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TEXTILE TERMINOLOGIES

IN THE ANCIENT NEAR EAST AND MEDITERRANEAN
FROM THE THIRD TO THE FIRST MILLENNIA BC

edited by

C. Michel and M.-L. Nosch

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15. Linen in Hittite Inventory Texts

Matteo Vigo

1. Linen terminology and trades: a general overview from the Ancient Near East

Linen¹ makes up the largest part of the Egyptian economy and is also its main export produce.² Egypt has, since the Old Kingdom, had a thriving craft industry based both on the cultivation of raw flax as well as the spinning, weaving and trading of linen cloths.³ Egyptian linen is referred to in writings from the middle Babylonian period as a cloth used to dress statues of deities.⁴

Linen, like patterned textiles, is undoubtedly a high quality product and can rightly claim a place alongside luxury goods,⁵ since it is always included in the exchange of gifts between sovereigns along with precious metals such as gold and silver.⁶

¹ Sumerogr. GADA (for all the transcriptions of the Sumerogram the updated HZL reading has been followed); Akkad. *kitû(m)*; Hitt. *kattanipû-(?)*. Cf. HW, 105, 272; Tischler 2001, 76; HEG “A-K”, 544; cf. Siegelová 1986, 376, note 14; 378, but with the example of Siegelová (1986, 621), it appears obvious that the Sumerogram has been interpreted wrongly (^{GAD}*tanipû-*). Cf. Alp 1940, 33, with note 2; Güterbock 1930, Vorwort 1, No. 1; Košak 1982, 125, rev. 28, for the forms ^{GAD}*tanipuliš* and ^{GAD}*tanipû* BABBAR. The still valid study by Forbes (1964, 27–43) has been referred to for a history of linen in antiquity. In general, for the most recent study on the trade and manufacture of textiles in the ancient Near East, Völling 2008 has been referred to with its extensive bibliographic references.

A list of attestations (GADA ideographic form with and without phonetic complements), updated to Siegelová 1986, with corrections: KBo VII 23, obv.[?] 2; KBo VII 26, obv.^{??} right col. 1; KBo IX 89, rev. col. VI 5, 11; KBo IX 90, col. V 7; KBo IX 91, left edge 3^{???}; rev. B 5 (^{LU}GAD.TAR(?)); Cf. Košak 1982, 29; HZL, 174, No. 173; KBo XVIII 154, rev.[?] left col. 9; KBo XVIII 170, obv. 7–9; KBo XVIII 175, obv. col. I 3–6; col. II 4[?], 6–7; col. V 7[?], 11[?], 13, 15; KBo XVIII 178, obv. 4; KBo XVIII 179, obv. col. II 6; KBo XVIII 180, rev. 5; KBo XVIII 181, obv. 2, 4–6, 13, 19–20, 24–26, 31; rev. 3–4; 13, 16–18[?], 25–28; KBo XVIII 183, obv.[?] left col. 2; KBo XVIII 184, rev. 5, 8, 9; KBo XVIII 185, obv.[?] 3; KBo XVIII 186, left edge 1, 3; KBo XVIII 187, obv.[?] 6–7; KBo XVIII 198, rev.[?] 3, 8; KBo XXXI 52 + KBo VII 25, obv.[?] right col. 8; KUB XII 1, rev. col. III 26, 31; col. IV 9; KUB XL 96 + Bo 1016, right edge 2; KUB XLII 11, obv. 7; KUB XLII 13, obv. col. II[?] 2, 4[?]; rev. col. V 4; col. VI[?] 7; KUB XLII 14, rev.[?] col. IV[?] 3, 5; KUB XLII 15, rev. left col. 6; KUB XLII 16, rev. col. IV[?] 6, 8; col. V 11; KUB XLII 17 obv. left col. 4[?]–5[?]; right col. 3^{??}; KUB XLII 31, obv.[?] 2; KUB XLII 34, obv.[?] 10, left edge 1; KUB XLII 42, obv. col. II 9, rev. col. III 7^{??} (GADA SAR; Cf. Košak 1982, 60); KUB XLII 47, obv.[?] 10; KUB XLII 49, obv. 2, 4, 8, 11; KUB XLII 51, obv. 5; rev. 4; KUB XLII 52, obv. 2[?], 5^{??}; KUB XLII 53, obv.[?] 8, rev.[?] 1; KUB XLII 54, obv.[?] 3, 5; KUB XLII 55, obv. col. I 8, 11; KUB XLII 56, obv. 4–6, 9, 11, 13, 14; KUB XLII 58, obv. 4, 9; KUB XLII 59, obv. 7, 8, 12, 14, 16, 17; rev. 8, 11, 12[?] 14–22, 26, 28; KUB XLII 61, obv. col. I 4, 9; KUB XLII 63, rev. 4; KUB XLII 69, rev. III[?] 1, 4; KUB XLII 75, obv. 1–2; KUB XLII 106, obv. 1, 10–11, 12, 17, 20; rev. 9, 11; IBoT I 31, obv. col. I 3–4, 8, 10, 20, 26; NBC 3842, rev. 7.

² Bibliography is too vast to provide a complete list. For a recent in depth study, see Jones 2008; Kemp & Vogelsang-Eastwood 2001, 25–34, 53–55, 438, but also Vogelsang-Eastwood 1995, and before that, Vogelsang-Eastwood 1992.

³ For an overview of the first archeological finds relating to Egyptian linen (Neolithic – Predynastic Period – Old Kingdom) see *supra*. Now also Jones & Oldfield 2006, 33–35; cf. van de Mierop 2007, 157–161.

⁴ CT 2, 2: 8: GADA ša ^{URU}Mišir.

⁵ For the concept of luxury goods, see below note 117.

⁶ Cf. Waetzoldt 1980, 30–31; van de Mierop 2007, 162: “Their appearance alongside gold and silver objects, and the fact that Hittite king explicitly demanded those gifts in a treaty he concluded with the king of Ugarit, demonstrate

Egyptian terminology for linen is as varied as its uses.⁷ There is no doubt however that the so-called ‘king’s linen’ (Sumerian GADA LUGAL) is the finest of all. The Egyptian term for linen (šš nsw) is compared to the Greek word βύσσοσ (byssus),⁸ found on the Rosetta stone. This was the term used by Greek merchants to refer to prestigious dyed linen and it is clear that the expression was already used in Akkadian as *kitū šarri*, meaning precisely ‘king’s linen’.⁹ The same term is also often found in the correspondence between the Egyptian and Hittite courts.¹⁰

The treatment and dyeing of linen seem to be a characteristic of traditional Egyptian manufacturing.¹¹

However, trading in dyed linen increased during the New Kingdom and probably already involved foreign trade industries.¹²

In fact, interesting data emerges from close examination of the materials listed in the so-called Hittite ‘inventory texts’ (CTH 240–250),¹³ also with regards to the origin of certain luxury goods such as linen.

It is difficult, for instance, to establish if a cloth mentioned in certain inventory texts and linked to the name of a specific place or city, actually originates from that place or whether it was simply crafted elsewhere using the traditional process, method and custom of the place that it has been named after. With regards to this, the observation by Košak concerning the so-called ‘Egyptian chests’,¹⁴ “It is often impossible to distinguish whether an object is simply ‘from Egypt, in Egyptian style’ or ‘from Egypt (directly A.N.)’”,¹⁵ can be applied to all other objects linked directly to the name of a specific place.

There are exceptions however that may question of this assumption. Such is the case of IBoT I 31,¹⁶ which refers to linen cloths linked to the land of Amurru and to the city of Alašiya.¹⁷

The expression ŠA KUR A-MUR-RI-kán GADA^{H1.A} an-da, and those alike, but not identical, such as SÍG ḪA-ŠAR-TUM A.AB.BA-kán an-da (line 17), SÍG ḪUR-RI-kán an-da (line 25), and above all BI-IB-RI^{H1.A}-kán an-da (line 18), clearly demonstrate that it is difficult to establish whether items

the great value of these textiles.”

⁷ See Gardiner 1931, 161–183; Hannig & Vomberg 1999, 471.

⁸ Already Forbes 1964, 43.

⁹ Cf. CAD “K”, 474, 3. See also the Akkadian form *būšu*. Cf. CAD “B”, 350.

¹⁰ Cf., for example, KBo XXVIII 47, rev. 3–6; KBo I 29 + KBo IX 43, rev. 1–4; KUB XXXIV 2, rev. 3–5.

¹¹ See, among others, a recent study by Germer 1992. Alternatively Cochavi-Rainey & Lilyquist 1999, 215 who uphold that, “Patterning and color were not part of Egypt’s traditional linen industry”.

¹² Cf. Forbes *loc. cit.* See also KBo XVIII 14, rev. 3–14; KUB IV 95, obv. 7; KBo XVIII 36, rev. 11.

¹³ For the principle editions: Košak 1982; Siegelová 1986.

¹⁴ E.g. KUB XLII 11, obv. col. I 13.

¹⁵ Košak 1982, 37.

¹⁶ The text has been widely discussed. Collected bibliography in Košak 2002, selecting the reference text: CTH 241.1. See in particular Košak 1982, 4–10; Siegelová 1986, 74–86.

¹⁷ IBoT I 31, obv. 2–4: ² GÍŠPISAN SA₅ GAL GÌR UR.MAḪ IGI.DU₈.A ŠA KUR A-MUR-RI-kán ³ GADA^{H1.A} an-da IŠ-TU GIŠ.ḪUR gul-aš-ša-an ⁴ EGIR-an-da-ya-kán 37 GADA^{URU}A-la-ši-ya, “one large, red basket, (on) lion feet, (fit for) a gift. Contains: Amorite linen. As jotted down on a wooden board^(?). Furthermore 37 items of linen (from^{??}) Cyprus”. The impossibility of a link between the term IGI.DU₈.A and the following sentence (ŠA KUR A-MUR-RI-kán) for reasons of syntax had already been put forward by Goetze (1956, 33, and note 9). This interpretation was accepted by later editors of the text. The term IGI.DU₈.A, also, translated by Goetze as “show piece^(??)”, has been variously interpreted. Cf. Goetze *loc. cit.*; Košak 1982, 8; Wilhelm 1992, 503. The translation “gift” seems to be the currently acceptable one. For this see Tischler 2001, 233; Mora 2006, 135 with the bibliography collected in notes 17–18; Eadem 2007, 537.

were simply channeled through the area or whether they are typical of that place because they were, for instance, crafted there.¹⁸

Using comparison with other documents it is, however, possible to draw up a fairly detailed assumption of the linen trade, at least as far as Cyprus is concerned.¹⁹ In a quote from ‘Ezekiel’s Prophecy on Tyros’,²⁰ which can be dated between 580–570 BC, the materials forming the allegorical ship that represents Tyros include embroidered linen from Egypt and dyed blue and purple linen from the island (or coast) of Cyprus (‘*iyyê(y) ’ēlišâh*). The correspondence between Pharaoh Akhenaton and the King of Alašiya provides interesting information on the island’s linen trade.²¹ It is precisely from the testimonies in the el-Amarna Letters that one learns of the difficulty that Cyprus had in getting hold of this material. In EA 34 the King of Cyprus, after reminding the Egyptian Pharaoh that he had sent 100 talents of copper,²² asks in exchange for the delivery of 42 bolts of linen, 50 linen shawls and two linen robes as well as four bolts and four shawls in ‘king’s linen type’ (byssus).²³

In EA 40 the “governor”²⁴ of Cyprus promises gifts to the Egyptian Pharaoh consisting of five (ingots) of copper (for a total of three) talents of refined copper, one elephant’s tusk, one (beam)

¹⁸ It seems evident that in this context the particle *-kan* cannot have a local value. Košak (1982, 5) translates “contains...”; Siegelová (1986, 81) produces “*darin...*”. On the value of the particle *-kan*, see, among others, Friedrich 1940, 85–86; Neu 1993, in particular 145. It has been suggested for quite some time (Boley 2001), that the particle *-kan* had, at least during the Ancient and Middle Hittite periods, an absolutely non-local value (*Contra Hoffner & Melchert 2008, 374*). The value of *-kan* varies depending on whether it is inserted into a nominal sentence or followed by a motion verb or by a non-motion verb. Thus, for example, the particle *-kan* on line 4 (with an anaphoric value) does not so much refer to the name (*Alašiya*) but rather to the fact that “within” (*anda + kân*) the basket, there are also items of ‘Cypriot linen’. Cf. Goetze 1956, 33, note 5; Neu 1993, 147, § 12.7. See *infra*. It must be stressed that the use of this particle is particularly typical of ‘New Hittite’, usually substituting other local particles in New Hittite texts. Cf. Hoffner & Melchert 2008, 374, 28.82. The text can be dated to the 13th century BC. According to Carruba (1968, 20), based on the *ductus* and on the presence of grammatical elements characteristic of so-called ‘classic Hittite’, it should be possible to date the text further back.

¹⁹ References are made in other contexts of textiles also coming from Amurru. See for example: RS XVI 146 + 161 (a list of the worldly goods belonging to the queen mother Aḫat-Milku). Transcribed and translated by Nougayrol 1955, 182–183. See also the transcriptions and translations provided by Cochavi-Rainey & Lilyquist 1999, 180–181. Obv. 10–11: 20 TÚG.ME.MEŠ SAL.LA ša KUR Ḫur-ri 20 TÚG.ME.MEŠ SAL.LA ša KUR.MAR.TU.KI 20 TÚGša-bat-tu, ša KUR Ḫur-ri 20 TÚGša-bat-tu, ša KUR.MAR.TU.KI. However no mention of linen is made in this passage, even though the expression TÚGnalbašu *raqqatu* (logographic form: TÚG.ME.MEŠ SAL.LA), translatable as “the finest capes?”, hints at a high quality textile. For the meaning of the word *raqqatu(m)* one refers to CAD “R”, 168; Nougayrol 1950, 19; Oppenheim 1947, 128. Cf. also AHW “M-S” Band II, 958: (feine Wolle?). For the textile *šabattu(m)*, see CAD “Š” Part I, 8. Even if, from the example given, it can be deduced that a textile industry existed in the land of Amurru, we cannot establish for certain whether linen too was either produced or processed there. Cf. Klengel & Klengel 2009, 205–206.

²⁰ The Book of Ezekiel 27. 7. This passage has been studied in relation to Phoenician commerce by Moscati 1966, 108–110; cf., among others, also Smith 1953, 97–110. For a general approach to the problems that can arise from the reading of the document, see van Dijk 1968, 65–66 with the relative bibliography. References are also found in Goetze 1956, 36.

²¹ Apart from the classic editions of the letters of el-Amarna by Knudtzon 1915; Moran 1987 and Liverani 1998; 1999; for the *corpus* of the Alašiya texts (EA 33–40) see Cochavi-Rainey 2003, 5–42.

²² EA 34, obv. 18. A talent of copper corresponds to approximately 30 kg of metal made into ingots in the typical ‘oxhide’ shape. For a preliminary study of ‘oxhide’ ingots and the trading of them in the Mediterranean during the 2nd millennium BC, see Parise 1968; Muhly 1977. More recently Yağın *et al.* 2005, 560.

²³ EA 34, obv. 22, 23, 25.

²⁴ For the Hittite term (TÚ

of boxwood,²⁵ and a ship's mast.²⁶ There is no mention of linen cloths.

These same goods are also found in the Annals of Thutmosis III²⁷ (summary of the 34th year of reign), which mentions a tribute made by the 'chief' (*wr*)²⁸ of 'Asiya (Cyprus) which that year included 108.5 ingots of smelted (?) copper ore (lit. "heavy") 2.400 *deben*,²⁹ five (+X) ingots of lead/tin,³⁰ 110 *deben* of lapis lazuli, one ivory tusk and two *šigu*-wood logs. The summary of the 38th year of reign again lists the tribute made by the 'chief' of 'Asiya, which includes a certain quantity of copper ore and two horses.

A further reference to goods channeled through Cyprus found in the Annals of Thutmosis III is in the summary of the 39th year of the Pharaoh's reign in which the tribute made by the 'chief' of 'Asiya includes two ivory tusks, 40 copper ore ingots and one ingot of lead/tin.

Thus even in EA 36–37³¹ the King of Cyprus is able to guarantee enormous quantities of copper and some horses, but there is never a mention of 'Alašiya linen'.

According to the information provided by the texts it would be reasonable to assume that Cyprus had no thriving industry for the manufacturing of linen but that it brought it from Egypt and crafted it into undoubtedly prestigious goods, which were then channeled into the Syrian inland and to Anatolia.³² The expression GADA^{URU} Alašiya documented in the Hittite inventory texts can therefore be translated as "Cypriot linen", in the sense of: 'crafted in the "Alašiyian" way'.³³

2. Some notes on Hittite terminology for linen textiles

Cypriot linen in the form of finished goods is also mentioned in another Hittite inventory text together with a range of other materials.³⁴ In the third line of the obverse there is even a mention

²⁵ *Buxus sempervirens*, commonly known as boxwood, is an evergreen shrub which grows up to five meters high and is still widely found today in an area stretching from the Atlantic coast of the Iberian Peninsula to the Dodecanese islands. It is a slow growing shrub preferring a sandy, lime rich soil but which also adapts well in woodland as undergrowth. It is a highly valued and heavy hard wood which is still today widely used in the skilled crafts. During the period in question it was probably essentially used for making refined furniture and not for constructing boats. In fact, in the letter quoted above, boxwood is differentiated from the wood needed for a ship, since the specific weight of dry boxwood is larger than that of water. However it is quite interesting to underline that the only wooden diptych found in the Eastern Mediterranean until now (along the seashore of South Anatolia – Uluburun Peninsula), and dated to the end of the second millennium BC is made of boxwood. Cf. Warnock & Pendleton 1991. The boxwood is referred to in the Egyptian texts written in Akkadian as *taškarinnu(m)* and compared with the Egyptian *šī-gu*. See also CAD "T", 280–282; AHW "Š-Z" Band III, 1336–1337.

²⁶ EA 40, obv. 10–15.

²⁷ Copy of this text in Sethe 1906, 707–708. Translation in Endesfelder & Priese 1984, 211, 216, 219. See also, in general, Helk & Drenkhahn 1995, 98–99.

²⁸ The Egyptian term *wr* means literally "the Great", but it is generally used by the Egyptian chancellery of the 14th and 13th centuries BC to designate all foreign sovereigns, not necessarily Egyptian vassals. Cf. Erman & Grapow 1955a, 329; Moran 1987, 35–36, with note 71.

²⁹ The Egyptian *deben* corresponds to approximately 91 grams of metal.

³⁰ It was decided, for various reasons, to keep two translations for the Egyptian term *ḏḥty*. Initially it was thought that this term referred only to lead. Apropos this see Erman & Grapow 1955b, 606; Helk & Drenkhahn 1995, 102.

³¹ EA 36, obv. 5–14; EA 37, obv. 9.

³² The correspondence between ancient Near Eastern courts and Ḫatti proves that Cyprus was not, at the time in question, the only exporter of fine, skillfully processed textiles. See, for example Singer 2008, 29. Some archeological remains could perhaps reinforce the validity of the hypothesis given here and of the data collected. See, particularly, Reese 1987, 205.

³³ See Carruba 1968, 20.

³⁴ KBo XVIII 175, obv. col. I 5. See Košak 1982, 10; Siegelová 1986, 410.

of linen from Hurri,³⁵ whereas in the fourth line it refers to 39 linen shirts of which two are in red linen and one in *šuhru* linen.³⁶

Lines 6–7 of the obverse even describe the route traveled by the produce: by caravan (ŠA KASKAL^N) to the Palace (G^IŠPISAN ŠA É.GAL^{LIM} lit. “the chest of the Palace”).³⁷

The linen traded in the Near East during the 2nd millennium BC. was subjected to a range of processes. In fact in KBo XVIII 175 (CTH 241.2) one also reads: “a red linen robe in the ‘Tapašpa style’”.³⁸ In this case too it is a reference to the method of crafting the cloth.³⁹ It should be stressed

³⁵ [1 G^IPI]SAN SA₅ LÚGUD.DA 40 TÚGÚ HUR-RI GADA, translated by Košak 1982, 13, “one small red basket: 40 linen Hurrian shirts”. In this case too the translation “Hurrian shirts (made of linen)” is preferred, rather than “linen Hurrian shirts”. ‘Hurrian shirts’, that is to say in Hurrian fashion, are in fact well documented in the Hittite texts (cf. lastly Klengel & Klengel 2009, especially in the inventories (Cf. Siegelová 1986, 650), as well as in the correspondence between Tušratta of Mittani and Amenhotep IV. (Cf. most recently Cochavi-Rainey & Lilyquist 1999, 51–164, in particular p. 144), therefore the statement “Hurrian linen” remains a ἀπαξ. See also CTH 250.1=KBo VII 23, obv. 2: TÚGÚ HUR-RI GADA ŠU [-UH-RU (?). Thus Siegelová 1986, 516; Košak 1982, 160, however, renounces this integration. See in particular Goetze 1955, 53, with note 53. Also it should not be forgotten that within the Hittite court there were real “corporations” of skilled craftsmen who worked for the palace, producing items that were typical of their native lands. See, among others, Klengel 2008, 72; already Hoffner 1992, 93–94. On the mobility of artisans in the ancient Near East during the second half of the 2nd millennium BC see, in general, Moorey 2001, with previous bibliography. For a study of Hurrian textiles, with particular reference to the textile industry in Nuzi, as is evident in the texts, see Zaccagnini 1981, with the preceding bibliography.

³⁶ 39 TÚGÚ GADA 2 GADA SA₅ 1 GADA ŠU-UH-U-RU. For the meaning of *šūru(m)*, here given as *šuhru*, see Košak 1982, 14, with the list of attestations and *ibidem*, 293. Cf. also Siegelová 1986, 339, note 6. Generally reference is made to CAD “Š” Part III, 367–368. Veenhof (1972, 154–156) accepts the interpretation “black cloth” by Landsberger (1925, 14), who, in TC I, 27: 2 translated, “zehn schwarze Stoffe”. Also, again, AHW “Š-Z” Band III, 1287 translates *šūru(m)* as “schwarz, grau”, accepting the equation with *šahōr* “schwarz werden” from Hebrew and Aramaic. As Veenhof (1972, 30, note 59) rightly observes, the cloth accompanied by this adjective is indicated in the texts as a material for packing goods. Therefore Košak (1982, 14) suggests that it could refer to an untreated (rough?) cloth, in apposition to the term TÚGSIG, which would hence refer to a fine cloth. The possibility should not be excluded here that the term *šuhru*, used as an adjective, could simply indicate an untreated and undyed cloth. Cf. Košak 1982, 202. Neither does this interpretation exclude the possibility of translating the term as “grey, black”. It would therefore appear that the adjective serves to indicate the quality of the textile rather than its colour. In fact, in the inventory texts, it often occurs next to TÚGSIG (“fine fabric”), almost as if highlighting the difference. See the statements in Košak 1982, 14. Cf. MVAeG 33 No. 155: 4, *a-na 1 TÚGšu-ri-im ú ra-qi-tim*, translated, “für 1 schwarzen Stoff oder dünnen (Stoff)”, but, “for an untreated textile or (a) fine one” would be preferable.

Košak (1982, 202, 260) has also suggested that the Sumerogram 𒄩.𒄩 linked to textiles (in the forms TÚG𒄩.𒄩, GADA𒄩.𒄩, TÚG𒄩.𒄩-natar) might indicate a type of treatment, even though “not coloured” (undyed?) is often given in translation. Cf. however *ibidem*, 16, according to the interpretation suggested in KBo XVIII 175, obv. col. I 21. Siegelová (1986, 654) on the other hand translates it as “meliert(?)”. The term literally means “storm, thunderbolt” and it is often a divine attribute. Cf. Tischler 2001, 232, “auch eine Farbbezeichnung?”. The principally accepted meaning of the term probably alludes to something with dark, opaque tones; in indicating a cloth it possibly refers to poor quality or to the fact that it has undergone no treatment or dyeing process. Even if a similarity with the Akkadian term *šūru(m)* seems farfetched, one cannot however preclude it from belonging at least to the same semantic area. See, conversely, the equivalence of the Akkadian *raqqatu(m)* and the Sumerian TÚGSAL.LA or TÚGSIG. Cf. Veenhof 1972, 153. See also the considerations by Siegelová 1986, 204–206, note 2; HZL, No. 335, “Farbbezeichnung(?)”.

³⁷ One would assume that in this context É.GAL^{LIM} refers to a particular structure located in the Tempel I in Hattuša, or to the worship – administrative centre as a whole. Cf. Güterbock 1974, 305–306; Siegelová 1986, 155, note 8, with previous bibliography.

³⁸ KBo XVIII 175, rev. col. V 11. Cf. the interpretation by Siegelová 1986, 418 in KUB XLII 14 rev. IV⁷ 11: TÚGta-piš-pa. See Košak 1982, 17, 22; HZL, No. 244.

³⁹ This could be a collective term (-a), derived from the name of the city (URU)Ta-ap-pa-aš-pa-aš. See also Košak 1982, 22 and Siegelová 1986, 338, note 1. Cf. HEG “T,D/1”, 124–125. In order to locate the city of Tapašpa refer to del Monte & Tischler

that this document always refers to goods that have only been provisionally inventoried since they come from convoys that are waiting to be channeled to a destination.⁴⁰

In IBoT I 31, obv. 10 the expression 1 GADA *eh-li-pa-ki* appears. It seems plausible that this expression may also refer to a type of linen. Goetze claims that the term *ehlipaki* is undoubtedly to be linked to *ehlipak(k)u*,⁴¹ which is often quoted in the Qatna inventories⁴² and translated by Bottéro as “possiblement améthyste”.⁴³ As Bottéro himself recalls,⁴⁴ the term is often cited in the el-Amarna inventories as the *hi-li-p/ba* stone.⁴⁵ It is highly likely to be a precious stone, as Laroche rightly observed;⁴⁶ the expression 1 GADA *eh-li-pa-ki* could therefore be translated as “*ehlipaki* stone (amethyst?) coloured linen”,⁴⁷ meaning dyed in a shiny bright purple colour.

In a passage from CTH 243.2.A⁴⁸ another reference is made to processed linen. In KBo XVIII 170+, obv. 7 ‘bolts/rolls’⁴⁹ of linen are referred to, as are ‘sheer linens’.⁵⁰

A number of minas of linen and (for)⁵¹ four tunics⁵² with refined embroidery⁵³ are also

1978, 400, even though one cannot exclude its geographical vicinity to Konya (^{URU}*Ik-ku-wa-ni-ya*), from which six garments originate (KBo XVIII 175, rev. col. V 8) and are placed in the same container (KBo XVIII 175, rev. col. V 5).

⁴⁰ Even though the problem is extremely complex and undoubtedly requires in-depth studies, the stocking of goods should consist of three stages: provisional storing (as in this case), the listing of the goods on wooden tablets (Cf. for example IBoT I 31, obv. 3), storing of the goods at their final destination (e.g. CTH 241.12 A-B) and the drawing up of an inventory. See, among others, Archi 1973, 215–216; Košak 1982, 52; Mora 2007, 538.

⁴¹ Goetze 1956, 36.

⁴² Bottéro 1949, 138–168, lines 96–131–215–218–235–252–299–329. For a revised and updated version of the Qatna inventories, see Fales 2004, 83–128.

⁴³ Bottéro 1949, 18, with note 2.

⁴⁴ Bottéro *loc. cit.*

⁴⁵ Cf. Goetze 1956, 36, note 52.

⁴⁶ Laroche 1976, 76; compared to Košak 1982, 8.

⁴⁷ Already Košak 1982, 6; Siegelová 1986, 80, with note 6; 81, 63, 65, with note 4. For other interpretations see, in particular, Polvani 1988, 13–14, with the bibliography suggested in the notes. Cf. *hilibû* in CAD “H”, 186.

⁴⁸ KBo XVIII 170+ and its copy KUB XLII43 (CTH 243.2B). See Košak 1982, 109–110; Siegelová 1986, 482–488. In this context the listed products suggest a private destination. In fact in CTH 243.2.A, obv. 1–6 e rev. 1–4 objects have been listed which are already present in the so called ‘Inventory of Manninni’. See Košak 1978, 99–123; Siegelová 1986, 441–451. See also KBo XVIII 170+, rev. 5: “Šuppiluliuma, head of the *ilana*-house”. Cf. Košak 1982, 110; Siegelová 1986, 487–488, note 15. Cf. Pecchioli Daddi 1982, 512; HW, No. 271. For an archeological comparison see Naumann 1971, 415, 454.

⁴⁹ In the Hittite documents the logogram PAD is mainly attested in connection with metals, designating a metal ingot; here ^{TUG}PAD-*me-eš*, could be a strip, a bolt of untreated fabric (linen?). Compare Košak 1982, 112; Siegelová 1986, 338, note 1, 667; HZL, No. 295; Tischler 2001, 251. See, more recently Singer 2006, 252–258, in particular 253, note 45.

⁵⁰ As far as the term ^{GADA}*hu-u-wa-an-d/ta-r(a)* is concerned, it is probably such finely worked linen that it is sheer, almost transparent. It appears to be a neuter, abstract noun with the function of adjective. A purely homophonic association could link it back to the Hittite term *huwant-* “wind”. Compare Tischler 2001, 58; HEG “A-K”, 328–331. The same suggestion is made by Puhvel 1991, 430. The term also occurs in KUB XLII 43, obv. 11 (Košak 1982, 111–112; Siegelová 1986, 482–488), in KUB XLII 34, left edge, line 1 (Košak 1982, 54–55; Siegelová 1986, 56–59), also in KUB XLII 60, obv. 7 (Košak 1982, 186; Siegelová 1986, 524–525). See, for example, the adjective derived from it, attested in the neuter, plural form, *huwandaruwanda*. Cf. Beckman 1985, 141.

⁵¹ Like Siegelová 1986, 225, “[x +] 1 Minen Leinen (für) 4 gemusterte, erstklassige Gürtel”.

⁵² KBo IX 90, obv. 7. It could have been a loose fitting tunic tied at the waist (E.ĪB), to create a skirt which was slightly longer at the back. The tunic in fact often ended with a kind of tail at the back (KUN). Cf. KUB XLII 48, obv. 3⁽²⁾, 11, 15; KUB XLII 44 (+) KBo IX 89, obv. 1–2, 7, 9. The garment E.ĪB could be associated with the Hittite ^{TUG}*gapari-*. Cf. Goetze 1955, 56; Tischler 2001, 72; HEG “A-K”, 490, “tunic with kilt”, maybe not to be confused with TUG ĪB.LAL, Hitt. ^{TUG}*putalliya-*, “leichtes Marschkleid der Soldaten”, thus wrongly Ünal 1978, 126. Cf. the valid observations by Goetze 1955, 56, “tunic with kilt which the ‘soldier gods’ from Yazılıkaya are wearing”. See also what is claimed by Siegelová 1986, 213–216.

⁵³ The Akkadian word *mašlu* often used in the inventory texts as Akkadogram, could have the meaning “trimmed” or

mentioned in a list of gifts (IGI.DU₈.A)⁵⁴ from different parts of Anatolia.⁵⁵

Other types of linen also existed such as *karnaša* linen.⁵⁶ This was, in all likelihood, a special type of cloth⁵⁷ used for covering precious pieces of furniture.⁵⁸ In the same text⁵⁹ one also comes across the expression GADA *tiyalan* which possibly refers to a type of cloak for special occasions worn as an over-garment.⁶⁰ Speaking of which, it is interesting to note the term used without

“embellished”, also in this context. The word in fact occurs nearly always next to insertions of gold and silver in the clothing. Cf. Goetze 1955, 53, note 55; CAD “M” Part I, 318, b; HZL, No. 20; Košak 1982, 202, with the relative bibliography. Lastly Klengel & Klengel 2009, 207.

⁵⁴ KBo IX 90. For the category of these texts see, in general, Siegelová 1986, 213–217. Transcription and translation in Košak 1982, 116–117; Siegelová 1986, 224–225.

⁵⁵ The textiles in this group of texts (CTH 243.3 = KBo XVIII 197 (+) 197a (+) 197b + KBo IX 89 + 90 (+) KUB XLII 44), come from the city of Paniša (KUB XLII 44, rev. col. V 5, 8), Parnaša (KUB XLII 44 + KBo IX 89, rev. col. II 1–2, 5–6, 8, 10) and Zarwiša (KBo IX 90, rev. col. V 3, 8 + KBo IX 89, rev. col. VI 1, 6). As far as the first place name is concerned it should be stressed that it was already a place of worship at the time of Arnuwanda I, initially located near Yerköy, along the old Roman road which now runs past the modern Yozgat (maybe the Hittite *Ḫarana(ša)*; Lat. *Corniaspa?*) from *Ḫattuša* towards the south (Kaneš?). Cf. Cornelius 1967, 71; del Monte & Tischler 1978, 300–301; Siegelová 1986, 217. According to Forlanini (cited as personal communication), the city would have been located, together with Tiura, in the valley between the Melendiz/Hasan Dağ massif and the middle-Kızılırmak. The city of Parnaša is yet to be accurately located, even though it was an important place of worship. It is likely however to have been located on the north eastern banks of the Tuz Gölü and corresponds to ancient Parnassos and today’s Parlasan (lastly Forlanini 2009, 54, with previous bibliography). Already del Monte & Tischler 1978, 306. Lastly, as far as Zarwiša is concerned, it may have been near Tarḫuntašša and Karadağ, in the area between the Taurus mountains, the *Ḫulaya* river and the modern Ereğli. As in Forlanini 1988, 137–138. Cf. del Monte & Tischler 1978, 496; del Monte 1992, 191–192. In the light of these suggested locations, a region of textile production and trade could be hypothesized in the heart of the Hittite Lower-Land between the cities of Pašura (?), Ikkuwaniya (Konya), Wašḫaniya (according to Forlanini [2009, 49, 68] to the west of Kültepe/Kaneš and near the Kızılırmak river), as far as Zarwiša, near *Ḫurniya/Korne* (personal communication by Forlanini). Cf. Košak 1982, 203.

⁵⁶ The term occurs, in association with the items on which it is placed, in KBo XVIII 181, rev. 5, 7 (integrated: *kar-na-aš-ša* in KBo XVIII 181, rev. 6). In KBo XVIII 186, left edge 6, Košak (1982, 170) suggests for GADA ^{GIŠ}*karnašaš*: “the cloth for the karnasa-table”, while Siegelová (1986, 379) transcribes directly ^{GIŠ}*karnašaš*, even though it is evident both in the drawing of KBo XVIII, and in the photo of the fragment, that the determinative GADA appears before the noun (not GIŠ), and with no possibility of being misled by the various spelling of the two symbols (cf. HZL, Nos. 174, 177), since, just before (line 3: GADA ^{GIŠ}*šar-pa-aš*) the two words appear side by side and can be clearly distinguished. The term is accompanied by the determinative indicating items made of wood (GIŠ) in KUB LII 96, obv. 3.

KBo XVIII 181 and KBo XVIII 186 have been catalogued by Siegelová (1986, 363–387) in the category ‘Textilen aus persönlichem Besitz’; KUB LII 96 in ‘Persönliche Zuweisungen’. Cf. Siegelová 1986, 328–362.

⁵⁷ Cf. Siegelová 1986, 359, note 1; *ibidem*, 375, note 12.

⁵⁸ It is not clear if the linen takes the name of the object on which it is placed (^{GIŠ}*karnaša-*). From the contexts in which the term occurs it cannot be excluded that it refers to a kind of throne. Compare Tischler 2001, 74. It is very probably not the same kind of linen described in KBo XVIII 181, rev. 28: GADA ^{GIŠ}*šÚ.A* (linen [for a] chair). The term *karnaša-/karnaši-* could be formed by the Luwian term *karna-* – of unknown meaning – with the Luwoid appurtenance suffixes *-aš(š)a-/aš(š)i-* (as in Puhvel 1997, 91). For *karna-* see CLL, 101, ‘?’; Tischler 2001, 73 provides, with some reserve, the motto ‘*kar-na-an ma-ar-na-an e-eš-ša-ú*’ of KUB I 1, col. IV 80: “schalten und walten”. Otten 1981, 29, “...soll ein jeder für die Gottheit nach besten Kräften schaffen!”. According to HEG “A-K”, 513; Puhvel *loc. cit.*; Košak 1982, 124, it is possibly a piece of furniture on which objects can be placed. In fact, in KBo XIV 33, obv. col. I 9–10, for example, it is said that the head of the palace employees brings a precious club and places it on the king’s *karnaši*. Compare Klingner 1996, 482–483, 775.

⁵⁹ KBo XVIII 181, rev. 14 and may be also in obv. 2, 29 and rev. 11.

⁶⁰ The term is in fact almost definitely retraceable to the verb *tiyalai-* (“to cover”, “to wear”, “to put over”), from which the noun *tiyala-*. In the Hittite inventories the term is clearly used as an adjective, meaning it serves to qualify the workmanship of linen and wool (that is to say the manufacture of an item of clothing). Compare Tischler 2001, 176; HEG “T,D/3”, 364. See the interesting suggestion by Siegelová 1986, 365, note 3; *ibidem*, 370–371, note 4.

its determinative GADA, in KUB XLII 106, obv. 4:]x 1 TÚGÚ.È.A⁶¹ HUR-RI ŠU-RI-PU HAŠ-MAN-NI ti-ya-la-|a[n?.

It should be noted that in this passage the *tiyalan* robe is tailored to be put on over the head through a specific hole in the cloth (TÚGÚ.È.A). This garment is almost always linked to the land of Hurri. It is therefore assumed that the GÚ.È.A cloak originates from Hurrian lands.⁶²

The element that appears to confirm the link TÚG/GADA^A*tiyalan* = cloak, is in the interpretation of the term *šurīpu*.⁶³ In the Hittite texts it seems to have been used as an Akkadogram referring to the “freezing winter” or simply to “winter”,⁶⁴ despite the fact that the equivalent Hittite word is known.⁶⁵ Therefore Košak’s interpretation of the expression TÚGÚ.È.A HURRI ŠURIPU *tiyalan* appears very convincing.⁶⁶

The Luwian term⁶⁷ *lakkušanžani-*, often preceded by the Sumerogram for linen,⁶⁸ is of unknown etymology. This lexeme, widely attested in the Hittite inventories, always occurs in association with the term GÍŠNÁ (“bed”).⁶⁹ The textile referred to is evidently used in connection with beds.⁷⁰ The most viable hypothesis is that the expression TÚG/GADA^A*lakkušanžani-* refers to a canopy.⁷¹

In rev. 27 one comes across the expression GADA IGI, “linen (for) the eyes”.⁷² It is quite plausible that this refers to fabrics worn for specific occasions, particularly since other garments are mentioned in the lines that follow.⁷³

⁶¹ For this type of garment, which is characterised by the way it is put on, see Goetze 1955, 52–54.

⁶² Cf. lastly Klengel & Klengel 2009, 206.

⁶³ For the meaning of the word see CAD “Š” Part III, 347–348; Landsberger *apud* Bauer *et al.* 1934, 157–159.

⁶⁴ Güterbock *apud* Freydank 1968, 317, was the first to give a specific meaning to *šurīpu*, attested as Akkadogram in the fragments of letters 453/w (left edge, line 3) and 2236/c (rev. 5). The ‘winter context’ in which this expression is inserted, ‘*kinuna ŠURIPU mekki*’ (KBo XVIII 35, left edge 3; cf. KBo XVIII 79, rev. 30: *ŠURIPU-wa kuitman wa[kkari?]*) translated, “und jetzt ist hier viel Eis” (Hagenbuchner 1989, 166–167, 179–180), suggests to us the possibility of translating the Akkadogram *ŠURIPU* as “winter”. Compare AHW “Š-Z” Band III, 1284. 6a.

⁶⁵ *gim(a)-*. HW, 109 and bibliography; HEG “A-K”, 571–573; Tischler 2001, 79.

⁶⁶ Košak 1982, 139, “Hurrian winter coat?”. Cf. Klengel & Klengel 2009, 207, “... wohl auf ein Kleidungsstück hinweist, das während der kalten Jahreszeit getragen wurde”.

⁶⁷ The presence of the inflected Luwian form (nominative plural) in KBo XVIII 175, rev. col. V 15: *la-ak-ku-ša-an-za-ni-en-zi* leads us to a Luwian origin of the term. Compare Košak 1982, 17; CLL, 121; Neumann *apud* Puhvel 2001, 40; Kloekhorst 2008, 515. In KBo XVIII 154, rev.⁷ left col. 9, the reading (*la-ak-ku-ša-an-za-ni-uš*) by Güterbock in Inhaltübersicht VI of KBo XVIII, as an accusative plural, would demonstrate that the forms ¹NU-TIM⁶ in fact anticipate *Pluralia Tantum*. Cf. also Goetze 1931; *Idem* 1955, 53, note 54. In any case, according to Starke (1982, 361) it should be read as GADA *la-ak-ku-ša-an-za-ni-iš*¹, even though it is evident that the final syllable is *-uš*, both in the drawing in KBo XVIII and in the photo of the fragment of tablet. Compare HEG “L-M”, 19.

⁶⁸ For the list of statements in the Hittite inventory texts, see Košak 1982, 224; Siegelová 1986, 604.

⁶⁹ The term rarely occurs in conjunction with other objects. Cf. CHD “L-N”, 21, b.

⁷⁰ As in, among others, Otten 1982, 285; CHD “L-N”, 20–21; Puhvel 2001, 39; Siegelová *loc. cit.*

⁷¹ Compare valid considerations by Košak 1982, 17.

⁷² The same expression is to be found in KUB XLII 59, rev. 20, in KUB XLII 56, obv. 4, 14, also with the phonetic ending (acc. plur. *-aš*) in KBo XVIII 187, obv.⁷ 6.

⁷³ Košak 1982, 125. Cf. Klengel 2008, 76.

3. A propos colours of fabrics in the Hittite world

In a Hittite medical text⁷⁴ there is reference to a remedy for an ophthalmic complaint which probably causes profuse lachrymation.⁷⁵ The treatment procedure is described in detail. A compress made with an ingredient (possibly obtained from Alašiya)⁷⁶ which is mixed with wine in a bronze vessel and then applied to the patient. This procedure is repeated day and night for some time, during which the patient must wear a special bandage.⁷⁷ The main ingredient in this preparation could be chrysocolla (hydrated copper silicate),⁷⁸ a substance probably used for the same purpose also in the Akkadian ritual AMT 9, 1: 39⁷⁹ and mentioned again by Pliny in a passage from his *Naturalis Historia* as an excellent remedy for “*initia glauumatum*”.⁸⁰ It is however difficult to establish how *mar(ru)wašḫa-* should be accurately translated. In 1919 Emil Forrer, in reference to the ‘kanesic’ rendering of words originating from Luwian and *vice versa*, suggested linking the hydronym *Maraššand/ta – Maraššantiya* to the ideographic form (¹⁰SI-A) attested in the

⁷⁴ KUB VIII 38 + XLIV 63, rev. col. III 10–21. *Editio princeps* by Burde 1974, 30–34.

⁷⁵ Unfortunately the text is damaged in this part. As suggested by Haas 2003, 117, “Rezept gegen vermehrte Sekretion von Tränenflüssigkeit und Brennen liegt in KUB 8.38 + KUB 44.63 vor.”, it is more likely that it is a matter of an over secretion from the eye, rather than a lack of secretion. As in CHD “L-N”, 202, “or (if) he (the patient) [lacks?] tears”. The pathology to which the text refers to is in all probability trachoma (compare Haussperger 2000, 443–444; Starke 1986, 163–164), a *chlamydia trachomatis* infection which still occurs in certain parts of the world today. A form of contagious conjunctivitis with a pronounced tendency to scar the upper eyelid, it causes in-growing eyelashes, the inability to close the eye, infections, perforation of the eyeball and blindness. The infection also affects children. It may refer to a simple conjunctivitis, much less contagious and frequent among peasants because of wounds, even only superficial ones, caused by the vegetation (the so-called harvesters’ ulcer). It is improbable that it refers to blockages of the lachrymal duct which usually only occurs for persons over 60 and therefore at an age which was at that time rarely reached. “The salts of heavy metals and the tannin from wine are still used, particularly the former. Until recently Zincometil was used (a zinc eye wash). Colloidal silver is still a treatment for gonorrhoeal conjunctivitis in newborns. Yellow mercuric oxide cream is used for parasites such as lice and *phthirus pubis*, which, occasionally, still today can be seen on the eyelashes. All heavy metals are disinfectants, but I cannot remember ever having come across the use of copper”. This was a personal communication (01/13/2009) by Dr. Roberto Bellucci, head physician of the ophthalmology department in the ‘Borgo Trento’ hospital in Verona. Starke (1986, 163) claims that, “Nun wird aber seit alters das Trachom (Conjunctivitis granulosa), das vor allem in subtropischen Klimazonen auftritt, gerade durch Ätzung der erkrankten Lidbindehaut mit sogenannten Blaustein oder Kupferstift behandelt (Heute verwendet man stattdessen Sulfonamide)”. So does Puhvel 2004a, 195, “Before sulfa drugs, granulation and corneal scarring caused by trachoma and conjunctivitis were treated by cauterizing diseased tissue with copper sulfate”. For a more detailed technical account of ophthalmic pathologies in the ancient Near East, see Fincke 2000 and more in general the bibliography collected by Haas 2003, 117, note 520.

⁷⁶ KUB VIII 38 + XLIV 63, rev. col. III 11: ^URU A-la-ši-ya-az. Compare CHD “L-N”, 202; Polvani 1988, 66.

⁷⁷ (^{SI}G)handala-. Compare Tischler 2001, 38; HEG “A-K”, 154; HW₂ Band III/1, 168. The Egyptian language too has specific words to indicate bandages (particularly in linen), used in traditional medicine. Compare Forbes 1964, 43, with note 399.

⁷⁸ The Hittite term *mar(ru)wašḫa-* seems to be borrowed from Luwian. Compare CLL, 142; HEG “L-M”, 152. It is important to stress that the mineral is indicated by the omission of the determinative for stone (NA₄). It cannot be excluded, in fact it is very possible and certainly logical, that in this case, as in others, it was necessary to indicate that the mineral did not come in the form of a stone. It also was unlikely to refer to a vitreous paste made with pigments derived from it, since it was used for medical purposes. For the complex problem related to the interpretation of mineral terminology with or without the determinative NA₄, see, in general, Polvani 1988, 56–57, and the relative bibliography. For more in depth etymological research, see *infra*.

⁷⁹ Cf. Polvani 1988, 66, notes 6–7.

⁸⁰ Pliny, *Naturalis Historia*, 33. 92; already cited in Polvani 1988, 66–67, notes 8–10 and by Puhvel 2004a, 195–196. It should be remembered that Strabo (Γεωγραφικά XIV, 6. 5) also cites chalcantite (copper sulphate) and “copper rust” – from Cypriot mines – used for their medicinal purposes.

Hittite texts (the modern ^{1D}SA₅ transcription), “red river” (the old Halys, today called Kızılırmak, which in fact means “red river” in Turkish).⁸¹ Later Güterbock too, following Goetze,⁸² suggested placing the ideographic form ^{1D}SA₅ with the same hydronym ^{1D}Maraššanda, a noun possibly formed by the Luwian word *mar(ru)wa, “red?”⁸³ together with the participle stem (-ant) from the Hittite verb derived from it.⁸⁴ Laroche was the first to suggest seeing in the term mar(ru)wašḫa a noun derived from the Luwian *mar(ru)wa(i)- (rougir).⁸⁵

The suffix -(⁰a)sha- has been interpreted in many ways. Gusmani has suggested for some time seeing ‘Verbalabstrakta’ in nouns ending in -(a)sha.⁸⁶ From a morphological point of view it is basically a matter of abstract names, often *nomina actionis*.⁸⁷

Howard Berman,⁸⁸ who was not convinced by Gusmani,⁸⁹ tried to explain why the suffix -asha⁹⁰ added to a verb root would form words denoting names of actions or states.⁹¹

This question has since been tackled again⁹² and other scholars have reached similar conclusions, leaving aside the morphological issues⁹³ and the debate on the nature of the suffix and its function when linked to verbs or nouns.⁹⁴ The term mar(ru)wašḫa- is a nominal deverbative

⁸¹ Forrer 1919, 1039. Compare del Monte & Tischler 1978, 538–539; del Monte 1992, 207. Today the identification is not so certain. Compare now HEG “L-M”, 148–149, “Angesichts der umfangreichen Lücken nach bzw. vor diesen beiden Textstellen ... ist die Identität von ^{1D}SA₅ ^{1D}Marassantiya keineswegs gesichert; später publizierte Texte zeigen im Gegenteil, daß es sich um verschiedene Flüsse handelt ... Und zwar scheint der ^{1D}SA₅ ein Zufluß des ^{1D}Marassantiya zu sein, wie das Ritualfragment KBo XII 94 zeigt, ... Bezüglich der Identifizierung des ^{1D}Marassantiya läßt sich sagen, daß er an Nerik vorbeifließt ... Der ^{1D}Marassanta-Fluß floß früher nach Westen(?) oder nach Nordwesten”. See also Košak 1982, 202. Already Gurney 1977, 207.

⁸² Goetze 1930, 25, note 50.

⁸³ As in Laroche 1959, 69.

⁸⁴ According to Güterbock himself (1956b, 116, note b), the Hittite ‘passive participle’ -ant/d is equivalent to the Luwian ‘passive’ participle -ma attested in the gloss marušam(m)a- (KUB XXII 70, rev. 11), designating a colour other than white (ḫarki-), probably found precisely together with this term (in the genitive form ma-ru-ša-aš-aš) also in IBoT I 31, obv. 16. Here Košak 1982, 6 translates, “white and red (textiles)”; Siegelová 1986, 83, “weisse marušaša”. Regarding this, see reserves by Melchert in CLL, 141. Also in IBoT III 110, obv. 6, one could suggest the integration ma-]ru-ša-ma[. As also in col. IV, 5–6. Compare Siegelová 1986, 394, 416–417. The relationship between the hydronym Maraššanta and the term indicating a colour could be explained phonetically with the vowel alternation (a/u) confirmed, for example, also in the cases of idalu-/adduwali-, innarawant-/annarummi-. Cf. HEG “L-M”, 149. Güterbock thus corrected the first reading of marušam(m)a-, as a neuter plural adjective indicating a colour. Cf. Güterbock 1956a, 122–123, “Either ‘black, dark’ in contrast to ‘white’” Cf. Puhvel 2004a, 194. On questions relating to colour, see *infra*.

⁸⁵ As in Laroche 1958, 113. Cf. now CLL, 141, *mar(ru)wa- “blacken, darken”. See, more recently HEG “L-M”, 151. For more in depth study, see *infra*.

⁸⁶ Gusmani 1972, 254–266; in particular 265, with note 39. Now however, for a purely phonetic and phonological insight, see Melchert 1994, 122 and the examples of deverbative forms provided on pp. 69–71. On the complexity of PIE laryngeal derivatives in PA and then in strong and weak fricatives see the more recent suggestions by Kloekhorst 2008, 75–82.

⁸⁷ Clear examples of these are armuwalašḫa- (“moonlight”) from the verb armuwalāi- (“rising like the moon”), maliyašḫa- (“approval”) from the verb malāi- (“allow, approve”); ḫarnamniyašḫa- (“restlessness”) from the verb ḫarnamniya- (“incite, stir up”); etc.

⁸⁸ Berman 1977, 231–239; in particular 234–237.

⁸⁹ Berman 1977, 234, note 8.

⁹⁰ On the basis of an example, which is not even very significant, Berman (1977, 237) claims that the suffix is -asha- and not -sha- or even -sh-.

⁹¹ Berman 1977, 235, “...-asha- is added to a verb stem and forms names of actions or states corresponding in meaning to the English gerund.”

⁹² Starke 1979.

⁹³ Compare, for instance, Starke 1979, 261, note 64.

⁹⁴ With regards to this the three scholars draw different conclusions. According to Gusmani 1972, 262, the suffix is

form from the Luwian **mar(ru)wa-*.⁹⁵

If the association of ^{ID}SA₅ (lit. “red river”) with ^{ID}Maraššanda is arguable at a purely ‘topographical’ level,⁹⁶ it is even more so from a lexical point of view.

There are texts in which the verb **mar(ru)wa-* and therefore the nouns linked to it, including *mar(ru)wašha-*, can hardly be seen to qualify the colour red.

KBo VI 29, obv. col. II 10–13 states the following:

numu ^DIštar ^{URU}Šamuḫa GAŠAN-YA warriššišta nu šarazzi katterraya anda :maruwāit nu nepiš tekanna katkattenut.

In this passage is described the epiphany of Ištar, who, on coming to the aid of Ḫattušili III, “darkened” above and below⁹⁷ (all the lands of Ḫatti); shaking the sky and the earth.

In the same way the deities in KUB LIV 78, rev. 6⁹⁸ and in KUB VII 38, obv. 6,⁹⁹ are clearly “dark divinities”.¹⁰⁰

The term *mar(ru)wašha-*, cited in the inventory text KUB XLII 18, obv. col. II 5,¹⁰¹ probably doesn’t refer to a precious stone, but to a mineral which is difficult to identify; perhaps to its actual pigment.

The underlying problem lies in the fact that previously the term *mar(ru)wašha-* was interpreted based on the derivation from the verb **mar(ru)wa-*, where **mar(ru)wa-* = “to be red” > *mar(ru)wašha-* = “redness”.

Nevertheless, from the examination of the Hittite texts, but above all from reading the fragments just cited, it can be deduced that the colour of the mineral is difficult to define. It also seems possible that the perceived colour of this mineral (or of colours in general) and therefore, the colour classification criteria the Hittites used, were different from ours.¹⁰²

It is more logical to think that the cited minerals in the text have a blue tone rather than red

present in other Indo-Germanic languages and is hence a ‘pre- or proto-Anatolic’ phenomenon. According to Berman 1977, 234, it is a phenomenon which is also characteristic to the more recent Indo-European languages such as Greek and Latin. According to Starke 1979, 256, the suffix is shared by the Anatolian languages of the 2nd millennium BC, such as Hittite and Luwian. See also Weitenberg 1984, 232, § 600; 460, note 626.

⁹⁵ Among others Weitenberg 1984, 295–296; § 800; CHD “L-N”, 202–203; HEG “L-M”, 152; CLL, 142; Puhvel 2004a, 195; *Idem* 2004b, 91.

⁹⁶ Cf. Košak 1982, 202.

⁹⁷ *katterraya anda :maruwāit*.

⁹⁸ ^{DINGIR.MEŠ}*mar-ku-wa-ya[-aš]*.

⁹⁹ ^D*Mar-ku-wa-ya-aš*.

¹⁰⁰ The *markuwayaš* deities (dat. nom. plur. neuter of *mar(k)uwaya-*?) quoted in the Hittite text should correspond to ^D*Marwayanza* of KUB XXIV 11, col. II 8 and KUB XXIV 9, col. II 27 (cf. ^{DINGIR.MEŠ}*Marwāinzi*, nom.plur. neuter of KUB XLIV 65, col. II 11. Cf. Starke 1986, 162–163, with previous bibliography. See the list of attestations in van Gessel 1988, 299–300. For more in depth study, see CLL, 142, and the relative bibliography; HEG “L-M”, 139; Puhvel 2004b, 77–78 and lastly Kloekhorst 2008, 563.

¹⁰¹ [^{NA}][?]*mar-ru-wa-aš-ḫa(-)x*[. Cf. Košak 1982, 30; Siegelová 1986, 50. Looking at the drawing in KUB XLII the integration of the word is not so certain. As also Rosenkranz 1965, 247. *Contra* Burde 1974, 34. Within this context (a list of precious stones kept in some baskets, like a tribute), it seems probable that pigments of this substance were used to perhaps make objects from a vitreous paste. It is important to underline that in the Hittite texts the term never appears as associated with the determinative for stone. The restoration made by the editors in the reference text determine, as such, a ḫαξ difficult to explain, but easily questionable.

¹⁰² As already noted by Landsberger (1967, 139) and recently confirmed by Polvani (1988, 174), the definition of certain colours by the Mesopotamian people, as with later civilisations, were somewhat different to those of today. Such is the case, for example, for the colour blue. Cf. Landsberger *loc. cit.*, note 7. An explanation of this is given further below.

because all the other stones and objects identified are of the same colour, which does not seem to be a coincidence.¹⁰³ If we try to apply the same logic that scholars used in trying to identify the mineral on the basis of its colour,¹⁰⁴ it can be deduced that the mineral in question cannot be chrysocolla, based on the fact that it came from the island of Cyprus.¹⁰⁵ Chrysocolla $[(\text{Cu},\text{Al})_2\text{H}_2\text{Si}_2\text{O}_5(\text{OH})_4 \cdot n(\text{H}_2\text{O})]$ is characterised by a very irregular, amorphous structure; it is formed by oxidation in copper ore deposits; it is found in crusts or very softly, green, earthy masses, and can be of varying colours from green to bright blue. Since it does not have a uniform crystalline structure, (it is amorphous and therefore a tendency to be described as a ‘mineraloid’, rather than a mineral), it is not often used in jewellery. This fact strongly hinders the possibility of integrating the determinative for stone (NA₄) into the text KUB XLII 18, obv. col. II 5, or to identify (NA₄)*mar(ru)wašha-* as chrysocolla. One option automatically excludes the other.¹⁰⁶

The minerals that are often associated with chrysocolla are quartz, limonite, cuprite, malachite and azurite.

Malachite $[\text{Cu}_2(\text{CO}_3)(\text{OH})_2]$ is a mineral with a distinctive green colour, in the form of acicular clumps more or less densely united; it is rare that they form single crystals. This mineral is usually a compact mass or encrustation with a velvety texture. It is a basic copper carbonate, but is principally used as an ornamental stone. Malachite is actually one of the best-known semi-precious stones in the world. Its name derives from the Greek word for mallow.¹⁰⁷ Many malachite stones contain particular combinations of other minerals. It includes azurite, mottramite, chrysocolla and limonite. Moreover, malachite is usually associated with almost all secondary copper minerals, whether they are carbonate minerals or not. Malachite is often closely associated with azurite, not only for the obvious colour of both minerals (usually green) but also because the two minerals have very similar chemical formulae.¹⁰⁸ Malachite can sometimes substitute azurite, giving origin to what is usually defined in mineralogy as a ‘pseudomorph’; in this case an exact structural copy of the azurite crystals.¹⁰⁹

¹⁰³ Although this observation is irrelevant to the definition of the meaning of the verb **mar(ru)wa-* and the noun maybe semantically linked to it (*marwāy(a)-*), perhaps related to Hittite in the form *mar(k)uwaya-*, cited in the texts as mentioned above (KUB LIV 78, rev. 6; KUB VII 38, obv. 6). It is also difficult to think of a ‘red deity’, just as it is easier to imagine a climatic disturbance (a storm for example), characterised by dark chromatic tones, created by the goddess cited in KBo VI 29, obv. col. II 10–13.

¹⁰⁴ It has been essentially based on the equation: *mar(ru)wa-* (a verb that indicates a colour): *mar(ru)wašha-* (abstract noun of this colour) = *mar(ru)wašha-* (abstract noun of this colour): NA₄*mar(ru)wašha-* (stone X of this colour).

¹⁰⁵ So proposes, with reservation, Polvani 1988, 65, “crisocolla”; “verderame”.

¹⁰⁶ The possibility of creating a stone which imitates and substitutes precious stones, which are often difficult to find or very costly, involves the “agatisation” of chrysocolla with chalcedony quartz, which guarantees the hardness of the stone. The quartz crystals in the stone, if well polished, can result in the natural colour of chrysocolla. Such an operation is typical in specialised industries, which have sophisticated instruments to work hard stones. It cannot be excluded therefore that a stone with these characteristics can be identified in NA₄YAŠPU, a term rarely used in Hittite documents, but always provided with the determinative. Cf. Polvani 1988, 123–125, with preceding bibliography.

¹⁰⁷ *μαλάχης* with the variants *μολόχης/μολάχης*. Also in Pliny, *Naturalis Historia*, 37. 8: *μολοχίτις λίθος*. Cf. Hebrew: *malūāh*.

¹⁰⁸ Chemical formula for azurite: $\text{Cu}_3(\text{CO}_3)_2(\text{OH})_2$; Chemical formula for malachite: $\text{Cu}_2(\text{CO}_3)(\text{OH})_2$.

¹⁰⁹ The charges on the copper ions are the same for both minerals at two positive; each hydroxide has a charge of one negative and each carbonate has a charge of two negative. The change in colour between malachite and azurite, considering that the charges in the copper are the same, is determined by the higher oxidation of malachite compared to azurite. This means that malachite reflects a later stage of oxidation.

Malachite has low solubility and the ethyl alcohol (wine) cited in the text KUB VIII 38 + XLIV 63, rev. col. III 14, is certainly not a reagent which would dissolve it.¹¹⁰

Azurite [$\text{Cu}_3(\text{CO}_3)_2(\text{OH})_2$] is a basic copper carbonate, produced by weathering of copper ore deposits with a unique dark blue colour. The chromatic tone of this mineral is due to the high presence of copper.¹¹¹ It can often be found in the form of clumps or joined together in aggregations with radial texture. Azurite is highly soluble.¹¹²

From this re-examination so far one can deduce that the mineral (not stone) often cited in KUB VIII 38 + XLIV 63, rev. col. III, 11–16, is azurite.¹¹³ It is easily ground to a powder, is highly soluble using reagents like ethyl alcohol, and is one of the principal secondary copper minerals. The term *mar(ru)wašḥa-* cited in KUB XLII 18, obv. col. II 5 probably refers to the colour, similar to that of azurite, of the missing object.

However, the identification of minerals leaves the colour of the fabrics described in the inventory text IBoT I 31, obv. 16, open to debate. When azurite, reduced to powder and mixed with water and other reagents, it can take on a range of pigmentations. On the other hand, even the grinding of the mineral can strongly influence the tone of the final pigment that can vary from dark blue (coarse powder) to light blue (fine powder). Moreover if not ground sufficiently, the powder can become too sandy and granular, making it unsuitable to be used as a pigment. Apart from this consideration, the translation “to become dark, black(?)” from the Luwian verb **mar(ru)wa-* – from which the term *mar(ru)wašḥa-* could have been derived – seems completely acceptable.¹¹⁴

Research into the dyeing of the fabrics cited, even in the Hittite inventory texts, would require too deep a study to be covered here.¹¹⁵ It should also be stressed, as already mentioned, that there is the risk of translating terms that refer to colour in ancient Near Eastern languages, based on words used in the treatise writings on painting belonging to the Renaissance period.¹¹⁶

¹¹⁰ It is interesting to note that malachite is used in Egyptian medicine, along with *asa foetida* and naphtha, to heal cataract problems. Cf., for example, Daglio 2008, 79.

¹¹¹ It needs to be highlighted that, unlike lapis lazuli with which it is often confused and substituted, once azurite is reduced to powder and heated or mixed with acid reagents, it undergoes chromatic changes and becomes very dark. This process is defined as decarbonisation.

¹¹² For an overview of the definition and use of minerals in the ancient Near East refer in general to Thompson 1936; Forbes 1963, 67–93 and more recently Moorey 1994, 79–103.

¹¹³ Starke (1986, 163) had already reached the same conclusions, today reconfirmed (personal communication). Cf. Beckman 1996, 35; Puhvel 2004a, 195.

¹¹⁴ Cf. previously Güterbock 1956a, 122–123 and more recently Starke 1986, 163; CLL, 141–142; Puhvel 2004a; *Idem* 2004b, 89–91; Kloekhorst 2008, 562–563.

¹¹⁵ The bibliography on this subject is vast. The following are some summary bibliographical references. About colours in the ancient Near East see in general *RIA* 3 (1957–1971), 19–26; Landsberger 1967 and recently Verderame 2004, in particular p. 327. On colours in the Hittite world Riemschneider 1957 and the bibliography collected by Singer 2008, 29, note 89. For the colour of fabrics Goetze 1956, 34–35; Waetzoldt 1980, 20–21 and recently Klengel 2008, 7–14; Völling 2008, 151–157, with preceding bibliography. For major studies on the chromatism of fabrics in the ancient Near East, with particular reference to purple, see Singer 2008, above all 22–27, with bibliography in notes; van de Mierop 2007, 162–166.

¹¹⁶ For this reason, even today, there are many expressions connected to the literature of the ancients that seem to be too suggestive, like, for example, the “wine-dark sea”, the “hyacinth hair” of Ulysses or “black blood”, often cited in the *Odyssey*. With reference to the colours of fabrics cited in Hittite inventory texts see Košak 1982, 201, “The perception of colours in various cultures differs greatly and it is therefore difficult to find exact equivalents”. The starting point for this discussion can be seen in Geiger 1871, followed by Magnus 1877 and Marty 1886. See, more

4. Linen as a luxury good. A case of study: ^{GADA}lupan(n)i

The definition of linen as a luxury good¹¹⁷ is confirmed by the presence of the fabric in series of inventory texts which cite the royal couple, the name of a king or a queen and objects denoting royalty or events connected to the enthronement of a sovereign.¹¹⁸

In the left edge of KBo XVIII 186 there is a list of cloth items. Among these there are 14 linens^(?),¹¹⁹ perhaps related to a chair; two (cloths?) of linen presumably for a “royal seat”.¹²⁰ The most difficult fabric to identify is definitely ^{GADA}lupanneš,¹²¹ quoted in line 2.

The term ^{TÚG/GADA}lupan(n)i-¹²² seems to describe a type of textile craft. This, however, recurs in Hittite inventory texts with or without determinatives.¹²³

The evidence of the term in this passage is significant because of the presence of the expression “royal lupan(n)i- (of linen)”.¹²⁴ A similar expression appears in another inventory text (KUB XLII 22, obv. col. II, 11).¹²⁵ The tablet, related to KBo XVIII 179 (duplicate of KUB XLII 27), is of great interest, because it seems to contain an inventory of goods listed on the occasion of the enthronement of King Ḫattušili III.¹²⁶

The preciousness of the object, or the material from which it is made, seems to be confirmed by the ‘substitute-king ritual’ where the substitute was dressed in royal clothes, evidently including a lupan(n)i-¹²⁷

Moreover, in a statue – literally “image” = ALAM – dressing ceremony, representing the king, it states as follows: “A lupan(n)i- is placed on his head”.¹²⁸

The object in question seems to be a distinctive attribute of the Sungod, as evident in a Hittite ritual.¹²⁹ Even women could wear a lupan(n)i-, as seems to be evident in a passage of the ritual

recently Berlin & Kay 1969.

¹¹⁷ The concept of luxury goods related to the complex ceremony of gift exchange between the courts of the ancient Near East defines precious objects which usually recur as the possessions of powerful sovereigns in the late Bronze Age like Egypt, Ḫatti, Assyria, Kassite Babylonia and Mittani. For a general overview of gift exchange in the ancient Near East, of the concept of luxury goods, and of international diplomatic relations, see the fundamental works of Mauss 1923–1924; Zaccagnini 1973; *Idem* 1989–1990; Liverani 1990, 205–282; Thomason 2005. Most recently, Giorgieri & Mora (in print).

¹¹⁸ Following, as an example, are a few passages of the many texts refer specifically to linen in association with kingship.

¹¹⁹ Left edge 1[?]: GADA ta-ni-pu-ú.

¹²⁰ Left edge 3: 2 GADA ^{GIŠ}šar-pa-aš. For the controversial meaning of the term (^{GIŠ/KUŠ}šarpa- refer to CHD “Š”, 287; Tischler 2001, 146; HEG “Š/1”, 928.

¹²¹ ^{GADA}lu-pa-an-ni-eš. Nominative singular or plural. Cf. CHD “L-N”, 85; Puhvel 2001, 120.

¹²² For the meaning of the term see CHD “L-N”, 85–86; HEG “L-M”, 77–78; Puhvel 2001, 119–121, all with previous bibliography.

¹²³ A list of references in Hittite inventory texts is available in Košak 1982, 225–226; Siegelová 1986, 605–606.

¹²⁴ ^{GADA}lu-pa-an-ni-eš LUGAL^{UT-TI}.

¹²⁵ ^{TÚG}lu-pa-an-ni LUGAL-a[n²-na-aš]. As perhaps also in KUB XLII 98, obv. col. I, 10–11: ^{TÚG}NÍG.LÁM^{MES} LUGAL^{UT-TI} wa-aš-ši-ya-an-zi wa-aš-š[i-ya-an-zi-ma]1^{NU-TIM} ^{TÚG}GÚ.Ē.A ḪUR-RI 1 ^{TÚG}E.ÍB 1 ^{TÚG}lu-[pa-an-ni-([?]ME)]š, “(the substitute) is dressed in royal clothes: one Hurrian overcoat (coat²), one light tunic and one lupan(n)i-”.

¹²⁶ Cf. Siegelová 1986, 35; Mora 2007, 539.

¹²⁷ KUB XXIV 5 + IX 13, obv. 21–22: [^{TÚG}]lu-pa-an-ni-na-wa-kán ke-e-da-ni ši-ya-n[u-u]n. Cf. Kümmel 1967, 10.

¹²⁸ KBo XV 15, rev.[?] 5: [nu-uš-š]a-an ^{TÚG}lu-u-pa-[an-ni-in A-NA SAG.DU-ŠU ši-ya-an-zi]. Cf. Kümmel 1967, 136.

¹²⁹ KUB XVII 15, obv.[?] col. II 13 and duplicate KUB XXXV 145, obv. col. II 17: [(na-aš-ta an-da)] ŠA ^{DUTU}lu-u-pa-an[-ni-i(n) KI.MIN na-aš-ta an-d(a) ŠA ^DU]. Cf. Starke 1985, 231.

called ‘the expansion of the cult of the Deity of the Night’.¹³⁰

In the inventory text IBoT I 31 (obv. 9) we find a blue *lupan(n)i-* from Ašpunawiya.¹³¹

In CTH 250.36¹³² it is cited again *lupan(n)i-* in a fragmentary passage.¹³³ Even if the tablet is extremely damaged, the presence of a number of personal names,¹³⁴ such as the heir to the throne and the queen,¹³⁵ provides interesting information regarding the date of the text as well as an interpretative hypothesis on the characteristics of the *lupan(n)i-*. When comparing this document and other trial reports for embezzlement (e.g. the so-called Gerichtsprotokolle (KUB XIII 35+ and KUB XXVI 49),¹³⁶ useful information emerges about the identity of the receivers (?) of the goods cited.¹³⁷ As already pointed out by Siegelová,¹³⁸ the concomitant presence of some key members

¹³⁰ The new title is subject to a historical revision of the divine cult in question. For a comprehensive overview refer to Miller 2004, 259. KUB XXIX 4, obv. col. I 44–46: 44' 1 TÚG ša-ra-a ħu-it-ti-ia-an-za 1 TÚG E.ĪB MAŠ-LU 1 TÚG ka-ri-ul-li 45' 1 TÚG lu-pa-an-ni-iš 1 TÚG ka-lu-up-pa-aš 1-NU-TIM TÚG E.ĪB? TA-ĤAP-ŠI 46' 1-NU-TIM TU-DĪ-IT-TUM KÙ.BABBAR ki-i ŠA MUNUS-TIM {1 TÚG} 1-NU-TIM TÚG GÚ.Ē.A. See lastly Miller 2004, 277; *Idem* 2005b, 225.

¹³¹ 1 TÚG ka-lu-pa-aš ZA.GIN 1 [u]-pa-ni-iš ZA.GIN SUM Aš-pu-na-wi-ya, “one blue vest, one blue *lupanni*: (present from/to?) Ašpunawiya”. The name is a ἄπαξ λεγόμενον in the Hittite texts (Laroche 1966, 45, No. 177), but seems to refer to the Luwian onomastics. Cf. Goetze 1956, 38. It is important to highlight that in the Hittite texts the term *lupan(n)i-* is often associated with *kaluppa*: the correct meaning, “women’s underclothing”. Refer in general to Goetze 1955, 61; *Idem* 1956, 36; HEG “A-K”, 471; Puhvel 1997, 32–33; Tischler 2001, 70.

¹³² KUB XLII 51.

¹³³ KUB XLII 51, obv. 4: x +] 6(?) TÚG lu-pa-an-ni-i[š. Probably also in line 8: TÚG lu-pa-a]n-ni(?) ZA.G[ĪN(?)].

¹³⁴ KUB XLII 51, rev. x+1:]x HÉ-en-t[í; rev. 5?:]x EN-LUGAL-ma Ne-ri-ik[.

¹³⁵ KUB XLII 51, obv. 2: L]U tu-ħu-kán-t[í; obv. 6:]x MUNUS.LUGAL [.

¹³⁶ To study these documents refer to the bibliography of Košak 2002, selecting the texts referred to (CTH 293 e CTH 297.6).

¹³⁷ The Hittite inventory texts in which officers of the Hittite court are mentioned certainly deserve a more in-depth research. From the study of these texts the possibility emerges that the listed luxury goods are re-assigned and distributed to prominent members of the Hittite court. The reasons for these procedures presently remain difficult to justify, but future study could open new scenarios on the redistribution mechanisms and hoarding of goods within the central Hittite power and could help us to clarify the relationships within the complex palatine system of the Hittite Empire at the end of the 13th century BC. In some of the texts within this group, such as KUB XXVI 66, which unsurprisingly makes constant reference to the heir to the throne (^(L)tuħkanti) and the queen (MUNUS.LUGAL), the context of the redistribution of treasures is not clear. Cf. Košak 1982, 71. The treasurer Eħli-Kušuħ entrusts quantities of silver to various officers (Walwaziti, Pupuli, Lullu), in the presence of the queen (KUB XXVI 66, col. III 10; cf. Košak 1982, 68), often within religious contexts (KUB XXVI 66, col. III 3: DINGIR^{LIM} URU A-ru-uš-(uš)-na; col. III 11: MUNUS ħar-na-wa-aš), but even typically administrative contexts (KUB XXVI 66, col. III 15), if one follows the interpretation of the verb *ħarkanzi* by Košak (1982, 69), “held them outside (i.e. separate from the general account)”, and by Siegelová (1986, 107, note 19). Cf. also Tischler 2001, 42; HW₂ “H”, 195a. For the dating of the texts see Siegelová 1986, 119–121. Some texts, like KBo XVIII 153+, appear as lists of receipts, therefore the officers mentioned could have the function of guaranteeing the redistribution of the items, on behalf of the palatine authority, for various purposes. The text KUB XXVI 66, however, seems almost to be a list of distributed items, wisely disguised as offerings for religious purposes or as tributes to cult centres. (Cf. Košak 1982, 71, “The background of entire complicated transaction is not at all clear. 2 minas of silver are first held by the two officials, Walwaziti and Pupuli, then taken over by the queen and finally, the amount is split: 1 mina is now in the possession of priest Lullu who hands it over to the MUNUS ħarnawaš while the remaining mina is sent for the embellishment of divine statues in Urikina.”). As a last analysis, they could be compensation or bribes for the *entourage* of the Palace, not coincidentally composed of important figures. Authorisation of this hypothesis would be: a) the presence of a treasurer who controls the distribution (a person who does not appear in KBo XVIII 153); b) the presence of the queen as witness to the redistribution; c) the sentences, “Formerly (it was) with...” (KUB XXVI 66, col. III 2–5); “Furthermore, 3 minas of silver were taken separately and the chief scribe (i.e. Walwaziti) and Pupuli held them outside (i.e. separate from the general account)” (KUB XXVI 66, col. III 14–15). For in-depth study on this topic refer to Mora 2006, 145–146.

¹³⁸ Siegelová 1986, 344–345.

of the Hittite court, historically known and cited in other Hittite documents, suggests that the examined fragment dates to the reign of King Ḫattušili III. Without taking into consideration the possibility of a coincidence of names, the person cited in rev. 5 (EN-LUGAL-*ma*)¹³⁹ could be the same leading officer in the Hittite court who appears as witness in the ‘Bronze Tablet’ treaty and also in other documents in the time of Tudḫaliya IV.¹⁴⁰

Ḫenti, the female character cited in the reverse, is unfortunately not quoted elsewhere. Yet we know from various sources a woman called Ḫenti linked to the Hittite court. In the inner register of an extremely fragmented *bullā* there remain traces of two syllables¹⁴¹ of which Güterbock, comparing various texts dated at the time of the reign of Šuppiluliuma I,¹⁴² suggests the name Ḫenti.¹⁴³ The interpretation was subsequently accepted by Otten, who suggested to connect the name Ḫenti, to this king – documented in a ‘list of offerings’ – as being the actual wife of Šuppiluliuma I.¹⁴⁴ On the basis of this supposed royal couple (Šuppiluliuma I – Ḫenti),¹⁴⁵ it is then suggested that the integration of a fragmentary passage of a decree pertaining to the ‘kizzuwatnean priesthood’ of Telipinu.¹⁴⁶ Assuming the historical credibility of the so called ‘royal lists’ are accepted with some reservation,¹⁴⁷ the chronological sequence of the queens appearing in the text reconstructed by Carruba (Daduḫepa – Ḫenti),¹⁴⁸ seems to be confirmed from another fragment of a ‘royal list’¹⁴⁹ and completed by the contemporary(?)¹⁵⁰ presence of other Middle-Hittite queens¹⁵¹ (Walanni – Nikkalmadi – Ašmunikkal – Duduḫepa¹⁵² – Tawannanna) in the ‘ritual of the Queen’ at Taḫurpa (the fifth day of the *nuntarriyašḫa*- festival).¹⁵³ The name Ḫenti is also found in a fragmentary letter(?) dated to the Middle-Hittite period,¹⁵⁴ and in a very damaged text,

¹³⁹ Phonetic reading: Ewri-Šarruma.

¹⁴⁰ For the prosopography of this figure refer to van den Hout 1995a, 136–138. More recently Marizza 2006, 163–164. The same officer appears in the court proceeding KUB XIII 35+, col. III 8, mentioned above, in the form: ^ml*b-ri*-LUGAL-*ma*. Cf. Werner 1967, 10–11. The text relating to the proceedings ‘for embezzlement’ (widerrechtliche Verwendung) was recently re-studied by Hoffner 2002, with previous bibliography.

¹⁴¹ [...]-*in-ti-x*[...]. As in the reading of the signs given by Güterbock 1940, 4.

¹⁴² *Ibidem*, 4, note 14.

¹⁴³ *Ibidem*, 5.

¹⁴⁴ Otten 1951, 56, “Daduḫepa und Ḫinti sind die Namen von Šuppiluliumas beiden Gemahlinnen”; *ibidem*, 57–58, “Das entspricht der Folge in Liste C: Daduḫepa (Rs. 8), Ḫinti (Rs. 9) und Tavann[anna] (Rs. 10), wobei die beiden ersten als Gemahlinnen Šuppiluliumas zu bestimmen waren”.

¹⁴⁵ Cf. in particular Güterbock 1940, 5, “... wenn wir dementsprechend Daduḫepa als erste, Ḫinti als zweite Gemahlin des Šuppiluliuma ansetzen ...”.

¹⁴⁶ KUB XIX 25, col. I 1–2: ¹ [UM-MA ^D]UTU^Š ^mŠu-up-pi-lu-li-u[-*ma* LUGAL GAL LUGAL KUR ^{URU}Ḫa-at-ti] ² [MUNUS Ḫi-in-]ti MUNUS.LUGAL GAL ^mAr-nu-an[-*da* DUMU LUGAL Ḫ ^mZi-da-a GAL ME-ŠE-D]. Goetze 1940, 12. Already Cavaignac 1933, 157.

¹⁴⁷ Concerning this cf. Carruba 2007, 131–132.

¹⁴⁸ KUB XI 7 + KUB XXXVI 121 + KUB XXXVI 122 [(+) KBo XIII 42 (+) KBo XIII 43]. Carruba 2007, 137–139, in particular 139.

¹⁴⁹ KUB XXXVI 124, col. I 8–12. Cf. Otten 1951, 49 (text F [Bo 2893]). For the reference bibliography see Košak 2002, selecting the text CTH 661.6.

¹⁵⁰ Cf. Goetze 1940, 77, note 312.

¹⁵¹ Cf. already Güterbock 1940, 31–32 (No. 60).

¹⁵² The transcription D/Tuduḫepa, doubtful in KUB XXV 14, obv. col. I 46 ([^fD]u^(?)-ú-du-ḫé-pa), seems to be confirmed by KUB XXV 14, obv. col. I 28: ^fDu-ú-d[u-ḫé-pa] and by col. III 10: ^fDu-ú-du-ḫé-pa. For the alternation Daduḫepa/Duduḫepa, see already Otten 1951, 57, notes 4–5 and recently Giorgieri 1999, 70, note 24.

¹⁵³ KUB XXV 14 obv. col. I 25–30, 42–49; col. III 3–12. Cf., lastly, Nakamura 2002, 192–195, 205. In general refer to Haas 1994, 833.

¹⁵⁴ KBo XXXII 201, upper edge 1. Cf. Beal 1992, 171.

where a woman by the name of *Ḫenti*, is forbidden to eat.¹⁵⁵

In conclusion, the presence of the name of Queen *Ḫenti* along with other queens of the Middle-Hittite period, suggests placing her chronologically at the time of King *Šuppiliuma I*, as his second wife, in a sequence that lists the following royal couples: *Walanni – Kantuzzili (?)*, *Nikkalmadi – Tudḫaliya II (?)*, *Ašmunikkal – Arnuwanda I*, *Daduḫepa*¹⁵⁶ – *Šuppiliuma I (?)*, *Tawannanna II/III(?)*¹⁵⁷ – *Šuppiliuma I*.¹⁵⁸

Unfortunately, the late dating of the most of the texts (13th century BC),¹⁵⁹ excluding the fragmentary letter cited above, is not useful for identifying *Ḫenti* and does not even confirm the validity of the previously suggested royal couple.¹⁶⁰ From the range of references to this name in the Hittite texts it is clear that a precise identity cannot be attributed to the person called *Ḫenti* cited in the inventory text KUB XLII 51.¹⁶¹

The last name that can be matched with some certainty¹⁶² is that of prince *Nerikkaili*, cited in line 5 of the reverse.¹⁶³ If we accept the identity of the person in this text as the son of King *Ḫattušili III*,¹⁶⁴ we can assume that the queen (*MUNUS.LUGAL*), cited in line 6 of the obverse, should be identified with *Puduḫepa*,¹⁶⁵ perhaps *Nerikkaili*'s mother.¹⁶⁶ Staying within the realm of speculative hypotheses it could logically follow that the *tuhukanti* cited in line 2 of the obverse can be identified as *Tudḫaliya IV*.¹⁶⁷

Whatever the true identity of the figures cited in the text, an important fact emerges from the analysis undertaken: the *lupan(n)i-* appears again as a precious fabric to give(?), not only to

¹⁵⁵ KUB LX 112, rev. 5–12. Cf. Cohen 2002, 170; Groddek 2006, 109–110. Maybe we are dealing here with a fragmentary inventory text (see in particular the reference to a basket probably coming from a caravan in obv. 2–4: ŠĀ ṽ^{GI} PISAN x[...]ŠĀ KAŠKAL^N[]). See Košak 1994, 289.

¹⁵⁶ First wife?

¹⁵⁷ Third wife?

¹⁵⁸ For all suggestions see Carruba 2008, 125–141, 191.

¹⁵⁹ Of significant importance is the dating of the text KUB XXV 14, where all queens are listed. Cf. Nakamura 2002, 188.

¹⁶⁰ The name of a certain *Manninni* within the royal lists, next to the name of *Arnuwanda* and of the queens frequently cited (cf. Carruba 2007, 139), demonstrates the difficulty of using lists of offerings as historically reliable documents for the purpose of reconstructing the sequence of Hittite kings. For evidence of the name refer to Laroche 1966, 113, No. 747. Cf. also Košak 1978, 119. For evidence of the name within the Hittite inventory texts, see Košak 1982, 301; Siegelová 1986, 715.

¹⁶¹ Cf. Siegelová 1986, 344, “Es ist fraglich, ob in der Tafel etwa Opfer des Verstorbenenkultes aufgezeichnet waren, oder ob man vielleicht doch eher eine andere Persönlichkeit darunter suchen soll.”

¹⁶² Cf. Košak 1982, 183; Siegelová 1986, 345.

¹⁶³ KUB XLII 51, rev. 5: ^m*Ne-ri-ik*[. For the prosopography of this figure refer to van den Hout 1995a, 96–105.

¹⁶⁴ Following *Imparati* suggestions this identification cannot be proved. Cfr. *Imparati* 1995, 153.

¹⁶⁵ Cf. *Imparati loc. cit.*

¹⁶⁶ For this hypothesis see Houwink ten Cate 1996, 43. The maternity of *Puduḫepa* is a problematic issue. A direct bloodline has been suggested between this queen and *Tudḫaliya IV*. Otherwise *Nerikkaili* would have been born from a previous marriage of *Ḫattušili III*. For an in-depth study refer to van den Hout 1999, 232 and to Frantz-Szabó & Únal 2006, 107–108, both with previous bibliography. See also Bryce 2005, 272, with bibliography included in note 37. In the inventory text KUB XXVI 66, as previously mentioned, the queen is cited (col. III 10) together with the heir to the throne (col. III 17). Van den Hout (1995a, 98, note 125) identifies them as *Puduḫepa* and *Nerikkaili*.

¹⁶⁷ The interpretive hypothesis, in no way verifiable, is based on the presence, within the text, of the name of the older brother of *Tudḫaliya IV* (*Nerikkaili*), without a royal title. For events relating to the appointment to the kingship (*LUGAL-iz-na-ni tapariya-*) of *Tudḫaliya IV*, in place of the designated heir to the throne (*Nerikkaili*) cf. *Imparati*, 1995, 151–153; see lastly Bryce 2005, 272, 295–297, with previous bibliography in note 1 of p. 471.

a woman (the queen),¹⁶⁸ but above all to people of high status (the crown prince, or other son⁷⁷ of the King).¹⁶⁹

The presence of the *lupan(n)i-* within the Hittite inventory texts shows that the wool or linen fabric was often decorated after undergoing specific treatments, such as dyeing. Colours of which vary from blue to green-blue.¹⁷⁰

The presence of the term *lupan(n)i-*, without determinative (TÚG or GADA) in the inventory list of luxury goods, such as weapons or bronze objects and other precious metals, considerably complicates the identification of the fabric.

A clear example is the so-called ‘Inventory of Manninni’ (CTH 504),¹⁷¹ inside of which are listed *lupan(n)i-* in association with weapons.¹⁷²

The suggestion to identify the *lupan(n)i-* in these contexts as a textile covering of a hilt or handle of a sword is based on the interpretation of the expression: EME (+ the name of the metal of which it is composed) *lu-pa-an-ni-eš* GAB, often attested in the Inventory of Manninni, like “covering of the handle of the blade (sword, knife?)”.¹⁷³

However, the Inventory of Manninni, like the majority of inventory texts, shows an extremely varied list of objects, from weapons to textiles, from votive statues to furnishings.¹⁷⁴

This fact suggests the possibility of considering the listed objects after the swords as simple metallic utensils, but not necessarily weapons.

The term EME (literally “tongue”), often cited in Hittite inventories and translated as “blade”, seems to be an object closely linked to the *lupan(n)i-*. Following a reading of other passages it emerges that *lupan(n)i-* is a fabric worn on the head and it is also an attribute of kingship. Therefore the “metal-tongue” (sometimes made of gold, silver, “black iron”¹⁷⁵ or bronze) could

¹⁶⁸ This element could help us to confirm that the *lupan(n)i-* is actually an object worn by both men and women. As well as the examples indicated above, the *lupan(n)i-* recurs in connection with women in the document KUB XLII 49, obv. 8–9: ⁸ 1[^{TÚG}]u-p[a]-jan-ni ZA.GÌN 1 GADA.DAM ZA.GÌN 1x[⁹ [ŠA^(?)] ⁹ HÉ-pát-ÌR. For the prosopography of woman cited in the fragment see Siegelová 1986, 347, note 1.

¹⁶⁹ It is worth mentioning again the text KUB XLII 22, obv. col. II 11, where, as already pointed out, *lupan(n)i-* of royalty^(?) are cited (6 ^{TÚG}lu-pa-an-ni LUGAL-x), together with other precious fabrics, objects and cult weapons made of bronze. The affected tablets at CTH 241.12A–B (KUB XLII 27 (+) 23 (+) 22; KBo XVIII 179) probably describe objects provisionally stored in the ‘royal treasury’, as tributes or donations, on the occasion of the enthronement of the royal couple. Refer in general to Siegelová 1986, 32–35 for the relevant discussion regarding the problems that can result from the study of these important documents, and for the hypotheses in identifying the royal couple. Cf. note 126.

¹⁷⁰ Keep in mind the observations made above regarding the rendering of terms, which indicate colours in the ancient languages. For evidence of coloured *lupan(n)i-* see, for example, CHD “L-N”, 86, d.

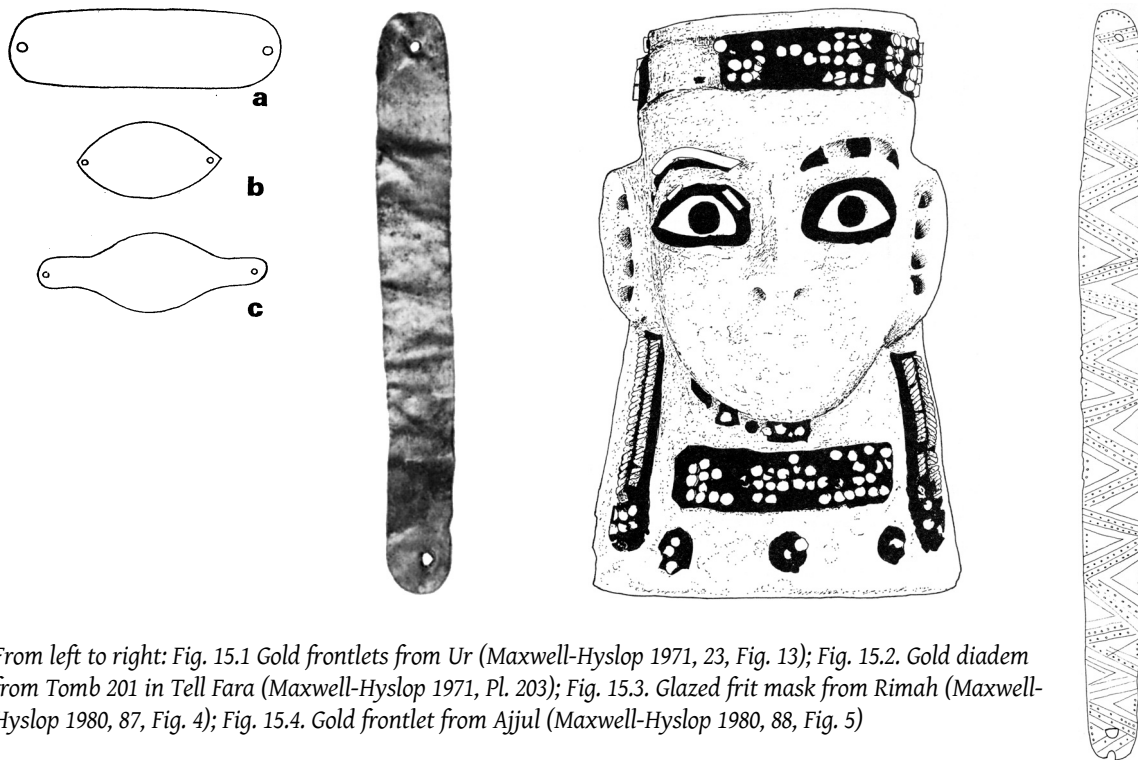
¹⁷¹ Published by Košak 1978 and re-edited by Siegelová 1986, 441–451.

¹⁷² KUB XII 1, col. III: 6–13: ⁶ 21 GÍR ŠĀ.BA 1 GÍR ^{URU}Ha[-at-ta^(?)] ⁷ gišDÜG.GAN GUŠKIN GAR.RA ŠU-RU-UH-TU[M ⁸ 2 EME AN.BAR GE₆ GAB lu-pa-an-ni[-i-eš ⁹ A-NA 1 EME ZABAR lu-pa-an[-ni-eš ¹⁰ 11 EME ZABAR lu-pa-an-ni-eš GAB ¹¹ SAG.DU-ZU NU.GÁL ŠU-RU-UH-DU ¹² GAB lu-pa-an-ni-eš AN.BAR ¹³ 1^{EN} ši-ik-kiš AN.BAR GE₆ GAB lu-pa-an-ni-eš ^{NA,Z}[A.GÌN^(?); KUB XLII 42, rev. col. IV 3–6: ³]x EME ZABAR lu-pa[-an-ni-eš GAB ⁴]x-te-eš ŠUM-ŠU ^mTu[-ut-ħa-l]i-ya^(?) DÜ-an DÜG.GAN KUŠ N[U. GÁL] ⁵ 1^{EN} EME AN.BAR GE₆ lu-pa-an-ni-eš[⁶]za ⁶ x+] 1 EME ZABAR lu-pa-an-ni-eš AN.B[AR^(?) (KUB XLII 42 is linked, with reservation, to CTH 504; cf. Košak 1982, 59; Siegelová 1986, 469 with note 1). The term *lupan(n)i-*, determinative lacking, recurs even in KBo XXXI 54, obv.^(?) 6 – the text closely linked to the Inventory of Manninni – like in VBoT 87, obv.^(?) 2 and in KBo XVIII 170 (+) 170a, rev. 2. For the form *lu-wa-an-ni-eš*, documented here, see below.

¹⁷³ Like, for example CHD “L-N”, 86, 2, “EME ‘blade’ *lupan(n)i-* ‘cap’ and GAB ‘front(?)’ are here understood as parts of a GÍR ‘dagger’”. Cf. Puhvel 2001, 119, “cap(ping), pommel (on a sword’s or dagger’s hilt)”. Cf. Starke 1990, 411, note 1481.

¹⁷⁴ Cf. Košak 1982, 200.

¹⁷⁵ For the interpretation of the term AN.BAR GE₆ see Maxwell-Hyslop 1980, 87–88.



From left to right: Fig. 15.1 Gold frontlets from Ur (Maxwell-Hyslop 1971, 23, Fig. 13); Fig. 15.2. Gold diadem from Tomb 201 in Tell Fara (Maxwell-Hyslop 1971, Pl. 203); Fig. 15.3. Glazed frit mask from Rimah (Maxwell-Hyslop 1980, 87, Fig. 4); Fig. 15.4. Gold frontlet from Ajjul (Maxwell-Hyslop 1980, 88, Fig. 5)

probably indicate a diadem (or a part of it); that is, the metal plate – whether oval, rectangular, spherical, convex or in the shape of a zoomorphic protome – which is used to fasten a piece of cloth onto the forehead.¹⁷⁶ The piece of cloth in question, therefore, could be the *lupan(n)i-*, so the expression: X EME GAB *lu-pa-an-ni-eš*, literally translatable: X (metallic) tongue (that is added) in front of a *lupan(n)i-*, that is, the diadem or part of it.¹⁷⁷ It is feasible that an inventory listing luxury goods destined for a high dignitary of the court, the king or the royal couple, would also include weapons and diadems.

The presence of ‘tongues’ of precious metal together with the term *lupan(n)i-* seems necessary, even though this fabric that is tied around the head to support the diadem often does not leave archaeological traces. The validity of the suggestion, however, is supported by actual archaeological evidence.¹⁷⁸

¹⁷⁶ *Contra* Siegelová 1984, 153–154.

¹⁷⁷ For similar conclusions see Kümmel 1967, 31; Goetze 1955, 62; Košak 1978, 107; *Idem* 1982, 201. For a possible archaeological comparison see, in general, Maxwell-Hyslop 1971, 22; *Eadem* 1980, 87–88 and Figs. 15.1–15.4.

¹⁷⁸ See, above all, Frangipane *et al.* 2009, in particular p. 18, with the important indications of remains of fabric under the deceased’s diadem. Regarding the Hittite findings see Boehmer 1972, 38–41 and Fig. 15.5; for the gold diadems in the Syrian environment, see above all Parrot 1959, 95 and Fig. 15.6; Hauptmann & Pernicka 2004, 102 and Fig. 15.7. For other bronze diadems found in funeral contexts and positioned exactly under the head of the deceased, see Jean-Marie 1999, 166 (III Z17 SO91–SO109) and Fig. 15.8. For the presence of bronze plates (diadems) in elite funeral contexts (*Šakkanakku*); *ibidem*, 186 (III D1 SO4 bis) and Fig. 15.9. This last example confirms once more the contextual presence of weapons and diadems, as symbols of kingship, acquired in life and preserved after death.

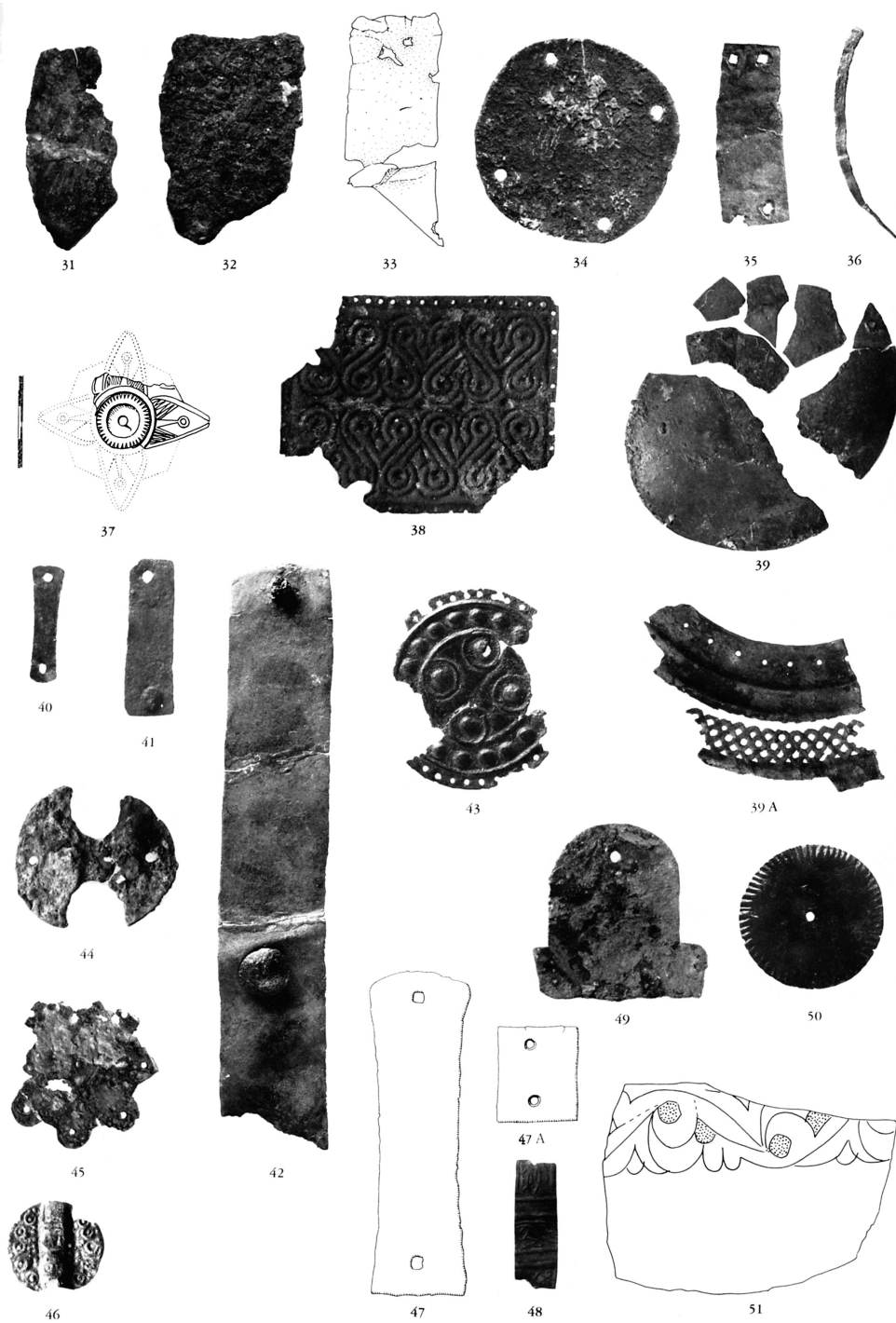


Fig. 15.5. Thin layers from Boğazköy-Ḫattuša. Among them some strips maybe were used as part of 'diadems' (Boehmer 1972, Pl. III)

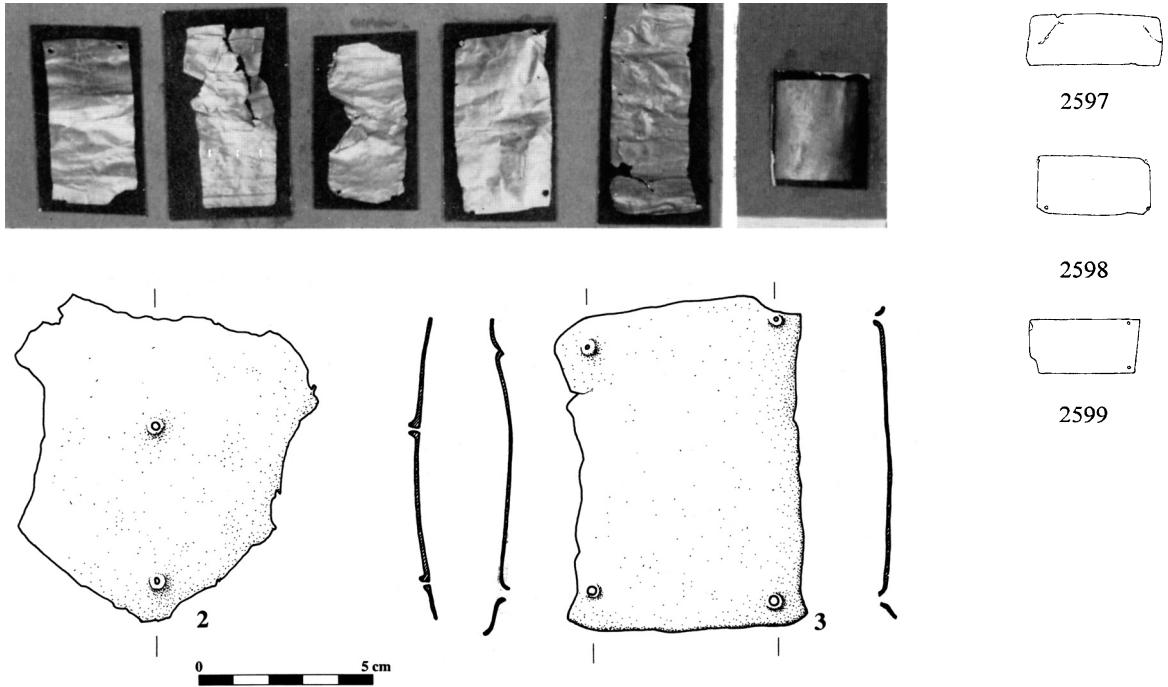


Fig. 15.6 (Top). Gold frontlets from the throne room of the Palace of Zimri-Lim in Mari (Parrot 1959, 95, Fig. 70);

Fig. 15.7 (Top right). Drawing of gold frontlets from the throne room of the Palace of Zimri-Lim in Mari (Hauptmann & Pernicka 2004, Pl. 158, Nos. 2598-2599)

Fig. 15.8 (Middle). Bronze frontlets from Tomb 727 in Mari (Jean-Marie 1999, Pl. 127, Nos. 2-3)

Fig. 15.9 (Left). Bronze frontlet from Tomb 1018 in Mari (Jean-Marie 1999, Pl. 205, No. 4)

Goetze's suggestion,¹⁷⁹ which was rejected for a long time,¹⁸⁰ of identifying the term $T\acute{U}G/GADA$ *lupan(n)i-* with the Sumerogram $T\acute{U}G$ BAR.SI (a band for the head), though based on the analysis of a single fragment of text, seems fairly satisfactory, particularly in absence of valid alternatives to justify the impossibility of such a suggestion.¹⁸¹

The relationship between *lupan(n)i-* and headband, often intended as part of a diadem, is supported by the possibility of substituting the term with the Sumerogram BAR.SI, as can be deduced from a number of Hittite texts, above all KUB IX 15, col. III 1 ff. The headband, sometimes

¹⁷⁹ Goetze 1955, 62.

¹⁸⁰ CHD "L-N", 86.

¹⁸¹ We agree with the observation of Kořak 1982, 200, "It is true that the equation of *lupanni-* with BAR.SI is based on insufficient evidence but such objection applies even more to the new proposal advocated by CHD".

adorned with jewels or thin metal layers fixed onto the forehead, is a canonical element of clothing for priests or priestesses, perhaps even worn by rulers to legitimise their own high ranking position as “High Priests”.¹⁸² There is less of a tendency to consider the object as an article of clothing used exclusively by men.¹⁸³

Little can be deduced from an etymological perspective. The term *lupan(n)i-* does not appear to be a word of Hittite origin. The form *lu-wa-an-ni-eš*, attested in KBo XVIII 170 (+) 170a, rev. 2,¹⁸⁴ could suggest a word of Hattic origin,¹⁸⁵ but this is invalid due to the presence of the ‘Glossenkeil’ in the derivative adjective *lūpannawant-* documented in KUB XXXVIII 1, col. II 7–8.¹⁸⁶ Even a Hurrian derivation of the term¹⁸⁷ seems to be excluded due to the fact that there is very little evidence of words that begin with the consonant *l-* in the Hurrian vocabulary.

The comparison of the term with other later Indo-European languages,¹⁸⁸ although suggestive, raises many doubts. Thus, Indo-European origin is very difficult to support.¹⁸⁹ It is therefore tricky to think of a Luwian word, as Rosenkranz has already postulated¹⁹⁰ and subsequently been accepted also by Melchert.¹⁹¹ The term *lupan(n)i-* could be a loan word or a ‘Hittite’ adaptation of a foreign word of non-Anatolian origin.¹⁹²

In the recent past Kammenhuber has highlighted the probable link between the term ^{TÜG}*lu-pa-ri*, ἀπαξ λεγόμενον attested in the fragmentary oracular text KUB XVIII 29, col. IV 6,¹⁹³ and the Akkadian (^{TÜG/GADA})*lubāru*.¹⁹⁴ The term generally indicates a fabric or cloth, often of high quality,¹⁹⁵ and appears frequently in the Old-Babylonian and Neo-Babylonian tablets. It is also found in documents written in Akkadian from the archives of Alalah and Nuzi, as well as the Akkadian texts of Mari and of Egypt (el-Amarna). However, in some texts the fabric was perhaps used as a shawl, like in EA 14, the letter between Amenhotep IV and Burna-Buriyaš of Babylon,¹⁹⁶ but above all as a headdress or headgear, such as in the ritual BRM 4.¹⁹⁷ Even if the examples given are interesting, it is difficult to ascertain that the term *lupan(n)i-* could be an ‘Anatolian adaptation’

¹⁸² Cf. Boehmer 1980–1983, 198. Cf. the preliminary study of Goetze 1947.

¹⁸³ See Košak’s doubts 1982, 200.

¹⁸⁴ Cf. Siegelová 1986, 488.

¹⁸⁵ Cf., for example, Puhvel 2001, 121.

¹⁸⁶ Cf. del Monte 1985, 154.

¹⁸⁷ Cf. Košak 1982, 110.

¹⁸⁸ Suggested examples can be seen in HEG “L-M”, 78 and Puhvel 2001, 121.

¹⁸⁹ The only reconstructed Indo-European root for the term is **reup-/rup-* “break, smash”, with the alternation of the liquid (**l/*r*). Cf. Latin *ru-m-pô* “I break”, Vedic *rop-* “to break” (*rûpa-* “form, structure” and for thoroughness “beauty”). Cf. *rûpin-* (literally: “to have form”), but even in Old English *rêofan* “break”. The proposal is nevertheless clearly unfeasible from a semantic point of view.

¹⁹⁰ Rosenkranz 1957.

¹⁹¹ CLL, 129.

¹⁹² Cf. Kloekhorst 2008, 55.

¹⁹³ Cf. Košak 2002 (CTH 577). The fragment is to be surely placed in relation to KBo LIII 110. Cf. Miller 2005a, Inhaltübersicht VII.

¹⁹⁴ Kammenhuber 1985, 541.

¹⁹⁵ Cf. AHw I “A-L”, 560; CAD “L”, 228–231, 1; CDA₂, 184. We agree with the observation of CAD “L”, 231, “There is no reason to connect *lubāru* with verb *labāru*”, for the translation of the term *lubāru* “altes Gewand” of von Soden 1955, 387.

¹⁹⁶ EA 14, col. III, 19: 1 ME GADA [*u-bá*]-ru GAL *ták-ti-mu*. Cf., finally, Cochavi-Rainey & Lilyquist 1999, 18, 26.

¹⁹⁷ 6:21, 44: *nīši māti šubāt qaqqadišunu šaḥtu ina lubarašunu qaqqasunu katmu*, “the people of the village remove their headdress and cover their heads with their *lubāru*”; *ina lubarušunu nukkusūtu qaqqasunu katmu*, “they cover their heads with cut *lubāru*”.



Fig. 15.10 (left). Yazılıkaya: relief of King Tudḫaliya IV carved on the right wall of Kammer A (Ehringhaus 2005, 25, No. 38)



Fig. 15.11 (right). Relief of King Tudḫaliya IV: detail of his cover head (Bittel et al. 1967, Pl. 24, No. 3)

of the Akkadian *lubāru*, above all from a linguistic point of view.¹⁹⁸

Thus, from the analysis undertaken so far, it can be confirmed that *lupan(n)i-* indicates a headband. Its use seems to be often relegated to religious contexts and is therefore a distinctive object, a luxury good. Furthermore the *lupan(n)i-* seems to be used by the king (or the queen). It also appears in inventory texts as a precious tribute offered on particular ceremonial occasions in the presence of the royal couple, and is even used as an accessory for the Sungod.¹⁹⁹

All this could possibly suggest an archaeological comparison between the *lupan(n)i-* and the image of the headdress worn by Tudḫaliya IV in the relief No. 64 of Room A of the Yazılıkaya rock sanctuary,²⁰⁰ just like the image of the royal couple in procession, carved on the Alaca Höyük orthostat,²⁰¹ or the image of Muwatalli II engraved in relief 1 of Sirkeli.²⁰² The same type

¹⁹⁸ The comparison offered by Puhvel 2001, 121, “The phonetic relationship of *luwanni-* to *lupari-* would match that of Hitt. *kuwanna-* to Lat. *cuprum* ‘copper’” seems to be insignificant. The alternation r/n, that makes the association of ^{TÜG}*lupari* of KUB XVIII 29, col. IV 6 to *lupan(n)i-* possible, could be a result of the stabilization of a Luwian dialect form in the kizzuwatnean area. The consolidated form of the 13th century should therefore be the product of the doubling of the nasal, where truly conjecturable, due to the long vowel, perceived as atonic, from the Akkadian *lubāru* and then the ‘Hittite’ *lupāri*, with consequent -i motion.

¹⁹⁹ Cf. van den Hout 1993, 11.

²⁰⁰ Figs. 15.10–15.11.

²⁰¹ Fig. 15.12.

²⁰² Fig. 15.13.

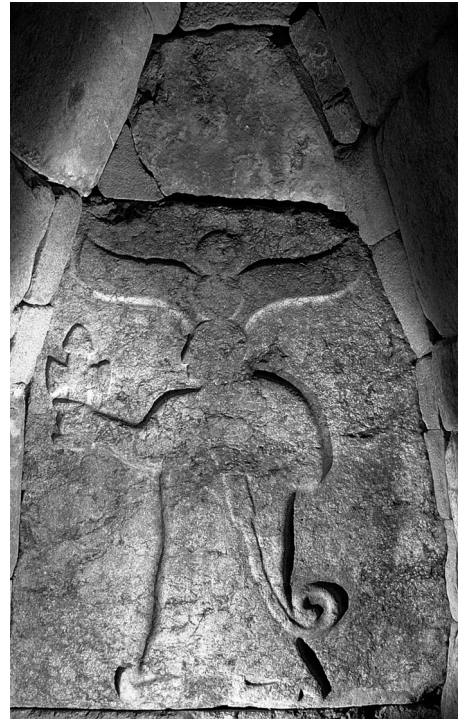


Fig. 15.12 (Top left). Alaca Höyük: stone-block relief of the Hittite royal couple during an offering scene (Ehringhaus 2005, 8, No. 3)

Fig. 15.13 (Middle). Drawing of the relief of King Muwattalli II in Sirkeli (Ehringhaus 2005, 98, No. 176)

Fig. 15.14 (Top right). Boğazköy-Ḫattuša: Relief of the Sungod in Kammer A of Südburg (Seeher 2006, 102, No. 108)



Fig. 15.15 (Bottom). Yazılıkaya: relief of the Sungod of Heaven carved on the right wall of Kammer A (Ehringhaus 2005, 20, No. 27)



Fig. 15.16 (above): *Taşçı A*: detail of human figures carved on the rock (Ehringhaus 2005, 67, No. 123)



Fig. 15.17 (right): *Taşçı B*: detail of the image of a prayer(?) carved on the rock (Ehringhaus 2005, 69, No. 127)

of headband, which is fixed to the head with one or more (metallic?) strings wrapped around the forehead, is evidently worn by the Sungod in the well-known representations of Room 2 of Südburg, in *Ḫattuša*,²⁰³ or relief No. 34 of Room A,²⁰⁴ also at Yazılıkaya, just to cite some examples from monumental art.²⁰⁵ Obviously it is only a speculative hypothesis that requires further investigation.²⁰⁶

* * *

From this brief study on Hittite inventory texts it is obviously impossible to obtain significant elements to understand the techniques used to produce fabrics in the Hittite world, or even to establish whether the Hittites produced linen or, on the contrary, created trade routes across which the fabric arrived to the heart of Anatolia (other than sporadic examples such as Cyprus or northern Syria²⁰⁷).

²⁰³ Fig. 15.14.

²⁰⁴ Fig. 15.15.

²⁰⁵ Seen in relation to previous considerations of CHD “L-N”, 86; Kümmel 1967, 31, with note 94. We could add the images of persons in the *Taşçı* rock-reliefs (A–B) Figs. 15.16–15.17. They are wearing a small headdress on which a horn is attached. Cf. Kohlmeyer 1983, 75, 79. Unfortunately the reliefs are very damaged or almost completely buried underground. Cf. Ehringhaus 2005, 65–70, in particular p. 66. On the identity of persons ‘depicted’ on *Taşçı* reliefs see different suggestions collected by Stokkel 2005, 173.

²⁰⁶ For a valid overview of headdress represented in Hittite art, see Boehmer 1980–1983, 207–208. Also see the study of iconography of Tudḫaliya IV, with an in-depth study of royal headdress in van den Hout 1995b, in particular p. 565–568.

²⁰⁷ As rightly pointed out by van de Mieroop (2007, 165): “Northern Syria may have been a source of much desired textiles in this period, as many terms designating special garments have Hurrian names, seemingly indicating their region of origin.” Cf. Klengel 2008, 76: “Geographisch wird GAD vor allem mit dem mittelsyrischen Land Amurru sowie mit Zypern verbunden, die hier wohl als wichtige Produktionsstandorte genannt werden”.

The aim of this text was to provide a general picture of a particular category of luxury goods, ‘precious fabrics’ and specifically linen, that appear in the Hittite inventory texts.

Given the current state of research and resources available, analysis of the documents has demonstrated that a re-examination of terms referring to objects listed in the Hittite inventories would be highly desirable. We hope that this work can serve as an incentive for future, in-depth studies.²⁰⁸

Abbreviations

AHw	W. Von Soden, <i>Akkadisches Handwörterbuch</i> – Wiesbaden 1958–1981.
AMT	R. C. Thompson, <i>Assyrian Medical Texts</i> – Oxford 1923.
A.N.	Author’s note.
BRM	Babylonian Records in the Library of J. Pierpont Morgan.
CAD	The Assyrian Dictionary of the Oriental Institute of the University of Chicago – Chicago 1956–.
CDA ₂	J. Black & A. George & N. Postgate (eds.), <i>A Concise Dictionary of Akkadian – 2nd (corrected) printing</i> – Wiesbaden, 2000.
CHD	H. G. Güterbock & H. A. Hoffner Jr. (eds.), <i>The Hittite Dictionary of Oriental Institute of Chicago</i> – Chicago 1980–.
CLL	H. C. Melchert, <i>Cuneiform Luvian Lexicon</i> , (Lexica Anatolica Volume 2) – Chapel Hill 1993.
col.	Column.
CT	Cuneiform Texts from Babylonian Tablets in the British Museum – London 1986–.
CTH	E. Laroche, <i>Catalogue des Textes Hittites</i> – Paris 1971.
EA	Texts from el-Amarna, according to J. A. Knudtzon, <i>Die El-Amarna-Tafeln, Vorderasiatische Bibliothek 2</i> – Leipzig 1915.
HEG	J. Tischler, <i>Hethitisches Etymologische Glossar, Innsbrucker Beiträge zur Sprachwissenschaft – Band 20</i> – Innsbruck 1983–.
HW	J. Friedrich, <i>Hethitisches Wörterbuch</i> – Heidelberg 1952.
HW ₂	J. Friedrich & A. Kammenhuber, <i>Hethitisches Wörterbuch. Zweite, völlig neu bearbeitete Auflage auf der Grundlage der edierten hethitischen Texte</i> – Heidelberg 1975–.
HZL	C. Rüster & E. Neu, <i>Hethitisches Zeichenlexicon – Inventar und Interpretation der Keilschriftzeichen aus den Boğazköy-Texten</i> (Studien zu den Boğazköy-Texten, Beiheft 2) – Wiesbaden 1989.
IBoT	Istanbul Arkeoloji Müzelerinde bulunan Bogazköy tabletleri – Istanbul.
KBo	Keilschrifttexte aus Boghazköy – Berlin 1916–.
KUB	Keilschrifturkunden aus Boghazköy – Berlin 1921–.
MVAeG	Mitteilungen der Vorderasiatisch-ägyptischen Gesellschaft – Leipzig.
NBC	The Nies Babylonian Collection – Yale.
obv.	Obverse.
PA	Proto-Anatolic.
PIE	Proto-Indo-European.
rev.	Reverse.
RIA	Reallexikon der Assyriologie. Berlin, New York.
RS	Field numbers of tablets excavated at Ras Shamra – Ugarit.
TC	Tablettes Cappadociennes – Paris.
VBoT	A. Goetze (hrsg.), <i>Verstreute Boghazköi-Texte</i> – Marburg 1930.

²⁰⁸ The contribution presented here is part of a larger nationally-funded research project aimed at an up-to-date study of the tribute practices and the treasuring and hoarding of goods in the Hittite Empire. The project is directed by Prof. Marcella Frangipane (Università La Sapienza di Roma); Prof. Clelia Mora (Università di Pavia) organizes the research undertaken at the local level, as well as that by the author, by Dr. Mauro Giorgieri (Università di Pavia), by Dr. Lorenzo d’Alfonso (Università di Pavia), and by Dr. Maria Elena Balza (Freie Universität – Berlin). By the time this paper was finished a couple of new interesting articles by Horst Klengel were published (here Klengel 2008 and Klengel & Klengel 2009). Where possible they have been referred to. I am glad to read that the author proposed similar hypotheses on specific topics discussed in my paper.

Bibliography

- Alp, S. (1940) *Untersuchungen zu den Beamtennamen im hethitischen Festzeremoniell*. Sammlung orientalischer Arbeiten Heft 5. Leipzig.
- Archi, A. (1973) L'organizzazione amministrativa ittita e il regime delle offerte culturali. *Oriens Antiquus* 12, 209–226.
- Bauer, Th. & Friedrich, J. & Landsberger B. (1934) Lexikalisches Archiv. *Zeitschrift für Assyriologie* 42, 152–169.
- Beal, R. H. (1992) *The Organisation of the Hittite Military*. Texte der Hethiter 20. Heidelberg.
- Beckman, G. (1985) Boekbesprekingen-Hethitologie: Archi, Alfonso. Keilschrifturkunden aus Boghazköi, Heft III. Hethitische Orakeltexte und Texte verschiedenen Inhalts. *Bibliotheca Orientalis* XLII, 138–144.
- Beckman, G. (1996) Hittite Documents from Hattusa. In A. B. Knapp (ed.) *Sources for the History of Cyprus: Near Eastern and Aegean Texts from the Third to the First Millennia BC, Volume II*, 31–35. Albany.
- Berlin, B. & Kay, P. (1969) *Basic color terms. Their Universality and Evolution*. Berkeley – Los Angeles.
- Berman, H. (1977) Greek –σαῖ: Hittite –asha-. *Kuhns Zeitschrift* 91, 231–239.
- Bittel, K. & Naumann, R. & Otto, H. (1967) *Yazılıkaya. Architektur, Felsbilder, Inschriften und Kleinfunde*, Osnabrück.
- Boehmer, R. N. (1972) *Die Kleinfunde von Boğazköy aus den Grabungskampagnen 1931–1939 und 1952–1969*. Wissenschaftliche Veröffentlichung der Deutschen Orient-Gesellschaft 87. Berlin.
- Boley, J. (2001) Suggestions for the Original Function of -kan. In O. Carruba & W. Meid (eds.), *Anatolisch und Indogermanisch – Anatolico e Indoeuropeo: Akten des Kolloquiums der Indogermanischen Gesellschaft, Pavia 22.–25. September 1998*, 19–28. Innsbruck.
- Bottéro, J. (1949) Les Inventaires des Qatna. *Revue d'Assyriologie et d'Archéologie Orientale* 43, 1–40.
- Bryce, T. R. (2005) *The Kingdom of the Hittites – New Edition*. Oxford.
- Burde, C. (1974) *Hethitische Medizinische Texte*. Studien zu den Boğazköy-Texten 19. Wiesbaden.
- Carruba, O. (1968) Contributo alla storia di Cipro nel II millennio, *Studi classici e orientali* 17, 5–29.
- Carruba, O. (2007) Per una ricostruzione delle liste reali etee. In D. Groddek & M. Zorman (eds.), *Tabularia Hethaeorum. Hethitologische Beiträge. Silvin Košak zum 65. Geburtstag*, 131–142. Dresdner Beiträge zur Hethitologie 25. Wiesbaden.
- Carruba, O. (2008) *Annali etei di Medio Regno*. *Studia Mediterranea* 18 – Series Hethaea 5. Pavia.
- Cavaignac, E. (1933) Remarques sur les «Ahhijavā-Urkunden» de M. Sommer. I. La femme de Subbiluliuma. *Revue hittite et asianique* 2. 12, 155–159.
- Cochavi-Rainey, Z. (2003) *The Alashiya texts from the 14th and 13th centuries BCE: a Textual and Linguistic Study*. *Alter Orient und Altes Testament* 289. Münster.
- Cochavi-Rainey, Z. & Lilyquist, C. (1999) *Royal Gifts in the Late Bronze Age. Fourteenth to Thirteenth Centuries B.C.E.* Beer –Sheva, Studies by the Department of Bible and Ancient Near East – Volume XIII. Beer-Sheva.
- Cohen, Y. (2002) *Taboos and Prohibitions in Hittite Society. A Study of the Expression natta āra ('not permitted')*. Texte der Hethiter 24. Heidelberg.
- Cornelius, F. (1976) Neue Arbeiten zur hethitischen Geographie. *Anatolica* 1, 62–77.
- Daglio, C. (2008) Le malattie. In S. Malgora (ed.), *Ur Sunu. Grandi dottori dell'Antico Egitto. Malattie e cure nella terra dei faraoni, Casale Monferrato, Palazzo Sanazzaro, 27 Settembre-21 Dicembre 2008*, 65–81. Vercelli.
- van Dijk, H. J. (1968) *Ezekiel's Prophecy on Tyre (Ez. 26,1-28,19). A New Approach*. Roma.
- Ehringhaus, H. (2005) *Götter, Herrscher, Inschriften. Die Felsreliefs der hethitischen Grossreichszeit in der Türkei*. Sonderbände der Antiken Welt. Mainz am Rhein.
- Endesfelder, E. & Priese K. H. (1984) Historisch-bibliografische Urkunden aus der Zeit Thutmosis III = Nr. 201–Nr. 215. In E. Blumenthal & I. Müller & W. F. Reinke (eds.), *Urkunden der 18. Dynastie – Übersetzung zu den Heften 5–16*, 180–241. Berlin.
- Erman, A. & Grapow, H. (1955a) *Wörterbuch der Aegyptischen Sprache – Erster Band*. Berlin – Leipzig.
- Erman, A. & Grapow, H. (1955b) *Wörterbuch der Aegyptischen Sprache – Fünfter Band*. Berlin – Leipzig.
- Fales, F. M. (2004) Rileggendo gli inventari di Qatna. *Kaškal* 1, 83–128.
- Fincke, J. C. (2000) *Augenleiden nach Keilschriften Quellen. Untersuchungen zur altorientalischen Medizin*. Würzburger medizinhistorische Forschungen Band 70. Würzburg.
- Forbes, E. J. (1963) *Studies in Ancient Technology – Volume VII*. Leiden.

- Forbes, E. J. (1964) *Studies in Ancient Technology – Volume IV – Second Revisited Edition*. Leiden.
- Forlanini, M. (1988) La regione del Tauro nei testi hittiti. *Vicino Oriente* 7, 129–169.
- Forlanini, M. (2009) On the Middle Kızılırmak. In F. Pecchioli Daddi & G. Torri & C. Corti (eds.), *Central-North Anatolia in the Hittite Period. New Perspectives in Light of Recent Research. Acts of the International Conference Held at the University of Florence (7–9 February 2007)*. *Studia Asiana* 5, 39–69, Roma.
- Forrer, E. O. (1919) Die acht Sprachen der Bogazköi-Inschriften. *Sitzungsberichte der Preußischen Akademie der Wissenschaften* 1919, 1029–1041.
- Frangipane, M. & Andersson Strand, E. & Laurito R. & Möller-Wiering S. & Nosch, M. L. & Rast-Eicher, A. & Wisti Lassen, A. (2009) Arslantepe, Malatya (Turkey): Textiles, Tools and Imprints of Fabrics from the Fourth to the Second Millennium BCE. *Paléorient* 35. 1, 1–28.
- Frantz-Szabó, G. & Ünal, A. (2006) Puduḫepa. A. *Reallexikon der Assyriologie* 11, 106–108.
- Freydank, H. (1968) *bit šuripim* in Boğazköy. *Die Welt des Orients* 4. 2, 316–317.
- Friedrich, J. (1940) *Hethitisches Elementarbuch*. Heidelberg.
- Gardiner, A. H. (1931) Two hieroglyphic signs and the Egyptian words for ‘Alabaster’ and ‘Linen’, etc. *Bulletin de l’Institut Français d’Archéologie Orientale au Caire* 30, 161–183.
- Geiger, L. (1871) *Vorträge zur Entwicklungsgeschichte der Menschheit*, Stuttgart.
- Germer, R. (1992) *Die Textilfärberei und die Verwendung gefärbter Textilien im Alten Ägypten*. Ägyptologische Abhandlungen Band 53. Wiesbaden.
- van Gessel, A. H. L. (1998) *Onomasticon of the Hittite Pantheon I*. *Handbuch der Orientalistik* 33/1. Leiden.
- Giorgieri, M. (1999) Zu den hurritischen Personennamen in den Amarna-Briefen. *Studi Micenei ed Egeo-Anatolici* XLI, 63–83.
- Giorgieri, M. & Mora, C. (in print) Luxusgüter als Symbole der Macht: in den “Schatzkammern” der altorientalischen Königen. In G. Wilhelm (ed.), *Akten des LIV Rencontre Assyriologique Internationale, 20.-25. Juli 2008*. Würzburg.
- Goetze, A. (1930) Bemerkungen zu dem hethitischen Text AO 9608 des Louvre. *Revue hittite et asiatique* 1. 1, 18–30.
- Goetze, A. (1931) *istēnūtu* und *tapalu*. *Zeitschrift für Assyriologie* 40, 79–80.
- Goetze, A. (1940) *Kizzuwatna and the Problem of Hittite Geography*. Yale Oriental Series-Researches XXI. New Haven.
- Goetze, A. (1947) The Priestly Dress of the Hittite King. *Journal of Cuneiform Studies* 1, 176–185.
- Goetze, A. (1955) Hittite Dress. In H. Krahe (ed.), *Corolla Linguistica – Festschrift Ferdinand Sommer zum 80. Geburtstag am 4 Mai 1955*, 48–62. Wiesbaden.
- Goetze, A. (1956) The Inventory IBoT I 31. *Journal of Cuneiform Studies* 10, 32–38.
- Groddek, D. (2006) *Hethitische Texte in Transcription KUB 60*. *Dresdner Beiträge zur Hethitologie* 20. Wiesbaden.
- Gurney, O. R. (1977) Book Review: Keilschrifttexte aus Boghazköi, 23 Heft. by Heinrich Otten and Christel Rüster, Berlin 1976. *Journal of the Royal Asiatic Society* 1977, n. 2, 207.
- Gusmani, R. (1972) Keilhethitische Nominalableitungen auf -(a)sha-. *Kuhns Zeitschrift* 86, 255–266.
- Güterbock, H. G. (1930) *Keilschrifturkunden aus Boghazköi – Heft XXV (Festrituale)*. Berlin.
- Güterbock, H. G. (1940) *Siegel aus Boğazköy. Erster Teil. Die Königssiegel der Grabungen bis 1938*. *Archiv für Orientforschung Beiheft* 5.
- Güterbock, H. G. (1956a) Notes on Luwian-Studies (A propos B. Rosenkranz’ Book Beitrage zur Erforschung des Luvischen). *Orientalia. Commentarii periodici Pontificii Instituti Biblici. Nova Series* 25, 113–140.
- Güterbock, H. G. (1956b) The Deeds of Suppiluliuma as told by his son Mursili II. *Journal of Cuneiform Studies* 10, 107–130.
- Güterbock, H. G. (1974) The Hittite Palace. In P. Garelli (ed.), *Le Palais et la Royauté (Archéologie et Civilisation)*. XIX *Rencontre Assyriologique Internationale organisée par le groupe François Thureau-Dangin, Paris, 29 juin – 2 juillet 1971*, 1974, 305–314. Paris.
- Haas, V. (1994) *Geschichte der hethitischen Religion*. *Handbuch der Orientalistik* I/15. Leiden.
- Haas, V. (2003) *Materia Magica et Medica Hethitica – Ein Beitrag zur Heilkunde im Alten Orient Vol. II*. Berlin – New York.
- Hagenbuchner, A. (1989) *Die Korrespondenz der Hethiter. 2. Teil: Die Briefe mit Transkription, Übersetzung und Kommentar*. Texte der Hethiter 16. Heidelberg.

- Hannig, R. & Vomberg, P. (1999) *Kulturhandbuch Ägyptens. Wortschatz der Pharaonen in Sachgruppen*. Kulturgeschichte der Antiken Welt, 72 – Hannig-Lexica, 2. Mainz.
- Hauptmann, H. & Pernicka, E. (2004) *Die Metallindustrie Mesopotamiens von den Anfängen bis zum 2. Jahrtausend v. Chr.* Rahden.
- Hausesperger, M. (2000) Einige medizinische Anmerkungen zum Text BAM 3. In S. Graziani (ed.), *Studi sul Vicino Oriente Antico dedicati alla memoria di Luigi Cagni*. Istituto Universitario Orientale di Studi Asiatici – Serie Minor LXI, Volume I, 439–450. Napoli.
- Helk, W. & Drenkhahn, R. (1995) *Die Beziehungen Ägyptens und Vorderasiens zur Ägäis bis ins 7. Jahrhundert v. Chr.* Erträge der Forschung – Band 120. Darmstadt.
- Hoffner, H. A. Jr. (1992) Syrian Cultural Influence in Ḫatti. In M. W. Chavalas & J. L. Hayes (eds.), *New Horizons in the Study of Ancient Syria*, 89–106. Bibliotheca Mesopotamica 25. Malibu.
- Hoffner, H. A. Jr. (2002) Records of Testimony Given in the Trials of Suspected Thieves and Embezzlers of Royal Property. In W. W. Hallo & K. L. Younger Jr. (eds.), *The Context of Scripture – Archival Documents from the Biblical World – Volume III*, 57–60. Leiden – Boston – Köln.
- Hoffner, H. A. Jr. – Melchert, H. C. (2008) *A Grammar of the Hittite Language. Part I: Reference Grammar*. Languages of the Ancient Near East 1. Winona Lake.
- van den Hout, Th. P. J. (1993) *Tudḫaliya Kosmokrator. Gedachten over ikonografie en ideologie van een Hettitische koning. Inaugurationsrede an der Universität von Amsterdam, 16. Juni 1993*. Amsterdam.
- van den Hout, Th. P. J. (1995a) *Der Ulmitešub-Vertrag. Eine prosopographische Untersuchung*, Studien zu den Boğazköy-Texten 38, Wiesbaden.
- van den Hout, Th. P. J. (1995b) Tudḫaliya IV. Und die Ikonographie Hethitischer Großkönige des 13. Jhs. *Bibliotheca Orientalis* LII, 546–573.
- van den Hout, Th. P. J. (1999) Nerikkaili. *Reallexikon der Assyriologie* 9, 231–232.
- Houwink ten Cate, P. H. J. (1996) The Hittite Dynastic Marriages of the Period between ca. 1258 and 1244 BC. *Altorientalische Forschungen* 25/1, 40–75.
- Imparati, F. (1995) Apology of Ḫattušili III or Designation of His Successor? In Th. P. J. van den Hout & J. de Roos (eds.), *Studio Historia Ardens. Ancient Near Eastern Studies Presented to Philo H. J. Houwink ten Cate on the Occasion of his 65th Birthday*, 143–157. Publications de l'Institut historique-archéologique néerlandais de Stamboul 74. Leiden.
- Jean-Marie, M. (1999) *Mission Archéologique de Mari. Tomo V. Tombes et Nécropoles de Mari*. Institut Français d'Archéologie de Beyrouth. Bibliothèque archéologique et historique. Tome CLIII. Beyrouth.
- Jones, J. & Oldfield, R. (2006) Egypt's earliest linen. *Egyptian Archaeology* 29, 33–35.
- Jones, J. (2008) Pre- and Early Dynastic textiles: technology, specialisation and administration during the process of state formation. In B. Midant-Reynes & Y. Tristant (eds.), *Egypt at Its Origins 2. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt, Toulouse (France), 5th–8th September 2005*, 99–132. *Orientalia Lovaniensia Analecta* 172. Leuven.
- Kammenhuber, A. (1985) Bemerkungen anlässlich eines neuen hethitischen Wörterbuchs. *Orientalistische Literaturzeitung* 80, Heft 6, 534–542.
- Kemp, B. J. & Vogelsang-Eastwood, G. (2001) *The Ancient Textile Industry at Amarna*. Egyptian Exploration Society. London.
- Klengel, H. (2008) Studien zur hethitischen Wirtschaft, 4: Das Handwerk. Werkstoffe: Wolle und Leder, Holz und Rohr. *Altorientalische Forschungen* 35/1, 68–85.
- Klengel, H. & Klengel, E. (2009) „Hurritische Hemden“ in der keilschriftlichen Tradition. *Altorientalische Forschungen* 36/2, 205–208.
- Klinger, J. (1996) *Untersuchungen zur Rekonstruktion der hattischen Kultschicht*. Studien zu den Boğazköy-Texten 37. Wiesbaden.
- Kloekhorst, A. (2008) *Etymological Dictionary of the Hittite Inherited Lexicon*. Leiden Indo-European Etymological Dictionary Series – Volume 5. Leiden.
- Knudtzon, J. A. (1915) *Die El-Amarna-Tafeln mit Einleitung und Erläuterungen*. Vorderasiatisches Bibliothek 2 – Band I – Die Texte. Leipzig.
- Kohlmeier, K. (1983) Felsbilder der hethitischen Grossreichszeit. *Acta praehistorica et archaeologica* 15, 7–154.

- Košak, S. (1978) The Inventory of Manninni CTH 504. *Linguistica* 18, 99–123.
- Košak, S. (1982) *Hittite Inventory Texts: (CTH 241–250)*. Texte der Hethiter 10. Heidelberg.
- Košak S. (1994) Review: Klengel H. Texte verschiedenen Inhalts (= Keilschrifturkunden aus Boghazköi, Heft XL). Akademie der Wissenschaften der DDR, Zentralinstitut für Alte Geschichte und Archäologie. Berlin 1990. *Zeitschrift für Assyriologie* 84, 288–290.
- Košak, S. (2002) <http://www.hethport.uni-wuerzburg.de/hetkonk/>. Mainz.
- Kühne, C. (1973) *Die Chronologie der internationalen Korrespondenz von El-Amarna*. Alter Orient und Altes Testament 17. Neukirchen – Vluyn.
- Kümmel, H. M. (1967) *Ersatzrituale für den hethitischen König*. Studien zu den Boğazköy-Texten 3. Wiesbaden.
- Landsberger, B. (1925) Assyrische Handelskolonien in Kleinasien aus dem dritten Jahrtausend. *Der Alter Orient* 24, no. 4, 3–34.
- Landsberger, B. (1967) Über Farben im sumerisch-akkadischen, *Journal of Cuneiform Studies* 21, 139–182.
- Laroche, E. (1958) Etudes de Vocabulaire VII. *Revue hittite et asianique* 16. 63, 85–114.
- Laroche, E. (1959) *Dictionnaire de la langue louvite*. Bibliothèque archéologique et historique de l'Institut Français d'Archéologie d'Istanbul Vol. VI. Paris.
- Laroche, E. (1966) *Les Noms des Hittites*. Études Linguistiques IV. Paris.
- Laroche, E. (1976) Glossaire de la Langue hourrite I: A-L. *Revue hittite et asianique* 34, 13–161.
- Liverani, M. (1990) *Prestige and interest. International Relations in the Near East ca. 1600–1100 B.C.* History of the Ancient Near East. Studies. Vol. I. Padova.
- Liverani, M. (1998) *Le lettere di el-Amarna – Vol. I: Le lettere dei «Piccoli Re»*. Testi del Vicino Oriente Sez. 2, Letterature Mesopotamiche 3. Brescia.
- Liverani, M. (1999) *Le lettere di el-Amarna – Vol II: Le lettere dei «Grandi Re»*. Testi del Vicino Oriente Sez. 2, Letterature Mesopotamiche 3. Brescia.
- Magnus, H. (1877) *Die geschichtliche Entwicklung des Farbensinnes*, Leipzig.
- Marizza, M. (2006) La carica di GAL DUMU^{MES} É.GAL nel Regno ittita. *Studi Micenei ed Egeo-Anatolici* XLVIII, 151–175.
- Marty, A. (1886) Anzeige von R. Hochegger, Die geschichtliche Entwicklung des Farbensinnes. *Göttingische gelehrte Anzeige* 1886, Heft 1. (then in J. Eisenmeier, A. Kastil & O. K. Niemeyer (eds.) *Gesammelte Schriften Vol. I, Sez I*, 1918. Halle).
- Mauss, M. (1923–1924) *Essai sur le don. Forme et raison de l'échange dans les sociétés archaïques*. Année Sociologique, seconde série. Paris.
- Maxwell-Hyslop, K. R. (1971) *Western Asiatic Jewellery c. 3000–612 B.C.* London.
- Maxwell-Hyslop, K. R. (1980) Jewellery listed in the Inventory of Manninni. *Anatolian Studies* 30, 85–88.
- Melchert, H. C. (1994) *Anatolian Historical Phonology*. Amsterdam – Atlanta.
- van de Mieroop, M. (2007) *The Eastern Mediterranean in the Age of Ramesses II*. Singapore.
- Miller, J. L. (2004) *Studies in the Origins, Development and Interpretation of the Kizzuwatna Rituals*. Studien zu den Boğazköy-Texten 46. Wiesbaden.
- Miller, J. L. (2005a) *Keilschrifttexte aus Boghazköi – Dreiundfünfzigstes Heft – Texte aus dem Bezirk des Grossen Tempels V*. Berlin.
- Miller, J. L. (2005b) Die Erweiterung des Kultes der Gottheit der Nacht (CTH 481). In B. Janowski & G. Wilhelm (eds.), *Omina, Orakel, Rituale und Beschwörungen*, 223–229. Texte aus der Umwelt des Alten Testaments-Neue Folge 4. Gütersloh.
- del Monte, G. F. (1985) Review: H. G. Güterbock – H. A. Hoffner, The Hittite Dictionary of the Oriental Institute of the University of Chicago. Vol. 3, fasc. 1 Chicago 1980, 96. *Oriens Antiquus* 24, 148–154.
- del Monte, G. F. (1992) *Die Orts- und Gewässernamen der hethitischen Texte: Supplement*. Beihefte zum Tübinger Atlas des Vorderen Orients – Reihe B Geisteswissenschaften No. 7/6; Répertoire Géographique des Textes Cunéiformes Band 6/2. Wiesbaden.
- del Monte, G. F. & Tischler, J. (1978) *Die Orts- und Gewässernamen der hethitischen Texte*. Beihefte zum Tübinger Atlas des Vorderen Orients – Reihe B Geisteswissenschaften Nr. 7/6; Répertoire Géographique des Textes Cunéiformes Band 6. Wiesbaden.
- Moorey, P. R. S. (1994) *Ancient Mesopotamian Materials and Industries. The Archaeological Evidence*. Oxford.

- Moorey, P. R. S. (2001) The Mobility of Artisans and Opportunities for Technology Transfer between Western Asia and Egypt in the Late Bronze Age. In A. J. Shortland (ed.), *The Social Context of Technological Change. Egypt and the Near East, 1650-1550 BC. Proceedings of a conference held at St Edmund Hall, Oxford. 12-14 September 2000*, 1-14. Oxford.
- Mora, C. (2006) Riscossione dei tributi e accumulo dei beni nell'Impero ittita. In M. Marazzi & M. Perna (eds.), *Atti del Convegno «Fiscality in Mycenaean and Near Eastern Archives», Naples, 21-23 October 2004*, 133-146. Napoli.
- Mora, C. (2007) I testi d'inventario e gli 'archivi' di cretule. In D. Groddek & M. Zorman (eds.), *Tabularia Hethaeorum. Hethitologische Beiträge. Silvin Košak zum 65. Geburtstag*, 271-292. Dresdner Beiträge zur Hethitologie 25. Wiesbaden.
- Moran, W. L. (1987) *Les Lettres d'El-Amarna: correspondance diplomatique du Pharaon*. Paris.
- Moscato, S. (1966) *Il mondo dei Fenici*. Milano.
- Muhly, J. D. (1977) The Copper Ox-Hide Ingots and the Bronze Age Metals Trade. *Iraq* 39, 73-82.
- Nakamura, M. (2002) *Das hethitische nuntarriyašha-Fest*. Publications de l'Institut historique-archéologique néerlandais de Stamboul 94. Leiden.
- Naumann, R. (1971) *Architektur Kleinasiens: von ihren Anfängen bis zum Ende der hethitischen Zeit (2. erw. Auflage)*. Tübingen.
- Neu, E. (1993) Zu den hethitischen Ortspartikeln, *Linguistica* 33, 137-152.
- Nougayrol, J. (1950) Textes hépatoscopiques d'époque ancienne conservés au Musée du Louvre (III), *Revue d'Assyriologie et d'Archéologie Orientale* 44, 1-44.
- Nougayrol, J. (1955) Textes économiques. In *Le Palais Royal d'Ugarit III*, 177-211.
- Oppenheim, A. L. (1947) Book Review. *Mathematical Cuneiform Texts*. Edit by O. Neugebauer and A. Sachs (with a chapter by Goetze), *Journal of Near Eastern Studies* 6, 126-128.
- Otten, H. (1951) Die hethitischen "Königlisten" und die altorientalische Chronologie. *Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin* 83, 47-71.
- Otten, H. (1981) *Die Apologie Hattusilis III. Das Bild der Überlieferung*. Studien zu den Boğazköy-Texten 24. Wiesbaden.
- Otten, H. (1982) Bemerkungen zum Hethitischen Wörterbuch IV. *Zeitschrift für Assyriologie* 72, 280-288.
- Parise, N. F. (1968) I pani di rame del II millennio a.C. Considerazioni preliminari. In *Atti e Memorie del I Congresso Internazionale di Miceneologia*, 117-133. Roma.
- Parrot, A. (1959) *Mission Archéologique de Mari. Volume II: Le Palais. Documents et Monuments*. Institut Français d'Archéologie de Beyrouth. Bibliothèque archéologique et historique. Tome LXX. Paris.
- Pecchioli Daddi, F. (1982) *Mestieri, professioni e dignità nell'Anatolia ittita*. *Incunabula Graeca* 79, Istituto per gli Studi Micenei ed Egeo-Anatolici, Consiglio Nazionale delle Ricerche. Roma.
- Polvani, A. M. (1988) *La terminologia dei minerali nei testi ittiti - Parte Prima*. Eothen 3 - Collana di Studi sulle Civiltà dell'Oriente Antico. Firenze.
- Puhvel, J. (1984) *Hittite Etymological Dictionary Vol. 2 - Words beginning with E and I*. Trends in Linguistics Documentation 1. Berlin - New York.
- Puhvel, J. (1991) *Hittite Etymological Dictionary Vol. 3 - Words beginning with H*. Trends in Linguistics Documentation 5. Berlin - New York.
- Puhvel, J. (1997) *Hittite Etymological Dictionary - Vol. 4- Words beginning with K*. Trends in Linguistics Documentation 14. Berlin - New York.
- Puhvel, J. (2001) *Hittite Etymological Dictionary - Vol. 5 - Words beginning with L. Indices to Volumes 1-5*. Trends in Linguistics Documentation 18. Berlin - New York.
- Puhvel, J. (2004a) Darkness in Hittite. *Zeitschrift für vergleichende Sprachforschung auf dem Gebiete der indogermanischen Sprachen* 117.2, 194-196.
- Puhvel, J. (2004b) *Hittite Etymological Dictionary - Vol. 6 - Words beginning with M*. Trends in Linguistics - Documentation 22. Berlin - New York.
- Reese, D. S. (1987) Palaikastro shells and Bronze Age purple-dye production in the Mediterranean basin. *Annual of the British School of Archaeology at Athens* 82, 201-206.
- Riemschneider, K. K. (1957) Hethitisch "gelb/grün". *Mitteilungen des Instituts für Orientforschung* V, Heft 2, 141-147.

- Rosenkranz, B. (1957) Zum Luvischen. *Die Welt des Orients* 2. 4, 369–377.
- Rosenkranz, B. (1965) Ein hethitischer Wirtschaftstext. *Zeitschrift für Assyriologie* 57, 237–248.
- Seeher, J. (2006) *Hattusha Guide. A Day in the Hittite Capital*. 3. Revised Edition. Istanbul.
- Sethe, K. (1906) *Urkunden der 18. Dynastie*. Urkunden des Ägyptischen Altertums IV: 3. Leipzig.
- Siegelová, J. (1984) Gewinnung und Verarbeitung von Eisen im hethitischen Reich im 2. Jahrtausend v.u.Z.». *Annals of the Náprstek Museum* 12. Prague.
- Siegelová, J. (1986) *Hethitische Verwaltungspraxis im Lichte der Wirtschafts- und Inventardokumente*. Praha.
- Singer, I. (2006) Ships Bound for Lukka: A New Interpretation of the Companion Letters RS 94.2530 and RS 94.2523. *Altorientalische Forschungen* 33/2, 242–262.
- Singer, I. (2008) Purple-Dyers in Lazpa. In B. J. Collins & M. R. Bachvarova & I. C. Rutherford (eds.), *Anatolian Interfaces. Hittite, Greeks and their neighbours. Proceedings of an International Conference on Cross-Cultural Interaction, September 17–19, 2004 Emory University, Atlanta, GA*, 21–43. Oakville.
- Smith, S. (1953) The Ship Tyre. *Palestine Explorations Quarterly* 85, 97–110.
- von Soden, W. (1955) Zum akkadischen Wörterbuch. 67–80. *Orientalia. Commentarii periodici Pontificii Instituti Biblici. Nova Series* 24, 377–394.
- Starke, F. (1979) Zu den hethitischen und luwischen Verbalabstrakta auf -šḫa-. *Kuhns Zeitschrift* 93, 246–261.
- Starke, F. (1982) Boekbesprekingen-Hethitologie: The Hittite Dictionary of the Oriental Institute of the University of Chicago edited by Hans G. Güterbock and Harry A. Hoffner. Vol. 3, Fasc. 1: -la to -ma. Chicago 1980. *Bibliotheca Orientalis* XXXIX, 356–363.
- Starke, F. (1985) *Die keilschrift-luwischen Texte in Umschrift*. StBoT 30. Wiesbaden.
- Starke, F. (1986) Boekbesprekingen-Hethitologie: The Hittite Dictionary of the Oriental Institute of the University of Chicago edited by Hans G. Güterbock and Harry A. Hoffner. Vol. 3, Fasc. 2: -ma to miyaḫuwant-. Chicago 1983. *BiOr* XLIII, 157–165.
- Starke, F. (1990) *Untersuchungen zur Stammbildung des keilschrift-luwischen Nomens*. Studien zu den Boğazköy-Texten 31. Wiesbaden.
- Steiner, G. (1962) Neue Alašija-Texte. *Kadmos* I, 130–138.
- Stokkel, P. J. A. (2005) A New Perspective on the Hittite Rock Reliefs. *Anatolica* 31, 171–188.
- Tischler, J. (2001) *Hethitisches Handwörterbuch mit dem Wortschatz der Nachbarsprachen*. Innsbrucker Beiträge zur Sprachwissenschaft – Band 120. Innsbruck.
- Thomason, A. K. (2005) *Luxury and Legitimation. Royal Collecting in Ancient Mesopotamia*, Aldershot.
- Thompson, R. C. (1936) *The Assyrian Dictionary of Assyrian Chemistry and Geology*. Oxford.
- Ünal, A. (1978) *Ein Orakeltext über die Intrigen am hethitischen Hof (KUB XXII 70 = Bo 2011) Text und Übersetzung*. Texte der Hethiter 6. Heidelberg.
- Veenhof, K. R. (1972) *Aspects of Old Assyrian Trade and its Terminology*. Studia et Documenta ad Iura Orientis Antiqui pertinentia, Volumen X. Leiden.
- Verderame, L. (2004) I colori nell'astrologia mesopotamica. In H. Waetzoldt (ed.), *Von Sumer nach Ebla und zurück. Festschrift Giovanni Pettinato zum 27. September 1999 gewidmet von Freunden, Kollegen und Schülern*, 327–332. Heidelberger Studien zum Alten Orient 9. Heidelberg.
- Vogelsang-Eastwood, G. (1992) *The Production of Linen in Pharaonic Egypt*. Leiden.
- Vogelsang-Eastwood, G. (1995) *Die Kleider des Pharaos; Die Verwendung von Stoffen im Alten Ägypten*. Hannover – Amsterdam.
- Völling, E. (2008) *Textiltechnik im Alten Orient: Rohstoffe und Herstellung*. Würzburg.
- Waetzoldt, H. (1980) Kleidung. A. Philologisch. *Reallexikon der Assyriologie* 6, 18–31.
- Warnock, P. & Pendleton, M. (1991) The Wood of the Ulu Burun Diptych. *American Journal of Archaeology* 41, 107–110.
- Weitenberg, J. J. S. (1984) *Die Hethitischen U-Stämme*. Amsterdamer Publikationen zur Sprache und Literatur Band 52. Amsterdam.
- Werner, R. (1967) *Hethitische Gerichtsprotokolle*. Studien zu den Boğazköy-Texten 4. Wiesbaden.
- Wilhelm, G. (1992) Hurritisch e/irana/i “Geschenk”. In H. Otten & H. Ertem & E. Akurgal & A. Süel (eds.), *Sedat Alp'a Armağan – Festschrift für Sedat Alp. Hittite and Other Anatolian and Near Eastern Studies in Honour of Sedat Alp*, 501–506. Ankara.

- Yalçın, Ü. & Pulak, C. & Slotta, R. (2005) *Das Schiff von Uluburun. Welthandel vor 3000 Jahren, Katalog der Ausstellung des Deutschen Bergbau-Museums Bochum von 15. Juli 2005 bis 16. Juli 2006*. Bochum.
- Zaccagnini, C. (1973) *Lo scambio dei doni nel Vicino-Oriente durante i secoli XV-XIII*. Roma.
- Zaccagnini, C. (1981) A note on Nuzi textiles. In M. A. Morrison & D. I. Owen (eds.), *Studies in Honor of Ernest R. Lacheman on his Seventy-Fifth Birthday. April 29, 1981*, 349-361. Studies on the Civilization and Culture of Nuzi and the Hurrians 1. Winona Lake.
- Zaccagnini, C. (1989-1990) Dono e tributo come modelli istituzionali di scambio: echi e persistenze nella documentazione amministrativa Vicino-Orientale del tardo bronzo. *Scienze dell'Antichità* 3-4, 105-110.