkudru*, *kukkadru* and *kidkidru*, “sheep's stomach” (CDA, 165; cf. CAD K, 500).

115. Note that *qqln* may not be a variant of this name as it is spelled *qi-qi-lu-na* (cf. van Soldt SAU, 18, 188).

116. Not to be confused with the homonym <sup>(URUDU)</sup>*kukulla-*, “(ein Gefäß aus Metall und/oder eine Maßeinheit)” (Tischler HEG, 617).

117. But a loanword in Hittite (as *kappani-*) and in Demotic (cf. Charpentier 1981 §§1187, 1252).

118. Or “le souchet” according to Erard-Cerceau 1990: 261-62. See Melena 1976: 183-84, according to whom the plant was used chiefly for making perfume.

119. Any relationship to Akk. *kaparru*, “spadix of the date palm” (cf. CAD K, 177) is very unlikely.

120. Tropper (UG, 77) disagrees and instead suggests three possible readings here: (1) <sup>ᶜ</sup>*lp ᶜᶜ kprt* (or *kprm*), “1000 henna bushes”; (2) <sup>ᶜ</sup>*lp ᶜᶜ kprt* (or *kprm*), “1000 (measures) of henna-juice” (where <sup>ᶜ</sup>*s* derives from <sup>ᶜ</sup>*ss*, “to press juice”) or (3) <sup>ᶜ</sup>*sp ᶜᶜ kprt* (or *kprm*), “he has collected henna bushes”.

121. It is remotely possible that the Ug. PN ■ *kšt* (KTU 4.707:15) also means “emmer”, like Akk. *kiššatu* (cf. CAD K, 459), but it may be Anatolian (cf. DUL, 467). Similarly, the PN ■ *ksyn* (KTU 4.70:9) may reflect Akk. *kasû* (plur. *kasîyā*), possibly “mustard” (CDA, 150; AHw, 455; CAD K, 248-49) but cf. Grøndahl PTU, 152. Also very uncertain is whether the PN ■ *ktkt* (KTU 4.33:16) corresponds to Eg. *ktkt*, a plant of some kind (Hannig HWB, 890, but cf. Charpentier 1981 §1275: “lire *krkr*”); it is probably Anatolian (Grøndahl PTU, 280).



DUL, 471). The meaning “vetch” for Akk. *kiššanu* was proposed by Stol (1985b: 130-32) and accepted by Zeeb (2001: 190-92; 625: “Futterwicke”).<sup>122</sup>

*lšn*, a herb (KTU 1.174:8; 1.175:5; 1.176:4), corresponding to Akk. *lišānu(m)* in the expression *lišān kalbi*. “hound’s tongue” (AHw, 556b; CDA, 183), with ellipsis of the word for “dog”.<sup>123</sup>

■ *mrnn*, plant-like (PN: KTU 4.75 iii 13; 4.75 iv 7; 4.278:11),<sup>124</sup> Akk. *mīrānu*, “a plant” (CDA, 211; AHw, 658), although the meaning “puppy(-like)” cannot be excluded (Watson 1990a: 121).

■ *nght*, “a plant” (TN: KTU 4.643:18): the spelling *na-ag-ḥa-ti* (cf. DUL, 623) may correspond to Akk. *Naga(h)ḥu*, which may be a plant name (CDA, 230, but cf. CAD N/1, 106).

■ *plgn*, “a plant” (PN: KTU 3.8:4), Akk. *pulḥānu*, “eine Pflanze” (AHw, 878a; cf. CDA, 278); for Ug. /g/ as equivalent to Akk. /ḥ/ in loanwords see Tropper UG, 125 §32.146.313.

■ *plšn*, “a plant” (PN: KTU 4.63 iii 34), if explained by Akk. *pālišu*, which denotes a plant (CDA, 262; AHw, 1581a). However, the term may not be Semitic (cf. DUL, 672-73).

■ *ppn*, “rush, sedge” (PN: KTU 4.39:6), Akk. *papānu*, “eine Binsenart” (AHw, 823b; cf. CDA, 264), supported by the syllabic spelling *pa-pa-na* (PRU 3, 193:34), unless the name is Egyptian.<sup>125</sup>

*prtł*, a medicinal herb (KTU 1.82:7, 19), as proposed by de Moor - Spronk (1984: 240), corresponds to Akk. *piriduluš*, a plant of some kind (AHw, 865b; CDA, 275). It is a Kassite word, borrowed into Ugaritic from Akkadian.

*pwt*, “madder” (KTU 4.182:10; 4.626:6; 4.771:4), a herb, i.e. *Madder tinctorum L.*, or *Rubia tinctorum*.<sup>126</sup> “The root was used as a red dye and medicinally as an astringent; the leaves provided fodder” (Jacob - Jacob 1992: 812b).

*q<sup>c</sup>l*, “vine blossom” (?) (KTU 1.22 i 16), i.e. choice wine, Arab. *qu<sup>c</sup>āl* (cf. DUL, 691).

*qn*, “cane” (KTU 4.91:10; 4.158:12); cf. DUL, 704-705.

*qšh*, “cumin”, i.e. *Nigella sativa* (KTU 4.751:8; 9.432:5’).<sup>127</sup>

*sbbyn*, “black cumin” (KTU 4.14:4, 9, 16; 4.707:8), the seed of *Nigella sativa L.*, Akk. *zibibiānu*, “Schwarzkümmel” (AHw, 1524); “black cumin” (CAD Z, 102-103). Note also NA *sabūbu*, *sabību* (or *sa(b)babu* ?), “(grain of) cumin” (CDA, 309; cf. AHw, 1000b; CAD S, 2).<sup>128</sup>

■ *šhr*, “a fragrant plant” (PN: KTU 4.65:8; 4.331:6; 4.422 [ii] 4; 4.609:7) and similarly *šhrn* (PN: KTU 4.348:6; 4.631:10, 20; 4.650:5) if they correspond to Akk. *siḥūru*, “an aromatic” (CAD S, 243; cf. AHw, 1040b; CDA, 322), but other explanations are possible.<sup>129</sup>

*smd*, “soapwort” (KTU 1.22 i 19), equivalent to Akk. *samīdu*, “ein Seifenkraut” (AHw, 1018a), “a soapwort” (CDA, 315).<sup>130</sup> The meaning “vineyard in flower” (cf. DLU, 763) is possible only if it

122. See HSED, 330 §1514 (“beans”). If the PN ■ *ktrn* (KTU 4.313:10) is not derived from the DN *ktr*, it may be explained by Akk. *kušāru*, “reed-stalk” or *kušru*, a plant (CDA, 170).

123. Bordreuil - Caquot 1979: 297; 1980: 346; cf. DUL, 506.

124. The reference “*bt PN*” in DUL, 576 (entry for *mrnn*, under b)) should be corrected to “*bn PN*” and “III 13” should be deleted.

125. I.e. *p(3)-(n-)pn(w)*, “He who belongs to the Mouse” (Muchiki 1999: 279). See also Takács EDE II, 434 for discussion.

126. Heb. *Pw’h*; Ugaritian Akkadian: 1 GUN *ḥu-re-tu<sub>4</sub>* : *pu-wa-tu<sub>4</sub>* (RS 23.368:14’; cf. van Soldt 1990: 323); syll. Ug.: *Ú* : *pu-wa-ti*, (PRU 3, 208:3’, 6’, 10’; cf. van Soldt 1990: 322, n. 9). Note also Eg. *ip3*, “madder” (DLE I, 25; Charpentier 1981 §115).

127. Note also *rt* (KTU 4.203:8; 4.206:2; 4.337:12), referring to cloth(es), explained from Akk. *urṭū*, a plant (CDA, 427), here used as a dye.

128. Identified by Dietrich - Loretz - Sanmartín 1973: 115 and 1974: 36; cf. Pardee 2002b: 174 and also Süel - Soysal 2003: 362, and Röllig - Tsukimoto 1999: 436. See also Akk. *zibū*, on which cf. Zeeb 2001: 193. On the TN *zibiḥa*, which may also mean “black cumin”, see Astour 1980: 7-8 §63.

129. See Watson 1995a: 225. Cf. also Eg. *šhrw*, a type of wood (Charpentier 1981 §992).

corresponds to Heb. *smdr*, “flower buds of the vine” (HALOT, 759), Akk. *samādiru*, “flower” (CDA, 314, a loanword from Aramaic), but this would require the dropping of the final /-r/. Since both Akk. *samādiru* and *samīdu* occur, with different meanings, this is unlikely. Other alternatives are “fine flour”, corresponding to Akk. *samīdu*, “a fine flour” (CDA, 315), Arab. *samīdu* (cf. Driver CML<sup>1</sup>, 147), and “necklace”, if Ug. *smd* is a loan from Eg. *smd* (Watson 1999: 780-81).

*smm* (KTU 1.16 iii 10) may mean “perfume” (DLU, 763),<sup>131</sup> if understood as corresponding to *ʿirtt*, “fragrant herbs” (see above), reading *k smm*; otherwise it is to be read as *ksmm*, “spelt”.<sup>132</sup>

■ *snb*, an aromatic plant or a fruit tree (?) (PN: KTU 4.311:3), Eg. *snb* with this meaning (Charpentier 1981 §§960-961), although Muchiki (1999: 277) prefers the meaning “Being well”, corresponding to Eg. *snb*, “well-being”, adding (*ibid.*): “This is one of the most common Eg. names”.

■ *sst*, “grass” (PN: KTU 4.63 i 14): the spelling *sà-as-sà-at* (PRU 4, 239:15) indicates Akk. *sassatu*, “grass, turf” (CDA, 318; CAD S, 194-95). Alternatively, compare Akk. *sisātu*, “a plant” (CDA, 325) although this may simply be a variant of Akk. *sassatu* (CAD S, 321), and cf. Eg. *sst*, “e. Pflanze” (Hannig HWB, 756) and/or *ssd*, a plant (DLE II, 77). See also Charpentier 1981 §997.

■ *syn*, “a plant” (TN: KTU 4.382:34; 4.430:3): the spellings *sí-ia-ni*, *si-i<sub>15</sub>-a-ni*, etc. (cf. DUL, 774) may perhaps indicate a derivation from Akk. *siyû*, a plant of some kind (CAD S, 243; CDA, 325).<sup>133</sup> See also the PN *synn* (KTU 4.7:15, etc.).

*šlpn*, “caper-bush” (PN: KTU 4.309:29) – Heb. *šālāp*, “caper-bush”,<sup>134</sup> Arab. *lašaf*, *Capparis spinosa* (HALOT, 1030). Or else see perhaps Akk. *šala(b)ittu*, a plant (AHw, 1075b; CDA, 332); *šalabītu* (or *šalabittu*), “(a resin)” (CAD S, 66-67).

*šmll*, “a spice plant” (KTU 4.158:10) may be a mistake for *šml* (which occurs in KTU 4.341:12 at the same price) but “la forme *šml* refléterait la prononciation locale du mot akkadien *šumlalû*; ou, plus simplement, il pourrait s'agir de la forme ougaritique du même mot (peut-être /šumallu/ dans l'un ou l'autre de ces cas de figure)” (Pardee 2000a: 36). Pardee rejects “ripe figs” and “peas” and prefers Sanmartín's comparison with Akk. *šumlalû*, a spice plant (cf. CDA, 341).<sup>135</sup>

*šrr*, “young ear of corn” (?) (KTU 1.19 i 17), Arab. *šarar*, “ears of corn” as proposed by de Moor (1988: 66-67).<sup>136</sup> See also Akk. *sarru*, *zarru*, *šarru*, “shock, stack (of sheaves of barley)” (CAD S, 184), a Sum. loanword (Steiner 2003: 638).

*š<sup>c</sup>rm*, “barley” (*Hordeum sativum* L.) (KTU 4.14:1, 7, 13; 4.369:22, 23, 24, etc.; cf. DUL, 798-800), Heb. *š<sup>c</sup>rh* (HALOT, 1345-46), etc., or *Hordeum vulgare*. It has been grown since at least 5000 BCE.<sup>137</sup> Note also *bql*, “malt” (KTU 2.7:6; 4.520:3), discussed below (§12.1).

130. On *samīdu* see Röllig - Tsukimoto (1999: 436): “Eine botanisch gesicherte Zuordnung des Gewürzkrautes ist aber nicht möglich”. See also Akk. *asmidu*, “a plant name”, “a garden plant” (CDA, 26) and Aram. *s<sup>c</sup>midtā*, cited by Caquot - Szyner (TOu 1, 476, n. n).

131. See also Eg. *sm*, “vegetables, grass, herbage, plants” (DLE II, 37), but cf. Militarev 1999: 394 §1.

132. See Wyatt RTU, 231 and for the ellipsis, Miller 1999: 364-65.

133. Note Eg. *sin*, “une plante de nom étranger non asiatique” (Charpentier 1981 §911).

134. Noth 1928: 231; Grøndahl PTU, 188; see Zadok 1988: 96.

135. “If it is not the resin or a conifer, it could very well be the resin of the terebinth” (Stol 1979: 19), though this statement is criticised by Köcher (1995: 211 sub 13’); see also Heebel - Al-Rawi 2003: 237.

136. More accurately, “ears of corn while the farina has not come forth into them”, “corn when the leaves become twisted, and the extremity of the ears becomes dry and tough, though the farina has not come forth into them” (Lane AEL, 1672) quoted by de Moor 1988: 67.

137. See HSED, 127 §544.

- šblt*, “ear, spike (of corn)” (KTU 1.19 i 18; 1.19 ii 20-21, etc.; DUL, 805) is common Semitic; cf. Heb. *šblt*, “an ear of corn” (HALOT 1394-95; cf. Woodhouse 2003), Akk. *šubultu*, *šibultu*, “Ähre” (AHw, 1258b), “ear of barley” (CAD Š/3, 186-87), etc.
- šbn*, “rush” (TN: KTU 1.119:2, etc.), if it is the equivalent of Akk. *šūbu*, “rush” (CDA, 379); for syllabic spellings cf. van Soldt 1996: 686.
- *šbry* (PN: KTU 4.617:18): in addition to the possible meanings (cf. Grøndahl PTU, 198, 302-303) cf. Akk. *šibru*, which denotes a plant (CAD Š/2, 382; CDA, 370).
- šhlt*, “cress seeds” (KTU 4.14:4, 16; 4.786:12), corresponding to Akk. *saḥlū*, “cress” (CDA, 312), which was used both as a food (as seasoning and as a foodstuff) and in medicine.<sup>138</sup> Köcher (1995: 212) points out that the plant is described as being broad-leaved and having “weapons” – “Dornen, Stacheln, spitze Borsten oder Brennhare” – so it cannot be cardomum, which in any case is native to India. Nor can it be watercress, since it “grows in fields and dry places” (Powell 2003: 14b). It can only be cress (*Lepidium sativum*), “a peppery plant that can be eaten green but which seems to have been cultivated primarily for its peppery seeds” (Powell 2003: 19b-20a).
- *šmt*, “a plant” (PN?: KTU 4.50:5), may correspond to Akk. *šumittu* (also spelled *šāmiṭu*, *šamiṭtu*, *sāmiṭu*), which denotes an alkaline plant (CAD Š/1, 313; CDA, 353). Or else, cf. Akk. *šamuttu*, *šumuttu*, “a red plant, possibly beetroot” (CAD Š/3, 301-302).<sup>139</sup>
- šql*, “a marsh plant(?)” (TN: KTU 1.91:25, etc.); cf. Akk. *šuqlu*, *šuqulu*, “a marsh plant(?)” (CDA, 387; CAD Š/3, 334). However, note the spelling *šu-qa-lu*, etc. (van Soldt 1996: 688).<sup>140</sup>
- tyt*, “ranunculus, buttercup”, *Asa foetida* (?) (KTU 4.14:14; 4.203:17; 4.337:26; 5.11:13), corresponds to Akk. *tīyatu*, “crowfoot (?)” (AHw, 1357a; cf. CDA, 408); also a loan in Hittite from Akkadian: “*Asa foetida* (*Ferula foetida*) is a member of the parsley family (*Umbelliferae*). It has large fleshy roots which yield a milky juice. This juice, when dried to a brown gummy substance, was used as a drug — a sedative for spasms and convulsions” (Hoffner 1974: 110) and was also used as food seasoning.<sup>141</sup>
- *tbln*, (PN: KTU 4.322:7), possibly corresponding to Akk. *šabbilu* or *šambilu*, the name of a plant or herb (CAD Š/1, 10a; CDA, 343).<sup>142</sup>
- tbry* (PN: KTU 4.617:18): see on *šbry* above.
- tmr*, “fennel” (TN: KTU 4.553:8, etc.) also as *tmyr* and *tmrn* (PN: KTU 4.69 vi 31; 4.645:9); see discussion in §12.1.<sup>143</sup>
- tr*, possibly a plant (KTU 4.205:1; cf. DUL, 930), found only in the syntagm *ptt tr*, where “[t]he reading as well as the interpretation of this word are uncertain” (van Soldt 1990: 329, n. 64).
- *trdn*, “rocket (?)” (PN: KTU 4.755:14; 4.315:8) – Akk. *šurdunū*, *šardunū*, *šadurnū*, “a plant” (CDA, 387), possibly rocket, *Eruca sativa* (cf. CAD Š/3, 343-45).

138. Cf. Slotsky 1997: 34-36. See already Sanmartín 1990: 95. Also, Süel - Soysal 2003: 359-60; Zadok 1997 and Winitzer 2003.

139. Cf. Röllig - Tsukimoto 1999: 436-37.

140. Is the PN ■ *tlgn* (KTU 4.609:35) a metathetic form of Akk. *tigillū*, “colocynth” (AHw, 1356b; CDA, 406) which occurs as *liligū* and *lallikū* (AHw, 529b; CDA, 182)? Or see Eg. *tlg*, which denotes a plant (Charpentier 1981 §1393 [Demotic]). The PN ■ *trbnn* (KTU 4.369:21, 22; 4.693:35) may correspond to Akk. *tarabānu*, “eine Drogenpflanze” (AHw, 1324b; cf. CDA, 399); for an explanation from Hurrian cf. Watson 1996: 104.

141. Thompson 1949: 93-94; Pardee 2002b: 179. See also Süel - Soysal 2003: 355-54. On *asafoetida* as a contraceptive and abortifacient see Biggs 2000: 7.

142. Alternatively, see Akk. *šimbiltu*, “spikenard” (CAD Š/3, 42a; CDA, 374).

143. Here mention can be made of ■ *tmk*, “onions (?)” (TN: KTU 4.424:3, but the text is uncertain), Akk. *šumkū*, “onions” (CDA, 384); cf. Frahm 2002: 47-86. Instead, Aartun (1985: 42-43) suggests “Bitterkraut” (see DUL, 914).

*trn*, a vegetable product (?) (KTU 1.175:4; 4.786:3), is possibly a loan either from Akk. *šarānu*, a medicinal plant (CAD Š/2, 50; cf. AHW, 1185a) or a type of wood (CDA, 360), indicated by the syllabic spelling *ša-ra-na* (PRU 6, 73:20)<sup>144</sup> or else from Akk. *šurnû*, also a (medicinal) plant (cf. CAD Š/3, 353; AHW, 1284b; CDA, 388).<sup>145</sup>

*trnq*, “a plant” (PN: KTU 4.382:26), Akk. *šarnagu*, “a plant” (AHW, 1187a; CAD Š/2, 65b; CDA, 360).

*ṭsr*, “artemisia” (KTU 1.20 ii 11), as proposed by Dijkstra - de Moor (1975: 215), based on Syriac *šūšārā*, *šwašrā* with the same meaning.

- *ṭty* (PN: KTU 4.55:23; 4.80:5) and ■ *ṭtyn* (PN: KTU 4.432:20): cf. Akk. *šitû*, “a plant” (CDA, 378); “(a) plant, a variety of *kasû*” (CAD Š/3, 143).<sup>146</sup>
- *yrt*, an aromatic bush (?) (PN: KTU 4.134:4), Akk. *yāruttu*, “a bush” (CDA, 40; cf. CAD I/J, 326), although the PN may not be complete.
- *zrn*, “seed-corn (?)” (TN: KTU 4.68:9; 4.95:6; 4.113:8; 4.308:2; 4.610 ii 37; 4.629:13; 4.686:6; 4.553:1),<sup>147</sup> based on Akk. *zārānû*, “seed-corn” (CDA, 446), though the meaning is uncertain. If so, it would be a direct loan as there is no *‘ayin*.<sup>148</sup>

### 8 Terms occurring only in syllabic spellings

Terms for trees, plants, etc. in syllabic spellings only include the following.

*elamu*, “a type of tree or wood” (PRU 6, 158:10).<sup>149</sup>

*ḥuluri*, “chick-pea” (TN: PRU 4, 65:11’), proposed by Astour (1980: 4 §20), based on Akk. *ḥallūru(m)*, *ḥullūru*, etc. “peas”, perhaps “chick-pea” (cf. CDA, 102).

*ḥarganā*, “a conifer” (TN: PRU 6, 77:5), proposed by Astour (1980: 4 §17), based on Akk. (*h*)*argānum*, a conifer (CAD A/1, 253b-54).

- *ḥarmānu*, a plant (TN: PRU 3, 91:4’, etc.)<sup>150</sup> – cf. Akk. *ḥarmunu*, “a plant” (CAD H, 104b-105a; cf. CDA, 108) or Akk. *ḥarmu*, *ḥurmu*, “a plant” (CAD H, 252a; CDA, 122).

*kanzata*, a plant (TN: PRU 4, 65:6’), Akk. *kanzû*, “a medicinal plant” (CAD K, 172a; CDA, 146), as proposed by Astour (1980: 4 §23).

*maswātu*: see *maswaṭu*, “oar”, discussed in §11.

*pugule/i*, “radish” (TN: PRU 4, 65:18’; PRU 4, 48 r.3’), proposed by Astour (1980: 6 §39), based on Akk. *puglu(m)*, “radish” (CDA, 277).

*šuqdu*, “almond” (PRU 6, 159:4’; cf. Huehnergard 1987: 188-89).

*tamaru*, “date-palm” (Ugar. 5, 137 ii 5; cf. Huehnergard 1987: 185).

*ti’natu*, “fig” (Ugar. 5, 130 iii 17) – Akk. *tittu*, “fig”.<sup>151</sup>

*yarqānu*, a plant (TN: PRU 4, 65:5’; PRU 4, 69:14’), proposed by Astour (1980: 6 §62), based on Akk. *yarqānu*, “a garden plant” (CDA, 440).

144. For the PN *trn*, KTU 4.15:7, etc.; cf. DUL, 933.

145. See Watson 2004: 254.

146. The PN *ṭty* (KTU 2.44:14) may be Egyptian; cf. DLU, 936.

147. For syllabic spellings (*ša-ra-nu*, *ša-ri-nu*, etc. cf. van Soldt 1996: 672.

148. Also, Ug. /z/ corresponds to Akk. /š/ or /ṭ/, see Tropper UG, 113-15.

149. Cf. Huehnergard 1987: 190.

150. See van Soldt 1996: 671.

151. See Huehnergard 1987: 184 and van Soldt 1989: 651; on Punic *tyn*, “fig”, cf. DNWSI, 1212.

In the Akkadian texts, botanical terms also occur, as shown by the following extract (RS 25.421, lines 67-78).<sup>152</sup>

A fifth attribute of my mother shall I give to you:  
 My mother is a date-palm (*gišimmaru*) whose fragrance is sweet.  
 A chariot (made) of juniper-wood (*burāšu*), a bed (made) of boxwood (*taskarinni*),  
 sweet powder that gives out its ointment.  
 a branch (*lurū*) of the pomegranate-tree (?),  
 a flask made from an ostrich egg, filled with the finest oil.

### 9 Disputed and difficult words

While in general it is difficult to assign meanings, certain terms have provoked considerable debate, as mentioned in the introduction.<sup>153</sup> These terms are as follows:

<i>ḥs/šw(n)</i>	“lettuce” or “garlic” ?
<i>mr</i>	“myrrh” or “bitter weed” ?
<i>ššmn</i>	“flax” or “linseed” ?
<i>tpḥ</i>	“apple” or “apricot” ?
<i>ḥndrt</i>	“apple” or “apricot” ?

#### 9.1 *ḥs/šw(n)* – “lettuce” or “garlic” ?

It used to be thought that *ḥs/šw(n)* (KTU 4.4:9, 11; 4.14:3; 4.60:2; RS 94.2600; PN: KTU 4.44:26; 4.232:32) meant “lettuce” (Hoffner 1973) or even “thyme”.<sup>154</sup> According to Hoch (1994: 253): “The Egyptian [*ḥi=ti<sub>2</sub>=na*] and Ugaritic [*ḥs/šw(n)*] words may both be connected with the word for “lettuce” (and sometimes “leeks”) that is widely attested in Semitic and non-Semitic languages of the Near East”.<sup>155</sup> It is now considered to mean “garlic or onion”, corresponding to Akk. *azannu*, *ḥazuannu*, *ḥazannum*, which means “garlic”, “leek”, following Farber (1991).<sup>156</sup> It also occurs in the expression *ḥswn ḥrb* (RS 94.2600),<sup>157</sup> which may mean “dried garlic”.

#### 9.2 *mr* – “myrrh” or “a bitter plant” ?

The term *mr* occurs in the expression *šmn mr*, “myrrh-scented oil” (KTU 1.41:20; 1.87:22; 4.14:2, 8, 15; 4.91:16),<sup>158</sup> which corresponds to EA *šaman murri* (EA 25 iv 51) and Hebrew *šemen hammôr* (Esther 2:12), both the same meaning. It was a cosmetic and was also used in ritual. The word for myrrh was borrowed from South Arabia, and the borrowing had happened quite early, as shown by the Amarna Letters. This indicates that at this period there were trade-routes from Southern Arabia to the countries of the Eastern Mediterranean. “The word «myrrh» derives ... from the Semitic root *mrr*, meaning «bitter» (Arabic *murr*, Hebrew *mor*, Akkadian *murru*)” (Groom 1981: 17).<sup>159</sup> According to Sasson (1972: 426),

152. Ugar. 5, 314-16; see also lines 36-46.

153. Meiggs (1982: 410-22) calls this “confusion of species”.

154. Most recently defended by Pardee (2001: 170) as “thyme”, a loan from Hittite (perhaps through Hurrian), related either to Akk. *ḥašû*, “thyme” (CDA, 111; cf. Sanmartín 1990: 93: “thyme”) or to *ḥassû*, “lettuce”.

155. “The connection between leek plants and lettuce is likely the notion of «being layered»” (Hoch 1994: 253, n. 69).

156. See Watson 1995b: 227-28; it also occurs in the Ebla texts, meaning “leek” (Stol 1987: 58). Cf. also Eg. *ḥtn*, “garlic” (Hannig HWB, 628), probably a Semitic loanword in Egyptian.

157. Unpublished text cited by Pardee 2002b: 173, n. 48.

158. See also *mrrt* (KTU 6.44:2), which probably means “myrrh” (cf. DUL, 578).

159. See also Groom 1981: 118 and Farber 1993-97: 536.

“[t]he meaning “myrrh” is accepted by all scholars”.<sup>160</sup> But according to the CAD (M/2, 222), the addition of “?” to the entry “myrrh” is there because “the refs. to the seeds of the *murru*-plant show clearly that the designation *murru* [sometimes refers] to a native «bitter» plant ... This is confirmed in NB texts by the use of *murru* for tanning. On the other hand, the refs. to myrrh-scented oil speak for the use of real myrrh. In most other passages, it cannot be decided whether real myrrh or a plant called *murru* with a similar astringent quality is meant”.<sup>161</sup> Ultimately, then, it depends on context.<sup>162</sup>

### 9.3 ššmn – “sesame” or “linseed” ?

The debate on whether Ug. *ššmn* (KTU 4.14:4, 10; 4.60:8; 4.594:4; 4.707:6) and Akk. *šamaššammū* (Sum. *še.giš.i*) denote “sesame” or “flax/linseed” is based on archaeological finds. According to the Chicago Assyrian Dictionary, it denotes *Sesamum indicum*, “The principal oleiferous plant, probably flax, and its seed” (CAD Š/1, 301). Also: “Since no sesame seeds have so far been found in Mesopotamia in archaeological contexts earlier than the Sassanid period, whereas there is an abundance of linseed remains, it was proposed by Helbaek [1966] ... that ... oil was extracted from linseed, and the name was later transferred to the newly introduced oleiferous plant, sesame” (CAD Š/1, 306-307). Similarly, “Sumerian and Akkadian texts mention an 'oil plant', etymologically related to 'sesame', long before evidence of sesame itself occurs in the archaeological record” (Ertuğ 2000: 174).<sup>163</sup> However as Powell (1991) noted, flax has a specific name in Mesopotamia, either Sum. *numun gu*, “seed of flax/thread” or Akk. *zēr kitē*, “seed of linen”. Furthermore, as Civil has pointed out (1976: 141), in Sumerian “sesame farmers” are distinguished from “flax farmers”. More to the point, in spite of Helbaek, sesame *has* been found earlier, much earlier (as early as the 3rd millennium in Egypt).<sup>164</sup> According to Charles 1993 (cited by Ertuğ 2000: 174, n. 9) 15 sesame seeds and a few flax seeds were found in the 2500-2100 BC levels at Abu-Salabikh (Iraq). Accordingly, Powell argues against the view of Helbaek (1966) that *šamaššammū* means “linseed”. The word for “linseed” (*Linum usitatissimum*) is different, namely Akk. *qū*, (Sum. *gu*), lit. “thread”. Since sesame seeds have been found in early archaeological sites<sup>165</sup> and since the name has persisted (even to modern times), there seems to be no doubt that both Ug. *ššmn* and Akk. *šamaššammū* mean “sesame”, not “linseed”. However, in their book on the *Domestication of Plants in the Old World*, Zohary and Hopf remain more cautious. They are dubious about these claims for very early finds and conclude: “It is still undecided when sesame was domesticated and how early it was introduced into the Near East”.<sup>166</sup>

160. However see Sima 2000: 281-84. He concludes (*ibid.* 283, n. 117): “Zu streichen sind aus der Geschichte des Myrrhe-Handels die levantinischen «Myrrhe»-Belege der 2. Hälfte des 2. Jt. v. Chr., alt-kanaan. *mu-ur-ra* (DNWSI, 682) und ugarit. *Mr* ... sowie die akkadischen Belege für *murru*”, which he considers to be completely unrelated to myrrh and to denote plants derived from the common Semitic root \**mrr*. See also Müller 1997: 198 (who includes references to Ugaritic), and Farber 1993-97, both cited by Sima.

161. Note that Finkel (2000: 160) seems to consider LB *murru* to denote a plant; similarly, Röllig - Tsukimoto (1999: 437). In Eblaite, *murru(m)* may perhaps have meant “un tipo di malto amaro” (Conti 1990: 178).

162. Note that Ug. *mr*, “myrrh”, is differentiated from its homograph meaning “bitter” in DUL, 569.

163. With reference to Miller 1991. See also Slotsky 1997: 36-39.

164. However, Eg. *nhh* does not mean “sesame oil” but “olive oil”, as shown by Krauss 1999. See also Baganall 2000.

165. Survey of names for sesame in Kraus 1968: 113. It is also mentioned in Linear B documents (Erard-Cerceau 1990: 272-73). For Egyptian see Ward 1961: 38 §23.

166. For evidence of sesame seeds in Syria and Mesopotamia, meagre though it is, see van Zeist - Bottema 1999: 32. Sturm (2002: 772 and n. 48) is absolutely certain that Akk. *šamaššammū* means “sesame”.

9.4 *tpḥ* – “apple-tree” or “apricot-tree” ?

The problem is whether *tpḥ* refers to the “apricot” or to the “apple” (KTU 1.20 i 11; TN: KTU 4.643:14).<sup>167</sup> In favour of apricot: “One fruit tree which fulfills all the requirements for being a *tappūaḥ* is the apricot, *Prunus armeniaca* L. also known as *Armeniaca vulgaris* Lam. It is a common tree in Palestine and Syria ... Its fruit is known for its fragrance and sweet taste, and its color is gold” (Borowski 1987: 129-30). Similarly, “while domesticated apple trees are now found in Israel, wild specimens are not believed to have grown there in biblical times since it is a tree native to the N hemisphere. Apricots, however, grow in warmer climes and are native to China; they have long been abundant in Israel and most probably were introduced in biblical times” (Jacob - Jacob 1992: 806b-807a).<sup>168</sup> In favour of apple: Powell has examined Greek and Latin sources for the presence of the apricot, concluding (1987b: 155): “In sum, the classical sources by their late date speak uniformly for a relatively late date for diffusion of the apricot in the Mediterranean area”. The recent multi-volume Hebrew dictionary (HALOT, 1773b-74a) opts for apple and Hoch (1994: 377 §563) also unequivocally proposes “apple”.<sup>169</sup> Similarly, *ḥndrt* (KTU 1.71:7, 4.34:5-6, etc.) may mean either “apricot tree” or “apple tree”, corresponding to Akk. *ḥi/enzūru*, (AHw, 347b; CAD H, 170).<sup>170</sup> It may conceivably mean “quince” but it is less likely to mean “grain”, an Indo-European loanword (Renfroe 1992: 123; Cohen 1996: 122-23).<sup>171</sup> In fact, Nesbitt (2003: 27a) notes that the archaeological evidence suggests a late arrival to the Near East of both the domesticated apple and the apricot.

10 *The obscure word aqhr*

In KTU 4.14, the commodity *aqhr* (line 3) is listed together with *ḥswn*, “onion, garlic”, *sbbyn*, “cumin”, *ššmn*, “sesame”, *šḥlt*, “cress”, and *šmqm*, “dried raisins”. Broadly speaking, all these can be classed as herbs. Similarly, two lines before (KTU 4.14:1-2), *gd*, “string (of garlic?)”, *šʿrm*, “barley”, *nbt*, “honey” and *šmn mr*, “bitter oil(?)” (see §9.3 above) are listed, and indicate a context of luxury foodstuffs. Recently, Pardee discussed this text and concluded that its meaning is unknown, although from context it probably was some kind of grain used as a spice.<sup>172</sup> I propose the meaning “palm-heart” or the like, based on Akk. *uqūru(m)*, “«Herzblätter der Dattelpalme, Palmkohl»” (AHw, 1427b); “palm-heart” (CDA, 425).<sup>173</sup> As regards the morphology of *aqhr*, for the elision of *-h-* in the presence of */r/* in *aqhr* compare the variants *dhrt* and *drt* (Tropper 1996). However, the correspondence of the initial Ug. *'a-* to Akk. *u-* remains problematic although it is not insurmountable. If the identification is correct, perhaps we are dealing with cognates rather than loanwords, although a loan seems more likely.<sup>174</sup> Note that Akk. *uqūru* was also borrowed by Late Hebrew and Aramaic as *qū/ār(ā)*, “heart of (the) palm”.<sup>175</sup> It even occurs in a Hittite text as U-GUR, i.e. *U-QUR (uqūru)* (Süel - Soysal 2003: 365). Another product of the palm used in Ugarit was *ssn*, “date-palm branch” (discussed in §12.2 above).

167. Cf. Astour 1980: 7. For cognates see DUL, 875.

168. See also Powell 2003: 16 and previously, Powell 1987.

169. See already Ward 1960: 326.

170. Although, note the TN *ḥenzuriwa*, “apple” (Astour 1980: 4 §19).

171. However, see the cautious remarks of van Soldt 1997: 688 and n.24.

172. “Le sens de *'aqhr* est inconnu, mais d'après la mesure indiquée et la place qu'occupe ce produit dans la suite du texte ... il s'agira vraisemblablement d'une espèce de graine utilisé comme épice” (Pardee 2002b: 173).

173. Cf. Landsberger 1967: 13-14. It could be eaten: “in ancient times other parts of the palm were consumed as edibles (e.g. palm heart: *uqūru*)” (Powell 2003: 15b).

174. See previously Watson 2003b.

175. Landsberger 1967: 14, n. 14; he also comments: “We wonder that a precious article (serving otherwise as a food stuff) could figure among the most common «drugs» like (leaves of) tamarisk....”.

11 *Incorrectly identified terms*

The following words have been proposed by scholars as terms for various types of tree, but incorrectly. They are listed here for completeness.<sup>176</sup>

- \**itl*, “tamarisk” (KTU 1.18 iv 25; cf. 1.1. ii 9): Margalit (1983b: 114) considers *itl* to be a plant, i.e. Akk. *išlu*, “a type of (oil-bearing) plant” (CDA, 134; cf. AHW, 396b: “eine Pflanze”); but it is not included in CAD I/J. If correct, one could compare Heb. *’ešel* (*Tamarix syriaca*, HALOT, 95), Arab. *’aṭṭun*, OSA *’tl*, “tamarisk” (see Sima 2000: 181-84) and Eg. *isr*.<sup>177</sup> However, it is now generally accepted that Ug. *itl* means “saliva, phlegm, spittle”.<sup>178</sup>
- \**ṭrṭrt* (KTU 1.16 iii 11; 1.16 v 44, 1.16 vi 8) may mean “fragrant herbs”,<sup>179</sup> “primrose”<sup>180</sup> or “type of grain”,<sup>181</sup> but the generally accepted meaning is “crown” (cf. DUL, 192). See below on *smm*.
- \**gmš*, “a plant” (PN: KTU 4.611:18; 4.713:2), based on Akk. *gammiš*, a plant (CDA, 89), whereas it is probably a form of the DN *kmṭ*.<sup>182</sup>
- \**ḡrṃn*, “plane tree” (*Platanus orientalis*) (KTU 1.3 ii 11). It was Aartun who first suggested the meaning “plane tree”, based on Hebrew *’rmwn* with the same meaning. He translated *k qšm ḡrṃn kp mhr* (KTU 1.3 ii 11) “like the cut off bits of the plane tree are the (severed) hands of the warriors”,<sup>183</sup> and was followed by de Moor (ARTU: 5): “like scales of a plane-tree”.<sup>184</sup> However, the alternative meaning “heap”, “swarm” is generally accepted because the parallel line has *irbym*, “locusts”.<sup>185</sup>
- \**hrš* as “(Palmen-)Zweig” (KTU 1.43:5), based on Arab. *ḥurš-*, and proposed by Aartun (1984: 30-31, Nr. 38). Here, though, Ug. *hrš* is generally considered to mean “gold” (cf. Pardee 2000: 218, 1134).
- \**ḥṭm*, “hibiscus, rose of Sharon” (KTU 1.16 vi 8), as proposed by Saliba (1972: 108-109), who translated the line *tdu šrr ḥṭm t’mt pṭr*, “She flew to the site of Syrian Roses, she squeezed the mushrooms”, as part of a folk remedy for Keret. In a later study, a group of scholars proposed the meaning “marsh-mallow”, translating “De guimauve elle fait un bandage autour des tempes”.<sup>186</sup> Subsequently, in support of this version, Bordreuil and ‘Ajjan (1978) noted that Arab. *ḥāṭma* was “une plante utilisée pour laver la tête, pour calmer la douleur et les maux de dents, et qui est efficace contre l’anurésie, la sciatique, les cramps d’estomac, contre les piqûre d’insectes et les brûlures”.<sup>187</sup> For currently accepted translations, where the word is not considered to denote a plant, see Wyatt RTU, 237; DUL, 415. See on *pṭr*, below.

176. Here *ilwn*, “large tree ?” (PN: KTU 4.83:4), tentatively listed by Grøndahl PTU, 98 can be mentioned, but see *ibid.*, 273.

177. See Charpentier 1981 §188. Alternatively, cf. Akk. *ušultu*, “(a plant)” (CDA, 429).

178. Corresponding, perhaps to Akk. *ušultu*, “saliva”; see Watson 1987, but cf. Tropper UG, 111, who rejects this equivalence. It is unlikely that Ug. *grgr* (KTU 1.16 i 48) is equivalent to Akk. *gurgurru*, a plant (CDA, 96; CAD G, 139).

179. De Moor 1979: 646-47 and n. 44; “e. wohlriechende Pflanze” (Dietrich - Loretz 1978: 424-25).

180. De Moor ARTU, 221. For the possibility that *ṭr* means “primrose” or the like in KTU 1.16 v 44 and 1.16 vi 8, see de Moor 1979: 646-47, who notes: “The rendering “primrose” for *ṭr* is only an approximation which rests on the assumption that it is the flower which is still called *’eṭrah* in the region of Ugarit”.

181. Cf. the EA (gloss) *ḥu-ṭá-ri-ma*.

182. See Watson 1995a: 221 for details.

183. “wie das Abgehauene (abgehauene blättrige Zweige) bzw. Bruchstücke (der Rinde) der Platane (sind) die (abgehauenen) Hände der Krieger” (Aartun 1967-68: 296).

184. “like cut corn piled in heaps” (Driver CML<sup>1</sup>, 85).

185. E.g. “like grasshoppers heaps of palms of warriors” (Wyatt RTU, 73, n. 22); cf. Dietrich - Loretz 1972: 30; Tropper UG, 126.

186. Badre *et al.* 1976: 123, with the note (*ibid.* 124) “*ḥṭm* : pourrait être l’équivalent de l’arabe *ḥiṭmiyah* «guimauve» qui est une plante médicinale utilisée encore aujourd’hui au Liban, en Syrie et en Iraq”.

187. For the reference see Bordreuil - ‘Ajjan 1978: 6, n.1



- \**mswn* has been explained by Akk. *maswatu*, considered to mean a type of tree, possibly “cypress”<sup>188</sup> but in fact Ug. *mswn* remains unexplained. Instead, Akk. *maswaṭu* means “oar” and corresponds to Ug. *mttm* (KTU 4.689:2) with the same meaning, as first proposed by Xella (1982),<sup>189</sup> from a root \**twṭ*, “to row”.<sup>190</sup>
- \**pṭr*, “mushroom” (KTU 1.16 vi 8), a meaning proposed by Saliba (1972: 108). Besides Arab. *pṭr* (cited in DUL, 687) cf. Akk. *puṭūru*, “mushroom” (CDA, 280); for discussion see above under *ḥṭm*.
- \**šlm*, “black wood” (?) (KTU 1.13:18), may correspond to Akk. *šulmu*, *šulāmu*, “a black wood” (cf. Schneider-Ludorff 1998: 124; CAD S, 238, 240) or *šallamtu*, a kind of plant or tree (CDA, 332; CAD S, 73), also named after its colour, i.e. black. However, it probably means “image” in this context (cf. DUL, 783).
- \**škm*, “thorns” (KTU 4.14:6, 12, 18), Heb. *šk*, “thorn” (HALOT, 1326a), Arab. *šauk*; as proposed by Dhorme 1931 and followed by Bauer 1932. Unfortunately, “[I]e mot biblique signifie pourtant l' “épine” proprement dite, qui n'aurait pas sa place dans ce texte...” (Pardee 2002b: 176, n. 67). Instead, as Pardee explains (2002b: 176), the root appears to be *škm* (i.e. it is not a plural of *šk*).<sup>191</sup>
- \**tr*, a type of cedar (KTU 4.145:5; 4.158:7; 4.167:2-3; 4.363:10), a meaning suggested by de Moor (1965: 362) based on Hurr. *tiyari*.<sup>192</sup> One could also compare Hausa *taruwā*, a kind of tree (cf. *taruw* HSED, 499 §2375).<sup>193</sup> But most scholars now accept that in one text (KTU 4.158:7) *tr* simply means “log”<sup>194</sup> and that in the other texts it means the “pole, steering pole” of a chariot (cf. Akk. *tāru*, “to turn”).
- \**tmrg*, meaning unknown (1.85:25), is an incorrect reading and is in fact *tmr* followed by the word-divider (see full discussion in Cohen 1996: 142-43, following Pardee).
- \**yrkt*, “samara, winglet” of the ash-tree (KTU 1.13:14), proposed by de Moor (1971: 350), based on the meaning “thigh” (Heb. *yārek*, etc.), since “winged samaras of the ash have an oblong shape which definitely resembles a miniature haunch, the seed itself forming the knee-joint”. Instead, it may mean “beam” (DUL, 980).
- \**ztr*, “marjoram” (KTU 1.17 i 27 and par.) a meaning proposed by Pope (1981: 160, n. 4) and de Moor (1985),<sup>195</sup> based on the reading *z<sup>c</sup>tr* in KTU 1.43:3, now proved incorrect.<sup>196</sup> The problem is that the equivalent in Arabic is *za<sup>c</sup>tar* (also spelled with initial *s*- or initial *š*, so that an *ayin* would also be expected in Ugaritic. Both Pope and de Moor also mention the corresponding word in Akkadian, which is *zataru* (also spelled *zateru*, *sataru* and *sateru*),<sup>197</sup> with the meaning “thyme” or “savory” (AHw, 1033a; CDA, 319). The absence of an *ayin* in the Ugaritic word is very easily explained if it was borrowed directly from Akkadian. As for which herb it is: “There has been the usual confusion with regard to the botanical identification of this plant name, but the detailed report of Dalman ... has settled the matter in favour of «marjoram», *Majoranna syriaca* Mill., also falsely called *Origanum*

188. For full references see Vita 1995.

189. See also Vita 1995.

190. See Vita 1995: 140; for Hebrew cf. HALOT, 1440a.

191. Pardee's explanation (2002b: 176) that Ug. *škm* means “shoulder” does not take Ug. *tkm*, “shoulder” into account. Alternatively, cf. Akk. *šakku*, a tree and its wood (CAD Š/1, 177b).

192. Which in turn may go back to Luwian *tiwariya*; see Haas 1998: 246, n. 231.

193. See also Durand 2002: 116, n. j.

194. Pardee (2000: 33) lists five possibilities and prefers the meaning “tourtourelle”.

195. Cf. also Boda 1993: 14.

196. See Pardee 1987: 199; 2000b: 216, n. 6.

197. Whether *saturu* is another variant of the same word is uncertain (cf. CAD S, 197b-98a). See also Eg. *str*, a sweet-smelling plant (Wilson 1997: 965-66).

*syriacum L.* or *Origanum maru L.*, not the closely related *Thymbra L.* (thyme) or *Origanum L.* (oregano)” (de Moor 1985: 408).<sup>198</sup> It would appear to be marjoram, used to ward off evil forces. After surveying all this evidence, Boda (1993: 14) notes: “Unfortunately, though this has the best cognate evidence, it is the hardest to incorporate into the passage”, yet he translates the line in question “in the sanctuary (to care for) the thyme of his clan” (Boda 1993: 10). However, Ug. *ztr* seems to mean “stela” or the like, as proposed by Tsevat (1971) on the basis of Hittite,<sup>199</sup> cf. DUL, 1001.

## 12 Medical texts

The first set of texts to look at comprises medical texts because they require the use of plants and herbs as *materia medica*. The difficult text KTU 1.82 also includes two references to the use of a herb with curative properties (i.e. *prtl*, discussed in §7), but it seems to be an incantation.<sup>200</sup>

### 12.1 The hippiatric texts

The first group of texts concerns horses.<sup>201</sup> The horse was introduced into Syria from the north in fact, the word for “horse” (*šws*) is probably Hurrian in origin.<sup>202</sup> In this period, the horse was principally used for warfare and was of considerable value. Accordingly, horses were treated extremely well and their health was important. This is shown by a set of four tablets on the treatment of sick horses, which more or less complement each other, written in Ugaritic, and usually referred to as the “hippiatric texts”. Elsewhere I have studied these texts in terms of the loanwords they contain.<sup>203</sup> The presence of loanwords indicates the foreign origin of these texts, but it also indicates that many of the ingredients for the medicines used were not native to Ugarit. These texts are remarkable because they are strictly scientific, with absolutely no magical or religious elements of any kind. First, a symptom is described (“if a horse...”) and then the remedy is prescribed, which was usually poured into the horse’s nostrils. For example: “If a horse discharges a putrid liquid” (symptom) – “grain (?) and bitter almond should be ground up together and poured into its nostril” (remedy).<sup>204</sup> The plants and herbs mentioned include the following.

*a/irgn*: There are as many as seven candidates for this obscure term: unripe date, fennel, a plant similar to cucumber, a conifer, a spice, a type of barley and a kind of milkweed.<sup>205</sup> It is qualified as *hmr*, which may mean “dried” (cf. Akk. *hamru*, “dried”), but see Cohen 1996: 132.

*aškr*: Meanings proposed for *aškr* are: “hemlock”, “henbane”, Akk. *šakirū*, “henbane”, Arab. *sekrān*, “jusquiame, plante à propriétés stupéfiantes” (DA-F, vol. 6, 1995: 137)<sup>206</sup> and “a medicinal plant” (Akk. *ašqulālu* or *isqulālu* (AHw, 82) or “a marine plant”. None of these equivalents is convincing, but spellings of plant names fluctuated considerably.

*bk* may be either “broom” and “sage”; cf. Akk. *abukkatu* (or *bukkatu*) “a kind of rush (?)” (CDA, 3).<sup>207</sup>

198. See Thompson 1949: 74-75.

199. Reiterated in Tsevat 1986: 349, n. 26.

200. For a translation see del Olmo Lete 1999: 374-78.

201. KTU 1.71, 1.72, 1.85 and 1.97.

202. See also Woodhouse 2003: 281, n. 26.

203. Watson 2004; see there for details and fuller refereneeces.

204. KTU 1.71:5-6 and parallels.

205. Note also Akk. *wrihu*, a thorny plant (CDA, 425).

206. I owe this reference to Harry Stroemer.

207. For the differentiation between *ab(b)ukkatu* (later *bukkatu*) and *abukkatu*, cf. Köcher 1995: 212. See also Eg. *bj* < \**bt* [\* *bk*], “(sort of) papyrus reed (or sim.)”, possibly a loan from Akk. *abukkatu* (Takács EDE II, 355).

<sup>c</sup>*ly*, “leaf” (see discussion in Cohen 1996: 138-39).

<sup>c</sup>*qrbn* is a medicinal plant, possibly *salsola tragus*; lit. <sup>c</sup>*qrbn*, “scorpion-like plant” (KTU 1.85:2),<sup>208</sup> modelled on Akk. *zuqīqīpānu*, “scorpion-like plant”, an equation supported by *aq-ra-bu = zu-qa-qī-pu* (Malku V 54, cited in CAD A/2, 207).<sup>209</sup>

<sup>c</sup>*rgz*, “juniper berries”, “medicinal plant” (cf. DUL, 182) of uncertain etymology.

<sup>c</sup>*trb*: If not “saffron”, Akk. *azupīru* or *azupirānu* (but cf. Cohen 1996: 140), or the unknown plant Akk. *azabb/ppurru*, then more probably a shrub similar to the pomegranate, Arab. <sup>c</sup>*utrubun* (Pardee 1985: 65).<sup>210</sup>

*bln*: If this is a plant, it could be the unspecified plant, Akk. *billu* (CDA, 44) or the mandrake, Akk. *pillū*, (CDA, 274; cf. AHW, 863b). Alternatively, it may be a fern, Arab. *ballān*, “a kind of fern”, as suggested by de Moor (1981-82: 113, n. 37). However, because it occurs in the expression *bln qt*, it would seem to mean “mixed fodder based on linseed” (KTU 1.72:26; 1.85:18), where *bln* corresponds to Akk. *ballu(m)*, “mixed animal fodder” (cf. AHW, 100b; CDA, 37; CAD B, 63-64). On *qt* see below.

*bql*, “malt”, occurs in the expression *qmḥ bql*, “malt flour”, as a remedy for sick horses. The word is common Semitic, e.g. Akk. *buqlu*. See §7 above.

*bšql* is discussed above (§7), *dlḥt* may correspond to Akk. *tulḥu*, a plant used for medicine (CDA, 409), *dprn*, “juniper”, is discussed in §5 above, *ḥndrt* has also been discussed above (§9.4) as has *gd*, “coriander” (§7).

*ḥdrt*, “lettuce (?)”, Heb. *ḥzrt* (cf. Cohen 1996: 129-30 for discussion).

*mḡmḡ* has its closest equivalent in Akk. *memītu*, or *memētu*, an unidentified plant, used in medicine (cf. AHW, 644b; CDA, 207).<sup>211</sup>

*mndḡ*, “groats” (cf. Cohen 1996: 117).

*mkšr* may mean “saxifrage”, “mustard”, or even “leek”. For other possibilities cf. DUL, 545.

*nnu* corresponds either to Akk. *naniu*, “mint” or to Akk. *nīnū*, *ninnu*, Ass. *nīēniū* “Zahnstockerdolder” (AHW, 791a), “a medicinal plant” (CDA, 254).<sup>212</sup> The same ambiguity is evident in Hittite. In the Hittite practical vocabulary <sup>U</sup>KUR, normally equivalent to Akk. *ninū*, etc., is instead followed by *NA-NA-x(-)* [. . .] which indicates either that the equivalent is Akk. *naniḥu* (etc.) or that it is “the equivalent of <sup>U</sup>KUR in another language of the Mesopotamian region (e.g., from either the Hurrian or the Syrian milieu)” (Süel - Soysal 2003: 362). According to Landsberger (in Gurney - Landsberger 1957-58: 336) there are two different plants: (1) Akk. *nēniū*, corresponding to Aramaic *nanā*, meaning “mint” and (2) Akk. *naniḥu*, Aramaic *nanḥā*, meaning “Ammi”. For discussion see Röllig - Tsukimoto (1999: 435-36). This distinction is reflected in Ugaritic, where *annḥ* (discussed) above is differentiated from *nnu*.

*qlql* may be “cassia” (Akk. *qulqulliānu*, *qulqulānu*), “cardamon” (Akk. *qāqullu*) or a spice (Akk. *qalqālu*).

*qt* is “flax, flax fibre, flax seed”, equivalent to Akk. *kitū*, “flax, linen, linseed” (AHW, 495b; CAD K, 473), as proposed by Sanmartín (1988a: 228).

208. Pardee (2001: 248) suggests “a Heliotrope”.

209. Cited by Cohen 1996: 115.

210. On the use of saffron in the perfume industry see Melena 1976: 187-88.

211. Whether or not Akk. *memītu* / *memētu* corresponds to Eg. *mymyt*, also denoting a plant (Hannig HWB, 325) or whether Eg. *mḥmḥwt*, “Art Blumen, Gemüse (\*Portulak, Sauburzel, Portulaca oleracea L.)” (Hannig HWB, 358) comes into the equation is very uncertain.

212. Possibly the same as Eg. *nī3i3* (*nīwiw*), a plant (Hannig HWB, 391; Charpentier 1981 §590), perhaps wild mint (see Leick 1999: 19, n. 110, with further references), or else cf. Eg. *mnt*, a plant (Hannig HWB, 416; Charpentier 1981 §623).

*smq*, “raisin”, is qualified as *yṯn*, “rancid, sour” (see §6 above).<sup>213</sup>

*tmr* is very probably “fennel”, Akk. *šimru*, *simru*, “fennel” (CAD Š/3, 8-9). Or else, cf. Akk. *šamru*, a plant, possibly a by-form of *šimru* (CAD Š/1, 332), discussed above.<sup>214</sup>

*tqd*, “almond”, qualified as *mr*, “bitter” (see Cohen - Sivan 1983: 23; Pardee 1985: 55-56; DUL, 928). See §5 above.

## 12.2 A cure for snakebite

The next text, (KTU 1.100), which also concerns a horse, is completely different and involves magic and ritual. Towards the close of the long and repetitive text, which is in the form of a myth concerning a mare whose foal has been bitten by a snake, come the following lines (64-67):

<i>ydy. b</i>	<i>ᶜsm. ᶜrr</i>	(Ḫoron) pulls the (juniper) berries off a certain tree,
<i>w b</i>	<i>šḫt. ᶜṣ mt</i>	and, from the bush a deathly tree.
<i>ᶜrrm. yn</i>	<i>ᶜrnḫ</i>	With the berries, he shook it <sup>215</sup> (out),
<i>ssnm. ysynḫ</i>		with the cluster he removed <sup>216</sup> it,
<i>ᶜdtm. yᶜdnḫ</i>		with the rushes he made it disappear,
<i>ybltm yblnh</i>		with the dog's tooth plant he made it vanish.

The plants involved are as follows (though other translations have been proposed):<sup>217</sup>

*ᶜrr*, “tamarisk”, *tamarix gallica*, or alternatively: “juniper” or “Greek juniper” (*Juniperus phoenicea*).

“The tree is a small pyramidal evergreen shrub with scale-like leathery leaves ... its fruit is a purplish-brown berry” (Jacob - Jacob 1992: 805) and they mention that juniper berries have been found in a 3rd Dynasty (2365-2570 BC) Egyptian grave. Note also Arab. *ᶜrr*, “thuya de Barbarie, *Tetraclinis articulata* / *Callitris quadrivalvis* - ses feuilles sont utilisées en fumigations et en décoctions; il a des propriétés médicinales” (DA-F, vol. 9, 1996: 75).<sup>218</sup>

*šḫt*, “shrub, bush”, Heb. *šyḫ*, “shrub, bush” (HALOT, 1320b-21a) and Akk. *šihṯu*, “sprout, shoot” (CDA, 371) or *saḫātu*, “a bush” (CDA, 311).<sup>219</sup>

*ssn*, “date-palm branch”, Heb. *\*snsnh*, “panicle of the date” (HALOT, 761a) and Akk. *sissinnu*, “date spadix, etc.” (CAD S, 325b-28a).

*ᶜdt*, “rushes”, Akk. *udittu*, “(growth of) rushes” (CDA, 418; cf. AHw, 1401b), mentioned by Belmonte (1993: 115 and n. 11).<sup>220</sup>

*yblt*, possibly “dog’s tooth grass” (*Cynodon dactylon*), equivalent to Phoen. *ybl* with the same meaning (DNWSI, 433).<sup>221</sup> According to Astour (1968: 25), it corresponds to Akk. *maštakal*, an alkaline plant (cf. CDA, 203; CAD M/1, 391-92).

213. For *tmṯ* the meanings “cucumber” and “resin” have been proposed; see Watson 2004: 249 for details.

214. See also HSED, 491 §2335.

215. Here “it” refers to the poison.

216. The verb is difficult, possibly *nsy* (DUL, 645-46; Tropper UG, 661). Or see perhaps Eg. *syn*, “to obliterate, efface” (DLE II, 12), though this possibility is very uncertain.

217. For discussion see Pardee 1988: 216-17.

218. This reference was provided by Harry Stroomer.

219. Less probably Hitt. (GIŠ)*šahi*, “(a kind of aromatic wood)” (Kassian - Korolëv - Sidel'tsev 2002: 120, 870) a Hattic loanword.

220. Pardee (1988: 203): “coeur de roseau” (no explanation); Astour (1968: 22): “reed bulb”. For a survey see Belmonte 1993: 115, n. 10.

221. For cognates in Aramaic (*yablā*) and Syriac (*yablā*) and a possible loan in Egyptian see Hoch 1994: 51 §50, who makes explicit mention of Ug. *yblt*.

12.3 *Herbs for a hangover*

This passage (KTU 1.114: 29-31), which concerns humans, seems to be describing a cure for a hangover. It comes after a description of a *marziḫu* or banquet of the gods, at which wine flowed freely and the god El falls down dead drunk. Unfortunately, the exact meaning of the lines is uncertain.<sup>222</sup>

<i>d yšt. l lšbh. š<sup>c</sup>r klb</i>	What one should place on his forehead: «hair-of-a-dog»
<i>w riš. pqq. w šrh</i>	and the head of a coloquint and its stem.
<i>yšt aḫdh dm zt ḫrpnt</i>	One should apply them together with autumnal olive oil.

*š<sup>c</sup>r klb*, “hair of a dog”: Instead of a literal meaning the expression may correspond to Akk. *lišān kalbi*, “dog's tongue” or “hound's tongue”, which is the name of a medicinal plant, used for various ailments, including cough, jaundice and stomach trouble, but not as a hangover cure.<sup>223</sup> Alternatively, the meaning is literal (“the hair of a dog”) in which case the remedy would involve magic.<sup>224</sup> According to Köcher (1995: 204), such names are “Deckname” used to disguise what the plants and drugs really were; only the initiated knew.<sup>225</sup>

*pqq*, “coloquint”, may correspond to Akk. *peqqû*, *peqqûtu*, “colocynth” or to Hebrew *pāqāq*, “the node of a plant”, or even perhaps to Hebrew *peqeq*, “knot of a vine shoot”. An alternative is Akk. *puquṭtu*, a thorny weed, used as a drug (CDA, 278).

*šr* may be explained by Hurr. *šurathu*, a type of tree, which Mayer (1981: 253, 255; cf. CDA, 387) has shown to be a combination of *šura-* and *-athu*.<sup>226</sup>

12.4 *A medical text involving magic*

In this text (KTU 1.124: 5-10) Ditiānu is consulted about a sick child and the remedy (or the oracular reply) is as follows:

Take a pouch of myrrh (*nad mr*) and place it in Horon's temple.  
 Take a new container of myrrh (*trḫ ḫdt mr*) and place it in Baal's temple,  
 take tamarisk (*bnt*) and place it in the temple (*bt*)  
 and his/her illness will vanish.

The text is extremely difficult. It is uncertain whether *bt* refers to “house” or “temple”, the exact meaning of the verb translated as “vanish” (*pr<sup>c</sup>*) is unknown and *bnt* may mean “tamarisk” or “figurine”. However, the whole text is magical, not medical: after a consultation, rites of (sympathetic?) magic are performed, using myrrh and possibly tamarisk, the house is cleansed and the child recovers.<sup>227</sup>

13 *Three difficult texts*

The texts in question are KTU 1.19 iii 41, 1.92:8-10 and 1.104:22. These are now considered in turn.

222. For a survey of translations see Watson 1990b.

223. Thompson 1949: 23. Possibly Ug. *lšn* (KTU 1.174:8; 1.175:5) is a plant-name meaning “(hound's) tongue” (cf. DUL, 506 for references).

224. See the comments of Fink 2004: 39 and *passim*.

225. “diese Bezeichnungen dazu dienten, die jeweils gemeinte und verordnete offizielle Pflanze oder Droge andere Art vor dem profanen Blick der Wißbegierigen zu verschleiern” (Köcher 1995: 204).

226. See now CAD Š/3, 340-341 and AHW, 1283. Usually, *šr* is taken to mean “navel”. A proposed new reading by Dietrich - Loretz (1998: 179) is *ḫš<sup>c</sup>rk*, “zubereiteter Thymian (?)”.

227. For the use of myrrh in medication cf. EA 269 (Moran 1992: 316); according to Farber (1993-97: 537) this is genuine myrrh.

13.1 *KTU 1.19 iii 41*

The text is as follows:

*yqbr.nn. b mdgt. b knrt / knkt* And he (Danel) buried him (Aqhat) in a grave in / with.

This line comes just after Danel has found the remains of his son, Aqhat, in the gizzard of Sumul, the mother vulture. He removes them preparatory to burial. Elsewhere (Watson 2003a) I have suggested that *mdgt* is a term for “grave”, based on Hamito-Semitic \**duk-*, “to bury”. In fact, most scholars consider the word to mean “tomb”. The problem here, apart from meaning, is the reading of the last word: is it *knrt* or *knkt*?<sup>228</sup> The Ugaritic signs for K and R are very similar, of course, and the tablet is damaged at this point. For many years, Barry Margalit has vigorously defended the reading *knrt*, which he translates “(Lake) Kinnereth”, largely because he sees the setting of the Aqhat Legend to be Northern Israel.<sup>229</sup> Instead, the correct reading may be *knkt*, which the recent Ugaritic dictionary translates as “sealed (coffin)” (DUL, 450), based on Akk. *kanāku*, “to seal”. The problems here are first, that the word “coffin” has to be understood as present by ellipsis and second, the use of coffins in the ancient near East is rare.<sup>230</sup> Instead, it is possible that ■ *knkt* is the Ugaritic equivalent of Akk. *kanaktu*, “(an incense-bearing tree)” (CDA, 145).<sup>231</sup> The word *kanaktu* denotes both the tree and an aromatic product obtained from the tree, used for anointing, magic and aspersions and “[t]he evidence cited points to a tree growing in mountains (but capable of acclimatization in Assyria) whose exudation ... and wood produce a specific odor” (CAD K, 136).<sup>232</sup> It may denote frankincense (olibanum) rather than opoponax, but this is uncertain (cf. Groom 1981: 33).<sup>233</sup> It may even correspond to West Chadic \**kunak-*, “sheanut tree” (cited in HSED, 327 §1500, listed as Kariya *kunnaku*), but this would be only a guess. The translation of the line in question then would be “he buried him in a grave, with aromatics”. Some support for this comes from the expression *mrrt qbr*, “myrrh of the grave” or “burial myrrh”, written on a Ugaritic docket (KTU 6.44:2).<sup>234</sup>

13.2 *KTU 1.92:8-10*

The text portrays the goddess Athtart on a hunting expedition. Margalit (1989b: 71) restores and translates lines 8-10 as follows:

<i>ttb ʿttrt b ʿgl</i>	Athtart sat down to hide in the marsh.
<i>y[mnh] qrz tšt</i>	[At her rig]ht she placed acacia-shrubs,
<i>l šmal[h tšt] arbḥ</i>	at [her] left [she placed] <i>arbḥ</i> -bushes.

The meaning “acacia shrubs” is based on Arab. *qaraḥ* and Syriac *qeraṭō*, “*prosopis farcta*” (Margalit 1989b: 79).<sup>235</sup> He notes: “one type of acacia, known technically as *prosopis farcta*, flourishes along the banks of rivers and in swamps, and is to be found growing even today in the Jordan Valley. It most likely takes the form of a low shrub suitable for hiding and camouflage” (Margalit *ibid.*). As Wyatt (RTU, 371,

228. For a survey see Wyatt RTU, 306, n. 247.

229. See Margalit 1989a: 425; 1976: 172-77; 1981; 1986: 247-48, etc.

230. But see Marcus 1975.

231. On Akk. *kanaktu* see Joannès (1993: 255): “le *kanaktum* doit être un arbre ou un arbuste occidental”.

232. See Zeeb 2001: 455, who refers to its “wohlriechenden Öl” and defines it as “ein einheimisches Gehölz, dessen Öl als Spezerie verwendet wird” (*ibid.*, 623).

233. For a possible occurrence of *kanaktu* in a TN from Alalāḥ see Astour 1980: 7 §56.

234. Another possibility is that here Ug. *knkt* denotes the coffin, made of *kanaktu*-wood. Some support for this may perhaps come from Egyptian *knkwt*, which denotes a wooden object (Hannig HWB, 885). However, burial in coffins is not widely attested in Syria.

235. Or is this a form of Akk. *šer’azum* (see above)?

n. 14) commented: “On this approach, Athtart appears to construct a hide”. From context Margalit had guessed *arbh* to be a type of bush, but nothing can be found to support this directly. The nearest equivalent is Akk. *uribhu*, as proposed in TOu 2 (33, n. 59), which seems to be some sort of plum-tree (AHw, 1429b; CDA, 425b), but the spelling is uncertain.<sup>236</sup>

### 13.3 KTU 1.104:22

This is a text that seems to describe temporary shelters for a ritual:

<i>wmtbt ilm. tmn. tmn.</i>	And the dwellings of the gods, eight (plus?) eight,
<i>tmn. gml[m] tmn. urx[ ]</i>	eight <i>gml</i> , eight stalks(?)

De Moor and Spronk (1982: 161, n. 65) translate: “eight by eight dwellings for the gods, eight made of branches with ripe fruit”, explaining Ug. *gml* with reference to Heb. *gml*, “to ripen”. However, Pardee considers the semantic jump required from “to ripen” to “branch with ripe fruit” to be too great.<sup>237</sup> In fact, in his own rendering Pardee does not translate either *ur* or *gml* (Pardee 2002a: 36).<sup>238</sup> In addition, he notes that this line recalls KTU 1.41, “where «lodges of branches» are arranged «four by four»” (Pardee 2002a: 100, n. 17). If we accept that ■ *gml* does refer to branches of some kind, then perhaps it may correspond to Akk. *gumālu*, “a kind of tamarisk” (CDA, 96; cf. AHw, 298a; lex. text). The Akkadian word is “either a descriptive term for a tamarisk, or a variety of it” (CAD G, 133a). The Ug. term *ur*, if complete, may also refer to a plant (see §6 above). However, this solution remains rather tentative.

### 14 The composite bow

The product in question is the composite bow, for which the goddess Anat killed Aqhat, using a magic falcon. A recent edition of Middle Assyrian texts<sup>239</sup> includes one text that lists the following items for the manufacture of composite bows: “sticks of *kiškanû*-wood”, “horns of wild goats” (*qarnatu ša turāhi*), “sinews” (*gidu*) and “glue” (*še šen/šimtu*). The components of the composite bow in Ugaritic are as follows: “*tqbu*-trees from the Lebanon” (*tqbm blbnn*), “horns from mountain goats” (*qrnt b y<sup>c</sup>lm*), “sinews from wild bulls” (*gdm brumm*) and “tendons from the hocks of a bull” (*mtnm b <sup>c</sup>qbt tr*). With the exception of the glue and the bowstring, the match between both sets is obvious (see Table 1). This may indicate that *tqb* corresponds to “*kiškanû*-wood”, i.e. the poplar, ash or maple. It is more likely that Ugaritic *tqb* is the same as Egyptian *sqb*, a wood used to make handles for oars, possibly the ash (Noegel 2000).<sup>240</sup> This is one of the very few Ugaritic texts to specify the use of a particular type of wood.

236. An alternative is Akk. *ruphu*, which is a kind of stone (CAD R, 412a). Other solutions in DUL, 98-99. The context is too broken for any certainty.

237. In addition, he adds, although it would be nice to accept the translation by de Moor and Spronk which implies that both *gml* and *ur* denote the material from which the dwellings were made, the parallel does not support their interpretation (Pardee 2000b: 573, n. 53).

238. “Et les loges/demeures ? des dieux, hu[it ? ... ] huit: huit (du type ? GML [...] huit (du type ?) ’UR...” (Pardee 2000b: 567).

239. Frahm 2002, who also lists and discusses the Ugaritic equivalents.

240. For the wood used in making Egyptian bows and arrows see Western - McCleod 1995. In a note to Sukenik (1947: 15) Albright adds the following comment: “It is not impossible that the word *l(?)qb*, apparently meaning a tree growing in Lebanon, means “birch,” which as Bonnet and Carter have pointed out, was used extensively in making composite bows. The birch ... may safely be supposed to have grown in Lebanon in ancient times, before the forests were cut off. In any case it grew somewhere in Syria, since it was used by the Egyptians in making composite bows”.

bow component	Assyrian	Ugaritic
wooden nucleus / core	“sticks of <i>kiškanû</i> -wood”	“ash-trees from the Lebanon” ( <i>tqbm b lbnn</i> )
animal horn	“horns of wild goats” ( <i>qarnatu ša turāhi</i> )	“horns from mountain goats” ( <i>qrnt b y<sup>c</sup>lm</i> )
layer of sinew	“sinew” ( <i>gidu</i> )	“sinews from wild bulls” ( <i>gdm b rumm</i> )
glue	“glue” ( <i>šimtu</i> )	[missing]
bowstring	[missing]	“tendons from a bull’s hocks” ( <i>mtnm b <sup>c</sup>qbt tr</i> )

Table 1: The composite bow (and arrows)

Margalit (1989a: 303-304) makes the point that *qnm*, “reeds”, are usually understood in the Ugaritic text as referring to the arrows and suggests it is more likely that they also comprised a component of the composite bow. Unfortunately, how they could do so is not clear. The mention of a bowstring also appears to be unnecessary, but in both cases one may have to allow for poetic licence.

#### 15 Closing comments

The following tables (Tables 2-4) show the distribution of terms for trees, plants, etc. within five broad categories, marked at the heads of the respective columns: (1) the economic texts (including letters), (2) the medical texts, (3) the literary and religious texts, (4) personal names and (5) place names. This sequence reflects the decreasing reliability of the five sets in terms of providing information about the botanical items listed. The economic and medical texts are more likely to indicate plants etc. that were actually used than proper names, at the other end of the scale.

econ.	med	lit./rel.	PNN	TNN
<i>adr</i>				
			<i>uḥn</i>	<i>uḥnp</i>
<i>almg</i>				
		<i>aln</i>		
		<i>arbḥ</i>		
<i>urm</i>			<i>urmn/y</i>	
			<i>urn</i>	
		<i>arz</i>	<i>arz</i>	
			<i>ušy</i>	
			<i><sup>c</sup>lby</i>	
		<i><sup>c</sup>md</i>		
		<i><sup>c</sup>tqb</i>		



	<i>bnt</i>	<i>bnt</i>		
<i>bṭm</i>				
<i>dprn</i>	<i>dprn</i>	<i>dprn</i>		
		<i>gml</i>		
			<i>grgš</i>	
			<i>grgyn</i>	
<i>hbn</i>				
			<i>hlp</i>	<i>hlp</i>
			<i>kl</i>	
		<i>knkt</i>		
<i>ktmn</i>				
<i>ktn</i>				
			<i>ktkn</i>	
<i>lbnm</i>		<i>lbnm</i>		
		<i>lbnt</i>		
			<i>ldn</i>	
		<i>lty</i>		
				<i>mḥr</i>
				<i>mrrt</i>
				<i>nḥl</i>
			<i>pkly</i>	
		<i>qrz</i>		
			<i>sbd</i>	
			<i>sbl</i>	
				<i>sḡy</i>
			<i>snb</i>	
			<i>śnd</i>	
			<i>srd</i>	
<i>šmn</i>				<i>šmn(y)</i>
<i>tišr</i>		<i>tišr</i>		
			<i>tlb(y)</i>	
			<i>tmr</i>	<i>tmr</i>
			<i>tmy(n)</i>	
			<i>tran</i>	
			<i>trdn</i>	
				<i>trzy</i>
			<i>tškrḡ</i>	
				<i>tt</i>
			<i>ṭry</i>	
		<i>tqb</i>		
<i>tqd</i>		<i>tqd</i>		
<i>ṭr</i>				
		<i>trmn</i>		
<i>ygb</i>				

	<i>yman?</i>			
			<i>zq</i>	
<i>zt</i>		<i>zt</i>		

Table 2: Trees and timber

econ.	med	lit./rel.	PNN	TNN
				<i>u<sub>h</sub>np</i>
	<i><sup>c</sup>rgz</i>	<i><sup>c</sup>rgz</i>		
		<i>g<sub>h</sub>b</i>		<i>bnr</i>
			<i>h<sub>l</sub>ln</i>	
<i>h<sub>ndr</sub>t</i>				
		<i>kš</i>		
<i>lr<sub>mn</sub></i>		<i>lr<sub>mn</sub></i>		
			<i>lr<sub>n</sub></i>	
<i>š<sub>m</sub>q</i>	<i>š<sub>m</sub>q</i>			
		<i>t<sub>h</sub></i>		<i>t<sub>h</sub></i>
	<i>t<sub>q</sub>d</i>			
				<i>z<sub>r</sub>n</i>
<i>zt</i>		<i>zt</i>		

Table 3: Fruit, nuts, etc.

econ.	med	lit./rel.	PNN	TNN
			<i>u<sub>h</sub>l</i>	
<i>akl</i>				
			<i>ulb(y)</i>	
			<i>ul<sub>p</sub>m</i>	
			<i>alz</i>	
		<i>an<sub>h</sub></i>		
<i>a<sub>q</sub>hr</i>				
				<i>irab</i>
	<i>a/ir<sub>g</sub>n</i>			
			<i>ar<sub>b</sub>n</i>	
		<i>ar<sub>d</sub>ln</i>		<i>ar<sub>d</sub>ln</i>
				<i>ar<sub>s</sub>py</i>
			<i>ir<sub>y</sub>n</i>	
	<i>aš<sub>k</sub>rr</i>			
			<i>it<sub>g</sub></i>	
		<i>ut<sub>k</sub>l</i>		
	<i><sup>c</sup>bk</i>			
			<i><sup>c</sup>dš/<sub>t</sub></i>	

	<sup>c</sup> dt			
			<sup>c</sup> lr	
	<sup>c</sup> qrbn			
	<sup>c</sup> r <sup>c</sup> r			
		<sup>c</sup> trtr		
	<sup>c</sup> trb			
	bln		bbt	
			bnn	
bql	bql			
	bşql	bşql		
		dgn		
	dlht			
	dprn			
			gb <sup>c</sup> ly	
	gd	gd		
gdl				
				glbt
			hrsn	
	hđrt			
			hrr	hrr
hđt		hđt		
			hdl	
			hlpn	
	hndrt			
hswn				
			kbl	
				kdkdy
kmn				
				kmkty
kprt		kpr		
ksm				
			ksyn	
			kšt	
			ktkt ?	
ktñ			ktñ	
			ktrn	
lšn				
	mğmğ			
	mkšr			
	mndğ			
mr		mr		
			mrnn	

<i>n<sup>c</sup>r</i>				
				<i>nght</i>
	<i>nnu</i>			
			<i>plgn</i>	
			<i>plšn</i>	
			<i>ppn</i>	
	<i>pqq</i>			
		<i>prtł</i>		
<i>pwt</i>				
		<i>q<sup>c</sup>l</i>		
	<i>qlql</i>			
<i>qn</i>				
<i>qšh</i>				
	<i>qt</i>			
<i>sbbyn</i>				
			<i>shr(n)</i>	
		<i>smd</i>		
		<i>smm</i>		
			<i>snb</i>	
	<i>ssn</i>			
			<i>sst</i>	
			<i>syn</i>	<i>synn</i>
			<i>šlpn</i>	
<i>šmll</i>				
		<i>šrr</i>		
<i>š<sup>c</sup>rm</i>	<i>š<sup>c</sup>r klb</i>			
		<i>šblt</i>		
				<i>šbn</i>
			<i>šbry</i>	
<i>šhlt</i>				
	<i>šht</i>			
			<i>šmt</i>	
				<i>šql</i>
	<i>šr</i>			
				<i>tbq</i>
			<i>tlgn</i>	
			<i>trbnn</i>	
<i>tyt</i>				
			<i>tbln</i>	
		<i>tmk</i>		
	<i>tmr</i>		<i>tmr(y)</i>	<i>tmrn</i>
<i>tnt</i>				
	<i>tqd mr</i>			

<i>tr</i>				
			<i>trdn</i>	
			<i>trnq</i>	
		<i>tsr</i>		
			<i>tty(n)</i>	
	<i>yblt</i>			
			<i>yrf?</i>	
				<i>zrn</i>
<i>zrw</i>				

Table 4: Plants, flowers and herbs

Due to the incomplete nature of our sources it is no surprise that many expected entries are missing, notably pulses such as the pea and the bean (though the chick-pea is mentioned), which were the mainstay of ancient agriculture. Also absent are flowers such as the crocus (known from Hittite texts), the lupin and the myrtle (known from Babylonian texts). On the other hand, there is some replication of items between genres (for example, *uh<sup>n</sup>*, *urm*, *ard<sup>n</sup>*, *arz*, <sup>c</sup>*rgz*, *bnt*, *bql*, *b<sup>s</sup>ql*, *dprn*, *gd*, *h<sup>t</sup>t*, *h<sup>l</sup>p*, *lbnm*, *lrmn*, *mr*, *šmq*, *šmn*, *tišr*, *tmr*, *tph*, *t<sup>m</sup>r*, *tqd*, *zt*). In addition, due to the use of loanwords, there are also several duplicate names. As we have seen, examples are *srd* and *zt*, both meaning “olive”, *ušy* and *hbn*, both “ebony”, two words for “almond”, namely, *lty* and *tqd*, several words for “tamarisk”, and so on. Furthermore, although we know very little about how the various types of wood were used — e.g. for building or making furniture or even boats<sup>241</sup> — the widespread use of plants and herbs for medical purposes is quite unexpected.

About half of the approximately 200 items discussed here (not counting those marked with an asterisk as probably incorrect) have been explained from Akkadian, though this does not mean that they are all loanwords; many are only cognate. In addition, 13 have been explained from Hebrew (*arz*, *utkl*, <sup>c</sup>*lh*, *gb<sup>c</sup>ly*, *gd*, *h<sup>d</sup>rt*, *ksm*, *n<sup>c</sup>r*, *šlp*, *š<sup>c</sup>rh*, *šblt*, *šmn*, *zrw*), 11 from Egyptian (*bbt*, *bnr*, *hbn*, *h<sup>r</sup>r*, *sbd*, *šhr*, *snb*, *sst*, *tqb*, *yman*), 6 from Hurrian (*dprn*, *grgyn*, *hlln*, *mhr*, *pkly*, *tškr<sup>g</sup>*), 4 from Arabic (<sup>c</sup>*lby*, *nhl*, *q<sup>c</sup>l*, *šrr*), 1 from Syriac (*tsr*), 3 from Hittite (*kkln*, *lty*, *tišr*) and 1 from Kassite (*prt<sup>l</sup>*). Several are uncertain and the remainder are common Semitic or Hamito-Semitic (Afro-Asiatic).

One aspect of interest to emerge from this study is that many of these ancient terms for trees, wood, plants and fruit have survived even in modern European languages, although for some we may have to allow for Arabic as an intermediary, especially in Spanish. Some are quite obvious, for example, “ebony” from *hbn*, an Egyptian word that may even have come from an African language, “sesame” from *ššmn*, “cumin” from *kmn*, “myrrh” from *mr* and “cane” from *qn*. Some are less self-evident: “saffron”, *azafrán* in Spanish, ultimately from Akkadian *azupirānu* and possibly equivalent to Ugaritic <sup>c</sup>*trb*, and also “olive”, Spanish *aceituna*, Ugaritic *zt*. Finally, perhaps, Italian “cipria”, meaning “(face-) powder”, may ultimately derive from a Semitic language, as in Ugaritic *kpr*, “henna, perfume”.<sup>242</sup> Of course, such loanwords are not confined to botanical terms, as shown by the striking equivalence of “carafe” and Ugaritic *krpn*.

241. Note that cedar wood may have been used to make the container *irp* (cf. DUL, 105).

242. It is even possible that the word “oil” goes back to Akk. *ellu*, “sesame oil” (CDA, 70); cf. Stol 1985a: 122; 2003: 32b (with further references).

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### Abbreviations

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