Textile Terminologies in the Ancient Near East and Mediterranean from the Third to the First Millennia BC
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Publication date:
2010

Document Version
Publisher's PDF, also known as Version of record

Citation for published version (APA):
Contents

Acknowledgements and research frameworks for the investigation of textile terminologies in the 3rd and 2nd millennia BC ........................................................................................................................................................................... vii

Textile Terminologies
by Cécile Michel and Marie-Louise Nosch .............................................................................................................................................................................................. ix

1 Synonymic Variation in the Field of Textile Terminology: A study in diachrony and synchrony
by Pascaline Dury and Susanne Lervad ................................................................................................................................. 1

2 The Basics of Textile Tools and Textile Technology: From fibre to fabric
by Eva Andersson Strand .......................................................................................................................................................... 10

3 Textile Terminologies and Classifications: Some methodological and chronological aspects
by Sophie Desrosiers ........................................................................................................................................................................ 23

4 Weaving in Mesopotamia during the Bronze Age: Archaeology, techniques, iconography
by Catherine Breniquet ................................................................................................................................................................. 52

5 Cloths – Garments – and Keeping Secrets. Textile classification and cognitive chaining in the ancient Egyptian writing system
by Ole Herslund .............................................................................................................................................................................. 68

6 The ‘linen list’ in Early Dynastic and Old Kingdom Egypt: Text and textile reconciled
by Jana Jones ............................................................................................................................................................................... 81

7 Clothing in Sargonic Mesopotamia: Visual and written evidence
by Benjamin R. Foster .................................................................................................................................................................. 110

8 Textiles in the Administrative Texts of the Royal Archives of Ebla (Syria, 24th century BC) with Particular Emphasis on Coloured Textiles
by Maria Giovanna Biga ............................................................................................................................................................... 146

9 Les noms sémitiques des tissus dans les textes d’Ebla
by Jacopo Pasquali ........................................................................................................................................................................ 173
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>New Texts Regarding the Neo-Sumerian Textiles</td>
<td>Francesco Pomponio</td>
<td>186</td>
</tr>
<tr>
<td>11</td>
<td>The Colours and Variety of Fabrics from Mesopotamia during the Ur III Period (2050 BC)</td>
<td>Hartmut Waetzoldt</td>
<td>201</td>
</tr>
<tr>
<td>12</td>
<td>The Textiles Traded by the Assyrians in Anatolia (19th–18th centuries BC)</td>
<td>Cécile Michel and Klaas R. Veenhof</td>
<td>210</td>
</tr>
<tr>
<td>13</td>
<td>Tools, Procedures and Professions: A review of the Akkadian textile terminology</td>
<td>Agnete Wisti Lassen</td>
<td>272</td>
</tr>
<tr>
<td>14</td>
<td>Les textiles du Moyen-Euphrate à l’époque paléo-babylonienne d’après un ouvrage récent</td>
<td>Anne-Claude Beaugeard</td>
<td>283</td>
</tr>
<tr>
<td>15</td>
<td>Linen in Hittite Inventory Texts</td>
<td>Matteo Vigo</td>
<td>290</td>
</tr>
<tr>
<td>16</td>
<td>Textile Terminology in the Ugaritic Texts</td>
<td>Juan-Pablo Vita</td>
<td>323</td>
</tr>
<tr>
<td>17</td>
<td>The Terminology of Textiles in the Linear B Tablets, including Some Considerations on Linear A Logograms and Abbreviations</td>
<td>Maurizio del Freo, Marie-Louise Nosch and Françoise Rougemont</td>
<td>338</td>
</tr>
<tr>
<td>18</td>
<td>Mycenaean Textile Terminology at Work: The KN Lc(1)-tablets and the occupational nouns of the textile industry</td>
<td>Eugenio R. Luján</td>
<td>374</td>
</tr>
<tr>
<td>19</td>
<td>Les textiles néo-assyriens et leurs couleurs</td>
<td>Pierre Villard</td>
<td>388</td>
</tr>
<tr>
<td>20</td>
<td>Textile Terminology in the Neo-Babylonian Documentation</td>
<td>Francis Joannès</td>
<td>400</td>
</tr>
<tr>
<td>21</td>
<td>Garments in Non-Cultic Context (Neo-Babylonian Period)</td>
<td>Stefan Zawadzki</td>
<td>409</td>
</tr>
<tr>
<td>22</td>
<td>Some Considerations about Vedic, Avestan and Indoiranian Textile Terminology</td>
<td>Miguel Ángel Andrés-Toledo</td>
<td>430</td>
</tr>
</tbody>
</table>
1. Øle HERSLUND
2. Miguel Ángel ANDRÉS-TOLEDO
3. Benjamin FOSTER
4. Julia GALLIKER
5. Agnete WISTI LASSEN
6. Anna MICHAILIDOU
7. Michael WEIGL
8. Hartmut WAETZOLDT
9. Judy CRAIG
10. Jana JONES
11. Matteo VIGO
12. Lorenzo VERDERAME
13. Susanne LERVAD
14. Agnes GARCIA VENTURA
15. Cécile MICHEL
16. Klaas R. Veenhof
17. Giulia BACCELLI
18. Marie-Louise NOSCH
19. Joanna CUTLER
20. Francis JOANNÉS
21. Stefan ZAWADZKI
22. Rachel FENTON
23. Sophie DESROSIERS
24. Eugenio R. LUJÁN
25. Juan-Pablo VITA
26. Eva ANDERSSON STRAND
27. Françoise ROUGEMONT
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Acknowledgements and research frameworks for the investigation of textile terminologies in the 3rd and 2nd millennia BC

The concept of the present volume and the exploratory workshop emerged in 2005 as a collaboration between us. That year, in Copenhagen, the Danish National Research Foundation’s Centre for Textile Research launched its research programme with the aim to investigate Bronze Age textile production from an archaeological, experimental and linguistic point of view.¹ It encompasses two parts: Tools and Textiles (2005–2009) and Texts and Contexts (2007–2010). In the first part, Tools and Textiles, the mission was to gather information on textile tools from various types of Bronze Age contexts and sites in the Eastern Mediterranean area. This provided a new methodology for textile tool studies. Via tool studies, context studies, and experimental testing, the programme provided a clear picture of types and qualities of textiles, which derive from the tools. The second part, Texts and Contexts (2007–2010) focuses on the written records of the Eastern Mediterranean area in the 3rd and 2nd millennia BC, where we have references to a complex terminology of textiles, tools and techniques, decoration and specialised textile occupational titles. However, we often lack their precise meaning. The aim is thus to investigate textile terminology diachronically, and in a comparative approach. This stage also profits from the knowledge of textile quality and types gained from the typology research in the Tools and Textiles part.

In Nanterre, another research programme The economy of wool in the ancient Near East was also launched in 2005 by the team “Histoire et ARcheologie de l’Orient Cunéiforme” (HAROC), which belongs to a very large CNRS laboratory whose main topic is archaeology (Archéologies et Sciences de l’Antiquité).² The team is composed of both archaeologists and philologists who work on the different ancient Near Eastern cultures over a chronological time span defined by the use of cuneiform writing. One of the research themes is the Mesopotamian wool and textile economy. Within the framework of this research programme, several aspects are studied, such as, the manual treatment of wool, processing and manufacture of textiles, wool production, wool and textile trade, commercial structures, and the use and function of textiles. The research program is pluridisciplinary: the integrated collaborations and the association of data from different periods demonstrate several constant characteristics and allow isolating peculiar phenomena from the general developments.

Our aim was to interlink the French and Danish research programmes and to exchange knowledge. The scientific exchange was facilitated by the formal convention of collaboration between the Danish National Research Foundation (DNRF) and the Centre National de la Recherche

¹ http://ctr.hum.ku.dk/research/tools/
Scientifique (CNRS), as well as a generous subvention from La Mission de Coopération Scientifique et Universitaire, Ambassade de France in Copenhagen, for which we are most grateful.

The European Science Foundation was our main sponsor of the exploratory workshop held in Copenhagen, March 2009. In addition, other institutions have graciously helped: The Italian Institute of Culture in Copenhagen generously sponsored the travels and stay in Copenhagen for Maria Giovanna Biga. Benjamin Foster was invited by the University of Copenhagen within the framework of the International Alliance of Research Universities, and he was also a guest of the Centre of excellence directed by Prof. Kim Ryholt, Centre for Canon and Identity Formation in the Earliest Literate Societies, University of Copenhagen. The travel and hotel costs of the French participants, as well as Marie-Louise Nosch’s travels to Paris in autumn 2009 were defrayed by the convention between the DNRF and the French CNRS.

We are sorry that the expert on Mari textiles, J. M. Durand, did not attend the conference or contribute to this volume. Fortunately, his excellent monograph, La nomenclature des habits et des textiles dans les textes de Mari, appeared in spring 2009, and the authors therefore had the opportunity to integrate his results in their written contributions. Furthermore, we regret that the research on Hittite wool and textiles by Agnès Degraeve and René Lebrun could not be published in the present volume.

The European Science Foundation is the main sponsor of the present volume, with additional support from The Danish National Research Foundation and the CNRS. It is our hope that this endeavour is a first step towards further collaboration and that it will open the way to even larger and longer projects.

June 2010
Cécile Michel (Nanterre)
Marie-Louise Nosch (Copenhagen)

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3 This research will be submitted as a PhD thesis in Louvain la Neuve.
Textile Terminologies

Cécile Michel and Marie-Louise Nosch

“Words survive better than cloth”, writes textile scholar Elizabeth Barber in her monograph *Prehistoric Textiles*.¹ This is certainly true for the period under investigation, the 3rd to the 1st millennia BC, and for the ancient Near East and the Mediterranean where textiles rarely survive, with the notable exception of Egypt.² The richness and varieties of textual documentation, however, constitute a unique source of information of the ancient textiles, their production and consumption in these areas. Various scholars have over the years investigated this rich textile terminology data in comprehensive works on the role of textiles in ancient societies,³ or in individual studies on single corpus terminologies;⁴ here, for the first time, we attempt a comparative and diachronic study of ancient textile terminologies.

1. Chronological and geographical areas covered
The geographical and chronological framework for the present investigation in the Eastern Mediterranean and the Near East, focused on the period from the 3rd to the 1st millennia BC. During the 3rd millennium in Mesopotamia,⁵ textile production developed from household production to standardised, industrialised, centralised production, on the basis of a division of labour. Sheep developed a white coat/wool through selective breeding,⁶ wool was integrated into textile production as an alternative to plant fibres, which then provided the dynamics for the development of felting,⁷ fulling, dye industries, colour extraction and intensive use of colour symbolism in dress and textiles.⁸ Within this area we also have the development of palace economies and administrations, inscriptions with extensive records on production management, tools, glyptic, frescoes and relief iconography in which various types of dress are visible.

¹ Barber 1991, 260.
³ Barber 1991; Gillis & Nosch (eds.) 2007; Breniquet 2008; Völling 2008; Burke 2010.
⁵ Breniquet 2008; 2010.
⁶ Ryder 1983.
⁷ Burkett 1979.
Textile Terminologies

The contributions analyse and discuss the parameters for the development of textile terminologies in these areas and periods. The textual analyses reveal how terms for tools, technology and textiles developed over the millennia to meet new demands. In the quasi-absence of Bronze Age archaeological textile remains, it is necessary to join forces and combine specialist knowledge, not only from the region itself, but also from elsewhere, such as in the Scandinavian experimental archaeological tradition,9 textile expertise and tool studies from other areas,10 and comparative linguistic explorations of how terminologies develop within a defined technical field.11

2. Sources, texts and language families
This volume contains studies of textile terminologies in the Semitic and Indo-European languages. In addition, the authors combine their analyses with data from other fields of research such as archaeology, which can yield information about textile remains,12 imprints of textiles on clay,13 mineralised textiles on metal objects, or textile tools.14 Another rich source of information is iconography,15 while other scholars include results from ethnographic studies16 or experimental textile archaeology.17

The texts preserved from the Bronze Age and Early Iron Age in the eastern Mediterranean and ancient Near East are of a particular nature: each document has a specific function, and accordingly the data about textiles vary a great deal, depending on the category to which a document belongs. Some cuneiform documents are official texts, written for example for the king: accounts of royal victories, descriptions of the king as the builder of monuments and his cultic activities, and in such documents descriptions of luxurious textiles may occur; such types of textiles also occur in the cultic activities as gifts offered to the gods or to their statues.

Another category comprises texts describing economic and daily activities. This includes palace management of textile production (employees, production), accounts from large weaving workshops, rations for the textile workers, the administration and organisation of textile manufacture,18 or the quantity and quality of wool needed or allocated.19 The entire Linear B documentation belongs to this category.20 However, despite the accuracy and details, such accounts rarely inform us about textile techniques or about the use of textiles.

A third category of texts, particularly well attested in the cuneiform corpus, consists of the diplomatic correspondence with its lists of gifts between royal courts among which are often textiles and clothes.21

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9 Peacock 2001; Andersson & Nosch 2003; Andersson et al. 2008; Nosch forthcoming.
12 Recent archaeological textiles published in Frangipane et al. 2009; Andersson et al. 2010; Andersson Strand & Nosch (eds.) forthcoming.
15 Strommenger 1980/83; Barber 1991; Breniquet 2008; 2010; Foster 2010.
16 Hoffman 1964; Desrosiers 2010.
18 Waetzoldt 1972; Biga 2010; Pomponio 2010; Verderame 2008.
19 Waetzoldt 2010.
20 Del Freo, Nosch, Rougemont 2010; Luján 2010
21 Moran 1987; Lerouxel 2002; Biga 2008.
Finally, another rich category of textile related texts is the private archives documenting trade, daily use etc. The best example is the private correspondence between Assyrians trading textiles in Anatolia and their wives who wove at home in Aššur.22

Whereas in some languages, there is only one word to designate a type of fabric or material, other languages have developed – or preserved – a richer vocabulary. For example, for the primary textile plant fibre, modern English and German have two different words: “flax” (Engl.) and “Flachs” (Germ.) for the plant, and “linen” (Engl.) and “Leinen” (Germ.) for the cloth, whereas in French just “lin” is the term used for both the plant and the cloth. This recalls the situation in English in which there is a word for the living animal and another for its meat (e.g. “cow” / “beef”). Such parallel terms may reflect various situations, but we can only understand them if we combine linguistic, archaeological and technical knowledge. When the terminological enquiries, technical analyses of tools and archaeological textiles are woven together with the historical, ethnographical, anthropological knowledge and theoretical frameworks, the results yield not only stimulating perspectives but also new knowledge about textile production and its place in ancient societies.

3. Topology of textile terminologies

The textile terminology of the modern era testifies to trade routes, trends and traditions. We employ textile terms with multiple meanings. “Jeans” are garments from Gênes, Genoa; “denim” designates cloth “de Nîmes”, from southern France, an area in which woad was cultivated, processed and used in the large scale dyeing manufacture of blue cloth. Generally speaking, such topographical indications are often employed to designate textiles. A 20th-century AD example of this is the artificial fibre “dederon” developed in the German Democratic Republic (DDR) as a copy of nylon and named after the acronym of DDR.23 Likewise, the present volume reveals the crossing, development and exchange of textile terms between eras, areas, and cultures of the past.

Words change according to languages, but also to geography and chronology. In the cuneiform documentation, each dialect, each population has developed a specific vocabulary for textiles, which seems typically local. Despite geographical proximities or linguistic and etymological connections, communities in places such as Ebla, Mari and Aššur seem to have created their own textile vocabularies.24 There are, nevertheless, terms which can be traced over wide geographical areas and through the millennia: The Greek word for a long shirt, khiton, Ki-to in Linear B, derives from a Semitic root, ktn. But the same root in Akkadian means linen, in Old Assyrian a garment made of wool, and perhaps cotton, in many modern languages. The Indo-Iranian and Indo-European linguistic reconstruction can contribute to identify the textile terminology which existed before Indo-Iranian was divided into the Indian and the Iranian language groups: some Old Indian and Old Iranian textile terms can be traced back to Indo-Iranian; Indo-Iranian words are furthermore connected to Indo-European textile terminology.25

These examples illustrate on the one hand how related some textiles terms are across time and space, but they also show how very carefully we must conduct the etymological and

22 Veenhof 1972; Michel 2001; 2006; Michel & Veenhof 2010; Wisti Lassen 2010.
25 Andres-Toledo 2010.
terminological enquiry with constantly changing semantics as the common thread. Moreover, within a specific corpus such as the Neo-Babylonian, the same term was used for very different types of clothing. 26

4. Textile terminologies and technologies: a methodology

In the field of textile terminology, classifications, concept systems and term collections usually include first the fibres, and then the yarns and the structures such as weaving or knitting. 27 As a large number of weave derivatives and variations can be created, it is almost impossible to find terms for each of them, and even more complicated to translate them from one language to another. Part of the solution to this problem resides in the use of non-verbal representations. The origin and use of a fabric cannot be represented easily by using graphic components, but the characteristics of form, structure and colour can conveniently be represented graphically. This solution is employed today in the modern textile industry and trade, and was also used in ancient societies, for example, in the form of logograms in Linear B. 28 Likewise, in Egyptian hieroglyphs, the “textile” category includes artefacts, verbs, adjectives and also expressions, which (today at least) seem foreign to the concept of textiles. 29

Textile classification worldwide may use various criteria; one of them is the logic of the craft. 30 Another angle of approach is the functionality of textile tools, which outline and determine the technical possibilities of Aegean Bronze Age textile tools and thus the functional terminology. 31 The research on functionality is based on textile expertise, tool studies and the experimental testing of textile tools. 32 The tool studies, context studies, and experiments enable an assessment of the types and qualities of textiles, which derive from the tools.

Finally, the concept of chaîne opératoire, inspired from anthropology and archaeology, is a valid approach to textile production, and was also the theme of a workshop convened in Nanterre in 2007 on the topic of production systems of textiles. 33 Catherine Breniquet’s recent monograph on weaving in Mesopotamia has introduced this concept in Mesopotamian iconography and a new reading of cylinder seal iconography along the processes of the textile production has been proposed. 34 This new reading of the proto-dynastic iconography seems to convey a much more realistic image than previously assumed; it is possible to see who weaves, and for what: the entire society is involved in weaving. These depictions may be used for their documentary significance but keeping in mind that they are not those of a hand weaver’s manual. We are clearly within the symbolic world. The beginning and end of the weaving process as spinning and weaving, stretching and folding, which could be a metaphor for human life, 35 or two different activities

24 Zawadzki 2010.
26 Del Freo, Nosch, Rougemont 2010.
27 Herslund 2010.
28 Desrosiers 2010.
30 Andersson et al. 2008; Andersson Strand 2010.
31 Breniquet ed. forthcoming. See also Lackenbacher 1982 for a text on textile finishing, and Joannès 1984 on the organisation of crafts.
32 Breniquet 2008 and reviews by Michel 2008 and Biga 2009.
33 On weaving as a metaphor for destiny, see Lyle ed. 2004 with a collection of papers dealing with the metaphorical
Textile Terminologies

related to a cyclic perception of the year and time in which daily and gendered activities occur: churning and weaving, ploughing and weaving, etc. These scenes are parts of more complex systems, like series as they often appear to be combined in linear but not logical compositions. We can conclude that a quite different picture of weaving can be drawn and used for comparative perspectives, where sources are not in conflict and where iconography and archaeology can finally be linked with epigraphy.

The Akkadian period, with its closely dated works of art in which clothing plays a prominent role, as well as its rich administrative archives dealing with textiles and clothes, offers therefore a particularly rewarding opportunity to correlate visual and written evidence for continuity and change in fashion during this dynamic period of Mesopotamian history. In a similar manner, the linen lists from the earliest Egyptian dynasties can be compared with the available archaeological textile data and this can shed new light on their interpretations. Technology can also be used for the interpretation of the linguistic evidence, deriving from a practical knowledge from experimentations. Such practical knowledge is indeed a key for the understanding of the indications of the precise amounts and weight of warp and weft yarn as they are in some texts in the Ur III documentation.

5. Specific methodological problems related to textile terminologies

In an investigation of textile terminologies, we encounter several fundamental difficulties when aiming at identifying a term with a tangible item or a technical reality.

The first difficulty is that textiles rarely survive in the archaeological context and thus we have no preserved tangible remains – in museums or in the hands of archaeologists – to target identification. More fortunate situations are when identifying terms for pottery such as the two-handled cup, depas amphikypellon, attested both in Homer’s epics and in numerous specimens in Aegean museums; a similar situation is when we need to identify the names for plants. In these cases we may be able to verify an assumption by consulting an archaeologist or a palaeobotanist. The material culture sets up a defined range of possibilities and a framework in which we should search for correlations.

Another difficulty is to identify terms within a technology, which is completely foreign to us today. Basic textile knowledge, understanding of techniques, evaluations of possibilities and plausibilities, distinctions such as the fundamental difference between tabbies and twills, these no longer form part of acquired general knowledge among scholars. Furthermore, we hardly possess knowledge of textile terms in our modern languages, or master textile techniques.

An example of the difficulties in understanding and interpreting ancient textile terminology is the term mazrum attested at Mari. According to J.-M. Durand, “la laine mazirum napisṭum doit être celle dont le fil a été tordu par simple cardage”. There are precise philological, lexical and etymological reasons for this translation. However, in terms of textile techniques, it remains
obscure: a thread cannot be twisted by carding; carding does not exist in the Bronze Age where wool fibres are instead combed or treated with a thistle.

Another difficulty is the fact that textile terms appear primarily in lists and inventories without pertinent data about the nature of the textiles. The aim of such lists is not to qualify the textiles (their quality could probably be verified by sight and touch in the storeroom). Instead they register the number, the recipient and sometimes the price of the textiles.\(^{40}\)

### 6. Origins and textile categories of textile terminology

In some languages and cultures, textile terminology developed according to materials, in others, according to topography, techniques, colours, qualities, function and usage. The term “undergarment” indicates function and shape; “blue-collar” indicates colour, usage and social context; “lining” is not directly derived from “linen” but from Latin *linea* meaning a “linen thread, string, line”; French “soie de Chine” indicate fibre type and topography, just like the East German nylon type fibre “dederon”. One of the most productive terminological Bronze Age categories for textiles seems indeed to be topology. However, this is perhaps also due to the fact that this topological category is the easiest for modern philologists to identify.

The exact meaning of the topographical indications connected with textile terms is not easily understood. Textiles are “from Akkad” or “Akkadian” in the Old Assyrian documentation, and this opens up the debate about whether the geographical designation indicates origin, place of production, or certain characteristics such as weave or decoration.\(^{41}\) In Linear B, groups of female textile workers and their children are designated by Anatolian toponyms outside the Mycenaean palace area, and again we must ask whether they come from these places, were purchased or kidnapped at these places, or whether these women and children produce textiles of a quality which is typical for these places.\(^{42}\)

The textile terminology thus develops and changes according to languages, but also to time and place; despite the overarching developments, textile terminologies are created locally and acquire their specific meanings within a limited area. In the Linear B documentation, we can furthermore investigate textile terminology on a personal level: palace scribe 103 at Knossos has a distinct handwriting and his records can be identified including his usage of the textile terminology.\(^{43}\) It is, for example, his personal preference to classify textiles from previous years as *pa-ra-ja*, ‘old’, while his fellow scribes chose to designate such textiles with the term *pe-ru-si-nwa*, ‘from the previous year’.\(^{44}\) The two designations are employed as synonyms and depend entirely on personal style, and can therefore also form a defining feature for the identification of a scribal hand.

### 7. The nature and function of the items recorded in the texts: textiles or garments?

In recent years, several studies of ancient clothing have been published, in particular the clothing worn by rulers and the elite.\(^{45}\) The majority of texts, however, do not clearly indicate the type or

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\(^{40}\) Pomponio 2008; 2010; Vita 2010; Nosch 2006.

\(^{41}\) Michel & Veenhof 2010.

\(^{42}\) Chadwick 1988; Nosch 2003.

\(^{43}\) Luján 2010.

\(^{44}\) Killen 1972.

quality or whether the item is a piece of textile or a piece of clothing. The issue of problematic
generic translations such as "a garment", "a cloth" or "textile" and the nature – textile or garment –
is addressed and discussed by several authors. Many of them reach the conclusion that
the various Bronze Age archives record untailored fabrics rather than tailored ready-to-wear
costumes. This again raises the question of how to define a garment, in a world of kilts, cloaks,
capes, wrap-around garments, and a habit of using complex devices for attachments. Sewing
often seems useless and tailoring a waste of resources.\textsuperscript{46} A way to address the issue is to combine
texts and iconography: we find types of wrap-around garments and togas in the Sargonic
iconography and texts.\textsuperscript{47} In Ur III, two different terms for textiles are used side by side mixing a
piece of clothing with a type of weave.\textsuperscript{48}

It should not be forgotten that textile is not only used for clothing:\textsuperscript{49} In palace archives as
Ebla and Mari, besides garments, the administrators also deal with large amounts of textiles for
furnishing.\textsuperscript{50} Furthermore, it must taken into account that a majority of the written documentation
deals only with luxurious textiles and do not give a complete overview of the many types of
textiles used in antiquity.\textsuperscript{51} Or when they do, the data are very precise for luxurious garments
but remain quite vague for the clothes of ordinary people.\textsuperscript{52}

8. Colour indications: dyed textiles or the natural pigmentation of wool, or both?
This question is raised by several scholars, in particular inspired by the attestation of the term
"multi-coloured" in various languages and cultures: In Linear B \textit{po-ki-ro-nu-ka}, ‘with multi-coloured
fringes’,\textsuperscript{53} Numerous multi-coloured (Sum. \textit{gûn-a}) textiles are mentioned in the texts from the
royal estate of Garšana;\textsuperscript{54} and in the Neo-Assyrian texts the standardised description of textiles
as \textit{lubultî birme u kitû}, ‘multi-coloured textiles and linen textiles’ occurs frequently.\textsuperscript{55}

Furthermore, the recurrence of fabrics described as white, dark/black, and red/brown leads
to the discussion of the available resources of both dyed and naturally pigmented wool. Several
scholars come to the conclusion that the bulk of fabrics recorded with colour indications may
possibly have been naturally pigmented.\textsuperscript{56}

In the Ur III documentation, the natural colour of wool and clothing was light and white.
Occasionally the wool of animals with various naturally pigmented wool hues was used to achieve
colour effects. Generally, however, wool and textiles were only dyed in exceptional cases.

Colours are deliberately used to express status and symbolic meaning. Shining, yellow-dyed
clothing was reserved for the king.\textsuperscript{57} Colours of textiles bear a symbolic and ritual value, thus

\textsuperscript{46} Wees 2005.
\textsuperscript{47} Foster 2010.
\textsuperscript{48} Vogelsang 1986; Waetzoldt 2010.
\textsuperscript{49} Waetzoldt 2007.
\textsuperscript{50} Durand 2009; Beaugeard 2010; Pasquali 2010.
\textsuperscript{51} Vigo 2010.
\textsuperscript{52} Joannès 2010.
\textsuperscript{53} Del Freo, Nosch & Rougemont 2010.
\textsuperscript{54} Waetzoldt 2010.
\textsuperscript{55} Villard 2010.
\textsuperscript{56} Nosch 2004; Waetzoldt 2010.
\textsuperscript{57} Waetzoldt 2010.
in Ebla we find black textiles for purification rituals after death.\textsuperscript{58} In the Hittite documentation many luxurious linen textiles are blue,\textsuperscript{59} which can only be obtained through dyes containing indigotin, probably from plants, or, alternatively, purpurin from murex.\textsuperscript{60} In the Neo-Assyrian corpus the red colour dominates; but here again, it is primarily valuable textiles that are quoted in the documentation.\textsuperscript{61}

* * *

These overarching themes and classification frameworks for terminologies are relevant for most languages and cultures of the 3rd to the 1st millennia BC and even beyond. Textile terms indicate origin, material, techniques, at least in their first stage. With time, and over longer distances, these meanings then become blurred or fade, or the terms acquire a new meaning appropriate to a new context. Furthermore, textile terminology seems closely linked to expressions for destiny, cosmology and myths. The Indo-European root *yes- “to dress” was also used in Indo-European poetic formulas, for example *yes1 yes- “to dress a dress”, and applied to gods who dressed the sky.\textsuperscript{62}

There is no doubt that textiles generate a comprehensive vocabulary via the development of technologies and the emergence of specialised occupations and division of labour. The costume development and experimenting with wrapped clothing, fibulae, fixation devices, and tailored garments generate yet new terms for the clothing elements, and for the ensemble and combination of such elements.

The present survey includes textile terminologies in various languages and cultures but it also demonstrates the need to carry this investigation further. Diachronic studies and interdisciplinary approaches are the only viable way to continue this endeavour. In a future perspective, it would be interesting to review the relationship between textile terminology, textile production and labour, in continuation of the 1987 publication Labor in the Ancient Near East.\textsuperscript{63} Furthermore, gender in production and costume use should be further explored. The interaction and cross-craft aspects between textile terminologies and terminologies in other crafts would also be a stimulating approach in a future study.

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Textile Terminologies

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Textile Terminologies


1. Synonymic Variation in the Field of Textile Terminology: A study in diachrony and synchrony

Pascaline Dury and Susanne Lervad

This chapter sets out to examine the terminology of textiles from a linguistic point of view, and endeavours to show that studies in the field of terminology may prove very useful to archaeological studies. In the first part of the chapter, we will present the basis of terminology work and give the main founding principles of terminology regarding concepts, concept structures and synonymic variation. The second part of this chapter will give examples of synonymic variation and conceptual analysis in the field of textiles.

Though our main interest here is textiles, we also give some examples from other domains of activity, in order to illustrate the main terminology principles.

1. What is terminology and what do terminologists do?

Many dictionaries, such as the *Longman Dictionary of Contemporary English*, define the word *terminology* as: “The technical words or expressions that are used in a particular subject: Computer terminology, textile terminology, etc.” Or, as the *Webster’s Online Dictionary*, as: “A system of words used in a particular discipline: “legal terminology”; “the language of sociology”.

Terminologists would rather define their field of work as the study of terms, i.e. words and compound words that are used in specific contexts, or “as a number of practices that have evolved around the creation of terms, their collection and explication and finally their presentation in various printed and electronic media”.¹

Terminology work therefore consists in:

- Analyzing the concepts and concept structures used in a specialized field or domain of activity,
- Identifying the terms assigned to the concepts and making definitions,
- In the case of bilingual or multilingual terminology, translating terms in the various languages,
- Compiling glossaries in databases,
- Managing these databases,
- And creating new terms, as required.

¹ Sager 1990, 1.
1.1. Terminology – the study of concepts

“Concepts are mental constructs, abstractions which can be used in classifying the individual objects of the inner and outer world”. One of the founding principles of terminology is that the study of concepts and concept structures or concept systems is essential. Terminology work is based on concepts and their delimitation.

Concepts are not independent phenomena. They are always related to other concepts in one way or another, and form concept systems, which can vary from fairly simple to extremely complex. In terminology work, an analysis of the relations between concepts and an arrangement of the concepts into concept systems, are prerequisites for the successful drafting of definitions.

Moreover, concepts are made up of what are called notional elements, also called notional or conceptual characteristics. In terminology theory, conceptual characteristics are regarded as the smallest elements of concepts which serve to identify these concepts and to distinguish them from each other. Conceptual characteristics, which can be considered concepts themselves, can be used for describing, classifying and defining concepts.

There are common and delimiting characteristics that correspond to the objects they describe.

1.2. Delimiting characteristics

There are usually a great number of characteristics in any concept. Many of these characteristics are so common or so atypical that they alone are not adequate for identifying a concept or differentiating it from other concepts (for example TREES and GARDEN BENCHES can be both hard and green).

Delimiting characteristics are those typical, or relevant characteristics which alone determine a concept, and differentiate it from other concepts (for example having a hard self-supporting trunk is a delimiting characteristic of TREES in relation to CLIMBING PLANTS). Therefore, only delimiting characteristics should be used in definitions, but it is not possible to select and name all of them in a term, because the term would then be too long to be written or spoken. Therefore, only a small number of conceptual characteristics are usually selected and named in terms. Which characteristics are selected in a term changes from one culture to another and from one language to another, and one concept existing in one linguistic community may not exist at all or only partially in another linguistic community, as shown below:

“A point worth mentioning is that the concepts existing in one linguistic community may not exist at all or only in part in other linguistic communities. [....] A well-known example of culturally dependent concept formations is the concept systems of colours of certain Indian tribes in the Amazon which distinguish among 300 different sorts of green”

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3 As also shown in part 3 below, non verbal elements like drawings or formulas are also considered vital elements for the successful drafting of definitions.
4 Weissenhofer 1995, 2.
1. Synonymic Variation in the Field of Textile Terminology

1.3. The panlinguistic definition scheme

Boisson (1996) analyzed the denomination of the slide rule in 41 languages in order to construct an extensive panlinguistic 'definition scheme'. He showed that each language typically selects from this scheme a couple of notional elements, which can vary from one language to the other.

“The history of the slide rule is retold in a systematic way, and its denomination is analysed in 41 languages. A comparison of these terms allows us to postulate for the object an extensive panlinguistic “definition scheme”, which might provide an empirical approximation to an analysis of the concept /slide rule/. Each language typically selects from this scheme a couple of notional elements, so that these terms look like elliptical definitions of the object”.

For example slide rule in English contains the notional element “slide”, which does not exist in the French règle à calcul (which uses instead the notional element “something that is used to calculate” as in Italian and Spanish). The term is translated below in Danish, Italian, German and Spanish.

→ Regnestok/regolo calcolatore/Rechenschieber/regal de cálculo

2. Synonymic variation

The kind of conceptual characteristics which are named in terms also changes from one period of time to another, which may give rise to what is called ‘synonymic variation’, especially in specialized lexicons.

One specialized field of knowledge in which synonymic variation is known to be prevalent is medicine, but it is also the case in natural sciences and in textiles.

We will show here that, when they are examined diachronically, synonyms do have a role to play in the shaping of specialized lexicons. We will illustrate this point with the main results obtained from a corpus-based investigation into the semantic development of some synonyms of the term petroleum in 19th-century English. The corpus used was specially designed for the study and contains specialized texts (mostly book chapters and scientific articles) relating to the field of mineralogy, chemistry and petroleum geology published in the 19th century and the first half of the 20th century.

The word count is at present a little over 257,000 words (=257,864 words). The corpus was investigated using a lexical analysis computer software called Wordsmith Tools and was divided into three sub-periods. The delimitation of these sub-periods was mainly governed by extralinguistic criteria. These periods roughly correspond to major events relating to the field of petroleum geology:

- Period one contains texts published between roughly 1800 and 1860 and corresponds to the period just before the first successful drilling of an oil well by “Colonel” Drake in Pennsylvania in 1859.
- Period two contains texts published between 1860 and 1900 and corresponds to the oil boom in Pennsylvania and subsequently in Texas.
- Period three contains texts published between 1900 and 1960, corresponding to the development of the internal combustion engine car and therefore to the large-scale industrial exploitation of petroleum.

The decision to base this study on the 19th century and the first half of the 20th century was made for extralinguistic reasons, too. People have used petroleum since ancient times (first as a

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5 Boisson 1996, 525.
6 Also see Dury 2008 and 2009.
medicine and later to light their homes) and occurrences of oil throughout the world have been the objects of study by geologists since the 17th century.

In the first half of the 19th century, most geologists, mineralogists and chemists knew that petroleum was basically made of hydrogen and carbon and that it reached the surface of the earth at many places in circumstances which were in some ways peculiar. However at the time, the importance of oil was not fully appreciated and the scientists’ understanding was also circumscribed by limited knowledge of stratigraphy, structure, geological and chemical processes. Until the first half of the 20th century, scientists had no detailed nor extensive knowledge of what exactly petroleum was, where it came from, and what could be produced from it.

2.1. Semantic flexibility

The ‘limitations’ imposed by the contemporary state of chemical knowledge had two consequences for the language: Firstly, it led to what may be called the ‘semantic flexibility’ of some terms which were sometimes used with exactly the same meaning as the term petroleum, but which were also sometimes used with a different meaning and secondly, it also led to a wide range of what may be called ‘occasional’ or ‘temporary’ synonymy, or the simultaneous co-existence of several terms to express the particular notion of petroleum.

Indeed, the information extracted from the corpus shows that a variety of terms (16) can be considered as synonyms of the term petroleum, and were used as such by authors.

Some of these synonymous terms, like rock oil or earth oil refer to where petroleum is found in nature; some other synonyms, like empyreumatic oil rather describe the smell of petroleum, while other terms, like dark pitch, carbon oil, mineral oil, put the emphasis on what petroleum is made of or what it looks like. And a last group of synonyms, which is also the largest, is made up of toponyms or terms based on place names which describe the regions, or the countries where petroleum was known to be found. This group includes for instance: Barbados tar, Gabian oil, Sicilian oil, Trinidad bitumen, Persian rock oil, Genesee oil, Seneca oil, Seneca rock oil, Rangoon petroleum, etc.

The data extracted from the corpus indicate that the vocabulary of petroleum went through a second stage after 1860, as the terms which proved to be semantically ‘flexible’ in the previous period became fixed in the vocabulary, and as most of the synonymous terms progressively disappeared from the language. This is the reason why they may be called ‘occasional synonyms’ or ‘temporary synonyms’, since they were only used in the vocabulary of petroleum at a time when petroleum geology was still in its early stages. However does this synonymic variation also apply to other fields of knowledge, like textiles?

3. From fibers to structures

In the field of textile terminology, classifications, concept systems and term collections usually include the fibers first and then the yarns and the structures such as weaving, knitting etc., as shown below in the definition of the term man-made fiber, which details the most essential conceptual characteristics: “Staple fiber are filament of polymers produced by manufacturing processes.”

7 USTC-01-Nomenclature.
1. Synonymic Variation in the Field of Textile Terminology

In this case, the definition does not mention the term *man-made*, but it uses the term *manufacturing*. A number of other synonyms also express the conceptual characteristics given in the definition above. This is the case for *manufactured fiber* which can also be directly derived from the definition and which is often understood as a short version of the definition. The terms *synthetic* and *artificial fiber* are often used as synonyms as well, which can sometimes prove problematic. The variants used to describe the different fibers, like *textile fiber* and *natural fiber* are much less ambiguous.

The next phase in textile production corresponds to the *construction* or the *structures*.

The examples chosen to illustrate synonymy in this case are weavings. Susanne Lervad inherited a background in weaving from her parents and grandparents who produced looms for hand-weaving for a century. Furthermore, she studied silk fabric, notably in Lyon, France, where the collections of these textiles and documentation are very rich. The patterns of these silk fabrics and the terminology was described in her Ph.D. thesis, and the experience in the trilingual terminology of fibers, threads and fabrics acquired while researching has shown how non-verbal aspects can be used to describe concepts in fields such as textiles.

3.1. Non-verbal aspects

This Ph.D. in textile terminology is both traditional, using primarily verbal definitions, and innovative as it attempts, in specific cases, to unify the definition and the designation. The innovative aspect of this work is that it shows that representing a concept using an illustration can unify the designation and description of this concept. Differently put, what is traditionally identified as a designation (most commonly a term), and the concept descriptions (definition) disappear in some of the examples studied. Representing textile concepts in a “multimodal” manner therefore seems to be a constructive and useful approach.

There are several types of illustrations used to represent a concept:

- Symbols
- Pictograms
- Diagrams
- Line drawings / sketches

In the field of textiles, representing a concept using an illustration is more universal than using a given language, but the effectiveness of these signs is dependent on a common understanding. Both the party who transmits and the party who receives the sign must share this understanding.

The diagrams below illustrate how concepts in this field are represented in the terminology. The diagram also works as a step-by-step guide to producing fabric. We will also try to show the limits of illustrations and non-verbal signs: it is clear that the image and text are complementary and the text dictates our conception of the image.

In the field of textiles, texts are particularly useful in explaining the characteristics which cannot be easily conveyed by means of an image – for example the softness of the fabric or other aspects requiring a verbal explanation. The examples below deal with the micro-structure of the fabric i.e. the weave. The macro-structures (for example the design) are not dealt with here.
“**Weave:** System of interlacing the threads of warp and weft according to defined rules”.

“**Weave unit:** The smallest cycle of interlacement of warp and weft that is constantly repeated in a weave or a binding system”.

“**Binding system:** System in accordance with which ends and picks are bound”.

The illustrations used may be representative images (photos, paintings, drawings) or abstract images (diagrams, line drawings, etc.). The degree of abstraction determines the function of the graphic components. The graphic components can explain or clarify verbal definitions, or function independently providing a full representation of the concept in question. In this case, the verbal component serves only to provide a complementary explanation.

The examples below illustrate how the graphic components replace the verbal definitions to a greater or lesser extent in each case. The diagrams represent the structure of the fabric.

In order to describe a fabric as a concept and its characteristics, one should always start at the most basic level, i.e. the point at which two threads meet – the weave. The combination of basic weaves creates a wide variety of textures perfected in fabric production in French silk factories in Lyon. The weave can be represented using pictograms or diagrams of varying degrees of abstraction (see Fig. 1.1).

Figure 1.1 shows how a fabric is made up of vertical threads – the warp – and horizontal threads which cross over – the weft. There are an infinite number of ways of combining different types of crossovers. Figure 1.1 shows the simplest of these crossovers / weaves – plain weave. Another example is a diagram in binary form, the language of computers. Each thread has a numerical value of 0 or 1, i.e. one thread over or one thread under, which easily translates into the binary system.

In his book (1982), Hugues deals with the common ground occupied by one of the most ancient crafts, weaving, and the modern world of computers:

“Indeed, a piece of fabric is constructed from combinations based on a binary code from the structure of the weave (one thread over, one thread under) and computers function using combinations translated by a code consisting of a series of 1 or 0”.

This binary system was used very early on in the French textile industry in the Jacquard weaving mechanism created in the Croix Rousse district of Lyon two hundred years ago, and which could be considered as one of the world’s first computers.

The diagrams representing concepts mainly describe the weave – the smallest unit which is used to multiply and repeat structures in order to create the surface of the fabric.

The examples below show the three basic weaves: plain, twill and satin.

This weave is different from any other as the horizontal and vertical threads cross over

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8 Burnham 1980, 179.
9 Burnham 1980, 179.
10 Burnham 1980, 6.
alternately. This basic unit is made up of $2 \times 2$ threads.

The concept is designated by two terms *plain weave* and *tabby* in the literature and this does not cause any problems.

"Tabby: The binding system or weave based on a unit of two ends and two picks, in which each end passes over one and under one pick. The binding points are set over one end on successive picks".12

There are a large number of plain weave derivations such as *rib weave* / *rep weave* and *panama* / *hopsack weave*. These are easy to show in a diagram but difficult to designate using terms. In this case it is easier to show just the diagrams of the basic weaves and the derived weaves plus a code.

### 3.2. Formulation of a code

The international standard ISO 9354 establishes a code for the systematic numerical notation for basic weaves and their simple derivatives.

The code for any basic weave or one of its simple derivatives is made up from digit number elements that are separated from one another by hyphens. These elements indicate, in sequence, the following characteristics of the weave:

- **First element:** the kind of weave,
- **Second element:** the sequence of interlacing of the yarns, i.e. warp up or down,
- **Third element:** the warp thread grouping, i.e. the warp yarns weaving singly or in groups,
- **Fourth element:** the step or move number. The step number indicates the number of threads by which the point of intersection is offset each time.

For plain weave, the code is 10-010101 00 (ISO 9354 standard).

The second basic weave is *twill*. Basic twill weave consists of $3 \times 3$ threads with four possible combinations, one of which is shown above: 2/1 twill, in which each time a weft thread passes over a warp thread, it then passes below the next two warp threads. In addition, there are four possible 2/1–1/2 twill weaves Z or S spun. Both weft twills or warp twills exist, and the points at which the threads cross over create a diagonal pattern.

There are a large number of variations / derivatives of basic twill weave such as the 5-end stitched twill, “Z” direction. These figures can be written separated by a point 3.1.1.1 or a slash 3 1/1 1 representing the point of intersection.

The derivatives are easy to represent in diagrams and codes but almost impossible to translate from one language to another using verbal components. The code for 3/1 twill, “Z” direction is: 20–01 03–01–01 (ISO 9354)

The third basic weave is satin and here we also show below the diagrams, the definition and the code:

12 Burnham 1980, 139.
“Satin: Binding system or weave based on a unit of five or more ends, and a number of picks equal to, or a multiple of, the number of ends. Each end either passes over four or more adjacent picks and under the next one, or passes under four or more adjacent picks and over the next one. The binding points are set over two or more ends on successive picks and are distributed in an unobtrusive manner to give a smooth appearance”.13

The step number indicates the number of threads by which the point of intersection is offset each time, and regular satins are produced by consistently using the same step number, while irregular satins are produced using several different step numbers in succession.

Example: 6-end cross warp satin, steps 3,4,4,3,2.
The code is: 30–05 01–01–02 04 04 03 02

The number of possible combinations of the basic plain, twill and satin weaves is infinite.

The use of graphic components to represent the weaves, as recommended in the ISO 9354 standard, bypasses the need to use long and complicated terms, which are of little use in conveying the concept. The image of the weave can be combined with a code, thus minimizing the need to produce a definition and a term.

The characteristics reflecting the origins and use of a fabric cannot be represented easily by using graphic components, but the characteristics of form, structure and colour can conveniently be represented graphically.

The work to create international standards within the framework of the ISO 9354 also shows, that in this field, definitions are often being replaced by diagrams, and terms by codes. When work on the standard started, a verbal explanation of the code was included, but this verbal element only served to explain the code itself. There is therefore a global consensus that the representation of derived weaves in the form of diagrams will greatly facilitate work on the terminology, as shown above.

As a large number of weave derivatives and variations can be created, it is almost impossible to find terms for each of them, and even more complicated to translate them from one language to another. The examples above show this clearly and part of the solution to this problem resides in the use of non-verbal representations and codes.

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The first aim of this chapter was to explain what the field of terminology is and what its main founding principles are. The objective was also to demonstrate what kind of terminology work can be done in specialized lexicons and how concepts and concept structures are used to draft definitions, analyze and translate languages, whatever the cultural context, and whatever the time period.

A second conclusion to this chapter is that corpus evidence shows that ‘temporary’ or

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‘occasional’ synonymy as well as the ‘semantic flexibility’ of terms, far from being something to avoid in terminology, may well be considered as a phenomenon which crops up naturally at some point in the history of a scientific lexicon and which occurs as part of a conceptual formation stage, as is the case here with petroleum geology, and as is also the case in textiles.

Abbreviations

USITC-01: Norme internationale concernant le commerce du textile, US International Trade Commission

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2. The Basics of Textile Tools and Textile Technology: From fibre to fabric

_Eva Andersson Strand_

The production of a textile from fibre to finished product is complex and includes many stages. The general stages in textile production are fibre procurement, fibre preparation, spinning, weaving and finishing and each stage includes several processes.

The focus of this article is to briefly explain the different stages and processes in order to provide a better understanding of the complexity of textile production. Furthermore, specific textile techniques will be related to textile archaeological experiments that have been designed and conducted in the Tools and Textiles – Texts and Contexts (TTTC) research programme of the Danish National Research Foundation’s Centre for Textile Research.

1. Fibres for producing textiles

Several different fibres, both plant- and animal, can and have been used for producing textiles. The fibres in use in the Bronze Age Eastern Mediterranean according to written sources were primarily sheep wool and flax. However, other fibres were also used, for example goat hair as has been shown via a textile analysis carried out on a textile from Arslantepe, Turkey dated to 3000–2750 BC (Fig. 2.1). Another textile dated to the Late Bronze Age that includes one nettle thread has been found in Khania, Crete. Furthermore, fibres such as tree bast and hemp but also horse and camel wool could have been used.

The stage from flax stems to processed fibres includes many steps. When flax is ripe it is pulled up by the roots and the seeds are rippled. The flax then has to be retted. In this process the stems can either be placed in water or spread on the ground. The moisture assists in the process of dissolving the pectin between the bunches of fibre in the bark and the stem. The next step is breaking, when a wooden club is used to break up the stem and the bark which have to be separated from the fibres. Thereafter, the flax has to be scutched with a broad wooden knife, which scrapes away the remainder of stem and bark. Finally the fibres are hackled or combed.

1 For more detailed information, see for example Barber 1991; Breniquet 2008.
3 Frangipane et al. 2009.
4 Moulherat & Spantidaki 2006; Andersson Strand & Nosch forthcoming.
The tools used in these production processes are primarily made of wood and it may be surmised that this is why these tools are rarely found in archaeological contexts.5

There is no information in ancient sources on the amount of fibres one would obtain from a field of flax, but today, the calculations of the outcome based on a 100 m² field are:6

- 100 m² = 1 working day to pull the flax stems by hand
- 100 m² = 0.25 kg yarn in different qualities + 14 kg of fibres for rope etc.
- 25 kg yarn = 287 500 m thread
- 11 threads per cm in warp and weft = 2200 m thread/m² = 130 m² fabric

Different types of sheep breeds existed in ancient times.8 There is a large variation in wool fibres: the quality varies between various breeds, but there is also a difference between individuals within the same breed, and depending on if the wool is from a lamb, a ewe, a ram or a wether. Furthermore, a great variety is found in the coarseness of wool fibres depending on from which part of the sheep the wool is obtained. Wool from the thighs, for example, is coarser and longer than the wool from the side and shoulders. The wool is obtained by shearing or cutting, but it has been considered that the oldest method is pulling.9 Shears may have been used, but it is likely that knives were the oldest tools used. A sheep can be sheared twice a year while it can be plucked only once a year.

The wool can be spun immediately after it has been shorn or plucked from the sheep but usually it is first teased by hand or combed with the aid of wool combs. In this way, the long hair is also separated from the wool.

Sheep in ancient times were smaller than today’s sheep and it is difficult to determine the amount of wool that could be obtained from one animal. Icelandic sources from the early 19th

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5 Andersson 2003.
7 The numbers of meters of thread and the calculations are based on a spinning test with flax fibres in the research programme. Mårtensson et al. forthcoming.
8 Barber 1991; Breniquet 2008.
9 Barber 1991.
century AD state that an ewe could yield 1–1.25 kg of washed wool and a wether between 1.75–2.5 kg. Please note that this is the weight of the wool for spinning and not the total weight of the fleece.¹⁰

2. Spindles and spinning

A spindle consists of a spindle shaft that is generally made of wood and often also of a spindle whorl. The spindle whorls vary as regards material, shape and size (Fig. 2.2).¹¹

After the preparation, the wool is twisted by hand into a short thread which is attached to the shaft. The spindle can then hang freely, a so-called suspended spindle, but one can also spin with a supported spindle. The shaft is rotated while the spinner simultaneously draws out the fibres, and it is the twisting of the fibres around their own axis that forms the thread.

When spinning, it is easier to hold the raw material on a distaff, so that the prepared fibres are not mixed up again (Fig. 2.3). When one has spun a certain length, the thread is wound up on the spindle and it is possible to continue spinning. This is repeated until the spindle shaft has been filled with thread. The spun yarn is then wound onto a reel.

In the TTTC research programme, several experiments with different spindle whorls of various sizes have been undertaken.¹² The tools used in the spinning tests were reconstructed copies¹³ of biconical and conical ceramic whorls from the Bronze Age site Nichoria, Greece, one weighing 18 g, another weighing 8 g, and a third ceramic whorl weighing 4 g.¹⁴ A white fleece, weighing 2.7 kg was selected. After sorting, removing felted parts, dirt and the most irregular parts, 1.1 kg of rather homogeneous wool was left for the experiments. Furthermore, as much as 22 percent of the cleaned wool was also discarded in the combing process. The wool was then formed into bands of fibres and rolled into balls, ready for spinning. Altogether it took about 6 hours (h) for two technicians to prepare 170 g of wool.¹⁵

¹² Andersson et al. 2008; Olofsson et al. forthcoming.
¹³ The tools were reconstructed by ceramist Inger Hildebrandt at the Lejre Experimental Centre, Denmark, and we are grateful for this collaboration.
¹⁵ The written sources record pe-ki-ti-ra, translated as “wool-carders” (Ventris & Chadwick 1973, 570), but carding is a
The test spinning of the 4 g whorl demonstrated that fine, soft and washed wool was necessary.\textsuperscript{16} In this case it took approximately 9 h for the technicians to prepare 66 g wool after washing and drying.\textsuperscript{17}

The spinners employed the suspended spinning method during the experiment and a total of 56 tests were conducted. The spinning was carried out until the spindle was filled, and only up to the point that the weight of the yarn affected the rotation negatively. It required more concentration to spin with the 4 g and 8 g whorl than with the 18 g whorl. In the tests with the 4 g whorl, the spinners also added more twist with the hand than they did when spinning with the 8 g and 18 g whorls, and it was more time-consuming to spin a thread with a light whorl than it was with a heavy whorl. Furthermore, there is an obvious difference in how many fibres the thread contains when using different whorls, and the thread spun with the 4 g whorl contains remarkably less fibres than the others.\textsuperscript{18}

The time estimate only takes the actual spinning time into consideration, and time for the cleaning, sorting and preparation of the wool has to be added. The average output of thread/h is:

\begin{equation}
\begin{align*}
&c.50 \text{ m of yarn/h (18 g whorl)} \\
&c.40 \text{ m of yarn/h (8 g whorl)} \\
&c.35 \text{ m of yarn/h (4 g whorl)}
\end{align*}
\end{equation}

This denotes that if 2 km of thread is needed for the weaving of a piece of textile, it would take:

\begin{equation}
\begin{align*}
&40 \text{ h to spin 2 km of yarn (18 g whorl)} \\
&50 \text{ h to spin 2 km of yarn (8 g whorl)} \\
&57 \text{ h to spin 2 km of yarn (4 g whorl)}
\end{align*}
\end{equation}

Contrary to what one might imagine, 2 km of thread is by no means sufficient for the production of a garment, but enough for 1 square m of cloth with a thread count of 10 threads/cm\textsuperscript{2}.

The thread length/100 g of prepared wool was measured and as can be seen in Figure 2.4 the tests clearly demonstrated that the outcome of metre yarn per 100 g wool is larger when using a light spindle. It should also be noted that the impact of the tools is greater than that of the individual spinners. The difference in yarn length can be explained by the fact that the lighter the spindle

textile process of the Iron Age. In the Bronze Age, it is surmised that combs were in use, and finds from the Caspian Sea area (Shishlina et al. 2000) suggest that combs were made of wood.

\textsuperscript{16} It is known from Bronze Age written sources that wool was occasionally washed before spinning (Waetzoldt 1972, 109–119). The washing was conducive to the spinning. In total, 254 g wool was washed in 40–60 centigrade hot water in three stages for about 6 minutes. The wool lost 17 g in weight in this process.

\textsuperscript{17} Andersson et al. 2008; Olofsson et al. forthcoming.

\textsuperscript{18} Andersson et al. 2008; Mårtensson et al. 2006a; Olofsson et al. forthcoming.
whorl, the less fibre is used per metre – the lighter the spindle, the thinner the thread; the heavier the spindle whorl, the thicker the thread. The difference in thin and thick yarn can be expressed in terms of the diameter of the thread. A thin yarn has a small thread diameter, while a thicker yarn has a larger thread diameter; in general, a yarn with a larger thread diameter contains more fibres than a yarn with a smaller diameter.¹⁹

Even a small difference in thread diameter, sometimes not even visible to the eye, will affect the final product, the fabric (Fig. 2.5). However, it is important to note that also the quality of the fibres affect the result: if a coarser fibre were used, a coarser thread would result.

¹⁹ Andersson et al. 2008.
The results of the spinning tests help us to interpret the type of yarn that may have been spun on a certain site on the basis of the finds of spindle whorls from an archaeological excavation. For example, in Tell Mardikh – Ebna, Syria, the graph demonstrates a varied production of different types of thread with a focus on thinner threads (Fig. 2.6).

3. Looms, loom weights and weaving

The most common archaeological evidence for weaving in the Eastern Mediterranean is the presence of loom weights, which indicates the use of the warp-weighted loom (Fig. 2.7). In addition to the warp-weighted loom, other forms of looms were also used in the Mediterranean area during the Bronze Age; principally, the vertical two-beam loom and the horizontal ground loom. These two loom types are made of perishable material and do not require loom weights. The additional use of alternative types of loom cannot be excluded.20

A fabric is the result of weaving two thread systems, which cross each other at right angles. One of the systems, the warp, runs parallel to the side of the loom and is kept stretched during weaving. On a warp-weighted loom, the vertically hanging warp threads are kept taut by the weight of the attached loom weights. The other system, the weft, runs alternately over and under the warp threads (Fig. 2.8).21

A loom can operate in a number of ways, depending on the type of weaving technique used. Tabby is considered to be the most common technique used in the Eastern Mediterranean during the Bronze Age. However, finds of Bronze Age textiles are extremely rare in the Mediterranean region generally, and this conclusion is based on only a handful of preserved textile fragments, which indicates that the existence of other weaving techniques therefore cannot be discounted.22

In a tabby weave, the weft runs under one warp thread, over one warp thread, under one, over one, and so on (Fig. 2.8). Another technique is twill weaving (Fig. 2.9). This entails the use of more than two layers of warp threads, in order to create different sheds, one behind the other. There are many variations of twill; for example, in a 2/2 twill the weft runs over two warp threads, under two warp threads, over two, under two, and so on. In this

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20 See also Breniquet this volume.
22 Barber 1991; Spantidaki & Moulherat forthcoming; Andersson Strand & Nosch forthcoming.
technique, there are four layers of warp threads (as opposed to the two layers/sheds needed for a tabby weave). An alternative twill technique is 2/1 twill, in which the weft thread passes over two warp threads and under one, over two and under one, and so on (Figs. 2.9 and 2.10).

A fabric can be balanced with an equal number of weft and warp threads per square centimetre (cm), or the number of warp and weft threads may differ. The weave can be open, with a few threads per cm, or dense, with the threads packed closely together (Fig. 2.5). Different types of yarn may also be used in the warp and in the weft respectively. The thread count refers to the number

Figure 2.9. A 2/2 twill weave woven on a warp-weighted loom with four rows of loom weights. The fabric has 15 warp threads and 15 weft threads per cm. 15 warp threads are attached to each loom weight. (i) The warp-weighted loom with the setup, (ii) the four rows of loom weights. Please note that the warp threads are fastened to a loop of yarn that is attached to the loom weight; i.e. the warp threads are not directly attached to the loom weight. By courtesy of Ulla Lund Hansen and the Vorbasse project, photo by Linda Olofsson.

Fig. 2.10. 2/2 (i) and 2/1 twill (ii). After Stærmose Nielsen 1999.
2. The Basics of Textile Tools and Textile Technology

Prior to weaving, the type of fabric to be produced has to be decided and the amount of yarn needed has to be calculated. The choice of weaving technique can be due to several factors, cultural, social, economic but foremost the functional purpose of the fabric, for example, clothing, wall hanging, or sailcloth. Thus, an open tabby weave will not function as a sailcloth but can be used as a veil. A dense and coarse twill fabric can be excellent for an outer garment and will protect the wearer from rain, wind and cold. A finer twill and tabby would be very functional for different types of inner garments, but perhaps also to protect the wearer from sun and heat.

The first step is to warp the warp threads (Fig. 2.11). Depending on the weaving technique, on the length of the fabric and on the number of threads per cm, the number of metres of yarn has to be calculated. For example, if the fabric is one metre wide and 2 metres long and has 20 threads per cm, it requires approximately 4000 m of warp yarn. After warping, the starting

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23 For more information see for example Barber 1991; Breniquet 2008.
border/warp threads is/are tied to the starting border rod, and the loom weights must be tied to the warp threads (Fig. 2.12). In order to be able to change the shed, the next step is to heddle the warp threads to the heddle rods and thereby divide the warp threads in the different layers (Fig. 2.13). When the set up is completed, can one start weaving.

Different types of yarn need different tension when they are used in the warp on a loom. On the warp-weighted loom, the tension is provided by the attached loom weights. To a large extent it is the thread diameter that defines the appropriate warp tension, but the amount of tension required is also affected by how hard the thread is spun, the fibre quality, and the degree of fibre preparation. If too much tension is applied, the thread will break, whereas if the tension is not sufficient, the thread will not be held taut enough which will affect the weaving process, since it will be more difficult and time-consuming to change the shed. In order to be strong enough to be able to support the tension, the warp yarn is generally spun hard; the weft yarn can be more loosely spun.\(^{24}\)

The results from the TTTC weaving experiments clearly demonstrate that: the weight of a loom weight dictates how many threads of a particular type can be fastened to it while the thickness of a loom weight controls how closely threads of a particular diameter will be spaced in the fabric. The tests have confirmed that if the weaver wants to produce an open fabric with thick yarn, (s)he should choose heavy, thick loom weights; if a coarse, dense fabric is desired, (s)he should chose heavy but thin loom weights. On the other hand, if an open fabric with thin threads is required, light, thick loom weights should be chosen. Finally, if a dense fabric with thin yarn and many threads per cm\(^2\) is needed, thin loom weights should be selected.\(^{25}\)

In Arslantepe, Turkey we have studied a total number of 86 loom weights.\(^{26}\)

The loom weights are generally dated to 3800–3350 BC (period VII), 3350–2750 BC (period VIA–VIB1) and 2000–1750 BC (period VA). As can be seen in Figure 2.14, there is a difference in shape and material between the periods.

However, when comparing the loom weights and thickness another result is obtained (Fig. 2.15). No large variation in weight and thickness can be observed between period VII and VIA–VIB1, while the loom weights during period V are lighter and thinner.

\(^{24}\) Mårtensson et al. 2009; Andersson Strand & Nosch forthcoming; Cutler et al. forthcoming.

\(^{25}\) Mårtensson et al. 2009; Andersson Strand & Nosch forthcoming; Cutler et al. forthcoming.

It may be concluded that the variation in the production of different qualities of fabrics is larger during the later period. The change in the type of loom weight, at least between period VII and VIA–VIB1, cannot be explained by a technological change; the answer has to be found elsewhere, perhaps in cultural or economic changes.

The results of the loom weight analyses enable us to interpret the types of fabrics that could have been produced with specific types of loom weights, not only in Arslantepe but at every site, region and period where loom weights have been recovered.27

4. Dyeing28

While plant fibres result in uniformly coloured shades of grey-white, wool comes in a variety of natural colours which was utilized in textile manufacture. Different sheep have various shades of brown and grey and the same sheep can have several natural shades. The different colours can be sorted and spun separately, taking advantage of the shades in the weave. Flax fibres can be bleached by various methods.29

27 Mårtensson et al. 2009; Andersson Strand and Nosch forthcoming.
28 For more information on dyes and dyeing techniques see Barber 1991; Cardon 2007.
Furthermore, according to iconography and written sources, it is clear that some textiles were dyed. 30 The earliest evidence for dyeing comes from late 3rd millennium BC Mesopotamia, but there are indications that dyes were already being used in earlier periods. 31

The way a textile is processed enables the dyer to colour textile material while at the fibre, yarn or cloth stage. In practice, the stage at which dyeing takes place varies mostly according to the textile fibres used and the effects desired. 32 There are different dyeing techniques, for example: 33

- **Direct dyeing**: which involves soaking or boiling certain plants in water, and the fibres are then immersed in the resulting dye bath. The majority of the dyeing molecules, extracted from plants and animals, do not bind strongly with the textile fibres. 34 In order to make them colourfast the extracts can be combined with various metallic salts, the so-called mordant dyeing. 35
- **Vat dyeing**: which is the technique used to dye with indigo and molluscs. As Cardon excellently describes: “In their coloured form, indigo and shellfish purple are insoluble, therefore the various methods used to dye with these pigments can be explained by the necessity to render them soluble and allow them to impregnate the textile fibres. The methods all involve a reduction process in alkaline conditions. The fibres absorb the dyes in their soluble reduced forms that are barely coloured, being a greenish-yellow. When the fibres are taken out of the vat and exposed to oxygen in the air, indigo and purple precipitate again both inside the textile fibres and at the surface of the textile, which gradually take on blue or violet shades respectively.” 36

Furthermore, there is an endless amount of combinations to obtain different nuances of colours. For example, if a grey yarn was dyed in a yellow dye bath, the yarn will become greenish; if one dyes an indigo coloured yarn in a red dye bath, the yarn will be purple.

Numerous plants can have been used, for example, a blue colour could have been obtained from woad (*Isatis tinctoria* L.), a red colour from dyer’s madder (*Rubia tinctorum* L.) and yellow from dyer’s weed (*Reseda luteola* L.) and saffron (*Crocus sativus* L.). 37 However there are very few plants that give a red and blue colour, while for example yellow, brown, and green colours can be obtained from several plants.

The archaeological evidence for dyeing is scarce but it is nevertheless important to study:

- Water installations; when dyeing, large quantities of water are needed and the fibres/yarn/textiles generally also have to be washed before and after dyeing.
- Different tools, for example grinders, pestles and mortars, that could have been used order to prepare the dye material and mordants.
- Raw material debris such as for example, pollen from dye plants and murex shells.

5. Finishing

After the fabric has been taken off the loom, the fabric can be fulled or smoothed. Fulling is done in order to make the textiles denser. If a textile is fulled, it will become more waterproof which
2. The Basics of Textile Tools and Textile Technology

is preferable when producing an outer garment or a woollen sail cloth for example. The fabric is kneaded, stomped and pounded in wet and preferably warm conditions until the surface is matted to the degree desired.\textsuperscript{38} Smoothing can be done in order to give the fabrics, especially linen, a shining and smooth plain surface. A simple plain stone or a stone of glass can be used for this process.

5.1. Sewing
Since there are no preserved costumes or other complete textiles from this region and period, there is little information on sewing and sewing techniques. However, finds of sewing needles demonstrate that, at least, some textiles were sewn and could also have been embroidered. When sewing a fine fabric, it is best to use a thin needle, while it is easier to sew with a larger bone needle in coarser and fulled fabrics.

5.2. Other Textile Techniques\textsuperscript{39}
The knowledge of other textile techniques is scarce, which is partly due to the fact that these techniques do not require any tools at all and/or the tools are made of perishable material. However, from the iconography it can be seen that textile craftspeople have had knowledge of producing different types of bands and different braiding techniques and probably many others that cannot be seen in the archaeological record.\textsuperscript{40}

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In the TTTC programme, we are investigating textile tools from different sites and periods of the Bronze Age, and considering their possible function. Although very few textiles are preserved from this area, but by combining the textile tool data with contexts and function, together with the information provided by the available texts and also iconography, more detailed knowledge of what may have been produced is emerging. The results clearly demonstrate that textile production in the Eastern Mediterranean area during the Bronze Age was very varied, and that a wide range of fabrics, from plain to elaborate, were being manufactured.

Acknowledgments
The Danish National Research Foundation’s Centre for Textile Research, University of Copenhagen. I warmly thank Marie-Louise Nosch, Ulla Mannering, Margarita Gleba, Joanne Cutler and Linda Olofsson for providing constructive criticism and wise viewpoints, for which I am always grateful. I would also like to thank Ulla Lund Hansen and Karen-Hanne Stærmose Nielsen for their support and for kindly letting me use their illustrations. This article is written with the support of the Culture Programme of the European Union in connection with the project DressID: Clothing and Identities in the Roman World.

\textsuperscript{38} Barber 1991, 216.
\textsuperscript{39} For more information see for example Barber 1991; Breniquet 2008.
\textsuperscript{40} Barber 1991.
Bibliography


3. Textile Terminologies and Classifications:
Some methodological and chronological aspects

Sophie Desrosiers

The field of textiles is very diverse and through the examination of iconography and a variety of archaeological artifacts, it is possible to observe that this diversity existed very early. Nevertheless, in the ancient Near East and the Mediterranean area from the 3rd to the 1st millennium BC, most research has focused on loom-weaving with flax and sheep’s wool, leaving aside other materials and techniques. This paper will provide a tool to help interpret textile terms found in ancient documents, through an examination of the technical classifications undertaken within the last century. It will include the broad span of textile aspects and, without attempting to be exhaustive, it will give major examples of early textile archaeological finds. This discussion will extend the definition of the field of textiles while underlining the most significant categories that may have existed and were given specific names in the past. Last but not least, these classifications have been used as a basis to create modern descriptive terminologies, which are accepted by a majority of scholars and might prove to be useful to define the historical terms found in ancient documents.

1. The variety of the field of textiles
When, on the first class of the year, I asked my students to tell me what they consider as belonging to the world of textiles, invariably they look at their garments and often touch the cloth they are made of. Instantly, they consider that textiles consist in a soft material suitable for clothing. Then they extend their observations to interior furnishings with towels, curtains, and carpets, for example; and sometimes to public spaces with textiles used to protect, to bear messages, or to carry decorations. Later on, they recognize also the importance of textiles in technical activities such as transport with sails, carrying nets, and cordage, and many other activities including health care and art (Fig. 3.1). Such an exercise is aimed at showing to students the diversity of aspects, qualities, uses and functions of textiles. At present, this diversity can be epitomized by the juxtaposition of denim with a carrying net (Fig. 3.2).

Long ago at a period when paper and plastic did not exist, one can imagine how useful and varied textiles must have been, as they were needed for clothes, home, and public spaces, for technical uses such as fishing and hunting, animal harnessing, transport, and protection and for
Fig. 3.1. Variety of the field of textiles: a) Embroidered towel; b) Crown of flowers made of textiles for a funerary context (Paris, February 26th 2009; c) Knotted net made of animal hide strips with grass inside used to carry oranges (Oruro market, Bolivia, 1979); d) Cordage used on boats.

Fig. 3.2. a) Denim  b) detail of a looped carrying net.
3. Textile Terminologies and Classifications

art. The fact that the brittleness of some textiles has seldom allowed them to survive must not interfere with our capacity to imagine the diversity not only of the linen and woolen textiles woven on the loom, but also of the other types of textiles executed for various uses, from other materials and with other techniques. Such a variety of textile types and forms has already been incorporated into numerous classifications.

2. Textile classifications

Besides an abundance of works classifying specific items,\(^1\) two general and systematic classifications have been published during the second half of the 20th century. They offer complementary rather than contrary viewpoints.\(^2\) The earliest one, *The Primary Structures of Fabrics* written by Irene Emery has undergone several editions at the Textile Museum of Washington DC since 1966.\(^3\) A discussion of some parts of it and a Spanish translation of many of the terms have been proposed by Ann P. Rowe in 1984 and 2006. In 1973 appeared the *Systematik der Textilen Techniken* elaborated at the *Museum der Kulturen* in Basel (Switzerland) by Annemarie Seiler-Baldinger. This work is now known through a revised and expanded edition published in 1991, and by its English translation issued by the Smithsonian Institution Press in 1994 under the title *Textiles: A Classification of Techniques*.

These two classifications are the result of long-term research conducted in museums by the authors and conceived with different orientations. Emery’s system has been built on the observation of archaeological and ethnographic textiles preserved in the collections of various institutions. It classifies “structures”, a term used by Emery to designate the relationships between elements in finished fabrics.\(^4\) Therefore it is better adapted to the understanding of preserved textiles whose methods of production are unknown and cannot be always reconstructed. Illustrations show enlarged models made with thick generic threads that represent idealized textile structures and tend to separate them from associations with specific fabrics and fabric qualities.\(^5\) The Swiss classification reflects the anthropological background of Seiler-Baldinger and of the “Bühlers’ school” she belonged to. It is based primarily on the classification of techniques, or methods of production, that anthropologists can observe during fieldwork, and secondarily on the interworked elements themselves.\(^6\) These two levels are illustrated by two types of photos – one type showing people at work with their instruments and, another type showing textiles themselves – as well as by numerous drafts of the various structures obtained with each technique.\(^7\) Both Emery and Seiler-Baldinger’s classifications encompass simple techniques – i.e. without complex machinery – and they follow the same principle – from the simplest form to the

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\(^1\) For example: interlaced fabrics (Larsen and Freudenheim 1986); silks (CIETA 1964 and 1973); tapestry (Viallet, 1971); basketry (see classifications cited by Wendrich 1999, 24–56).

\(^2\) A comparison between these two systems has been proposed by Balfet and Desrosiers, 1987.

\(^3\) Emery 1980.

\(^4\) ibid., xi.

\(^5\) ibid., xii–xvi.

\(^6\) Seiler-Baldinger 1994, xv–xvi.

\(^7\) Additional photos matching the chapters of the classification have been published in the catalogue of an exhibition held at the Basel museum in 2000 (*Textil 2000*). One regrets that there are too few illustrations of people at work and that the drafts included in the classification do not show the trajectory of the elements as it is often the case in another well illustrated book dealing with a similar variety of fabrics: Collingwood 1987.
most complicated – but, apart from their classification basis, they differ noticeably in two more aspects: their main internal divisions and their scope.

Part Two of Emery’s classification considers the various ways fibers are organized, dividing “felted fibers” from “structures made of separate interworked elements” (or threads). She orders the later according to the number of elements (and sets of elements) involved (Fig. 3.3). Emery’s Parts One and Three respectively present the variety of the materials used to make them, and some additional functional or decorative structures. Strictly speaking, she does not include specific aspects of basketry, but her terminology can be used for the numerous forms found in common with those used in clothes.8 By contrast, the Basel

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**Part One: Components of Fabric Structures**
- I. Material Content
- II. Structural Make-up

**Part Two: Classification of the Structures of Fabrics**
- I. Felted Fibres
- II. Interworked Elements
  - A. Single Element
  - B. Two Single Elements
  - C. One Set of Elements
  - D. Two or More Sets of Elements

**Part Three: Structures Accessory to Fabrics**
- I. Accessory Stitches
- II. Accessory Fabrics and Fabric Complexes
- III. Accessory Objects

![Fig. 3.3. Main divisions of The Primary Structures of Fabrics by Emery (1980).](image)

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**The Techniques of Element Production**

**The Techniques of Fabric Production**
- Primary Textile Techniques (made by hand or with the aid of very simple implements)
  - Fabric Production with a Single Continuous Element: Production of Mesh Fabrics
  - Fabric Production with Two or More sets of Elements (thread systems)
  - Transitional Forms to Plaiting with Active Systems and Advanced Techniques of Fabric Manufacture
- Advanced Textile Techniques (invariably require equipment)
  - Warp Methods
  - Half-weaving
  - Weaving

**The Technique of Fabric Ornamentation**
- Ornamentation by Additional Elements During Fabric Production
  - Formation of Pile or Tuft Fabrics
  - Beadwork
  - Making of Borders and Fringes
- Ornamentation after Production of the Fabric
  - Ornamentation with Solid Materials
  - Ornamentation with Liquid Materials

**The Techniques of Fabric Processing (joining of fabrics)**

![Fig. 3.4. Main divisions of Textiles. A Classification of Techniques by Seiler-Baldinger (1994).](image)

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8 Emery 1980, 208.
3. Textile Terminologies and Classifications

Between two short presentations of the techniques dealing with element production and fabric processing, are the two main parts presenting fabric production and ornamentation (Fig. 3.4). Among the techniques of fabric production are distinguished “Primary Textile Techniques” made by hand or with the aid of very simple implements, and “Advanced Textile Techniques” which invariably require equipment and include “weaving”. In principle, only fabrics made by the interworking of elements are included. Excluded are those items made directly from fibers such as barkcloth and felt, but it does include matting and basketry which fit perfectly within the discussion of primary techniques using no or very simple implements. As for ornamentation, Seiler-Baldinger creates a division of two groups, defined according to when this is added: whether during or after fabric production. The volume includes long discussions on beadwork and on the making of borders and fringes which are not considered by Emery. On the whole, with the exception of felted textiles, the textile field delimited by the Swiss classification is more extensive.

3. Descriptive terminologies

Considering the question of terminology, both systems put forward descriptive terms applicable to the subject they cover. These terms are intentionally free, as much as possible, from specific contextual associations, in order to escape the confusions often made by the use of terms which had different meanings through time and space. For instance, Emery uses “textile patterned with supplementary wefts” instead of “brocade” which has acquired specific but diverse structural connotations through time. Nevertheless, it is not possible to escape the use of some contextualized terms, for instance the substantive “textile” which is either a generic or a specific term according to the language, and to the environment where it is used.

In the English terminology established by Emery:

“The terms fabric and textile are differentiated on the basis of their literal meanings and derivations: fabric (from the Latin fabricare, to make, to build, to ‘fabricate’) as the generic term for all fibrous constructions; textile (from the Latin texere, to weave) to refer specifically to woven (i.e. interlaced warp-weft) fabrics.”

But in German and French, at least, “Textilien” and “textile” are usually considered as generic terms, while “Gewebe” and “tissu” may be restricted to woven fabrics. As pointed out by the

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9 Seiler-Baldinger 1994, xv–xvi.
10 Emery 1980, 171–172; The CIETA vocabularies (1964; 1973) – and Burnham’s Warp and Weft (1980), to a great extent inspired by it – must be used with care because their terms have been borrowed from the terminology current in the industry by the middle of the 20th century. As some terms have changed meaning through time, mistakes might occur when such changes are not taken into account. For instance, according to Diderot’s Encyclopedia descriptions, many figured silks considered as damask during the 18th century do not fit with the meaning of damask in CIETA vocabulary and Burnham’s book (Desrosiers 1988, 106–107). Therefore, the careless reading of 18th century documents might be misleading.
11 Emery 1980, xvi; Barber accepts the same meaning in her book Prehistoric Textiles, even if she has to confront the presence of sprang and felt among the archaeological artifacts she takes into account (Barber 1991, 122–124; 215–222). Nevertheless, the Webster’s Dictionary (1986) gives a generic meaning to the noun “textile”, and a broader meaning to “fabric” considered as any product of building (see the entries “textile” on p. 2366; “cloth” on p. 428; “fabric” on p. 811).
12 “restricted” because when used in the industrial field, the French “tissu” has a wider meaning. The Petit Robert (1993,
above quotation, this situation depends on the respective position of the available terms in a scale varying from generic to specific. In French for example, on one hand there is no equivalent to “fabric”.13 And on the other hand, “tissu” is in balance with the verb “tisser”, while “textile” whose early meaning refers to “textile fibers” has a more generic connotation because of its standard usage not only in relation with fibers, but also with techniques, industry and art – four domains which refer to a field much larger than weaving.14 Despite Emery’s effort to standardize a scientific terminology, “textile” is also a generic term for many English speaking textile specialists, for example the “Textile Society of America” (TSA) and the “Center for Textile Research” (CTR).15 To match with the terminology used at CTR and the workshop title on “textile terminology”, the present article uses “textile” in its broad sense. And as it will follow the Swiss classification for techniques (see further), it will consider that textiles in a broad sense – or fiberwork – includes both products needing no tension to interwork the elements – i.e. matting and basketry – and those needing some type of tension or a frame to interwork the elements – i.e. cloth or textiles in a narrow sense.16

Coming back to classifications, they will be examined now in two steps in an attempt to underline first the diversity of the material, and second the diversity of the techniques of production.

4. Main categories of materials

The selected use of specific fibers constitute a fundamental issue as they are evidence of the relationship of societies to their environment and because they influence the type of textiles that can subsequently be manufactured with them.17 If, for example, the use of flax and good quality wool have fostered the development of loom-weaving in many places of the ancient Near East and the Mediterranean area, then the presence of other raw materials has likely encouraged other developments. It would be interesting to have a list of the animal and plant species with a textile potential that were available in the regions to know more about other types of textile productions. This is somewhat of a side issue, however, as our primary point of discussion rather will be to define the main categories of material employed in textile constructions, then to give a few examples demonstrating their distinctive uses.

Materials are usually classified according to their origins – animal, plant or mineral. Further they are classified by their location within the source – such as the animal parts – external or internal fibers, or secreted filaments –, plant parts – seed and fruit hairs, leaf, bast, bark and

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2259) gives even a generic meaning to “tissu”. This difficulty comes from the fact that mechanically produced items do not correspond to those considered by the two general classifications.

13 In the English issue of CIETA vocabulary (1964, 17), « Fabric » is translated by « étoffe », a fabric which, according to the Petit Robert (1993, 832), is a surface used for garments and furniture, so emphasizing only its shape and function.

14 In CIETA French vocabulary (1973, 48), « textile » is defined either as « matière propre au tissage » (material for weaving), or as « tissu, ou objet de toute sorte, créé par entrelacement de fils » (woven textile, or object of any kind, created by the interworking of threads).

15 This is the case for Margrethe Hald (1980, 124) for example.

16 About the distinction between matting/basketry and textiles in a narrow sense, see Leroi-Gourhan 1954, 269. For a broader discussion, see Emery 1980, 208, and Rast-Eicher & Dietrich forthcoming.

17 A greater attention has been given to them recently, in particular for early periods: Médard 2006; Beugnier & Crombé 2007; Archéologie 2008.
1. Animal
A. External fibers: wool and hair of sheep, goat, camel, rabbit, llama, alpaca, vicuña, buffalo, ovibos, cow, horse, pig, dog, beaver ... as well as human hair, feathers and so on. Strips of fur, rawhide, partially tanned skin, leather and so on, sometimes guilded.
B. Internal fibers: Sinew, strips of guilded guts.
C. Secreted filaments: caterpillars including the silk from the cocoons of the cultivated silkworm (Bombyx Mori), the wild silk from a number of silk moth caterpillars which cannot be domesticated and from communal larval nests, spider silk, byssus or pinna silk from the beard by which certain marine molluscs (Pinna nobilis and related varieties) attached themselves to the rock or sand floor of the sea.

2. Plant
A. Seed and fruit hairs: cotton, kapok, “vegetable silk” from milkweed floss.
B. Leaf fibers: from the leaves of monocotyledonous plants as sisal, yucca, abaca, pineapple, banana, esparto, agave, phormium, aloe, yucca, from palm-leaf (raffia)
C. Bast fibers: from the stem of dicotyledonous plants as flax (linen), jute, hemp, ramie, apocynum, nettle, and from the inner bark of certain trees and shrubs as lime tree ...
D. Bark and root fibers: some bark as cedar that can be shredded, and fibers found in some root structures (e.g. broom)
E. Miscellaneous: from various plant sources as palm-leaf segments (raffia), nuthusk fibers (coir), stem-fibres from monocotyledonous plants (Spanish or Southern moss), pappus down and bristles, reeds, grasses, etcetera.

3. Mineral
A. Asbestos: from several minerals having a fibrous structure.
B. Worked metals: gold, silver, and other metals are used in the form of wire or flat metal ribbon frequently wound around a core of another material

Fig. 3.5. Main categories of materials as classified by Emery (1980: 4–5).

root fibers, and miscellaneous –, or mineral types – asbestos or worked metals. Emery lists them in this way (Fig. 3.5). Four examples concerning the area and period under examination will be considered now with more details: goat hair and low quality sheep wool, horse hair, wild silk, and gold. On the basis of Sumerian documents and their specific textile terminology, Hartmut Waetzoldt noted that, around 2000 BC in Mesopotamia, goat hair and some 3rd and 5th quality sheep wool were used to make strings, ropes and cords, and the webbing of beds, stools and chairs as shown by terracotta models and some archaeological artifacts (Fig. 3.6). Boat sails were probably also made with goat hair. Concerning sheep wool, it is interesting to note the differentiation between

18 Gordon Cook’s classification (1993, vol. 2, 678–680) is slightly different, in particular regarding metallic threads which are considered as man-made fibers and not natural ones. Their number greatly exceeds the 15 main natural fibers considered by “FAO International Year of Natural Fibres 2009” presented on http://www.naturalfibres2009.org.
19 The case of other fibers as cotton – known in Jordan by the 5th millennium BC and in Pakistan one millennium before –, hemp, nettle, and other plant fibers, as well as byssus or marine silk have been recently examined elsewhere (Betts et al. 1994; Moulherat et al. 2002; Breniquet 2008, 101; for details on the production of marine silk, see Meader et al. 2004). In Neolithic Europe, beside flax, Médard has demonstrated the use of bast from several trees and insisted on the likely use of many other plants in textile productions (Altorfer & Médard 2000, 54–58; Martial & Médard 2007).
various qualities that existed and also, the practice of using the lower quality materials for ordinary utilitarian objects. The same rules are present in the Mari texts investigated by Jean-Marie Durand and this practice has been regularly observed by specialists of archaeological textiles when comparing within one specific textile tradition the qualities of the wool in relation to the qualities of the various types of textiles woven with them.21

More unusual is horsehair. Found in very few Bronze Age and later sites in Northern Europe – for example the hairnet from Skrydstrup, Denmark in the Middle Bronze Age – and more often in Southern Siberia and Xinjiang sites of the second half of the first millennium BC, horsehair is stiff and favors the production of three-dimensional objects (For example, ethnographic collections from Tibet include snow glasses made from horsehair).22 One particular piece – a band woven in broken twill with elaborate ornamental tassels (Fig. 3.7) – discovered with the Cromaghs Hoard in Ireland (9th–8th century BC and later) has been compared by Elisabeth W. Heckett with horse trappings represented on bas-reliefs from Nimrud (c.875–860 BC).23 Whatever the place of production of such a fine object, this comparison provides evidence of the probable early use of horsehair for textile construction in the Near East.

Fig. 3.7. One fragment of a horsehair woven band found with the Cromaghs hoard, Armoy, Ireland (Courtesy of the National Museum of Ireland, Inv. No. IA:1906.13).

Regarding wild silk, several indicators show that Lepidoptera producing filaments were present as early as the Bronze Age in the Aegean area.24 The discovery of what is probably a cocoon of Pachypasa otus (L.) on the island of Thera (Santorin) in the middle of the 2nd millennium BC is one clue. This evidence can be seen in the context of an existing rich iconography of “butterflies” on late Minoan I and Mycenaean seals and wall paintings, with round markings on their wings, that recall those of the moth Saturnia Pyri Den., another silk producing insect present in the area (according to the research of zoologists). The “butterfly” motif appears not only on gems and seals, but also on a gold balance from Mycenae interpreted either “for ritual purposes, perhaps the weighting of the soul of the departed”, for the weighting of gold for currency, or as now possibly

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21 Durand 2009, 15; Waetzold (1972, 43) found a similar situation in Sumerian texts.
22 Heckett 1998, 34–36; Desrosiers 2001, 146 Fig. 3, 203 No. 89; Ronge (n.d.) photo p. 159 right.
3. Textile Terminologies and Classifications

used to weight silk thread (Fig. 3.8). It is also represented on the “ship flotilla” wall painting at Thera. While the literary evidence suggests several terms for luxurious materials, no candidate has proved to refer inevitably to wild silk so far. But its use in the Aegean area prior to classical times remains possible. The recent identification of wild silk from at least two different species in two important Indus sites – Harappa and Chanhu-Daro – proves that by c.2450–2000 BC the use of wild silk for textile construction existed outside of China.

Finally, as shown by Maria Giovanna Biga during the workshop, fine gold strips interworked to make small objects looking like miniature mats have been found in Ebla in a 3rd millennium BC context (Fig. 3.9). They might fit with the term zimidatum – possibly a band in gold thread used as ornamentation for ceremonial garments – mentioned in a text found nearby. These were made well before the earliest interworking of gold in a fabric identified to date as a tapestry woven with gold strip and shellfish purple dyed wool which had been buried with Philip II of Macedonia (372–336 BC) in Vergina. The presence of these gold constructions cause us to pose the interesting question whether the gold lamella were interwoven by a weaver, or whether the textile technique was imitated by a jeweller.

5. Main categories of techniques

From the two general textile classifications presented above, the election of one or the other depends more on the context of the research subject and on the questions posed than on a

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25 ibid., 424.
26 ibid., 425–426, Figs. 7–8.
27 ibid., 426–428; Talon 1986; Breniquet 2008, 100.
29 See Biga this volume; Matthiae 2006, 454–455 and Fig. 8; Ramazotti forthcoming; Pomponio (2008, 101, 107) comments the association of textiles with metallic decorative objects in various texts from Ebla, and Durand (2009, 23) in those from Mari.
30 Flury-Lemberg 1988, 234-237. An earlier piece with metallic thread (gold and silver wrapped around a fiber core) could be the embroidered linen fragment from Koropi (Attica), end of the 5th century BC (Schuette & Müller-Christensen 1963, 25, pl. 2, No. 2 ; Barber 1991, 206)
preliminary decision about the superiority of one system over the other. In the present case dealing with 3rd to 1st millennium BC documentation that is characterized by a scarcity of material remains and the fact that written documents exists that describe materials, crafts and craftsmen, there is no doubt that the Basel classification approach to the diversity of techniques will prove more adaptable to this subject. 31 As will be shown further, however, it does not allow the easy classification of archaeological artifacts which may have been made with multiple techniques. But it provides an interesting approach to help to understand the relationship between extant fiber remains and the tools found with them.

The classification will be presented under a very simplified and slightly enlarged form where I have excluded some examples and the numerous variants which can be found in the original book, but have made some additions. One, as a category in itself, I include the direct transformation of fibers into long elements and flat products (though, as specified above, Seiler-Baldinger considers as « Textilien » only those items made by the interworking of elements and not the elements themselves, nor those made directly from fibers). As another addition, I have extended the definition of the techniques of ornamentation to include dyeing and finishing processes which aim at embellishing textiles. Finally, here and there, I have included some techniques identified in archaeological remains and not listed in the Swiss classification either because they are not practiced any more, or because they had not been identified yet. When it is necessary, each category will be illustrated with one example showing one process (among several potential ones) or else one product resulting from it, and by a schematic drawing of the way elements are interworked.

The direct transformation of fibers can be considered as a preliminary group of primary textile techniques composed of two sub-groups.

The first sub-group encompasses the production of flexible elements such as threads, strings, ropes, and stiffer elements more often used for matting and basketry. Some need almost no processing. Others need specific techniques, the main ones being: reeling of long lengths of threads (Chinese silk), knotting of short elements (horsehair, raffia...), twisting between the hands or on a surface (such as the thigh) for relatively long and stiff fibers (tree and leaf bast...), splicing of flax

31 An inventory of early archaeological textile remains found in the Near East has been published recently by Breniquet 2008, 55–58.
as in ancient Egypt, spinning with a hand spindle for softer fibers as flax, hemp, cotton, wool, wild silk, and so on, as well as plying by twisting several threads together in order to make them stronger (Figs. 3.1d, 3.10).32

Although they cannot be considered as fiberwork in the strict sense of the word, the cutting of strips in flat flexible materials, sometimes twisted (as leaves, leather, skin, woven textiles, gold leaf and many others) and the drawing of metal threads that can be used for textile constructions are added here (Figs. 3.1c, 3.9, 3.10). This long list shows the diversity of techniques used to obtain elementary textiles and the need for no or few specific implements besides hand spindles whose shape may vary from a simple stem to a hook.33 If the presence of spindle whorls in archaeological contexts supports the local practice of hand spinning, their absence cannot be used to prove the contrary – that no elementary textiles were produced – since the various implements potentially used for that, including spindle whorls, may have been made with a perishable material.34

In regards to textile terminology, the making of threads, strings, ropes and other elements can be traced through early written documents of the ancient Near East and the Mediterranean area.35 The second sub-group includes the production of flat fabrics such as beaten barkcloth and papyrus obtained from natural plant forms, and felt and paper resulting from the agglomerating of massed disconnected fibers (Fig. 3.11).36 On the basis of geographical and chronological reasons,37 felting is the only technique directly relevant to the textile terminologies under examination. As explained by Barber,38 it “is the process of matting wool or hair into a stable fabric by a combination of pressure, warmth, and dampness. Heat and moisture cause the tiny scales on the surface of the hairs to stick out; and prolonged kneading when they are in this condition makes them catch on each other until they are inextricably interlocked.”39 Being the only natural fibers

33 For instance see Barber 1991, 41–78; Breniquet 2008, 110–126; and for valuable details Andersson Strand in this volume.
34 Karen Hardy concurs that the discovery of perforated objects among very old remains suggests the construction of elementary textiles as strings at a very early date: 300,000 for a few objects, and 200,000 for beads (Hardy 2008, 272). Fragments of cordage are known from the Upper Paleolithic in the Levant (Ohalo II, Israel, c.17,000 BC) and Europe (Lascaux cave, France, c.15,000 BC) (Nadel et al. 1994; Glory 1959). Imprints of fine complex woven textiles dating to around 27,000 BC were also discovered in Moravia (Pavlov I, Czech Republic) (Adovasio et al. 1996; Hardy 2008, 273).
37 Beaten barkcloth is considered to be limited to tropical and sub-tropical regions, Cyperus papyrus is native to the Upper Nile, and paper was invented in China during the last centuries BC.
39 Fulling, practised on woven textiles and later on knitted ones, is a process very close to felting but it aims at changing the touch (hand) and the appearance of textiles, not at making them. It will be considered among the techniques of textile ornamentation.
with scales, animal hairs are the only ones to felt. In the areas where it is still practiced, felting requires warm water and a mat (to apply the uniform pressure) whose specific function in and of himself is not identifiable would it be found among archaeological remains.  

Felt is usually considered to have been developed by nomads of Eurasia whose life is, to the present day, still highly dependent upon it. In the Altai region c.300 BC, the grave mounds of Pazyryk have preserved an enormous quantity of felt fabrics used for clothing, rugs, tents, horse blankets and saddles, and decorative objects. Towards the west, in Anatolia, large quantities of felt have been found from 700 BC at Gordion – the capital created by the Phrygians recently arrived from the steppes. From the point of view of textile terminology, the words for felted or felt-like goat-hair bed-pads tentatively identified in Sumerian by Steinkeller have been contradicted by Weatzold who showed “that these craftpeople made strings, ropes, different types of plaited straps, mats and similar products”.  

The first group of primary textile techniques distinguished by the Basel classification consists in the production of mesh fabrics “with a single continuous element”.  

Some mesh fabrics are made “with a continuous element of limited length” allowing the maker to introduce the thread into the meshes of the preceding row as in the case of linking, looping, and knotting (Figs. 3.1c, 3.2b, 3.12). These techniques require either no implement, or simple ones – poles, gauges or sticks very difficult to identify within an archaeological context,

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42 Bellinger 1962; Barber (1991, 216–221) judges the presence of felt in 6th millenium BC Çatal Hüyük unlikely as sheep were then “predominantly kempy rather than woolly”. She considers that the presence of felt during the 3rd millenium BC in Beycesultan could be possible... But Lloyd & Mellaart (1962, 45) give a too vague description of “a thick deposit of some hairy substance which resemble partially burnt felt” to consider the Beycesultan mention as an evidence.  
3. Textile Terminologies and Classifications

Nevertheless, looping and knotting have been used very early in various areas of the world as shown by archaeological remains. In the Near East, early evidence comes from Nahal Hemar cave (Israel, mid-7th millenium BC), Jarmo (Iran, 7th millenium BC) and in Europe from Friesack 4 (Germany, 8th millenium BC). Their usually opened structure and their flexibility make them appropriate for carrying and fishing nets, hunting nets, hair nets, and so on. An outstanding example is the net-like headgear from Nahal Hemar (Fig. 3.13) which combines dense knotting alternating with open areas and a wide band produced with the help of another technique.\(^\text{47}\) The interlinked threads of the band does not seem to have been produced with sprang because there is no observable reversal at the center (a key element of sprang: Fig. 3.17a, c). However, it is not clear whether this structure is the result of working with “an element of limited length” (as on Fig. 3.12ab) or whether it comes from another “warp method” close to sprang (as on Fig. 3.17a) but worked with free ends.

Other mesh fabrics are made “with a continuous element of unlimited length” allowing the maker to introduce only loops of thread into the preceding meshes. In this category are two well-

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\(^{45}\) Various types of needles have been illustrated by Hald 1980, 278–279, Figs. 281–283.


\(^{47}\) Schick 1988, 35–36, Fig. 12 and pl. XVII–XVIII.
known techniques: crocheting and knitting made again with no implement, or simple ones – a hook, one or several sticks (Fig. 3.14). The earliest knitted pieces identified so far date from the Abbasid.\textsuperscript{48} Knitting, and also crocheting, appear as late techniques which fall out of the range of ancient textile terminology.

The second group of primary techniques consists of systems for “fabric production with two or more sets of elements (thread systems)” and it is also divided into two sub-groups.\textsuperscript{49}

The first sub-group includes “plaiting with a passive and an active system”: among others, binding where the crossing of two or more passive sets of elements “are fixed with the help of a running active thread, a set of elements or short thread pieces”, twining where “Two or more active elements are twined together in such a way that with every twist they fix one or more elements of the passive system”, or coiling where “The elements of the passive systems, sometimes a bundle of threads, are fixed by an active element (…)” (Fig. 3.15). These techniques require either no implement or a kind of hook or needle used when coiling with a flexible

\textsuperscript{48} Cornu \textit{et al.} 1993, 260–261, No. 159. The piece from Dura-Europos (Syria, mid-3rd century AD) considered by Forbes (1956, 179) as knitted does not seem so from observing the illustration published in Pfister & Bellinger 1945, 54–56: Nos 265–266, pl. I and XXVI. It might be the result of cross-knit looping, a variation of looping (looking like a knitted fabric) which has been observed by Schick among the Nahal Hemar fiber remains (Fig. 3.12d. See Schick 1988, 34, Fig. 9 and pl. XVI). See also Barber 1991, 122.

\textsuperscript{49} Seiler-Baldinger 1994, 26–47.
active thread or in a tight manner. They are usually considered as the speciality of basket weavers because there is no set of elements under tension. Archaeological remains are also known from early sites: for example, Nahal Hemar, Jarmo, Çatal Hüyük, and in Europe Noyen-sur-Seine, Zurich and Hornstaad ... .

The second sub-group includes “plaiting with active systems” in two, three and more directions: right-angled plaiting, diagonal plaiting (as illustrated by the Ebla gold piece on Fig. 3.9), braiding (for instance the camelid braid on Fig. 3.10), oblique intertwining, and ply-splitting (Fig. 3.16). Ply-splitting is composed of plyed elements i.e. threads or cords made of at least two elementary threads twisted together, and the process consists of introducing the threads of one direction through those of the other direction. Although ply-splitting has been identified only quite recently

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Fig. 3.16. Primary Textile Techniques II. Production with two or more sets of elements. Plaiting with active systems in two directions: a) Right-angled plaiting: Palikur man making a sieve, Saint Georges de l’Oyapock, French Guyana, 2003 (Copyright D. Davy); b) Oblique plaiting: Basket making by Luiz da Silva Baniwa, Itacoatiaramirim, São Gabriel da Cachoeira, Amazonas, Brasil, 2006; c) Decorative braid on a woolen tunic from Djoumboulak Koum, Keriya River, Xinjiang, China, 5th to 3rd century BC (After Debaine-Francfort & Idriss 2001, 185; copyright Mission Archéologique franco-chinoise au Xinjiang/X. Renaud/Fondation EDF); d) Oblique intertwining; e) Right-angled ply-splitting; f) Oblique ply-splitting; g) Plaiting in three directions: first step in the making of a carrying basket by Elidio Isidoro Coelho, Espírito Santo, Santa Isabel do Rio Negro, Amazonas, Brasil, 2006; (b and g: photos L. Emperaire, IRD, projet Pacta IRD-CNPq/Unicamp. D to f: after Desrosiers 2001, 148, Figs. 5b, 2–3).
as a process – in 1976 according to Seiler-Baldinger’s bibliography, and is still very frequently used in India for making camel harnesses, it has a long history. Two bands made with this technique have been identified among 5th to 3rd century BC archaeological finds in Xinjiang together with pieces in oblique intertwining. These techniques require either no implement or simple ones: such as a needle or hook, and potentially small bobbins use to wind the threads.

The second main category of “advanced textile techniques” requires the “use of a warp, i.e. a tensioned and fixed set of elements”. Therefore there is a need for one or two posts or a frame to hold the tension of the threads. This category is divided into three groups: “warp methods” without other implements, “half-weaving” when one shed is formed automatically, and “weaving” when at least two separate sheds can be formed by mechanical or automatic means called looms.

“Warp methods” using no implement other than the one giving tension to the threads are divided between those productions with an active warp and those with a passive warp.

In the first case, warps are fixed at one end or at both ends and are manipulated with the hands through warp-twining or sprang techniques. Sprang consists in plaiting with threads stretched between two parallel beams in such a way that work progresses towards both ends until the two areas of interworked threads meet in the middle and are fixed to keep them from unravelling (Fig. 3.17a, b, c). Examples have survived in Europe from the Early Bronze Age and later. They appear much later in the Mediterranean, but certainly from the 5th century AD as frames painted on Greek vases and often considered as “tapestry or embroidery frames” may be mis-identified as they in fact show all the characteristics of a sprang process (Fig. 3.17d).

In the second case, the passive warp is usually fixed by the weft in various ways, producing weft-faced or open-work according to the density of the wefts. Three types are illustrated by Seiler-Baldinger: weft-wrapping used in “soumak” carpets, weft-twining, and weft interlacing – tapestry being an important variation allowing the composition of elaborate designs dependent on the localized use of wefts of various colors (Fig. 3.18).

“Half-weaving” – with one shed formed automatically – was probably a step towards weaving with a loom (Fig. 3.19). It is difficult to deduce from ancient textiles that they were produced this way as there are few details which may prove it. But webbing such as found used for the bed from Baguz (Fig. 3.6) was probably made by using the upper beam of the wooden bedframe to form one shed. Therefore, it can be considered as half-weaving.

Regarding “weaving”, the classification shows a progression according to “the fully automatic shedding achieved by implements specially designed for the purpose”. It separates again weaving with an “active” warp – finger weaving, turning weights weaving and tablet weaving (Fig. 3.20) – from weaving with a “passive” warp – with a rigid heddle and with the aid of individual heddles (where I would distinguish the case with heddle and shed rod from the other with only heddles) (Fig. 3.21). These issues will not be examined in detail here as there is an abundant bibliography on these techniques, and as heddle weaving has been extensively presented by Andersson Strand and Breniquet in this volume.
Fig. 3.17. Advanced Textile Techniques I. Warp methods with an active warp: a) Interlaced sprang in plain weave: three main steps (After d’Harcourt 2008, 80, Fig. 49); b) Mosetene Doña Marí a making a bag interlaced in 2.2 twill on a sprang frame in San José (Covendo), Beni, Bolivia, 2009 (Copyright I. Daillant); c) Mosetene bag in sprang with the loops securing the meeting line positioned at its bottom after folding the sprang fabric (I. Daillant’s collection); d) Greek woman working on a frame showing some specific features of a sprang frame, including the absence of heddles, while showing a work executed at the center area of the warp and the symmetrical effects at its top and bottom. The sticks used to work the sprang are missing (After Roth 1978, Fig. 29b).

With the examples having two or more sets of elements (Figs. 3.15 to 3.21), the limits of the Basel classification become more obvious when applied outside of ethnographic observations. 56 Although in many cases a detail identified under the close observation of an archaeological textile or the co-existence of implements in the same archaeological context might give the clue to help identify the technique used to make it, it is not always possible to distinguish between

56 This limit is perfectly described in Seiler-Baldinger’s book foreword (1994, xv).
techniques that can produce the same end product. It may be possible to differentiate twining and right-angled plaiting as primary techniques (Figs. 3.15b, c, d & 3.16a) from twining and warp and weft interlacing with warp threads under tension, therefore as an advanced technique (Figs. 3.18b, c–3.21), according to the stiffness or flexibility of the material. However, when confronted with small flexible fragments of textiles with warps and wefts interlaced at right angle or twined, it is not always easy to understand which kind of advanced technique has been used: a frame - without shedding device or with only one shed formed automatically – (Figs. 3.18–3.19), or a loom – with mechanical shedding – (Figs. 3.20–3.21). Specific woven borders and weaving mistakes may help to answer this question as well as fine comparisons with better preserved fragments.

57 Seiler-Baldinger (1994, 63) considers tapestry among warp methods even if she recognizes that “in practice this is often achieved by automatic shedding” – i.e. true weaving (Figs. 3.18c, 3.21d, e). The difficulty to identify the kind of advanced technique used to make such textiles appears clearly in Alfaro’s study of the Tell Halula (Syria, 8th millenium BC) small imprints (Alfaro 2002).
Recent finds on Swiss sites tend to shed more light on this complex problem already examined with perspicacity by Marta Hoffmann and Margrethe Hald.\(^{58}\) They show that the presence of loom-weights in an archaeological context proves only that warp-threads were under tension on a frame. It does not mean that true weaving on a loom was practiced unless the position of the weights in lines (each corresponding to a shed) has been preserved.

Techniques of textile ornamentation are examined in an additional chapter. They are grouped according to the time when the decoration is added: during or after fabric production, and the type of material – solid or liquid – used to make it. Embellishing techniques such as dyeing and finishing can be considered among them.

During fabric production, ornamentation may occur with the formation of pile or tufts, and the making of beadwork, borders and fringes.\(^{59}\) The formation of pile or tuft textiles appears historically in association with meshwork, plaiting, or an advanced textile technique. The carpet found in Pazyryk (3rd century BC) is usually given as the earliest evidence of knotted pile technique but a few fragments of plain weave with tufts knotted with symmetrical knots have been discovered in the Neolithic site of Charavines in France as early as the beginning of the 3rd millennium BC,\(^{60}\) thus showing the antiquity of such a technique (Fig. 3.22a, b). Earlier evidence is the pile or tuft fixed in meshwork or weft-twining from various Neolithic sites in Europe.\(^{61}\)

Beadwork is also associated with various textile techniques: mainly meshing, plaiting, and

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weaving (Fig. 3.22c, d). Pharaonic Egypt certainly highly valued beadwork as shown by the various examples found in Tutankhamun’s wardrobe including at least a tunic, an apron, and a kilt. In the Mediterranean area, Philip P. Betancourt demonstrated that Minoan art provides evidence of net-like fabrics which are considered as knotted nets. However, some of them, which clearly show beads intact where the elements meet, were likely produced as beadwork (Fig. 3.22e).

Borders and fringes demonstrate the use of a wide range of techniques both during and after weaving (Fig. 3.22c, d).

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63 Betancourt 2007, at least Figs. 30.2 and 30.3.
Fig. 3.21. Advanced Textile Techniques III. Weaving on a loom with a “passive” warp: a) with a rigid heddle (After Seiler-Baldinger 1994, Fig. 141); b) with heddle and shed rod on a ground loom in Bolivar, Cochabamba, Bolivia, 1983; c) with four heddles on a treadle loom with a resist-dyed (ikat) warp. Yazd, Iran, 2006 (Copyright J. Burkel); d) Tapestry woven on a two heddles horizontal loom, M. Veauvy’s workshop, Crest, Drôme, France, 2007 (Copyright M. Veauvy); e) Tapestry woven on a vertical loom with heddle and shed rod, Don Corsino’s workshop, Villa Ribero, Cochabamba, Bolivia, 1988.
3. Textile Terminologies and Classifications

Fig. 3.22. Techniques of Textile Ornamentation I. During fabric production: a) Mrs Miraym Hashemi Isfahani-Mahdie introducing pile during weaving, Isfahan, Iran, 2004 (After Burkel & Burkel 2007, Fig. 181. Copyright R. Ghilini); b) Plain weave with knotted piles from the Neolithic site of Charavines (France) (After Desrosiers 1989); c) Necklace in beadwork from the Matsiguenga, Kirigueti, Cuzco department, Peru, 1980–90 (F.-M. Casevitz’s collection); d) Similar work from Rio Napo in Ecuador (After Orchard 1975, Fig. 125); e) Minoan figurine of a bull covered with beadwork (?) (After Evans 1930, Fig. 139b).

Fabric production. Thanks to their specificity and diversity, they are important characteristics that enable us to reconstruct the techniques used to produce a textile and to identify some textile traditions (Figs. 3.7, 3.22c, 3.23c).

After fabric production, various techniques may be applied to make motives by quilting, by sewing patches of textiles in layers, or by embroidery with various materials (threads, beads, pieces of textiles, hair, …) (Figs. 3.1a, 3.23a). Or they can be achieved by painting, printing, and
a range of resist dyeing techniques (with certain parts of the fabric protected by folds, stitches, ties, stencils or paste prior to dyeing) (Figs. 3.21c, 3.23b).

Dyeing can be performed on elementary textiles as well as those with interworked elements - and also directly on fibers. The same applies to bleaching aimed at whitening fibers. The finishing of woolen textiles by fulling, napping and shearing, or the glazing of linen cloths, and pleating observed at least on Egyptian tunics should be added also to the list established by Seiler-Baldinger (Fig. 3.24). They were probably all known in the ancient Near East and the Mediterranean area at an early date.

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64 For instance Barber 1991, Fig. 5.2; Rutchowskaia 1998.
65 Among many references, see Waetzold 1972, 151–166; Lackenbacher 1982; Barber 1991, 223–243; Cardon 2003; and Andersson Strand in this volume.
This examination of the Basel classification presents only some fabric categories without entering into their numerous variants because it seemed important to make the logic of the classification understandable – examples of the variants being available in the original book. It has the advantage of showing that a high number of techniques – so-called “primary” – requires no or very simple implements that are difficult to identify in archaeological contexts. Therefore, the lack of textile implements in an excavation does not mean that there was no textile construction nor that the constructions were not elaborate. The knotted headgear from Nahal Hemar (Fig. 3.13), the plaited gold objects from Ebla (Fig. 3.9), and the knotted nets and/or beadworks identified on Minoan art (Fig. 3.22e) are three examples of complex and luxurious textiles made with “primary” techniques that deserve our attention. Even if the word “primary” refers to a basic grade, it is used by the Swiss classification in a value system limited to the tool’s complexity. It does not take into account the elaborate “savoir-faire” often necessary to operate the tools – “savoir-faire” which, in the case of textiles, may call for complicated abstract mathematical concepts as shown.
by the Yagua and Ticuna hammock weavers (as the one illustrated on Fig. 3.12a) investigated by Seiler-Baldinger.66

In order to make techniques more easily understandable, this article has been illustrated as much as possible by craftsmen in action, showing this way that many techniques are still in practice in some areas of the world. Keeping in mind Marta Hoffmann’s outstanding investigation that helped her, in the middle of the 20th century, to find people who knew how to weave on the warp-weighted loom that had already been in use during the Neolithic era, and a more recent work of Ian Thompson and Hero Granger-Taylor on the vertical drawloom presently used at Meybod (Iran) and probably created at the beginning of our era,67 one believes that other techniques described in ancient documents have been preserved as well. This is the case of bed webbing identified by Waetzoldt in Mesopotamia during the 2nd millennium BC and still performed in the Nile valley as Willeke Wendrich has demonstrated.68 More observations of present textile techniques which can find parallels with those described in ancient documents would likely help to understand the complexity of the “savoir-faire” and to solve some other particular questions of ancient terminology.

Acknowledgements
I must thank my colleagues, friends and photographs, for their help when collecting the images or for correcting my English expression: Anath Ariel de Vidas, Tatiana Benfoughal, Maria Giovanna Biga, Jean Burkel, France-Marie Casevitz, Catherine Choron-Baix, Isabelle Daillant, Damien Davy, Corinne Debaine-Francfort, Laure Emperaire, Jacques Evrard, Marie-Hélène Guelton, Aline Hemand, Patricia de Largentay, Elena Phipps, Maria-Anne Privat-Savigny, Marco Ramazotti, Antoinette Rast-Eicher, Annemarie Seiler-Baldinger, Frieda Sorber, Richard Varrault, Mireille Veauvy, Elayne Zorn.

Experiments and reconstructions appearing in the figures are from the author. When not specified, photos are also from the author, with copyright reserved.

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3. Textile Terminologies and Classifications


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3. Textile Terminologies and Classifications


4. Weaving in Mesopotamia during the Bronze Age: Archaeology, techniques, iconography

Catherine Breniquet

Mesopotamia is the Greek name for the valley of the Tigris and the Euphrates. Its history begins with the first Neolithic villages and ends with Alexander the Great’s conquest. Mesopotamia is known to be the “the land of wool” as Hammurabi said in the 18th century BC. Texts also refer to industrial textile workshops from the 3rd millennium BC, where women and their children work. Most of these workshops transformed wool into clothes and were part of the economic organization of the Sumerian country.

Questioning cuneiform sources about textile terminology is the aim of the symposium and of the present volume. Before that, it can be useful to have an idea of what we can do with the documentation on weaving techniques. Different sources exist but appear to be in conflict. The aim of this contribution is to merge these sources to renew the approach. We shall deal mainly with the early Bronze Age, the first half of the 3rd millennium, but we shall not limit our remarks to these periods or areas, as evidence is scarce. Five elements will be discussed: sources, raw materials, techniques, methodological approach, and iconography which is the newest area of attention. New perspectives will appear at the end of this contribution.

1. Sources

Five sources can be used to study weaving:

- **Pieces of preserved fabrics or imprints** on materials (clay, bitumen, etc.).¹ Most of the time, the first have not survived: the most famous example is the discovery of a *kaunakes* among other fabrics in several tombs at the Royal Cemetery of Ur.² None was photographed, nor drawn, or sent to a museum. They probably disappeared because of the effects of light and air. This is the most famous example but often pieces of fabric are not fully studied, and sometimes never even collected at all. In the opposite case, when they are collected or when imprints are studied, scholars have to deal with such small pieces on which it is often hard to observe any technical aspect, and

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¹ Stordeur 1989.
² Barber 1991, 164.
especially the structural ones. The way that the warp and the weft are interlaced is the main (and often the only) observation made.3

– The natural sciences have helped in recognizing plants and animals, from recent excavations at least, and specific studies with electronic microscopes have led to the identification of fibres. This doesn’t mean that it is an easy task: for example, textiles from Çatal Höyük were first identified as wool, then flax, then both!4

– Cuneiform texts document production because they are economic records.5 From the Uruk period, pictograms refer to clothes6 involved in local exchanges (for the ration system), and devoted to external exchanges. During protodynastic times, the same phenomenon is observed,7 but techniques are not clearly described and fabrics received various and often unclear names.

– Archaeology brings technical information to the table with its study of spindle whorls, weights, parts of structures, etc. Each of them needs to be analysed and interpreted8 but the task is not easy because they are often out of context or badly damaged by erosion: in Mersin, it is hard to know if the loom was found in context during the excavations or if we were dealing with stored weights. The loom found at Troy, which is perpendicular to the wall, could be a double warp weighted loom or a single four heddle rods’ loom! The Nahal Mishmar loom is said to be a horizontal loom but its size and the shapes of the small beams suggests that it – probably – belongs to a backstrap loom. The same uncertainty exists around the most ancient El Kowm loom.9 Buildings like the Northern Palace of Tell Asmar were interpreted as industrial textile workshops but this hypothesis is only supported by the discovery of economic tablets in the upper layers of the tell. They do not seem to have any direct connexion with the building itself.10 Nothing inside the building can be seen as a weaving device or structure.11 As already pointed out by architectural analysis, this building (which is part of a series including other large “palaces”) is more likely a residential unit rather than an economic one.12 Workshops did exist but should be thought of as small structures,13 as seen in the Egyptian models, and not as the large factories developed since the Industrial Revolution. These workshops, with few people working inside, were probably dispatched in the cities.

– Iconography at least, shows the fabrics (when worn) on sculptures or reliefs, and exceptionally the loom itself is portrayed (for example on the famous bulla from Susa: Fig. 4.7a). In both cases, rules of composition and iconography alter the final reading of these representations and are usually passed over in silence.

3 Breniquet 2008, 55–58.
4 Burnham 1965; Helbaek 1963; Ryder 1965.
5 Waetzoldt 1972.
8 Breniquet 2008, 135–194; See also Frangipane, Andersson Strand, Laurito et al., 2009.
9 Stordeur 2000, 50; Breniquet 2008, 142.
12 Henrickson 180.
Separately, each of these sources brings considerable information and precious details. But this complex set of data is hard to gather and synthesise.\(^\text{14}\) This often leads to conclusions that need to be discussed. Among the most popular misinterpretations, we can mention those suggesting that:

- the first fibre to be used is wool,
- flax is used for oil and medicine,
- felt could be the first wool fabric and basketry, the first plant one.
- Mesopotamia knows only the horizontal loom and fabrics are thought to be poor in quality.

It is easy to refute all these conclusions one by one. All of them are much too old and were produced by using inadequate models, especially the evolutionary or economic ones.

2. Raw materials

Plant fibres were the first materials to be used for weaving and this continued everywhere in the ancient world until the end of the Palaeolithic era.\(^\text{15}\) Not all of them are identified,\(^\text{16}\) but flax is among the first cultivated plants in the Near East.\(^\text{17}\) This is attested to have been around 9000 BC at Jerf el’Ahmar.\(^\text{18}\) As seen above, the common explanation is that the plant was used for oil or medicine, as ensuing historical texts suggest.\(^\text{19}\) But nothing in archaeobotany authorizes such a conclusion. The first known fabrics from Nahal Hemar or Eridu are made of flax,\(^\text{20}\) and flax is most probably a textile (or multipurpose) plant, cultivated in gardens as it needs plenty of water. The use of flax as textile plant is not limited to the early periods in the ancient Near East.\(^\text{21}\) It doesn’t disappear when wool is introduced. A kind of self-implemented balance between the two fibres, emerged based on their prestige and degree of generalization. For example, the use of flax is restricted to ritual fabrics in the 3rd millennium (curtains for sanctuaries, clothes for priests or divine bodies, etc.), and wool could be used for daily life objects.\(^\text{22}\) The most famous example is the linen bed-cover woven for the Sacred Marriage in the production of which Inanna herself is involved. Other plant fibres suitable for weaving are not documented in near eastern prehistoric archaeology.

The use of wool probably first appeared during the Neolithic Age, but direct evidence is scarce as wool does not resist well. The evidence comes from sheep butchery curves and their comparison with theoretical models from actual breeding practices showing the age for slaughtering.\(^\text{23}\) However, data are often biased by the small size of the samples and the use of different models. Alive, the animal offers the opportunity to be used for “secondary products”, milk and wool, rather than just meat. The secondary products revolution was supposed to have appeared in the

\(^{14}\) See for example, Ellis 1972.
\(^{15}\) Hardy 2008.
\(^{16}\) Good 2007, 182–183.
\(^{17}\) Helbaek 1959; Van Zeist & Bakker-Heeres 1974.
\(^{18}\) D. Stordeur, pers. com.
\(^{19}\) Van Zeist 1985. See also Reculeau, 2009, for an up-to-date conclusion on the controversy flax/sesame.
\(^{21}\) Waetzoldt 1980.
\(^{22}\) Waetzoldt 2007.
\(^{23}\) Helmer 1992.
4th millennium as A. Sherratt suggested, but it seems that it appeared earlier. Some special selections of sheep are recorded during the Halafian period, but wool was probably collected as soon as domestication occurred. Human selection of animals affects their morphology and biology as well that of wool in the case of sheep. On the basis of iconography and for a long time, zoologists thought that three or five kinds of sheep existed in Sumer, as could be determined by the shape of their horns, their decreasing size, the presence of a fleece, the existence of a fat tail. At least till the middle of the 3rd millennium BC, domesticated flocks present a wide range of characteristics. But we need to consider that the Neolithic “wool” was very different from our wool.

The ancestor to the sheep, the wild sheep, the still extant *Ovis orientalis*, has no wool. Its coat is made of two kinds of hairs: long coarse hairs and a fine under wool which are both shed annually in spring. As domesticated animals they are plucked or combed for their wool, and sheep tend to produce “naturally” more and more under wool, which becomes also finer. The model for the appearance of wool in ancient times has been suggested by M. Ryder based on zoology, iconography and comparisons with the Soay sheep which is supposed to be a primitive race. Wool is supposed to have appeared in five evolutionary stages (wild coat, hairy medium, generalised medium wool, woolly type, fine wool). Even if this model needs improvement, it is generally accepted by specialists. One of the major problems in Antiquity is the date for the genetic mutation which brought about the continuous growth of the fleece. Indeed, the archaeological remains, the iconography or the written mentions are often ambiguous. For example the so-called sheep from Tepe Sarab, which is supposed to be an intermediate example from coat to wool with “staples” is probably nothing else than a depiction of a goat! Wool with continuous growth appears later, not before the 2nd millennium or the end of the Bronze Age. Also, the colour of the coat changes with domestication. Originally brown for the wild sheep, a domesticated sheep’s coat is either black, grey, spotted or white which is the rarest. It is also the most desirable colour, restricted to royal purposes. Also, the variety of sheep breeds, with or without fleece, needs to be investigated for the later periods.

It is hard to evaluate the impact of the environment. Sheep are among the domesticated animals of early Mesopotamia and were part of a diversified subsistence system. But at least since the middle of the Ubaid period, c. 5000 BC, animals were probably a part of the political economy of the country, suggesting that wool was not commonly distributed but acted instead as a form of primitive money. More than thirty variations of the sheep ideogram are known, mixing the properties of the raw material and its uses. The geographic origin of wool, the kind of sheep (fat tailed sheep, mountain, from Drehem, etc.), the animal feed are always mixed up.

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24 Sherratt 1982.
25 Davis 1993.
26 Steinkeller 1995, 55.
27 Ryder 2007, 16.
28 Ryder 2007, 46; Breniquet 2008, 93–94 with other references.
29 Breniquet 2008, 94, with references.
30 Breniquet 2008, 96, with references.
31 Davis 1993.
33 Waetzoldt 1972, 5; Steinkeller 1995, 57.
From my point of view, very little can be known from direct ethnoarchaeological surveys, as actual herders and herding practices are quite different from those of Mesopotamia when the country was at the stage of a primary state formation. Environmental adaptation is a parameter among others, although it is true that herding practices became more and more nomadic with the growth of urban space, especially from the end of the Uruk period. It is true also that fat-tailed sheep seem to have appeared at that time when breeding was colonizing the arid edges of the plain. But the growth of textile factories during the protodynastic period is not only a matter of evolution and complexity. It needs to be understood within a specific and complex historical frame (rather than an economic or competitive one): the impoverishment of people who had lost access to agricultural land and had to work, as well as wars between cities and states, which brought prisoners of war who were employed for manual tasks.

Other fibres are not present in the 3rd millennium. Cotton may have appeared as a wild product around 4000 BC at Dhuweila, and as a cultivated plant around 700 BC in the royal park of Sennacherib in Niniveh. We have no clear evidence of silk in Mesopotamia until the end of the 1st millennium BC. Goat hairs need further investigations.

3. Techniques

For a comprehensive study of ancient weaving techniques, one must have a look at the properties of raw materials and the evidence that fabrics furnish. But this study is difficult as the origins and uses of techniques are unclear as seen above.

It is no longer possible to assume that felt is the primary technique for making wool fabrics, and that basketry is the primary one for flax. Recent discoveries from salvage excavations in the Levant show that weaving and basketry developed alongside each other, around 9000 BC. These two techniques are closely connected because parts of their chaîne opératoire look alike, but are not linked to an evolutionary process. Basketry doesn’t need a loom and doesn’t need warping. There is no evidence of early felt, except stylistic comparisons done with the Çatal Höyük paintings and actual felt carpets, and maybe some ambiguous terms found in cuneiform texts. These cannot be considered as the proofs we expect/need. Felt is a technique which has nothing to do with weaving. Fibres are compressed together with hot water, yarn is not required and felt probably required large quantities and a special quality of wool. The first true example is the carpet from the Pazyryk’s tombs, c. 3rd century BC although it could have existed earlier (Beycesultan).

Flax and wool do not share the same properties. Flax is often pulled out in order to keep the maximum length but the plant is never used directly. It needs to stay in water in order to dissolve the pectose, which keeps the fibres together. Very little is known in the Near East on the original making of the yarn. In Egypt, some fabrics show that the yarns are not spun as is...
4. Weaving in Mesopotamia during the Bronze Age

The case with wool, but joined together with a kind of splice.\textsuperscript{43} This technique could have been the original way of obtaining a thread.

Wool is covered by microscopic scales which allow the fibres to hang together. It means probably that the historical use of wool is probably at the origins of new technical practices such as:

- the spinning with spindle, and the spindle whorl and distaff with which it is possible to stretch and to twist the fibres in a single gesture,
- the use of the warp weighted loom on which people weave against gravity,
- the use of an original loom which is probably not the horizontal loom.

All of them appear between the Neolithic and the Uruk period but it is hard to assign a precise date to their implementation. They are present when we have direct evidence, but not necessarily at the moment of their introduction.

Archaeological remains offer a wide range of early techniques. The first fabrics are twined, which is obtained by hand or with a rudimentary loom.\textsuperscript{44} On the basis of the El Kowm structure, we made the hypothesis that one of the earliest looms is the backstrap loom. But other looms exist. The Andean loom is made of 4 wooden sticks, one on each side, and it has the particularity of having no upper and no lower beam as the weaver turns it upside down to finish the weaving.\textsuperscript{45} From my point of view, the Sumerian pictogram for a loom, the so-called wooden frame,\textsuperscript{46} could be a picture of this loom. Lexical terms for technological details only appear later in history.\textsuperscript{47}

From 7000 BC, imprints on clay from Jarmo\textsuperscript{48} suggest that tabby fabrics are obtained on a loom with a “mechanized” shed as they are orthogonal. Twined fabrics had not disappeared by that time for they remain in use until the Iron Age, probably for specific uses. Around 3000 BC, twill may already exist as suggested by the discoveries from Alişar.\textsuperscript{49} Other archaeological artefacts can be interpreted as tablets for weaving and from 5000 BC,\textsuperscript{50} with the great number of weights, unfortunately out of context, suggesting the possible existence of the warp weighted loom (Fig. 4.1). So it is easy to conclude that weaving is a much more complex activity than previously assumed, and involves many techniques.

4. Methodological approach

In order to investigate the matter, we have included the iconographic sources. According to the traditional interpretation, Mesopotamian iconography does not depict handicraft activities,
but focuses on religious scenes.\textsuperscript{51} Probably, iconographic studies used or are influenced by the old city-temple model, and this element is not linked with the sources we use, but with historiography. The images, especially the most numerous ones hang on cylinder-seals, are never seen as “documents”. We will not deal with the matter in this paper which affects the conception of history of arts and the way we think the ancient world, as it needs further developments. However, they can be used to complete historical information in an illustrative perspective.

Cylinder-seals appear in the Uruk period and have to be seen as administrative devices. Their iconography shows geometric pictures or realistic ones. But during the 3rd millennium, two engraving processes coexist, one with a point for making detailed pictures, the second with a drill which gives more schematic designs. As the cylinder-seals are small in size, this last process makes the shapes hard to recognize. The result is that we interpret the pictures immediately as we do with our modern photographs without trying to understand how the Sumerian engravers perceived their own world.

The first step of this research was to rediscover technical gestures and attitudes (in front of the loom, standing, sitting, squatting, gestures of the arms, etc.) and tools. Ethnography helps as it shows what may appear as the most ancient techniques. Ancient iconography from other eras such as Greece, Etruscan Italy, and Egypt depicts also spinning or weaving in various ways. The clearest and the most helpful objects for us are without contest the Greek lecythus attributed to the Amasis painter and kept in the Metropolitan Museum of New York, and a bronze pendant from pre-Roman Bologna\textsuperscript{52} (Fig. 4.2). From their study, we tried to reconstruct the entire chaîne opératoire from the gathering of fibres to the finished fabrics. Surprisingly, all the steps can be documented by iconographic analysis of archaic cylinder-seals,\textsuperscript{53} representing between 11 and 14% of the entire corpus.\textsuperscript{54}

\textbf{Fig. 4.2. Main comparisons with antique objects: a) Greek lecythus attributed to the Amasis Painter, Metropolitan Museum of New York (schematic drawing), Fletcher Fund, 1931 (31.11.10), 6th century BC. H = 5 cm (A: stretching, B: folding, C: spinning and stretching, D: weaving, E: weighing); b) Tintinnabulo, Tomba degli Ori, Bologna, 7th century BC. H = 11.5 cm (A: spinning and stretching, B: weaving and warping).}

\textsuperscript{51} Ellis 1976, 77.
\textsuperscript{52} Breniquet & Mintsì 2000.
\textsuperscript{53} Most of the following examples are from Amiet 1981 and Rova 1993.
\textsuperscript{54} Breniquet 2008, 322.
5. The chaîne opératoire
At least eight main stages can be easily recognized.\textsuperscript{55} We could expect the chaîne opératoire to begin with the collection of the fibres. But, hard to reproduce by engraving, this stage is not shown or is difficult to identify. However, the working of the wool is the most illustrated process on cylinder-seals and this fact testifies to the economic impact of this raw material.

Actually, the traditional way to work wool which will be hung on the distaff is to comb or card the material. During Antiquity, people used to make a kind of ribbon by stretching it by hand.\textsuperscript{56} This also helps to finish the cleaning of the raw wool (Fig. 4.3a). This ribbon will then be rolled on a short distaff which is quite different from those we know. The distaff is held by hand. Wool to be stretched is stored usually in a basket (the Greek kalathos) or in a small pot into which distaffs waiting for use are stuck (for example, Fig. 4.2a: A and Fig. 4.2b: A). People work standing or sitting, probably inside the house or very close to it. The traditional interpretation

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig43.png}
\caption{Stretching the wool: a) Stretching the wool by hand (after Crokett 1979, 129); b) Drawing of a cylinder seal from Brak (after Matthews 1997, n° 511); c) Drawing of a cylinder seal from Kish (after Amiet 1981, n° 1359); d) Drawing of a cylinder seal, unknown provenance (after Amiet 1981, n° 1455); e) Akkadian banquet scene on a cylinder seal (after Amiet 1981, n° 1313); f) Old Babylonian terra cotta from Haradum showing a banquet scene H = c.10 cm. Courtesy of Mme C. Kepinski, CNRS.}
\end{figure}

\textsuperscript{55} For a complete overview, see Breniquet 2008, 269–324.
\textsuperscript{56} Crockett 1979, 129.
of such depictions is the banquet, suggesting that we are dealing with straws used for drinking beer. During the protodynastic period, most of the so-called banquet scenes depict in fact this handicraft activity as other ancient images did (Fig. 4.3b, 3c and 3d where the raw material is depicted as a bristling stalk). However, it is true that few details remain unclear. Banquet scenes become numerous from the Akkadian period (Fig. 4.3e) to Old Babylonian times (Fig. 4.3f), and are composed on the same iconographic basis.

After stretching the wool, workers make yarns. A lot of handy techniques exist all over the world as probably too in archaic Mesopotamia. Archaeology suggests that people used a spindle with a spindle whorl (the first records appear during the Neolithic time with the use of baked clay). Lines of pig-tailed ladies in the Uruk iconography show probably this activity (Fig. 4.4a). They are holding a stick with two rounded ends, one for the wool on the distaff, the other for the spindle whorl at the bottom of its spindle. They are standing up, shown as walking. Sitting women spin also with a belt shaped whorl (Fig. 4.4b).

Yarns were sometimes (or always?) twisted again or plied. The gesture was difficult to perform as the worker was standing up, holding two spindles together while the yarn passed over the shoulder as depicted in Egyptian iconography (Fig. 4.4c).57

The making of skeins is only shown on a standard from Mari. Women work two by two, one offering her arms to the other who unwinds the spun yarn (Fig. 4.4d).

It is hard to know at which step of the chaîne opératoire wool was weighed. One can assumed at the beginning of the process, when the wool was collected from the animal, but iconography suggests small quantities (balls of yarn?). Scales are easy to recognize with their beam held by hand (Fig. 4.5a). Three workers are usually involved in the process, one holding the balance, the second weighing, the third recording (Fig. 4.5b, compare with Fig. 4.2a: E).

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57 Broudy 1979, 40, fig. 3–2.
Coloured fabrics (especially yellow and green ones) are recorded since the Uruk times.\textsuperscript{58} Dyeing was probably made with plant rather than with animal products. We don’t know at which stage dyeing was performed: on the raw material, the yarns or the fabrics.

Warping depends on the loom. Two sticks sunk into the soil or on the wall, as well as the beams themselves, are suitable for the horizontal and two beams looms (Fig. 4.6a). With the warp weighted loom itself still in use in Norway,\textsuperscript{59} a special device called a warping loom is used (Fig. 4.6b). A narrow band (Fig. 4.6b: A) is woven between two poles (Fig. 4.6b: B). The weft of this band is stretched (Fig. 4.6b: C) to a third stick located behind it (Fig. 4.6b: B). The strings of the weft are joined together in small balls (Fig. 4.6b: D). The narrow band will then be sewn on the single upper beam of the loom, the balls dropped down and the original weft will be automatically changed into warp for the future fabric. The warping of the warp-weighted loom is without doubt depicted on this print from Khafadjeh where band, balls, weft and sticks are clearly drawn in a kind of perspective (Fig. 4.6c).

Thus, at least two kinds of loom did exist in Mesopotamia during the Bronze Age, the horizontal loom where people work squatting (Fig. 4.7a), and the vertical warp-weighted one where workers

\textsuperscript{58} Englund 1998, 98.

\textsuperscript{59} Hoffman 1974.
Catherine Breniquet

stand up, in front of the shed beam (Fig. 4.7b). This loom was probably not placed over the wall as the Scandinavian one but vertical, with two vertical wooden feet or braces. This kind of loom is made for long rectangular pieces of cloth and probably had a winding beam (Fig. 4.7c). These two pieces of mosaic from Uruk (which are always mixed up with some of the so-called Inanna’s poles) are probably a depiction of it with a fabric displayed on it. The fabric has a tablet woven border as fishbone pattern suggests. The existence of the warp weighted loom is also proved by this small pompom made with strings from the warp and weft in the upper corners of the fabric depicted on the attendant’s skirt on the Uruk vase.

Moreover, a third kind of loom could be the two beams vertical loom where people work sitting (Fig. 4.7d). Due to the size of the cylinder seals, all the depictions are schematic but realistic too. The looms always appear as hatched squares, door-like devices. With time, some of the structures may change. They appear first parallel to the wall and then probably perpendicular to it, connected to it in its upper part. They could be “double”, as in the case of the Troy structure, perhaps with two opposite groups of weavers standing opposite each other (Fig. 4.7e). The two vertical looms were probably not common, but were factory instruments.

When finished, the fabrics can be used as garments. Their length increased with time. They were used without being tailored, as draped skirts or dress in the Uruk times for the “Priest King”, in Akkadian sculpture for Maništušu for example, in the neo-Sumerian period for Gudea’s dress. We must clarify here a difficult point. Clothes became more and more common with time but were probably part of a communication system which distinguished the elites from the others.

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61 Breniquet 2008, 162–163.
62 Barber 1991, 93, fig. 3.14.
4. Weaving in Mesopotamia during the Bronze Age

as suggested in the depictions on the Uruk vase. But other uses of cloth exist. Fabrics could be stored for a later use and then had to be folded. We are sure that we can recognize this operation in the so-called ziggurat’s building scenes (Fig. 4.8a and 8b, compare with Fig. 4.2a: B).

If we accept this reading of the proto-dynastic iconography, we can go further in our interpretation. It is possible to understand who weaves, and for what:

- Women first who take care of the domestic production (Fig. 4.9a).
- Men appear during the 3rd millennium as weavers, professional craftsmen, connected with palace economy (Fig. 4.9b).
- Among both of these two categories, some may be arua who are the only workers to be fully specialized (Fig. 4.9c). The Arua institution is difficult to understand and involves many aspects such as labour, religion, ethnic origins of the female workers, etc.
- Others could be prisoners of war but are difficult to identify.
- Undifferentiated workers which give a general and generic significance to the depictions (Fig. 4.9d).
- Gods, who are easy to identify with their horned head dress (Fig. 4.9e).

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Fig. 4.8. Folding the fabrics; a) Drawing of a cylinder seal from Khafadje (after Amiet 1981, n° 1454); b) Drawing of a cylinder seal from Kish (after Amiet 1981, n° 1444).

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Fig. 4.9. Who weaves? a) Women in domestic context? cylinder seal from Choga Mish (after Rova 1993, n° 319); b) Men in workshop? cylinder seal from Tell Asmar (after Amiet 1981, n° 1452); c) The Arua? standard from Mari (drawing from Barber 1991, 57, fig. 2.18); d) Undifferentiated people. Cylinder seal from Susa (after Rova 1993, n° 364); e) The gods. Cylinder seal from Khafadje (after Amiet 1981, n° 1454).

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63 Gelb 1965.
64 Gelb 1972.
We can conclude that the entire society is involved in weaving. Our iconography is much more realistic than previously assumed. It is possible to use these depictions for their documentary significance. But we can also conclude that these depictions are not those of a hand weaver’s manual. We are here far from historical explanations. What is depicted is not the economic world of textile workshops or domestic units, although wool is the most important raw material. We are clearly within the symbolic world. All these scenes are parts of more complex system-like series, as they appear to be often combined in linear, but not logic, compositions (Fig. 4.10a). The protodynastic iconography probably shows primary symbolic aspects of the world. It acts as a graphic metaphor to express human existence as well as the cycle of the time, both linked in a society organized by agriculture and references to the ancestors.65

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4. Weaving in Mesopotamia during the Bronze Age

As an example, two stages form the main articulation of the depiction: the beginning and end of the weaving process as spinning and weaving (Fig. 4.10b), stretching and folding, which could be a metaphor for human life (Fig. 4.10e), or two different activities related to a cyclic perception of the year and time in which daily or gender activities occur: churning and weaving (Fig. 4.10c), ploughing and weaving (Fig. 4.10d), etc. Another aspect is to depict the birth from a loom (Fig. 4.10f), a birth which is not biological but symbolic, for which we have no direct reference to the related myth. Lastly, weaving has also to be understood as a primary attribute for the gods. As said previously, this iconography represents between 11 and 14% of the protodynastic repertoire which is probably part of a more complex perception of the world.

We can conclude that a quite different history of weaving can be drawn, used for comparative perspectives, where sources are not in conflict, and where iconography and archaeology can finally be linked with epigraphy.

Bibliography

4. Weaving in Mesopotamia during the Bronze Age


Textile classification and cognitive chaining in the ancient Egyptian writing system

Ole Herslund

In recent years Egyptologists have shown a growing interest in the study of classification as a way of gaining insight into the ancient Egyptians’ conception of the world.\(^1\) Egyptology, with written evidence that extends over more than 3500 years, is particularly well suited for studying classification. The ancient Egyptian hieroglyphic writing system and its cursive counterpart hieratic incorporate a multi-levelled classificatory system, combining signs that give the phonetic value of a word with an added sign that indicates membership in a category. For example the phonetic signs for words that relate to [time] must be followed by a sign depicting the sun and the writing of words that relate to [action] can end with an extended forearm arm and a hand holding a stick.

\[ [\text{time}] \quad [\text{action}] \]
\[
\begin{array}{c|c|c}
\text{ḥỉ, moment} & \text{ḥỉ, moment} & \text{ḥỉ, moment} \\
\text{ḥỉ, moment} & \text{ḥỉ, moment} & \text{ḥỉ, moment} \\
\end{array}
\]

This added classifying sign is called, using Egyptological terminology, a determinative.\(^2\) It can be used to categorise broad groups such as the occupations and personal names of men (𓆢) and women (𓆢). It can also be very specific, conveying the exact meaning of words such as 𓆢 “cat” and 𓆢 “dance”. There are also signs which categorise abstract categories. Neutral or positive abstracts are categorised with the papyrus roll sign, in words such as 𓆢 “to know” and 𓆢 “good”. Negative phenomena are identified with the addition of the sparrow found in words such as 𓆢 “bad” and 𓆢 “hunger”.\(^3\) Determinatives are also used to differentiate words that are graphic homonyms. The consonant combination 𓆢 “plough” when followed by the plough sign or “to traverse” if followed by a pair of walking legs.

Traditionally, Egyptologists have regarded the determinative as a reading aid that assists in

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\(^1\) See e.g. David 2000; Frandsen 1997; Goldwasser 2002; Lincke (forthcoming), Shalomi-Hen 2000; 2006.
\(^2\) Gardiner 1957, 31–33; Allen 2000, 3; 28–29.
\(^3\) See now David 2000.
identifying the exact meaning of a word. More recently it has been demonstrated that these signs, as “graphemic classifiers”, represent a system of classification and that they can be used to understand the structure of this system. The graphemic classifiers (i.e. determinatives) make it possible to differentiate between a more overarching and inclusive superordinate category and the specific basic level members of that category. This approach also treats the signs that essentially only “repeat” the information found in the phonetic writing as functionally distinctive, as “repeaters” that reiterate the meaning of the word, rather than classifying it. This distinction is found in the examples given above. The sun sign, found in the word hrw “day” indicates that the word belongs to the superordinate category of [time] and thus functions as a genuine classifier. The sign, however, that follows the word miw “cat” is a repeater; it reiterates the meaning of the phonetic sign combination.

The sign is often used to illustrate the way in which determinatives function as graphemic classifiers. It is the simplified image of the floor plan of a house with an entry. can also be used phonetically as pr, and written with the stroke that indicates that there is an equation between sign and meaning, the sign means “house”. When employed as a graphemic classifier written in the end of other words, the house sign shows membership of the category [habitat].

<table>
<thead>
<tr>
<th>The sign as classifier for the category [habitat]</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Sign Image]</td>
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<td>![Sign Image]</td>
</tr>
</tbody>
</table>

1 After Goldwasser 2005, 97

The sign as classifier for the category [habitat]. After O. Goldwasser, "Where is Metaphor?: Conceptual Metaphor and Alternative Classification in the Hieroglyphic Script", Metaphor and Symbol 20/2 (2005), 97.

The Egyptian vocabulary (lexicon) contains hundreds of words (lexemes) that stand for textiles and garments. But when consulting the dictionaries of Egyptian for basic terms signifying textiles and garments, the translations provided are often rather generic, like ‘a kind of textile’ or ‘a kind of garment’. That the lexemes in question do in fact signify basic kinds of textiles or garments is clear from either textual context or from the cases where they can appear as small labels or comments to pictorial representations. However, given the nature of the highly canonised and rule bound Egyptian art and iconography, it is rarely easy to actually relate a given pictorial form in art to a specific kind of garment, let alone a specific kind of textile. A third way of detecting that a given lexeme stands for kinds of [textiles] or [garments] is through graphemic classification in writing.

1. Cognitive chaining

In graphemic classification, the sign \(\overline{\text{T}}\) stands for the category [textile] during the majority of the 3rd and 2nd millennium. It was employed as a classifier for a variety of lexemes including nouns signifying kinds of textiles, kinds of garments and a variety of objects made fully or partially of textile. The sign \(\overline{\text{T}}\) was also used in the writing of names of certain divinities and even verbs denoting actions.

This raises the question of what is the semantic relation between nouns for manmade objects, names for mythological beings and kinds of actions. Moreover, what was the motivation for the ancient Egyptian scribe for writing terms for textiles, garments, and objects, mythological names and verbs with the \(\overline{\text{T}}\) [textile] classifier? In the classic theory of classification, stretching back to antiquity, category membership is only based on a fixed set of shared attributes by the category members, which in turn defines the category. But how can a wide range of different objects, mythological beings and actions share a fixed set of attributes?

Following his critique of the classic model of classification, linguist George Lakoff has furnished evidence for how category members are linked or chained together on the level of cognition. Most categories are cognitively arranged around core members, so called prototypes. From the prototype(s), the categories chain out to include other members of the category. An often cited example of such cognitive chaining comes from the Dyirbal lingual classifier Balan, which is placed before any noun concerned with women, fire and dangerous things.

<table>
<thead>
<tr>
<th>The Dyirbal noun classifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
</tr>
<tr>
<td>II.</td>
</tr>
<tr>
<td>III.</td>
</tr>
<tr>
<td>IV.</td>
</tr>
</tbody>
</table>

The prototype of the category II. Balan are women, which through Dyirbal mythology become related to fire, because the sun is female (i.e. a goddess). Somewhat unexpected the plant “the hairy mary grub” appear in the category II. Balan, where one would expect it to appear in the category IV. Bala with objects that are not animate or edible. It appears in the category Balan with women and fire because its sting is felt like a burning pain and it is a dangerous thing like fire can be.6

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5 Lakoff 1987, 91–144.
6 Lakoff 1987, 92–104.
5. Cloths – Garments – and Keeping Secrets

<table>
<thead>
<tr>
<th>Cognitive chaining in the Dyirbal category II. Balan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category prototype: [women]</td>
</tr>
</tbody>
</table>

The cognitive chaining from the prototype women, to the sun (goddess), to fire, to the “the hairy mary grub” plant reveals some important features of human classification. The grouping of the members marked by Balan is not motivated by a fixed set of shared attributes. In this case it is mythological belief systems and bodily experiences that motivate the chaining from the prototype [women] to [fire], and on to other [dangerous things].

According to Lakoff, cognitive category chaining is always motivated so as to make sense, but the structure of category chaining is not predictable, as emphasised by both the bodily experience as well as myth-as-motivator principle. This circumstance makes the category [textiles] a highly interesting case of ancient Egyptian knowledge organisation, when it is explored in terms of motivated cognitive chaining.

2. Textiles

According to Alan H. Gardiner’s sign list, number S28 depicts a “strip of cloth with fringe combined with the folded cloth | S29”. That this is indeed the iconic signified by the sign is clear when actual pieces of ancient Egyptian cloth are related to artistic forms like highly detailed hieroglyphs and sculptures grasping folded pieces of cloth. The upper part of the sign depicts the most visually striking and prototypical gestalt form of an Egyptian textile, being a square flat sheet form, ending in a fringe. When combined with the folded piece of cloth ( ), it simultaneously encapsulates the embodied notion of the flexible and bendable materiality of cloth. The sign exists in the earliest writing system of the Archaic Period (c.3200–2700 BC) and throughout the history of the hieroglyphic writing system ending in the first centuries AD.

Kinds of cloths stand as core members of the category marked by [textile]. Not only is the iconic signified of the sign a rendering of cloth, but words for kinds of cloth can only appear with the textile sign as graphemic classifier. Cloth terms cannot appear in any of the categories marked by other signs. Kinds of cloth are simply prototypical of the category marked by the sign . Only later, towards the end of the 2nd millennium BC, textile and garment terms became normatively written with the classifier that signifies the combined category [textile + rope].

The shift in normative classifier from [textile] to [textile + rope] is primarily attested to in texts written in hieratic of the Ramesside Period (c.1295–1069 BC). In both the 3rd and the earlier 2nd millennium the categories [textile] and [rope] were differentiated by the signs for [textile] and for [rope]. The motivation for grouping together in the later Ramesside Period was simply a matter of reaching a step back in the chaine d’opératoire to “strings”, the “material” that both [textile] and [rope] are “made of”. Such schematic “made of” classification is a central motivator in ancient Egyptian classification in writing.

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7 Lakoff 1987, 102–104.
8 Entry to GSL S28, Gardiner 1957, 507.
9 Gardiner 1957, 507, S28 n. 1; S29 n. 1.
10 Kahl 1994, 698.
11 Entry to GSL V6, 4, Gardiner 1957, 522.
12 Goldwasser 2002, 33–35; for an overview of the material classifiers see Gardiner 1957, 32–33.
Most ancient Egyptian words for cloths refer to either quality or form. As mentioned above the specific meaning of most ancient Egyptian textile terms are now lost, but some of the terms in question do have relatively clear etymologies. Yet the overall problem of relating them to actual and specific textiles from archaeological contexts persists.

A group of basic terms that stand for kinds of coloured cloth are founded on nisbe-adjectives for colours. While the pictorial record often show ancient Egyptians clad in pure white garments, coloured textiles do occasionally show up in imagery and are likewise attested in a broad spectrum of the archaeological record.\textsuperscript{13}

<table>
<thead>
<tr>
<th>[textile] as classifier for kinds of cloth qualities</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="image" /> ![image2] ![image3] ![image4]</td>
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<tr>
<td>![image9] ![image10] ![image11] ![image12]</td>
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<tr>
<td>![image13] ![image14] ![image15] ![image16]</td>
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<tr>
<td>![image17] ![image18] ![image19] ![image20]</td>
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</tbody>
</table>

Culturally significant textile terms for cloth qualities and forms are numerous. The examples include words that refer to differences in the cloth types’ form and materiality, or economic and cultural value. The relative differentiation in economic and cultural value can often be discerned when a number of cloth terms appear as entries in lists of economic transactions and commodities or lists of temple and mortuary offerings.\textsuperscript{14}

<table>
<thead>
<tr>
<th>[textile] as classifier for kinds of cloth qualities and forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>![image21] ![image22] ![image23] ![image24]</td>
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<tr>
<td>![image41] ![image42] ![image43] ![image44]</td>
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</tbody>
</table>

\textsuperscript{13} Vogelsang-Eastwood 1995, 31–33.

Another way of lexicalising certain cloth qualities are through terms founded on nisbe-adjectives signifying relative size or position, from 𓊆𓊈𓊇 “great”, ḫỉ_female “front” and ḥpy “first”. The derived cloth terms translates into something like “great linen”, “front class linen” and “first class linen”. As is the case with the textile terminology in general, the specific meaning of these quality designations remains unclear, although they clearly signify positive qualification and high value given their embodied semantics.

<table>
<thead>
<tr>
<th>𓊆𓊈𓊇</th>
<th>great linen</th>
</tr>
</thead>
<tbody>
<tr>
<td>ḫỉ_female</td>
<td>first (lit. front) class linen</td>
</tr>
<tr>
<td>ḥpy</td>
<td>first class linen</td>
</tr>
</tbody>
</table>

3. Garments

From the prototypical core constituted by textiles, the 𓊆𓊈𓊇 [textile] category chain out to include garments. The relationship between the 𓊆𓊈𓊇 [textile] sign 𓊆𓊈𓊇 and the garment terms it can appear with is a simple meronymic relationship, i.e. a “made of” relationship. Given the prototypical relation between textiles and garments, garment terms can only in the rarest examples appear outside the 𓊆𓊈𓊇 [textile] category in writing. In some examples the word mss 𓊉𓊉𓊆 “bag tunic (?)” can be written with a 𓊉 [leather] or 𓊉 [metal] classifier when signifying “armour”, in mss n ḫr “kirt/skirt”, ḫm “kilt”.

The vast majority of garment types are, like the cloth types above, prototypical core members of the category 𓊆𓊈𓊇 [textile].

<table>
<thead>
<tr>
<th>𓊆𓊈𓊇</th>
<th>head cloth</th>
</tr>
</thead>
<tbody>
<tr>
<td>ḫỉ_female</td>
<td>royal head wear</td>
</tr>
<tr>
<td>swḥ</td>
<td>kilt/skirt</td>
</tr>
<tr>
<td>ḥr</td>
<td>kilt</td>
</tr>
</tbody>
</table>

As an alternative to writing garment terms with the 𓊆𓊈𓊇 [textile] classifier, some garment terms can appear with a repeater sign that visually reiterates the meaning of the phonetic sign combination. The repeater signs do not only visually specify the signified of the phonetic sign combination but simultaneously offer a pictorial rendering of what a given piece of ancient Egyptian clothes looked like.16

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15 WB II, 149, 7 = Urk. IV, 664; 732.
kinds of garments written with a repeater sign

<table>
<thead>
<tr>
<th>Image</th>
<th>Sign</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td>ūnt</td>
<td>head cloth</td>
</tr>
<tr>
<td><img src="image2.png" alt="Image" /></td>
<td>h3t</td>
<td>royal head wear</td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td>swh</td>
<td>kilt/skirt</td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td>šndwt</td>
<td>kilt</td>
</tr>
</tbody>
</table>

4. Objects made entirely or partially of textile

From cloths to garments, the category marked by [textile] chains further out to include a host of terms that stand for other manmade objects. The objects appearing in the [textile] category are highly varied in terms of materiality, function and social area of usages. They can roughly be divided into kinds of furniture, containers, ship’s parts, architectural features and objects used in medical and cultic practices. Some of the objects are made of textiles whereas others are only partially made of textiles.

The chaining is motivated here by two kinds of meronymic relationships, a “made of” relationship or a “stuff-object” relationship. The “made of” relationship only covers those members that are made of the single stuff “textiles”. More composite objects that are only partially made of textile activate a meronymic “stuff-object” relation. A “stuff-object” relation (e.g. hydrogen – water) is activated when a substance only constitutes a portion of the total material of which the objects are made. Since it is not always clear whether an object is made of a single material or from several, the border between “made of” relations and “stuff-object” relations can be rather elusive in ancient Egyptian graphemic classification.17

[Textile] as classifier for kinds of objects

<table>
<thead>
<tr>
<th>Image</th>
<th>Sign</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5.png" alt="Image" /></td>
<td>hnkyt</td>
<td>bed/bedding</td>
</tr>
<tr>
<td><img src="image6.png" alt="Image" /></td>
<td>tmḥyt</td>
<td>sitting mat</td>
</tr>
<tr>
<td><img src="image7.png" alt="Image" /></td>
<td>gmḥt</td>
<td>lamp wick</td>
</tr>
<tr>
<td><img src="image8.png" alt="Image" /></td>
<td>krft</td>
<td>(medicine) bag</td>
</tr>
<tr>
<td><img src="image9.png" alt="Image" /></td>
<td>tnḥyt</td>
<td>(tool) bag</td>
</tr>
<tr>
<td><img src="image10.png" alt="Image" /></td>
<td>tnḥyt</td>
<td>sail</td>
</tr>
<tr>
<td><img src="image11.png" alt="Image" /></td>
<td>hn</td>
<td>tent</td>
</tr>
</tbody>
</table>

5. Mythological beings related to textiles

A special group of nouns to be written with the $\text{TEXTILE}$ [textile] classifier are names of certain divinities and lesser mythological beings. The most prominent of these divinities is the goddess of weaving Tait. In different mythological and ritualised contexts, Tait produces and supplies the gods and the mummified dead with textiles and garments.\(^{18}\) Other names of mythological entities to appear in the category $\text{TEXTILE}$ [textile] stand for beings of the underworld that protect and aid the living dead, including the $\text{WBTW}$ - “they who wrap (the mummy)”\(^{19}\) and $\text{DB3}$ - “the one who adorns (the mummy)”.\(^{20}\) On the level of mythology, these beings stand in a contiguous relationship with textiles and garments, given their roles as e.g. “dressers of gods” or “wrappers of mummy bandages”. Thus, the motivation for writing these mythological names with the textile-classifier is to be found in the belief system, which relates them metonymically to [textiles].

<table>
<thead>
<tr>
<th>$\text{TEXTILE}$ [textile] as classifier for mythological beings</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Image of Tait" /></td>
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<tr>
<td><img src="image" alt="Image of Wetaw" /></td>
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<tr>
<td><img src="image" alt="Image of Deba" /></td>
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</table>

6. Actions

The experience of dressing and wearing clothes along with an embodied conception of garments as prototypical “covers” motivates the writing of a number of verbs with the $\text{TEXTILE}$ [textiles] classifier as an alternative to the $\text{ACTION}$ / $\text{TEXTILE}$ [action] classifier. The verbs can in some examples be written with both a textile and an action classifier $\text{TEXTILE + ACTION}$ [textile + action] in a form of double classification.\(^{21}\)

A number of the verbs denote, in their core meaning, acts of dressing or undressing. Writing them with the $\text{TEXTILE}$ [textile] classifier was simply motivated by the part-whole, metonymic relationship

\(^{18}\) WB V, 231; 232, 1–11.
\(^{19}\) WB I, 380, 6.
between acts of dressing and clothes. The part “clothes” is prototypical of \( \text{TEXTILE} \) [textile] and integral to the whole “dressing”, as well as integral to the antonymic notion of “undressing”.

| \( \text{TEXTILE} \) [textile] as classifier for verbs |
|----------------|----------------|
| \( \text{TEXTILE} \) | \( \text{TEXTILE} \) |
| wnḥ | to clothe |
| hḥ ḫ | to bare |
| ḫḥ | to clothe |
| ṣ ḫḥ | to loosen (a band/garment) |
| ḏ ḫḥ | to clothe |

In extended meanings a term like \( ḫḥ \) “to clothe” can carry the semantic value “to cover”. For example, in the coronation inscription of Hatshepsut (c.1480–1460 BC), the verb is used about the king’s domain – \( ḫḥ nbt pt \) “all that heaven covers”.\(^{22}\) In the Poem of the Battle of Kadesh from the reign of Ramesses II (c.1280–1215), the enemies facing the Egyptians are so numerous that \( ḫḫ ṣ ṳ ḫ ḫ ḫ \) “they covered mountains and valleys”.\(^{23}\)

The semantic extension from “to dress” to the more generic “to cover” is paralleled by the writing system when the category \( \text{TEXTILE} \) chains out to include verbs for “covering”, and from there on to verbs for “hiding”. The intimate experience and daily practice of covering the body with textiles, created the cognitive link, and following the motivation for writing verbs for “covering” with the \( \text{TEXTILE} \) classifier. Thereby, the writing system identifies \( \text{TEXTILE} \) as kinds of prototypical “covers” in ancient Egyptian world organisation.

Examples include \( ṣ ḫ ḫ \) “to cover”, which can be used about covering a building with a roof or the covering of a clouded sky.\(^{24}\) The verb \( ḫ ḫ p \) is used in the sense “to cover with something”, like a piece of cloth, a pot or with the hands.\(^{25}\) In extended meaning \( ḫ ḫ p \) signify “to hide” and “to keep secret”. For example, in a letter from a haunted husband to his deceased wife, he makes it explicit that he did not hide (i.e. \( ḫ ḫ p \)) anything from her during her life.\(^{26}\) In metaphorical use, \( ḫ ḫ p \) “to hide” can be used passively about \( m ḫ ḫ \) “words” - \( m ḫ ḫ ḫ p t \) “hidden words” (i.e. secrets).\(^{27}\)

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22  Deir el Bahari, Temple of Hatshepsut = Urk. IV, 244, 12.
23  Kadesh Poem = KRI II, §51.
24  WB IV, 316, 17; 19.
25  WB III, 30, 6–8.
26  WB III, 30, 16; P. Leiden 371, rt. 17 = Gardiner 1928, VII, 17.
27  WB III, 30, 17; Stele of Sehetepibre, Cairo CG 20538, rt. 10 = Lange & Schäfer 1908, 147; Stele of Kares, 7–8 = Urk. IV, 46, 15.
5. Cloths – Garments – and Keeping Secrets

<table>
<thead>
<tr>
<th>ṣ [textile] as classifier for verbs</th>
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</thead>
<tbody>
<tr>
<td>ṣḥḥ</td>
</tr>
<tr>
<td>ṣḥẖ</td>
</tr>
</tbody>
</table>

Similarly, the ṣ [textile] classifier can be used in the writing of a group of antonymic verbs for “to cover” like “to bare” and “to expose”. The writing follows the same bodily-experience-motivation as for the verbs “dressing” and “covering” they are antonymic to. The verb ṣḥḥ “to strip” can be used about the removal of peoples’ clothes, the baring of a body, but also about the unveiling of mysteries.28 Another example is ḳ[f] “to uncover”, from clothes, a wound from bandage, teeth when laughing, a secret, etc.29

<table>
<thead>
<tr>
<th>ṣ [textile] as classifier for verbs</th>
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</thead>
<tbody>
<tr>
<td>ṣḥḥ</td>
</tr>
<tr>
<td>ḳ[f]</td>
</tr>
</tbody>
</table>

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The survey of the category ṣ [textile] has shown how the category chained out from the prototypical core to include a whole range of nouns and verbs. Category membership was not based on a set of shared attributes, which in turn defined the category. Rather, the category was structured according to a selection of cognitively motivated relationships to the category prototype ṣ [textile], which enabled the chaining from the icon prototype ṣ to textiles, garments, objects, mythological beings and actions.

The iconic signified of the sign ṣ and the fact that textile terms must appear with ṣ as graphemic classifier for the major part of the 3rd and 2nd millennium securely identifies [textiles] as the category core prototype. The chaining from the category prototype (ḉ) to [textile] to the category’s other lower ranking members is based on a variety of identifiable motivated relationships. The survey presented here identified three overall semantic motivations for writing a given term or name with the ṣ [textile] classifier.

The manmade cloths, garments and miscellaneous objects, are all related meronymically to ṣ [textile]. The schematic relationships come in two kinds, “made of” relation or “stuff-object” relationships that covers objects made fully of textiles or composite objects made only partially of textiles:

28 WB IV, 10; 11–13.
29 WB V, 119, 4; 6–8.
Cognitive chaining in the category ᵇ [textile]

Category prototype: ᵇ [textiles]
   ᵇ - [textiles]
   ᵇ - [textiles] – [garments]
   ᵇ - [textiles] – [objects]

A second cognitive chain comprises the names of divinities and mythological beings with the ᵇ [textile] classifier. Mythology and iconography furnish the evidence for these mythological beings’ contiguous relationship to textiles and garments. They are metonymically related to textiles through their roles in different cultic practices and mythological places.

Cognitive chaining in the category ᵇ [textile]


Bodily experiences of dressing and covering with textiles motivate the category to chain out to a range of actions, along with antonymic senses of these actions. The metonymic relation between textiles and dressing creates the first link in the chain of verbs for “dressing”. To these should be added the verbs that can mean “to dress” in a more extended sense, like the wrapping of a mummy or the adorning of a cult statue.

Cognitive chaining in the category ᵇ [textile]


A number of the verbs polysemiously signify “to dress with clothes”, “to cover”, and “to hide” thereby identifying a context bound semantic transition between [to dress], [to cover] and/or [to hide]; a semantic transition that arose from shared embodiment and bodily experiences of “dressing” as a prototypical “covering”. The semantic move from “textiles”, to “dress”, “cover” and on to “hide” and “keep secret” is of course well known for the modern English and Danish speakers alike. Our own more or less corresponding terms “to cover” (Danish: at dække) and “to veil” (Danish: at sløre) likewise arise from a shared embodiment and bodily experiences of textiles as prototypical [covers]. The examples include “to cover” in generic senses as well as metaphorical senses when it is abstract phenomena like “secrets”, which are hidden. This is paralleled in graphemic classification when verbs for [to cover] in both general and metaphorical sense take the ᵇ [textiles] classifier.
Cognitive chaining in the category ⲟ [textile]

This paper has demonstrated how the study of graphemic classification in ancient Egyptian writing can contribute to semantic studies of the ancient Egyptian lexicon and world organisation. The case of the ⲟ [textile] category presented here demonstrates how the writing system provides additional layers of semantic information to a given word, and how this semantic information can be used to rediscover some basic features of ancient Egyptian knowledge organisation. Without visual classification in writing, this crucial phenomenon would have evaded the Egyptologists. Secondly the case of the ⲟ [textile] category provides an example of how human categorisation is not necessarily based on fixed sets of shared attributes among members. Instead, the category ⲟ [textile] was chained together following a number of identifiable motivations: meronymy, metonymy, mythological belief systems, bodily experience of the real world and material culture.

More extensive studies of ancient Egyptian object categorisation and classification are awaited. Classification theories, including graphemic classification as part of the ancient Egyptian writing system will be important tools in future analyses. The focus on cognitive chaining is just one aspect of the application of an Egyptological perspective to the study of cognitive and anthropological issues, which should result in a greater understanding of the language and writing systems, and above all, ancient Egyptian world organisation and material culture.

Acknowledgements
I am grateful to Paul John Frandsen, Rune Nyord and Kim Ryholt for their insightful comments and corrections to my English.

Abbreviations

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Lincke, E. S. (forthcoming), Das Schriftsystem der Pyramidentexte, Zu den Prinzipien der Klassifizierung im Alten Ägyptischen.
6. The ‘linen list’ in Early Dynastic and Old Kingdom Egypt: Text and textile reconciled

Jana Jones

The favourable conditions for organic preservation in ancient Egypt have yielded significant quantities of surviving textiles, providing an archaeological record spanning some 5,000 years from the Neolithic to the Roman periods and beyond. The earliest extant example of an Egyptian woven linen textile dates to the early 5th millennium BC, from a Neolithic settlement in the Fayum oasis.1 The majority of textiles from ancient Egypt originate in funerary contexts, and as such would not necessarily reflect the full spectrum of textile technologies. However, the re-use of household textiles in the mummification process and the inclusion of offerings of textiles and clothing in burials result in a wide range of archaeological evidence.

The archaeological material is supported by written evidence from as early as the Protodynastic period (c.3250 BC) on commodity labels from Tomb U-j at Umm el-Qa'ab at Abydos.2 Textual and iconographic evidence on private funerary stelae begins in the Early Dynastic period3 (c.2900–2545 BC) and continues into the Old Kingdom, specifically into the reign of Khufu in the Fourth Dynasty (c.2509–2483 BC).4 From the Old Kingdom onwards, iconographic and textual evidence for organised flax cultivation and processing, textile production and distribution

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1 Caton Thompson & Gardner 1934, 46, Pl. 28.3; Jones & Oldfield 2006, 33–35. The textile was examined by Jana Jones and Ron Oldfield at the School of Biological Sciences, Macquarie University, Sydney Australia. Microscopic examination confirmed that the ultimate fibres exhibit the characteristic features of L. usitatissimum, the principle fibre used in ancient Egyptian textiles. The thorough preparation suggests an already well-developed knowledge of the complex procedures involved in flax processing in the Neolithic period. Fragments of the textile are in the collections of the Petrie Museum of Egyptian Archaeology (UC 2943), the British Museum (EA 58761), and Bolton Museum and Art Gallery (56.26.109/1 and 2). Permission to sample the Bolton textile for further analysis was granted by Angela Thomas, formerly Keeper of Egyptology.

2 Dreyer 1998.

3 The Early Dynastic period is the earliest historical period, when the Egyptian ‘dynastic’ state was formed, and a unified, complex society emerged.

4 Dynastic period chronologies are based on Hornung, Krauss & Warburton 2006; Predynastic chronologies are based on Hendrickx 1999 and Hendrickx 2006. Absolute dates for the early stages of Egyptian chronology remain tentative, and earlier dates for the beginning of the Early Dynastic period have been proposed.
complement the archaeological material. The processes are illustrated in wall paintings in tombs, wooden models of weaving workshops and by administrative titles.\(^5\)

The private funerary stelae with offering scenes originate in the necropolises of the ancient capital city, Memphis, namely Helwan, Saqqara and Giza.\(^6\) The inventories of textiles (the so-called ‘linen lists’) on funerary stelae first appear in the late First Dynasty at Helwan c.2800 BC, and are the source of the greatest body of textile and textile-related terminology in the early 3rd millennium BC. The linen lists reach their full development on the Giza slab stelae of the Old Kingdom, specifically dated to the Fourth Dynasty during the reign of Khufu, the builder of the Great Pyramid. After this time they occur very rarely.\(^7\)

In 2003, Peter Der Manuelian noted: “... there is still a need to reconcile more of the textual evidence with the material remains. Our understanding of the linen lists of the Old Kingdom would greatly benefit from such an interdisciplinary approach.”\(^8\)

There are possibilities but also problems inherent in this approach. The linen lists specify particular qualities, dimensions and quantities of textiles or clothing to be offered for the use of the deceased in the afterlife. The meaning of most of these signs remains largely enigmatic, despite the attempts of philologists to translate them. Although ideograms representing items of clothing are mostly recognisable from comparison with three-dimensional iconographic evidence, the textiles pose a different problem. In order to fully reconcile ‘text’ and ‘textile’, that elusive body of evidence is needed: intact lengths of textile inscribed with signs specifying size or quality.

The writer has examined large quantities of textiles on site in Egypt and in museums, but they have either lacked inscriptions or the textile has been cut, as in the case of the inscribed fragment from the pyramid of Pepi I, discussed below. In some cases the ground textile has been degraded by the corrosive chemical action of the pigments so that the signs are illegible. In the past, inscriptions have been recorded but textile analyses were not carried out and the material has been lost.\(^9\) Furthermore, many textiles in museum collections are undated or without provenance, so even if they were inscribed it would be difficult to relate the technological evidence to a specific period. Textiles from new excavations often are not studied systematically, and modern protocols governing the unwrapping of bodies limit the availability of material for examination.

This contribution will attempt to relate textile terminologies to archaeological and iconographic evidence within the parameters of available material, correcting some long-standing

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\(^5\) For interpretations based on tomb scenes and Middle Kingdom models see Winlock 1955; Bellinger 1959; Baines 1989, 20–21; Vogelsang-Eastwood 2000, 268–298. For a discussion of spinning techniques based on tools and ethnographic models see Crowfoot 1931; spindles and whorls are discussed in Kemp & Vogelsang-Eastwood 2001, 265–277. For looms and weaving see Roth 1978 and Kemp & Vogelsang-Eastwood 2001, 307–404. Jones 2000 lists a number of Old Kingdom titles related to textile production, e.g., 170 no. 649 “overseer of every royal bundle of flax”; 512 no. 129 “overseer of the houses of weaving women of ... of the itiwy-cloth of the king (?)”.

\(^6\) These sites are located south of modern day Cairo. Giza and Saqqara were positioned on the west bank of the Nile in close proximity to the king who resided at Memphis, and Helwan on the east bank. Saqqara and Helwan were the two main necropolises of the Early Dynastic period, but Saqqara was the prime burial site for the highest-ranking elite and aristocracy. Minor royalty, middle and lower ranking courtiers, lesser members of the priesthood and artisans were buried at Helwan.

\(^7\) The variations of the linen lists that date beyond the Fourth Dynasty will not be discussed in this paper.

\(^8\) Manuelian 2003, 155.

\(^9\) For example, linen wrappings from the Fourth Dynasty mummy from tomb G 2220 B I inscribed in hieratic script included the quality $\text{šmt.t } \text{nfr.t}$ that appears as a ‘heading’ in contemporary Old Kingdom linen lists. See Manuelian 2003, 156, Figs. 232, 233.
misconceptions and proposing alternate translations of textile terms in the process. Further, it will be shown that there is a clear development from the Early Dynastic textile inventories to the ‘fully developed’ linen lists of the Fourth Dynasty Giza slab stelae.

1. A brief overview of the principles of Egyptian writing systems

The ancient Egyptian writing system is based on the principles of rebus, alphabet and complement. In order to facilitate understanding of the terminology considered in this paper, the following definitions summarising the main elements of the developed system are offered.

**Ideograms (or logograms)** are words represented pictorially and are etymologically or semantically related to the sign’s own meaning.

**Phonograms** are used in any word for notating mono or bi-consonantal phonemes, generally according to the rebus principle.

**Determinatives** classify a word according to its semantic sphere, and appear at the end of the word.

**Phonetic complements** are uniliteral signs added to clarify the reading of multi-literal signs that may have more than one phonetic value.

The first evidence for writing in Egypt (and the earliest source of references to textiles) is from the elite, Protodynastic Tomb U-j at Umm el-Qaab, Abydos, dated NIIIA1 (c.3250 BC). Ideograms, phonograms and determinatives were already in use at the date of Tomb U-j, but phonetic complements were not, and the stock of hieroglyphic signs was still quite limited. A more developed form and an almost complete syllabary are not apparent until the First Dynasty, probably by the time of King Den c.2800 BC. The fully developed form is evident only at the beginning of the Third Dynasty. In developed hieroglyphic writing, the signs can be used to fulfil several functions, either or both as ideograms, determinatives, phonograms and phonetic complements. Some of the characteristics of archaic writing that make it quite difficult to translate and often ambiguous, are that spelling, orientation and sequence of the signs is completely variable.

2. Textile terminology: the written record

2.1. Commodity labels

Almost 200 bone commodity labels were discovered in Tomb U-j at Abydos in Middle Egypt, mostly in chamber U-j 11. The incised signs have been interpreted as designating the quantity and origin of a variety of commodities. It was deduced that a number of these labels had been attached to textiles. The chamber also yielded fragments of wooden boxes in which the textiles may have been housed. Two labels are incised with ideograms that represent garments – a sleeved dress and a cloak with ties. Three other labels have a sign that may be a garment, but that identification is difficult.

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14 Kahl 2001, 124. Kahl proposes an earlier date of c.2900 BC.
15 Kahl 2001, 116; c.2592–2544 BC
18 Dreyer 1998.
19 Dreyer 1998, 139.
20 Dreyer 1998, 132–133, Fig. 81.161–162, Pl. 34. Both are referred to as Gewand.
uncertain. The excavator suggested that the ideograms are generic signs for clothing and textiles rather than designations of the actual garments, and refer to the origin of the garments in the royal stores. A number of other labels are incised with short strokes arranged either vertically or horizontally in groups of six to 12. The vertical signs are understood to be numerals, but it was suggested that the horizontal signs might be interpreted as designations of the surface area of the textile, where one sign represents 10 square cubits, as on the linen lists of the Old Kingdom slab stelae. The sign that represents the number ‘100’ occurs on five labels. The latter sign also appears in the linen lists of the Third and Fourth Dynasty stelae inside a square or rectangular ideogram of a textile (sometimes fringed) and represents 100 square cubits. These signs will be discussed below in the context of the linen lists.

By analogy with the information derived from other commodity labels from Tomb U-j, it is highly probable that textile production and distribution was under some form of centralised control.

2.2. Private funerary stelae
2.2.1. The Helwan relief slabs: archaeological background
The Helwan corpus of 46 known relief slabs (or stelae as they are commonly described) is the largest group of securely provenanced, early, inscribed material of its kind and is the largest, single source of early textile terminology. Thirty-two of these relief slabs were excavated by the Egyptian archaeologist Zaki Saad between 1942 and 1954. During that period, approximately 10,000 graves of the ‘middle class’ elite were uncovered. Although similar stelae were known from other sites such as Saqqara and from the antiquities market in the early 20th century, these relief slabs were especially exciting because of their supposed origin in a primary archaeological context of the Second Dynasty. Saad observed that the slabs were located in the substructure of the tomb, specifically in the ceiling above the deceased; hence they were referred to as ‘ceiling stelae’. In 1971 this premise was disputed. It was established that the slabs were found in a secondary context, originally having been in the superstructure of the tomb but later were reused as fill in robbers’ shafts.

The Australian mission to Helwan, under the direction of E. C. Köhler, began recording the few Helwan artefacts on display in the Egyptian Museum, Cairo in early 1997. The location of the

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20 Dreyer 1998, 59, 132, Fig. 88.160, 163, Pl. 34.
21 Dreyer 1998, 144.
23 Gardiner 1988, sign list no. Z.1.
27 Gardiner 1988, sign list no. V.1. Gardiner 1988, 521 noted that the sign could be transliterated either as š.t or š.n.t. The latter transliteration is used in this paper.
29 Köhler & Jones 2009. Forty-one of the slabs are included in the catalogue, and the remainder will be published subsequently. The authors have chosen to follow the terminology of Müller 1933, 166–167. He differentiated between tectonic monuments (stand alone, such as stelae), and architectonic monuments (dependent, such as false doors). The Helwan slabs were integrated within the superstructure of the tomb, so they should not be considered as tectonic monuments. Therefore the term ‘stela’ is technically not correct.
30 Saad 1951.
31 Haeny 1971, 143–164.
main corpus of the Helwan reliefs was unknown until the discovery of the ‘lost’ Helwan artefacts in the basement of the Museum. In 1999 the relief slabs were found inside ten boxes, and were photographed and drawn. Additional complete slabs and fragments continue to be found in each season’s excavations at Helwan.

2.2.2. Description
The relief slabs are of white, fine, dense limestone probably originating in the limestone quarries near the site at Tura or Ma’asara. They are of different sizes and volume, but the average is approximately 50–60 cm long, 20–25 cm high and 6–10 cm thick.\textsuperscript{32} Although the form of each is different, generally the slabs have an undressed back and side flanges, with a dressed central front panel that is carved either in raised relief and/or incised into the surface. Traces of paint remain on some slabs. Although none of the slabs was found in situ, the evidence suggests that they were incorporated into the mud-brick superstructure of the tomb above the false door.

![Fig. 6.1. Mastaba reconstruction with possible position of relief slab\textsuperscript{33}](image)

The tomb owner is depicted seated on a stool or chair before an offering table laden with loaves of bread. Inventories of offerings comprise items of food such as bread and baked goods, meat and fowl, fruit and agricultural produce, beverages, cosmetics, oils and fats, incense and textiles,\textsuperscript{34} and can include utilitarian objects such as tools, boxes, head rests and beds. The tomb owner generally grasps the shoulder knot of his tight-fitting cloak with the left hand and with his right reaches towards the bread. The female tomb owners do not hold the knot, placing the open palm or fist of the left hand on the chest. His or her name and titles appear above the head. The inventory of textiles and clothing, or linen list, generally constitutes a large proportion of the total iconography. Signs designating different qualities, sizes and quantities of textiles and items

\textsuperscript{32} Köhler & Jones 2009, 17.
\textsuperscript{33} Köhler & Jones 2009, Fig. 30.
\textsuperscript{34} Thirty-one of the total of 41 Helwan relief slabs studied include textiles.
of clothing occur early in the corpus, and gradually increase in number and variety. The textiles are prominently positioned, often at the head of the lists of offerings and finally in an ordered, compartmentalised section, generally on the right hand side of the relief slab.

The reliefs play a two-fold part: the tomb owner is identified at the cult place of the tomb through his or her name and titles, and the offerings, which are specified and generally quantified, are a symbolic form of sustenance and provisioning. These are spiritually activated in the mortuary ritual for the eternal use of the deceased in the afterlife. The textiles represent an important part of the owner’s estate and tomb assemblage. Later royal and non-royal funerary texts allude to the significance of specific types of textiles and clothing that are essential equipment for the deceased in the passage into the afterlife.35

2.2.3. Seriation and relative dating
A relative chronology of the relief slabs was established by using multivariate correspondence analysis and seriation, based on certain diagnostic iconographic elements. Briefly, where the same iconographic variables occur among different units, they show chronological proximity; the fewer features they have in common, the further distant they are. Known parallels from other sites were included in the seriation matrix. As a result, the Helwan reliefs were randomly divided into three date groups: Early (‘A’, First Dynasty, c.2900–2730+25), Middle (‘B’, Second Dynasty c.2730–2590+25BC) and Late (‘C’, Third and early Fourth Dynasties, c.2592–2543+25 BC).36

35  The “utterances” of the Pyramid Texts (inscribed on the internal walls of pyramids, dated to the end of the Fifth and the Sixth Dynasties c.2321–2153 BC) and the later “spells” of the Middle Kingdom Coffin Texts (inscribed on the inside of wooden coffins c.2080–1760 BC) contain numerous references to clothing or wrapping and binding of the body. For example, Faulkner 1969, 151, in P.T. Utt. 453, the king is attired in the textile offerings so that he may appear before the gods; Faulkner 1977 Vol. II, 197, C.T. Spell 608 evokes the textiles given by Horus to Osiris as being “ldmy cloth, mn.t ‘cloth’ ts.t cloth and hd.t ‘bright one’”.

2.2.4. Previous studies and translations of the Early Dynastic and Old Kingdom linen lists

Studies of offering scenes and lists appeared from the early 20th century. These focused principally on the religious and symbolic significance in the context of the funerary ritual of the Early Dynastic and Old Kingdom periods. The textile terminology of the linen list particularly attracted the attention of scholars, because the list is such a prominent element in the reliefs. Winfried Barta published a range of offering lists from various periods, including the Helwan stelae, which had originally been published by Saad in 1957. He suggested a possible origin and development and attempted to establish a chronological sequence. The work on Early Dynastic inscriptions by Peter Kaplony was published in the same year. He collated all the known sources of Early Dynastic offering scenes, including the original examples from Helwan, and subsequently published another eight to ten that had been in the site museum. Both scholars proposed translations of the textile terminology and noted that many of the items in the Old Kingdom offering lists also appeared earlier, providing a point of reference to the translation of the often-problematical archaic Egyptian hieroglyphs.

The study of the Old Kingdom linen list by William Stevenson Smith in 1935 has been the most comprehensive and most quoted interpretation of the elements of the linen list and the meaning of ancient Egyptian textile and clothing terms. Smith listed 43 occurrences of linen lists on the then known monuments, including Early Dynastic stelae, Old Kingdom stelae and false door panels, and offerings on the walls of burial chambers and chapels. More recently, Peter Der Manuelian has re-examined the Giza group of slab stelae, provided translations and detailed commentary, and included all the known Early Dynastic stelae in an appendix.

The latest comprehensive study of all archaic inscribed material, including the Helwan relief slabs, is by Jochem Kahl, who assembled all known inscriptions dating from Dynasty 0 to the Third Dynasty. Although the work is invaluable as a compilation of the inscriptions and an analysis of the early writing systems, Kahl has relied heavily on previous scholars’ interpretations of the textile terminology, much of which can be questioned.

2.2.5. The Early Dynastic linen list

The recent examination of the Early Dynastic and early Old Kingdom funerary relief slabs from Helwan confirms that there is a clear progression from the textile inventories that made their first appearance in the late First Dynasty, to the fully developed Old Kingdom linen list. Until

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37 Most notable were Junker 1925–1955; Hassan 1932–1960; Reisner 1932, 324–331; 1936; Reisner & Smith 1955.
38 For example, Lacau 1904, 91; Griffith 1905, 33; Weill 1908, 228–229; Jéquier 1921, 34; Sethe 1923, 216; Blackman 1924, 47–48; Junker 1929, 177–178; Smith 1935, 134–149; Edel 1975, 13–30; Barguet 1986, 85–86.
39 Saad 1957.
40 Barta 1963.
41 Kaplony 1963, Vols. I–III.
42 Kaplony 1966.
44 Smith 1935, 134–149.
45 Manuelian 2003.
46 Kahl 1994. Kahl devised a system of numbering the early signs based on Gardiner’s sign list (Gardiner 1988, 438–548). He followed this work with translations of Third Dynasty inscriptions (Kahl, Kloth and Zimmerman 1997) and began a dictionary of archaic Egyptian terminology (Kahl 2002–).
47 Köhler & Jones 2009.
the Third Dynasty, the arrangement of the linen list was somewhat arbitrary. In certain examples the offerings were unstructured (Fig. 6.14), organised in horizontal rows (Fig. 6.5), shown on 'shelves' (Fig. 6.2), or within defined compartments (Figs. 6.3, 6.4). Yet the textiles were always positioned prominently, generally at the head of the offerings. The first occurrence of textiles in the Helwan corpus is on a late First Dynasty, well-preserved relief slab that still retains traces of red and black paint (Fig. 6.3). A rectangular textile with a short fringe heads the list of offerings. As yet there are no indicators of quality or quantity.

A slightly later relief slab dated late First to early Second Dynasty, shows three textiles in the uppermost register, each with a different number of long fringes, but includes the quantity of two below each item (Fig. 6.4). To the left of the vertical separator, a narrower textile with only two strands of fringe is associated with vessels of calcite. The significance of this juxtaposition is discussed below (under ‘Clothing’). The variation in the number of strands of fringe suggests that the textiles were graded according to specific criteria, which to date are not fully determined. There are no designations of quality.

From the mid-Second Dynasty there is a noticeable increase in the type, variety and quantity of textiles depicted. Items of clothing now appear as offerings. Furthermore, the three main qualities characteristic of the Third and Fourth Dynasty stelae occur together on one of the late Second Dynasty Helwan slabs (Fig. 6.5). In the uppermost register of the relief, signs designating specific qualities appear as headings above textile signs showing different lengths of fringe. From right to left, the Horus falcon on a standard signifies the finest, or 'royal' quality iti.wy/idmy; next is the lesser quality

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48 Kaplony 1966, 266, No. 1096.
49 For example, EM99-4, -5, -18. Signs designating items of clothing do not continue in the Old Kingdom linen lists.
50 See discussion of fringe type as indicator of size, below.
51 Gardiner 1988, sign list no. G 7, a combination of G 5 on R 12, with the addition of a folded (or pleated) cloth projecting from the 'perch' of the standard. The transliteration of iti.wy has been adopted for the Early Dynastic corpus, and idmy,
\(\text{\textit{šsr}},^{52}\) represented by the arrow, then another quality \(\text{\textit{c}},^{53}\) represented by the tent pole or column. This is followed by \(\text{\textit{mty}}\) (‘dress’) written phonetically, and finally \(\text{\textit{šsr}}\) is repeated. The numerals specifying quantities to be offered appear below each textile sign. These include quantities of two, three, four and 20.

Four relief slabs dated to the Third Dynasty have been found at Helwan.\(^{54}\) Although each has offerings in a compartmentalised section on the right hand side, EM99-19 is the most ‘developed’, with a linen list that takes up almost half of the entire slab and is devoted entirely to textiles (Fig. 6.6). Although it anticipates the Fourth Dynasty linen lists in all its components, a garment \(\text{\textit{šndw}:t}\) (kilt) is included amongst the textiles. Items of clothing do not appear in the linen lists of the Giza stelae.

Before proceeding to a detailed study of the textile-related signs in the Early Dynastic corpus and a discussion of surviving textile evidence, an overview of the structure of the Old Kingdom linen lists and meaning of the individual elements is warranted. This will be followed by a brief discussion of the construction of fringes, on which calculations of linear dimensions of textiles are based.

which appears to be a later form, for the Old Kingdom corpus. See Edel 1975, 24–27. For a discussion of \(\text{\textit{idmy}}\) see also Manuelian 2003, 153. The traditional translation of \(\text{\textit{idmy}}\) as ‘red linen’ has been refuted by Edel 1975, 24, and independently by the writer in an unpublished M.A. thesis at Macquarie University, 1998. Colour in early Egyptian textiles will not be addressed in this paper, as there is limited reliable textual or archaeological evidence for coloured textiles in this period. There seems to have been a preference for pure white linen in the Early Dynastic period (Jones 2008, 122–123) but there is some archaeological evidence for the use of mineral-based dyes in the Predynastic period (Jones 2002, 327–328). See also Germer 1992.

\(^{52}\) Gardiner 1988, sign list no. T 11.

\(^{53}\) Gardiner 1988, sign list no. O 29.

\(^{54}\) Köhler & Jones 2009 EM99-13, 19, 32 and EM97-43. The latter still retains a haphazard arrangement of items of linen.
2.2.6. The arrangement of the Old Kingdom linen list

The linen list shows textile quality, dimensions of individual pieces, and quantity to be offered. It is arranged into three (or sometimes four) groups of three horizontal registers, generally divided further into a number of vertical registers. The uppermost register group consists of the Horus falcon on a standard in the top register, signifying \textit{idmy} \textsuperscript{55} ‘royal’ linen, the finest quality of textile; the second register usually consists of designative signs that indicate specific sizes of textiles, and the third contains numerals specifying quantities. This configuration is repeated, with different ‘headings’, most commonly \textit{\textasciitilde ssr} (represented by the arrow) and \textit{\textasciitilde t} (tent pole or column) in the first register of each new group. These denote lesser qualities of linen. Other less frequently occurring headings in the Old Kingdom lists include \textit{\textasciitilde sn\textasciitilde t nfr\textasciitilde t} (which is first attested in the Third Dynasty) and \textit{idmy}, written phonetically. \textsuperscript{56}

The following reading of the linen list is proposed, based on the criteria put forward by Posener-Kriéger. \textsuperscript{57} Briefly, she suggested that each of the horizontal signs in the second register of each group represents an area of 10 square cubits multiplied by the number of times the sign is written, and that the upright ‘fringes’ represent linear measurements of 1 cubit each (width) × 10 cubits (length). \textsuperscript{58} The sign \textit{\textasciitilde sn\textasciitilde t} represents 100 square cubits. \textsuperscript{59} These formulae for calculation of dimensions, and the inherent problems, will be discussed in detail presently.

\textsuperscript{55} See n. 53 on the use of \textit{idmy} v. \textit{iti.wy} in the Old Kingdom lists.
\textsuperscript{56} No two examples follow exactly the same arrangement. Cf. Smith 1935, 147.
\textsuperscript{57} Posener-Kriéger 1977, 86–96.
\textsuperscript{58} Posener-Kriéger 1977, 92. One cubit (52.3 cm) is equivalent to 7 palms and 28 digits.
\textsuperscript{59} Posener-Kriéger 1977, 93.
6. The ‘linen list’ in Early Dynastic and Old Kingdom Egypt

The groups of signs would be interpreted as:

A  *idmy* quality linen (‘royal’ linen)
(Right to left) 1,000 pieces × 60 square cubits (each) in area; 1,000 × 70 square cubits; 1,000 × 80 square cubits; 1,000 × 90 square cubits; 1,000 × 100 square cubits

B  *śṣr* quality linen
(Right to left) 1,000 pieces × 2 cubits wide × 10 cubits long; 1,000 × 30 square cubits; 1,000 × 40 square cubits; 1,000 × 60 square cubits; 1,000 × 100 square cubits.

C  *śmn.t* quality linen
(Right to left) 1,000 pieces × 60 square cubits (each) in area; 1,000 × 70 square cubits; 1,000 × 80 square cubits; 1,000 × 90 square cubits; 1,000 × 100 square cubits.

D  *ṣj* quality linen
(Right to left) 1,000 pieces × 50 square cubits (each) in area; 1,000 × 60 square cubits; 1,000 × 70 square cubits; 1,000 × 80 square cubits; 1,000 × 100 square cubits.

The signs representing quality in all four ‘headings’ are oriented left to right, *i.e.*, facing the tomb owner, but the writer has chosen to read the second register containing textile dimensions from right to left, contra Manuelian.\(^\text{61}\) This reading is based on the orientation of *śn.t* and the arrangement of the dimensions in ascending, rather than descending, order. It should be conceded that the orientation of signs appears to be variable and inversions occur. In the Giza slab stelae the offerings face largely toward the seated owner, whereas in the Helwan slabs the majority face right, *i.e.*, away from the owner.

2.2.7. Construction of the fringes

The construction of the long, twisted ‘forked’ or ‘inverted V’ vertical fringe that expresses linear measurements was first identified and interpreted by Jéquier,\(^\text{62}\) based on the representation of fringed cloths on the coffin of Djehutihetep in the Egyptian Museum in Cairo. He postulated that the number of fringes represents the width of the cloth, but did not specify a unit of measure. This fringe type is formed when an equal number of warp yarns are twisted together at regular intervals, forming a decorative fringe at the finished end of the textile (Fig. 6.8). The ‘raw’ warp fringe occurs when the yarns are cut from the warping beam on completion of weaving and are not worked further. The short weft fringe is inserted in bundles of yarn into the selvedge during the weaving process, and in ancient Egyptian linens is generally found on the left hand side of the textile.\(^\text{63}\) (See Fig. 6.9 for a reconstruction of the elements of a woven textile).

The long, twisted upright fringe and the short weft fringe are graphically illustrated in the linen list of Kanefer (Fig. 6.10). The upright ‘inverted V’ fringe in the second register of the first group, under the heading *idmy*, indicates linear measurements. In the second group signs denoting measurement of surface area are enclosed in short-fringed cloths.

\(^{60}\) Expressed in linear measurements, indicated by the two vertical fringes. Discussed in detail below.

\(^{61}\) Manuelian 2003, 70.

\(^{62}\) Jéquier 1921, 31.

\(^{63}\) See Kemp & Vogelsang-Eastwood 2001, 123–144 for fringe construction.
Smith considered a number of interpretations (including some made by previous scholars) regarding the meaning expressed by the varying number of fringes. For example, that they could represent the number of yarns in a specific length of cloth or the quality of the yarn, estimated by the number of fibres per thread. He quite correctly dismissed this as being technically impossible, and proposed that the number of vertical fringes depicted on the textile suggest a measurement of width, based on the number of “hand-breadths”. He also suggested that “special terms” such as ssf, tm3 may also indicate “unusual” widths, either extra wide or narrow, or plaited bands for girdles. His observations have been further expanded, refined, and corrected.

Smith 1935, 142; 148–149. His interpretation of the meaning of “special terms” have been accepted by some but
Paule Posener-Kriéger attempted more exact calculation of dimensions on the Old Kingdom stelae, based on analysis of a Fourth or Fifth Dynasty papyrus from the Gebelein archives, which was devoted to the accounting of cloth deliveries.\textsuperscript{65} She applied the principles therein to the calculation of size of the textiles on the Giza slab stelae. As discussed briefly above, she proposed that each of the vertical signs (i.e. fringes \(\text{\upshape I} \)) is equivalent to one cubit, so that the width of a textile can be calculated by the number of vertical fringes, up to a total of four or five in the Old Kingdom linen lists. When placed over the horizontal sign\textsuperscript{66} — that she postulated to be equivalent to 10 units, the length of the textile would be 10 cubits. For example, \(\text{\upshape II} = 2 \) cubits wide \(\times 10 \) cubits long.\textsuperscript{67} When the number of vertical signs was greater than four or five, Posener-Kriéger noted that generally the size was written as a series of — each of which was equivalent to 10 square cubits, \textit{i.e.}, giving a measurement of surface area.\textsuperscript{68}

The use of horizontal signs as well as the vertical fringes to represent the smaller dimensions e.g. 30 square cubits, implies that there is a clear distinction in meaning between the two types of signs.\textsuperscript{69} The sign \(\text{\upshape III} \) would designate a textile with a specific width of 3 cubits \(\times 30 \) cubits in length, but \(\text{\upshape IIII} \) (30 square cubits) would provide a number of possibilities: 1 cubit \(\times 30 \) cubits, 2 cubits \(\times 15 \) cubits, 3 cubits \(\times 10 \) cubits, 5 cubits \(\times 6 \) cubits. The first measurement is unlikely, although technically possible, nor is the last probable. This leaves the second measurement as the most likely, as distinct from the third (3 cubits \(\times 10 \) cubits) that would have been written with the upright fringes if a width of 3 cubits had been intended. Similar observations can be made regarding the larger sizes: 60 square cubits has six possible combinations of linear dimensions of width and length, 70 square cubits has four possibilities, 80 square cubits has five possibilities, and 90 square cubits has six possibilities.\textsuperscript{70}

Posener-Kriéger applied the formula to the Heb-Sed cloak on the reliefs at Abu Gurob, made of \textit{idmy} quality linen, 30 or 40 square cubits in size.\textsuperscript{71} The calculation based on 1 cubit as the base unit yields measurements of 1.60 m. \(\times 5.25 \) m., or 2.10 m. \(\times 5.35 \) m. This result appears to be unrealistic for the construction of a cloak that in representations finishes above the knees, except perhaps if the material were doubled. By calculating the surface area on the basis of 1 cubit \(\times 1 \) palm, a relatively reasonable measurement of 0.75 m. \(\times 2.1 \) m. was reached.\textsuperscript{72}

\textsuperscript{65} Posener-Kriéger 1977, 86–96.
\textsuperscript{66} Gardiner 1988, sign list no. Aa 12.
\textsuperscript{67} Posener-Kriéger 1977, 88–89.
\textsuperscript{68} Posener-Kriéger 1977, 92. This interpretation has been followed by Kahl, Kloth & Zimmerman 1995, 175–179 and Köhler & Jones 2009, throughout. Manuelian in his translation of the linen lists used the formula to calculate width, which gives unrealistic measurements of e.g. 90 cubits (wide), 80 cubits (wide) etc. Posener-Kriéger 1977, 91 discussed the nuances inherent in the vertical and horizontal signs and concluded that the horizontal sign indicates area.
\textsuperscript{69} As in the second register of the second group in the linen list of Ini, Fig. 6.7 above.
\textsuperscript{70} I wish to thank John Croucher, Professor of Management, Macquarie Graduate School of Management, Sydney Australia for many insightful comments regarding the calculations.
\textsuperscript{71} Bissing & Kees 1923, 6–7, Pls. 16, 22. However, the reason that Posener-Kriéger chose 30 or 40 square cubits is unclear, because the inscription very clearly shows four upright fringes i.e. 4 cubits \(\times 10 \) cubits = 40 square cubits. The Heb Sed cloak was worn by the pharaoh during the ceremony to celebrate his continued rule, the first generally held after 30 years of reign.
\textsuperscript{72} Posener-Kriéger 1977, 94–95.
3. Textile and textile-related signs in the Helwan corpus

3.1. Designations of quality

It has been noted previously that three designations of quality appear in the Helwan linen inventories.

*iti.wy*: 'royal' linen, the finest quality (Fig. 6.11: 1)
This designation of quality is the second to occur in the Helwan corpus, towards the end of Group B in the mid-Second Dynasty, on relief EM99-23. Although there are eight occurrences of the ultra-fine 'royal' linen in the lists, only three of the individuals had royal associations according to their titles. Hence the significance of the inclusion of that superior quality in a private individual’s tomb requires further investigation. The question arises how, and in fact whether, in reality these non-royal persons were able to access a commodity that probably should have been reserved for the consumption of the elite.

*sšr*: a lesser quality (Fig. 6.11: 2)
This indicator of quality is the first to occur in the Helwan corpus (EM99-15), also in the mid-Second Dynasty, but earlier in Group B than *iti.wy*.

*c*: another quality (Fig. 6.11: 3)
This is the last quality that appears in the corpus, dated mid- to late Second Dynasty (see Fig. 6.2, EM99-18).

![Fig. 6.11: 1–3 Designations of quality. 1) iti.wy: ‘royal’ linen. 2) sšr: a lesser quality. 3) c: another quality.](image)

The signs provide implicit evidence that linen was graded according to quality and assessed by specific criteria, which would have included at least the density of the weave and the fineness of the yarn. However, there is an absence of evidence to determine the standard for grading of quality, and the specific meaning of the signs remains unknown. Textiles inscribed with designations of

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73 Figs. 6.11, 6.12, 6.16, 6.17, 6.19 are reproduced from Köhler & Jones 2009, 48–50.
74 Köhler & Jones 2009, 95.
The ‘linen list’ in Early Dynastic and Old Kingdom Egypt

quality would require analysis of thread count, yarn diameter, preparation of the fibre, etc., and comparison with other examples bearing similar signs in order to collect any significant data. (The problems encountered with this approach have been discussed in the introduction).

Nor is it possible to quantify textile output on the basis of the textual or archaeological evidence, except to note that large quantities of fine quality textiles appeared in burials in this period, including articles of clothing. The greatest quantity of extant textiles is from the large mastabas at Tarkhan that are contemporary with the First Dynasty stelae. Mastaba 2050, despite plundering, still contained 17 different qualities of linen textiles when excavated (Petrie 1914; Midgley 1915) as well as the oldest surviving dress (Hall 1982). Furthermore, very fine linen was being produced. When analysing the textiles, Midgley commented on the excellent preparation of the flax fibre and the quality of the woven textiles, which he stated were finer than the finest contemporary Irish linen (Midgley 1915, 48). The finest quality textile had a count of 200 warp and 48 weft yarns per inch (approx. 80 × 20 per cm).

More than 600 years earlier in the Predynastic period, evidence shows that specialist workshops produced textiles of uniform quality for funerary purposes. At Hierakonpolis in the ‘working class’ cemetery HK43 (c.3500 BC), only two qualities of textile were used as shrouds and wrappings throughout the cemetery – a fine and a medium. At the contemporary Cemetery 7000 at Naga ed-Dër three qualities – fine, medium, coarse – are reported.

3.2. Clothing

$m\dfrac{t}$: long-sleeved, V-necked dress, or garment (Fig. 6.12: 1)

Perhaps the most interesting of the signs denoting clothing is $m\dfrac{t}$. It represents ideographically one of the few surviving items of clothing: the long-sleeved, V-necked dress with horizontal pleats. The identification is supported further by iconographic evidence from the Helwan corpus. Smith was the first to relate the form of the Sixth Dynasty Old Kingdom dresses from the Reisner excavations at Naga ed-Dër and the Petrie excavations at Deshasheh to the ‘dress’ ideograms in the linen list on the Second Dynasty stela of Sehensner from Saqqara. Since that time, the earliest extant dress dated First Dynasty from Mastaba 2050 at Tarkhan has been found in the storerooms of the Petrie Museum and conserved, together with two of the Deshasheh dresses.

Rosalind Hall, Elizabeth Riefstahl and Gay Robins noted that the horizontally pleated dress with sleeves and bodice was not depicted on the monuments, and all stated that depictions in

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75 Textiles from Tarkhan Mastabas 1060, 2038 and 2050 are in the Petrie Museum of Egyptian Archaeology in London and the Bolton Museum and Art Gallery, Bolton, U.K.
76 Petrie Museum of Egyptian Archaeology UC 28614B1.
77 Mastaba 2050, textile 9 (Midgley 1915, 50). The most common weave in ancient Egypt is in the ratio of two warp yarns to one weft.
79 Lythgoe & Dunham 1965, 33.
80 All occurrences in the Helwan corpus date to the Second Dynasty.
81 Smith 1935, 139, Fig. 1. Museum of Fine Arts, Boston, u 34.56 from tomb N 94. This is one of nine such garments.
82 Smith 1935, 138; Petrie 1897, 31, Pl. 35.
83 Quibell 1923, Pl. 26.
Both Hall and Riefstahl suggested that the sleeved dress was a logical development out of the Old Kingdom V-necked dress with shoulder straps, as depicted on the monuments. It is surprising that Hall shared this view, as she knew of the existence of the First Dynasty dress, which predates depictions of the sleeveless Old Kingdom dress by some 300 years.

However, the recent study of the Helwan material has shown that two female tomb owners

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86 Hall 1981, 170; Riefstahl 1970, 244; Robins 1990, 45–46.
87 Hall, 1984, 139; Riefstahl 1970, 251.
88 Despite the great quantities of textiles in Old Kingdom burials, the only reported evidence of the typical sleeveless, V-necked dress depicted on the monuments was a ‘cut out’ placed over the Fourth Dynasty mummy from Giza G 2220 B. It was inscribed with the quality šm.t nfr.t. An excavation photograph is all that remains. See Vogelsang-Eastwood 1993, Pl. 25; Ikram and Dodson 1998, Pl. 174.
6. The ‘linen list’ in Early Dynastic and Old Kingdom Egypt

Fig. 6.13 (left). Dress with pleated short sleeves and pleated bodice. Relief slab of N(i)t-mah EM99-5 (mid-Second Dynasty)
Fig. 6.14 (right). Dress with short, tightly pleated sleeve protruding from cloak. Relief slab of Sep EM99-12 (early to mid-Second Dynasty).

on Second Dynasty reliefs are depicted wearing V-necked dresses with finely pleated short sleeves (Figs. 6.13, 6.14). Apart from the Louvre figurine89 of a female wrapped in a fringed cloak revealing one short, pleated sleeve in the style of EM99-12, the Helwan reliefs represent the only two-dimensional iconographic evidence for pleated, short-sleeved dresses known to us.

An incorrect transliteration based on a misreading of the phonetic writing of m3t on the textile label from the Third Dynasty unfinished pyramid of Sekhemhket90 has entered the literature and should be reconsidered. This sign group was read by Wolfgang Helck as m3tt,91 and followed by Kahl92 but not Kaplony.93 Inspection of the label in the Egyptian Museum, Cairo94 has shown that the sign group does not contain the sign $t$ that is shown in the Helck drawing. The sign group is comparable to that on EM99-4 dated late Second Dynasty (Fig. 6.5), which contains the first occurrence of the phonetic writing of the sleeved garment as m3t. The sign does not occur in the linen lists beyond the late Second Dynasty,95 and that appearing on the Third Dynasty label

90 Goneim 1957, Pl. 65b.
91 Helck 1957, 72–76.
94 Egyptian Museum Cairo, JE 92679. Permission to examine and publish the label was granted by the former director of the Egyptian Museum, Mohammed Saleh.
95 The use of the hieroglyph representing a sleeved garment or dress does not occur on the Old Kingdom Giza slab stelae, contra Hall, who stated that the sleeved garment occurs as a determinative to ssf in the Old Kingdom linen
is the last occurrence known to the writer. Consequently there appears to be no evidence for the transliteration of the sign group as $m\ddot{\mathfrak{t}}\dot{t}$.

$tm\ddot{\mathfrak{s}}\dot{t}$, $m\ddot{\mathfrak{s}}\dot{t}$: cloak (Fig. 6.12: 2)

The identification of cloaks appears to be the most challenging. There are numerous signs that have invited interpretation, and the cloak ideogram often occurs in names and titles. There are two apparent occurrences of cloaks with ties in the Helwan group ($tm\ddot{\mathfrak{s}}\dot{t}$ Kahl sign s 19# on EM99-10; $m\ddot{\mathfrak{s}}\dot{t}$ Kahl sign s 28 on EM99-13). It is proposed that a third sign, on EM99-10, identified as a fringed textile by Kaplony and Kahl, may be interpreted as the rectangular short-fringed cloak which is depicted wrapped around the shoulders of archaic sculptures such as the Louvre figurine discussed above. The internal lines on both the garments in EM99-10 may indicate creases, suggesting that they have been folded inside storage chests. The latter could be compared to the textile label of a cloak with ties from Tomb U-j and one from earlier excavations at Abydos.

$b\ddot{\mathfrak{h}}\dot{y}.t$: penis sheath (?) (Fig. 6.12: 3)

The sign that has been read as $b\ddot{\mathfrak{h}}\dot{y}.t$ occurs only once in the Helwan corpus (EM99-23) and appears to be an isolated occurrence amongst Early Dynastic reliefs. The standard translation as ‘penis sheath’ may be colourful, but the form of the sign does not allow further interpretation. Nor is there any archaeological evidence to clarify the meaning.

$\ddot{\mathfrak{s}}ndw.t$: kilt (Fig. 6.12: 4)

The ideogram read as $\ddot{\mathfrak{s}}ndw.t$, a ‘kilt’ occurs only on EM99-19 (Fig. 6.6). This translation is based on the phonetic writing on the bone textile label from Sekhemkhet, where the ideogram appears

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99 Bochi 1996, 221–253 discusses the social significance of creases on garments depicted in Middle Kingdom statuary.

100 Dreyer 1998, Fig. 81.162; Pl. 35 X190 (Brussels 6143) and Index 190. Also Kaplony 1966, Pl. 22.
as a determinative (Fig. 6.15).\textsuperscript{101} Again, there are no occurrences in the Old Kingdom linen lists, but the form of the garment is clearly identifiable from two- and three-dimensional art.

\textit{\textls[-50]s\textls[-20]sr}: linen (generic) (Fig. 6.12: 5)
The sign \textit{\textls[-50]s\textls[-20]sr}, a generic term for 'linen', or articles made of linen, appears only once in the Helwan corpus, in EM99-12 (Fig. 6.14). It occurs in isolation beside the offering table, and no other textiles are designated.

\textit{mn\textls[-20]h.t}: clothing (generic) (Fig. 6.12: 6)
A very early occurrence of \textit{mn\textls[-20]h.t}\textsuperscript{102} appears in EM99-14 (Fig. 6.4). This is a generic term for 'clothing' and is an early example of a grouping of linen and \textit{\textls[-50]s\textls[-20]s}, 'vessels of calcite', commonly found in later periods.\textsuperscript{103} They appear together above the offering table, in a register separated from the rest of the textiles by a vertical division. In EM99-6, the two signs occur in the lower right hand corner of the panel, beyond the offering table. This combination also occurs in EM99-19 (Fig. 6.6), where they appear beside the offering table. The latter is a standard arrangement on the slab stelae of the Giza group.

3.3. Textiles

\textit{Fringed cloths}. The rectangular piece of textile with a varying number of fringes is the most commonly occurring sign on the Early Dynastic Helwan relief slabs, where it appears on 30 out of the 31 reliefs with textiles.\textsuperscript{104} Three distinct types of fringe have been noted, and have been arranged into three categories (see Fig. 6.16: 1–3).

Scholars to date have not distinguished between the short and long fringe types. When Kahl studied the signs, he saw no difference between the fringes, noting that they are interchangeable, and their use is based on available space. He suggested that Type 3, the short, upright fringe is a variant of Type 2, but represents large measurements.\textsuperscript{105} Kaplony noted the distinction, and suggested further investigation.\textsuperscript{106} Examination of the fringe types in context shows that when both long and short-fringed textiles occur on the same slab, often in the same register, their writing does not appear to be governed by space restrictions (as is clear in Fig. 6.5).\textsuperscript{107}

By relating the three different representations to actual textiles, the following observations can be made.

\textsuperscript{101} Goneim 1957, Pl. 65b; Helck 1957, 76; Kaplony 1963, Vol. I, 332.

\textsuperscript{102} Gardiner 1988, sign list no. S 27.

\textsuperscript{103} Gardiner 1931, 161–183.

\textsuperscript{104} Fringes are an intrinsic decorative component of woven linen textiles throughout ancient Egyptian textile history. The earliest archaeological evidence for the presence of a weft fringe is from the prehistoric 'painted linen' from Gebelein (Naqada IC-IIA, c.3700 BC), Museo Egizio, Turin. Suppl. 17158.

\textsuperscript{105} Kahl 1994, 712, n. 2138. A new number s 37 has been allocated to the short-fringed textile to distinguish it from Kahl number s 2, which encompasses all fringe types. Köhler & Jones 2009, 47–48.


\textsuperscript{107} For example, Köhler & Jones 2009, EM99-4, -5, -7, -15, -17-23, S99-5, S05-135. The difference is also clear on the Second Dynasty stela of Sehefner at Saqqara, Quibell 1923, Pl. 36. The First Dynasty wooden label from Saqqara Tomb X (Neska) unmistakably depicts both long and short-fringed textiles amongst other commodities, Emery 1958, 115, Fig. 65.
Type 1: the long, vertical fringe (Fig. 6.16: 1)
The fringe type may be interpreted as the ‘raw’ warp fringe (Fig. 6.9). This fringe type does not occur with Type 2 on any of the reliefs. The fringes generally range in number from one to eight.

Type 2: the vertical ‘forked’ or ‘inverted V’ fringe (Fig. 6.16: 2; see also Figs. 6.8, 6.10)
The number varies between one and five in the Helwan lists. The first occurrence at Helwan is in the early Second Dynasty,\textsuperscript{108} with one occurrence in the mid- to late Second Dynasty.\textsuperscript{109} In the Third and Fourth Dynasties it is the standard long fringe type, and Type 1 no longer occurs. Consequently it appears that Types 1 and 2 are interchangeable, until Type 2 supersedes Type 1.\textsuperscript{110}

Type 3: the short fringe (Fig. 6.16: 3)
This is indicated by multiple strokes, up to a maximum of 15. It is proposed that the short fringe represents the inlaid weft fringe inserted into the left hand selvedge (Fig. 6.9). The orientation to the left in some of the examples may graphically illustrate the weft fringe. When fringed textiles are used in garment construction, the weft fringe is often positioned vertically on the left side, so that the component threads tend to slant downwards.

After taking into consideration the above observations that the two types of long fringe are probably interchangeable, and that there is a clear distinction between the long and short fringes shown on the textiles, the function of the latter in the Early Dynastic inventories still remains a mystery. Furthermore, the horizontal sign indicating area does not occur in the Early Dynastic linen lists. The question of how surface area in the Early Dynastic lists was measured remains in doubt, and is the subject of ongoing investigation by the writer.

\textsuperscript{108} EM99-20.
\textsuperscript{109} EM99-18.
\textsuperscript{110} The writer is not aware of extant textiles with Type 2 fringes from Early Dynastic contexts.
3.4. Designations of area in the Early Dynastic and Old Kingdom Linen Lists

The hypothesis put forward by Posener-Kriéger that each of the horizontal signs represents 10 square cubits, and the area of the textile is calculated by multiplying that unit by the number of times the sign is written, has been accepted as the most credible based on currently available evidence. In the discussion of the fringed textiles in the Early Dynastic lists it has been noted that the horizontal signs that denote area and which are so common on the Old Kingdom linen lists are completely absent from any known Early Dynastic linen inventories. They do not occur until the Third Dynasty on EM99-19 (Fig. 6.6), when the list begins to acquire the structure of the developed Fourth Dynasty lists. The hiatus of some 650 years between the occurrence of the horizontal signs on the bone labels from Tomb U-j at Abydos and the Third and Fourth Dynasties is difficult to interpret. One possible explanation is that the so-called ‘horizontal’ signs were in fact numerals, and appeared to be oriented horizontally as a result of the random placement of the hole that was drilled into one corner of each label.

$h; h.t$: an area greater than 100 (square?) cubits, less than 1,000 (square?) cubits (Fig. 6.17: 2)

A less frequently occurring sign $\frac{1}{2} h$ or $h.t$ (sometimes written inside a fringed rectangle) represents a known value probably greater than 100 or 200, but less than 1,000 cubits. Posener-Kriéger tentatively favoured a linear measurement of 300 cubits. However, the frequent occurrence of the sign in the same register as signs expressly denoting area would suggest that the notion that it represents a linear measurement may require further investigation. The sign occurs in the same register as $\tilde{sn}.t$ that designates area in the two Helwan stelae where it appears (see below). Where the sign is seen in the lists of the Giza group, it is also together with $\tilde{sn}.t$. The sign does not appear in the Helwan corpus until the Third and early Fourth Dynasties. However, $h$ occurs in the linen list of the Second Dynasty stela of Sehefner from Saqqara.

Fig. 6.17: 1-3 Signs designating surface measurement in cubits. 1) Horizontal signs designating square cubits. 2) $h; h.t$ a value greater than 100 (square?) cubits and less than 1,000. 3) $\tilde{sn}.t$ 100 square cubits.

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113 Gardiner 1988 sign list no. V 28. The writing $h.t$ appears to be an isolated occurrence. It is always written $h$ in the Giza slab stelae.
114 Posener-Kriéger 1977, 93–94, n. 27.
115 Exceptions are Manuelian 2003, Pl. 6 G1205; Pl. 8 G1207; Pl. 14 G1227; Pl. 30 G4860, each of which contains a sign denoting linear measurements of $2 \times 10$ cubits in a register devoted to measurements of area.
116 Manuelian 2003, Pl. 4 G 1203; Pl. 8 G 1207; Pl. 14 G 1207; Pl. 20 G 2135; Pl. 26 G 4150.
117 Quibell 1923, Pl. 26.
The number ‘100’ written inside a square or rectangle, in all probability represents an area of 100 square cubits. As has been noted, the horizontal sign designating area occurs only up to a total of nine i.e. 90 square cubits, never ten. In EM99-32, the sign is written inside a fringed rectangle. It is possible that the fringes were applied in pigment on EM99-19 (Fig. 6.6), where missing vertical lines suggest that other sections of the list may originally have been painted.

The short fringe on the Giza slabs appears only on the fringed rectangles enclosing signs representing area. (For example, Fig. 10 Kanefer). In the complete absence of the horizontal signs in the Early Dynastic textile inventories, how was surface area indicated? Is it possible that the Early Dynastic sign of the rectangular, short-fringed textile is the precursor of the fringed cloths that generally contain signs designating area on the Giza slab stelae? Consequently, could the short-fringed textile in the Early Dynastic stelae denote a measurement of area? This proposal is a working hypothesis pending future evidence.

Calculations of size applied to archaeological textiles
The measurements of five intact Middle Kingdom textiles from excavations at the temple of Mentuhotep at Deir el-Bahari by the German Archaeological Institute were made available to Posener-Kriéger. Yet, when these measurements are converted into both linear and square cubits, they involve fractions of a cubit and not whole numbers. For example, one of the textiles measures 1.20 m. × 18.40 m. = 2.29 × 35.18 cubits = 80.56 square cubits.

Clearly a complete textile inscribed with one of the signs designating size would give irrefutable evidence for the units of measure. Posener-Kriéger cited the only inscribed example known to her, but stated that she was unaware of the dimensions. The linen, from the Sixth Dynasty pyramid of Pepi I, was inscribed in ink headed by the textile sign denoting width ||, followed by the inscription ḫḥ n sīd n nsw bi.ty Ppy ḫḥ(.w) ḫ.t, “costly/noble (cloth) which was made for the King of Upper and Lower Egypt Pepy, may he live eternally”. Based on Posener-Kriéger’s reckoning, the textile in its original form should have measured the same as the larger Heb-Sed cloak mentioned above.

The writer examined the textile in the Egyptian Museum, Cairo (Fig. 6.18). It had been

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118 Posener-Kriéger 1977, 93.
119 See also Manuelian 2003 G 1201 Pl. 1, the stela of Wepemnefret, where it occurs in the last register with other signs of area. The fringed textile occurs twice on the stela from G 4860 (Manuelian 2003, Pl. 30) enclosing h and sn.t, and on the Fifth Dynasty linen list on the east wall in the chapel of Seshemnefer I (Manuelian 2003, 156, Fig. 234 and Appendix 3, Figs. 310–312.) The squares of the latter list appear to be empty, but close inspection of the original expedition photographs (from 1931) shows traces of relief inside each, and possibly a short fringe surmounting the squares.
120 Posener-Kriéger 1977, 92 n. 22.
121 Posener-Kriéger 1977, 94 n. 29.
122 Grammatically, it would also be possible to read the inscription as “ ... which Pepy the king of Upper and Lower Egypt made ...”. That would indeed make it an interesting artefact! I am grateful to Boyo Ockinga, Macquarie University, Sydney, Australia for clarifying the alternate readings of the inscription.
123 Temporary No. 21/3/33/1. Located in Upper Corridor 44. Permission to examine and publish was granted by the former director of the Egyptian Museum, Mohammed Saleh. Yarn is single, s-spun; the weave is a medium quality tabby with a thread count of 24 × 16. Inscription published by Wiedemann 1884, 211; Maspero 1903, 472, n. 57; Sethe 1932, 97.16; Brugsch 1968, Vol. V, 1212; Porter & Moss 1981, 424; Labrousse 1994, 160, 161 n. 33. I am grateful to Audran Labrousse for generously providing references and information on the precise provenance of the textile, which was...
6. The ‘linen list’ in Early Dynastic and Old Kingdom Egypt

cut from the complete textile, and folded to display the inscription. Doubled over, it measured approximately 29 cm; the total width was stated as 45 cm in the Journal d’Entrée. The textile was too fragile to unroll to measure the length, but the size of the fragment would not have been relevant to any calculation of dimensions. The inscription was located at the finished end near the raw warp fringe that originally would have measured approximately 8 cm. Additional signs not noted in publications of the inscription were observed using a stereo-microscope at 10× magnification. They were located 2 cm above and 2.5 cm to the left of the beginning of the inscription. They comprised the two horizontal signs designating area arranged one above the other, approximately 1 cm in length, with one sign to the right of these, approximately half that length. Unfortunately we have lost a most important diagnostic specimen.

The calculations proposed by Posener-Kriéger still remain problematical. The papyrus was incomplete, and the exact value of the units of measure remains to be confirmed. Often some quite fantastic measurements of size are obtained if the cubit is used as the basic unit in the linen lists. Posener-Kriéger’s study is a valuable point of departure for further research. The possibility that the unit of measure in the linen lists, like the ‘ideal’ quantity of 1,000 has become purely symbolic and no longer bears any relation to reality, cannot be discounted without further inquiry.

3.5. \textit{sf}, a less common textile sign

A less frequently occurring textile sign and largely misunderstood term is \textit{sf} \textit{ṣ-em}. There are five confirmed occurrences of the phonetic writing of the term \textit{sf} in the Helwan linen lists\textsuperscript{125} and four on the Giza slab stelae.\textsuperscript{126} In the course of investigation into the term, it became clear that there is confusion and disagreement surrounding the meaning amongst various scholars, who have proposed the following translations.

\textsuperscript{125} In addition to the occurrences reproduced in Fig. 6.19, \textit{sf}, written with no apparent determinative, occurs on EM97-43 dated Third Dynasty.

\textsuperscript{126} Manuelian 2003, Pl. 14, G 1227; Pl. 18, G 2120 (four occurrences); Pl. 22, G 2115(?); Pl. 30, G 4860.
3.5.1. *sf* as a ‘sleeved garment’
The misconception that *sf* or *ssf*\(^{127}\) refers to a sleeved garment appears to have its origins in the flawed interpretation of the sign by Kaplony. This translation has continued to be perpetuated in the literature.\(^{128}\) In the linen list of EM99-1, dated to the late First to early Second Dynasties, the first of the three textile signs (reading right to left) in the top register was read as *sf* by Kaplony,\(^{129}\) with the determinative of a sleeved garment below (Fig. 6.20). Kahl followed this interpretation and allocated the number s 3 (*Hemd*) to the sign group.\(^{130}\) Although the phonemes appear to be clear, albeit roughly executed, the reading of the determinative is problematical. If it were interpreted as a sleeved garment, it would have only one ‘sleeve’. There is insufficient space on the panel for the other ‘sleeve’ to be depicted, even if fused with *s*. Kaplony refers to this writing as a ‘lesser known’ form of *sf*\(^ {131}\) but there do not appear to be comparable occurrences of the sign.

It should be noted that parts of the relief are heavily eroded, with salt and sinter incrustation, which contribute to the difficulty in deciphering the signs. Examination of the relief has not convinced the writer that Kaplony’s reading of the sign is possible. A second reading of *sf* as a garment by Kaplony in the textile inventory of EM99-11\(^ {132}\) is even less plausible than that of EM99-1, because of the poor execution of the relief in roughly incised lines.

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\(^{127}\) *ssf* is written with the redundant ‘s’. This writing appears in EM99-19, -34. For discussion of the redundant ‘s’ see Kahl 1994, 66–70. *sf* is the first textile sign in the Early Dynastic corpus to be written phonetically.


\(^{129}\) Kaplony 1963, Vol. I, 324, 331; 1966, Pl. 146, Fig. 850.

\(^{130}\) Kahl 1994, 67, n. 78; 714.


6. The ‘linen list’ in Early Dynastic and Old Kingdom Egypt

3.5.2. *sf* as a ‘narrow cloth’
The sign has been interpreted as a narrow cloth of a specific size by Posener-Kriéger\(^{133}\) and followed by Kahl, who described it as “*ein schmaler Stoff mit bekannten Abmessungen*”.\(^{134}\) Smith had also proposed that *sf* represents a narrow width of cloth, erroneously basing that premise on the perceived narrowness of the Y-shaped determinative\(^{135}\) | on the stela of Sehefner at Saqqara.\(^{136}\) In fact, this sign represents the tie binding bolts of linen together, as suggested below.

3.5.3. *sf* as a ‘bolt of linen tied in the centre’
Henry G. Fischer argued for the interpretation of the sign as a bolt of cloth tied in the centre, represented by the hieroglyph — adapted from N 18 in Gardiner’s sign list.\(^{137}\) He based this reading on a comparison of the determinatives of *sf/ssf* occurring in offering lists, as well as representations in Old Kingdom burial chambers of bales of cloth bound together.\(^{138}\) He conceded that the sign might well represent an unknown, specified dimension, but not a narrow cloth. His interpretation is graphically illustrated by the determinative of *sf* on the early Second Dynasty relief slab EM99-24\(^{139}\) as well as on a newly discovered, unpublished relief slab from Helwan. Although the tied ends are not shown protruding from the top of these determinatives, this feature does not occur in every case, as can be seen in the examples collected by Fischer.\(^{140}\) Furthermore, Fischer noted that early examples show the tie in the centre.\(^{141}\) Where *sf* appears in the lists, it is always in the register or section designating size. This would corroborate the premise that it represents a specific, pre-determined dimension. The writer has chosen to follow Fischer in the interpretation of this sign as a bolt of linen, possibly of specific dimensions, tied in the centre.

* * *

The inscriptions on the private funerary stelae of the Early Dynastic period have been an important source of study for philologists, because they provide some of the earliest evidence for hieroglyphic writing. By their very prominence on the stelae, the Early Dynastic and Old Kingdom linen lists have attracted many attempts at ‘deciphering’ the textile terminology. The archaeological evidence has been very rarely, if ever, systematically examined and related to the lexicographic evidence. Consequently many hypotheses with no basis in technical realities of production have been advanced and perpetuated.

\(^{133}\) Posener-Kriéger 1977, 94.
\(^{134}\) Kahl, Kloth & Zimmerman 1995,175 n. 5; see Kahl 1994, 65–70 for an analysis of the various forms.
\(^{135}\) Gardiner 1988, sign list no. O 30.
\(^{136}\) Smith 1935, 149; Quibell 1923, Pl. 26 (tomb 4164E); Smith 1978, Pl. 32a. The determinative also appears on the Sekhemkhet textile label, Fig. 15.
\(^{137}\) Fischer 1977, 148–155. The sign follows S 26 (*šndw.t* a ‘kilt’) in the sign list in Gardiner 1988, as referenced by Fischer 1977, 148 n. 41.
\(^{139}\) Fischer 1977, 151 n. 50 discusses the occurrence of the sign on Helwan EM99-24, citing it as the earliest attested example. However, he dates the relief to the Third Dynasty based on the research of earlier scholars, and reproduces the determinative incorrectly (Fischer 1977, 153, Fig. 15a).
\(^{140}\) e.g. Fischer 1997, 153, Fig. 12 b, e, f, g, h, i, j.
\(^{141}\) Fischer 1997, 151.
Close examination of the inscriptions in situ has enabled a number of misunderstood or flawed interpretations of textile terminology to be rectified. The observations on calculation of dimensions of the Old Kingdom textiles made by the late Posener-Kriéger have been by far the most ‘scientific’ because they are based on papyri dealing with textile deliveries. However, she cautioned that there are many lacunae and that the base unit of measure still remains to be established. Moreover, the criteria for measurement of surface area in the Early Dynastic textile inventories remains unclear because of the absence of the horizontal signs that represent area in the Old Kingdom linen lists. Another element of the linen list that needs further investigation is the determination of the quality of the textiles. Meaningful solutions to these problems are largely dependent upon the availability of inscribed textiles for analysis and examination of new, comprehensive textual evidence.

The Helwan corpus has also clarified the origins and development of the linen list, confirming that the Early Dynastic textile inventories are indeed antecedents of the Old Kingdom linen lists. In addition to the evolution of an ordered arrangement of the textiles, it can be observed that the type and variety depicted gradually increased and signs representing items of clothing were included. The quantities of offerings also increased and signs designating quality of the textiles were introduced. The archaeological evidence from contemporary burials containing large amounts of textiles and garments corroborates that there was a real demand for a wide variety of textile qualities and clothing as part of the funerary ritual, and that the large-scale production of fine, high quality linen textiles was already a significant factor in the early Egyptian economy.

Yet the textile inventories of the early 3rd millennium BC offer insights into a broader range of issues in relation to the society of the time. In the early ‘lists’ we see a rather random and possibly individual choice of offerings that increasingly become more ritualised and formalised, reflecting changing protocols in funerary religion and beliefs. The social ranking of the owners of the relief slabs was probably the highest in the necropolises. The deceased, who was identified and named, joined the community of the afterlife for eternity, and required that his or her status be upheld through the size and provisioning of the tomb. In addition to the symbolic function of the offerings inscribed on the slabs, the deceased was equipped with perishable and non-perishable provisions that reflected the ability or the wishes of the tomb owner and the family to indulge in mortuary expenditure. We are indeed fortunate that textiles and textile inventories reflecting the final ‘wish-list’ of Egyptian individuals have survived five millennia, affording us a glimpse of their desires and aspirations for the afterlife.

Acknowledgements
I am grateful to E. Christiana Köhler, Macquarie University, Sydney Australia, for giving me access to the Helwan stelae and the privilege of working with her on the publication of Helwan II. The Early Dynastic and Old Kingdom Funerary Relief Slabs (2009). Artwork (unless otherwise specified) is by E. C. Köhler and appears in the publication. The hieroglyphs in this paper have been reproduced using JSesh: an open source hieroglyphic editor.
6. The ‘linen list’ in Early Dynastic and Old Kingdom Egypt

Abbreviations

ÄA cf. Äg.Abh.
Äg.Abh. Ägyptologische Abhandlungen
Beitr.Bf Beiträge zur ägyptischen Bauforschung and Altertumskunde herausgegeben vom Schweizerischen
Institut für ägyptische Bauforschung and Altertumskunde in Kairo
BIFAO Bulletin de l’institut français d’archéologie orientale
CdE Chronique d’Égypte
DE Discussions in Egyptology
EA Egyptian Archaeology
GM Göttinger Miszellen
JEAL Journal of Egyptian Archaeology
LÄ Lexikon der Ägyptologie
MÄS Münchner Ägyptologische Studien
MDAIK Mitteilungen des deutschen archäologischen Instituts Abteilung Kairo
RdE Revue d’Égyptologie
SASAE Annales du Service des Antiquités de l’Égypte
WZKM Wiener Zeitschrift für die Kunde des Morgenlandes
ZÄS Zeitschrift für ägyptische Sprache und Altertumskunde

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7. Clothing in Sargonic Mesopotamia: Visual and written evidence

Benjamin R. Foster

I am the loom,
I weave threads,
I clothe common folk,
I make the king splendid.

The Tamarisk and the Date Palm

Mesopotamian art and documents attest to a great variety of textiles and textile terminologies, as well as to aspects of the chain of production leading from raw materials to finished goods. The artistic evidence for Mesopotamian clothing during the late fourth and third millennia BC has been studied by several scholars, who reached different conclusions. The most intensively examined written evidence has been the administrative records for state-sponsored textile production under the Third Dynasty of Ur (2112–2004 BC), though philological data for textiles from earlier and later periods have been collected and summarized. This chapter focuses on the Sargonic, or Akkadian, period (2334–2154 BC), considering both art and written records. It will argue that events of this era caused important changes in elite dress, some of which became normative, especially in portrayals of the ruler, for centuries to come. After a brief survey of the political, social, and economic history of the time, this chapter documents the rapid changes in clothing styles resulting from increased international contacts, influx of wealth, and the growth of a new class of notables and administrators directly subservient to the king, rather than to traditional local entities such as city-states or temples.

1. Historical background

The Sargonic or Akkadian period is defined principally by the reigns of five kings, covering a period of 150 years: Sargon, Rimuš, Maništušu, Narām-Sîn, and Šarkališarri. Six succeeding kings are counted with the dynasty, but are generally considered post-Sargonic or post-Akkadian.

1 Strommenger 1971. I thank Karen Polinger Foster for drawing Figures 1–14 for this article, for assisting with collation of the monuments in the Louvre, and for numerous suggestions adopted here.
“Sargonic” refers to the dynasty founded by Sargon of Akkad, while “Akkadian” refers both to the region of Akkad, originally the area around the confluence of the Diyala and Tigris rivers, and to the Akkadians, the easternmost branch of the broad arc of Semitic-speaking peoples who lived in northern Mesopotamia, the mid- and upper Euphrates Valley, and northern Syria in the third millennium. There was a city of the same name, called Agade for convenience in modern books, to distinguish it from the land. Its location is unknown, but it was probably near the confluence of the Diyala and Tigris, hence not far from modern Baghdad.³

The history and culture of the Akkadians are closely associated with the Sargonic dynasty’s political, military, economic, and cultural unification of Mesopotamia, Syria, and southwestern Iran, which is often considered the first of the great empires or territorial states of antiquity.⁴ In Mesopotamian historical memory, the rise, expansion, prosperity, grandeur, and ignominious collapse of this empire were new and dramatic phenomena in history, worthy of study and reflection.⁵ The site of Agade was explored by later kings for traces of its ancient royal palace and its famous temple to the war goddess, Ištar; Akkadian inscriptions were copied and studied in school, and a rich body of later literature in both Akkadian and Sumerian focused on events and personalities of the Akkadian period.⁶ Would-be conquerors of later ages named themselves after their two most famous Akkadian predecessors, Sargon and Narām-Sîn, and imitated their monuments, including their dress. In short, in second- and first-millennium Mesopotamia, the Akkadian period was considered a pivotal age, with the Sargonic kings the first rulers of history for whom authentic sources and historical tradition were available.

The founder of the dynasty, Sargon of Akkad, was remembered as a warrior-king and empire-builder. Long after his death, stories were told about his birth and youth: he had been born in secret to a high priestess, who set him adrift in a basket on the Euphrates, from which unpromising beginning he rose to become the greatest king of all time;⁷ he had been in the service of the king of Kiš, the major power in northern Babylonia, the city where monarchy began, when the goddess had singled him out for her favor: “Holy Inanna was there, all the time beside him!”⁸ These stories were the easier to tell because his inscriptions do not name his father, as became customary in later times, and say nothing of his rise to power. A list of Mesopotamian kings, compiled in Sumer long after his death, considered Sargon one of eight remarkable rulers of the past who were not of royal birth.⁹ The importance of these stories is not their historicity but that they show the singular glamour that attached to this ruling family and its fortunes.

In his own inscriptions, Sargon boasts that he was victorious in 34 campaigns,¹⁰ an achievement that sets him apart from even the greatest conquerors of history, such as Alexander the Great and Suleiman the Magnificent. His triumphs began in Sumer and culminated there in the defeat of Umma, Lagaš, Ur, and Uruk, the major city of the region, enabling him to extend his domains to the headwaters of the Gulf.

³ Foster 1997.
⁴ A. Westenholz 1999.
⁵ J. Westenholz 1983; Glassner 1986.
⁷ Lewis 1980.
⁸ Cooper & Heimpel 1983, 76.
⁹ Glassner 2004, 122–125.
¹⁰ Frayne 1993, 28.
To the south and east, Sargon invaded Elam and Susa, their neighboring territories of Awan and Sabum, and even routed forces from Marhaši, probably the region around Kerman, famed in Mesopotamia as a source of precious stones, calcite vessels, and other exotic luxury goods. Few future Mesopotamian dynasties would rule at Susa, protected as it was by the desert that wore down even the most formidable fighting forces. Sargon’s Elamite campaign may be commemorated in a massive stone victory stele, showing Sargon himself and his retinue (Fig. 7.7). Someone later made a determined effort to destroy it, battering it with hammers, breaking it, and attempting to saw it into smaller pieces.

To the north and west, Sargon enjoyed the submission of Mari, which controlled the mid-Euphrates, and Ebla, south of Aleppo, one of Mari’s major rivals. By Sargon’s own account, the weather god Dagan bestowed upon him the Upper Lands, the territories and cities of the upper Euphrates region. His armies pushed into Anatolia as well, known to the Akkadians as a land of cedar trees and mountains where silver was mined.

Besides conquests, Sargon wished to be remembered for a new style of administration, in which he placed Akkadians in governorships in the conquered lands; for bringing international trade to his city, Agade; and for having sufficient resources at his disposal to feed daily 5400 able-bodied men in his service. His daughter, Enheduanna, became high priestess of the moon-god at Ur, and is credited with the first literature of any civilization that can be identified with a specific author. The land of Akkad, hitherto a sparsely populated and marginal place, though with considerable agricultural potential, had entered world history.

Sargon was succeeded by two of his sons, Rimuš, who ruled for nine years, and Maništušu, who ruled for fifteen. Rimuš faced a revolt in Sumer, which had clearly resented his father’s rule. In a series of brutal campaigns, Rimuš re-established his father’s dominion there, boasting that he killed in battle over 23,000 men and taking twice that number captive, presumably killing them too. He also expelled thousands of men of fighting age from the defeated cities and subjected them to cruel punishment, presumably mass execution or forced labor, or both. Among other punitive measures, Rimuš apparently expropriated some 134,000 hectares of prime agricultural land near Lagaš to create a new royal domain to distribute to his retainers, thereby endowing a new landed class in Sumer which had, in principle, no allegiance to the old city-states or to the great temples of the region. This is the largest single transaction ever recorded in a third-millennium Mesopotamian contractual or administrative document.

Rimuš next renewed Sargon’s invasion of Elam. A coalition had been formed, led by the ruler of Marhaši, who had extended his authority west into Elam, creating a strategic alliance that could counterbalance any Akkadian influence in the Gulf. Rimuš’s forces routed the coalition and captured its commanding officers, bringing Elam and Susiana once again under Akkadian influence or direct rule. The booty from this campaign was enormous. At the sanctuary of Nippur alone,
Rimuš dedicated over 15 kilograms of gold, 1800 kilograms of copper, and 300 slaves. \(^{19}\) Stone bowls, vases, sea shells, mace heads and other objects were dedicated at sanctuaries throughout the land, examples of which have turned up at Kiš, Aššur, Nippur, Sippar, Ur, Šuruppak, and Tuttub, even as far away as the Khabur Valley. Rimuš proudly recorded that his craftsmen produced the first known statue of tin, the rarest industrial metal in the Mesopotamian world. \(^{20}\) Rimuš’s eventful reign was brought to an end by his assassination. \(^{21}\)

Maništušu, his brother, inherited a firmly-founded state in southern Mesopotamia and southwestern Iran. His only major historical inscription tells that he continued to campaign in Iran and pushed down the Gulf, conquering 32 cities “across the sea,” either on the Iranian coast or in Oman. There he quarried diorite, the hard black stone of the mountains, and had it hauled back to Akkad in ships. \(^{22}\) This stone was challenging to work but took a smooth, high polish. Used only rarely in Mesopotamia before the Akkadian conquests, diorite became more common during and after Maništušu’s reign, especially for statues apparently intended to memorialize the ruler himself, with softer stones used for reliefs that commemorated his military victories. \(^{23}\) Maništušu, like his brother, expanded the domains of the new class called “Akkadians.” This was no longer an ethnic term but referred to notables who served the king. Maništušu purchased several large tracts of land in northern Babylonia to distribute to 49 of these men, including administrators and military officers. \(^{24}\) Also like his brother, he was assassinated. \(^{25}\)

The thirty-seven-year reign of Maništušu’s son and successor, Narām-Sîn, was the apogee of the Akkadian Empire. No other ruler of the third millennium, save Sargon, made such an impression on Mesopotamian historical tradition. The surviving art and commemorative prose of his reign allow us to glimpse extraordinary military achievements rivaling or eclipsing those of his grandfather, Sargon, as well as the creation of proud imperial culture.

Narām-Sîn summarized his own conquests as stretching from Marhaši in southeastern Iran, as far as the Cedar Forest, meaning the slopes of the Amanus or Lebanon, and from the Mediterranean to the “lands beyond the sea,” perhaps Oman. Within this vast territory, he campaigned in the central and northern Zagros and the Iranian plateau. He marched to the sources of the Tigris and Euphrates and smashed through the massive walls of the great cities of Syria, such as Armanum (Tell Bazi on the mid-Euphrates), the citadel fortifications of which stood 44 cubits high. He claimed to be the first king to conquer Ebla as well. \(^{26}\)

The most dramatic event of Narām-Sîn’s reign was a revolt that began in Mesopotamia itself, where pretenders appeared at Kiš and Uruk, the ancient northern and southern rivals for power in Sumer and Akkad. In due course, Kiš was joined by a coalition of Babylonian cities, such as Cutha, Borsippa, and Sippar, as well as by bands of Amorite tribesmen from the Jebel Bishri region. Narām-Sîn routed the Kišite army, taking many important captives. The rebels fell back on Kiš itself, where, in a second battle, Narām-Sîn was again victorious. Fighting continued in

\(^{19}\) Frayne 1993, 55.

\(^{20}\) Frayne 1993, 68 (considers the metal “meteoritic iron”).

\(^{21}\) Goetze 1947, 256.

\(^{22}\) Frayne 1993, 76.

\(^{23}\) Amiet 1972.

\(^{24}\) Foster 2000.


\(^{26}\) Frayne 1993, 135; Otto 2006.
the city itself, leaving the Euphrates choked with bodies of the dead. Resolved to obliterate the city, Narām-Sîn dismantled its walls and diverted the river to flood it.\textsuperscript{27}

In the meantime, Amar-girid, a rebel king at Uruk, had rallied most of the cities of Sumer, including Adab, Isin, Lagaš, Nippur, Šuruppak, and Umma, to his cause, as well as the conquered cities in the Gulf. From this, and from the desperate resistance of the northern allies, one can gauge the deep unpopularity of Sargonic rule. Amar-girid sent messages to the rulers of the cities in the Upper Euphrates and Assyria, begging them to support him, but they hesitated. Narām-Sîn, flush from his victory over Kiš, moved first against the Amorite tribesmen, who had supported the cause of Uruk after the defeat of Kiš. He then crushed the Sumerian coalition and followed up with an invasion of the Gulf, booty from which he dedicated in various sanctuaries.\textsuperscript{28}

From the Akkadian standpoint, beleaguered Agade had been delivered from enemies on all sides in a brilliant series of nine major victories in a single year, for which the king had been obliged to call up his Akkadian forces nine times. According to Narām-Sîn’s own account, the people of Agade asked of the great gods that they might henceforth worship him as the god of their city, and they built a temple to him there.\textsuperscript{29} With the deification of the king, a new emphasis appears in art on the king’s godlike qualities.

In addition to being a warrior, Narām-Sîn was a builder, paying particular attention to the temples of Ištar throughout Mesopotamia, as befit the patron deity of his dynasty. He ordered work on her temples at Nineveh in Assyria, at Zabala and Adab in Sumer, and possibly at Babylon, as well as in Agade itself. He also ordered work on the temple of the moon-god at Ur and installed his daughter, Enmenanna, as high priestess, successor to his long-lived aunt, Enheduanna.\textsuperscript{30}

Narām-Sîn, like his predecessors, claimed special support from the god Enlil, principal god of Sumer, with his sanctuary at Nippur. There he presented captured and defeated rulers to the god, as Sargon had before him. There too he began a vast project to rebuild Enlil’s temple, Ekur, in a lavish imperial style, no doubt as a showpiece of the glory of his reign. His son and crown prince, Šarkališarri, was in charge of the work, as well as his major-domo, Su’aš-takal. Hundreds of kilograms of silver, gold, and bronze, and tons of copper, were used in the work; one contemporaneous record of the project lists 77 woodworkers, 86 goldsmiths, 10 sculptors, 54 carpenters, plus engravers and other craftsmen, at work at the same time. They were drawn from all over the realm and quartered on the local citizenry and notables. This great undertaking was incomplete at Narām-Sîn’s death, but resumed by his son and successor, Šarkališarri.\textsuperscript{31}

Šarkališarri’s twenty-five-year reign is poorly known. To judge from his surviving inscriptions, he too was an effective field commander, but some of the battles he fought were close to home, so one has the impression of increasing instability in the realm, for which many explanations have been offered.\textsuperscript{32} The empire collapsed and Agade itself was overrun by barbarous mountain peoples, the Gutians, whom the Akkadians held in contempt. A period of anarchy followed, which the Sumerian King List summarized by noting “Who was king? Who was not king?” \textsuperscript{33}

\textsuperscript{27} Frayne 1993, 104–107.
\textsuperscript{28} Frayne 1993, 107; Sommerfeld 2000.
\textsuperscript{29} Frayne 1993, 113–114.
\textsuperscript{30} Frayne 1993, 145–146.
\textsuperscript{31} A. Westenholz 1989.
\textsuperscript{32} Glassner 1986; Weiss & Courty 1993.
\textsuperscript{33} Glassner 2004, 122–123.
Mesopotamia was thereafter broken into a small kingdoms and principalities: Gutian rulers were in the Diyala region, Umma, and Adab; a vigorous, prosperous state at Lagaš built on its special position as administrative capital of a large Sargonic province; an ambitious dynasty was founded at Ur and Uruk, now known as the Third Dynasty of Ur; and a new dynasty established itself at Agade for several generations of long-lived kings. The splendid example for them all was the Akkadian state, and each appropriated Sargonic tradition in its own way.

At Mari and Elam, independent rulers were proud to adopt Sargonic military titles, šakkanaku (general) and sukkal-mah (high commissioner). The peoples of the Zagros, including the Gutians, celebrated themselves in Akkadian-style reliefs and inscriptions. The Amorites of Upper Mesopotamia and the Diyala region considered themselves the direct heirs to the Akkadian tradition; rulers of Aššur and kings of Ešnunna, not far from Agade, called themselves Sargon and Narām-Sîn and cultivated literature and costume in the Akkadian style; the early second millennium warrior-king Šamšī-Adad spent time at Agade and may have let it be thought that he was somehow a descendant of the Sargonic royal family. The rulers of Lagaš maintained the Akkadian practice of making portrait statues of the ruler in diorite and wore the special garments typical of the Akkadian elite. They also inherited the great domains that Rimuš and his successors had carved out in the area, there developing and refining Akkadian agrarian policies. The rulers of Ur were destined to rebuild in a more detailed, Sumerian style the Akkadian administrative apparatus, with its refinements of documentation, use of mathematical models, unified metrology, and special handwriting, while developing to an extreme the royal personality cult that made Narām-Sîn such a subject of fascination to later writers. What in modern scholarship are called the “reforms of Šulgi” are in fact Narām-Sîn’s administrative measures.

The rulers of Ur, however, associated themselves with the ancient primacy of Uruk, rather than with Agade, though they honored the memory of the Akkadian kings. Uruk was a city so old that no one knew its origins, and the kings of Ur promoted legendary, pre-Akkadian, rulers of Uruk, such as Enmerkar, Lugalbanda, and Gilgameš, rather than Sargon and Narām-Sîn of more recent memory, as fit subjects for epic poems, more witty and entertaining than heroic in the Akkadian style. At Ur and Lagaš, the vibrant brilliance of Akkadian art dimmed to a staid, hierarchical formalism, leaving Akkadian sculpture and seals the “Classical” art of early Mesopotamia, its innovations palely imitated later.

2. Economy and society

Although Narām-Sîn and his predecessors had commemorated acquisition of wealth by conquest, other cornerstones of the empire’s prosperity and dynamism were overlapping royal and local administration, agrarian management, urban governance, and control of temples, for all of which important documentation is available. In the present consideration of clothing, five aspects of Mesopotamian society in the Sargonic period should be emphasized: imperial patronage of a new class of royal servants and notables, internationalization of styles through broad programs of conquest, a massive influx of new materials and technologies in a short period of time,
patronage of both traditional and experimental industries, and development of techniques for their management.

One of the most effective means the Akkadian government had at its disposal for managing its subjects and resources was its power of patronage, exercised over a wide network of people linked by common economic interests and their dependency on the ruler and his notables. A distinctively Akkadian form of this was the practice of notables to surround themselves with an entourage of personal followers. On the lowest level, one group of these was called “the select” (nisqu), who were clients, perhaps armed, ready to do a notable’s bidding. To judge from later sources, there was a second group of such people, called “boys” (suḫḫārū), who were menials or servants. Such groups were new to Sumer, so were referred to with Akkadian terms. In addition, Akkadian documents often refer to subordination in a more general way, “the one of,” meaning a client, dependent, or family member of somebody of superior status. Thus Akkadian Mesopotamia was a society in which gradations of status were carefully noted and a rhetoric of subservience could be part of official and legal discourse and self-identification.38

By expropriating, purchasing, or developing extensive areas of agricultural land outside the major cities, the Akkadian king had immense wealth to bestow on whom he wished, so a tripartite structure of dependency was established. First were the king’s governors, whom he appointed and who served at his pleasure, being dignitaries of political, military, and economic importance; second were the ancient cult centers, which, in Sumer especially, disposed of considerable agricultural land; and third were notables, men of preferment who received fields for their support from the king’s land office, portions of which they, in their turn, could distribute or lease to followers and tenants. A Sumerian poet considered this tripartite hierarchy the foundation of Akkadian prosperity:

The governors of cities, the managers of temples,
The scribes who parceled out the farmland in the steppe.39

The governor, or ensi, held land, buildings, labor, livestock, and wealth which it was his agreeable task to administer, with the support of a large staff. Some governors were school graduates, thus educated men.40 To get and keep their important and lucrative posts, they must have availed themselves of many opportunities to display their loyalty, such as attending court festivals in the capital, staging lavish entertainment for the royal family and key notables when they were in the area,41 ensuring that the king’s revenues flowed freely from their cities and domains, supporting local and national cults and praying for the royal family, reporting regularly matters of intelligence value, and honoring the king in inscriptions and dedications. As will be suggested below, accession of a new king may well have occasioned applications to receive or retain governorships, in the form of expressions of fealty and lavish presents, including clothing, to the new king. Governors were experienced administrators, with detailed understanding of management, no doubt a good sense of how to deal with local Akkadian notables, and perhaps belonged to a prominent local family through birth and marriage, so were able to rely on kinship ties among their subordinates, as is well known from later periods.42

40 Shileiko 1914.
Their literacy meant that the governors belonged to a small, proud elite who could read and write their own letters and documents in the elegant new Akkadian hand, quote aptly literature they had studied in class, and understand the technical details of measuring land, estimating crops, and apportioning income.\textsuperscript{43} One of Narām-Sîn’s own sons served as governor in Akkad itself.\textsuperscript{44} City governors were, as the Sumerian poet recorded, the first of the king’s subjects in the maintenance of his state and its prosperity.

These governors and their entourages were among the leaders of the new class Sargon and Maništušu called “Akkadians,” men who owed their primary allegiance to the king rather than to local or family interests, who were prepared to leave their place of birth to serve the king where he willed. Although they were called “Akkadians,” many of them were not born in Akkad or Agade or even had Akkadian names. In return for their loyalty, they expected the king to give them land and preferment, just as Maništušu did in his purchase of land and Rimuš in his appropriation of it.\textsuperscript{45} This class no doubt enjoyed locally the esteem that collaborators generally do who profit from the exploitation of conquered territories, as evidenced by the determined rebellions in Sumer and northern Babylonia against Akkadian rule.

Religious office was, like a governorship, a calling worthy of a member of the royal family. Sargon and Narām-Sîn appointed their daughters to be high priestesses, so, as with governorships, family connections may well have been important for temple officials too.\textsuperscript{46} The upper echelons of the temple hierarchy, like the upper echelons of provincial administration, were educated people, sharing interests and background, if not a family tree, with their counterparts among the new Akkadians around them.

Temples were traditionally the largest buildings in Sumerian cities, organized like manors or households, with an enclosed central complex for religious rites and ancillary structures, such as staff residences, barns, and storage buildings.\textsuperscript{47} The leading cultic figure was a high priest or priestess, the leading administrator the sanga. It was the sanga who administered the temple lands, gardens, herds, flocks, and other resources, acting, in Sumer at least, as the counterpart to the local governor and the representatives of the king’s household. There were temple stewards, herdsmen, building attendants, weavers, cultivators, and boatmen, as well as laborers, some of whom were dedicated to temple service by their families, while others were indigent, foundlings, handicapped, or mentally deficient people put to work in temple gardens and orchards to be usefully employed and to have a way to live. There were also temple women who were not married nor under male authority, forming a class by themselves in a male-dominated society. Certain temples specialized in specific industries or activities, such as the temple of Gula at Isin, which kept dogs for healing the sick. Temples had, therefore, large vested interests in a conquered dominion, whose divine householders had entrusted their subjects to the king.\textsuperscript{48}

The relationships among the royal and temple centers of concentrated resources, with their different regional and local traditions, must at times have been delicate to work out, but, in favor of developing mutual interests, royalty and the religious establishment shared a hierarchical

\textsuperscript{43} Kienast & Volk 1995, 53–54.
\textsuperscript{44} Frayne 1993, 54.
\textsuperscript{45} Foster 2000.
\textsuperscript{46} Hallo 1972, Zettler 1984.
\textsuperscript{47} Oppenheim 1961.
view of the world: gods were like rulers and rulers were like gods, exercising their powers in the same ways over the same countryside. Rulers paid homage to the gods and credited them with their successes, lavishing their households with gifts, endowments, and projects. A strong and effective ruler enjoyed divine favor and requited that by sharing the fruits of his success with the gods who had singled him out to rule, as Narām-Sīn did with Enlil, chief god of Sumer, by commemorating his triumphs in monuments placed in the temple courtyard. Therefore, on the local horizon, priests and temple managers enjoyed and expected the king’s favor, even as land-rich temples no doubt needed the resources of labor, tools, transport, and draught animals the king’s patronage could bring them.

In addition to their reliance on the governor’s and temple households, the king and royal family had their own local interests and their own agents to look after them. The Sumerian poet who mentioned the “scribes who parcelled out land in the steppe” was thinking of these agents, whose work can sometimes be followed in detail through their lists of lands and cultivators, as well as their surveys, calculations of areas, reckoning of expenses of cultivation, and balances of harvests due.49 The scribes who carried out these tasks were subject to an exalted personage called by a Sumerian title, šassukku, “the registrar.” This royal official had thousands of hectares of good land at his disposal, divided into districts and subdivisions, to be distributed among members of the administration, ruling elite, professionals and their followers, families, and lessees. The registrar, working with mathematical models, recorded blocks of territory, systematically cut up into schematic sub-sections, from which actual or schematic parcels were measured off by survey to those privileged to receive them.50 One registrar in Sumer controlled over 6200 hectares of arable land in three large districts near Lagaš, which had some of Sumer’s most fertile fields, fifteen times the size, for example, of a parcel held locally by the high priestess of a patron deity of the Akkadian dynasty.51

The Akkadian notables, moreover, controlled areas that sometimes dwarfed those of the local administrators and temple staff. Yetib-Mer, the šāpiru, or chief steward, of Narām-Sīn early in his reign, held at Umma and Lagaš alone close to a thousand hectares straddling the two provinces, surveyed by royal scribes and recorded by the registrar. Governors, priests, and administrators must have approached this man with the respect due his exalted status and were careful not to encroach on his domains and clients.52

Into this new society flowed the fruits of the Akkadian conquests — specie and exotic materials, products, animals, and people. Foreign names were scrupulously recorded by scribes in conquest narratives; foreign hairstyles, clothing, and objects, such as vessels and daggers, were carefully rendered by artists.53 New titles appeared in the royal titulary in response to unexampled conquests.54 Small wonder, then, that new styles of art rapidly developed among the rising social and managerial elite and notables, along with new styles of verbal expression, and new fashions in dress. New technologies included using the lost-wax technique for large-scale metal sculpture, first attested in Akkadian Mesopotamia. New materials included exotic stones, such

49 Foster 1982b, 21.
50 Foster 1982b, 21.
51 Foster 1982b, 63.
52 Foster 1982b, 36.
53 Mellink 1963.
54 Hallo 1980.
as diorite, known previously in very limited quantities, and serpentine, which enjoyed a vogue in the production of cylinder seals.\textsuperscript{55}

As for textiles, on the basis of documents from the Third Dynasty of Ur, one might posit Sargonic beginnings for their industrial production, but little evidence has turned up so far in the thousands of administrative documents from the Akkadian period. The various references to workshops and teams of workers may refer to special projects, such as the rebuilding of the temple of Enlil at Nippur, or to royal workshops for furniture and art objects, as abundantly documented in later periods. While mass production of some commodities, such as pottery, is well attested, one seldom finds specific reference to groups of weavers.\textsuperscript{56} The only Akkadian structure sometimes identified with industrial production, in fact, industrial weaving, is the Northern Palace at Tell Asmar, ancient Ešnunna.\textsuperscript{57} There is, however, little archaeological basis for this proposal, such as numerous loom weights or other evidence for weaving one would expect to find. A document from the archives of this building records rations to 105 male and 585 female workers, some teams of whom are identified as túg-\textit{ni}, perhaps something to do with textiles, but the meaning of the word is unclear.\textsuperscript{58}

We may for the present consider state-sponsored textile production an innovation of the succeeding Ur III period, in which the king’s government attempted to take over and quantify as much of the chain of production as feasible. This was part of a broader trend, in which the kings of Ur hoped to dominate and regulate important aspects of their economy using large numbers of dependent workers, unlike the Akkadian rulers, who had relied on a corporate management style combining patronage, force, and community involvement.

3. Art of the Akkadian period

Few works of Akkadian art survive, compared to preceding and later periods, and, in the case of sculpture and relief, many pieces were vengefully defaced, broken, and mutilated. What remains, however, includes some of the most intensively studied and most often reproduced objects from ancient Mesopotamia. In considering the visual evidence for Sargonic clothing, the following points should be kept in mind. First, Akkadian monumental art emerged from prior tradition, as known in both Sumer and Akkad, and, in the course of two or three generations, rapidly developed a new, imperial style. Royal patronage of sculpture attracted the most skilled artists and resulted in a striking uniformity in production for a given reign, as if statues and reliefs using new artistic conventions were produced centrally and distributed throughout the realm, with a growing emphasis on the overwhelming power of the sovereign. It was a time of much innovation: the first life-size or larger free-standing statues of human beings; the first naturalistic depictions of landscape; the first convincing renderings of musculature, folds of flesh, contours of limbs, and hints of sexual allure. By the middle of the Akkadian period, the registers traditionally used in pictorial narrative had been dissolved into one unified scene, and various essays in hierarchical size (representing important figures as taller or larger than other figures in the same scene) had

\textsuperscript{55} Moorey 1994, 26–27; Collon 1982, 26.
\textsuperscript{56} A. Westenholz 1999, 101–102. See below p. 145.
\textsuperscript{57} Breniquet 2008, 64–65.
\textsuperscript{58} Gelb 1962 (=MAD 1) No. 163; A. Westenholz 1999, 65.
been tried. Artists even experimented with the orientation of writing on monuments to convey victory and defeat.\textsuperscript{59}

The portrayal of Sargonic clothing in sculpture develops in this artistic context, reflecting the elite status of a small ruling group with access to enormous resources. Akkadian stone carvers were the first to show garments draping over the body, as well as their thinness or transparency. Of particular importance to the historian of clothing is a growing tendency to place commemorative, triumphal, even legal inscriptions on carved stone monuments, allowing precise dating of a significant percentage of the surviving fragments.\textsuperscript{60}

Akkadian seal carving likewise shows a high degree of experimentation.\textsuperscript{61} New materials were used, and new styles and subject matter appear, gradually replacing or modifying earlier ones.\textsuperscript{62} Despite the seals’ small scale, close attention was given to the garments worn by deities and human beings, and new fashions were continually incorporated into the repertory.\textsuperscript{63} As with sculpture and relief, the growing practice of inscribing seals with the names of owners and their patrons helps to date them precisely, and, as will be suggested below, to correlate visual and written evidence.\textsuperscript{64}

This dynamism in art suggests that textile production, even if not directly patronized by the ruling elite, also experienced significant changes, if for no other reason than because of the empire’s increasing contacts with Iran, Anatolia, Palestine, and Syria, even possibly Egypt. This being so, one is surprised that dyeing technology was not imported, along with new fabrics and designs, as there is strikingly little evidence for the practice of this very ancient and near-universal art in late third millennium Mesopotamia, even in the textile mills of the kings of Ur.\textsuperscript{65}

4. Styles of dress in Akkadian art

The sources for Sargonic clothing are of two types: visual, including commemorative statues, reliefs, and seals; and written: consisting of administrative and legal records mentioning textiles of various kinds, including clothing. Although the garments pictured in reliefs and seals have been discussed in detail, and modern efforts made to reproduce them, none of these studies has attempted to incorporate archival evidence.\textsuperscript{66} Most philologists, for their part, are unwilling to make the leap of faith that proposing identifications of words with artifacts or ancient images requires. Yet, for the Akkadian period, the written evidence does offer suggestive correlations,

\textsuperscript{59} Lambert 1965, 181.
\textsuperscript{60} Strommenger 1959.
\textsuperscript{61} Boehmer 1965; Nagel & Strommenger 1968; Collon 1982; Collon 1987.
\textsuperscript{62} Frankfort 1970, 83–91, who writes of a “grim world of cruel conflict, of danger and uncertainty, a world in which man is subjected without appeal to the incomprehensible acts of distant and fearful divinities whom he must serve but cannot love”; Spycket 1981: 143–174; Moortgat 1967, 45–54, who writes of “heroic spirit and turbulent energy,” rapid change, even rejection of the static. Though Moortgat’s interest in the “bearing and physiognomy” of Semites and what he saw as racial influences in Mesopotamian art of the Akkadian period invokes ideas no longer fashionable in modern scholarship, his presentation of Akkadian art was, despite this, deeply insightful and influential on later studies, such as those of Börker-Klähn 1982a and 1982b and Bänder 1995.
\textsuperscript{63} Collon 1982, 27–32.
\textsuperscript{64} Nagel & Strommenger 1968; Edzard 1968/69.
\textsuperscript{65} Breniquet 2008, 126–129; Waetzoldt in this volume.
\textsuperscript{66} Houston & Hornblower 1920, 48–49 (study and modern reproduction of the toga-garment); Heuzey & Heuzey 1935; Strommenger 1971, 1980/83; Collon 1982, 27–29.
and clothing had such special significance in elite life that artists showed it in great detail. For the first time in the history of Mesopotamian art, garment folds were shown in sculpture, not to suggest the body in motion, as in some artistic traditions, but to reveal the contours of a powerful body in repose, under the soft clothing.67

The core imagery of Sargonic clothing comes from sixteen mostly fragmentary monuments, the majority of a military and commemorative nature. Seven of these can be dated to specific reigns by their inscriptions, while the others may be dated on stylistic grounds, with a high level of agreement among different studies. The monuments are briefly summarized in the following table, with reference to the most informative photos and drawings of them, a classification of each garment shown, and in some cases discussion of aspects of the imagery not readily visible in published photographs, based on study of the original monuments.

<table>
<thead>
<tr>
<th>Reign</th>
<th>Photo</th>
<th>Drawing</th>
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<tr>
<td>SARGON</td>
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<tr>
<td>1. diorite stele* from Susa</td>
<td>Amiet 1976 No. 1; Strommenger 1962, 115; Moortgat 1969, 125; Börker-Klähn 1982b, 18d–i; Moortgat 1969, 126; Bänder 1995, XXXIV; Börker-Klähn 1982b, 18b, c Fig. 7.7</td>
<td>Amiet 1976, 8; Börker-Klähn 1982b, 18d–i; Bänder 1995, XXXIV; Börker-Klähn 1982b, 18b, c Fig. 7.7</td>
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*Sargon wears shaggy, wrap-around garment ["Wickelgewand," “Flammengewand,” “robe en toison laineuse à mèches ondulées qui dégage exceptionellement l’épaule droite” (Spycket 1981, 146–147)], twisted sash, and plain necklet, perhaps with pendant hidden by beard; attendant wears shoulder sash; soldiers wear shaggy, wrap-around garment, long fringed sash.

Sargon’s extended right hand grasps one or two human heads by the neck, possibly associated with a battle net, whose shape and diagonal patterns are just discernible (see Amiet 1976, 72); compare Strommenger 1960, 55. Although some drawings show Sargon carrying a staff or mace, rulers hold these at the bottom of the shaft and they do not have human heads.

2. diorite stele from Susa | Amiet 1976 No. 5; Moortgat 1969, 138; Strommenger 1962, 114; Hansen 2003, 199 | Amiet 1976, 11; Börker-Klähn 1982b, 19, 20 |

*Soldier* wears short shoulder sash with no fringe.

3. limestone disk* of Enheduanna from Ur | Moortgat 1969, 130; Hansen 2003, 200 | Amiet 1976, 15, Bänder 1995, LXI Fig. 7.1 |

*Enheduanna* wears tiered, ruched, or ruffled garment.

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67 Strommenger 1962, 26.
RIMUŠ
1. limestone stele from Telloh
   Strommenger 1971, 42
   Bänder 1995, XLIII
   Fig. 7.13

Rimuš? wears long shoulder sash, fringe on one side.

MANIŠTUŠU (see Strommenger 1988 for more details)
1. diorite statue* from Susa
   Amiet 1976 No. 13, Moortgat 1969, 141
   Strommenger 1960, pl. 9
   Heuzey 1935, 57
   Fig. 7.9

   Maništušu wears closed, wrap-around garment with tasseled fringe (“Reichsakkadisches Wickelgewand”).

2. limestone statue from Susa
   Amiet 1976 No. 15, Moortgat 1969, 142

   Maništušu? wears closed, wrap-around garment with tasseled fringe.

3. diorite statue from Aššur
   Moortgat 1969, 139–140, Strommenger 1971, 116
   Amiet 1976, 22, Strommenger 1971, 48
   Fig. 7.5

   Maništušu? wears necklace of large beads and a long counterpoise, and, according to most analyses, a thin garment similar to Nos 1 and 2 above, through which his shoulder blades and spine show. Some see the garment as secured by a strap passing over the back, others that the “strap” is the garment edge passing across the back (Amiet 1976, 21; Spycket 1981, 155).

4. seated diorite statue a*
   Amiet 1976, No. 11
   seated diorite statue b
   Amiet 1976, No. 12
   both from Susa
   Moortgat 1969, 147–9 = a+b

   Maništušu wears closed, wrap-around garment with tasseled fringe.

5. green alabaster stele from Nasiriyya
   Strommenger 1971, 118–19
   Moortgat 1969, 136–7 (2 pieces)
   Amiet 1976, 27 (3 pieces);
   Strommenger 1971, 43 (1 piece);
   Börker-Klähn 1982b, (22a 3 p.);
   Bänder 1995, XLVII (3 pieces);
   Hansen 2003, 204, Fig. 7.13, left

   Soldier wears long, fringed shoulder sash, as in Sargon 1.

6. stele fragments from Susa
   Amiet 1976, No. 26 (green alabaster)
   Amiet 1976, No. 21 (diorite) = Amiet 1966, 160
   Amiet 1976, No. 20 (diorite) = Amiet, 1966, 162
   Börker-Klähn 1982b, 23

   Court officials? some wearing shaggy, wrap-around garments, necklaces.

7. alabaster stele from Eridu
   Hansen 2003, 205

   Woman? wears multiple-strand choker.
7. Clothing in Sargonic Mesopotamia

8. granite throne base from Susa
   Amiet 1976 No. 22 = Amiet 1966, 161

   Court official? wears shaggy, wrap-around garment and necklace.

NARÂM-SîN (see Strommenger 1998/2001 for details)

1. limestone stele* from Susa
   Amiet 1976, No. 27; Moortgat 1969, 155–6;
   Strommenger 1971, 122–3; Börker-Klähn 1982b, 26d–j;
   Hansen, 2003, 196

   NARÂM-SîN wears fringed cape or shawl knotted at the hip, also thin body shirt and kilt, elaborate necklace
   and 2 wristlets; see Vigneau 1935, 1:215. Descriptions and analyses of the clothing shown in this relief vary
   widely, as do drawings of it; Bänder 1995 corresponds most closely to my own observations of the original
   monument.

2. basalt stele* from Pir Husseyn
   Moortgat 1969, 153; Amiet 1976, No. 21;
   Hansen 2003, 203

   NARÂM-SîN wears tiered, ruched, or ruffled garment with banded edges.

3. rock relief from Darband-i-Gaur
   Strommenger 1963, pls. 15–18; Moortgat 1969, 157

   NARÂM-SîN? wears closed, wrap-around garment, with body shirt, necklace, wristlets. Some scholars date this
   piece much later (Moortgat 1967, 52) but consider it a close imitation, while Strommenger adduces strong
   arguments for an Akkadian date.

4. diorite statue of Su’aš-takal from Susa
   Moortgat 1969, 150

   Su’aš-takal, šāpiru, or head of the royal household late in the reign of NARÂM-SîN, wears toga-garment. Collation
   of this monument in artificial and natural light strongly suggests that there are two pins where the garment
   is tucked in, one perhaps to hold the fabric, the other to hold a seal (for wearing of seals, Collon 2001).

5. limestone mould provenance unknown
   Hansen 2000, 206–7

   NARÂM-SîN? sits, bare-chested, in an intimate moment with the goddess Ištar, who puts the lead ropes of
   defeated peoples into his hand.

Based on the visual evidence, we may distinguish four main types of garments shown in Sargonic
art. First is the garment variously called “flounced,” “fleecey,” “tiered,” “ruched,” “ruffled,”
“striped,” “plissée” or “tuyautée,” covering much or all of the body. This is attested throughout
the third millennium. There is no agreement as to what it was made of or why it looked the
way it did. Men and women wore it, and there were various styles of it. In the Akkadian period,
Sargon’s daughter Enheduanna and NARÂM-SîN wear this garment (Figs. 7.1 and 7.2), as do gods
and goddesses in cylinder seals. One may suggest that a person wearing the flounced garment in
Akkadian art was to be understood as performing some act of religious significance. Enheduanna,

Strommenger 1971.
Strommenger 1960, 55, 88–89 (with bibliography of earlier studies); Strommenger 1971, 52–3; Rashid 1967, 28.
Benjamin R. Foster

The high priestess to the moon god at Ur, is shown participating in a ritual (Fig. 7.1). Narâm-Sîn tells us, on the very relief that depicts him wearing this garment, that he heaped up a burial mound over his slain enemies, so he too may wear it in connection with some ceremony (Fig. 7.2). It is conceivable that this stele was actually set up at the burial mound, to remind people of the fate in store for the king’s enemies.70 Some historians of art and of clothing consider the flounced or shaggy garment an old, conservative form of dress, which would be appropriate for religious garb, since this usually lags well behind other forms of fashion. In modern scholarship it is sometimes referred to by a term used in Classical Greek, kaunakes, often said to be a non-Greek word, and first associated with Babylonia by the Greco-Egyptian rhetorician Julius Pollux, active in the second half of the second century AD, who wrote on exotic textile terminology among many other subjects.71

The second major item of third-millennium Mesopotamian dress was the “Wickelrock,” a skirt for women and a kilt for men (Fig. 7.3).72 This was made of a rectangular piece of cloth, the exposed seam of which normally hung straight down on the right side, at least when worn by men. It was

70 A. Westenholz 1970.
71 L. Heuzey 1887. Heuzey attempted to reconstruct the manufacture of the garment, and wrote, “J’ai consulté, sur la question de fabrication, l’expérience technique de mon ami M. Alfred Darcel, lorsqu’il était encore directeur de la manufacture nationale des Gobelins. Il m’a montré, sur les métiers mêmes, que ces combinaisons devaient se produire assez facilement. L’ouvrier nouait pour cela, sur plusieurs lignes parallèles, les fils de la trame à ceux de la chaîne, et il les laissait retomber sur l’une des faces du tissu, en longues boucles pendantes. L’espèce de nœud qui assujettit ainsi chaque boucle entre deux fils de la chaîne s’appelle encore, dans la tradition des ouvriers des Gobelins, nœud sarrazin, ce qui prouve bien l’origine orientale du procédé … Pour fabriquer le kaunakès, on laissait … intactes les boucles tombantes … Parfois, dans une autre variété du même tissu, on se contentait de couper ces longues boucles à leur extrémité, de manière à former des étages plus réguliers; souvent, aussi, on les ondulait, afin de leur donner l’aspect de la laine vivante” (Heuzey 1887, 264). For a proposed modern reconstruction, see Rashid 1967, 28.
125

7. Clothing in Sargonic Mesopotamia
evidently secured in three ways: (1) by rolling the upper edge, leaving the upper corner of the
rolled part of the vertical seam exposed; (2) by a girdle at the waist, which need not have been
tied but mounted such that the two end pieces hung down in back, from under the roll of the
skirt (Fig. 7.4); and tied by a separate cord passed several times around the waist. According to
Strommenger, the cord style is not attested in art until the very end of the third millennium. If
this is correct, the Sargonic skirt was secured by a simple roll or held with a separate girdle or
waist piece. There are many variants of the skirt itself, which was suitable for work and physical
exertion. It could be worn with an outer garment covering the upper body, such as a tunic or cape.
There is no indication in art as to whether anything was worn under the kilt, a question often
asked of Scotchmen. I propose below that textual evidence suggests that a sash or undergarment
tied around the waist could be worn with or under the kilt or skirt.

The third important style of dress was the “Wickelgewand,” or wrap-around garment, of which
Strommenger argues that there were two main sub-types, closed and open. The former, as in
Fig. 7.5, is characteristic of the Akkadian period. The open type, shown in Fig. 7.6, appears in art
only later, beginning at Mari. Since there was an earlier closed type made of shaggy cloth, such
as Sargon wears on his stele (Fig. 7.7), the closed wrap-around garment had a longer history of
use than the open one.73

A new closed sub-type, made of smooth cloth, perhaps linen, appears in the reign of Maništušu,
seen first in his statues (Figs. 7.5 and 7.9) and in the seal of Ubil-Ištar (Fig. 7.8).74 The weft ends

73 Strommenger 1971, 48–49. For discussion of Egyptian wrap-around garments, and estimates of the cloth required
to make them, see Hallmann 2007, 17 with note 24.
74 Strommenger 1971, 48–49; Spycket 1981, 152 describes the tasseled garment as follows: “Le tissu, probablement en
fine laine tissée, est bordé d’un galon auquel sont fixées plusieurs sortes de franges, formées par l’aboutissement de la
trame et de la chaîne: la frange est courte et fine dans le bas, plus longue, et faite de sept brins de laine liés à l’extrémité
pour constituer un gland, sur le côté.” Moortgat 1969, 49, on the other hand, considers it to be of wool.
are finished with what looks like a band or fringe, while the warp ends are finished in elaborately tasseled fringes, which hang vertically to the wearer’s left. In the seal, however, the tassels hang to the wearer’s right, conceivably a mistake of an artist who had little experience depicting this new style. This seal is discussed further in section 5 below. The closed garment was worn by laying a fairly long, rectangular piece of cloth from the left hip up over the left breast and shoulder, then drawing it crossways over the back to the right hip. It was secured by rolling down the upper edge such that, at the second wrapping, the outer and inner segments could be rolled together. Next,
the cloth left hanging over the left upper front of the body was wrapped inside, leaving the right upper half of the body free. The rolled material could be visible as a horizontal band across the waist. This garment varied from knee- to full-length.\textsuperscript{75}

The open wrap-around garment left more of the body exposed than the closed (Fig. 7.6).\textsuperscript{76} A fringed, rectangular piece of cloth was wrapped around the lower body, then drawn over the right hip, over the back, and down in front over the left shoulder, covering the left arm. There was a more elaborate version of this with a piece that wrapped around the neck, ornamented with tassels. The open wrap-around garment appears first in the north and west, rather than in Sumer, during the post-Akkadian period, so may have originated in Anatolia or Syria.

The fourth major Sargonic clothing type was the toga-garment, which is known in art first in the reign of Narām-Sîn and remained in royal fashion until the early Old Babylonian period.\textsuperscript{77} This was a long, wide, rectangular piece of cloth whose warp threads were extended into a fringe, like the Akkadian wrap-around. The width of the cloth covered the height of the body. The wearer drew one end over the left shoulder, so that the fringe hung vertically from shoulder to foot. The garment was then passed across the back and under the right armpit, and secured by tucking the upper right corner into the cloth covering the right breast. We may see in the Su’aš-takal statue (Fig. 7.10) that a long pin could be inserted at this point. Modern replication suggests that a piece of cloth 1.4 × 3 meters would achieve the look of the toga-garment worn by Gudea in his statuary.\textsuperscript{78}

The toga-garment appears first in sculpture in a damaged figure of Su’aš-takal, the šāpiru, or head of the royal household of the deified Narām-Sîn (Fig. 7.10). The title and office were Akkadian in origin and may have designated the highest-ranking member of the civil administration. In lists of gifts to dignitaries and members of the royal family, this official is sometimes listed immediately after the king, queen, and royal family.\textsuperscript{79} At one point, Su’aš-takal was entrusted with supervision of the work on the temple of Enlil at Nippur. A settlement named for him near Gasur (later Nuzi) may well have been his home estate.\textsuperscript{80}

\textsuperscript{75} Strommenger 1971, 48.
\textsuperscript{76} Strommenger 1971, 49–50.
\textsuperscript{77} Strommenger 1971, 46–47.
\textsuperscript{78} Rashid 1967, 26; Houston & Hornblower 1920, 48–49; Strommenger 1971, 46; Spycket 1981, 156.
\textsuperscript{79} Foster 1980, 29.
\textsuperscript{80} Strommenger 1959, 42–43; 1960: 61; A. Westenholz 1989, 55; Frayne 1993, 164.
The Akkadian toga-garment also appears on a seal impression of Lugal-ušumgal, governor of Lagaš, in which he states that he was a servant of the deified Narām-Sīn (Fig. 7.11), so he was Su’aš-takal’s contemporary. He was a graduate of the scribal academy and could write beautifully the imperial Akkadian script. Lugal-ušumgal may have been related by marriage to the governor of Uruk, Dudu. Thus he was perfectly representative of the Akkadian governing elite in Sumer during the glory days of the reign of Narām-Sīn.81 As with the toga-garment worn by Su’aš-takal, it appears that this one was similarly secured by a large pin at the point it was tucked in.

The toga-garment was a stylistic innovation, presumably among the elite of society. What the two types of full-body wrap-around garments and the toga have in common, as opposed to the skirt or kilt, according to Strommenger and Spycket, is that the wearer could not do much besides stand or move in a stately fashion, so these may be assigned to the ceremonial or court category of dress, especially since the wearers are usually shown barefoot.82

5. Styles of dress in Akkadian administrative documents

Administrative documents of the Akkadian period are a rich source of contemporaneous evidence for the structure and functioning of record-keeping institutions and groups, but have thus far received little consideration by modern historians of the period, who tend to rely on inscriptions, historical memory, later Akkadian literature, and the major works of art noted above. Administrative documents imply accountability, the obligation to keep records for property that is not one’s own. Nearly all known Akkadian administrative archives were found at sites out of their original contexts, or were dug up by looters and sold on the antiquities trade, so they must be regrouped today into dossiers, files, and archives. The most significant of these belong to the archives of important regional administrative centers, such as Adab and the Northern Palace at Ešnunna, or of prominent administrators, such as Lugal-ušumgal, governor of Lagaš, and Mesag, governor of Umma. There are also archives of local administrative activities, such as those from Gasur (later Nuzi), or from the rural estate of a certain Mesag, who may be identical with the governor of that name. Most of these documents date to the reign of Narām-Sīn and Šarkališarri.83

During the Akkadian period, the practice of drawing up witnessed, written contracts between private parties to a transaction, known already in the later Early Dynastic period, became normative in both Sumer and Akkad.84 Family archives, sometimes extending over several generations, attest to the spread of writing and record-keeping to private business affairs, especially in instances

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81 Delaporte 1920, T. 105 (Planche 9, 3–4); Strommenger 1959, 45; A. Westenholz 1975a, 435; Bauer 1987/90.
82 Strommenger 1971, 48; Spycket 1981, 156 calls the toga-garment "engonçant."
83 Survey in Foster 1982c, 1986.
84 Neumann 2003; Wilcke 2007.
7. Clothing in Sargonic Mesopotamia

where one person was managing resources in which multiple family members or investors had interests.85

Thanks to these documents, therefore, the historian of clothing may identify possible references to specific items of clothing, pinpoint changes in clothing styles, and mark occasions or circumstances for their use. For the first major Akkadian type of garment identified above, the flounced or tiered garment (Figs. 7.1 and 7.2), one expects a word preferably attested throughout the third millennium, referring to garments worn by both men and women, associated with religious ritual, and of special value. The evidence for religious garments is too rich and varied to make a definitive proposal. One attractive identification, however, is the garment called pala, with a “kingly” or “priestly” variety. When Elamites made a raid and took booty in pre-Sargonic Lagaš, for example, five of these items were recovered in a reprisal attack and deposited in a local sanctuary for safekeeping, so they were presumably of special value. In the Sargonic period, a pala was provided with a protective garment bag or case.86

For the skirt or kilt (Fig. 7.3), the linguistic situation seems better. One expects a word with a long history of usage in documents about clothes in different social contexts, referring to both men and women. One reasonable candidate is the Sumerian ibbadu (ib-⟨ba⟩-dù, perhaps also ib-⟨ba⟩-ru), meaning “worn at the middle/waist.” An advantage of this word is that it occurs from the Fara through the Ur III periods; a disadvantage is that it is less common than one would expect if it referred to a common item of apparel. What may be the same or a related garment, called simply ib “middle/waist,” has likewise a long history of usage, and may be a kind of skirt or girdle, but of leather, wool, even metal.87 According to late Early Dynastic documents, the ibbadu was worn by both men and women, in different social contexts. In the Akkadian period, one such garment weighed about 1.5 kilograms, heavy enough to be a kilt rather than a belt, as is sometimes proposed.88

The skirt or kilt was part of the clothing worn for religious festivals. A woman of high status at late pre-Sargonic Lagaš, first-ranked of several dressing for the festival of the goddess Ba’u, one of the most important in the cultic calendar, was issued seven garments and a piece of jewelry: two ibbadu, that is, according to this analysis, the basic skirt; two niglal “things that tie,” one kudda “cut-off,” one gada-bar-dul “linen outer wrap,” one iblal “waist tie,” and one dubšir “pendant.”89 No other women in the same group received the pendant, so it was presumably a marker of special status, as is discussed below, section 6 Suit No. 1. Enheduanna apparently wears a large pendant on her necklace, perhaps a moon (Fig. 7.1). Other women who were given garments for the festival of Ba’u received one called salla “thin” or “narrow,” instead of the “cut-off,” apparently an upper-body garment, perhaps of the sub-type in which one breast was exposed.90

A tie, called niglal (nīg-lāl), “thing that ties,” came with each skirt given to the head woman. The niglal is a well-attested item, down to the Old Babylonian period, when it was worn by soldiers, and could be fairly heavy, though in other contexts it can weigh only a few grams.

85 A. Westenholz 1989, 59–86.
86 Waetzoldt 1980/83, 26–28; Kienast & Volk 1995, 25–29; (ITT 2, 4522); for the bag, see p. 139.
89 Bauer 1972, 471–474 (= No. 167).
90 This garment is attested at Sargonic Lagaš as well (ITT 1, 1096: bār sal-lā).
Therefore it seems to have been outer, upper-body wear, sometimes of a protective nature.91 For the *nīglal*, therefore, the fixed girdle shown in third-millennium art is a tempting identification. It encircles the waist, with its ends hanging down in back, as in Figure 7.4.

There is no evidence for what the “cut-off” and the “linen outer wrap” might be, but perhaps they are a dress and shawl or shoulder garment, worn by women on ceremonial occasions, attested in art from Uruk times down to the second millennium, of which there were many variations.92

As for the *iblal*, or “waist tie,” by etymology it could be a sash or belt worn with the skirt, although Strommenger argues that belts were not worn with skirts until after the Akkadian period. Some historians, however, consider the waistband depicted on the statue from Aššur (Fig. 7.5), for example, to be a separate piece of cloth, rather than rolls of the closed wrap-around garment, so that too could be a “waist tie,” like a modern cummerbund.93 Another possibility for the *iblal*, if one accepts that separate, outer belts were only post-Sargonic, would be an undergarment, wrapped around the waist, worn under the skirt. When the head woman was given her ceremonial clothes for the festival of Ba’u, however, she received only one *iblal*, but two skirts and two “things that tie,” so an outer sash or belt may, after all, be a preferable identification.94 In any case, the *iblal* could be made of wool, linen, or leather.

Comparing these garments to male costume, we find that the *ibbadu*, or kilt, and *bar* were worn by men in the same period and place. Thus, the inventory of personal belongings in the estate of the queen’s deceased brother at Lagaš, who was a contemporary of the women dressing for the festival, mentions three garments, an *ibbadu*, a *bar*, and a *bardul*, or outer cloak. One suspects that these garments were for his interment.95 The Sumerian signs *bardul*, or “outside covering,” were later used to write the Akkadian word *kusītu* “cloak,” but in Early Dynastic documents it seems best to assume that this was a native Sumerian piece of clothing with a native Sumerian word for it. Waetzoldt shows that *bardul* was a full-body garment of linen and could be heavy, weighing anywhere from 1.5 to 4 kilograms (in the Akkadian period nearer 1.5); its manufacture was time-consuming, and it could be up to four meters long.96

As for the smooth, tasseled, Akkadian closed, wrap-around garment, first seen in the Maništušu statues (Figs. 7.5 and 7.9) and the Ubil-Ištar seal (Fig. 7.8), one expects a word first attested in early Old Akkadian. An obvious candidate presents itself, the garment called *šusega* (šu sê-ga), according to etymology “set on” or “put over” the hand or arm, first mentioned in the Maništušu Obelisk so precisely contemporaneous with the statues. The Obelisk records Maništušu’s purchase of large tracts of land from a group of families. The payment includes numerous gifts of valuable commodities and pieces of adornment that Maništušu distributes among the sellers and their male relatives, but these garments were given to only a few, who were leading members of the selling families.97 In another major land sale of the Sargonic period, known as the Sippar Stone,

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92 Strommenger 1971, 50–53.
93 Spycket 1981, 155.
94 Waetzoldt 1980/83, 23.
96 A. Westenholz 1975b, 59 (= ECTJ 104); Waetzoldt 1980/83, 21.
97 For the word in the Maništušu Obelisk, see Gelb, Steinkeller & Whiting 1991, 295 (“a type of cloth”). It occurs also in A. Westenholz 1975b, 62 (= ECTJ 112), an administrative document older than Narām-Sîn’s reign, so a good fit for Maništušu.
the same garment is mentioned, but spelled differently (šu zag-ga), which suggests that there was no standard Sumerian word sign for this garment. Both the Maništuššu Obelisk and the Sippar Stone were written in Akkad in the Akkadian language, so the Sumerian signs may well have been intended to convey an Akkadian word (perhaps resembling the sāgu of Middle Assyrian sources?) by giving it an imaginary but apt Sumerian etymology, a common scribal practice.98

“Set on” or “put over the hand” well describes the closed, wrap-around garment, in which the left arm is concealed: “couvre l’omoplate gauche en biais, l’épaule et le haut du bras, englobant le coude.”99

This style seems to have gone out of fashion during Narām-Sīn’s reign, as it does not appear in art after that, except in a few seals of uncertain date, and the word šusu-ega disappears at the same time. This was, then, a new, short-lived word for a new, short-lived style.100 Furthermore, so far as I am aware, the šusu-ega does not occur in pre-Sargonic or Sargonic documents from the time of Narām-Sīn and later, so it seems the ideal candidate for Maništuššu’s new-style, Akkadian, smooth garment, as it shares a comparable limited distribution in time and place.

In the seal of Ubil-Ištar, Kalaki the scribe, holding his tablet, wears a knee-length version of the smooth, tasseled Akkadian garment (Fig. 7.8); the longer form, as seen in Figure 7.9, may have been reserved for men of higher status. The man in the center of the seal image, with the bun typical of Akkadian images of royalty, is Ubil-Ištar himself, the “king’s brother” (šeš lugal), whom Kalaki the scribe serves. Kalaki may be an example of the new Akkadian elite drawn from non-Akkadian circles, as his name is both unique and exotic. Of the two men depicted in the more old-fashioned shaggy or fleecy garments of the type Sargon wears in his stele (Fig. 7.7), one is a soldier carrying an axe, and the other evidently an administrator, carrying a staff of office. An archer wears a smoother, shorter shoulder garment and special shoes turned up at the toes, ending in balls. The soldier, archer, and administrator face the two central figures, Ubil-Ištar and Kalaki, eyes right and left, apparently undergoing a review or inspection, as is well attested in Sargonic administrative records. Two servants appear at the right beneath the inscription, bearing a chair and other items.101

Boehmer, Nagel, Strommenger date the Ubil-Ištar seal to the time of Sargon, believing that Ubil-Ištar was Sargon’s brother, though Collon found this dating problematic.102 But the designation

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98 For etymologizing word signs, see Hallo 1973.
100 Dury & Lervad, this volume.
101 Strommenger 1962 No. 113 = Collon 1982 No. 141 = Collon 1987 No. 641 = Hansen 2003 No. 150; the best photo of this seal is Reade 1991, 63. The chair-bearer, or gu-za-lá, is well attested in third-millennium sources as a court official. Boehmer 1965, 128, 43 considers this a “hunting scene” and the figures to be “heroes,” whereas Frankfort 1939, 140 considers this purely a “secular” scene, the central figure being “some official guided by tribesmen of the mountains and followed by a shaven scribe or priest ... two servants are carrying their master’s requisites for the wild districts which he is visiting, namely a bed and some provisions.” Frankfort’s idea that the official was visiting mountains was presumably suggested by the pointed shoes of the archer, called, variously, “Schnabelschuhe,” “tsarouchi,” “à la poulaine,” which some writers, including Collon, describe as mountaineer’s shoes, for reasons unknown to me. Salonen 1969 Plate 4,2 reproduces the Ubil-Ištar seal, but does not discuss these shoes specifically. He considers the Victory Stele of Narām-Sīn to be the first illustration of a sandal in Mesopotamian art and suggests that the shoe or half-shoe (Akkadian mešēnu), first mentioned in the Akkadian period, and etymologically related to the word for sandal, may have been of northern or Anatolian origin because of the colder climate there, requiring more coverage of the foot. For inspection in the Sargonic period, see Foster 1986, 49–50.
102 Boehmer 1965, 128 (= No. 1686); Nagel & Strommenger 1968, 156; Collon 1982, 26.
“king’s brother” occurs elsewhere only in the Maništušu Obelisk, referring to a certain Yabarim, the father of one of the Akkadian witnesses. There is thus good reason to date Ubil-Ístar and his seal to Maništušu’s reign, just when the tasseled garment appeared in sculpture. In any case, the “king’s brother” likely meant “the king’s kinsman,” not necessarily brother. In the Obelisk, the witness-son of Yabarim was Maništušu’s contemporary. He bears a name formed from a rhetorical question: Ali-ahi, “Where is my brother?” (meaning that he has none), comparable to Maništušu’s own rhetorical question name, “Who is with him?” (meaning no one). Kinship was evidently an issue of royal importance at the time, as Maništušu was later said to been the older brother of Rimuš, so was somehow passed over in the immediate succession to Sargon.

In sum, the smooth tasseled garment was a fashion that appeared among the ruling elite in the reign of Maništušu, worn by the king and other members of the elite. Whereas the basic form of the garment has Mesopotamian precedents, its special features do not, so could well be of foreign origin. The central political event recorded in Maništušu’s inscriptions, as noted above, was a spectacular victory in Iran over an alliance of Elam and Marhaši, and the exotic appearance of the enemy troops was carefully conveyed in the fragments of art that may commemorate this or other victories in the region, such as the limestone statue from Susa often attributed to Maništušu. Sargon had campaigned extensively in Iran, and the young Maništušu may well have served there. Thus one may suggest that the new court dress might have been inspired by fabrics and styles observed or captured during Maništušu’s campaigns in Iran. In fact, in the Victory Stele of Narām-Sîn, the defeated ruler of the Lullubi, a people of the Zagros, wears a comparable tasseled garment, as he stands facing Narām-Sîn himself. The tassels are difficult to see in photographs, but collation of the stele revealed traces of three of them towards the bottom of his garment. Indeed, Calmeyer has suggested that tassels were particularly characteristic of dress in southwestern Iran. Maništušu also commemorated the mining of hard black stone somewhere along the Gulf, the very diorite imported for many of his statues, so stone and style may have had the same origin.

Besides the šusegá-garment, the Akkadians of the Sargonic period knew a garment they called kusītu, but in Akkad and at Sippar, they spelled it out syllabically, rather than use Sumerian signs, so they did not recognize a Sumerian equivalent. This Akkadian practice thereafter disappeared, and the Akkadian kusītu was presumably written using the Sumerian signs, bar-dûl, as the word does not occur as such in Classical Sargonic administrative documents. The Old Assyrians, on the other hand, continued to write kusītu syllabically. Reimpell drew attention to a later version of the Akkadian wrap-around garment, depicted on Old Assyrian seals from Kanesh, calling it the “Kappadokischer Mantel,” which is more likely to be the northern Mesopotamian cloak, or kusītu. All of this goes to suggest that there were very definite northern styles of the wrap-around, outer

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103 Gelb, Steinkeller & Whiting 1991, 123 (= MO A xi 1).
104 The title šeš ensi “brother of the governor” also appears in an inscription of Rimuš, prior to the time of Narām-Sîn: Frayne 1993, 44.
105 Bänder 1995, LV Nr. 14. Other Akkadian notables are depicted wearing tasseled garments on their seals. Šu-ilišu, the Meluhha-interpreter (Collon 1987 No. 637 = Boehmer 1965, No. 1299, fig. 557), is depicted wearing an ankle-length tasseled wrap-around garment (Meluhha is usually thought to be the Indus Valley), as is a certain Ikrub-Il (Boehmer 1965 No. 1060, fig. 560; compare also Boehmer 1965 No. 1301).
106 Calmeyer 1957/71, 692.
107 Reimpell 1921, 33–34.
Cloak, but either the style became generalized throughout Mesopotamia, or the administrative scribes soon chose to write all varieties with the same Sumerian word signs as they had used to write the Sumerian-style outer cloak, another instance of simplifying terminology over time.

Finally, a word is needed for the toga-garment (Figs. 7.10 and 7.11), first known in art from Narām-Sīn’s reign, though he himself is not shown wearing it. Accordingly, this should be a word that appears first in sources from the time of Narām-Sīn. Here a candidate presents itself immediately: šagida (šà-gì-da₃), a word conceivably of Akkadian origin (šaqītu). This too denotes a garment worn “over the heart,” or so the scribes spelled it, using the Sumerian word for heart, even though that too may have been a fanciful etymology.

If we look for its social context in documents, we find that a well-dressed notable from Umma, a certain Ur-Sīn, who probably lived in the reign of Narām-Sīn, left one šagida among his personal effects when he died. By my analysis, this would be the new-style Akkadian toga-garment. He also left a bardul, by my analysis, the more traditional Sumerian or Akkadian wrap-around cloak, what the Akkadians called a kusītu. In fact, Ur-Sīn was a well-fitted man, as his estate included eighteen other assorted pieces of cloth or clothing, plus twenty bolts of woolen cloth and thirty bolts of linen cloth, far more than the amount normally accounted for in inventories of this kind. Ur-Sīn also owned four mirrors, enough for the vainest of men.

The word šagida seems restricted to Classical Sargonic documents, from Lagaš, Umma, Nippur, Adab, and in Akkad, all from the time of Narām-Sīn, and in small numbers, usually only one, and then the word disappears from the sources. Here we may have a situation similar to that with kusītu. The toga, a new type of garment that appeared in the time of Narām-Sīn, was first designated with a specialized, conceivably Akkadian, word, but the word disappeared after a generation or two, after the style became generalized, and some other word was used for it, perhaps bardul, which meant both the kusītu and the Sumerian cloak. Who could guess, after a few millennia, that “le smoking” in no way resembles in design, material, or use the English “smoking jacket,” or that “hose” in English of the 17th and 19th centuries are quite different garments?

It is important to note that the šagida, or some form of it, could evidently be worn by upper-class women as well, in Akkad during the reign of Narām-Sīn. At Ešnunna, for example, two of these garments were part of a lavish bridal trousseau that included silver, livestock, wool, food, bedding(?), and other commodities, handed over in the presence of several witnesses. There is another, even more lavish list of commodities from Tuttub, which could well be another bride gift. It includes two šagida-garments, along with such items as a gold ring, a wagon and draught beast, livestock, and other clothing. As to whether or not women wore togas in Akkad in the same style as those worn by men in Sumer, one should always allow for a regional difference in usage, as with the English “jumper,” which in the United States is a one-piece, sleeveless garment worn by girls and women over a blouse or other top, but in England is a pull-over, or upper body garment, worn by both sexes, called “sweater” in the USA.

108 Steinkeller & Postgate 1992, 48, with, however, evidence that šaqītu could be a pre-Sargonic word. The tablet and related tablets Pomponio, Visicato & Westenholz 2006 No. 148, dated by the editors “Medio-Šargonicco,” in which the word occurs, on epigraphic grounds could well be contemporaneous with the tablet cited in note 109, which belongs to a group I would date to the first decades of the reign of Narām-Sīn (Foster 1982a, 53).

109 Steinkeller & Postgate 1992, 47 (= TLATIM No. 21).

110 Milano 1987 (= MAD 1 129).

As for the origins of the toga-garment, perhaps it was a novelty that spread among the Sumero-Akkadian elite in Sumer as a result of one of Narām-Sīn’s conquests, enjoying a vogue at court and making its way into the wardrobes of local notables, among them Ur-Sīn at Umma and the handsomely provided for bride at Ešnunna. Was it an import from North Syria, perhaps a trend-setting region for Akkadian culture? Syria may also have been the home of the open wrap-around garment (Fig. 7.6). In any case, in the reign of Narām-Sīn, the toga-garment was a new style of dress, which in a few generations would become the standard dress of the rulers of Lagaš, such as Gudea, and the later kings of Ur. Clearly, it was seen as marking a person of highest status.

One other significant sartorial innovation of this period, the Narām-Sīn shawl (Fig. 7.12), may belong in the realm of military accoutrements, for combat or parades. This was hung over the left shoulder, then knotted rakishly at the right hip. It may be a dress form of the “shoulder-hung garment” of the pre-Sargonic and early Sargonic military (Fig. 7.13), the battle form of which protected the body in combat while leaving the arms free. Thus the safest course is to identify it with the word gu’e (gú-è) (“that which comes down at the neck”), a word attested first in Sargonic documents, though forms of the shoulder-hung garment appear earlier in art. There were as many styles of the gu’e as there were styles of military uniforms over time and place. Elaborate versions occur in the monuments of the Sargonophile early Old Babylonian rulers in Akkad, Assyria, and Upper Mesopotamia, such as the kings of Ešnunna, one of whom was named Narām-Sīn. The triumphant king in the Mardin relief, sometimes thought to be Šamšī-Adad I, wears one of these as he smites his enemies (Fig. 7.14), though the knot in the garment has apparently been misunderstood as a decorative patch. The inscription informs us that he installed governors in the cities he conquered, just as Sargon himself tells us he did in vanquished Sumer. Therefore this garment had rich imperial Akkadian associations centuries later, in the same region. Historians of clothing doubt that the Narām-Sīn shawl was ever practical battle gear, but suggest it was shown in combat or victory scenes to demonstrate divinely sanctioned triumph in warfare.

One may also consider the possibility that an undershirt might be worn beneath cloaks, mantles, or festival garments. Strommenger mentions this only in passing, as it is seldom visible in art. The best candidate for this is the garment called šagadu (šà-ga-du), a Sumerian word meaning, appropriately, “worn at the heart/abdomen,” as opposed to the ibbadu, “worn at the hips/loins/waist.” For this garment, the earliest attestations are late Early Dynasty sources. Šagadu, borrowed into Akkadian as šakattu, may even have been a general term for any sort of garment worn over the abdomen. Later šagadu’s could be made of hide or linen. The style and the word seem gradually to go out of general usage after the Old Babylonian period but it

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112 Börker-Klähn 1982a, 76; Bänder 1995 both stressed Egyptian parallels to Akkadian triumphal art, for which Syria or Palestine could be likely places of contact. For bibliography on Egyptian clothing, see Hallmann 2007.

113 Strommenger 1971, 42–44.

114 Waetzoldt 1980/83, 22.

115 Strommenger 1971, 43 Figure 18 (considers to be Narām-Sīn of Ešnunna); Grayson 1987, 63–65 (considers to be Šamšī-Adad I). See further Moortgat 1969, 72, 84.


117 Strommenger 1971, 43.

118 Waetzoldt 1980/83, 22 (though he considers it worn about the loins); Steinkeller 1982b, 362: “loin band.”
was very much at home in the Amorite milieu. At Mari it was mostly made of linen, and Durand considers it a kind of belt.\textsuperscript{119} Waetzoldt notes that the šagadu was fairly light, in Ur III weighing from 125 to 150 grams.\textsuperscript{120}

It seems reasonable, on the etymological basis alone, to move the šagadu away from the waist or loins, where most Assyriologists locate it, to become a short-sleeved undershirt or mid-body wrapping (Strommenger and Bänder’s “Oberkörperkleidung” or Waetzoldt’s “Rock, auch Untergewand”). A stele fragment found at Susa depicts a figure with a large bun in the manner of Akkadian royalty, though he is sometimes interpreted as a captured enemy, wearing a fleecy outer garment and an undershirt. It extends above the fleecy garment to the neck and

\textsuperscript{119} Durand 1983, 458 (of linen).
\textsuperscript{120} Waetzoldt 1980/83, 22.
is knotted behind the neck. Narām-Sīn wears a cap-sleeved undershirt in his stele (Fig. 7.12), its apparently light material hugging his body. Bänder suggests that it was nearly transparent, so it was presumably of very fine linen.

Thinness of textiles was, perhaps, another Akkadian innovation, beginning with the Akkadian wrap-around garment of the time of Maništušu. Moortgat, writing of the Aššur statue of Maništušu (Fig. 7.5) considers that the wrap-around too was very light: “the limbs of the body look as if they were showing through”; similarly he finds Narām-Sīn’s garment in the Pir-Husseyn stele (Fig. 7.2) “thin and clinging” so the curvature of his chest “can be noticed through it.” Spycket too was struck by the thinness of the garment on the Aššur statue (“tissu mince”), through which features of the back were visible (Fig. 7.5). Thus production of very thin textiles that revealed body contours, or at least their representation in art, may be deemed an Akkadian innovation.

According to Hansen, the Rosen mold shows Narām-Sīn not wearing a revealing shirt but bare-chested, the only instance of royal nakedness in Mesopotamian art; furthermore, he is seated, rather than standing respectfully in the presence of the goddess Ištar, for which again there is no parallel in Mesopotamian art. The scene is no doubt calculated to depict Narām-Sīn as the goddess’s lover, just as he suggests in his inscriptions. When Narām-Sīn stripped down for battle, as shown in his Victory Stele, he removed his outer mantle, leaving on his šagadu-undershirt and ibbadu-kilt, then donned his gu’e-shawl and knotted it. But alone with the goddess Ištar, as shown on the Rosen mould, he took off his undershirt as well.

Another aspect of the šagadu may also be mentioned. Strommenger has drawn attention to the fact that the toga-garment should reveal part of the wearer’s leg in the open triangular space where the garment crosses itself in front. If the šagadu was sometimes tunic-length, it would cover the leg and this could explain the absence of this anatomical detail in art in which the body is otherwise depicted attentively. Another explanation for the absence of visible leg in a toga-clad figure might be purely practical: the artist ignored the leg to have enough stone to hold up the figure, a problem solved less adroitly by the mass of stone left around the feet in the Maništušu statues.

6. Suits of clothes in Akkadian documents

Akkadian administrative documents sometimes list suits of clothes given to people for some official purpose. One may consider first a group of related documents from the early Sargonic period, that is, from before the time of Narām-Sīn; I would date them to the reign of Rimuš. These record the ceremonial presentation of suits of clothes to men in positions of responsibility or honor.

121 Amiet 1976, Pl. 22.
122 Bänder 1995 LXIV.
126 Strommenger 1971, 47.
128 Foster 1982a, 38–39, 46–47.
Suit No. 1 (RBC 3015)
1. 1 ur, ûl-la x 
2. ki-lá-bi 1/3-ša ma-[na]
3. 1 túg šà-ga-dû
4. 1 túg níg-lá
5. 1 túg lamahuš
6. 1 túg <erasure?> dùl-x 
7. ugula Uš-àm
8. ī-šu-šu-bi é-mah ensí Dilmun-dar-ra-na kl-ka-ke₄
9. é-mah ensí-ra mu-na-DU-a e-ba
10. 1 túg šà-ga-dû
11. [1 túg] lamahuš
12. [ ]-bí-i-lum gudá
dingir-kala-ke₄ e-ba
13. uš-bar-àm
14. [ ]-lú-a-hi
15. maškim-bi
16. ensí-ke₄ A-ga-dè₄-a
17. Pù-ma-Ìí E.UR-a
18. Ummakl-šè du-ni
19. Dilmun-dar-ra-na kl e-ne-ba
20. túg Ur-lú dub-sar-da gi-gi-[da?] e-da-g[ál]
6 mu [ ]

“One medallion of [silver?], weighing 1/3 mina, one undershirt, 1 cloth tie-girdle, one red festival-garment, one head covering(?).”
(Occasion): “Under the supervision of Uš, Ilu-rabi, in the governor’s headquarters at Dilmun-darra, having brought it to the governor, gave it to him in the governor’s headquarters.”

Suit No. 2 (RBC 3015)
“1 undershirt, 1 red festival-garment,”
(Occasion): “Dingir-kalag gave to [ x ] the priest. It is woven piece work(?). Ili-ahi oversaw the transaction.”
(Occasion of both transactions): “When the governor was in Agade and ... came to Umma, he gave these to them in Dilmun-darra. The textiles were with Ur-lu the scribe, as he returned(?).”

Suit No. 3 (BIN 8 331)
“1 undershirt, 1 cloth tie-girdle, 1 red festival-garment, one head covering(?).”
(Occasion): “To Ib’um, the man of Lugal-ra. The governor gave them to him in the headquarters of Umma. Il-uda the courier was supervisor of this transaction.”

Suit No. 4 (Nik DV II 49)
“1 undershirt, one tie-girdle, 1 red festival-garment.”
(Occasion): “To Išda’um, foreman to the cupbearers. When Lugal-ra came from the south, the
governor gave them to him in Zabala when he sent the work troops to Sabum. Di-Utu the courier was supervisor of this transaction.”

**Suits No. 5–9 (ECTJ 108)**

“1 red festival-garment? to Urrununuz-zi, land registrar. 1 red festival-garment to [ ], of Umma. (both received by third parties). 1 NI.TUG, 1 aba: PN. 1 ibbadu [ ]; 1 ibbadu: PN.”

*(Occasion): “Being garments Lugal-ra brought from Umma.”*

The record for Suit No. 1 tells more about the transaction than is normal in Sargonic accounts, so we must assume that it was exceptionally important to the governor of Umma, perhaps the presentation of a special suit of clothes for his investiture. The precious metal object of adornment listed first seems too heavy, at about 250 grams, for a ring, as was given to visiting dignitaries under the Third Dynasty of Ur. One may suppose it was silver and circular on the basis of the object called “silver ulla-ring” (ha-ar āl-la kū-babbar) in another, later Sargonic administrative text (weight of that object not given). Therefore I suggest it was a pendant or medallion that high officials wore around the neck, following royal example. Sargon seems to initiate the practice of kings wearing necklets or necklaces, as Sumerian rulers are not shown with them. The figure from Aššur (Fig. 7.5) wears heavy beads with a large counterpoise in back, but if there was anything hanging in front, it is concealed by the beard. Narām-Sīn wears a complicated necklace in his Victory Stele, with a large central bead (Fig. 7.12), and Old Babylonian kings, such as the victorious ruler on the Mardin stele (Fig. 7.14), wear circular medallions hanging from a necklace. Inventories of necklaces from Narām-Sīn’s time mention gold, silver, and stones, but not medallions. The festival-garment, presented here and with the other suits, was red outer wear, presumably made from red wool. It was fairly light weight in the Akkadian period, weighing about 1.5 kilograms, even though it could use 3.5 meters of fabric, both in length and width. There seems also to have been some kind of headgear, of which there are numerous types in Sargonic art, or a parasol, such as is carried behind Sargon (Fig. 7.7). Note that no shoes are provided for any of these men, although in later times sandals were standard gifts from the kings of Ur to visiting dignitaries. Perhaps at Sargonic court events one went barefoot, for the series of Maništušu statues always show a barefoot man wearing the full-length, ceremonial body garment. Narām-Sīn is the first Akkadian king depicted wearing footgear. Whereas we might expect a toga-garment to be part of this presentation, we recall that this article would not appear until later in the Sargonic period, during the reign of Narām-Sīn; as suggested above, the record of Suit 1 is earlier.

Suits Nos. 2, 3, and 4 seem to have been on the same general order, but are less elaborate.

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129 Michalowski 1978.
130 (Charpin & Durand 1981, no. 29; also MCS 9 260).
131 Limet 1972, 5, 7. Round silver pendants were found in a late(?!) Akkadian-period horde at Brak (Maxwell-Hyslop 1971, 29–30), but the excavation report does not give their weights to compare with the textual record (Mallowan 1947, 176).
132 Waetzoldt 1980/83, 22; (ITT 5, 9996). For red wool, a particularly fine and valuable variety, see Waetzoldt 1972, 51.
133 Boehmer 1980/83, 204; Bänder 1995, LXVII, LXVIII (tabulations of hair styles and modes of securing them, see in general Börker-Klähn 1972/75).
134 Lambert 1973, 175.
there is no tie-girdle in Suit No. 2, this may not have been an essential part of the outfit. The term ušbar in Suit No. 2, translated above as “piece work?,” often refers in Ur III sources to inferior, rapidly produced weaving, but this seems inappropriate for a garment given ceremonially, so I have chosen another word ušbar that, in Sargonic texts, refers to valuable metal objects produced under supervision, though its precise significance is not clear. In the document published in the Appendix, only a few of these are sent to the capital, in contrast to many toga- and festival-garments. Lugal-ra, mentioned in connection with Suits Nos. 3 and 4, was apparently a dignitary of some importance, acting at both Umma and Nippur, but I cannot document him further. Suits Nos. 5–9 continue in descending order of simplicity, listing mostly festival-garments and kilts.

7. Gifts of clothing to the royal family

Administrative records also document gifts of clothing from people of lower rank to higher. When the royal family (I believe Šarkališarri and his court) came to Sumer, perhaps for his coronation at Nippur, they were presented with fine clothing and many other gifts by a man (Mesag?) possibly hoping to receive or retain the governorship of Umma:

[ ] kilograms of gold; 20 silver cups weighing x+2 kilograms; 1 bronze platter(?), 40 bronze cups(?), 2 garment bags (našpārum); 1 red festival-garment; 1 undershirt; 1 toga-garment; 10 shawls; 2 wagons; [ ] draught animals … oblation to the king; 500 grams of gold; 1 calf, 1 lamb …; 10 baskets of …; oblation to the queen; 1 kilogram of silver … ; 1 red … festival-garment … oblation to [the king’s son].

First among the textiles are two items called našpārum, literally, “sending containers,” here translated “garment bags.” It seems very likely that these were to keep fine clothes clean when they were transported, as they were also part of the Akkadian bride gifts mentioned above (see note 110), and one came with a tiered garment (see note 86). Next come a red festival-garment, the light undershirt to go with it, a toga-garment, and ten shoulder-garments or Narām-Sîn shawls. Here the undershirt was the basic foundation, over which could be worn a choice of garments, depending on the occasion, the festival-garment, the shoulder shawl, or the toga.

The queen receives no textiles in this list of gifts, only food. We may thus suggest that it was inappropriate to give clothes to Akkadian royal women in the way one did to male dignitaries or royalty. The crown prince receives no food or objects, but he does get a special type of red festival-garment, perhaps a child’s version of it.

* * *

In late third millennium Akkad and northern Mesopotamia, a wrap-around garment was worn, different styles of which may have had different words in Akkadian, but which were eventually subsumed under the Sumerian signs bardul “body covering garment.” In the reign of Sargon, this was shaggy in appearance, as in earlier periods, but under Maništušu, probably as a result of his conquests in Iran, a new version appeared that was thin, smooth, and elaborately fringed. This garment was called šusega “put over the arm” and was worn by royalty and people of high status. In the time of Narām-Sîn, the toga (šagida), appeared, likewise perhaps a fashion inspired

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135 Waetzoldt 1980/83, 22; Foster 1982a, 132.
136 Foster 1982a, 133–134.
by foreign campaigns. It spread among male and female members of the elite in Akkad and Sumer, but in successive generations became the garment worn, perhaps exclusively, by royalty in Sumer, such as Gudea of Lagaš and the kings of Ur, and the Old Akkadian word for it soon disappeared.

I have also suggested terms for the short skirt or kilt worn by men and women (ibbadu), for the tie-girdle sometimes worn over it (nigľal), and for an undergarment tied around the waist (iblal). In addition, I have proposed that some outer body clothing, such as the red festival-garment, shawl, and body-wrapping garment, might be worn over a sleeveless undershirt (şagadu). A specifically military item, a long, shoulder-hung garment in various styles (gu’e), may well underlie the Naram-Sîn shawl, seen first on his Victory Stele, which, in Akkad itself, was the garment later kings were depicted wearing on their own victory monuments.

The Akkadian period, with its closely dated works of art in which clothing is important, as well as its rich administrative archives dealing with textiles and clothes, offers therefore a particularly rewarding opportunity to correlate visual and written evidence for continuity and change in fashion during this dynamic period of Mesopotamian history.

Appendix

Fine Garments to the Capital

The tablet published herewith, NBC 11441 (5.7 × 4.2 cm), written in a fine Akkadian scribal hand (Sommerfeld 1999, 14, Duktus II or III), lists commodities shipped to Agade by a royal scribe, including an enormous number of toga- and festival-garments, an example of the wealth extracted from local producers and sent to the royal capital. This was a shipment fit for a king.

A cart is the only object in the bill of lading that is not a textile. Hand carts were vehicles drawn by a team of mules to convey Akkadian notables and were no doubt a sign of rank and prestige. Maništušu gave a few of these to important sellers in the Obelisk of Maništušu (Gelb, Steinkeller, & Whiting 1991, 116–140) and one is listed among the valuable goods in the document from Tuttub cited above, note 111. An ambitious underling pressed his Akkadian patron in a letter to give him a two-wheeled cart, perhaps for the same purpose (Kienast & Volk 1995, 48–50).

The find spot of this tablet is unknown. I know of no other reference to this scribe. Old Akkadian names with apsu are very rare and can be associated with the prominence of Ea in the Sargonic onomasticon of Babylonia (A. Westenholz 1999, 79). The “royal scribe” is likewise not otherwise attested (Visicato 2000).

1. 2 túg na-ăš-pár- [ ] 2 garment bags
2. 120 túg šà-ga-dù 120 festival garments
3. 120 túg šà-gi-da5 120 undershirts
4. 120 túg šà-ga-dù 120 toga-garments
5. 7 túg uš-bar 7 piece-work(?) garments
6. 2 řg-gigir řig-šu 2 hand carts:
7. Be-ľf-ABZU Beli-apsu
8. dub-sar lugal-ke₄ the royal scribe
9. A-ga-dă₅-šè loaded on the boat
10. má-a ba-gar for Agade.
Afterword

A document indicating industrial production of garments in the Akkadian period has been published by M. Maiocchi, Classical Sargonic Tablets Chiefly from Adab in the Cornell University Collections, Cornell University Studies in Assyriology 13 (2009), no. 147. This records a delivery of over 500 garments “in the third installment,” including 103 toga-garments, subscribed túg šà sila-ka-kam. I interpret this enigmatic phrase to mean garments through “(regular supply) channels” (sila-a gál-la); compare (MVN 3 125), an Ur III contract in which a man undertakes to supply lard for rations if it is not available through regular supply channels (sila-ta è-è ... tukumbi nu-ù-um-ta-è). Maiocchi no. 144 is an interesting school exercise giving a fantastic balanced account for woolen garments (see writer, Archiv Orientalní 50 [1982], 238–241), in which, for example, two turbans weigh 8 kg each, and a huge arrears is humorously charged to a tavern singer.

Abbreviations

MCS Manchester Cuneiform Studies. Manchester, UK.
NBC Nies Babylonian Collection. Yale University, New Haven. Museum number.
Bibliography
Nagel, W. & Strommenger, E. (1968) Reichsakkadische Glyptik und Plastik im Rahmen der mesopotamisch-
elamischen Geschichte. Berliner Jahrbuch für Vor- und Frühgeschichte 8, 137–206.


7. Clothing in Sargonic Mesopotamia


1. The Eblaite written sources on textiles

The city of Ebla was the capital of a Syrian kingdom which, around the middle of the 3rd millennium played a notable role in Syria’s history as can be reconstructed by the texts found in its archives. The history of the city dates to the first half of the 3rd millennium BC. The Ebla texts enable us to conclude that, at the onset of the 3rd millennium BC, Syria witnessed the creation of the first urban centres by Semitic tribes who settled there, thus giving rise to small states. Syria at that time was divided into a series of kingdoms. Some had a king with the same title of en, “king”, as Ebla’s king, and others had titles such as badalum, apparently also indicating an independent ruler. It is possible to conclude from the Ebla documents that, this city-state, from its very start, had created a vast trade network and maintained friendly relations with many kingdoms. Thus, the exchange of gifts and the possibly of trade are attested, although this latter factor emerges less frequently from the texts.

The texts from the royal archives of Ebla provide a wealth of information on the textiles produced, used and exchanged in Ebla itself and in the Syrian region and Upper and Central Mesopotamia of the time. A frequently encountered type of text is the monthly accounts of textile deliveries, registering the deliveries of fabrics to various people on several occasions in any one month. Most of these accounts are of ceremonial gifts sent to the courts of Ebla’s closest allies, who, in turn, made gifts of wine, animals and various goods to Ebla.

Among the first 42 tablets discovered in 1974 were several quoting different types of textiles, wool, and woollen articles used as equipment for donkeys and equids.

In the great archive L.2769, c.650 inventory numbers of tablets recorded monthly accounts of textile deliveries. They register the outgoing of precious cloth, undoubtedly Ebla’s most important product.

In 1976, a buried wooden plank was discovered in the Audience court; on this plank were tablets, some intact and some broken. They were later published by E. Sollberger in the volume ARET VIII (and then by G. Pettinato in MEE V) as monthly accounts of textiles and annual accounts of metals. Joins to some of these broken tablets were found in the principal archive. This indicates that the tablets were seized after the destruction of the archives. It is possible that these may
constitute parts of tablets that the conquerors of the town carried off as war booty. This hypothesis can explain the lack of texts concerning some major events at the Ebla court, such as the funeral and the funerary gifts for King Irkab-damu of Ebla, which we know about from some tablets. However, it is not as extensive as we would wish to have in a monthly account of textiles with the complete list of textiles and other objects of the funerary array!

In the texts in archive L.2712 (roughly 1,000 inventoried tablets and fragments of the same), a few quote some deliveries of textiles but they deal, inter alia, with rations of food, wheat, bread, objects of wood, some silver, one of gold, or oil. No rations of wool are referred to in these texts. The wool rations are instead normally registered in the monthly accounts of textiles. Usually, the last columns of the reverse of a monthly account of textiles are devoted to the registering of wool for different purposes, including buying some products at fairs.

In a list of precious objects probably brought as booty to the royal palace, ARET X 55, and its parallel ARET X 2, several textiles are quoted.

Thus far only 25% of the monthly accounts of textile deliveries have been published. Textiles are also quoted in other types of texts: the ritual texts, first of all in the texts of the great ritual of royalty and in other rituals; in the “mu-DU” texts of incoming goods to the Eblaite administration; in the annual accounts of metals where some silver is registered as being used to purchase various amounts of different textiles.

Work is obviously still in progress on these texts. The monthly accounts of textile deliveries are a mine of information, not only for the textiles of Ebla and of the Syrian region, but also for the reconstruction of the political, social and economic history of Syria and Upper Mesopotamia during the 24th century BC. Many of these aspects have already been studied. In the Ebla archives, there are several very important texts, such as the treaty with Abarsal, the letter of King Enna-Dagan of Mari, or the letter of a functionary of the king of Ḫamazi. However, in order to write the history of Ebla in the period of the archives, the texts of textile deliveries are the most useful, as they, above all, are full of news of many events quoted only in this type of text.

Therefore, to trace the history of the kingdom of Ebla and other kingdoms of the region, it was necessary first of all to arrange the texts in chronological order. Thus, in 1993, I began a programme of systematic study of all the texts of textile deliveries in the large Ebla archive, L.2769. I studied the prosopography (so important in chronological reconstruction), the events and all the elements useful to reconstruct the chronology of the texts, to then write the history of Syria and Upper Mesopotamia in the mid 3rd millennium BC.

Given that many texts of textile deliveries are fragmentary, I began a systematic search for joins. This task, which still continues at the time of writing, has been possible because all the fragments found by archaeologists in room L.2769 are preserved.

Having finally established a reasonably relative chronological order for the annual accounts of metals, through the crucial help provided by the monthly documents of textiles, we correlated several of these monthly accounts of textiles to the corresponding annual account of metals. However, this task is not yet complete. Then the joins of the previous years’ result in certain texts

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1 See ARET IX.
2 See ARET I, II, IV, VII, VIII, XV; MEE II, VII, X, XII.
3 See ARET XI, 1,2,3.
4 See Biga 2003a, 345–367.
5 Archi & Biga 2003, 8–9.
requiring further prosopographic study in order for them to be inserted into the chronological table and sometimes this requires certain texts to be moved within the relative chronology.

As we will see below, I have correlated many of the textile texts to the corresponding annual account of metals for the first three years of the vizier Ibbi-zikir⁶, but I am still searching for other texts pertaining to these three years. The remaining textile texts for all the other periods have yet to be correlated to their corresponding annual metal account.

Due to the large array of topics, in many articles not only the study but even the quotation of the types of textiles have been neglected. In several articles devoted to other topics, quoting passages of monthly accounts of textiles we wrote: textiles (1,1,1 or 2,2,1,1,1) etc. and then the personal names of those receiving the textiles and then the occasion of the delivery.

Today, after thirty years of prosopographical studies, we can state that the large archive, which is very extensive since it must have held about three to four thousand tablets, covered a period of roughly 50 years of the city and kingdom’s history. Four kings ruled during this 50 year span, the first of these, King Kun-damu, being documented in a very limited number of texts. More texts, including some regarding textiles, can be attributed to the third from last king, I griš-Ḫalab, even more to the penultimate king, Irkab-damu, who ruled for about ten years and a very large number to the last king, Išar-damu, son of King Irkab-damu. It is the reign of King Išar-damu, that is known best of all. This is because all, or almost all, of the large documents recording goods entering and leaving the kingdom are available to us, from the moment Išar-damu ascended to the throne right up to the destruction of the city, a period of approximately 36 years. This last king of Ebla, who reigned so long having ascended to the throne when still a child, continued his father’s work and extended Ebla’s kingdom before witnessing the destruction of the capital city, which was sacked.

The kings of Ebla were assisted in their rule by a varying group of elders, primarily constituting certain principal members of important Eblaite families. These were powerful people who channelled their great wealth towards the royal palace, perhaps by collecting tributes. They acted as chiefs of the administration and were called “lugal”, “lord”. Their precise role remains difficult to define. In the texts from King I griš-Ḫalab’s reign, the most important of the “lords” were Darmia and Tir. In King Irkab-damu’s reign the most important “lord” was Arrugum. In King Išar-damu’s reign, the most important “lord” who acted as a vizier and was also at the head of the Eblaite army, was first, Ibrium and then, after his death, his son Ibbi-zikir.⁷

As mentioned at the outset, among the documents of these kings, around 650 monthly documents register outgoing quantities of precious cloth, undoubtedly Ebla’s most important product. These textiles were given to members of the court on many different occasions, to people from other cities in the kingdom and sent to other countries with which Ebla had diplomatic, political and commercial relations.

In fact, the designation of the monthly account of textiles is not arbitrary and was not made by the epigraphers of Ebla or by the archaeologists. It was made by the Eblaite scribes who counted, (at the very end of every text), the partial total (AN.ŠÈ.GÚ) or the general total (šu-nígin) of the delivered textiles leaving Ebla’s storerooms. Thus, they were called monthly accounts of textiles because almost all have at the end the totals (partial and general) and are dated with the month’s name. Some, but very few, are pluri-mensuel, covering some successive months.

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⁶ Biga 2010, 39–57.
⁷ For the “lords”, see Archi 2000, 19–58.
Fortuitously, the Ebla scribes also registered, in the monthly accounts of textiles, the precious objects, mostly of silver and gold, which were delivered with the textiles to the same people. They sometimes also wrote the weight of these objects in an abbreviated form. The occasion of the delivery too is sometimes mentioned: always an event of the Ebla court and of other Syrian kingdoms commemorating a birth, a marriage, a death, a ceremony, a ritual, a military campaign, or news brought to the Ebla court. These events are fundamental for reconstructing the history of Ebla and the other kingdoms of the time.

Of course, in the case of some important events such as marriages, death of the vizier or a princess of the court, or in the case of a procedure (that despite several efforts by some scholars, remains difficult to understand) of the transfer of a bracelet or a dagger from one member of the court to another, the list of precious objects is longer with many objects of metals listed even in the monthly accounts of textiles. However, the Eblaite scribes always considered the texts as accounts of textiles and in the final total, they counted only the delivered textiles. Therefore, it is impossible to consider some texts as anomalous. Further proof that the scribes consider those texts as normal monthly accounts of textiles is that they put the tablets in chronological order on the same shelf where other monthly account of textiles of the same year were placed.

Several monthly accounts of textiles are heavily damaged and need to be completed. There are, in fact, several thousands of fragments, some large. Two volumes of fragments have been published (ARET III and XII), but more than two thousand fragments remain. We hope to be able to join them to their appropriate tablet and not to have to publish another volume of fragments.

Other typologies of texts are also important for the study of the textiles and to evaluate the number of movements of textiles and wool in the period covered by the archives. The so-called “mu-DU” texts apparently register the goods entering the palace storerooms. The “lords” are able to contribute great quantities of textiles and different metals to the Eblaite storerooms. Especially during the reign of King Išar-damu, his vizier, Ibrīum and later his son, Ibbi-zikir are responsible for bringing vast quantities of textiles to Ebla. The origin of these goods registered in the “mu-DU” texts remains unclear. There are four “mu-DU” documents from the time of Vizier Arrugum, nineteen documents from the time of Vizier Ibrīum, (including the document of the year in which King Irkab-damu died), and twelve “mu-DU” documents from Vizier Ibbi-zikir’s time. In all of these texts, but especially in those of Ibrīum and Ibbi-zikir, the list of goods brought by the vizier begins with a long list of hundreds of different types of textiles entering the Eblaite storerooms. Some “mu-DU” texts are already published, as, for example, MEE II 1, ARET II 13, MEE VII 38, and MEE XII 3. From these texts, it is evident that the production of textiles in Ebla itself (which we are not able to quantify) was integrated with large amounts of textiles coming from other towns of the Eblaite kingdom and from other countries in some way subordinate to Ebla.

There are then 36 large annual accounts of metals registering the deliveries of different metals for many purposes. All these texts record (some) deliveries of silver to buy different types of textiles (even though where these textiles are bought remains unspecified). Large quantities of wool were bought especially from the city of Mari on the Middle-Euphrates and from the city of

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8 Biga & Pomponio 1993, 12–19
9 See also Archi 1993, 43–58.
Armi, possibly Tell Bazi-Banat on the Euphrates too, between Karkemiš and Emar.10

Some of these annual accounts of metals are already published in MEE VII 34, MEE 10 20 and 29, and MEE XII 35, 36, 37.

Textiles then are of significance in some texts describing rituals. The use of particular textiles and their colours are important factors for the understanding of the type of ritual in question. The texts concerning the ritual of the Eblaite royalty – which was performed, at least, by King Irkab-damu and his queen and then by King Išar-damu and his queen Tabur-damu- quote several textiles used during the ceremonies.11

The identification of the type of fabrics quoted in the texts is not an easy task. It is still extremely difficult to understand the purposes and kinds of cloth, for which the different types of fabrics were used. This is a common problem with every type of text from all periods in the Ancient Near East.12 It is uncertain if we are dealing with whole fabrics, or fabrics already cut and ready to be worn, wrapped around the body, or with clothes presumably cut and sewn. Etymology is often not helpful here.

From the Mari letters, we can sometimes ascertain that we are dealing with clothes. However, in the case of Ebla, it seems more likely that we are dealing with pieces of fabric of unknown size.

In Egyptian tombs, Egyptologists found complete arrays of textiles of different sizes, some as large as a sheet, some smaller and cut in bands of various size and length, normally kept in wooden boxes.13 For all these reasons I would prefer not to use the word “clothes” for Eblaite textiles.

Almost all the names of textiles in the Ebla administrative texts were recognized and listed by G. Pettinato in his pioneer volume MEE II (Napoli 1980), and several items were discussed in the commentary to the monthly account of textiles published in that volume. In 1985, A. Archi briefly offered an excursus on some Eblaite textiles in ARET I, 227–229, considering them to be clothes. Then for many years scholars devoted their attention to other problems of interpretation of these texts, primarily to the history of the kingdom, although, several comments were made on the different types of textiles in the editions of monthly accounts of textiles in ARET and in the MEE series.

However, it is only in recent years that some excellent articles and lengthy studies have been devoted to the different types of textiles and their lexicon. In the Thesaurus Inscriptionum Eblaicarum, Volume A/1,2, Roma 1996, it is possible to find long lists of quotations and passages of several texts where names of textiles, especially ʾā-da-um-TŪG and aktum-TŪG, are attested. A long, detailed and important study of the Semitic textile terms is given by J. Pasquali (1997). G. Conti (1997) produced an important study on the numerous objects made of wool which form part of the equipment for donkeys, equids and wagons. In A. Archi (1999), there is a brief excursus

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11 For these texts see ARET XI, 1,2,3; for another ritual where coloured textiles have great importance, see Biga 2003b, 54–67; Pasquali 2005a, 165–184.
12 See the important remarks of Veenhof 1972, 89–97 and Durand 2009, 9–20.
13 See, for example, the description of the rich tomb of Gebelein during the Vth Dynasty, excavated by Schiaparelli in 1911, in which three wooden boxes full of textiles of various sizes were found. One of these boxes is now at the Egyptian Museum of Turin. The cover of the box has in its inner side a very interesting text with a list of textiles, one of the few examples of lists of textiles not for ritual use. The names of the textiles written in the list are difficult to interpret and translate. Egyptologists, even if they have many textiles still preserved in the tombs, are often not able to identify these textiles with the names they have in the texts. See Roccati 1970, 1–10. I thank A. Roccati for the bibliographical references.
on some of the most common types of fabrics (considered cloth) and a list of their prices. In his
detailed commentary on single terms concerning the textiles mentioned in the texts, H. Waetzoldt
(2001), quotes all the interpretations and translations for every textile term in the previous
bibliography. The symbolism related to the colours of the fabrics used in different rituals is studied
by J. Pasquali (2005a). An important study on the social significance of the gifts of different fabrics
and the attempt to identify some textiles with the help of the iconography of small statues and
other pieces of sculpture found in the Ebla palace was done by W. Sallaberger (2009).

For the most recent paper on the Semitic lexicon of the textiles, see Pasquali in this
volume.

It has been clear for some time that the study of monthly accounts of textiles is more productive
in conjunction with the relative chronology – as chronology has been important to trace the
story of the kingdom of Ebla. Hence, it was decided to publish the volumes dedicated to textile
texts in chronological order. F. Pomponio, having published in the volume ARET XV,1 the first
part of the monthly accounts of textiles written under Vizier Arrugum, will soon publish the
second volume. Knowing all the texts of the period of around 5–6 years during which Arrugum
was vizier, provided Pomponio with a better understanding of the distribution of different types
of textiles as can be seen in his important article (2008). For some textiles quoted in lexical lists
at Ebla see Civil 2008, 92–98.

In the following, I would like to offer first of all some general remarks on some questions
that remain open and then examine some particular deliveries of textiles, in particular coloured
textiles, to different groups of people in the service of the Palace.

2. The production of the textiles, their conservation in storerooms, and their dyeing

The state of Ebla controlled many flocks of sheep. In certain small texts, an extraordinary large
number of sheep is quoted. Hence the palace of Ebla had large quantities of wool available
for the production of fabrics. Apparently, Eblaite wool was insufficient as the texts quote wool
bought by merchants in the kingdom of Mari on the Middle Euphrates, in the kingdom of Armu
and in other kingdoms.

At the end of each monthly account of textiles, in the last columns of the verso, the deliveries
of wool (sometimes specified as white or black) are registered.

The wool was given to women, including the queen and the queen mother to make inter alia
fabrics, blankets, pillows, cushions, carpets, or ropes; to workers to make fabrics; it was used
to purchase goods at fairs, (especially gall-nuts and other natural dye materials for fabrics and
wool); it was given as payment to several categories of workers; and it was given to functionaries
responsible for the equipment of donkeys and equids and chariots of the members of the royal
family and the vizier.

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14 See also Rositani 2001, 261–270.
15 See Archi 1980, 1–33.
16 For ropes, see Waetzoldt 2007, 112–124.
19 The names of the functionaries charged with receiving quantities of wool for wagons (and related products) belonging
to the king and the most important persons of the court were an important element in the dating of several texts,
see Biga Pomponio 1990, 199–201.
Often, the quantities of delivered wool are not counted in the totals at the end of the text. Only when large quantities of wool are delivered are they counted and summed up at the end of the text.

Many textiles were probably produced in Ebla’s royal palace, where several women worked under the supervision of some of the ladies of the court.20 Apparently, some textile ateliers were situated elsewhere in Ebla, but we do not know very much about them from the texts. Then there was domestic production. Wool was often delivered to the queen mother, the queen and many other court ladies, probably for their personal use.

Many textiles came to the Eblaite storerooms as “mu-DU” of the lords, and from some countries allied with Ebla, or under its political control, and from Ebla’s commercial and trading partners. The annual accounts of metals illustrate, for instance, when the silver necessary to buy some fabrics is noted,21 that some textiles were purchased abroad. Wool is also quoted as arriving from Mari or from Armi, both large production centres as is clear from the name of some wool qualified as “wool of Mari” and “wool of Armi”. The wool was bought by Eblaite merchants in these places.

Different types of textiles were produced in Mari, Armi and Ebla itself. The toponym which sometimes follows the names of textiles probably indicates a particular type of weaving typical of that city.22 Usually the texts, especially the annual account of metals, do not register where the textiles were bought, but Eblaite merchants purchased textiles in other countries as is clear, for example, from this text:

75.G.1741 (King Išar-damu, Vizier Ibrüm, month še-gur₅-min) obv. II 14–III 4:
1 gu-mug-TÚG 1 íb+III-gùn-TÚG dumu-nita A-ba-da-an
dam-gàr du-du si-in Kiš₅
₁₀ níg-sa₁₀ túg-túg,
1 gu-mug-textile, 1 íb-textile to the son of Abadan, the merchant, who goes to the town of Kiš to buy textiles”.

There were several workers involved in the preparation and dyeing of fabrics, male and female weavers (túg-nu-tag, dam túg-nu-tag), sometimes quoted with a personal name but more often anonymous, the producers of felts (lú túg-du²), and the dyers and apprentice dyers (gùn and dumu-nita tur gün).

Several dyers, some anonymous, some well known by their personal name, are documented in many texts as receiving food rations23 and also textiles and wool as remuneration. It is clear that their work was done both in Ebla itself and also often outside Ebla (uru-bar). In fact, a large area and large quantities of water are necessary to dye the wool.

75.G.1263 (King Išar-damu, Vizier Ibrüm, month lost) obv. VIII’ 7–10:
13 gu-dùl-TÚG 13 sal-TÚG 13 íb+III-gùn-TÚG dumu-nita-dumu-nita ur₄ gün 12 gu-dùl-TÚG 12 íb+III-gùn-

21 See, for example, 75.G.2462 (King Išar-damu, Vizier Ibbi-zikir second year) rev. II 31–III 8:
10 lá-1 ma-na ša-pi 1 bar₅.kù níg-sa₁₀ 61 ’à-da-um-TÚG-l níg-sa₁₀ 1 zara₇-TÚG níg-sa₁₀ 4 aktum-TÚG 30 túg-NI.NI 15
gid-TÚG 73 níg-lá-sag 3 ma-na 10 bar₅.kù níg-sa₁₀ 2 mi-at 90 lá-3 na₄ siki Ma-rì₅
₅ “9 mina and 40 sicles of silver, price of 61 ’à-textiles, price of 1 zara-textile, 4 aktum-textiles, 30 NI.NI-textiles, 15
gid-textiles, 73 headbands, 3 mina, 10 sicles of silver, price of 287 measures-na₄ of wool of the city of Mari”’. See also,
for example, MEE 12, 37 rev. XX 8–XXI 2.
22 As already noted by Dercksen 2004, 16–17, the toponym which follows the name of a textile primarily refers to the
type and not to the place of manufacture.
23 See ARET IX, s.v. dar.
8. Textiles in the Administrative Texts of the Royal Archives of Ebla

TÚG dumu-nita-dumu-nita gün,
“13 gu-dūl-textiles, 13 sal-textiles, 13 ìb-textiles for the apprentice-dyers “ur”?, and 12 gu-dūl-textiles, 12 ìb-textiles to the apprentice-dyers”.

75.G.1298 (King Išar-damu, Vizier Irium, month i-ba₄-sa) obv. III 14–IV 2:
11 gu-dūl-TÚG 11 sal-TÚG 11 ìbTEXTILES für den ländlichen Tintensteller “ur”?
12 gu-dūl-TÚG 12 ìbTEXTILES für den ländlichen Tintensteller “ur”?

75.G.1318 (King Išar-damu, Vizier Irium, month lost) obv. XV 1–2:
11 sal-TÚG 11 gu-dūl-TÚG 11 ìb TEXTILES für den ländlichen Tintensteller “ur”?

75.G.1524 (King Išar-damu, Vizier Irium, month MAxGÁNA tenû-sag) obv. IX 14–17:
1 gu-dūl-TÚG Da-i-bù gün Mu-rí-gú

75.G.1890+11556 (King Išar-damu, Vizier Ibbi-zikiz, month i-rí-sa) rev. V 2–10:
12 gu-dūl-TÚG 12 sal-TÚG 12 ìb TEXTILES für den ländlichen Tintensteller “ur”?
9 gu-dūl-TÚG 9 ìb TEXTILES für den ländlichen Tintensteller “ur”?

Syrians were depicted in the Egyptian tombs with multicoloured clothes and they were easily identified among other foreigners, due to these clothes.²⁴

The textiles were kept in the storerooms of the royal palace where mostly textiles but also other items were kept. It is clear that metal objects were kept in the é-siki, “house of wool”, which at the beginning probably was a storeroom for wool where later other types of goods too were stored. Several monthly accounts of textiles quote textiles from the storeroom é-ti-TÚG and others from the é-siki, and some texts give the huge number of textiles present in these storerooms. It is impossible to identify these storerooms in the preserved and excavated part of the great palace building complex that archaeologists have called Royal Palace G, of which so far roughly 2700 square meters have been revealed.

The scribes are sometimes very careful to register even the delivery of one textile from a storeroom, but more often, they do not register the storeroom from where the delivered textiles are taken. See for example:

75.G.1881 (King Išar-damu, Vizier Irium, month lost) rev. VI 14–VII 7:
1 ʾà-da-um-TÚG-II lú é-ti-TÚG 1 aktum-TÚG 1 ìb TEXTILES für den ländlichen Tintensteller “ur”?
ud i-ti mi-nu níg-kas, Kak-mi-um

Moreover, we know that in the é-ti-TÚG storeroom, all types of textiles were kept. The term is easy to translate as “house of the ti-TÚG”, dedicated to this type of textiles; if the translation of ti-TÚG is “pleated textile” it is a little strange to admit an entire storeroom completely devoted to this type of textiles. In fact, in the é-ti-TÚG, all types of textiles and other goods were kept.


²⁴ See, for example, one of the rock tombs (Dyn. XII) in Beni Hasan in which, in a procession of foreigners, an Asian family wearing multicoloured clothes is depicted arriving in Egypt, see Porter & Moss 1934, 146.
3. The most frequently attested types of textiles

3.1. ‘à-da-um-TÚG

Among the most frequently attested textiles is the ‘à-da-um-TÚG. Most often, it is quoted followed by the number I or II, although this is not always the case. What the numbers I or II in this context refer to is still uncertain. Archi (1985, 227) translated I as “scempio” (single weave) and II “doppio, di doppia tessitura” (double weave). Pasquali (1997, 218) considered them “una indicazione di qualità” (indications of quality). See for example the text:

75.G.1522 (King Išar-damu, Vizier Ibrium, month i-ba₄-sa₆) obv. III 8–IV 1:
1 ‘à-da-um-TÚG 1 aktum-TÚG 1 ìb+III-sa₆-gùn-TÚG Iš₁₁-lu-mu Ra₂-à-ak⁵⁵ giš-dug-DU Ib-ří-um si-in ḫul na-rū, “1 ʾà-textile, 1 aktum-textile, 1 multicoloured and of good quality ìb-textile to Išlumu Ra’ak ... to Ibrium for the festival of his stele”;

75.G.1887 *ARET III 255 (King Išar-damu, Vizier Ibrium year 13, month lost) obv. XI 8–14:
1 ‘à-da-um-TÚG-I lb-ří-um in ud šu mu-nígin-sù šu mu-tak₄

The ‘à-da-um-TÚG-I is not frequently found alone. This type of textile is usually distributed with other types, mostly with aktum-textile and ìb-textile, but sometimes it is delivered alone, as for example in:

75.G.1523 (King Išar-damu, Vizier Ibrium, month ìg-za) obv. II 15–III 7:


The ‘à-da-um-TÚG-II is not given alone frequently either.


The ‘à-da-um-TÚG-I/II can be of first quality (sag)

75.G.1221 (King Išar-damu, Vizier Ibbi-zikir, month ḫa-li) obv. IX 12–17: 1 ‘à-da-um-TÚG-II sag Ḫa-ba dumu-nita en in ʾÀ-za-an²⁶ šu ba₄-ti

In a few cases, this textile is mentioned as multicoloured (gùn).

75.G.1748 (King Išar-damu, Vizier Ibrium, month za-[ʾā]-na-ʾat") rev. II 6–14: 1 ‘à-da-um-TÚG 1 gada-TÚG mu₄₄,му₁ 1 gada-TÚG SIG₄,KI en 1 ‘à-da-um-TÚG-gùn 1 aktum-TÚG lb-ří-um du-du si-in ʾÀ-da-NI²⁶

During the time of Vizier Ibbi-zikir, this is usually the first textile quoted in the groups of textiles given together, but in the time of Vizier Ibrium, other textiles, such as guzitum or túg- gùn often headed the lists. It is attested as either coloured or white.

²⁵ In this text, many deliveries are devoted to people of different countries participating in a military campaign against Kakmium conducted by Ibrium. He (at least according to this text) does not receive particular fabrics to go to war. In obv. X 12–13, he receives some linen textiles, but it is not specified if they are given for the military campaign. Only the ‘à-da-um-textile is specified as given on the occasion of the campaign, but it is not known if he wore the textile during the campaign.
The translation of the term is uncertain. A similarity with the Semitic root *ḥtē “to wrap” is quite possible, but so far a specific translation of the word has not been possible.²⁶

3.2. aktum-TÚG

This type of textile, well known from the Mesopotamian texts, is given to important and less important people, often as part of three pieces of fabric, registered in second position after ṣū-da-um or another textile; sometimes it is also given alone. It is used, cut, for the equipment of 2 donkeys. This use does not allow a translation as a “tunic”.²⁷ The translation of the term is uncertain.

75.G.1728 (King Išar-damu, Vizier Ibrīum, month lost) rev. III 6–10:
1 aktum-TÚG maš-maš ma-da-ra 2 IGI-NITA Ib-ri-um,
“1 aktum-textile to cut to make bands for two donkeys of Ibrīum”.
75.G.1830+ARET III 139+ARET 457 (King Išar-damu, Vizier Ibbī-zikir year 9, month MAxGĀNatenū-ūgur) rev. X’ 8–11: 1 aktum-TÚG ma-da-lum 2 IGI.NITA I-bī-zī-ki-ir.

It is attested as coloured, reddish-brown (ú-ḥāb) and white (babbar)

75.G.1881 (King Išar-damu, Vizier Ibrīum, month lost) rev. III 9–10: 1 aktum-TÚG ú-ḥāb 4 aktum-TÚG babbar Ti-[...]

The aktum-TÚG mu₄ mu is a type of aktum often given but difficult to translate. It is translated aktum-textile “to dress”²⁸ or “for the dressing ceremony”.


The aktum-TÚG ti-TÚG is translated by some scholars as “ribbed, pleated cloth”²⁹ and the storeroom é-ti-TÚG is translated as “drapery warehouse”. Textiles of this type are often given to the king and the vizier in large numbers.

75.G.1763 (King Išar-damu, Vizier Ibbī-zikir, month lost) obv. III’ 25–IV 1: 7 aktum-TÚG ti-TÚG IFIER-ā-ak-da-mu lū ḫu-nun-sū;
75.G.1756 (King Išar-damu, Vizier Ibrīum, month lost) rev. VI 3–5: 10 aktum-TÚG ti-TÚG Ib-ri-um.

ti-TÚG is a qualification also of other types of textiles as for example:


Aktum-TÚG tūg-ZI.ZI.

It seems quite certain that it refers to the turban, one of the symbols of Eblaite royalty, even if

²⁷ For a translation of “tunic”, see Archi 1999, 45–53; there is no evidence that the aktum was “the basic article of clothing”. Civil 2008, 97; “a heavy garment”.
²⁸ See Archi 1999, 45–53.
²⁹ See Archi 1999, 47; Civil 2008, 94; “a type of cloth or garment”. “A meaning ‘ribbed’ derived from ti ‘ib’ seems unlikely”.

we do not know when the king wore it. The number of occasions this turban was given to the king requires further study.


3.3. dūl-TŪG

It is not certain that this is an abbreviation of gu-dūl-TŪG. Often, it is qualified as produced in Mari.

75.G.1262 (King Išar-damu, Vizier Ibrium, month ga-sum) obv. IV 29–V 4: 1 dūl-TŪG Ma-rí 1 aktum-TŪG 1 ḫb-TŪG-sa₄-gūn En-na-ni-il lú 1-bí-zi-im lú-kar. 75.G.1704+ARET III 738+ARET XII 501 (King Išar-damu – Vizier Ibrium, month i-ba₄-sa) obv. V 6–9: 1 dūl-TŪG Ma-rí 1 gada-TŪG mu₄-mu ḫb-rí-um. 75.G.1888+11723 (King Išar-damu, Vizier Ibrium, month ga-sum) obv. III 13–IV 5: 1 dūl-TŪG Ma-rí 1 aktum-TŪG 1 ḫb+III-TŪG-sa₄-gūn 1-bí-zi-kir lá Zi-da in ud i-ti mi₄-nu Kiš₂i. 31

3.4. du-za-mu²²

On several occasions, this term qualifies other textiles, probably indicating a particularly fine quality of the textiles, as for example in:


3.5. gada-TŪG

Flax was cultivated in Syria and Mesopotamia in the upper valleys of the Tigris and Euphrates from Neolithic times as archaeological evidence proves. It was used to produce linen textiles that are already quoted in texts from 3rd millennium Mesopotamia (of the Third Dynasty of Ur) and Syria.³³ Linen fabrics are frequently attested in all monthly accounts of textiles, although not in large quantities. They are given to all levels of society, but most frequently to the king, the queen, members of the royal family and to the vizier. Several times, linen textiles are given to equip equids and chariots of the king or other members of the court.


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³¹ It should be noted that Ibbizikir returned from (a trip to) Kiš; when someone returns from a military campaign the scribe writes this (mi₄-nu níg-kas, GN).
³³ For an excellent recent study on flax and linen in Mesopotamia, see Breniquet 2008, 85–90.
Several mu-DU texts register the mu-DU of the kingdom of Dulu, including among various types of textiles, several linen textiles and threads of different materials. Moreover, some monthly accounts of textiles register mu-DU from Dulu when they consist of textiles:

75.G.1900 (King Išar-damu, Vizier Ibbi-zikir, month i-rí-sá) obv. IV 8–VI 8: 10 gada-TÚG mu₄.μu₂ gada-TÚG 2 kir-na-nu ... 5 gu sì 5 gu 2 mi-at gu-li en 2 kir-na-nu 2 gu sì 2 gu 3 gu 3 gu mu-DU Ar-ra-ti-lu.

Sometimes, the linen textiles are distributed to workers involved in the fabrication of important objects as in the case of text 75.G.1781, where carpenters in the town of Abarru receive linen textiles to cut in order to make bowls.


3.6.  gàr-su

The term, following Semitic etymology, can be translated as “band”, as proposed by Pasquali (1997, 234). It can often be of different colours, more often black (gi₆). The black band is also delivered in non-funerary contexts.


3.7.  gid-TÚG

It is quoted in LL857: gid-TÚG= gu-da-núm/nu-um, Akk. qutānum. AHw s.v. “das Dünne”. Sometimes it is quoted in the first position before the other textiles. It can be coloured. The meaning “long” of the Sumerian “gid” suggested a translation as “long garment”.


3.8.  gu-du₄l-TÚG

This fabric is given to both important and less important functionaries. Often it is mentioned first when a group of textiles is distributed and is followed by sal-TÚG.³⁷


³⁵ In this case, the black textile is sent to the badalum of Harran, but not on the occasion of a funeral.
³⁶ See Archi 1999, 48.
³⁷ Due to its position in the groups of textiles, Archi supposed that “it seems to be a kind of second quality cloak” (1999, 50).
3.9. **gu-mug-TÚG**

The gu-mug textile is often given alone to people of very different status, and therefore, it is considered a textile of low quality. The textile is considered a garment by Archi (1999, 47), a “very simple article of clothing originally made of shoddy wool”. Nothing in the texts proves that we are dealing with a garment and not with a textile. It is often given to workers but also to important people and it is sometimes in first place in some groups of textiles. The group can be composed of a gu-mug-textile, sal-textile and íb-textile.

It is not counted in the totals of textiles at the end of the texts, but counted separately.

75.G.1524 (King Išar-damu, Vizier Iibrium, month MAxGÁNatenû-sag) obv. X 17–XI 7: 1 gu-mug-TÚG 1 sal-TÚG 1 íb+III-gùn-TÚG 3 níg-lá-DU I-sar wa maškim-sù du-du Ša-nam-ti-um, “1 gu-mug-textile, 1 sal-textile, 1 multicoloured íb-textile, 3 bands for the feet, to Išar and his maškim-functionary who are going to the town of Šanamtium”.

75.G.1249+ARET III 937+10082 (King Išar-damu, Vizier Ibbi-zikir last years, month za-‘à-tum) obv. XIV 6–9: 2 gu-mug-TÚG 2 ugula bir-BAR.AN en Û-ti-gû.


75.G.1728 (King Išar-damu, Vizier Iibrium, month lost) rev. I 7–13: 2 gu-mug-TÚG Ti-ti-nu maškim lb-rí-um šu ba₄-ti in A-te-na-at ki; rev. IX 11–15: 20 lá-2 gu-mug-TÚG ir₁₁ ir₁₁ en Û-rí šu ba₄-ti, “10 gu-mug-textiles Titinu, maškim-functionary of Iibrium, has received for the weavers of the dovecotes of the palace of Iibrium”.38

3.10. **gu-zi-tum-TÚG**

Occasionally, the textile is specified by a number I, whose significance is uncertain.


3.11. **íb+I/II/III/IV/V-TÚG**

It is certainly the most commonly given textile in Ebla, either alone or with other textiles. It seems to be almost always multicoloured (gùn), and often of good quality (sa₆), sometimes of first quality (sag), white (babbar), white and woven in the city of Mari (babbar Ma-rí ki), in the city of Armi (Ar-mi ki), long (gíd), sal (uncertain translation), red (ú-ḥáb and ú-ḥáb-sa). It is

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38 For the presence of dovecotes at Ebla, see Biga 2009a, 11–16.
39 In the totals at the end of the text in rev. IX 3: 7 gu-mug-TÚG without the specification I.
given to the king, the vizier and to all kinds of people of different status. Despite various proposals by scholars, the significance of the numbers I,II,III,IV,V written in the sign íb or immediately after the sign is uncertain.

In the list of Egyptian textiles written on a box found in a tomb in Gebelein, some textiles are qualified with the number of their threads, from 1 to 9.\(^{40}\) Very often it is given alone, but is often part (normally in third position but also in second position) of a group of textiles.

Given the meaning “hip” of the Sumerian word “íb”, all scholars agree that we are dealing with a piece of fabric to wrap around the hips and to tie in some way. Different translations are given: Archi translates “waistband”; Pasquali “gonnellino”, Waetzoldt “ Hüfttuch”; Sallaberger “ Hüfttuch” and Civil “sash”. Many examples of people receiving íb-textiles are already published.

An íb-textile made with gold and silver thread for particularly precious clothing is possibly attested in some texts.\(^{41}\) Some archaeological remains found in 2004 in the Throne room of Palace G of Ebla seem to support the hypothesis of such textiles very well documented in the Bronze Age Mediterranean area and in Mycenae.\(^{42}\)

### 3.12. níg-lá-sag

A headband. Sometimes it is given alone, but more often with other textiles. It seems in some way more commonly given to people leaving on a journey, to protect the head.


75.G.1934+10022 (King Išar-damu, Vizier Ilbi-zikir, month lost) obv. VI 21–VII 4: 1 níg-lá-sag lš-má-ga-lu NE.DI in l-ab (without ki) šu ba₂-ti.

75.G.1249+ARET III 937+10082 (King Išar-damu, Vizier Ilbi-zikir final years, month za-ʾat-tum) rev. XV 3–8: 1 ʾà-da-II 1 aktum-TÜG 1 íb-sa₂ 1 gada-TÜG 1 níg-lá-sag Bù-gu-a-nu A-da₂-sì du-du si-in Še-ti-lum\(^ {44}\), “1 ʾà-textile 1 aktum-textile 1 íb-textile of good quality 1 linen-textile 1 headband for Buguanu of the town of Adaš who is going to the town of Šetilum”.

### 3.13. níg-lá-gaba

A chest-band. Sometimes these textiles are given alone and sometimes with other textiles.


### 3.14. níg-lá-DU

A band for the feet, sometimes given to people travelling.


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\(^{40}\) See Roccati 1970, 7. According to Civil 2008, 93 “The number n is an indication of the length of the sash”.

\(^{41}\) See also Pasquali 2005b, 290.

\(^{42}\) See Gleba 2006, 61–77. See also the contribution of Sophie Desrosiers in this volume.

\(^{43}\) It should be noted the multicoloured belt (íb-lá gùn).
Du-gú-ra-su, “4 ʾà.-textiles 4 aktum-textiles 4 ib- textiles of good quality 4 bands for the feet 2 linen- textiles 1 martu-dagger weighing 10 sicles of silver, provision for the trip of Enhar-lim and Ennai who are going to Dugurasu”.

3.15. pad-TÚG
A veil, well documented also in the ritual for royalty.

3.16. sal-TÚG
Textile given to any type of person; it can be cut and used to protect both feet. It is translated as “light”, but there is no evidence to show if it was a “light textile”.

75.G.1761 (King Išar-damu, Vizier Ibrium, month lost) obv. X 18–20: 1 sal-TÚG 2 DU ʾib-ri-um, “1 sal-textile for both feet of Vizier Ibrium”.
75.G.1777+ARET III 35 obv. III 15–IV 3: 1 sal-TÚG 2 DU l-bí-zi-kir Puzur-rí šu ba₄-ti, “1 sal-textile for both feet of Vizier Ibbizikir Puzzurri received”.

Sometimes qualified as ti-TÚG
75.G.1411 (King Išar-damu, Vizier Ibrium year 14, month lost) obv. X 8–14: 2 sal-TÚG ti-TÚG Ga-da-ba-an lú A-gi 1 sal-TÚG ti-TÚG Ar-si-a-ḫa šu-i ʾib-ri-um.

3.17. túg-gùn
A multicoloured, precious fabric often in the first position in the group of textiles, given instead of ʾà-da-um-textile.


3.18. túg-NI.NI
This is one of the most quoted textiles given to men, women and animals, although the less important women of the court received them more often than the more important women. A reddish-brown coloured túg-NI.NI was given to animals to be sacrificed during important festivals.

75.G.1221 (King Išar-damu, Vizier Ibbi-zikir, month ḫa-li) obv. IV 9–13: 1 túg-NI.NI ū-ḫáb 1 am ʾRa-sa-ap gunu en i-na-sum, “1 reddish-brown textile-NI.NI for a bull (to be sacrificed) to the god Rasap gunu the king has given”.

This textile is sometimes qualified as being of good quality (sa₄)
75.G.1263 (King Išar-damu. Vizier Ibrium, month lost) obv. VI’ 16–VII’ 18: 20 sal-TÚG to 20 Personal Names KÍD-sag, “20 sal-textiles to 20 people, gatekeepers”.

Maria Giovanna Biga
3.19. zara₆-TÚG
This fabric is the most frequently given textile to the important women of the court. However, it is given to men and gods, too, several times on various occasions. It is rarely coloured, although it can also be in different colours, including white.

75.G.1917 (King Išar-damu, Vizier Ibbi-zikir, month lost) obv. l’ 8’-11’: 1 zara₆-TÚG ú-háb-sa níg-ba ma-lik-tum ʻRa-sa-ap.

Brooches (bu-di) were often given with zara₆-TÚG and also with túg-NI-NI, gíd-TÚG and gu-dùl-TÚG, probably to fix these wrapped textiles when worn by women.

4. Individual Textiles and groups of textiles given to various palace employees.
4.1. Groups of textiles
It is useful to look at the textiles given to various people in the service of the Eblaite court, such as merchants, acrobats, singers, dancers and not least, soldiers. While the king and the queen and members of the Eblaite and other courts receive textiles as precious gifts, those employed in the palace receive the fabrics as payment for services rendered. Apart from the aktum-TÚG túg-ZI.ZI that is always only given for the head of the king, almost all the other textiles are given to any type of person.

There are no fabrics restricted to men or women. Hence, these pieces of fabrics could be used to make clothes for either gender.

It may be deduced that the textiles they receive vary in type according to the importance of the work done. Several groups of textiles given together are frequently attested. Among the more frequently attested groups of textiles are: ʻà-da-um, aktum and íb; gudùl, sal and íb; gumug, sal and íb; ʻà-da-um and íb (without aktum); ʻà-da-um, sal and íb; guzitum and íb; tÚg-NI.NI and íb; aktum and sal; gudùl and íb.

As already observed by several scholars, the group of textiles composed by ʻà-da-um, aktum and íb is the most attested in the MAT during Vizier Ibbi-zikir’s time.

Already in the time of Vizier Ibrium, this group of textiles is often attested even if other groups of textiles are even more attested. In Vizier Ibrium’s time, the textiles-aktum and then íb are always in second position but the first fabric varies and can be a guzitum-textile or a gùn-textile; while several other groups of textiles are attested as well. It is improbable that the group composed of three textiles is a group of fabrics necessary for a full garment.

A distinction in the type of deliveries to a king and to his elders or maškim-functionaries was surely made very often, most probably according to the status of the recipient, as is evident in many published and unpublished texts.

“1,1,1 textiles to the king of Gudadanum, 3,3,3 textiles to his maškim-functionaries on the day when they went to the Saza (i.e. Ebla).”

75.G.1225 obv. VI 1–11: 'а-da-um-TÚG-II 1 aktum-TÚG 1 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+III-TÚG-sa₄-gûn 2 ěb+IV-TÚG-gûn abba₂-sû, “1,1,1 textiles for the king of Ibuib, 1 textile for the queen, 1,1 textiles for two of their daughters, 2,2 textiles for 2 of their sons, 2,2,2,2 textiles for their elders”; 75.G.1225 obv. VII 22–VIII 8: 'а-da-um-TÚG-II 1 aktum-TÚG 1 ěb+III-TÚG-sa₄-gûn 2 kas, Sa-nap-zu-gûmki 2 aktum-TÚG 2 maškim-sû 4 'а-da-um-TÚG-I 2 aktum-TÚG 2 sal-TÚG 2 dumu-nita₄ 2 šeš-mu₄-sû, “1,1,1 textiles for the king of Burman, 1 textile for the queen, 2 textiles for the sisters of the king, 1 textile for his brother, 2,2,2,2,2,2 textiles for his elders”.

However, even anonymous messengers receive the most delivered group of textiles.


Several different groups of fabrics are already attested and well documented in many of the published texts. See also, for example,

75.G.1888+11723 (King Išar-damu, Vizier Ibrium, month ga-sum). In the text, several people receive the group composed of ʾàdaum, aktum, ěb, on different occasions, such as, news brought to the palace or a purification ritual. Yet, others receive different groups, some composed of three textiles, but also two. Many, of course, receive only one type of textile, mostly ěb:

Sometimes, the chief of a kingdom receives the same textiles as his maškim-functionaries, as the case of Kuntisu, a well-known king of the kingdom of Ursaum, mentioned in several texts and more often qualified as en (king).

75.G.1375 (King Išar-damu, Vizier Ibrium, month i-nun) obv. VIII 9–IX 2: 3 ʾа-da-um-TÚG-II 3 aktum-TÚG 3 šeš-mu₄-sû 3 Su-nal₂-ba₅-sù 3 Kûn-ti-su ugula Ur-sa₄-sa₄-sû 3 Su₄-mi-NE Su₄-ru₁₂-si maškim-sû 1 sal-TÚG 1 ěb+II-TÚG-gûn ma-za-lum-sû.45

44 See also Biga 2008, 293 for further examples.
45 The story of the kingdom of Ursaum and its relationship with Ebla’s kingdom is very interesting and requires further in-depth study. In this text, Kuntisu is qualified as ugula of Ursaum, later in several texts he is called king of Ursaum, sending always (as tribute?) several gifts to the Eblaite court and leaving his son as valet de chambre to the king of Ebla, see Biga 2008, 304.
The study of the totals at the end of every monthly account of textiles can be useful to understand the type of fabrics we are dealing with. They also serve to verify the types of textiles that are normally counted together, and in the order in which they are quoted. A textiles hierarchy cannot be discerned in these totals, only a list of the different types, and the various types of occasions in which they were used.

The scribes, who inscribed some types of textiles together, perhaps considered them as being similar.

It is often difficult to know if the textiles were distributed in Ebla itself, or taken by merchants to the different towns. Sometimes, the scribes registered that textiles were received in a certain town. At other times, it is clear that there is a sort of itinerary followed by the merchants or by the army. When the army was on the march, textiles were distributed for different purposes. In some cases, it seems quite probable that the quoted textiles were given at Ebla, when people visited for different reasons.

4.2. Textiles given to merchants (lú-kar) employed by the Palace

However, it must be noted that in the same text, another merchant receives a different textile, see rev. VI 4–9: 1 sal-TÜG Ar-si-a-ha lú-kar A-ru12-ga-du11 maškim Bil-ma-lík

46 It must be noted that there are some small differences between the types of textiles given to the principal merchants (lú-kar máḥ) and to those given to the other merchants (lú-kar tūr).
There were surely standard items with which the Eblaite merchants were equipped when travelling, but what we know so far is that this consisted of silver that they received for the expedition, as attested by the metal texts. As the textiles they received were of different types, we do not know of any standard types issued to the merchants for their journeys.

The texts do not register large amounts of textiles given to merchants to sell. Rather, the textiles and wool (siki) distributed to the merchants are only as payment for services rendered.


4.3. **Textiles for brides and for the great ritual of the renewal of royalty**

On the occasion of the interdynastic marriages of some daughters of the kings of Ebla, the trousseaux given to these girls included many textiles of different types. Some of these lists have already been published and some conclusions have recently been reached on the types and colours of textiles used during the marriage ceremony. However, the trousseaux have not all been studied yet and compared with those that some of the newly deceased princesses of Ebla were accorded at their funerals.

After their wedding, King Išar-damu and his queen, Tabur-damu, celebrated a complex ritual of royalty, fertility and renewal.

It is still hard to determine the type of ritual we are dealing with, and whether or not it resembles the ritual of renewal of the Egyptian Sed festival.

In the ritual texts, several textiles of different colours are used by the king, the queen and other participants in the ritual.

The marriage of the royal couple and the ritual performed immediately afterwards are also quoted in some administrative texts. The annual account of metals 75.G.1730 (=MEE VII 34) and two monthly accounts of textiles I identified some years ago as mentioning the same ritual, enable us to further our knowledge of the types of textiles worn by the participants in the ritual.

4.4. **Textiles for a newborn grandchild of the king of Ebla or for births in general**

As previously mentioned, some Ebla texts mention weddings of Eblaite princesses to foreign royalty. Other later texts often mention the birth of a child in a foreign court, a grandchild of the king of Ebla. This event was the occasion for the Eblaite court to send gifts of textiles and jewels to the mother, her newborn child, and its relatives.

The birth of the first son of the royal couple, King Išar-damu and Queen Tabur-damu, was particularly celebrated. As already noted, two monthly accounts of deliveries of textiles (ARET I 15 and ARET IV 7) were necessary to register all the deliveries to members of the court and for the ceremonies on the occasion of this important birth.

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47 See Biga 1996, 34. For similar issue for the merchants of Ugarit, see Liverani 1979, 495–503.
50 See ARET XI, 1,2,3.
51 See Biga 2009b.
8. Textiles in the Administrative Texts of the Royal Archives of Ebla

75.G.1704+ARET III 738+ARET XII 501 (King Išar-damu, Vizier Ibrium, month ḫ-ba-ra-sa) obv. VIII 9’ – IX 1 : 1 zara-TÚG 2 ḫ-bú-di šú-ša gín DILMUN bar-ra-kù Zi-mi-ni-bar-ra-kù ma-liq-tum Bur-ma-an in ud dumu-mi-sù tu-da 1 ḫ-b-I-III-TÚG Ma-ra-bù dumu-mi-sù i-[lul]-za-[ma-liq] [šu mu-tak], “1 textile, 2 brooches weighing 20 sicles of silver to Zimini-barku, queen of Burman, when she gave birth to a daughter, 1 textile for her daughter, llulza-malik delivered”.

It is possible that some of the clothes for a newborn baby were made using the ḫb-textile, often quoted as delivered to newborn children.

4.5. Textiles for dancers (NE.DI)
The male and female dancers working in the Eblaite palace often received gifts of textiles of all types, even if the ḫb-textiles are the most frequently given. However, it is impossible to know from the texts how they were dressed when performing their dances. We can suppose that they used the fabrics received to also make clothes for their performances.

75.G.1524 (King Išar-damu, Vizier Ibrium, month MAxGÁNA tenû-sag) obv. VIII 6–8: 1 gu-mug-TÚG 1 ḫ-b-I-III-gùn-TÚG NE.DI.

75.G.1748 (King Išar-damu, Vizier Ibrium, month zà-‘a]-na-‘at) rev. IV 15–VI 10: 29 ḫ-b-I-III-gùn-TÚG 1 ḫ-b-I-III-gùn-TÚG NE.DI.

75.G.1787 rev. IV 8–10: 2 túg-NI.NI [(1)]+1 dam NE.DI Ša-nu-gú\textsuperscript{a}.

4.6. Textiles for singers (nar)
Several groups of singers in the service of the Palace are well known. They receive various textiles, but mostly ḫb-textiles for their service. In the case of the singers too, we do not know what they wore when performing.

75.G.1748 (King Išar-damu, Vizier Ibrium, month zà-‘a]-na-‘at) rev. VII 15–18: 1 KIN measure of wool for belts for singers.

4.7. Textiles for acrobats (ḪÚB.KI)
Acrobats, especially coming from Nagar, often performed at the Eblaite court.\textsuperscript{53} In exchange for their services, they received different types of textiles. The most important acrobats normally received the group of textiles composed of ḫ-à-da-um, aktum and ḫb, while the young acrobats received other types of textiles. We do not know in which clothes they performed.


\textsuperscript{53} See Archi 1998, 10–11.
4.8. Textiles for pašišu-priests

The priests\(^{54}\) of the principal gods received the usual textiles given to important people at the court. However, it is not known if they wore particular types of clothes when performing their religious rites.

75.G.1221 rev. I 18–II 1: 2 gada-TŪG mu₄₄, mu Kēš-ma-liḵ l-I−ti-ga-da-mu pa₄šēš \(^{d}A₅−da−“bal” A-ru₁₂-ga-du\(^{ki}\).

75.G.1252 rev. XI 1–5: 1 \(^{a}a\-da-um-TŪG 1 aktum-TŪG 1 ib-\(^{b}II-\)TŪG-saᵋ-gûn An-da-NI pa₄šēš \(^{d}A₃–da-lu ḫa-lab\(^{ki}\).

75.G.1524 (King Išar-damu, Vizier Ibrium, month MAXGĀNAtēnū-sag) obv. VII 7–15: 1 tūg-NI.NI 1 ib-\(^{b}III-\)TŪG-gûn A-du-lu fašēš \(^{k}KU-ra in ud \(^{m}mu₄₃-mu \(^{i}Tu \; lū \; ē\; “KU-ra, “ 1,1 textiles to Adulu, priest of the god Kura, on the day of the ceremony of dressing the goddess Nintu of the temple of Kura”.

4.9. Textiles to the šeš-II-ib

The men and the boys of the most important Eblaite families served for some periods as šeš-II-ib, performing rituals and participating in ceremonies in certain towns where important sanctuaries, especially of the god Adabal, were located.\(^{55}\) On these cult occasions, they all received the same type of textiles. However, the groups of textiles differ greatly from one occasion to another. Often, the most classic group of textiles including \(^{a}adaum\), aktum and ib is delivered, although also different groups, for example consisting only of \(^{a}adaum\) and ib too are encountered. The difference in the textiles does not seem to be connected to the different rituals performed. It may be surmised that, the fabrics they received on the occasion of the performed ceremony was a gift of the Eblaite court, but which were not used during the ceremony. The fabrics were in some way a payment for their services.

Several examples of lists of šeš-II-ib have already been published in the volumes of ARET and MEE. A study collecting almost all the names of šeš-II-ib quoted in the Ebla documentation has been made by Archi. To quote only some examples:

75.G.1783 (King Išar-damu, Vizier Ibrium, month MAXGĀNAtēnū-ūgur) obv. XI 4–rev. I 13: 8 \(^{a}a−da-um-TŪG-II 8 ib-\(^{b}III−TŪG-saᵋ-gûn Puzur-ra-ma-liḵ wa Šu−ma-liḵ lū Iṣ₃₁−da-mu En-na-nil lū Ša−um Iš-má−da-mu Bîl−ma-liḵ lū Ba−ha−ga l-I−sĭ-rūm lū Ib−gu−nu En-ga−da-ba-an lū Iṣ₃₁−gi−da-ar Iṣ₃₁−gi−bar−zū lū Sā−gu−ṣum šeš-II-ib in šu mu-nīgin \(^{d}A₅−da−“bal” Lu−ba−an\(^{ki}\).

75.G.1760+10130 (King Išar-damu, Vizier Ibrium, month MAXGĀNAtēnū-ūgur) obv. I 11–II 5: [1]+4 \(^{a}a−da-um-TŪG-II 5 aktum-TŪG 5 ib-\(^{b}III−saᵋ−gûn-TŪG l-bi−zi−kîr wa Û-ti dumu-nîta Ibr−û−um En-na-Il lū En-mar Iṣ₃₁−gi−bar−zū lū Sā−gu−ṣum In−gär lū A−da−mu šeš-II-ib in šu mu-nīgin \(^{d}A₅−da−“bal” Lu−ba−an\(^{ki}\).

75.G.1417 (King Išar-damu, Vizier Ibrium, first months, year ḫi-NI) obv. III 6–11: 2 \(^{a}a−da-um-TŪG 2 ib-\(^{b}III−saᵋ−gûn-TĒN En−zi-li−im wa Du−bî šeš-II-ib ḫGa−mi−iš.


75.G.1772 (King Išar-damu, Vizier Ibrium, month lost) obv. I 1–9: 2 \(^{a}a−da-um-TŪG-I 2 ib-\(^{b}III−TŪG-saᵋ−gûn l-I−sĭ-rūm lū Ib−gu−nu wa Il−da−kas lū En−zu−wa−rîm šeš-II-ib kēš-da SA.ZA₅₃.


\(^{54}\) Biga 2006, 17–37.

Thus, we can conclude that the Ebla texts do not seem to reveal how the šeš-II-ib were dressed when performing their rituals.

4.10. Textiles to soldiers (guruš)
Several military campaigns are well documented in the Ebla texts. Many of those who accompany the vizier on military campaigns are often quoted by their personal names. Sometimes, a large number of anonymous soldiers are referred to by the term guruš.

The word guruš was used by Eblaite scribes to indicate a “valid man who can work and eventually go to war”. In several cases, the texts quote soldiers going to war under the vizier. These soldiers received different types of textiles on such occasions. It is difficult to understand if there was a distinctive cloth for soldiers, if they all wore the same cloth and how they can distinguish a soldier of their own army from the enemy.

In fact, although the uniform is attested only in Europe only from the 17th century AD, it is well known that ancient armies in Egypt, Assyria, Persia, Greece and Rome had distinctive elements or insignia.56

The texts list the textiles given for the military campaign. It is not clear if they were garments, but it seems quite possible. The two people are going on a military campaign against the city of Armi.

In the following text, soldiers of Armi are back from a military campaign and they receive various types of textiles as renumeration or as gifts.

This seems like a supply of textiles and wool to make fabrics for soldiers under the guide of a sheikh (ugula). They have probably participated in a military expedition or are ready for one.

Here a translation of “guruš” as “soldiers” is most likely. Šuragarru arrived in Ebla with his brothers, one elder and 20 soldiers.

56 I thank Prof. Virginio Ilari, professor of Military History, for his advice and suggestions.
4.11. Textiles given as funerary gifts
Several texts quote the death of some person of the court and the funerary gifts accompanying with him to his tomb. Several examples of funerary gifts that include rich textiles are already published.57

Various groups of fabrics are attested and it should be noted that also coloured textiles are given as funerary gifts. Important women of the court receive almost the same textiles they received during their lifetime, especially at marriage. Even if we can observe that modest people receive small quantities of textiles or only one fabric, sometimes some of them receive fabrics such as zaraν, that are usually considered by us as symbols of high status.


4.12. Textiles delivered on the occasion of purification rituals58
After a death, members of the family do not receive particular types of textiles. Instead almost all the most common types of textiles are distributed to them. It is possible that the types of fabrics received depend on the status of the deceased and his family.

It was noted by Pasquali59 that the colour black is the colour of death. In fact, in some cases, for a purification ritual after a death, some black fabrics are delivered. However, more often, the textiles are not black and sometimes even multicoloured textiles are delivered on such occasions. We would expect that, at least one black fabric was given to a family member, but in fact this is not normally the case. We cannot thus conclude that black was the colour of mourning. In other cases, some black textiles are given, even if it is not the occasion of a funeral or a ritual of purification.

The text 75.G.1962+ was written in the month (gasum, as we know from another text) of the death of the great mother of the king, Lady Dusigu, and in the text, there is a long list (regrettably, partially broken) of textiles and objects accorded to her on the occasion of her funerary service,

58. For this ritual and the gifts on the occasion of a purification ritual, see Biga 2007–2008, 265–266.
and then the textiles and some jewels given on the occasion of the purification ritual of some members of her family, her son, the king, the queen, two brothers and three of her sisters. None of them received black textiles.60

After the purification, we could expect a delivery of white textiles as customary after a ritual of purification, well attested in Greece and Rome.

4.13. Textiles for deities
Every type of the most commonly delivered textiles is offered to the deities. It seems that there was not a specific type of textile always offered to the same deity. 61

5. Textiles in the texts of years 1–3 of Ibbi-zikir as vizier
The study of the texts in order of their relative chronology, year by year, is important not only to reconstruct the sequence of events in the Eblaite kingdom and in several other kingdoms in

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60 For the text and its parallel with the AAM 75.G.10088+, see Biga 1996, 48–50; for the funerary array of the Queen Mother, see Archi 2002b, 178.
61 Many examples of fabrics offered to the gods are published in Pomponio & Xella 1997; See also Pasquali 2005a, 165–184.
Syria and Upper Mesopotamia, but also to better understand the role of the textiles in the Eblaite economy and commerce. Thus, we can ascertain the number of times some people received textiles per annum, the types of textiles they received in the entire year, and so forth.

I am attempting to verify this with the texts written in the period of King Išar-damu’s reign from the death of Vizier Ibrium, the beginning of the period of his son and successor Ibbi-zikir and the death of the Queen Mother Dusigu that took place in the third year of Ibbi-zikir as vizier (month gasum).

For this period, covering a little more than three years in the life of Ebla, we have different kinds of documents, all mentioning textiles: six “mu-DU” texts, four annual accounts of metals and, so far, more than 30 monthly accounts of textiles.

With this group of texts, it is possible to determine such questions as:

- the number of occasions some people received clothes;
- the frequency with which the king received aktum -TÚG for his head;
- the number and types of textiles the same person received in one year;
- which foreign countries received textiles;
- the frequency and number of textiles that were removed from the storerooms of the palace to be sent to foreign countries or given to the Ebla court;
- how many entered with “mu-DU”;
- which emporia and where Eblaite textiles were received, that in that period lay under Eblaite control;
- who the workers were;
- the number of people who were involved in the production of textiles at the time.

However, for these tablets, some broken, I am still looking for joins. I am still in the process of arranging these monthly accounts of textiles in more precise chronological order, month by month, for every one of the three years. This task is not yet complete and therefore I prefer to delay the results of this study to a future article.

Acknowledgements

I would like to thank Marie-Louise Nosch very much for having so kindly involved me in her wonderful group of hard-working textile scholars of different periods. The Centre for Textile Research created by her in Copenhagen is an exemplary place, where researchers can work

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62 I would like to make two observations. The close inventory number of tablets pertaining to two close months is more proof of the fact that in the great archive L.2769, the monthly accounts of textiles were kept in chronological order. The fragments joined to these close tablets have close inventory numbers too, because the tablets fell, were broken and the fragments fell close by. Close inventory numbers correspond to tablets from the same year and successive months. It was possible to conclude that the tablets were ordered both by type, that is to say content or kind of record, and by date in chronological order. Sometimes, in one month, two monthly accounts of textiles were written. This observation was already made by Pomponio and myself some years ago, studying the texts on the birth of the first son of the royal couple. The texts ARET I 15 and ARET IV 7 both registered the deliveries for that important occasion. See Biga & Pomponio 1993, 108–111. In the texts of the first three years of Ibbi-zikir as vizier, 75.G.10137+11703 is a monthly account of textiles written in the same year and in the same month za-‘a-tum in which text 75.G. 2356 was written. This is proved by prosopographic data and mainly because they both quote the fact that the queen of Ḫarran, the Eblaite princess Zugalum married two years earlier, gave birth to a child. The news was brought to Ebla by a messenger of the kingdom of Ḫarran who received some fabrics as a gift.
together, taking advantage of each others’ skills in a cooperative way, and which is also open to discussion and new scholars. I learned much during my stay in Copenhagen in March 2009 and I have more to learn from all the researchers working at the Centre.

And then I must thank both Marie-Louise Nosch and Cécile Michel very much for organizing the meeting in Copenhagen, inviting me and offering me the opportunity to discuss with such a group of scholars and friends, experts on different millennia BC, issues regarding the textiles quoted so often in the Ebla texts.

**Abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAM</td>
<td>Annual Account of Metals.</td>
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<tr>
<td>ARET</td>
<td>Archivi Reali di Ebla.Testi.</td>
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<tr>
<td>ARES</td>
<td>Archivi Reali di Ebla.Studi.</td>
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<tr>
<td>LL</td>
<td>Lexical Lists.</td>
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<tr>
<td>MEE</td>
<td>Materiali Epigrafici di Ebla.</td>
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<tr>
<td>MAT</td>
<td>Monthly Account of Textiles.</td>
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<tr>
<td>šà-da-um</td>
<td>textile.</td>
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<tr>
<td>t.</td>
<td>textile/s.</td>
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9. Les noms sémitiques des tissus dans les textes d’Ebla

Jacopo Pasquali

Parmi les activités artisanales les plus importantes d’Ebla au milieu du IIIᵉ millénaire av. J.-C., il y a sans aucun doute la production textile, en témoignent les nombreuses tablettes trouvées au cours des fouilles de cette ville et qui comportent les enregistrements mensuels des attributions des tissus. Ces attributions concernent toute la période des archives et seulement une portion a, pour l’instant, été publiée. Dans ces textes on y trouve plusieurs termes concernant les tissus. La plupart sont constitués par des sumérogrammes dont seulement une partie a son correspondant sémitique, connu par quelques passages parallèles et par des études comparées avec d’autres textes administratifs, des listes lexicales et des textes de rituels. À côté des sumérogrammes on trouve donc un certain nombre de termes sémitiques, sujets de cet article.

1. La laine et le lin

À Ebla les étoffes étaient tissées avec de la laine (siki) ou du lin (ga da-túg). Les termes sémitiques attestés peuvent indiquer la qualité de ces fibres.

Parmi les termes sémitiques des textes administratifs concernant la laine, les plus fréquents sont: ba-ra-i et ni-za-ù. Ba-ra-i (var. ba-ra-u) rappelle le sém. *bry, “choisir ; inspecter”, indiquant ainsi une variété de laine d’excellente qualité, qui (d’après les nombreuses attributions) était employée pour la fabrication de tissus destinés aux personnages les plus importants de la cour éblaïte.1 Ni-za-ù, dont la lecture est certaine grâce à la rare variante nu-za-a-tum2, correspond à une variété de laine arrachée de bonne qualité, dans la mesure où ce terme tire son origine du sém. *nz’, “ôter; arracher”,3 une racine qui est successivement connue en arabe et en éthiopien. Il s’agirait donc de la laine obtenue après le premier arrachage, tandis que le sumérogramme si-udu-ur, qui désigne toujours une variété de laine arrachée, lui est parfois opposé, renvoyant à

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3 Voir aussi la racine parallèle *ns’, avec la même signification, qui est présente en akkadien, ougaritique et hébreu. Le mot éblaïte pourrait être expliqué aussi par la racine *ns’, “(être) blanc, candide”, attestée en arabe, mais cette interprétation semble moins probable.

Toujours dans le lexique de la laine, on trouve la graphie zi-rí qui, avec les termes sumériens kin, na₄ et giš-bal, indique une des unités de mesure qui servait, à Ebla, à quantifier cette fibre textile. On peut rapporter ce mot à la raceine sémitique *zwr, “tordre, tresser”, attestée dans l’akkadien zāru, “tordre, tresser”, ainsi que dans l’adjectif dérivé zēru, “tressé”.⁹ L’attestation éblaïte peut être comparée à trois autres termes: (tû-g)zīrum, “un mode de tissage ou de finition”,¹⁰ gū-ḥa zīrātī des tablettes de Tell al-Rimah et siki zīrtu(m) d’Emar.¹¹ Cette dernière attestation est très significative, car elle désigne une bande de laine qui constitue une offrande pendant beaucoup de rituels, et elle est posée sur la tête de la déesse Aštarte à l’occasion d’une cérémonie particulière. À Ebla aussi les unités de mesure zi-rí concernent presque exclusivement les rituels.

Les termes sémitiques relatifs au lin sont moins nombreux. Il faut rapporter le mot éblaïte dam-sa-lu(-tûg) aux graphies paléo-akkadiennes gâda dam-sè-lum et gâda-gin dam-sî-lum indiquant probablement quelques variétés de lin. Il s’agit peut-être de substantifs ayant ta- comme préfixe, du sém. *mṯl, “(être) pareil, ressembler à”. Cela serait en accord avec les règles phonétiques du syllabaire éblaïte où les syllabogrammes de la série ŠA sont employés pour rendre les interdentales.¹² On peut donc traduire le mot dam-sa-lu comme “(le tissu) ressemblant au (lin)”. En

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⁴ Voir Waetzoldt 1972, 30.
⁵ Conti 1997, 33–34.
⁶ Pasquali 1997, 236.
⁸ Durand 1990b, 661; 2009, 143.
¹² Conti 1990, 10–11.
2. Les produits textiles finis

On peut diviser les noms des produits finis en vêtements ou tissus principaux et en accessoires pour s’habiller, comme les ceintures ou les bandes. D’autres mots font ensuite référence aux accessoires du mobilier domestique ou bien à l’équipement des chars et des équidés.

2.1. Les éléments principaux d’un trousseau

Il existe deux termes sémitiques relatifs aux tissus principaux : *gu-zi-tum-túg et *à-da-um-túg. Le premier, dérivé du sém. *ksy, “couvrir”,14 est sûrement un mot de tradition akkadienne, ainsi que l’indique la graphie en gu pour /k/, alors que les normes phonétiques du syllabaire éblaïte demandent l’emploi de ce signe uniquement pour rendre le /q/ étymologique.15 Il s’agit donc d’un emprunt oriental ou akkadophone. Le second est un terme occidental, qui a probablement son origine de la racine *ḥtl, “couvrir”, et que l’on retrouve à Ugarit et en hébreu, bien que les substantifs dérivés de cette racine soient assez rares dans ces deux langues plus récentes.16 Etant donné la signification générique de ces deux racines ainsi que le manque d’autres données, il est très difficile de fixer les différences entre ces deux types d’étoffes. En revanche, il est certain que ces deux termes renvoyaient aux éléments principaux d’un trousseau. On peut leur associer la graphie du-za-mu qui est souvent employée pour qualifier les étoffes des trousseaux les plus importantes et de qualité supérieure. On peut interpréter ce substantif comme ayant le schéma ta₁₂ā₃–, et signifiant “exceptionnellement décoré”, du sém. *wsm, “(être) orné, (être) élégant”,17 une racine déjà connue en paléo-akkadien et attestée par la suite en arabe.18 On peut aussi trouver la graphie du-za-mu utilisée de manière indépendante, mais il faut alors toujours sous-entendre le nom du tissu qu’elle qualifie. Un terme sí-mi, provenant du sém. *wsm, est encore employé dans l’akkadien de Mari pour désigner un type de décoration textile (“dorures” selon les éditeurs)19 que l’on pouvait appliquer dessus (šakānum) ou bien introduire (šakākum) dans l’étoffe elle-même.19

2.2. Les accessoires du vêtement féminin


18 Voir par exemple Durand 1983, 137 et n. 42.
transition, surtout pour la femme, qui changeait de statut à l’intérieur de la communauté une fois célébré ce rite.20 Ce changement était symbolisé par le port de vêtements particuliers. Quant à l’homme, cette transition était plutôt soulignée par l’éducation militaire et l’exercice de la guerre.21 À Ebla, le nécessaire pour l’habillage des hommes de haut rang, ainsi que des divinités masculines, est toujours constitué d’un ceinturon (ib-lá) muni d’un poignard (gír kún) décoré d’un métal précieux. L’opportunité de s’habiller avec ces objets était donc un signe de distinction pour les hommes. Dans la Rome archaïque, et en général chez les peuples qui habitaient l’Italie dans l’Antiquité, on peut citer à ce propos l’opposition entre viri cincti et non cincti. Les premiers représentaient les membres du pouvoir politique, détenteurs de la patria potestas dans le milieu familial.22 Malgré cela, il n’y a aucun doute que le mariage conférait aussi un rôle politique à l’homme et à Ebla, comme ailleurs, la célébration des noces était liée à l’intronisation.

Le premier tissu cité ci-dessus, attesté aussi dans les graphies du-ru₁₂-du-ru₁₂ et du-rúm, peut être expliqué par l’akkadien āurrum. Cette “étole-péplum” était destinée seulement aux femmes mariées et elle était souvent “bariolée”, gûn. Après le mariage, la femme éblaïte avait la possibilité de s’habiller avec l’“étole-péplum”, symbole du passage de célibataire à épouse, le port de ce vêtement étant un signe de distinction.23

Le deuxième tissu, que l’on peut interpréter comme un substantif avec schéma ma₁₂a₃– du sém. *ktm, “couvrir (avec un voile)”, est présent essentiellement dans les textes les plus anciens, tandis que dans les tablettes qui remontent à la phase finale des archives d’Ebla, nous trouvons à sa place le sumérogramme correspondant PAD-túg. Il intervient par exemple dans le plus récent des rituels royaux :

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“Et la ‘lingère’ récite la bénédiction. Et elle revêt sept fois la reine avec le voile. Ensuite, elle [couv]re la tête (et) les mains de la [reine], (lorsque) le [r]oi et la reine sont assis”,

alors que dans le plus ancien nous trouvons la graphie phonétique gú-du-mu qui correspond à l’akkadien kutummu, toujours du sém. *ktm, utilisé à Mari pour indiquer le voile de l’épouse :24

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“Et la ‘lingère’ récite la bénédiction. Et elle met le voile à la reine : sur son visage (et) sur ses mains. Et la femme de NE-na-dši revêt sept fois la reine avec le voile, (lorsque) le roi et la reine sont assis”.

Cette variante du lexique a peut-être été introduite dans le texte du rituel le plus ancien à cause de l’influence de la culture de Mari jusqu’au remplacement du mot éblaïte ma-ga-da-ma-tum, ayant ainsi les caractéristiques d’un emprunt savant. En outre on doit remarquer que le mot ma-ga-da-ma-tum est attesté aussi avec la variante graphique má-da-ma-tum, qui indique un

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21 Voir par exemple Loraux 1981, 40–45.
affaiblissement de la consonne /k/ devant la dentale. Cette graphie nous rappelle que Gelb 1961, 27, a remarqué à propos de l’introduction de mà et d’autres signes analogues dans l’écriture sémitique. Une troisième variante, mà-ga-da-ma-tum, jusqu’à présent attestée une seule fois, peut être expliquée comme une sorte d’hypercorrection graphique.27

Dans les textes concernant le rituel royal, le “voile” est posé sur la reine de façon à la couvrir du visage jusqu’aux mains. Une femme était chargée de cet acte cultuel, la dame de NE-na-dāši, qui préparait aussi les vêtements nécessaires à la célébration des noces et de l’intronisation des souverains d’Ebla. Le rôle de cette femme est précisé par le terme avec lequel elle était désignée dans les textes du rituel royal, c’est-à-dire mu-a-bí-iš-tum, à partir de sém. *lāš, “s’habiller”, interprétable comme “lingère”.28 La dame de NE-na-dāši, selon le cérémoniel, couvre “sept fois” la reine avec le voile, un chiffre qui avait une valeur magique et symbolique importante dans le Proche-Orient ancien.29

L’“étole-péplum” est fréquemment offerte aussi aux statues des divinités féminines, mais seule la parèdre (dBAD-mí) du dieu dAš-da-bal (c’est-à-dire Hadda-Ba’al, une hypostase du dieu de l’orage)30 reçoit l’“étole-péplum bariolée” (du-rum-gùn) et le “voile” (PAD-túg) ensemble dans :

\[
\text{ARET 3, 3 r. 7'-14', 1 túg-gùn 1 ti-túg ú-ḥáb 1 gín DILMUN kù-sig, / níg-ba / dAš-da-bal / A-ru}_{12}-ga-du}_{ki} / 1 PAD-túg 1 du-rum-gùn / 1 gín DILMUN kù-sig, / 1 kù-sal / níg-ba / dBAD-mí / 1 ti-túg ú-ḥáb / am / dAš-da-bal,...
\]

et

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\]

À notre avis on peut considérer la célébration d’un rite de hiérogamie de ce couple d’importantes divinités éblaïtes.33 La déesse dBAD-mí, proprement la “Dame”, se révèle, donc, une divinité “matronale”, patronne et protectrice des épouses et pour cela vénérée par les femmes de la famille royale qui lui offrent souvent des étoffes précieuses. Tout comme Héra, la νυμφευομένη, dans la Grèce ancienne, l’épouse par excellence, parèdre du dieu suprême Zeus, qui préside au mariage et protège les femmes mariées.34 Elle reçoit l’offrande d’un πέπλος, par exemple à Olympie, pendant une fête solennelle qui lui est consacrée (Pausanias V, 16, 2: διὰ πέμπτου δὲ ὑφαίνουσιν ἔτους τῇ Ἕρας πέπλον αἱ ἔξι καὶ δέκα γυναῖκες). La péplophorie, à savoir l’offrande du péplum nuptial au simulacre de la divinité, est une cérémonie bien documentée dans les sanctuaires d’Héra en Grèce et en Grande Grèce35 et la hiérogamie de Zeus et Héra est représentée, entre autres, dans la frise orientale du Parthénon où l’on peut remarquer la déesse assise à côté de son époux pendant

\[26\] Pasquali 2009b. La traduction “coperta” qui a récemment été proposée par Pomponio 2008, 169, n’est pas appropriée aux contextes.

\[27\] Voir aussi la graphie ga-du-ma-tum toujours dérivée de la racine *ktm dans le texte rituel édité par Biga 2003.

\[28\] Fronzaroli 1993, 46; Pasquali 2005c, 179–180.

\[29\] Voir déjà Liverani 1967.

\[30\] Pasquali 1998.

\[31\] Voir Fronzaroli 1997, 288–289.

\[32\] Cité par Archi 2005, 99.

\[33\] Pasquali 2005b, 64–65; 2005c, 174; 2009b.

\[34\] Malagardis 1997.

La fonction caractéristique d’Héra était vraisemblablement la même qu’avait à Ebla d’A5-da-bal, dont la statue, habillée avec le voile et l’étole-péplum représente l’image-même de l’épouse, alors que c’était la déesse d’Ba-ra-ma qui était chargée de la protection de la femme au moment des noces, donc encore nubenda. Cette fonction était pareille à celle qu’avait Aphrodite en Grèce.

La cosmogonie archaïque transmise par le mythographe Phérécide de Syros (ou Syrie), ayant vécu au VIe siècle av. J.-C., connue uniquement par les fragments cités par d’autres auteurs, met en évidence le tissage et la décoration du ample et somptueux vêtement nuptial. Ce vêtement est mentionné avec le terme φᾶρος, synonyme de πέπλος, et il est donné par Zas à Chthonie-Ge (sans doute une hypostase d’Héra) le troisième jour du rite afin que leur hiéros gamos puisse être célébré (F68, col. I):37

κἀπειδὴ τρίτη ἡμέρη γίγνεται τῶι γάμωι, τότε Ζάς ποιεῖ φᾶρος μέγα τε καὶ καλὸν, καὶ ἐν αὐτῷ [i] ποικ [ἲλει Γῆν] καὶ Ὀγη[νόν καὶ τά 'Ο]γηνοὺ [δῶματα...]

Il faut considérer le mariage entre Chthonie-Ge et Zas comme la toute première cérémonie nuptiale, son archétype, et grâce à cela elle aura la possibilité de protéger tous les mariages futurs ainsi que les épouses. On peut remarquer l’emploi du verbe ποικίλλω se référant à la décoration du vêtement de Chthonie-Ge. Dans la Grèce antique le péplum relatif au mariage était toujours bariolé, exactement comme à Ebla. Le mot grec ποικίλος et le sumérien gûn, qui correspond à l’akkadien barmu (sém. *brm), ont la même signification.38

La polychromie est synonyme de beauté et séduction et les tissus bigarrés et multicolores ont un pouvoir qui leur est attribué directement par Aphrodite. C’est bien cette déesse qui donne à Héra (dans le XIVe livre de l’Iliade) sa magnifique ceinture bariolée pour séduire Zeus, le distraire du champ de bataille et célébrer ainsi leur union dans l’épisode de la Διὸς ἀπάτη.39 En Grèce les vêtements de l’épouse sont ποικιλόμορφοι, un adjectif qui indique aussi bien la polychromie que l’habillement indispensable pour réaliser un objet artisanal qui était capable d’attirer vers les inextricables filets d’Aphrodite ποικιλόθρονος. Cette épithète lui est attribuée par Sappho et elle peut être interprétée comme “Aphrodite au vêtement décoré de plusieurs couleurs”.40 En effet le terme θόρυβα, d’après Hésychios, signifie “fleurs”, mais aussi “trames de différentes couleurs”. Tout cela, à notre avis, donne une explication à propos de la signification de d’Ba-ra-ma, la “Bariolée”, comme protectrice de la reine d’Ebla à l’occasion des noces.41

L’utilisation de ces tissus très décorés a probablement été introduite en Grèce à travers le Proche-Orient comme l’on peut déduire par quelques allusions faites par Homère dans ses œuvres. Il attribue constamment à l’habillement des femmes sidoniennes la fabrication des péplums bariolés.42 Euripide aussi, dans le Ion (vv. 1059 et s.tes) décrit comme βαρβάρων ὑφάσματα les tissus richement décorés qui font partie du trésor du temple parmi lesquels on remarquait les péplums pillés par Héraclès aux Amazones dont les références à l’Orient sont très bien connues.

36 Mayo 1973, 220.
41 Pasquali 2005c, 175; 2008b.
42 Pasquali 2005a, 267–268.
La fabrication de tissus élaborés dans la production artisanale d’Ebla au IIIème millénaire av. J.-C. a beaucoup d’importance parce qu’on dirait confirmer ce qui a été écrit par les auteurs classiques à propos du Proche-Orient.

2.3. Les vêtements de la royauté


À Ebla, les vêtements royaux sont rarement attestés dans les textes administratifs jusqu’à présent édités. Ils sont cités dans les rituels d’ARET 11 avec la graphie ma-rî-a-tim (et variantes) qui peut être interprétée comme /mār-ī-yāt-im/, “vêtements à la manière de Mari”, comparable à l’akk. mārītu, “mariote”, que nous trouvons dans les textes paléo-babyloniens de Mari. Bien que dans les textes administratifs nous trouvions quelques tissus appelés Ma-rî₃₁ et d’autres désignés par des noms de villes parfois difficiles à situer comme Ar-mî₃₁ et Û-ra₃₁, les attestations de ce vêtement cérémoniel (les textes des rituels exceptés) sont limitées à deux passages parallèles relatifs au considérable trousseau donné à Di-ne-ib-du-lum à l’occasion de son investiture de prêtresse du dieu ḫA₅₃-da-bal de Lu-ba-ar₃¹ et à un inventaire de tissus apparemment insignifiant et encore inédit (TM.75.G.1504 f. I:5–8: 1 gada-tūg / 1 sal-tūg / 1 ma-rî-a-du / 1 ṣb-iii-tūg). Dans les rituels d’ARET 11 ces vêtements sont liés au terme maš-da-bu, qui est interprété comme “bande”, d’après le sém. ṣṭp, attesté en akkadien avec la signification de “couper (des étoffes)”. On a donc supposé que dans ce contexte le mot indique les volants qui constituent les vêtements à la

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43 Fronzaroli 1993, 39.
44 Pasquali 2005c, 177–180; 2008b.
47 Fronzaroli 1993, 27.
48 Pasquali 2009a.
50 Je remercie le prof. A. Archi qui a eu l’amabilité de me fournir ce passage inédit.

L’usage de vêtements à la manière de Mari mis à côté de l’emploi d’un mot typique de cette ville comme kutummu pour indiquer le voile de l’épouse, fait imaginer une influence de Mari même sur les symboles de la royauté éblaïte. Tout comme les trônes (giš-uštin) qui sont fréquemment décrits, dans les textes administratifs, “à la façon de Mari”. Comme nous n’avons aucune idée sur l’identité de la reine du premier rituel qui épousa le roi Ḫr-kab-da-mu, on peut supposer comme hypothèse de travail qu’elle venait de Mari et qu’elle introduisit à Ebla quelques symboles royaux d’origine typiquement mariote.

2.4. D’autres éléments de l’habillement éblaïte


Un autre élément fabriqué en lin est un objet indiqué par la graphie kir-na-nu, kir-na-núm, avec variantes kir-a-nu et kir-na-an. L’interprétation de ce terme est très difficile. La seule comparaison possible avec l’assyrien kir-na-a-a, ayant une attestation uniquement lexicale, n’aide pas à

52 Pour le datif-directif à Ebla, Catagnoti 1995.
55 Pasquali 2005b, 53.
56 Pasquali 1997, 262–266.
57 Les doutes d’Archi 2002, 197, à ce propos ne sont pas justifiés.
58 Voir Joannès 1984, 185.
comprendre quel objet il pouvait désigner. D’après les contextes où il se trouve, ce tissu était quand même assez précieux. Il arrivait à Ebla grâce surtout aux riches apports (mu-túm) de certains rôles de la Syrie59. Du-lú₃₄, Du-gú-ra-su₃₃ et Ra-ʾa₂-ag₄₁, souvent avec fils (gu) de pierres dures.⁶₀

La “bande” ou “sangle”, représentant un objet d’une certaine valeur, est désignée par le mot gār-su que l’on peut comparer avec l’akkadien qeršu(m), qiršu(m), du sém. qrš, “couper”, qui désigne une sangle en tissu, cuir ou métal.⁶¹ À Ebla, nous avons la certitude, selon un unique texte, que cet objet pouvait être fabriqué en laine et lin (voir TM.75.G.2190:f. III 1, 3 gār-su siki gada).⁶² Sa préciosité est compréhensible de par la contre-valeur en métal qu’on lui attribuait pour son achat (níg-sa₁₀) aux “foires” (KI:LAM), et le porter était souvent un privilège du roi d’Ebla qui le met une fois à l’occasion des rites de « purification » (i-giš-sag)⁶₃ lors de la mort d’une des princesses de la cour.⁶₄ L’interprétation du terme est confirmée par son équivalent sumérien aussi : e₉(SU-SU), “sangle”, que l’on détermine par quelques passages parallèles.


2.5. Objets en laine et lin pour le mobilier ou l’équipement de chars et équidés

Comme cela a déjà été dit, il y a de nombreux termes sémitiques qui se rapportent aux textiles, mais qui ne se réfèrent pas aux vêtements. Ils désignent des objets qui concernent le mobilier ou l’équipement de chars et équidés.

60 Pour ces fils de pierres dures, voir Pasquali 2005b, 22–24.
62 Cité par Archi 2003, 34.
63 Pour ce mot Archi 1996, 17–18.
64 Pasquali 2005c, 169.

Les termes désignant les accessoires des harnais et des chars réalisés en laine sont beaucoup plus nombreux. Ḫu-li est sans doute le plus attesté. Il est connu dans sa variante Ḫu-li et dans sa forme double Ḫa-li-Ḫu-li exprimant le pluriel du duel; cet objet était donc utilisé par paires et on peut le traduire “anneau du joug”, substantif dérivé du sém. occ. *gll, “introduire; enfiler”. Selon les règles établies pour le syllabaire d’Ebla les signes de la série HA sont régulièrement utilisés pour rendre /g/ étymologique.71 Ce mot éblaïte correspond donc à l’hébreu ḥ, “joug” (souvent employé dans le sens moral) et au ḥullum des lettres d’Amarna, où il est utilisé comme glose de l’akkadien nīru, “joug”.72 Le fait que la racine *gll soit employée dans la région sémitique occidentale jusqu’au IIIe millénaire av. J.-C. pour indiquer la partie du joug réalisée en étoffe aide à mieux comprendre l’étymologie et la signification du terme de Mari ḥullum (ḫu-ul-li, Ḫu-li, Ḫu-lim), attribué en général par paires (ta-pa-al) et en relation avec d’autres objets concernant l’équipement des chars et des équidés. La même étymologie et les similitudes des contextes indiquent qu’il s’agit du même objet qu’on trouve dans la documentation d’Ebla.73

Les noms sémitiques des tissus dans les textes d’Ebla

ba-ga est beaucoup plus documentée. La variante ru₁₂-bù-ga impose une étymologie de premier /r/ tandis que la graphie ayant gu indique que la troisième radicale doit être /q/. L’explication la plus appropriée de ce mot nous l’avons par le sém. *rbq, “atteler (animaux)”.

Il y a deux autres objets relatifs aux brides qui sont indiqués par des graphies sémitiques. L’un est ba-a-nu, toujours réalisé en laine, dont la signification constitue encore un argument de discussion. Il s’agissait peut-être d’un élément décoratif, une bande qu’on posait sur la tête des mulets et en général des équidés. Il faut considérer la comparaison avec l’équivalence ba-a-nu = a-gu-ú qu’on trouve dans la liste des synonymes An III 234, c’est-à-dire une sorte de bande pour la tête. Dans la liste lexicale bilingue éblaïte ba-a-nu glose le sumérien níg-anše-túg, dont l’interprétation n’est pas claire. Finalement le terme a-na-bu, encore en laine et relatif aux brides, généralement expliqué par l’akkadien anabu de An VII, 230 qui indique une bande ou un tissu pour les hanches. À notre avis on peut envisager une comparaison avec le terme de Mari na-na-ap-tum, une forme ma12a3– sur une racine *NP, désignant un objet fabriqué en laine et utilisé pour l’équipement des chars (par exemple dans ARMT 21, 420; 22, 129; 23, 204), que les éditeurs pensent indiquer une sorte de cordon ou ficelle pour les brides.

Remerciements
Je remercie Mr Gianluca Montanelli pour l’aide apportée à la traduction en français.

Abréviations
TM Ebla (Tell Mardîkh), numéros d’inventaire des tablettes.

Bibliographie

80 Conti 1997, 45, avec bibliographie.
81 Conti 1997, 49.
82 Pettinato 1980, 224; Conti 1997, 53.
83 Joannès 1984, 139–140; Durand 2009, 185.


9. Les noms sémitiques des tissus dans les textes d’Ébla

10. New Texts Regarding the Neo-Sumerian Textiles

Francesco Pomponio

The 21th century BC in the history of Near East is the period of the birth, flourishing and fall of the last Sumerian state, the so-called Neo-Sumerian empire, otherwise defined as the Third Dynasty of Ur, following a denomination derived by the Sumerian King List. This political structure included the Southern Mesopotamia, that is, the ancient regions of Sumer and Akkad, the Central Mesopotamia till Assyria, and the modern Khuzistan, the region of the ancient Susa. Moreover, it had under its influence part the western territory of the present Iran (with the name of Elam), northern Mesopotamia occupied for the most part by Hurrian people, and probably a part of the north-eastern Syria.

This state was characterized by a mighty development of the bureaucratic system. As regards the written documentation, that is the cuneiform tablets, produced by its administration, the most imposing in the ancient world, we have about 4,250 texts coming from the capital Ur, 30,000, 24,000 and 3,500 texts respectively from provincial capitals of Umma (including the 1,527 tablets from the rural estate of Garšana of most recent edition), Girsu, and Nippur (but it should be noted that the provinces of the Neo-Sumerian empire were about twenty), 13,800 from the redistributive centre of livestock Puzriš-Dagan, and some hundreds produced by private archives, often of unknown origin. Of course, we are referring to published tablets, but museums and private collections of the Near East, Europe and United States of America are swarming of unedited Neo-Sumerian texts, itching to see the light of the publication. So, in the course of 2010, D.I. Owen will edit about 300 tablets belonging to Ithaca University and coming from another province of the Neo-Sumerian empire, that is Irisagrig.

1 The tablets presented in this article have been transliterated in the ambit of a research project aimed to the publication of the Neo-Sumerian texts from Girsu and Umma, kept in the British Museum (PRIN 2006–2008). The writer wishes to express his gratitude to Dr Farouk Al-Rawi and Dr Lorenzo Verderame who collaborate in this research. The photos of BM 110313 and BM 110615 are published by kind permission of the Trustees of the British Museum. The abbreviations employed in the present article are supplied by the list of the site of M. Molina, Base de Datos de Textos Sumerios (http://bdts.filol.csic.es). The date of the Neo-Sumerian tablets is indicated by the name of the king and his relative year of reign, with the following abbreviations: Š = Šulgi; ŠS = Šu-Sîn; IS = Ibbi-Sîn.


3 For these data see Molina 2008, 19–53.

4 The volume is intended to be the 15th issue of the series Nisaba. Studi Assiriologici Messinesi.
The economic entries on which the Neo-Sumerian state relied may be subdivided into three basic sectors:

1) The taxes called bāla, “service”, and gú-un ma-da, “tribute of the country”, respectively, delivered by the core of the empire (the about twenty provinces already mentioned) and by its periphery;  
2) The tribute and the booty, respectively supplied by the vassal states and by the recurrent raids that regarded a very vast zone, which extended from the valley of the Khabur river to Khuzistan;  
3) The income of the industrial complexes of economic centres managed by the administration of Ur and by that of its provinces.

In all probability, the most important of these establishments concerned the production of textiles, and textiles were also one of the dominant assets in the field of the Neo-Sumerian export. The textile industry employed many thousands of female workers (géme-uš-bar is the name of this category), belonging to the lowest stratum of the Neo-Sumerian society and in addition to them female prisoners, provided by the military campaigns of the Neo-Sumerian armies, young “castrates” (amar-ku₅), and children were employed in the “houses of weaving” (é-uš-bar). As a matter of fact, the most numerous category of female workers was that of the géme-úš-bar, “female weavers”, followed by the géme-kikken, “female millers”, géme-UN-īl, “female porters(?),” and géme-ī-sur, ‘female oil pressers'. The monthly salaries of these labourers amounted to 30 or 40 litres of barley and their days off were one per five or, more often, six days.

Our data on the production of textiles are supplied by the very high number of tablets regarding both amounts of wool and quantities of textiles which come from the archives of the capital city Ur and of the most important provinces of the empire, Umma and Ġirsu. In the ambit of this impressive documentation, I have picked out a few unpublished tablets belonging to the collections of the British Museum and coming from the provincial capital of Umma. Their analysis will supply us with glimpses of that enormous production of textiles and meanwhile will illustrate the kind of texts upon which our knowledge of the Neo-Sumerian textile industry bases itself. Their number and the abundance of data probably will arouse the envy of the researchers of other kinds of texts.

The first tablet is a monthly balanced account. This important category of texts is as a rule subdivided in three sections: the first one registers the capital, that is the income; the second the expenditures, that is the redistribution of textiles, of course from the point of view of the provincial administration, that is the office of the ensik, the “governor”, who was the highest political authority of the province; the third section establishes if there was a remainder or an overdraft, that is if the deliveries were superior or inferior to the issues. The period covered by these balanced accounts normally varies from a month to a year.

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6 For the most recent analysis of the objectives of the Neo-Sumerian campaigns in this area, see Steinkeller 2008.
7 In order to meet the requirements of the provincial administration, workers belonging to a category were provisionally employed in the activity of another category: so, e.g., in Nisaba 18, 146 an amount of flour is supplied by the ‘castrates of the House of the weaving’ (amar-ku₅ é-uš-bar).
Francesco Pomponio

**BM 110453** (dimensions: 9 × 4.7 × 2.5 cm.)

**obv.**

<table>
<thead>
<tr>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>60×4 + 6 túg ĝiri / ensik-ka</td>
<td>246 textiles: the governor is the conveyor;</td>
</tr>
<tr>
<td>10×2 + 6 túg ĝiri Ur-‘Nisaba</td>
<td>26 textiles: Ur-Nisaba is the conveyor;</td>
</tr>
<tr>
<td>7 túg ĝiri A-kal-la</td>
<td>7 textiles: A-kalla is the conveyor;</td>
</tr>
<tr>
<td>1 túg é-kišib-ba é-maš-ta</td>
<td>1 textile from the ‘House of the tablets’ of the Emaš.</td>
</tr>
<tr>
<td>5. túg mu-ku₁-ensik</td>
<td>Textiles: delivery of the governor.</td>
</tr>
<tr>
<td>60×2 + 5 túg ki-Nin-me-lám-ta</td>
<td>125 textiles from Nin-melam;</td>
</tr>
<tr>
<td>10×2 lá-1 túg-didli ki-ensik-ta</td>
<td>19 various textiles from the governor;</td>
</tr>
<tr>
<td>10 + 7 túg ki-Ur-šu₂₃gigir ázlag-ta</td>
<td>17 textiles from Ur-gigir, the fuller;</td>
</tr>
<tr>
<td>10 + 7 túg ki-Uš-šu,₉₉-ta</td>
<td>17 textiles from Uššu;</td>
</tr>
<tr>
<td>10. 10×2 + 2 túg ki-Ur-Iškur-ta</td>
<td>22 textiles from Ur-Iškur;</td>
</tr>
<tr>
<td>1 túg ki-Lugal-nilagare-e-ta</td>
<td>1 textile from Lugal-nilagare.</td>
</tr>
</tbody>
</table>

**rev.**

<table>
<thead>
<tr>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>šu-niğin 60×8 + 1 túg-hi-a</td>
<td>Total: 481 different textiles.</td>
</tr>
<tr>
<td>šà-bi-ta</td>
<td>From inside it (= the sum of the preceding capital)</td>
</tr>
<tr>
<td>60×6 + 10×2 túg é-kišib-ba</td>
<td>380 textiles to the ‘House of the tablets’;</td>
</tr>
<tr>
<td>60 + 10×3 + 3 túg má-a ĝá-ra</td>
<td>93 textiles placed in the boat(s);</td>
</tr>
<tr>
<td>5. 1 túg Ur-ŠEN.ZU</td>
<td>1 textile to Ur-Sin;</td>
</tr>
<tr>
<td>2 túg kišib ensik</td>
<td>2 textiles on the sealed tablet of the governor;</td>
</tr>
<tr>
<td>3 túg Lugal-ē₃₇kiri₆</td>
<td>3 textiles to Lugal-kiri;</td>
</tr>
<tr>
<td>2 túg Ur-ŠEN-ši₁₁₈-lá</td>
<td>2 textiles to Ur-Enlilla.</td>
</tr>
<tr>
<td>10. šu-niğin 60×8 + 1 túg-hi-a</td>
<td>Total: 481 different textiles</td>
</tr>
<tr>
<td>zi-ga-₃₄₉₄</td>
<td>have been expended.</td>
</tr>
<tr>
<td>ni-ka₃₆₉₅-aka túg-bi dé-a</td>
<td>Balanced account of its distributed textiles.</td>
</tr>
<tr>
<td>iti ‘Li-si₄</td>
<td>Month of the goddess Lisi (= IX month of the calendar of Umma)</td>
</tr>
<tr>
<td>mu-ú-sa bād / ma-da ba-du</td>
<td>Year after that in which the Fortress of the Land was built (= 37th year of the king Šulgi).</td>
</tr>
</tbody>
</table>

These accounts are balanced by comparing the total of the income with that of the expenditure. Of course, a remainder (left over after the operations of expenses) or an overdraft incurred may result, or rather as rule results, from these accounts: the former case is indicated by the term lá-₁, the latter by diri, and these differences were strictly recorded in the balanced accounts relating to the immediately following period or, in the case of the remainder, it was returned by the official who had received it. However, in our account there is an exact equivalence between deliveries and expenses. It should also be noted that here there is no information about the typologies of the registered textiles, defined only in an issue as didli, “various”, and in the total of expenditure as hi-a, “mixed”. The same official may be mentioned both in the former section, that of the suppliers, and in the latter, that of the recipients: it is the case, in our text, of the ensik. It may derive from the fact that an official is the provider of a kind of textiles and the consignee of another kind, but also by the different functions that especially a high official may perform, e.g. he may be at the same time the responsible both for a manufacturing sector that produces textiles and for a team of workers, who receive clothes. At this regard, it should be noted that,
as pointed out by H. Waetzoldt, amounts of wool or textiles (the latter only when available) were issued once a year as wages of craftsmen and service personnel, also of very low rank.\textsuperscript{9}

In the second text, a yearly document, the number of registered textiles is by far larger, in all 10,251 pieces, and in this case a dozen of different kinds of textiles are specified, and besides this they belong to about seventy sub-categories defined by various characterizing elements of each kind of textiles. Nevertheless, there is an element, which relates the two tablets. The latter text registers, indeed, a long list of textiles that result to be the remainder (33 kinds of textiles) or the overdraft (35 kinds of textiles) of balanced accounts. In other terms, the scribe has here gathered the results of a good deal or the totality of the balanced accounts of textiles drawn up by the Umma administration during the span of about a year. More precisely, the period which regards this circulation of textiles are 11 months (from the first to the eleventh) of the 8th year of the king Amar-Sîn, the son and successor of Šulgi, to whose reign the above-presented text belongs. From the amount of these leftovers or overdrafts (more than 10,000 textiles) we might assume how high must be the number of the textiles involved in the relative operations of deliveries and issues, in all probability all those that have been carried out in the space of time in question in the ambit of the province of Umma.

The official responsible of these thousands of textiles is Ikalla, whose seal is impressed on the tablet.

BM 110313 (dimensions: 13.1 × 7.5 × 3.4 cm.), see infra, Figs. 10.1–10.2.

\begin{verbatim}
<table>
<thead>
<tr>
<th>obv.</th>
<th>col. I</th>
</tr>
</thead>
<tbody>
<tr>
<td>(lá-1) 1 nāgbar-túg-4-kam-úš</td>
<td></td>
</tr>
<tr>
<td>60x7 + 8 nāguz-za-ĝen</td>
<td></td>
</tr>
<tr>
<td>600x4 + 60x3 + 10x3 + 3 15 gín / nāguš-bar</td>
<td></td>
</tr>
<tr>
<td>600 + 60x2 + 10x4 + 2 nāguš-bar-tur</td>
<td></td>
</tr>
<tr>
<td>5. 10x3 nāguš-bar-tur ka-ah</td>
<td></td>
</tr>
<tr>
<td>10 nāgsà-ga-dù-ĝen</td>
<td></td>
</tr>
<tr>
<td>10 nāgsa-sa</td>
<td></td>
</tr>
<tr>
<td>8 nāgsuš-bar-tur-ĝi</td>
<td></td>
</tr>
<tr>
<td>10x4 + 4 nāgs-ĝl-ša-kal</td>
<td></td>
</tr>
<tr>
<td>10. 60 + 5 nāgú-ĝl-ša-murub</td>
<td></td>
</tr>
<tr>
<td>60x9 + 6 nāgs-murub</td>
<td></td>
</tr>
<tr>
<td>10 + 7 nāgs-murub</td>
<td></td>
</tr>
<tr>
<td>10 + 7 nāgsuš-bar-sumun</td>
<td></td>
</tr>
<tr>
<td>60 + 10x4 + 9 nāgsuš-bar-tur-sumun</td>
<td></td>
</tr>
<tr>
<td>15. 10x4 + 5 ½ nāgs-gu-anše</td>
<td></td>
</tr>
<tr>
<td>10 + 2 nāgs-gu-anše-sumun</td>
<td></td>
</tr>
<tr>
<td>3 nāgsbar-si-árá-ra-4-kam-/ús</td>
<td></td>
</tr>
<tr>
<td>10x3 + 5 ½ nāgs-ú-kal</td>
<td></td>
</tr>
<tr>
<td>2 nāgsa-ga-dù ka-ah</td>
<td></td>
</tr>
<tr>
<td>20. 2 nāgs-ðaba-tum-tur</td>
<td></td>
</tr>
<tr>
<td>7 nāgs-ú-sumun</td>
<td></td>
</tr>
</tbody>
</table>
\end{verbatim}

\textsuperscript{9} Waetzoldt 1987, 125–126.
Francesco Pomponio

I. 10x2 + 2 5/g[ ]
    10 + 3 5/g[ ]
    1 5/guš-[bar]
    3 5/gú-t[ur]

5. 4 5/gša-ga-dù-ğ[en]
    6 5/gša-ga-dù ğen ni-dára2
    8 1/2 gada-ğen
    10 + 3 gada ša-ga-dù-4-kam-ús
    1 gada ğen-sumun

10. 3/30 5/6 silica 5 gín i-şäh
    3,600 + 600x2 + 10x3 + 8 2/3 5 gín / túg-hi-a
    diri 10x2 + 8 5/gni-lám-3-kam-ús
    3 5/guz-za-3-kam-ús

15. 10 + 6 5/gni-lám-4-kam-[ús]
    600 + 60x2 + 10x4 + 3 5/guz[-za-4-kam-ús]
    10x3 + 8 5/gni-lám-[ğen]
    10 5/guz-za ğen [ ]
    1 5/guz-za-ğen [ ]

20. 3,600 + 60x5 + 10 lá-1 [-kam]-/ús

II.

above 12 lines lost

rev.

I. 10x2 + 2 5/g[ ]
    10 + 3 5/g[ ]
    1 5/guš-[bar]
    3 5/gú-t[ur]

5. 4 5/gša-ga-dù-ğ[en]
    6 5/gša-ga-dù ğen ni-dára2
    8 1/2 gada-ğen
    10 + 3 gada ša-ga-dù-4-kam-ús
    1 gada ğen-sumun

10. 3/30 5/6 silica 5 gín i-şäh
    3,600 + 600x2 + 10x3 + 8 2/3 5 gín / túg-hi-a
    diri 10x2 + 8 5/gni-lám-3-kam-ús
    3 5/guz-za-3-kam-ús

15. 10 + 6 5/gni-lám-4-kam-[ús]
    600 + 60x2 + 10x4 + 3 5/guz[-za-4-kam-ús]
    10x3 + 8 5/gni-lám-[ğen]
    10 5/guz-za ğen [ ]
    1 5/guz-za-ğen [ ]

20. 3,600 + 60x5 + 10 lá-1 [-kam]-/ús

II.

3,600x7 + 60x8 + [ ] / 3 ǧur[uš]

blank space with the seal impression:

1-kal-la
    Ikalla,
dub-sar
    the scribe,
dumu Lú-sa6-ga
    'son' of Lusaga.

3,600 + 600x3 + 10 + 3 2/3 5 gín / túg-hi-a
    5,413 and 25/36 mixed textiles
    diri-ga-ğam
    are the overdraft.
    Ur-ğî-par
    Ur-ğipar
5. ù ša-nin-ĝa<<-ĝá>> ìb-gi-in
diri lá-î l-kal-la
iti-10 + 1-kam iti še-kin-ku₉ ta

iti Pa₇-ú-e-šè
kišib l-kal-la
10. [mu en E]ridu₃₅ ba-hu₃₅

and ša-ninêa established.
Overdraft and remainder of Ikalla.
11 months are (the period): from the
month of the harvesting (= I month of
the calendar of Umma)
to the month of the god Pa’ue (= XI
month of the calendar of Umma)
Sealed tablet of Ikalla.
Year after that in which the High
priestess of Enki was installed (= 9th
year of the king Amar-Sîn).

The textiles in question are the following and they comprehend almost all the textiles mentioned
in the Umma texts (the tūgaktum, most frequent in the documentation of Ĝîrsu, are mentioned
only in a half dozen of texts of Umma):

**tāṣbar-túg**
4-kam-ús (number: 1)

**tāṣuš-bar**
(2,613 ¾)
tur (762)
tur-gi₉ (8)
tur ka-ah (30)
sumun (17)
tur-sumun (109)
[ ] (1)

**tāṣsa-sa**
(10)

**tāṣú**
kal (35 ¾)
gi₉-kal (44)
gi₉-murub (65)
murub (94 + x)
sumun (7)
tur (3)
[ ] tur (46)
ni-dára₂ (4)

**tāṯmug**
murub (546)
tur (17)
kal (31)
gi₉ (36)

**tāṯgu-anše**
(45 ¾)
sumun (12)
All these names are preceded by the determinative túg, which characterizes the items belonging to the category of textiles. But in this category an important difference is to be stated between the textiles which are to be interpreted as clothes and those which are piece-goods; of course, only the latter may be counted in fractions (one fourth, one third or a half). To this second category belong surely túgû, túgûš-bar, túgû-anše, gada.

The by far most frequent sequence of characterizing elements of textiles regards the quality. In this regard, we have the following indications, listed from the best to the worst:

- lugal, that is “royal”
- ús, “following (the quality lugal)”
- 3-kam-úš, “of the third class”
- 4-kam-úš, “of the fourth class”
- ĝen, “poor”.

This range of values is attributed to the main clothes, which are túgnî-lám and túg guz-za, and, in addition to them, to the túg uš-bar, túg uš-bar, the túg aktum and to the linen gada, even if with these last groups of textiles the categories 3-kam-úš and 4-kam-úš are exceedingly rare.

It should be noted that the first-rate textiles may be indicated in the Girsu texts, and only exceptionally in the Umma texts, also by the term sig5, “of good quality”,10 and more rarely, and exclusively in the Girsu texts, by the title ensik, “of the governor”, most likely a variant of the above-cited lugal, “of the king, royal”. In some cases, instead of lugal, the personal name of one of the kings of Ur (more precisely, at the best of our knowledge, only of the last two, Šu-Sîn and Ibbi-Sîn)11 is mentioned, in order to indicate not the recipient of the textile, but its quality. Tug aktum is characterized by the term uru “of the city”, the quality of which escapes us, in only three texts from Girsu.12

Another category of characterizing elements is indicated by the sequence: KAL – murub – tur. The meaning of the adjective tur is “small”, and of murub is “middle”; so, this category must refer to the dimensions. Now, the sign KAL, that has to designate the first class clothes in this respect, may have two values: kal with the meaning of “rare, valuable” and kalag, “mighty, robust”, and then “thick”. Thus, it is probable that this sequence of adjectives refers to the thickness of the textiles. It is often attributed to two categories of textiles: tugû and tug mug. The meaning of the former name is unknown and that of the latter is “cloth made from waste wool”. Each category of textiles is characterized by a sequence of the two above discussed characterizing elements, the quality or, if our hypothesis is correct, the thickness. So, tugû-lám and tug guz-za are never defined as murub or kal, and only the former, and only exceptionally, as tur. A third set of characterizing elements is attributed to the tug aktum: gal, “great”, and tur, “little”, but only in the tablets from Girsu.

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10 In a few cases the characterizing elements lugal and sig5 are united: see 1 tug aktum sig5 lugal (ITT 4, 7396:rev. 13; 7522:rev. 11).
11 Both the title ensik in the more ancient texts (ITT 5, 6713:obv. 3: Š 8; 6810:obv. 1: Š 11; MVN 6, 327:obv. 1: date lost; RTC, 204:rev. I 11. II 10: without year name) and the name of Šu-Sîn or Ibbi-Sîn in the more recent ones (TCTI 2, 3487:obv. 1: ŠS 5; TEL, 253:obv. 1: ŠS 6; ITT 5, 6797:obv. 1 and TCTI 2, 3468:obv. 1: ŠS 7; UNT, 35:obv. 1, II 1; UNT, 37: obv. I 1, II 3; ITT 2, 3413:obv. 1; TCTI 2, 2547:obv. 1 and TCTI 2, 3421:obv. 1: ŠS 8; ITT 2, 696:obv. 1 and MVN 13, 804:obv. 1: IS 1) are exclusively related to the textile tugû-lám. The cloth in question is always mentioned in the first place of the lists of textiles.
12 RTC, 208 obv. 3, rev. 1; 276 obv. I 4, rev. I 14; 285 obv. 9.
In contrast, adjectives referring to the colour (only gi₆₇, “black”, in our text) and state of preservation (sumun, “old”) may be assigned both to clothes (t₄₂n₁-lám, t₄₂guz-za, t₄₂mug, t₄₂aktum, t₄₂bar-dul₅, and t₄₂bar-si), and to the above-listed piece-goods. It remains to touch on the meaning of the term ka-ah, which is attributed above all to the piece-goods t₄₂uš-bar, and much less frequently to the piece-goods t₄₂š₄-ga-dû and to the clothes t₄₂mug and t₄₂guz-za. Concerning ka-ah, which also refers to hides of sheep and oxen, a meaning of “spoiled”, as a consequence of a bad treating or storage, has been attributed. Lastly, the term n₁-d₄ʳ₆₇₂, which in our text is related only to t₄₂gú and t₄₂š₄-ga-dû, but in other tablets to nearly all the other textiles (t₄₂uš-bar, g₄₆₇₄, t₄₂n₁-lám, t₄₂guz-za), and besides is cited separately as a product, indicates an employ: “rag, sanitary towel”. It must refer to textiles in very poor condition to be employed only for the most humble uses.

Unfortunately, we have very few data about the price, that is, the value of the various kinds of textiles in the Neo-Sumerian documents. The piece-goods t₄₂gú and t₄₂uš-bar and the poor-quality cloth t₄₂mug have in two Neo-Sumerian tablets their value indicated in barley, with an equivalent in silver which varies from 1/5 to 2/5 of shekels of silver (that is from about 1.6 to 3.2 grams), while a long t₄₂n₁-lám has a value of 1.5 shekel (about 12.5 grams), but in a text that is over a century older.13

All the above-mentioned textiles are made of wool, with the exclusion of the linen g₄₆₇₄.14 Thus, in many texts we have the mention of the textiles’ weight in wool or amounts of wool are registered for their manufacture. See e.g. the following tablet:

**BM 110320** (dimensions: 12.4 × 7.2 × 2.5 cm.)

| obv. | col. I | | col. II |
|------|--------|--------|
| [ sîg t₄₂n₁-lám]-/[3-kam-ú₇] | x of wool for t₄₂n₁-lám of third class; |
| [ sîg t₄₂n₁-lám]-/4-kam-ú₇ | x of wool for t₄₂n₁-lám of fourth class; |
| [ m₄₆₇₄-n₄ sîg t₄₂/guz-za-3-kam-ú₇] | x minas of wool for t₄₂guz-za of third class; |
| 1 g₄₆₇₄-1 ma₄₆₄-na sîg /t₄₂/guz-za-4-kam-ú₇ | 59 minas of wool for t₄₂guz-za of fourth class; |
| 5. | 2 g₄₆₇₄ 10 ma₄₆₄-na sîg t₄₂/guz-za-₂₄₄-₁₆₇-₆₄ | 130 minas of wool for t₄₂guz-za of poor class; |
| 1 g₄₆₇₄ 8 1/2 ma₄₆₄-na sîg t₄₂/uš-bar | 68.5 minas for piece-goods t₄₂uš-bar; |
| 3 1/3 ma₄₆₄-na sîg t₄₂/uš-bar-gi₆₇₄ | 3,33 minas of wool for piece-goods t₄₂uš-bar black. |
| 4 g₁₆₇₄ 33 ma₄₆₄-na 10 g₄₆₇₄ | (Total) 273 minas and 1/6. |
| Şe₄₆₇₄-kal-la na-g₄₆₇₄ | Şe₄₆₇₄-kal-la, the herdsman (who supplied them). |
| 3 1/2 ma₄₆₄-na sîg t₄₂n₁-lám-3-kam-ú₇ | 4 minas of wool for t₄₂n₁-lám of third class; |
| 5. | 7 ma₄₆₄-na sîg t₄₂n₁-lám-4-kam-ú₇ | 4,66 minas of wool for t₄₂n₁-lám of fourth class; |
| 4 g₁₆₇₄ 33 ma₄₆₄-na sîg t₄₂/guz-za-4-kam-ú₇ | 18 minas of wool for t₄₂guz-za of third class; |
| 1 g₄₆₇₄ 10 + 3 1/2 ma₄₆₄-na /sịg t₄₂/guz-za-₂₄₄-₁₆₇-₆₄ | 43 minas of wool for t₄₂guz-za of fourth class; |
| 15. | 1 g₄₆₇₄ 10x3 + 5/₆ ma₄₆₄-na sịg /t₄₂/uš-bar | 73,5 minas of wool for t₄₂guz-za of poor class; |
| 3 g₁₆₇₄ 10x5 + 8 ma₄₆₄-na | 91,83 minas for piece-goods t₄₂uš-bar; |
| Lū-U₄₆₄-tu na-g₄₆₄ | x minas for piece-goods t₄₂uš-bar black. |
| 3 1/2 ma₄₆₄-na sịg t₄₂n₁-lám-3-kam-ú₇ | (Total) 238 minas. |
| 5. | 7 ma₄₆₄-na sịg t₄₂n₁-lám-₄₄₄-₄₄₄-₆₄ | Lu-U₄₆₄-tu, the herdsman (who has supplied them). |
| 3 5/₆ ma₄₆₄-na sịg t₄₂n₁-lám-3-kam-ú₇ | 3,5 minas of wool for t₄₂n₁-lám of third class; |
| 7 ma₄₆₄-na sịg t₄₂n₁-lám-₄₄₄-₄₄₄-₆₄ | 7 minas of wool for t₄₂n₁-lám of fourth class; |

---

14 Exceptionally also the t₄₂bar-dul₅ may be made of linen (see ITT 3, 6605:obv. I 4’).
10x5 ma-na síg₃guz-za/-3-kam-ús 50 minas of wool for guz-za of third class;  
1 gú 10 + 7 ma-na síg₄guz-za/-4-kam-ús 77 minas of wool for guz-za of fourth class;  
5 gú 10x4 lá-1 ma-na síg₆guz-za-ğer 339 minas of wool for guz-za of poor class;  
2 gú 6 1/2 ma-na síg₆uš-2/bar 126.5 minas for piece-goods uš-bar;  
10. 6 ma-na síg₃uš-bar/-gë 6 minas for piece-goods uš-bar black.  
(Total:) 609 minas.  
Ur-ru na-gada Urru, the herdsman (who has supplied them).  
10 ma-na síg₄ni-lám/-3-kam-ús 10 minas of wool for ni-lám of third class;  
10x4 + 2 1/2 ma-na síg₄ni-lám-4-kam-ús 42.5 minas of wool for ni-lám of fourth class;  
1 gú 3 ma-na síg₃guz-za/-3-kam-ús 63 minas of wool for guz-za of third class;  
3 gú 10x2 + 5 ma-na /síg₄guz-za-4-kam-ús 205 minas of wool for guz-za of fourth class;  
9 gú 7 ma-na /síg₆guz-za-ğer 547 minas of wool for guz-za of poor class;  
5 gú 1 5/6 ma-na /síg₆uš-bar 301.83 minas for piece-goods uš-bar;  
10 + 9 gú 10x2 + 9 1/3 ma-/na (Total:) 1169.33 mine,  
Lú-Eb-gal ù / Šà-kù-ge Lu-Ebgal and Šakuge (have supplied them).  
For two years Lu-Haia has to deliver.  
5. iti min-èš Month of the sixth sanctuary (VIII month of the calendar of Umma).  
[mu]-ús-sa /ši-ma-nüm/kí ba-hul Year after that in which Simanum was plundered (= 4rd year of the king Šú-Sîn).  
In this text a certain number of administrative data are supplied: e.g. three herdsmen for the three first items (which register in all 910 minas of wool) and two high functionaries for the fourth item (which, with its 1,169.33 minas, exceeds the total of the preceding amounts) deliver the wool while the governor of Umma is its recipient. It would remain to establish the position of Lu-Haia in this transfer of wool for textiles: it is written that this important official¹⁵ has to bring something for the period of two years (rev. I 6). More interestingly for our topics, the wool in question is defined as “wool of mountain (sheep)”, which is the most prized wool, also 9.97 (MVN 15, 117) and 9 shekels of silver (Nebraska, 53 obv. 1–2) per talent, that is, 60 minas (= about 30 kg) of wool, and then 7.5 (AUCT 1, 562; Nebraska, 53 obv. 5–rev. 1; AAICAB 1/1, Ashm. 1911–212, “new”), 7 (AUCT 2, 392; Princeton 1, 300), and 6 (AUCT 3, 251; 313; 373 “new”). This wool is followed for value by the “wool of sheep (uli-)gi”: the price of which maybe of 7.5 shekels of

¹⁵ Lu-Haia was for a long period one of the principal subordinates of Ur-e’e, the head of the Central Office of the province of Umma: his seal (with the legend: Lú-Ha-ìa / dub-sar / dumu Ur-e 11-e šùš) is impressed on tablets dated from Š 47 (Princeton 2, 191) to IS 2 (AAICAB 1/1, Ashm. 1911–218).
silver (UTI 6, 3778.) and 6.66 (Snell 1982, pl.VI, N.4 obv. I 1–2), but also of 4.98 (D.C. Snell, op.cit., pl.XXI, N.12 obv. 3–4) and 4.75 (AUCT 1, 444 obv. 1–2, “old”) per talent of wool. All these data come from texts of Umma. For a comparison, in the Neo-Sumerian texts the value of the normal sheep wool (or at least of the wool of unspecified type) varies from 4 to 6.5 shekels of silver, and that of the goat wool from 1.5 to 2 shekels (see UNT, p.73).

In our tablet the number of the various kinds of clothes (tūgî-lám and tūgù-zà) and piece-goods (tūgùš-bar) to which the wool is intended is not specified, since the scribe was interested only to the record of the amounts of wool supplied. But the weight of wool per cloth is indicated in numerous lists of textiles, as those presented in the two following tablets:

**BM 110568** (dimensions: 5.8 × 4.2 × 2 cm.)

<table>
<thead>
<tr>
<th>Text</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 tūgî-lám-3-[kam] ús</td>
<td>6 textiles-ni-lám of third quality:</td>
</tr>
<tr>
<td>ki-lá-bi 9 5/6 ma-na</td>
<td>their weight is 9.83 minas (= 4.91 kg);</td>
</tr>
<tr>
<td>&quot;10 lâ-1 tūgî-lám-4-kam ús</td>
<td>9 textiles-ni-lám of fourth quality:</td>
</tr>
<tr>
<td>&quot;ki-lá-bi&quot; 10 + 8 ma-na</td>
<td>their weight is 18 minas (= 8.99 kg);</td>
</tr>
<tr>
<td>10 + 2 tūgù-zà-4-kam ús</td>
<td>12 textiles-guz-za of fourth quality:</td>
</tr>
<tr>
<td>ki-lá-bi 1 ġú 4 1/2 ma-na</td>
<td>their weight is 64.5 minas (= 32.23 kg);</td>
</tr>
<tr>
<td>10 + 7 tūgù-zà-ĝen</td>
<td>17 textiles-guz-za of poor quality:</td>
</tr>
<tr>
<td>ki-lá-bi 1 ġú 8 1/2 ma-na</td>
<td>their weight is 68.5 minas (= 34.23 kg).</td>
</tr>
<tr>
<td>sîg kur-ra 8té-ga-rîk aña</td>
<td>Mountain (sheep) wool combed.</td>
</tr>
<tr>
<td>10. 10 + 6 tūgù-ú-kal</td>
<td>16 thick textiles-ú;</td>
</tr>
<tr>
<td>10 + 4 tūgù-ú-tur</td>
<td>14 light textiles-ú;</td>
</tr>
<tr>
<td>rev.</td>
<td></td>
</tr>
<tr>
<td>ki-lá-bi 1 ġú 8 1/3 ma-na</td>
<td>their weight is 68.33 minas (= 34.15 kg).</td>
</tr>
<tr>
<td>16 tūgù-mug-kal</td>
<td>16 thick textiles-mug:</td>
</tr>
<tr>
<td>ki-lá-bi 56 ½ ma-na</td>
<td>their weight is 56.5 minas (= 28.23 kg).</td>
</tr>
<tr>
<td>2 + [ ] gada-ĝen</td>
<td>2+x linen textiles.</td>
</tr>
<tr>
<td>5. [ki-lá-bi] &quot;tag-ga&quot;</td>
<td>Textiles weighed after the weaving.¹⁶</td>
</tr>
<tr>
<td>[ki Ur-]Nin-tu</td>
<td>From Ur-Nintu</td>
</tr>
<tr>
<td>Ni-“da”-la šu-ba-ti</td>
<td>Nidala has received.</td>
</tr>
<tr>
<td>iti Pa₄-ú-e</td>
<td>Month of the god Paue (= XI month of the calendar of Umma),</td>
</tr>
<tr>
<td>mu bâd-mar-tu ba-dû</td>
<td>Year in which the Wall of Martu was built</td>
</tr>
<tr>
<td>left edge</td>
<td>(= 4th year of Šu-Sîn).</td>
</tr>
</tbody>
</table>

¹⁶ For this operation see Verderame 2008, 112–113.

**BM 110615** (dimensions: 4.8 × 4 × 1.8 cm.), see *infra*, Fig. 10.3.

<table>
<thead>
<tr>
<th>Text</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 tūgî-lám-4-kam ús</td>
<td>2 textiles-ni-lám of fourth quality:</td>
</tr>
<tr>
<td>ki-lá-bi 3 ma-na 10 + 8 ġín</td>
<td>their weight is 3.3 minas (= 1.64 kg);</td>
</tr>
<tr>
<td>4 tūgù-zà-4-kam ús</td>
<td>4 textiles-guz-za of fourth quality:</td>
</tr>
<tr>
<td>ki-lá-bi 10 + 9 1/3 ma-na</td>
<td>their weight is 19.3 minas (= 9.65 kg);</td>
</tr>
<tr>
<td>5. 10 + 1 tūgù-zà-ĝen</td>
<td>11 textiles-guz-za of poor quality:</td>
</tr>
<tr>
<td>ki-lá-bi 10x4 + 5 ma-na 10 ġín</td>
<td>their weight is 45.16 minas (= 22.57 kg);</td>
</tr>
</tbody>
</table>
2 tügnì-lám-ĝen
ki-lá-bi 3 1/3 ma-na
šig-kur-ra šga-rîk aka
10. 2 tügú-ka[l]
rev.
[kí-lá]-bi 7 2/3 ma-na
[x] gada-ĝen
ki šeš-sig, ta
Ir, šu-ba-ti
15. Ur-e₄-e-ke₄ / in-lá
blank
iti é-iti-āš
mu ₅Amar-₅EN.ZU / lugal

So, limiting ourselves to the textiles mentioned most frequently in the Umma and in the Ğiršu texts, we have a good deal of indications of weights. It should be considered that some typologies of textiles are rarely mentioned both in the texts of Umma and in those of Ğiršu (so the tügúktum for the former documentation and the tügú for the latter) and those few mentions don’t indicate the weights. In other cases, the comprehensive weight of textiles belonging to different categories (tügnì-lám and tügguz-za) or sub-categories (textiles-kal, murub, and tur) is supplied, and therefore these data have not been included in the following list:⑩

<table>
<thead>
<tr>
<th>Textile Type</th>
<th>Ğiršu Weight</th>
<th>Umma Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>tügnì-lám lugal</td>
<td>1 kg (ITT 2, 909)</td>
<td></td>
</tr>
<tr>
<td>tügnì-lám Šu-Sîn</td>
<td>1.12 (TCTI 1, 696; TCTI 2, 3421) &gt; 1.14 kg (ITT 2, 3413)</td>
<td></td>
</tr>
<tr>
<td>tügnì-lám Ibbi-Sîn</td>
<td>0.45 kg (MVN 13, 804)</td>
<td></td>
</tr>
<tr>
<td>tügnì-lám ensi</td>
<td>0.58 kg (ITT 5, 6713)</td>
<td></td>
</tr>
<tr>
<td>tügnì-lám-sig₅</td>
<td>0.61 kg (MCS 8, 89 BM 100462)</td>
<td></td>
</tr>
<tr>
<td>tügnì-lám-ús (lugal)</td>
<td>0.82 (HSS 4, 101) &gt; 1.43 kg (TCTI 2, 2564)</td>
<td></td>
</tr>
<tr>
<td>tügnì-lám-3-kam-ús</td>
<td>0.61 (MVN 16, 755) &gt; 0.91 kg (AnOr 1, 292; UTI 5, 3223)</td>
<td></td>
</tr>
<tr>
<td>tügnì-lám-4-kam-ús</td>
<td>0.8 (HSS 4, 101) &gt; 1.44 kg (TCTI 2, 3398)</td>
<td></td>
</tr>
<tr>
<td>tügnì-lám-ĝen</td>
<td>0.63 (BPOA 1, 461) &gt; 1 kg (UTI 2, 2193; BM 110568)</td>
<td></td>
</tr>
<tr>
<td>tügguz-za lugal</td>
<td>1.08 (TCTI 2, 2564) &gt; 1.24 kg (ITT 5, 9597)</td>
<td></td>
</tr>
<tr>
<td>tügguz-za-sig₅</td>
<td>0.73 (MCS 8, 89 BM 105406) &gt; 1 kg (DC, 181)</td>
<td></td>
</tr>
<tr>
<td>tügguz-za-ús lugal</td>
<td>1.08 kg (TCTI 2, 2566)</td>
<td></td>
</tr>
<tr>
<td>tügguz-za-ús</td>
<td>1.54 (HSS 4, 101) &gt; 3.74 kg (MTBM 199)</td>
<td></td>
</tr>
<tr>
<td>tügguz-za-3-kam-ús</td>
<td>0.91 kg (SUL, 403)</td>
<td></td>
</tr>
<tr>
<td>tügguz-za lugal</td>
<td>1.54 (HSS 4, 101) &gt; 3.74 kg (MTBM 199)</td>
<td></td>
</tr>
<tr>
<td>tügguz-za-sig₅</td>
<td>1 (RTC, 273 obv. 3) &gt; 2 kg (RTC, 273 obv. 1)</td>
<td></td>
</tr>
<tr>
<td>tügguz-za-ús lugal</td>
<td>1.5 (HSS 4, 101) &gt; 7.24 kg (ITT 4, 7522)</td>
<td></td>
</tr>
<tr>
<td>tügguz-za-ús</td>
<td>1.49 (ITT 5, 6713 rev. 5–6) &gt; 4.08 kg (TCTI 2, 387)</td>
<td></td>
</tr>
<tr>
<td>tügguz-za-3-kam-ús</td>
<td>2.6 (MVN 18, 319; BPOA 1, 461, 616; Nisaba 9, 82 et passim) &gt; 3.3 kg (TCL 5, 6054)</td>
<td></td>
</tr>
<tr>
<td>Ğiršu</td>
<td>1.7 (MTBM, 207) &gt; 4.49 kg (TCTI 2, 3490)</td>
<td></td>
</tr>
</tbody>
</table>

⑩ The basic values of the Neo-Sumerian weight system are the gín, “shekel” (= 8.33 g.) and the ma-na = 60 gín (about $\frac{1}{2}$ kg). The highest unit of weight is gú (-un), ‘talent’, which is equivalent to 60 ma-na. The sub-multiple of the gín, of course rarely employed for the wool, is the š e , ‘grain’, which is equivalent to 1/180 gín.

⑪ But the immediately precedent item records 3 tüg-[guz]-za-ús-sig₅, which must be a variant of tüguz-za-ús, and their weight (2 ma-na), with the exceedingly low value of 0.33 kg per textile.
197

10. New Texts Regarding the Neo-Sumerian Textiles

 táģuz-za-4-kam ús  Umma  2.12 (MVN 16, 679) > 3.2 kg (MVN 16, 959)

 Cársu  1.78 (UNT, 43) > 2.61 kg (UNT, 45 obv. II 10’–11’)

táģuz-za-ţen  Umma  1.98 (BPOA 1, 461) > 2.93 kg (Nik. 2, 394)

 Cársu  2.01 (SET, 274) > 4.12 kg (UNT, 45 obv. III 10’–11’)

túg-uš-bar  Umma  1.29 (túg-uš-bar-gi) (SNAT, 306 obv. 13-rev. 1) >

1.83 kg (SNAT, 306 obv. 11–12)

 Cársu  2.02 (TCTI 2, 2564) > 3 kg (ITT 5, 6773)

 tūg-uš-bar-sig5  Cársu  2.74 (TCTI 3490) > 2.76 kg (TCTI 2, 3534)

 tábbar-dul5  Umma  0.6 (SAT 2, 110) > 1 kg (YOS 18, 100)19

 tábmuq-kal  Umma  1.38 (BPOA 1, 496) > 1.89 kg (BPOA 1, 672)

 tábmuq-murub  Umma  1.74 (TCL 5, 6054; SANTAG 6, 143) > 2.79 kg (Nik. 2, 394)

 tábmuq-tur  Umma  1.33 kg (SANTAG 6, 234)

 tábmuq  Cársu  1.99 (AOS 32, N29 obv. I 3–4, II 8–9) > 2.54 kg (UNT,

45 rev. I 7–9)

 tábú-kal  Umma  1.63 (AfO 40–41, p. 55, N.3) > 1.93 kg (HUCA 29, p. 95, N. 18)

 tábú-murub  Umma  1.52 (SNAT, 317) > 1.9 kg (SANTAG 6, 157)

 tábd-a-ba-tum  Cársu  1 (CT 9, pl. 31 BM 20018 rev. 1–2) > 2.3 kg (BPOA 1, 4 obv. 6’–8’)20

From these data we infer that:

1) In the ambit of one type of textiles the variations of the weight are sizeable, and the same is valid in
the ambit of a sub-type.

2) These variations don’t result in being proportional to the quality class, and neither to the thickness
class. Of course, in the latter case, the difference in weight must be the result of different dimensions.
These dimensions are rarely indicated, and they occur exclusively in the Cársu tablets. In these few
cases, different terms referring to the length (gíd), to the width (dagal), to the right side (bar-si-
sá), or to both sides (bar-šu-ni-gín) are employed, or some more elements (ki(-tag) ) are united to
characterize the linear measures (see UNT, pp. 144–148). Also regarding the dimensions, there is an
ample span of fluctuations for the same type and sub-type of clothes: e.g. in the same text (BM 14311;
see UNT, p.147) the tábni-lám lugal is related both to 2.33 kùš (= 1.16 m.) and to 5.66 kùš (= 2.66 m.)
and the táģuz-za-4-kam-úus both to 3.66 kùš (= 1.83 m.) and to 6.5 kùš (= 3.25 m); more precisely,
in BM 14311 the bar-si-sá (right side) of the táģuz-za lugal varies from 1.66 kùš (= 0.83 m.) to 7
kùš (3.5 m.). Thus, we cannot determine with any precision the dimensions of the various kinds of
clothes.

3) Notwithstanding the great variations of weights in the ambit of the same typology, the wool intended
for the tábni-lám and for the tábbar-dul is inferior to that for the tábmuq and, more decidedly, to that
for the táģuz-za. The tábaktum-guz-za, that must unite the characteristics of two different clothes,
presents both the highest weight and the widest span of variations from 4.54 (MVN 6, 498 obv. 7–8)
to 15 kg (MVN 6, 493 rev. 7–8).21 Also the weight of the simple tábaktum, even if only mentioned in a
few texts, has a wide span of variations from 0.55 (MTBM, 207) to 5 kg (MVN 22, 188 obv. 2, 12, rev.
5; 218 obv. 1).

4) As rule, the weight of the textiles results to be higher in the Cársu than in the Umma docu-
mentation.

19 Even if the mentions of the tábbar-dul in the texts from Cársu are definitely more numerous than those in the
texts from Umma, in no passage it is possible to draw indications about its unit weigh.

20 In this case, as well in a few others, the wool employed for the textile is divided in two items: its šid-gú-ku (see
UNT, p. 114) and its síg-mug, ‘waste wool’.

21 The weigh of the tábbar-dul-guz-za is by long lower: 1 kg (ITT 5, 6711; 6713 obv. 1–2).
Fig. 10.1. BM 110313 obverse (Courtesy of the Trustees of the British Museum).

Fig. 10.2. BM 110313 reverse (Courtesy of the Trustees of the British Museum).

Fig. 10.3. BM 110615 (Courtesy of the Trustees of the British Museum).
In the texts concerning the weighing of textiles, three categories of officials are cited: 22

1) The official who supplies the product (wool or textiles): he is a foreman of the female weavers. Eight of them are mentioned with particular frequency;

2) The official who weighs it: the governor or, in his place, an official of very high rank (particularly the Šuš Ur-e’e or Lukalla, a direct subordinate of his);

3) The official who receives it: Ikalla who recurs in the majority of texts in question. This official, whose seal is impressed on the second tablet we have presented above, is the recipient of the textiles in a series of about 90 tablets from Umma that register the delivery of textiles after their weighing, and in some texts he is also the responsible official for this operation. Successively, Ikalla must deliver these textiles to the fullers for their ultimate elaboration, and the same official supplies the same workers with the raw material for their activity (the herb naga, the oil, and the gypsum im-babbar). In other texts the fullers receive direct delivery of textiles. In both cases, the textiles, properly starched, return under the control of Ikalla, who has the duty to consign them to the Central Office of Umma. And at long last these textiles – invisible for the archaeologists, and also almost invisible for the assyriologists 23 – are ready to begin their journey in the ambit of the province of Umma, outside the province (toward the capital Ur, the Holy City Nippur, the cradle of the royal family Uruk, the redistributive centre of Puzriš-Dagan/Esağdana) or also beyond the boundaries of the empire.

Abbreviations


BM British Museum. London. Tablet inventory number.

BPOA Biblioteca del próximo oriente antiguo. Madrid.

CT Cuneiform Texts from Babylonian Tablets in the British Museum. London.


HUCA Hebrew Union College Annual. Cincinnati.


MCS Manchester Cuneiform Studies. Manchester.

MVN Materiali per il vocabolario neosumerico. Roma.


SANTAG SANTAG. Arbeiten und Untersuchungen zur Keilschriftkunde. Wiesbaden.

SAT Sumerian Archival Texts. Bethesda.


22 See Verderame 2008, 114–120.

23 It should be noted that wool and the textiles are nearly the only commodities, which are never mentioned in any of the more than 850 bala texts of Umma (see Sharlach 2004, 289–311).
SUL Francesco Pomponio


Bibliography


11. The Colours and Variety of Fabrics from Mesopotamia during the Ur III Period (2050 BC)

Hartmut Waetzoldt

In Mesopotamia, around 2050 BC, the annual production of textiles was huge, certainly significantly more than 60,000 pieces. Most of them were made from wool. Flax was rarely used. All workers were given a piece of cloth or the corresponding quantity of wool by their masters. This piece of cloth or wool, from which they could produce a piece of cloth by themselves, formed part of their wages. The workers mostly received fabric made from the cheaper sorts of wool, amongst which were black fabrics, too.

The good varieties of wool were classified into five qualities, with the best two or three qualities reserved for the members of the royal family and the upper class.

In this chapter, we will firstly discuss the colours of the textiles and secondly attempt to determine, which of the Sumerian and Akkadian terms denote a fabric, and which denote a piece of clothing. In the final section, we attempt to determine the sorts of weave used in these textiles.

1. The Colours

Most strikingly, the colour of the textiles is almost never mentioned. We therefore suppose that most textiles were made of light-coloured wool. Sometimes we find textiles explicitly called “white” (babbar), but these white textiles were apparently not considered to be better than those without an indication of colour.

In contrast to the situation described above, dark or black textiles were often included at the end of lists, meaning that they were less appreciated. These dark garments were, for example, given to an old man, to water drawers (a-bala) and to slaves (of both sexes). According to some texts from the provincial capital of Umma, up to 10% of those in receipt of cloth rations were given black textiles.

One has to be cautious, however, concerning the evaluation of the colour black. Divinities, too, possess black clothes. According to a literary text, Enkimdu, the god of the farmers possessed

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1 AOS 32 L 5; Ontario II 487:1ff.; UTI 4, 2900: 9+32; cf. UTI 3, 3350:1ff. (for a gendarme of the énsi).
2 MVN 16, 746, 958:9ff.; cf UTI 4, 2900:9. At Garšana only a few black woven fabrics, caps or ribbons are mentioned (not more than 3: CUSAS 3, 662, 663, 678, 757, 758, 760, 764, 782, 783, 796, 804; number not preserved: 651, 753, 833).
black as well as white textiles, and Dumuzi, the god of the flocks wished to have these textiles. In addition, in economic texts, the mother goddess Ninhursag received a black garment and black wool was also used for the production of a heavy cloth or a carpet (túg-maḫ) for the goddess Inanna.

Red/brown wool (su₄-a) was used for the production of shoes, sandals and belts. What exact colour was meant by this term is not yet known. This sort of wool was mostly used to produce braided and not woven cloths.

Yellowish textiles (sig₂) are mentioned extremely rarely. The translation to yellowish is not certain; sometimes the Sumerian word also designates a greenish colour. For the production of a ribbon, black and yellowish wool was mixed. The texts do not mention who wore those garments.

Obviously, the most precious wool was the shining-yellow one (ḫuš-a), since this is also the colour of pure gold. It is attested only in the capital Ur and is only mentioned in the texts in small quantities of about 1–7 kg. The best and finest wool is used exclusively for this colour. From this wool was produced a particular type of fine fabric (tüg₃n₃-lám). Fabric made from this wool was probably reserved for the use of the king.

Numerous multicoloured textiles are mentioned in the recently published texts from the royal estate of Garšana. We do not know whether the Sumerian word for multicoloured (gûn-a) meant two- or three-coloured fabrics or fabrics in which colours were combined. The most likely option is that light and dark sorts of wool were combined, also possibly with a third naturally pigmented wool. This argument is supported by the wall painting from Mari, although this is about 250 years younger than the texts. Important too is the fact that for the multicoloured textiles, third and fourth class qualities of wool were also used, which means that upper class people used these textiles. Most of the multicoloured textiles were accompanied by a multicoloured ribbon. Multicoloured textiles were also destined for lower deities. As these textiles were comparatively heavy – they weighed more than 4.5 or 5.5 kg – it remains uncertain whether they served as clothing.

The colours discussed here could have been natural pigmentation or dyed colours. While studying the texts more in depth, we found that normally only naturally pigmented wools were used. This is assured for more than 99% of the production, including the light-coloured, white, dark, reddish brown and multicoloured products. The very precious shining yellow wool (ḫuš-a) was most probably dyed. Concerning the yellowish wool the question must be left open, since the exact shade of colour cannot be identified at present.

These facts clearly demonstrate that, in Mesopotamia around 2050 BC, wool or textiles were only dyed in exceptional cases. The natural colour of wool and clothing was light and white.

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4 Túg₃-giₒ₃: CUSAS 3, 787; BIN 5, 19:7f. 40 ma-na (c.20 kg) síg₄-gi₃₄ túg-maḫ₄-Inanna-Zabalam₄₄; cf. 251:8–13 five female weavers needed 1½ months for the production. According to MVN 3, 349:4 42 ma-na (c.21 kg) were used for it.
6 Waetzoldt 1972, 51 c (i₄₈bar-sig-gi₅₄, ḫI-sig₄₆, sig₄₆, UET 3, 1702: 5).
7 Waetzoldt 1972, 51 d.
8 CUSAS 3, 563, 564, 565, 568, 577: 1–4, 786.
9 CUSAS 3, 564, 565, 568, 577: 1–4, 786.
10 CUSAS 3, 584: 4.
Occasionally, the wool of differently coloured animals was used to achieve colour effects. Obviously the shining yellow dyed clothing was reserved for the king, but we do not know the dyestuff used for this process.\textsuperscript{11}

For the deities, different pieces of clothing were produced. They were probably used to dress the statues of the gods. Usually there is no information to be found concerning the colours of the garments of the gods. Occasionally, we see references to white or dark garments, but multicoloured pieces of clothing are noted, too. Obviously, the colours appear to have had a certain significance, but what this was is unfortunately unknown. The texts do not reveal any information about this. The \textit{Enmerkar} Epic, for example, describes the sacred marriage. During this ritual, the king in the role of the god Dumuzi puts on a multicoloured cap and a priestess in the role of the goddess Inanna dresses in a white garment.\textsuperscript{12} According to the myth of \textit{Inanna and Enki}, the God of Wisdom Enki gave Inanna a black and a multicoloured garment. These garments were said to possess numinous powers, indicating that even the gods were more powerful with these coloured garments.\textsuperscript{13}

2. \textbf{Is it possible to determine the different weaves according to the cuneiform texts?}

We have two bases for the discussion:

1. Cases in which two different terms for textiles are used side by side, and
2. Indications of the weight of the wools used for the warp and weft threads respectively.

In the economic texts on textiles, usually only one name for a textile is found per line. For the purpose of this paper, however, we collected cases where two different textile terms appeared in the same line.

The hypothesis is that the first term denominates the piece of clothing. The second term refers to the sort of fabric, or more precisely, to the weave. In the following section, we try to verify this hypothesis.

The term \textit{túgú-è} denominates a kind of “cape or shawl for the shoulder”.\textsuperscript{14} \textit{túgú-è} occurs with 4 different designations. These designations describe the piece of clothing in more detail:

\textit{túgú-è} ba-tab \textit{du₃-hu-um}\textsuperscript{15}
\textit{túgú-è} guz-za\textsuperscript{16}
\textit{túgú-è} ni-lám\textsuperscript{17}
\textit{túgú-è} tá-ki-ru-um\textsuperscript{18}

These four terms occurring after \textit{gú-è} (ba-tab \textit{du₃-hu-um}, guz-za, ni-lám and tá-ki-ru-um) can also denote wraparound garments. In this context, however, this makes no sense, for \textit{gú-è} is only a smaller piece of cloth. Its weight is always less than 300 g.\textsuperscript{19}

\textsuperscript{11} On the natural pigmentation of wool and the dyed colours in the Linear B Inscriptions see Nosch 2004, 32–33, 35.
\textsuperscript{12} Waetzoldt 1972, XXI; Cohen 1973, line 578 and 591.
\textsuperscript{13} Farber-Flügge 1973, 28: 25.
\textsuperscript{14} Waetzoldt 1980–83a, 22 § 7e.3.
\textsuperscript{15} CUSAS 3, 586: 2, 587: 2, 609: 5, 618: 6, 748: 7, 834: 7; UET 9, 234: 3, 7.
\textsuperscript{17} CUSAS 3, 579: 16, 618: 5, 639: 2, 649: 2, 748: 6, 793: 3, 6, 821: 1, 829: 5', 1162:18'.
\textsuperscript{18} CUSAS 3, 824: 1, TMHNF 1–2, 230: 3; cf. MSL 10, 155 No. 2 V 28.
\textsuperscript{19} Waetzoldt 1980–83a, 22 § 7e.3; cf SAT 3, 2070: 1–6.
If we consider the texts recording the delivery of wool to the weavers, we find precisely these terms. We have wool for *ba-tab ṭuḫu-um*, Wool for *guz-za*, wool for *nì-lám* but coincidentally no wool for *tá-ki-ru-um*. These kinds of fabrics would have been woven by the female weavers from the above mentioned wool.

Another example occurs in the following:

\[
\begin{align*}
&bàgšu & ba-tab \ ṭuḫu-um & \\
&bàgšu & nì-lám & \\
&bàgšu & tá-ki-ru-um
\end{align*}
\]

Here are only three sorts of fabric mentioned. *bàgšu* is a cap. These terms can be translated by “cap from *ba-tab ṭuḫu-um*-fabric”, “cap from *nì-lám*-fabric”, and “cap from *takirum*-fabric”.

A further example is:

\[
\begin{align*}
&bàga-dù \ ba-tab \ ṭuḫu-um & \\
&bàga-dù \ nì-lám & \\
&bàga-dù \ tá-ki-ru-um
\end{align*}
\]

The pieces of clothing mentioned here could therefore be made from two, three or four different sorts of fabric and these could be produced with different weaving techniques. According to the hypothesis suggested here, this is the only possible interpretation, as *nì-lám* or *ba-tab ṭuḫu-um*, for example, never occur with other fabric denominations following them. In the following section we examine the question of which kind of weave was used to produce the *ba-tab ṭuḫu-um*, *guz-za*, *nì-lám* and *tá-ki-ru-um*-fabrics. Concerning *guz-za* and *nì-lám* we have relatively much information. For the terms *ba-tab ṭuḫu-um* and *tá-ki-ru-um*, however, we find only few indications.

In Mesopotamia in the years between 2100 and 2000 BC textiles were usually weighed after weaving. Therefore we possess comparatively many indications of the weight of the different fabrics. Compared to this, the text informs us only rarely about the size of the fabrics. We are well informed about the *guz-za*-fabrics. They have a weight of between 1.7 and 3.35 kg and they were 3.5 to 4 m in length and up to 4.5 m in width. A piece of *guz-za*-fabric, however, could

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20 CUSAS 3, 625:14.
22 CUSAS 3, 596: 3–4, 750: 1; AnOr 7, 201: 4–6, 518 II’ 1’.
23 The *tá-ki-ru-um*-fabric is rarely mentioned in the texts, see notes 49–51 and CUSAS 3, 608: 5, 739: 2, 766: 1, 796: 4; UET 3, 1705 III 29, IV 18f. It is normally produced from the best and once from 3rd class wool.
29 CUSAS 3, 569: 9, 579: 13, 637: 1, 662: 3, 674: 3, 675: 2, 738: 1f. and see CUSAS 4, 176.
30 In CUSAS 3, 579: 18 the authors read 4 [^[nig-lam]m ba-tab tuḫ-ḫu-um-3–kam-ūs, but according to the parallel text 578: 17, the correct reading is 4 [^[nagšu] ba-tab tuḫ-ḫu-um-3–kam-ūs. In SAT 3, 2070: 3 we find 20–lá-3 ni-lám-guz-za. This is all in all a very unusual text; is it possible to translate “17 ni-lám- and guz-za-fabrics”?
have a length of 6.8 m.\textsuperscript{32} Generally, the almost square guz-za-fabric was doubled and used as a wraparound garment (Wickelgewand).

The production of a guz-za-fabric from fourth-class wool is described in a text as follows:\textsuperscript{33}

1 guz-za-fabric from fourth-class wool,  
the mixed wool for it (weighs) 4 kg,  
1 woman cleans and combs 125 g in a day (and)  
1 woman ‘mingles’ (HI.HI) 1 kg in a day (possibly production of roving/slubbing);  
the warp threads for it (weigh) 333 g (and)  
1 woman spins 8.3 g strongly twisted threads (for the warp);  
the weft threads for it (weigh) 1.66 kg (and)  
1 woman produces 61 g (of them) in a day (for the weft);  
(the) length (of the guz-za-fabric is) 3.5 m (and)  
(the) width (is) 3.5 m;  
3 women warp in 3 days (and)  
2 women weave 50 cm in a day.

Such detailed descriptions of the production of textiles are very rare. From this example we learn that warp threads have a weight of 333 g and the weft of 1.66 kg. Hence the total weight was 2 kg and the ratio of warp and weft threads is 1:5. In one day, a female weaver could produce only 8.33 g of warp-thread, but 61 g of weft thread. The production of the warp thread needed 40 days, while weft thread was produced over only some 16 and a half days.

Three women needed three days to warp the ground loom. Two women could weave 50 cm of cloth a day. Therefore to produce the complete guz-za-fabric they needed only seven days. The rate of 50 cm a day was comparatively high since for nì-lám-fabrics only 25 cm could be produced a day.

One text describes the warp thread in even more detail: “241 g of warp thread for the third-class guz-za-fabric, the UB for it (are) 8 (and) the qin-nu-um for it are 2”.\textsuperscript{34} In this context, the meanings of UB and qin-nu-um are totally vague. Both terms could relate to the guz-za-fabric, too. But then, for me they don’t make any sense at all.\textsuperscript{35}

We have only few hints indicating what sort of cloth guz-za was. These refer to the weaving rate as well as to the relation of warp and weft threads. In the example above, the ratio of warp to weft was 1:5, in other texts it is 1:4 and 1:4.2.\textsuperscript{36} Hence there is about four times more weft yarn than there is warp thread. I wonder whether this is because we are dealing with “shaggy cloth”. This was how guz-za was translated in the Pennsylvania Sumerian Dictionary.\textsuperscript{37} Regrettably, we are unaware of the time it takes to weave such a cloth.

Concerning nì-lám-fabrics, the ratio of the weights of warp and weft yarn is between 1:0.94 and 1:2.25.\textsuperscript{38} The weight of the warp for a single piece of cloth was about 333 g for a medium-weight fabric. The weight of the weft yarn can be estimated by comparing the weight of the nì-

\begin{itemize}
\item \textsuperscript{32} Waetzoldt 1972, 144–145, 148.
\item \textsuperscript{33} Waetzoldt 1972, T.32 III 4–Rev. I 4.
\item \textsuperscript{34} Waetzoldt 1972, 125.
\item \textsuperscript{35} UB normally means “corner, angle and nook” and qinnum can be translated as “nest, lair and family” (CAD Q 257; p. 260 qinnu B meaning unknown).
\item \textsuperscript{36} Waetzoldt 1972, 124; cf. ibid. T.23: 1–3 = MVN 19, 89; 1–3 1:2.1; UET 9, 337:7–9.
\item \textsuperscript{37} Pennsylvania Sumerian Dictionary, Vol. 2 B, 120.
\item \textsuperscript{38} Waetzoldt 1972, 124.
\end{itemize}
lám-fabrics, which were between 0.666 and 1.3 kg per piece.\(^{39}\) This makes the weft between about the same weight as the warp and approximately double the weight of the warp. This leads me to the assumption that nî-lám-fabrics were produced in plain weave. The nî-lám-fabric must have been comparably light in spite of its size of 3.5 × 3.5 m, 4 × 3.5 m or 4.5 × 6 m (but it could have up to 7.5 m in length).\(^{40}\) In addition, during excavations cloths were found which were woven in plain weave as demonstrated by Elisabeth Völling.\(^{41}\) Finally, another fact supporting a smooth fabric is that nî-lam-fabrics were used for the king’s bed.\(^{42}\)

In only few cases we found the following combination: (sîg-) túgnî-lám šà-(túg)bar-dul\(^5\),\(^{43}\) which means nî-lám-fabric with weft from the bar-dul\(^5\)-type). This means that weft threads originally produced for the bar-dul\(^5\)-fabric were woven into a nî-lám-fabric. According to this, the weft threads for nî-lám- and bar-dul\(^5\)-fabrics must therefore have differed from each other. The difference must have been visible to specialists after weaving.

The ba-tab du\(^8\)-hu-um-cloth was highly regarded and mostly produced from very good wool.\(^{44}\) Another argument for its very good quality is the fact that the female weavers needed 240 days to produce a second-quality ba-tab du\(^8\)-hu-um-cloth. This working time comprises all tasks starting from the raw wool up to the complete piece of cloth. To produce fabrics from the finest wool, the female weavers needed 480 to 960 days.\(^{45}\) Unfortunately, the weights of these fabrics are not attested because of the accidental nature of excavations and text publishing. The ratio between the weights of warp and weft threads is 1:4.27. This value, however, is not exact, because it comprises the wool for other textiles, too.\(^{46}\)

Based on part of the word ba-tab, the Sumerian verb tab may mean: “to double, to lay double” or “to lay something parallel”. This interpretation leads to the surmise that several threads of the weft were put into one shed. This would mean that ba-tab du\(^8\)-hu-um is a denomination for twill or rep weave (German: Rips).\(^{47}\) The second part of the word du\(^8\)-hu-um cannot be interpreted at present. Therefore, the proposal for the translation “rep” is rather hypothetical. The second part of the word could theoretically be connected with the Akkadian term tuḫḫu “bran and draff”. This interpretation, however, makes little sense here.\(^{48}\)

Regarding the fourth cloth denominated tá-ki-ru-um we do not know much. A large piece of tá-ki-ru-um-fabric of the best quality weighs either 2.6 or 3.5 kg.\(^{49}\) Once we see 3 kg, but the text is not completely preserved.\(^{50}\) A “small piece of tá-ki-ru-um-fabric” had a length of 2.59 m and a width of 1.25 m. Its weight is not indicated in this text.\(^{51}\)

\(^{39}\) Waetzoldt 1972, 125 (weight of warp) and UET 9, 337: 7–8 (weight of weft not fully preserved); BPOA 2, 1815: 1–2, 1835: 1–6; CUSAS 3, 582: 1–2; MVN 16, 679: 1–2, 7–8, 755: 1–4, 959: 1–4; MVN 22, 121: 1–2; Nisaba 11, 5: 7-8; Seri 2007, 28 I 1–4, 10–11, 20–23, II 22–23, 29–III 3, IV 1–2, Rev. I 20–21.

\(^{40}\) Waetzoldt 1972, 129, 148.


\(^{45}\) Waetzoldt 1972, 139.

\(^{46}\) Waetzoldt 1972, 124.


\(^{48}\) CAD T 78 a textile; UET 3, 1673:1–2, 5–6.

\(^{50}\) UET 3, 1697:1–2.

11. The Colours of Textiles and Variety of Fabrics from Mesopotamia

Takkirum-fabrics were only woven in small quantities. Obviously it was a precious fabric, for it was mainly produced in the capital of Ur and in the palace of the princess Simat-Ištaran at Garšana.\(^{52}\) The deity Ninsianna, too, received a piece of it on several occasions. S/he was the deity of the evening star meaning Venus.\(^{53}\)

\(\text{túgbar-dul}_5\): bar-dul\(^{5}\) is on one hand a sort of fabric and on the other hand “a coat or a long cloak”.\(^{54}\) Its production is described in the same text as the guz-za-fabric:\(^{55}\)

\[\begin{align*}
&1 \text{ bar-dul}_5 -U^2 -\text{fabric from fifth-class (wool),} \\
&\quad \text{the mixed wool for it (weighs) 2 kg;} \\
&1 \text{ woman cleans and combs 125 g in a day (and)} \\
&1 \text{ woman ‘mingles’ (HI.HI) 1.5 kg in a day (possibly production of roving/slubbing);} \\
&\quad \text{the warp yarns for it (weigh) 666 g (and)} \\
&1 \text{ woman spins 16.6 g strongly twisted threads (for the warp);} \\
&\quad \text{the weft yarns for it (weigh) 833.3 g (and)} \\
&1 \text{ woman produces (of them) 41.67 g in a day (for the weft)};
\end{align*}\]

The rest of the text is lost.

From this we see that the total weight of the warp thread was 666 g and that of the weft thread 833.3 g. Hence, we have a ratio of warp to weft thread of 1:1.25. One piece of bar-dul\(_5\)-cloth weighed 1.5 kg. In other cases we have found weights for 1 bar-dul\(_5\)-cloth of up to 1.8 kg or only 604 g.\(^{56}\) To spin the warp thread a woman needed 40 days and only half of this was needed for the weft thread, meaning 20 days. The length of a bar-dul\(_5\)-cloth could be up to 4 m.\(^{57}\) The width is not mentioned in any of the texts known to me.

According to one text, the total working time for the production of a bar-dul\(_5\)-cloth from the best and finest wool comprised 1080 days.\(^{58}\) In the text discussed above, we admittedly only find a total of 77 working days, but this text is only half preserved and the quality of the wool is worse, being 5th class.

* * *

In this paper we have discussed five words for different kinds of cloth: guz-za, nî-lám, ba-tab du₅-ḫu-um, tá-ki-ru-um and bar-dul₅. Through this investigation it became clear how difficult it is to find arguments for how a certain cloth was woven. Quite rarely, the relationship between the weights of warp and weft yarn is known. But it still does not become obvious how a cloth was woven. For guz-za was proposed the interpretation of “shaggy cloth”, for nî-lám “plain weave” and for ba-tab du₅-ḫu-um “rep”. But next to these interpretations we have to add question marks.

The textiles found during excavations can give us an idea of which kind of weave was popular

\(^{52}\) See notes 22, 49–51; CUSA 4, 546.
\(^{56}\) CUSAS 3, 724: 1–2; SAT 1, 110.
\(^{57}\) Waetzoldt 1972, 147
\(^{58}\) Waetzoldt 1972, 139.
in a certain period and what was possible to produce on the ground loom. These textiles can stimulate philological research. And hopefully, help to solve the problems.

It was a surprise, that relatively many textiles could be identified by Elisabeth Völling as rep weaves (Rips). Therefore it was necessary to look for a Sumerian term for this weave which we may have identified in ba-tab \( du_{2}hu\)-um. But we have to wait for new texts to prove this hypothesis right or wrong.

In the Ur III-Period between 2100 and 2000 BC, it is remarkable that, very often three or four times as much wool was used for the weft yarn as for the warp yarn. This is even the case for the very cheap fabric called tůg-mug. For this fabric, the weft yarn was often from five to seven times heavier than the warp yarn: Although the warp was produced from better wool the weft yarn was made from noil.\(^{59}\) Fabrics with more weft yarn that warp yarn are termed “weft-faced” fabrics.

All these different kinds of fabrics were woven on the horizontal loom. In a newly published text wooden parts of the loom are listed, indicating that the looms in Mesopotamia could be more than 5 m wide.\(^{60}\)

**Acknowledgements**

My colleague and friend David Owen, Ithaca (USA) and Rachel Fenton, Cambridge (Great Britain) were so kind to correct and improve my English. I am very grateful for their great help.

**Abbreviations**

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<th>Abbreviation</th>
<th>Description</th>
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\(^{59}\) Waetzoldt 1972, 124f. The warp yarn is produced from 5th class wool, whereas the weft yarn is made from noil (ibid. T. 44: 8–10; CUSAS 3, 744: 11–13, 747: 13–15), or the warp yarn is produced from wool of the uli-gi-sheep (AAS 135 IX 5–9), cf. Waetzoldt 1972, T. 45 II 1–3, III 16–18, IV 7–9.

\(^{60}\) CUSAS 3, 635:1–5 (\( \# \)sag-du-tůg-ga gid 12/10/8/7/6 küš-ta): the beams have a length of 6, 5, 4, 3,5, and 3 m. During the Ur III-period (c.2100–2000 BC) horizontal looms were used in Mesopotamia. There is good evidence for this in the fact that the main parts of the loom described were two beams (up to 6 m long; weaver’s beam and cloth beam), uprights (\( \# \)dar-kak) fixed to the beams with ropes. These ropes are called eš-tůg-gid in Sumerian “rope to make the cloth long”, which means “to stretch the cloth (and the warp)”. Instead of ropes woven ribbons (\( \# \)bar-si-tůg-gid) could also be used for this purpose. The beams are called \( \# \)sag-du and \( \# \)gi-na (Waetzoldt 1972, 133f.). \( \# \)dar-kak was discussed most recently by M. Civil (1989, 57) and for \( \# \)bar-si-tůg-gid see CUSAS 3, 793: 11 (and Waetzoldt in preparation).
11. The Colours of Textiles and Variety of Fabrics from Mesopotamia

JCS  
*Journal of Cuneiform Studies*

MSL 10  

MVN 3  

MVN 16  

MVN 19  

MVN 22  

Nisaba 6  

Nisaba 11  

Ontario II  

SAT 3  

TMHNF 1-2  

UET 3  

UET 9  

UTI 3  

UTI 4  

**Bibliography**


12. The Textiles Traded by the Assyrians in Anatolia (19th–18th centuries BC)

Cécile Michel and Klaas R. Veenhof

The records of the Old Assyrian traders found in the archives of their houses in the commercial quarter (kārum) in the lower town of the ancient Anatolian city of Kaneš, modern Kültepe (c.20 km northeast of modern Kayseri), which date from the 19th and 18th centuries BC,¹ contain an enormous amount of references to a large variety of textiles. The traders imported great quantities of primarily woollen textiles from their hometown Aššur into Anatolia, conducted some business in textile products in northern Mesopotamia on their way there, and engaged in a brisk trade in locally produced woollen textiles within Anatolia. Since most of the names and designations of these textile products do not appear in contemporary sources from elsewhere, and since the excavations of Kaneš have yielded no textile remains, their identification is not easy. Most appear in purely commercial contexts, which mention their purchase, packing² and transport, sale, and the taxes levied on them in Anatolia, but hardly ever describe their nature, which was of course known to those involved in the trade. Only rarely, in a few private letters written by or to women, do we obtain some information on the production of certain textiles, when traders state their preferences and the women who made them react to such wishes or criticism of their products.³ We must of course study their names, some of which allow an etymological analysis or are attested in other sources, while others link a textile with a particular town, people or land by being a nisbe, e.g. “Abarnian (textile)” or by means of the relative pronoun ša, “(that) of”.

¹ These texts are quoted by their excavation numbers that start with Kt (=Kültepe), followed by the mention of the excavation year (a = 1948 until z = 1971, continued by 72ff.), a slash (/) and k (= kārum, the commercial quarter in the lower town) and the number of the individual tablet. For a recent list of published or quoted tablets with these numbers, see Michel 2003, 60–140, continued in Michel 2006, 438–445 and Michel (in press a), where the interested reader can find the data on the tablets we only quote here by excavation number.

² Usually in bales or “bags” (called naruqqum), note e.g. the small text LB 1269 (quoted Veenhof 1972, 38) that lists the contents of four bags with in all 30 textiles of 11 different types and qualities.

e.g. “(textile) of Šubarum”. We can also use data on their prices and numbers (the former reflect their production costs, expensive textiles usually occur in small numbers), their quality (ranging from “royal quality” to “poor quality”) and on certain characteristics, occasionally revealed by qualifying adjectives (e.g. “thin” or “heavy”). Moreover, the sequence in which they are listed, combinations of two textiles, and especially occasional ‘categorizations’ are helpful, such as statements like “x textiles of type a, among which/including y of type b”, or “textile a (made/consisting) of (ša) textile b”, where the latter presumably denotes a particular type of fabric.

We are of course not the first to study the Old Assyrian textiles that are so prominent in the trade. Ignoring scattered earlier observations, usually in the comments on particular texts, we mention here the studies in Garelli 1963, 284–293 (‘Les étoffes’) and Veenhof 1972, part II, 79–216 (‘Textiles and Wool’) and take the systematic collection of data and their analysis by the latter as our point of departure, while also referring to the treatment of textile names in the *Chicago Assyrian Dictionary*, where especially the later volumes contain a wealth of references. These earlier studies demonstrated that part of the textiles shipped by the Assyrians to Anatolia were imported into Aššur from “Akkad” or Babylonia, while others were produced by women in Aššur, and, that they were woollen products. Uncertainties remained about the nature of the various textile products, their origin, the trade in Anatolian textiles, and the important question of whether they were (predominantly) untailored fabrics or (also) ready-to-wear garments; it seems that this last category has been overestimated in the past. Since the publication of the investigations mentioned above, many new textual sources have become available, especially now that the first archives excavated at kārum Kaneš by Turkish archaeologists since 1948 are becoming available. They offer the possibility of critically assessing and supplementing the current data and insights in the hope of solving at least some of our problems. We will do so by treating the various issues mentioned above, starting with the basic question of the material from which the textiles were made.

1. Materials

1.1. Wool (šíg, šaptum)

Today, it is clear that most textiles traded by the Assyrians were made of wool. Confusion had been caused when the most frequent textile product, *kutānum*, only attested in Old Assyrian, was at

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4 See also Veenhof 1988, 254–257, on the purchase prices of the textiles in Aššur, and Larsen 1967, 97–140: “Caravan Accounts” (Ch. III, c), on the purchase and sale of textiles.

5 Julius Lewy, the early expert in the study of the Old Assyrian texts, contributed many insights in the comments in his text editions and in various articles, especially in the copious footnotes, but offered no systematic analysis.

6 For the present situation see Veenhof 2008, 68–75: “Work on texts excavated since 1948”. AKT 4 was published in 2006 (see Veenhof 2009) and volumes with editions by K. R. Veenhof (AKT 5 = Kuliyə) and M. T. Larsen (AKT 6) of archives excavated in 1992 and 1994 are in press in Ankara. Many small groups of and even single texts have been published in a great variety of articles in congress volumes, Festschriften and journals (among which *Archivum Anatolicum*, inaugurated in Ankara in 1995, and *Anadolu Medeniyetleri Müzesi Yılıbaşı*, the annual of the Museum in Ankara, where the excavated tablets are preserved). A few thousand unpublished texts circulate among Old Assyrian specialists and we are grateful to be able to quote or refer to words and lines in them that are important here, thanks to those who deciphered them and will publish them in due course.

7 It was considered to occur in Mari as well, but the only references are in the closely related letters, A. 2881:13 and ARMT 13, 101:28, sent there from Aššur, in which an Assyrian trader promises to send such a textile to his colleague in Mari; see Durand 2001, 119–120. Another occurrence in an Old Babylonian text is in al-Rawi & Dalley 2002, 97:32–33,
first rendered as “Chitons-Stoffe” by Landsberger (1925, 20) and as “kutānu-Stoffe” in EL (passim), but interpreted as “linen” by Garelli, in which he was followed by Larsen. This identification was supported by the fact that an Ugaritic bilingual text renders the logogram for linen, tūg-gada by ktnt.\(^8\) Later, von Soden in AHw 930a, suggested a new etymology, interpreting the word as a purās-form, a nominal formation used for “deverbal Vergegenständlichungen”.\(^9\) It made him parse the word as qutānum, meaning “das Dünne”, derived from qatānum, “to be thin”, whose first consonant, emphatic /q/ instead of /k/, would rule out a connection with comparable terms in other languages, and AHw adds “wohl nicht kutānum zu hebr. kuttōnet; > χιτών?” However, *qutānum is superfluous alongside ṭāqquṭum, “thin textile”, well attested in Old Assyrian, and there is probably a text where the adverbial qatnum, “thin”, is applied to kutānum itself, which would be a tautology for *qutānum.\(^10\) The letter TC 3, 17:21–23 (below § 3.4.1) requires that one side of a “thin textile” (subātum qatnum), “if it is still hairy should be shorn like a kutānum”, and this would seem strange if the latter textile itself was a *qutānum, “thin textile”.\(^11\) That kutānum was a woolen product is clear from the statement by the writer of TC 2, 7:24–26, that he is unable produce the kutānū requested “because there is no Šurbu-wool (šaptum šurbiūtum) available”.\(^12\) Furthermore, in TC 2, 14:6–9 (Michel 2001, no. 108), textiles designated as šurbiūtum and apparently made of this type of wool are included in the category of kutānum. Kutānum, as argued by Oppenheim (1967, 158, note 82), was probably a “Kulturwort” of unknown origin, related to Hebrew kuttōnet and Greek χιτών, but curiously absent in other periods of ancient Mesopotamia. It most probably was a “woollen cloth” with, according to TC 3, 17:21–22, a flat and smooth surface, achieved by shearing (qatāpum, see § 3.4.1). This meaning fits the fact that, in several cases, the words ša kutānim, “(made) of kutānum (fabric)” or “of kutānum type”, qualify other textiles or garments, such as nahlapturn (OIP 27, 11:11–13), namāṣšuṭum (Benenian 5:2–3), nibrārum (Kt 94/k 16869–10, courtesy of Larsen), and šitrum (RA 59 [1965] no. 14:16).\(^13\) It also explains why kutānum can be used as a designation of a specific kind of fabric under which other textiles can be subsumed, e.g. kusītum, in AKT 4, 23:1–2 and Prag I 616:18–19 (see below § 4.1). The meaning of the combination 1 kutānum e-pi-šī in Kt 87/k 452:3–4 (courtesy of Becker) is not clear, but it again suggests a woolen product (see below § 3.3 s.v. ēpišum). That the bulk of the traded textiles was made of wool also

\(^8\) Garelli 1963, 288: “On s’accorde généralement à voir dans le mot kutānum une forme élargie de kitūm, le “lin”, dérivé du sumérien GAD, qui aurait donné naissance à l’hebreu kuttōnet, au grec χιτών et au latin tunicae”. Larsen 1967, 152: “linen-cloth”. [This incorrect meaning is repeated in Durand 2009, 599 (Index), s.v.] See for Ugaritic ktnt (plural knt), Van Soldt 1990, 332, Conclusions, 3, where he describes it as “a cloth made of linen. It is not a finished garment but a piece of cloth which can be used to manufacture garments”.

\(^9\) GAG § 55k, 15, e.g. the textile name subātum, from the root sabātum, “to seize”, therefore a woven fabric that “holds” or “is attached to” the body.

\(^10\) Kt 91/k 356:28–29, 2 kutānī ša-hū-su-x-ri qatnātim, “2 thin kutānum of h.” (or “kutānū of thin h.”; meaning of h. unknown).

\(^11\) Note also TC 3, 72:24–26, [x] kutānī [x x x] īr 1 tūg qat[nam x x x] īkla.

\(^12\) This nisbe is to be derived from the place-name Šurbu (see § 2.1.1, s.v.) and refers primarily to wool from that area, cf. ‘Tablet Rendell’ (unpubl.), lines 6 and 16, tūg ša šu-ur-bu-i-ā-tim, where the fem. plural form must refer to šaptum, “wool”. But it is also used for textiles made of it. TC 2, 14:6–9, quoted above, shows that this type of wool was expensive, since textiles made of it cost c.25% more than normal kutānū. Note the statement by the writer of TC 2, 7:25–28, that, for lack of wool from Šurbu he will buy a “heavy textile” (subātum kbtam).

\(^13\) The reading “25 pounds of refined copper, the price of wool of a kutānum”, in lines 4–6 of this text, accepted by CAD K, 608, cannot be correct because of the strange writing šiq-tē-e-em for šaptim, “wool”. See below § 3.3, s.v. lud/tām.
explains the fear that they might be “affected by moth” if they remained too long in storage or packed in bales, a danger forestalled by regularly airing them.\(^{14}\)

While textile production in Aššur must have consumed large quantities of wool, information on it is rare (cf. Michel 2006b, 290–293). We may assume that certain inhabitants or perhaps institutions (e.g. temples) of the city owned herds of sheep and/or that wool was acquired from pastoral nomads grazing their flocks to the east or west of the city, but the only indications date from about 1770 BC. Two texts from Mari mention that Suhu-nomads, who grazed their herds along the Middle Euphrates and in the area of the Wadi Tarthar, would normally go to Aššur to pluck their sheep and presumably sell their wool there.\(^{15}\) In the heyday of the trade, about a century earlier, the situation must have been similar, but there would have been no need to mention it, unless there were problems that interfered with the production of the textiles, to be reported to Kaneš. The purchase of wool is only mentioned in Kt 93/k 325:10–13, where an Assyrian woman writes “Send me silver so that we can buy wool and make a garment (\(ṣ\)ubātūm) for you to wear (\(ana\) litabšika)”. Letters occasionally mention problems in the supply of wool, e.g. TC 2, 7:24–26, quoted above, which reports that wool from Šurbu was not available in Aššur. The letters by Lamassī, the wife of the prominent trader Pūšukēn, also mention wool. In BIN 4, 9:3–6 she complains about not having received the wool (twice 5 pounds) sent to her, and in lines 18–20 and in BIN 6, 7:16–18 she asks: “When you send me the purse, add wool to it”, which must mean the same as suggested by Garelli (1965), 158, no. 25:13–16, “When you prepare 1 mina of silver (for transport to Aššur), put it inside wool”, a request argued in both texts by mentioning that “wool is expensive in the City”.\(^{16}\) Prag I 554:9–10 mentions a shipment to Aššur of primarily silver that includes “3 pounds of wool for Waqqurtum”, a lady active in the production of textiles in Aššur. For reasons unknown to us, wool was apparently occasionally in short supply and hence expensive, so that even small amounts of wool sent from Anatolia were welcome, but they cannot have helped much, considering the number of textiles produced by some women there.\(^{17}\) There is no evidence of large-scale shipments of wool from Anatolia, which anyhow would have been too expensive considering the cost of the transport. However, for the women who wove textiles and through their sale in Anatolia tried to earn silver for themselves, small amounts of wool too were at times welcome.

The most explicit evidence for the use of wool is found in TC 3, 17 (see below § 3.4.1), a letter addressed to the above-mentioned Waqqurtum, in which she is asked to process 1 pound of wool

\(^{14}\) For this feature, see Michel 1998; we can now add the following references Kt h/k 18:15–16, Kt n/k 717:11–15, Kt 91/k 290:24–27, Kt 92/k 174:11–12, and Kt 94/k 1257:13, all of which use the expression \(ṣubātū sāsam lapti\) and the first text states “I keep airing his textiles every day” (\(ūmešamma ṣubātīšu uttanappuš\)). Note also Kt 94/k 823:5–6, “we aired your textiles and your textiles are in good shape” (\(šalmū\)) and Kt 94/k 1131:36–41, which states that textiles kept in a storeroom (\(huršūm\)) have to be aired because they are “weary” (\(anhum\)), presumably by having been kept there too long.

\(^{15}\) Charpin & Durand 1997, 377 and 387–391. The first letter (A 2459 rev.: 3′–6′) describes a situation of war in which the sheep of the Suhu have to be plucked where they live, so that the Assyrians are forced to go there to obtain their wool, while the second (A 4535–bis, rev. 2′–5′) mentions the complaints by the Assyrians that their traders and the sheep and wool (of the Suhu?) are held back. [For wool, see the texts from Mari, now Durand 2009, 142–155, and for texts recording the purchase of wool from the Suhu see M. 11269:1–7, and 11281:1–9].

\(^{16}\) For these letters, see Veenhof 1972, 112–113; Michel 2001: nos. 299–311; Michel 2006b.

\(^{17}\) ATHE 44 mentions 17 pieces produced by Waqqurtum; the various letters written by Lamassī (including CCT 6, 11a) together mention more than 60 textiles sent by her to Anatolia.
more per piece of textile, but to make sure that the weave stays “thin” (qatnum), which implies
the use of thin threads, woven densely, because “the warp has to be much/numerous” (šutūšu lù
mādat). The evidence from the Ur III period, analyzed in Waetzoldt 1972, demonstrates that
the thickness of the threads used for various types of textiles and the difference between the threads
used for the warp and the weft was extremely important and conditioned the quality and the
labor costs of the woven fabric. It must have been similar in the Old Assyrian period, when (as
will be shown below, in § 3.2) the same classification of qualities existed, but we have almost no
evidence of spinning and weaving. Apart from the wish in TC 3, 17, to weave with a dense warp,
we can only mention a reference in a contract found in Kaneš (Kt 91/k 388:5–7) recording the
claim of the wife of an Assyrian trader on another Assyrian for “30 pounds of soft wool for making
the weft” (sapātim narbātim .... šakākiš), to be delivered within two months.18 She had apparently
provided him with money to supply her with this type of wool and this may indicate that she,
or women or slave-girls in her household, did engage in textile production; we have few further
evidence for such activities by Assyrian women in Anatolia.19

The evidence of Anatolian wool and its trade by Assyrians is abundant, amply documented in
several archives, including those excavated in 1993 and 1994, which will be edited by C. Michel
and M. T. Larsen. The topic deserves a separate investigation and here we only mention a few
basic facts.20 The goal of this trade, in which some Assyrians apparently were much more active
than others, was also to earn silver, which means that wool was bought, shipped elsewhere and
sold, either directly for silver, or first for copper, which was then converted into silver according
to the local opportunities and the ‘market’.21 Local palaces could also be involved, as sellers of
wool (we have a reference to a large amount of “wool of Kaneš, of the palace”, see below, note 32)
and they could also derive income from it by levying the 5% nishatu-tax on it, as was customary
for textiles.22 Important transactions could be joint enterprises, in which various traders had
shares and in which also the Assyrian trading organization (the kārum) played a role.23 This trade
could handle large quantities of wool. CCT 4, 47a:30–33 requests to convert 80 talents of white
and 20 talents of red wool (c.3 tons) into copper and BIN 6, 76:13 mentions 60 talents for the
same purpose, on which the trader “reached an agreement with our own people and with the
retailers” (pāsīrū, local traders).24 A group of records in the archive of Šalim-Aššur (excavated in

18 Šakākiš is an infinitive with terminative ending of a verb known to mean “to string (beads, a rope), to harrow”,
and this is the first occurrence with the meaning “weaving the weft”.

19 In the excavation reports there are some mentions of loom weights found in the houses of the Assyrian traders, see
for example N. Özgüc & Tunca 2001, 247.

20 See already Lewy 1958, 97–99; Veenhof 1972, 130–139 (also on prices, organization, woollen fleeces); Dercksen 2004,
183–190, ‘Wool trade in Anatolia’.

21 A nice example is the letter Prag I 768:4–12, where Imdillum is told: “I hear that much wool has now entered Wahšušana
(a city northwest of Kaneš) and when I arrive in town I will sell the wool at any price and send you the silver”.

22 See ICK 1, 97:3–6, “I. brought here 680 pounds of wool, of it the palace levied 34 pounds as tax” (issuh); CCT 6,
19b:4–9, “Over there U. must declare to you both the amount of the nishatu-tax [and ...] and whatever wool is cleared
you must sell cash”.

shares amount to 4 2/3 talents of wool; Kt n/k 539 reports about a settlement of accounts, whereby a trader had
deposited more than 23 pounds of silver in the kārum-office and acquired (the right to collect) c.120½ talents (c.4 tons)
of wool; also Kt n/k 1475:20–23, see note 26.

24 See Veenhof 1972, 137–138 with footnote 237, and also CCT 6, 19b. BIN 4, 181 mentions nearly 68 talents (more than
2 tons) of wool, and AKT 4, 58:4–10 copper acquired in the kārum office alongside wool sold for copper.
documents the purchase of in all c.50 tons of wool, acquired from a high Anatolian official in exchange for many tons of copper and sold for silver. In several transactions, wool also figures alongside hides, in particular “fleecy hides” (maškū šapātīm, “hides of /with wool”), also designated as “thick hides” (maškū šapīātum), and the local Anatolian woollen textile product called pirikannum. The latter is probably also meant when in CCT 2, 18:4–5 a trader somewhere in Anatolia reports enthusiastically: “Textiles and wool are available (here)!”

The quality of the wool was important, as is demonstrated in the request in TC 3, 65:18–22 to buy “soft, long, extremely good wool” (naribtam araktam damiqtam ītartam) of Mamma, and the promise in AKT 4, 52: 6–8, “I will give you (for 1 shekel of silver) 6 minas of soft wool”, because fine wool obviously yields textiles of better quality. Apart from the rather frequent adjectives “good” and “soft” and rare references to red and white wool, we find wool qualified by the adjectives wašium/ušium and lahūm or lahūm, but the meaning of these terms is unknown.

The price of 6 minas of (soft) wool for 1 shekel of silver recorded in AKT 4, 52, in El. 243:5 (100 shekels of silver for 10 talents of wool) and in Kt n/k 860:15–17, seems to be fairly normal. It appears similar to the price attested for Babylonia in the Old Babylonian period (6 pounds for 1 shekel of silver according to § 1 of the Laws of Ešnunna), but wool was cheaper during the Ur III period (usually 10 pounds for 1 shekel of silver). However, a comparison is difficult, because in Anatolia, silver, used as a standard of value, had much less buying power than in Mesopotamia. And in Anatolia we also find higher prices, e.g. 5 pounds for 1 shekel of silver in TPAK 1, 36:5–6 (12 shekels per talent) and c.3¼ pounds in TPAK 1, 35:4–15, and it is likely that these differences were determined both by the quality of the wool as well as by the geographical situation. In CCT 6, 19b:14–16 wool is sold in exchange for copper at an exchange rate of 2:1 (ana itaṭlim šanā’um), that is 2 pounds of wool for 1 pound of copper, which equals c.4 to 5 pounds of wool for 1 shekel of silver.
Flocks of sheep must have grazed throughout Anatolia and there are indications that the palaces too had them, e.g. the palace of Kaneš. Assyrian traders sold their wool in many areas, but the wool in our texts seems to have originated especially from the more southern areas, notably from the cities of Luhusaddiya and Hurama, but also from Hahhum, Kaneš, Mamma and Timilkiya, and there are some references to wool acquired in Balihum. The massive trade in Anatolian wool implies a well-developed local textile industry that must have produced the woollen textiles called pirikannum, sapdinnum and tisābum (see for these textiles § 3.3, s.v.), in the trade of which the Assyrians were heavily involved. Several of the towns from which these textiles occasionally are said to originate play an important role in the wool trade, which implies the existence of a local textile industry, and it cannot be accidental that we have attestation of both red wool (CCT 4, 47a, mentioned above) and red pirikannu-textiles. Regrettably our texts provide no information on this local textile production, although there are a few occurrences of fullers (ašlakum) with Anatolian names.

1.2. Linen (kitā’um)

While it is now clear that kutānum is a woollen and not a linen product, there are about a fifteen occurrences of kitā’um (plural kitā’ātum), the word for flax and linen, which may refer to the threads and the fabrics made of them (CAD K, s.v. kitā), but in Old Assyrian it is only attested as referring to fabrics. This word must be distinguished from kitūtum, rarely attested in Old Babylonian under the form tūgkitūtum, the designation of a garment, apparently not of linen but of wool, because of the occurrence of sig, “wool”, in the corresponding Sumerian logograms in lexical texts, where it frequently appears alongside raqqatum and itqum. CAD K, 466 maintains the etymological link with kitūm, “linen”, by proposing a meaning “fine (lit. linen-like) wool”. Tūgkitūtum is not a combination of noun and adjective, since tūg/şubātum is masculine, nor does it mean “textile of linen”.

32 See for occurrences of a “chief of the shepherds” and “a shepherd of the queen”, Veenhof 2008a, 223 s.v. reē/re’im, and in general for husbandry in ancient Anatolia, Michel 1997, 108–111 and Dercksen 2008, 152–154. He mentions a text, Kt 94/k 1024:15–16 (courtesy of Larsen), which records that an Assyrian will pay “21 talents of wool of Kaneš, of the palace” in the city of Kuburnat, in the north.
33 See for data Veenhof 1972, 131, 2, and for Luhusaddiya also Kt 93/k 843–9 (cited in note 29) and Kt n/k 1475 (quoted in note 26).
34 Hahhum, OIP 27, 7:6, Kt b/k 27:5–6; Hurama, EL 243:14–15 (sic!); Kaneš, Kt 94/k 1024:15–16; Mamma, TC 3, 65:18–22; Timilkiya, Kt m/k 114:1–2 (courtesy of Hecker). In some cases place names mentioned in connection with wool (or textiles) document trade there, but not necessarily the origin of the wool.
35 BIN 6, 176 (// ICK 2, 277, see Veenhof 1972, 134–135), f/k 185 (courtesy of Umur), Kt c/k 922 and 944 (published in Albayrak 2008). While the first (see Veenhof 1972, 134–135) and third texts deal with the acquisition of wool only, the other texts mention both wool and fleeces. It is doubtful whether Balihum (which in these texts seems to denote a town or region) is to be connected with the well-known river of that name in the western part of the Jazira, within the bend of the Euphrates. Luhusaddiya must be located at least 200 km north of the Euphrates, in the general area of the plain of Elbistan, and this makes an enterprise to acquire wool and hides in both towns rather unlikely.
36 For the trade in Anatolian textiles, see below § 2.3.2, and for red pirikannu, TC 1, 43:24–27, “Buy red pirikannu and send them to me, the pirikannu that you acquire must be red!”
37 See Dercksen 2001, 62 with note 130; Kt 94/k 833:31–32, mentions “the fuller of the ruler” (ašlakum ša rabā‘im).
38 In Old Babylonian “Proto-Diri”, sig-bu = sulumhû, itqum, kitūtum (MSL 15, 46: 422–424) and ibidem 172, Diri V:131–136 (cf. Hh XIX:153–158); sulumhû = tūg-sig-sud is equated with sulumhû, itqû, kitûtu, raqqatum, lubûštum, lamahuššû. Sulumhû according to CAD S, s.v., is 1. “a long-fleeced breed of sheep”, 2. “a garment”, but it occurs only in lexical lists. The sheep, which occurs in a few Neo-Babylonian texts, is listed in Hh 13:16: dud-sig-lu-šu-hu-sud = ŠU-u. Itqu (CAD I/J, s.v) is “fleece”, “tuft of wool” and “a garment made of fleecy wool”.
kititum wool”, since kititum in the Old Babylonian occurrences is in the nominative form. It must be a substantiated feminine adjective, like raqqatum, which also figures as the name of a textile.39

Kitā’um occurs in very small numbers (between 3 and 1), and twice in the plural without numbers; in TC 3, 271:9 they belong to the contents of a trader’s house (alongside silver, gold, silver cups and tablets). The letter Kt 89/k 252 reports that an Anatolian palace (the location of which is not mentioned) “needs linens” and that its ruler puts pressure on the agent of the Assyrian trader.40 That Anatolian palaces owned linen textiles and apparently attached value to them is demonstrated by the single occurrence of the Anatolian title “head of linens” (rabī ki-ta-a-tim) in BIN 4, 160:7–8, where he figures as the debtor of an Assyrian trader.41 Although no prices are mentioned, linens apparently belong to the more expensive textiles. In Kt 89/k 266:10, linen figures (among textiles brought to an Anatolian official) alongside 1 fine raqqatum, 1 kutānum, 1 kusītum and 1 šubatum damqum, and the list Kt n/k 152:7–9 (courtesy of Bayram) mentions 11 Abarnian textiles, 1 fine kutānum and 3 ki-ta-a-tum.42

A few texts provide more information and there are several cases where linens are sent from Anatolia to Aššur. “The kitā’um and the belt/scarf (išrum) for the god Amurrum”, brought to Aššur according to CCT 3, 25:27–28, may well be a set of clothing, and Kt 93/k 196:5–8, a letter probably sent to Aššur,43 mentions a shipment of silver, some gold, one “lining of Tuttul” (ki-ta-am ša Tuttul) and 3 pounds of carnelian”. Shipments to Aššur are also mentioned in Kt 93/k 241:21–23, where Lamassatum (in Aššur) writes to Iddin-Sīn: “Send me tin, nabītum and 2 linens”, and in AKT 3, 79:26–28, where Nuḥšatum in Kaneš is asked: “Send me nabriātim ša i-lā-tim and a large linen” (ki-ta-a-am rabītām). According to RA 81 (1987) 59 no. 71:36–37 “one supannum, one linen and two samālu-cups” were sent from Anatolia to Lamassī in Aššur.44

CCT 4, 44b:17–22 gives the order to buy (apparently in Anatolia) and send “one kitā’um of fine quality of 15 or 20 cubits”, probably referring to the length of this (strip?) of linen.45 In the enumeration of CCT 5, 12a:9–10, among the Anatolian textile products entrusted to a traveling agent, we find two ki-ta-a-tum ba-li-šu, but the meaning of the latter qualification, although attested a few times more as name of a garment or textile, is unknown. We have to conclude that the

39 See for Mari, where Durand translates “pièce de lin”, in addition to the references given in CAD K, s.v., also ARMT 21, 219:22, “1 1/2 kitītum, its value in silver 5 shekels”, 318:2, 349:11, 2 1/2 ki-ti-tum, 383 VII:14”, 2 bar-si ki-ti-[tum], “2 châles en lin”, 369:8, 1 gū-ē-a ki-ti-tum, 383 II: 4) [and now Durand 2009, 159–160]. In the last two references kitītum apparently designates a type of fabric from which the textiles it qualifies have been made [cf. Durand 2009, 160 note c)]. In Babylonia, also in O 342 (unpubl., Old Babylonian Kiš), 19–10, 2 1/2guz-za, 1 1/2 ki-ti-tum, together stored in one box.

40 Lines 3–8, “Here I asked him about the linens that are with Zumana, saying: ‘The palace needs linens’ ” (kitā’tim ekallum hāšah). Kt 89/227:17–19, a letter to the same addressee, mentions “3 linens that you sent to Zumana”, one of which has been sold, while two are still available in the latter’s house. Kt 89/k 266:10–11, a memo from the same archive, lists “1 linen his servant brought him”.

41 This does not prove that he had become indebted by buying the linens, although this is a possibility, since four lines above another official, “the head of the guard”, is said to owe a similar amount of copper as the price of an Abarnian textile. Dercksen 2008, 144 takes this title as evidence that the

42 Kt 89/k 266:10–11, a memo from the same archive, lists “1 linen his servant brought him”.


44 See also Prag I 488:8–9, 1 karpatam šarašrānam, a-lá-na ki-ta-um tamalakkū, and Kt 93/k 196:6–8, 1 ki-ta-am ša Tù-tù-/ul, 3 mana 4gug, A. naš’akkunātī.

45 The length of the iðnum is not certain, but presumably something like a cubit, see Veenhof 2007. Line 4 also mentions a linen: “1/2 mina of silver [x x x] / ki-tām 4 ša x x [x], with/due from Š.”
Assyrians did not import linens into Anatolia and that they played only a minor role in the trade in locally produced linens, although local palaces had an interest in them, as was also the case later during the Hittite empire period.46 Their origin is unknown and the single reference to a “linen of Tuttul”, a city on the Middle Euphrates, does not prove that the few others mentioned also originated in that area.

2. Geographical aspects
The Old Assyrian tablets mainly document the long distance trade organised by Assyrian merchants between their home city Aššur and Anatolia. Among the textiles they exported to Anatolia, many had previously been imported to Aššur, others were locally produced in Aššur and some in Northern Mesopotamia, the area crossed by the caravans. In addition, the Assyrians also traded textiles which were produced in Anatolia itself. A study of textile terminology needs to make a distinction between the different production areas. This can be done first by analyzing the textiles named after (the so-called nisbes) or connected with (by means of ša, “of, from”) toponyms. Secondly, some documents, mainly letters, give indications about the origin of various textiles and such data allow us to draw up a map of the production areas of the main textile types mentioned in the texts.

2.1. Textiles named after geographical names
The provenance of a textile may be indicated by the name of the textile itself if it is a nisbe, by the construction ša + geographical name, or by a simple genitive relation.47

2.1.1. Nisbe qualifying textiles
Some textiles are referred to by a nisbe.48 In Old Assyrian, nisbes derived from a place-name or noun ending in a consonant have the ending ši-um, those formed from place-names on -a, we render as -āium, notwithstanding a variety of spelling.49 Some of the nisbes dealing with textiles correspond to well-known toponyms, while others might be interpreted as a nisbe, but the town has not yet been identified. For example, the textiles quoted as takkušta’um and šilipka’um (also attested elsewhere in Mesopotamia) might be nisbes, but their origin and the corresponding place names are unknown and there is a great variety in

48 This is not specific to Old Assyrian. For example, many textiles mentioned in the Mari tablets are referred to by a nisbe: Yamhadû is frequent in Mari (Durand 1983, 401), but we also find Akkadû (ARMT 18, 28:10–11), Elamûm, from Elam [Durand 2009, 67, 100], Gublûyum, from Byblos [Durand 2009, 100], Haššûm, from Haššûm [Durand 2009, 69], Kakmûm, from Kahkûnum [Durand 2009, 141], Nurrugayûm, from Nurrûgûm [ARMT 22, 110], Parahţûm, from Marhaši [Durand 2009, 71], Suhûm, from Sukkûm [Durand 2009, 507, n. 100], Šubarûm, from Subartu (ARMT 21, 318, 5; 23, 617, 1) and Tuttubayûm, from Tuttûb [Durand 2009, 111, 130]. Of doubtful identification are Bušûrum, Kišihhu, Laharû and Mar(a)ţû, [see Durand 2009, 56, 86 and 106–107].
49 We do not write the latter as –ājum, the hypothetical character of which is indicated when GKT § 57b writes “scheint die Nisbenendung die Form –ājân anzunehmen”. We prefer rendering -ā-i-um as –āium, without indicating the presence of a glide or aleph, which seems to be the “classical” Old Assyrian form. Rare writings as Ca-um, without -i may, as N. J. C. Kouwenberg suggests to us (personnal communication 2009), render a spoken šājum or –ājum and be the precursors of the Middle Assyrian form of the nisbe. And rare spellings with additional vowels – e.g. A-bar-ni-ú-um (Kt 93/k 253:47 and Kt f/k 39:19), Ba-ad-na-ê-êm and Tî-mî-î-kî-ê-ê-ê-ê-em (Kt 00/k 10 III:26’-27’, from the later level lb), are probably attempts to render the intervening glide or aleph unambiguously, but they are exceptions. See the next footnote for the contracted endings of Šilipkûm and Takkûštûm.
spelling. Therefore we refer to them by these citation forms, unless a transliteration is necessary. A list of nisbes is given below in alphabetical order.

**Abarnium.** This nisbe, treated as a noun (plural Abarnū), is among the most commonly used for textiles exported from Aššur to Kaniš, and thus it must refer to a place located somewhere in Upper Mesopotamia, but the corresponding city has not yet been identified. Abarnium is attested in an Ur III text from Drehem. It mentions men and officials from l. 5: Marhaši, l. 6: Ebla, l. 9: Mari, l. 12: Abarnūm (A-ba-ar-ni-um).

The town also occurs in an inscription of king Šu-Sîn of Ur, in “a passage listing the peripheral regions of the Ur III empire,” in the sequence (5’–7’): Ebla, Mari, Tutul, Ma...?, Urkiš, Mukiš!?, x-x-x, x x-la, A-bar-nu-um... This again might suggest a town in Northern Mesopotamia.

**a-li-ú-tum (?).** One text discovered in 1993 mentions some textiles which are qualified as a-li-ú-tum. This adjective could be a nisbe of ālum, “the city”, which refers to Aššur in the Old Assyrian tablets, and thus could mean “from Aššur/made in Aššur/according to the Aššur fashion”; it would then be a synonym of the qualification ša ālum describing some textiles (see under § 2.1.2). See for another more likely interpretation, below p. 246, d), with footnote 199.

**Abarna.** It occurs twice as the qualification of a kusītu-garment, in both cases mentioned as a possible alternative to other types of garments, in TC 3, 169:10–12, “1 kusītu-garment, either (lu) one of Alkuwa, or else (u lu) a šilipka‘u-garment”, while VS 26, 74:37–43 asks to buy and send from Aššur to Anatolia “either white kusītu-garments or one from Alkuwa, or thin garments of good quality, or white lubūšu-garments.”

The place name Alkuwa is unknown and the nisbe might be a variant (or mistake?) of Malku(w)ānum, see below.

**Gasurium(?).** The unique adjective GA-ZU-ri-im has been interpreted as a nisbe of Gasur, a city east of the Tigris, called Nuzi during the middle of the 2nd millennium BC, since a person is twice designated in this way. If not a nisbe of Gasur, it could alternatively be taken as kasārum, a verbal adjective of the D stem of kašārum, perhaps referring to a tightly knotted textile. According to the CAD K, 261–262, there is no D

50  Takkušta‘um never has the nisbe ending –īum, so that the underlying word may end in –ta. If so, one would have expected the common Old Assyrian nisbe ending -a-i-um, but it is never spelled with inserted –i. That šilipka‘um is also frequently written šulipka‘um and also has forms ending in –kium (the normal nisbe ending after final consonant) and –ka‘um (which suggests a final –a), shows that the writers themselves hesitated about its correct spelling (and perhaps derivation). In addition it exhibits plene writings with additional vowel, šil-ši<ip>-kà-ú-um (BIN 4, 148:11), šil-li-ip-ki-e-ú in Kt 94/k 829:10 (but –ki-ú in lines 15 and 20!), and šil-li-ip-kà-e-a-kà (RA 60, 965:8), alongside contracted forms, šil-li-ip-ku-um (KTS 55a:11), šul-ku-up-kà-um (91/356:25). The latter is also (but more rarely) the case with takkušta‘um: ta-ku-uș-tù-um (CCT 5, 34c:11), ta-ku-uș-tù-ú (AKT 3, 59:19), and ta-ku-uș-tum (Yale 13092:11; cf. ta-ku-uș-té-kà in CCT 5, 46b:17). Contraction is normal in the later Mari texts, -tu(-ú) [Durand 2009, 121 s.v.] and probably in ši-li-ip-ki-im, the only occurrence elsewhere, in Old Babylonian Kusurra 177:20, unless we consider it the genitive form of –ki-um and not of –ku-um.

51  See Owen 1992, p. 144, no. 17; this text mentions “the messenger of the ensi of Abarnium” which may indicate this town was further away. I. J. Gelb, cf. RGTC 4, 2, tentatively identifying it with classical Abarne, “half-way between Malatya and Amida”, proposed a location in Eastern Turkey, at modern Çermük, which does not correspond to our sources.

52  CST 468, see Owen 1992, p. 144, no. 17; this text mentions “the messenger of the ensi of Abarnium” which may indicate this town was further away. I. J. Gelb, cf. RGTC 4, 2, tentatively identifying it with classical Abarne, “half-way between Malatya and Amida”, proposed a location in Eastern Turkey, at modern Çermük, which does not correspond to our sources.

53  CST 468, see Owen 1992, p. 144, no. 17; this text mentions “the messenger of the ensi of Abarnium” which may indicate this town was further away. I. J. Gelb, cf. RGTC 4, 2, tentatively identifying it with classical Abarne, “half-way between Malatya and Amida”, proposed a location in Eastern Turkey, at modern Çermük, which does not correspond to our sources.

54  Kt 93/k 765:13–14, šà-ba 20 tûg ša a-li-ú-tum, tardīūtum. The Assyrians were creative in this respect, as shown by the recently published first occurrence of ekallīyum, “of palatial quality”, AKT 4, 28:7, 2 tûg ša tim diir ē-gal-li-ú-tim, sent from Aššur.

55  TC 3, 169 and VS 26, 74, which is a copy of a letter sent to Aššur.

56  See RGTC 4, 40; Veenhof 1972, 189–190 and CCT 4, 2a:31.
stem of this verb with a meaning related to textile production; but the kāṣirum (CAD K, 264) is described as a “craftsman producing textiles by a special technique.”

**Hahhum.** Textiles from Hahhum are usually designated as ša Hahhim, but the nisbe is used a few times, both for wool and for textiles (in lists), in the plural and dual feminine form. This well-known city, located on the Euphrates in the area of Samsat, is the site of the main crossing used by the Assyrian caravans on their way to Anatolia.

**Malku(w)aïum.** We have two certain occurrences of this nisbe, which may derive from an otherwise unknown place-name *Malku(w)a. In both cases it qualifies a kusītu-garment, spelled ma-al-ku-a-i-tám (Kt 91/ k 360:22) and ma-al-ku-a-tim (Kt 94/1686:17, plural, with the variant spelling ma-lu-ki-a-tum in Kt 94/k 1687:32, courtesy of Larsen). These occurrences suggest the correcting of CCT 2, 3:15–16 to kusītum ma-al-ku-a-i-tum, also because the place name Mal’a does not seem to exist, and in RA 81, 14 no. 3:7, we might perhaps also read 6 kusītum [m]a-’al-ku-a-tum. These expensive textiles (more than one pound of silver according to CCT 2, 4:15!), were exported from Aššur to Anatolia, which suggests the location of Malku(w)a somewhere in Upper? Mesopotamia. There is reason to assume that this nisbe was confused with or was an alternative writing of Alku(w)a (see above), which sounds similar and both occurrences of which also apply to kusītu-garments. Moreover, the letter POAT 7:8–9, which deals with the same issue as CCT 2,3, omits the nisbe and calls the kusītu “white”, which recalls VS 26, 74:38–40 where such garments “of Alkuwa” are also an alternative for “white kusītu-garments”.

**Susēium.** A document found in 1962 mentions a garment (lubūšum) with the qualification sů-sé-e-a-am. If this corresponds to a nisbe Suse/ē, it could perhaps concern the city of Susa, well-known from the Mari royal archives and situated in the Ida-Maraṣ, not far from Šubat-Enlil.

**Šarzuāium.** There is only one reference to textiles named by means of this possible nisbe, to be derived from a place name Šarzu(w)a, which is not attested elsewhere thus far. It has sometimes been interpreted as corresponding to Arzua, a geographical name mentioned in Hittite documentation, but this seems unlikely.

**Šīlipka’um.** The šīlipka’um or šulupka’um textile, quite frequent (c.40 times) in the texts, appears together with many different kinds of textiles that are known as fabrics made in Mesopotamia; in at least two occurrences, this type of textile is bought in Aššur and exported to Anatolia. This nisbe occurs once in a Kisurra letter.

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57 Veenhof 1972, 129 and see below § 2.1.2.
58 BIN 6, 136:14.
59 RA 58, 60:5, 2’ ha-hi-ta-an ; VS 26, 123:8, pâh ha-hi-té-en. Since it is always in the dual form, it could correspond to shoes, or to pieces of garments which cover legs or arms.
60 Veenhof 2008b, 7–10.
61 The text numbered Mat. II, 4a, x+15, quoted by Bilgic 1951, 34, Veenhof 1972, 159 and RGTC 4, 81, cannot be found; it probably is an error, since all the Prague texts have now been published.
62 AKT 2, 24:10, lu lubūšam sů-sé-e-a-am.
63 Charpin & Ziegler 2003, 266.
64 ICK 1, 81:18, 9 tūgši ša-ar-zu-a-i-ú, alongside 5 kutānū, together (line 27) 14 sold textiles.
65 RGTC 4, 13–14, already rejected by Veenhof 1972, 190.
66 See above, note 50 and below § 3.3 s.v. šīlipka’um.
67 See TC 1, 47:4, 2 tūg šī-li-ip-ki-ú and RA 60 [1966], 111, n*43:6, 19 (Larsen 2002, no. 82) where this textile is listed among kutānum and kusītum. An unpublished tablet preserved in New Haven, Yale 13092:8–12 (courtesy of Larsen) lists this type of textile together with Akkadian pieces: 7 lubūšu 6 kusītānum 1 šulupka’um 1 takuštūm šu-nigin 15 ša A-ki-di-NI-im, at 9,1 shekels of silver apiece.
68 FAOS B. 2, 177:20.
12. The Textiles Traded by the Assyrians in Anatolia

**Šurbušum**. This nisbe applies primarily to wool,68 identified as originating from a town Šurbu, which occurs in some 3rd millennium sources and in a geographical list from the early 2nd millennium BC found at Tell Harmal (MSL 11, 58:164).69 Secondly, it is in one instance used for textiles made from this type of wool, in TC 2 14:6, where 27 túg sig. šu-ur-bu-i-tu-um are bought in Assur.70 Šurbu is located in the Hamrin mountains, Southeast of Assur, an area well-known for sheep breeding. The šurbušum wool is used to produce the kutānu-textiles exported to Anatolia.72

**Takkušta’um**. This word presents the same ending as Šilipka’um.73 This type of textile (c. 15 occurrences) occurs mostly in relatively small numbers (11 in VS 26, 11:11–12, 10 in CCT 5, 46b:8) alongside textiles exported to Anatolia such as kutānu-textiles.74 It is also attested about ten times in the Mari royal archives, where it is usually written tāk/ta-ak-ku-uš-tu-ú. These textiles come from Babylon, Kurdā and Karanā.75 Thus, if it is a geographical name, Takkušta should be located south of Assur.

**Talhatiam**. This nisbe corresponds to the city of Talhat, well-known from the Mari archives and located west of the Habur triangle.76 It primarily qualifies īšrum garments,77 which are not bought in, but sent to Assur. The īšrum seems to be a specific, local product made in this Northern Mesopotamian town. Less often, this nisbe is used of īšrum “belt”.78 Once, a sapdinnum textile is said to come from Talhat, and once, perhaps, a kusitum garment.79 This list suggests that most of the textiles named by means of a nisbe are exported to Anatolia; they mainly originate from places located east of the Euphrates, in “Northern Mesopotamia.”

### 2.1.2. Geographical designations added by means of ša

These designations fall into two categories, those where ša is followed by a nisbe and those where it is followed by the name of a country or town.

**ša Akkidiē (Akkadium)**. To the first category belongs the best-known qualification ša Akkidiē, lit. “of the Akkadians”, which contains a nisbe of “Akkad” in the plural (with vowel harmony), used as an adjunct after the names of textiles.80 These textiles clearly come from Southern Mesopotamia according to a letter that describes problems of supply: “As for the Akkadian textiles you wrote about, since you left, Akkadians have not entered the city, their country is in revolt. If they arrive before the winter and there is a possibility to buy for you with profit we will buy them for you”.81 An important text is Kt n/k 1228 (courtesy of Larsen). The singular ša A-ki-di-im, “clothe the escort in a ša Akkid garment from Mamma or one <from> Talhat”.82

82 [Durand 2009, 121–122].
Çeçen(13–17, ina šubātī ša Akkiddī, (...) iبابēši lubušum, kusītum ú šulipka‘-um>, which suggests that the last three types of garments fall under ša Akkiddī. There are various garments which are said to be Akkadian: burā‘um, kutānum, kusītum (several times), lubušum, nibrārum, šīrum, šilipka‘um, šūrum, takkušta‘um.82

ša Šubirim. This qualification (with Assyrian vowel harmony), which means “of Šubarum”, contains the name for the Hurrian speaking area located north of Aššur, along the Tigris river (called S/Šubartum in Old Babylonian sources). It qualifies textiles sent from Aššur to Anatolia83 and is added to the generic term šubātum (túg), to nibrārum and to kusītum.84 Three times it occurs alongside ša álūm, “of the City”.85

More often, textiles are qualified as originating from a specific town by the adjunct: “ša + geographical name”. Some of the towns named belong to Upper Mesopotamia, while others are located in Anatolia. Of the many place names located between Aššur and the Euphrates, the following ones are used to describe textile products.

Álūm, the City = Aššur. “Of the City” is added to the generic term šubātum86 and to specific garments such as nibrārum87 or šīrum.88 This adjunct would be a synonym of the once attested adjective a-li-ú-tum that is a nisbe from álūm.89 Textiles “of the City” occur a few times alongside textiles from Šubarum.90

Apum. There are a few references to one or two pieces of textile originating from Apum (Tell Leilan), in the Habur triangle,91 including the as yet unpublished text (LB 1268:13–14) that mentions 2 nibrārum garments from Apum.92 “Of Apum” probably signifies that these textiles were bought en route, on the way to Anatolia.

Hahhum. Alongside the nisbe hahhūm (see § 2.1.1), Hahhum itself also appears in the formula “ša + geographical name” applied to wool or textiles,93 including tisābum ēpišum94 and pirikannum said to be “from the land of Hahhum” (ša māt Hahhim),95 both of which are in fact Anatolian products.

Haqqa. Textiles as well as tisābum and pirikannum of good quality are said to be “of Haqqa.” The town might be located on the road to Anatolia, between Eluhut, North of the Habur triangle, and Zalpa, which should be located on the northern bend of the Euphrates.96 However, according to M. Forlanini, it could also be

82 See Veenhof 1972, 99, 158–159 and add to the references: burā‘um ša Akkiddī (KT 94/k 966, courtesy of Larsen; AKT 2, 44), kusītum ša Akkiddī (KTS 2, 22,5, Prag I 686:21), nibrārum (kt n/k 524:10) and for unspecified túg ša Akkiddī, AKT 3, 52:61, 91. Note the wrong writing in Yale 13092, 12 (courtesy of Larsen; Larsen & Möller 1991, 231, 239).
83 RGTC 4, 108–109 and Veenhof 2008c, 17–19, see also Michel in press b.
86 AKT 3, 16:3; Kt 93/k 887:27; FT 4:6 (Larsen & Möller 1991, 231, 239).
87 Prag I 686, 19.
88 Kt n/k 437 (courtesy of Günbatti):3–4, 2 šîtrē, ša álīmki.
89 See § 2.1.1 s.v. Álūm and note 54.
90 See above, note 85 for occurrences alongside ša álīm.
91 Kt 93/k 344:21, 32.
93 Túg ša Hahhim : Kayseri 25 (Landsberger), KUG 13:20 = EL 332:20, KT c/k 695:11–12 (courtesy of Derksen). Wool ša Hahhim occurs in Kt b/k 27:5–6 and OIP 27:7, 6 + 46b, dated to the period of kārum Kaneš level I, see Derksen 2001, 47, note 44.
94 Kt 94/k 1672:19 (tisābum) and Kt c/k 7293, 43 pieces (ēpišum).
95 Kt n/k 518:89–90 (courtesy of Günbatti).
96 BIN 4, 43:29, túg(li) ša Ha-qā-ma; Kt c/k 753:7 (courtesy of Derksen), tisābam ša Ha-qā; Kt 93/k 60:1–2, 34 pirikannuš ša Ha-qā.
situated north of the Euphrates, a proposal that accords with the fact that the *pirikannum* textile is a typical Anatolian product, whose production therefore should start beyond the Euphrates.

**Nihriya.** An unpublished tablet quotes a *tisābum* textile from Nahriya, which is commonly written Nihriya in the Old Assyrian texts. This city is located on the Upper Balih, north of Harrān.

**Qaṭṭara,** probably Tell Rimah, is given as the origin of a *nibrārum* textile in a document recovered in 1993.

**Talhat** (see § 2.1.1 s.v Talhatium), *subātū ša Talhat,* Kt c/k 709:2 (courtesy of Dercksen) and Kt 94/k 1395:16–17 (courtesy of Larsen); *sapdinnū sig₃ ša Talhat,* Kt 94/k 1387:19–20 (see footnote 79).

**Tuttul.** Linen textiles (*kīta'um*) were produced in Tuttul, on the Middle Euphrates according to an unpublished document.

**Zalpa.** There are several towns called Zalpa at the beginning of the 2nd millennium BC, but the one connected with textiles is located on, or beyond, the Euphrates, North of Hahhum. Apart from the generic textile name, *tūg,* four different types of textiles are said to come from (the land of, kt n/k 457:34–35) Zalpa: *šitrum, nibrārum, tisābum* and *pirikannum*.

Beyond the bend of the Euphrates, in Anatolia, many towns are also connected with textiles by means of the expression “ša + geographical name”. Thus, unspecified textiles (*šubātum*) could come from the towns of Buruṣḥattum, Hurrama, Šalatuwar, Timilkiya or Tuhpiya; it is, however, not always clear whether they were produced there or simply traded. Typical Anatolian *pirikannum* textiles originated from Kaniš and Mamma, a town also known for its fine wool production.

## 2.2. The origin of textiles

### 2.2.1. Origin of the textiles exported to Anatolia

Apart from the textiles produced in Anatolia, which are also traded by the Assyrian merchants, there are many place names from Northern Syria and Upper Mesopotamia connected to textiles in the Kaniš archives.

The textiles from southern Mesopotamia were bought by Assyrians, to all appearances in Aššur, in order to be exported to Anatolia. The textiles originating from small places, designated by

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99 Kt 93/k 75:13–14: 1 tūg ni-ib-ra-ra/-am, ša Qā-ṭṭa-ra; for the bibliography about the location of Qaṭṭarā, see Michel 2006c.
100 Kt 93/k 196:6: 1 kīta'am ša Tū-tū-/ul.
102 *Pirikannum ša Zalpa:* Kt 93/k 891:5–6 and Kt 93/k 59:1–2.
103 Cole 9:36.
104 *ATHE* 63:17; KTS 2, 4:6; Kt 93/k 517:20.
105 *TC* 1, 43:4. For wool from Mamma, see *TC* 3, 65:18–22 and § 1.1.
their nisbes such as Abarnīum, (M)alkuaīm, Šarzuānum, Šilipka’um and Takkušta’um, were also transported to Kaniš in order to be sold there for as much profit as possible. The various place names situated north of Aššur and between Aššur and the Euphrates, quoted in connection with textiles, correspond to stations on the road followed by the Assyrian caravans going to Kaniš: Qaṭṭārā, Apum, Nihriya, Hahhum, Zalpa and Haqqa. Some textiles might thus have been bought en route in these towns.

2.2.2. Distinction between origin and fashion of manufacture
This conclusion, based on a simple link between a textile and its geographical qualification, interpreted as “made in + geographical name”, must be qualified and discussed. It is not always clear whether “ša + geographical name” signifies that the textiles in question originate from a particular town, because they could have been acquired there by trade, or (which seems to be true in many cases), were local products, manufactured in that town and perhaps exhibiting specific local or regional features. The textiles called šubātum ša Akkidiē, « Akkadian textiles », have clearly been made in Babylonia. In fact, the term “Akkadians” does not refer to inhabitants of the city of Akkad, but to Babylonians who are always referred to in that manner in Old Assyrian documentation.

Fig. 12.1. Map of Upper Mesopotamia with geographical names connected to textiles.
The association of a geographical name with a textile could also refer to specific techniques that are reproducible somewhere else, or to particular material as in the case of šurbuūm wool, used by Assyrian women in Aššur. The abarnīnum textile is an expensive item exported to Anatolia; in some occurrences, it must originate from Aššur, for it is woven with the greatest expertise by Assyrian women who are able to reproduce its typical features: “About the Abarnian textile which you sent me, you should not send me a similar one again. If you want to make one, make one like the one I wore there.”\(^{110}\) In this case, a translation “textile from Abarna” is unacceptable, and a meaning “textile according to the fashion/technique of Abarna” is better. The same applies to šilipka’um and takkušta’um textiles, which are said to be “Akkadian” products.\(^{111}\)

2.3. Geographical areas of textile production according to letters

Frequently textile names are not associated with nisbes or place names, and we therefore need other criteria to identify their production areas. In order to classify the many different textile types traded by the Assyrians, we can primarily distinguish two geographical zones separated by the Euphrates: Upper Mesopotamia including northern Syria, and Anatolia. While private notices or accounts only provide the names of the textiles and, sometimes, their prices, the letters are much more informative. From the names of the writers and recipients, we can often deduce the origin of the textiles mentioned in them, especially if they ask to buy them or to ship them.

2.3.1. Textiles exported from Aššur to Anatolia

Many letters deal with the shipment of merchandise from Aššur to Anatolia, among which various textile types are mentioned. These documents enable us to draw a list of the textiles made or bought in the area of Aššur by the Assyrians. For example, in a message he addresses to Aššur-nādā and Aššur-taklāku, Ilī-ālum announces the shipment of “16 kutānu-textiles, 18 šubātum, 5 šurūtum, 2 raqqatūm textiles, 1 lubūšum garment, 1 šilipka’um textile and 2 kusītum textiles”.\(^{112}\) In another letter sent to Imdıdim, a well-known Assyrian merchant living in Kaniš, the inventory of the merchandise shipped lists: “4 textiles for wrapping and 221 kutānu-textiles including those for wrapping, 6 kusītum malkuātum, 6 heavy burā‘um textiles, among which are 3 soft burā‘um textiles, [x] white lubušum garments, [x] šilipka’um textiles, 1 fine kusītum textile of extra good quality”.\(^{113}\)

All these textiles are thus produced in the vicinity of Aššur. The kutānu-textile is the most common type woven by the women in Aššur, the burā‘um, kusītum and šūrum textiles are also made there or imported from southern Mesopotamia (see § 3.2).\(^{114}\) The (m)alkuātum and šilipka’um might have been woven in these places or, like the abarnīnum-type, produced by Assyrian women according to the fashion or technique of these small towns. The lubušum is a generic term for

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\(^{110}\) See TC 3 17:23–28 § 3.4.1.

\(^{111}\) Yale 13092:12 (courtesy of Larsen), quoted above note 67.

\(^{112}\) RA 60, 111, no. 43:4–7: 16 túg kutānū 18 túg, 5 šurūtum 2 túg raqqatān, 1 túg lubūšum 1 túg šī-li-ip-ki-ūm, 2 túg kusītān.

\(^{113}\) RA 81 [1987], 13–15, no. 3:5–12: 4 túg liwītim u 2‘ meat 21 túg’, kutānū qadum’ ša liwītim, 6 kusītum [m]alkuātum, 6 túg burā‘u kabītātum, [šà]-ba’ 3 túg burā‘u narbū, [x túg lubūšu pašītum, [x túg š]u-lu-up-‘ki-→ ù 1 túg kusītum, [1 raqqutu]n sig. diri.

\(^{114}\) Note the occurrence of kusītum ša akkidiē in KTS 2, 22:5.
garment (see § 5) and raqqatum is a substantivated adjective which means “fine”. These two textile names are not linked to a geographical area.

Other textile types too, connected with geographical names, belong to the exported products. For example, the nibrārum textile comes from Aššur, Šabarum, Apum, Qaṭṭarā and even Zalpa.\(^{115}\)

2.3.2. Anatolian textiles

The Assyrians also traded in Anatolian products, which were always cheaper than those imported, but allowed the Assyrian traders to make some profit. Letters allow us to make a list of textiles traded only in Anatolia. Best-known are those called pirikannum, sapdinnum and tisābūm,\(^ {116} \) but we also have references that connect Anatolian textiles with a particular town, such as “textiles of Zalpa”, “pirikannū of Kaneš/Mamma”... Thus, the menuniānum textile, also woven in Anatolia, is cited alongside textiles from Tuhpiya.\(^ {117}\) Apart from their names, which do not seem to be transparent because of our limited knowledge of the early languages of Anatolia. If a convincing etymology can be suggested, the resulting meaning however is often too general or vague to be of much help. The most frequent term for a textile or garment, šubātum, must be a purās-form from the verb sabātum, “to seize, to grasp”, used for “deverbale Vergegenständlichungen” (GAG § 55k, 15), and therefore denotes a fabric that “holds” or perhaps “is attached to” the body.\(^ {119}\) But this is true of most garments, and in fact this derivation does not even help us to choose between a textile or untailored garment and a ready-to-wear one, because šubātum became a generic term and figures as determinative with all kinds of textile names. If kusītum is a purīs-form from the root kasūm, “to bind”, it should, according to GAG § 55k, 16, be used for “substantive diminutiver

3. Names and qualifications of the textiles

3.1. Etymology

One method of identifying textiles is by linguistic analysis of their names. However, many names of textiles exported by the Assyrians are etymologically unclear, while those of Anatolian textiles are not transparent because of our limited knowledge of the early languages of Anatolia. If a convincing etymology can be suggested, the resulting meaning however is often too general or vague to be of much help. The most frequent term for a textile or garment, šubātum, must be a purās-form from the verb sabātum, “to seize, to grasp”, used for “deverbale Vergegenständlichungen” (GAG § 55k, 15), and therefore denotes a fabric that “holds” or perhaps “is attached to” the body.\(^ {119}\) But this is true of most garments, and in fact this derivation does not even help us to choose between a textile or untailored garment and a ready-to-wear one, because šubātum became a generic term and figures as determinative with all kinds of textile names. If kusītum is a purīs-form from the root kasūm, “to bind”, it should, according to GAG § 55k, 16, be used for “substantive diminutiver

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\(^{115}\) See below § 3.3, s.v. nibrāram.

\(^{116}\) See below § 3.3, s.v. Notwithstanding the fact that a verdict of the City of Aššur, at some time, prohibited trade in sapdinnum and pirikannum textiles; see VS 26, 9, edited in Veenhof 1972, 126–127 and Michel 2001, no. 199. Note that in the later period the trade in pirikannū was accepted and even figured in the treaty between the Assyrians and the ruler of Kaneš (see Veenhof 2008a, 193, § h).


\(^{118}\) See for the pu/i/arakanānum, below § 3.3 s.v. In ICK 1 53:4–5, one donkey carried 38 pieces. We may also derive some information from occasional classifications, such as “10 sapdinnum textiles, 2 of which are risābū (“Kt f/k 117: 5–6; same CCT 5, 12a:8–9). Note also “1 sapdinnum textile of extremely good quality for me to wear” (ana litabšia, Kt 94/k 1373: 18–19).

\(^{119}\) A better example would be lubāšum, from labāšum, “to wear, to dress oneself in”, “something which one wears”, which occurs once in Old Assyrian (CCT 1, 27a:4 = 5, 48d:4), but not as garment but to store items in! (ina lubāšim šaṣṣer).
oder pejorative Bedeutung”, but this does not yield a suitable meaning and one would expect it to denote a textile or garment bound around the body. The dangers of etymology are clear from attempts to fix the meaning of *kutānum*, which also looks like a *purās* formation, mentioned above (§ 1.2).

Etymology is more helpful for *nahlapītim*, from *halāpum*, “to slip in or through, to cover, to cloth” (CAD H, 35),¹²⁸ but its actual meaning is more specific, according to CAD N/1, 138 s.v. “a wrap, outer garment (worn by soldiers and as festive apparel)”. According to the Sumerian logogram *tūg-gū-ē(-a) it would be “a piece of clothing from which the neck sticks out”.¹²¹ CAD N in most cases translates “cloak” and it may serve as outer or upper garment, as in ARM 10, 17:10, where the wife of king Zimri-Lim asks him “to put on his shoulders the *subātum* and the *nahlapītim* I made”, and in a text from Ugarit the person who breaks a contract “will hang his *nahlapītim* on the doorbolt and go out in the street”.¹²² Durand (1983, 397), referring to texts from Alalakh and Mari, which list sets of clothing comprising several items of the series *tūg/subātum* = “garment”, *tūg-bar-si/paršīgum* = “sash, headdress”, *gada-šā-du/misarrum* = “girdle, belt”, and *tūg-gū-dē-a/nahlapītim*, suggests the meaning “chemise”.¹²³ A set must also be meant in Old Assyrian, KBo 9 rev. 8’, where a *sakkum*-garment, a *nahlapītim* and a pair of shoes are delivered.¹²⁴ This might explain the small weight (c. half a pound) of a *nahlapītim* according Ur III texts (Waetzoldt 1972, 52, note 118), but in some Old Babylonian texts (CAD N/1, 139, c) they weighed between 2 and 2 2/5 pounds. This suggests a difference in quality (see CAD N/1, 139, e, and the occurrence of “2 extremely fine, soft n.” in the Old Assyrian text Kt 87/k 378:16–18, courtesy of Hecker) and perhaps in size.¹²⁵ This also explains the differences in price, which in Old Assyrian range from 10 shekels to c.5¼ shekels of silver, but there may also have been different shapes or applications, such as the (*tūg*) *gū-dē-a rikṣi*, attested at Tell Rimah (OBTR 59:13 and 80:4, “with ties?”), which, moreover, are distinguished as “long and not long” (sud-a ṣa la sud-a). Note that in Nuzi (HSS 14, 607:14) a *nahlapītim* is also used as a bedcover (*ša majāli*), but the same is the case with *lubuštum* (HSS 15, 139:18).

A complication is created by the logogram *tūg-gū*, which occurs at Mari (ARMT 21, 383 ii:3–4; 384:2–6), and according to CAD N/1, 138 and Durand 1983, 397 note 12 and 405 is also the equivalent of *nahlapītim*. Note also the spelling *gū-du-a* in ARMT 23, 39:3–6, where, as its author suggests, DU is an abbreviation of UD.DU = ṣe. Eidem (1992, 24) shares this view for the *Sušarrā*

¹²⁰ The *mapras(t)* formation is used inter alia as *nomen instrumenti* (GAG § 56 b/c), cf. *nalbašum*, a kind of cloak, from the verb *labāšum*. A derivative of *halāpum* is also *hušāpum*, for which CAD H, s.v. registers only one occurrence and proposes a meaning “bandage”, adding “possibly a free variant of *ulāpu*, “bandage”. This can now be corrected, since the meaning clearly is “rags”, “tatters”, in which a slave is wrapped (CCT 4, 45b:31). Additional occurrences confirm this meaning: KTS 34b:14–15, “the girl is clad in rags (*hušāpam labšat*) and is starving”, and Kt 92/k 152:4–5, “the tablet is wrapped in a rag” (*tūppum inhušāpim lāvi*).

¹²¹ A curse known by Neo-Assyrians was that the moon god will “clad people with leprosy as with a *nahlapītim*”.

¹²² See Van Soldt 1990, 328, note 50, who defines a *nahlapītim* as “a cloak, i.e. a loose outer garment”. A similar clause attested in Boğazköy and Emar uses simply *tūg*, “garment”.

¹²³ [Cf. Durand 2009, 67, where he gives the following translations: “habit de dessus, chemise, casaque, côté de maille”.] See also CT 45, 36 II, 2–4, in a summary of textiles delivered by the weavers: 242 *tūg*šu, 488 *tūg-gū-ēšu*, 79 *tūg-bar-sīšu*, 31 *tūg-bar-sī-gal, where the number of *nahlapītim* is the double of that of the *subātī*, and on a more domestic level, in the dowry listed in BE 6/1,84:7–8, 10 *tūgšu* 20 *tūg-bar-sīšu*, 1 *tūg guz-za* 2 *tūg-gū-ē*.

¹²⁴ See for this text Dercksen 2001, 52 with note 69.

¹²⁵ See ARM 18, 11 for an order of hundreds of *nahlapātim* in five different colors.
texts and both logograms also occur at Tell Rimah. This appears convincing and also explains the writing túg-gú Hurri, “Hurrian cloaks/shirts” in the peripheral text EA 22 (from Mittani), while contemporary Hittite texts write túg-gú-é-a Hurri. However, texts from Babylonia proper only write túg-gú-é(-a), and since in a letter by Hammurabi (AbB 2, 44:5) túg-gú and túg-gú-é-a occur side by side – together with headdresses (paršigum), sandals, leather containers (or hides) and oil, as equipment for troops – they must be different items.

Another etymologically clear term is raqqatum (in Old Assyrian with vowel harmony raqqutum), in Sumerian túg-sal-la, “a thin textile”, well attested in the Old Babylonian period, whereby raqum qualifies the fabric as such as “thin” (its opposite is šapium “thick”), which is to be distinguished from qatnum = sig, “thin”, primarily applicable to the yarn (and to hair). But, like other qualifications of wool, it is also used for textiles made from such thin threads (see especially TC 3, 17:6–7, below, § 3.4.1, on the qualities required for a šubātum qatnum). This textile – whose name is a substantiated feminine adjective, *šubātum raqum is not attested – occurs in many periods, just as the adjective raqum is applied to various textile products, notably to kusītum (see § 3.2, on túg-bar-dul.).

Finally, lubūšum must be mentioned, the Akkadian word for “1. clothing, wardrobe, 2. (a specific piece of apparel), 3. clothing allowance” (CAD L, 236), derived from the verb labāšum, “to put on clothing”. Again, the etymology does not answer the question of the type of clothing or garment represented. For Old Assyrian, as we will see below in § 5.3, the question is whether túg lubūšum, in lists of textiles exported to Anatolia, was a ready-to-wear garment or not. Moreover, we have to distinguish it from its feminine counterpart, lubūšum, originally a nomen unitatis, for which CAD L, s.v. gives the same meanings as for lubūšum, but the term is very rare in Old Assyrian, and occurs only as “clothing (allowance)” and does not figure among textiles exported and traded.

### 3.2. Occurrences in other corpora and periods

Occurrences of a textile name in other periods and text corpora can be helpful by their context, contemporary lexical data and occasional logographic spellings. In Old Assyrian, however, logographic spelling, apart from the ubiquitous túg = šubātum, is extremely rare and there are only two exceptions.

The first is túg-bar-dul, the logogram for kusītum, already used in Presargonic times and recorded in the lexical tradition, which occurs only once in Old Assyrian, in CTMMA 85A:12: 2

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127 Cf. Durand 1983, 408 [and now Durand 2009, 87–90, “un des items les plus courants à Mari”]; its logogram sal-la, added both to gū and to túg, is occasionally spelled with LÁ (ARM 21, 386bis:6), a spelling also attested at Acemhöyük, see Karaduman 2008, 287 (Ac.i.920), alongside túg raqqatum (Ac.i.890, 915, 923, 1092), túg sal-la (Ac.i.907), and simple sal-la (Ac.i.1199), not surprising because these bullae were attached to packets of different origin. In Old Babylonian this textile figures in dowries, e.g. Bruxelles O 342 I:1–3, ([x×] 2 túg-sal-[l-l]a 2 túg-sal-la [...] 1 túg-sal-la [...], and BM 12645 II:4, 1 túg-sal-la sūn ramanišu (“with a tassel/fringes/flounce of its own material”) 2 túg-sal-la ša la sūnim (Dalley 1980, 69). Cf. also OBTR no. 133:26.
128 See also Veenhof 1972, 214–216, Excursus IV, on the differences and confusion between qatnum and raqum, and 154, where earlier interpretations (“loincloth”, on the assumption that sal-la stands for galsal-la = bišṣuru, “vagina”; “netlike fabric”, based on raqum as a name for the turtle) are refuted.
129 There is also a derivative lubūšum, attested twice, once in Old Assyrian, in CCT 5, 48d:4, = CCT 1, 27a:4, where a man is instructed to preserve some oil and small items in a lubūšum”. Hardly a garment, but perhaps a pouch or sack made of a piece of textile.
túg-bar-dul₅ raqetēn, “2 thin kusītu’s”. While the occurrence of this logogram does not add to our knowledge, we note that the qualification “thin” is also attested in Presarg., Sarg. and Ur III texts and in lexical lists (Hh 19, 106: túg-bar-dul₅-sal-la = (kusītu) raqqaqatun), which indicates that this quality was apparently typical for a kusītu-garment. According to CAD K, s.v., a kusītu was “an elaborate garment”. It is thus far absent from Mari texts and fairly rare in OB, where it is nearly always written logographically, see CAD K, 586, c. During the 1st millennium BC, according to Babylonian sources, it is a precious and coloured outer garment that belongs to the vestments of goddesses.  

Túg-ni-lám, the logogram for lam(a)huššûm, a well-known name for an expensive, fine garment from the Ur III period, rare in Old Babylonian, has recently turned up in Old Assyrian, in AKT 4,24:1–3, 22½ túg damqātum watrutum (3) šā-ba 1 túg-ni-lám, “22½ textiles of extra fine quality, among which one lamahuššûm”, shipped from Aššur to Anatolia (see Veenhof 2009, 194). This logogram enables us to identify the Old Assyrian textile name namaššuhum as a variant of lamahuššûm, a conclusion supported by other spellings with the initial n, such as túg-na-ma-huš-a at Mari (ARMT 21, 257:22–23; 386bis:19⁵), nab/waššuhum in two Ur III texts and namanšu’um in TCL 10, 100:34 (Old Babylonian), spellings showing that early scribes had some problems with the Akkadian rendering of the name of this textile product.  

Of the Old Assyrian textile names kita’um (“linen”, see above § 1.2), kusītu, lubūšum, naḥlaptum, namaššuhum (=lamahuššûm), palītum, pāršīqum (rare and only for personal use), raqqaqatun, šilipka’um and takkušta’um, apparently all made of wool, are also attested in other periods, but the last two are extremely rare outside Old Assyrian sources. Information on them (including the lexical data, especially in Hh 19 and its forerunners) and the context in which they appear there (production, use, prices, etc.) at times help us to understand what they are, as shown above in connection with kusītu and naḥlaptum. What is salient is mentioned below in § 3.3, under their names.  

It is rather surprising that, in the Old Assyrian texts, many of the well-known textiles appearing
in Old Babylonian sources (including those of Mari and the bullae of Acemhöyük), do not appear, such as ha/ururum, kitītem, laharītum, taddītum, taktimum (tūg-an-dul), utba, ut/tublum, yamhadūm, zakūm, tūg-bar-kaara, tūg-guz-za, tūg-ni-bar and tūg-si-sā. Not to mention the many other, presumably more specific textile products and pieces of apparel, figuring in the records from Mari as goods given out (usually as gifts or remunerations), coming in, or produced, as well as some textiles mentioned in the administrative texts from Šušarrā (northeast of Aššur, dating to shortly after 1800 BC; see Eidem 1992, 24). Particularly remarkable is the absence of tūg-guz-za, prominent in Ur III texts and attested in Old Babylonian, which still figures in the Forerunner from Ras Shamra, lines 179–187, but has disappeared from the canonical Hh 19.

The explanation for this state of affairs, apart from temporal (Assyrian texts are about a century older than the texts from Mari), regional and dialectical differences in terminology, which are a universal feature, must be that the Assyrians imported fairly standardized woollen textile products into Anatolia, mainly untailored fabrics, presumably of cloth, rather than a variety of ready-to-wear garments. This resulted in a limited vocabulary for the main textile items imported, of which, apart from the generic term šubātum, only raqqatum, kusītum and lubūšum are well-known from other sources, as well as the specific, but in Old Assyrian rare kita'tum, “linen”. Nahlaptum does occur, but nearly always only one or two pieces, not among the items exported from Aššur and rather for private use than as an article of trade. The Old Assyrian textile repertoire also included a few specific products, usually in small numbers, such as namaššušum = lamahuššūm, šilipka'um (šulupka'um) and takkušta'um. Šilipka'um occurs once in an Old Babylonian letter from Kisurra, quoted in CAD Š/2, 444 s.v. b), and takkušta'um – whatever the origin of its name – has now turned up in texts from Mari (see § 2.1.1 and § 3.3, s.v.). It is interesting to see that in ARMT 24, 188:1 this textile was a gift a man from Mari had received on a visit to Babylon, and this suggests that the takkušta'um mentioned in Assyrian caravan records also originated from Babylonia, and this may therefore also be the case with šilipka'um, since the letter from Kisurra mentions that it was made in Babylonia. The one called makāhum, unknown from Mesopotamia and not among

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137 Such as aguhhum, dabadum, gaššum, naššum, šušippum. However, note that Mari too knows textile products qualified as “Šubarian” (Šubārūm), see ARMT 21, 318:5 (see § 2.1.2). For an overview and analysis, see Durand 1983, 393–427, with texts nos. 318–386. We can now add ARMT 22, nos. 108–182, ARMT 23, nos. 8–50, 225–230, 444–451, 571–576; ARMT 24, 181–220 [and see now Durand 2009, passim].

138 Rare in Mari (ARMT 22, 139:7, qualified as bērum, “select”; 164 rev. 1’–7’, qualified as gīd-a, “long”), once at Hašor (Horowitz & Oshima 2006, Hašor 12:11’), better attested in Babylonia, e.g. Abû 9, 16:36, and in dowries, usually one or two pieces, see BAP 7:12, BE 6/1, 84:6, Bruxelles O 342, I:9, CT 8, 2a:4, CT 45, 46:8, TLB 1, 229:13, YOS 13, 91:3’, BM 16978:5’ (5 pieces; see Dalley 1980, 73). Also in CT 45, 36:15 and III:9, and in Lackenbacher 1982, col. I:5’, 3’ and III:13, where it qualified as “royal” (lugal’i), “thin” (sig) and šikimtum; in VI:9 such a garment is meant for the goddess Nanāya. Note in BM 16465 II:9–10 (dowry, Dalley 1980, 69), 4 tūg-guz-za šāl 2 anā kimāhim, “two of which are for the tomb”, to be used as shrouds? (Cf. Ziegler 1999, 196 no. 25:6’, an ṭublulū us [ana k]māhīm ša PN, a musician in the harem of Mari). This textile still occurs much later, e.g. in the dowries listed in El Amarna no. 22, col. IV:12, 15, and in PRU III (MRS VI) 184 (RS 16.146+161):12–13 (written tūg-si-gi-3, zā), both as a garment for the wardrobe and as a cover for a chair or throne. One wonders what the Akkadian equivalent of tūg-guz-za was (see CAD I/J, s.v. i’lu = tūg-si-gi-3, zā, which does not list Old Babylonian and earlier concurrences). [Durand 2009, 35, notes a–b, now suggests that its Akkadian equivalent was gizzum].

139 The only exception is the mention of 10 nahlapātum in the younger text OIP 27 no. 11:8; paršigum occurs only three times, see CAD P, s.v. a, 2’.

140 1 tūg ta-ak-ku-ūs-tu-um ša qāṣṭi Z. inūma ana Babilim illiku.

141 Cf. also Yale 13092:9–12 (courtesy of Larsen), cited above note 67, and the combination 1 šulupka’am, u kusītum ša Akkidiēti, u 2 kutānī in Kt 91/k 356:25–27.
the textiles exported from Aššur, might be considered an Anatolian product, but it occurs also in a letter from a Phoenician king found at Ugarit (see CAD M/1, 141 s.v., b), which suggests the possibility that some names of textiles are of western origin. The frequent “textiles of the Akkadians” (ṣubātū ša Akkidē) are designated by what is not a real name and this designation covers various textile products that share particular traits or are made from a particular fabric (see above § 2 and 3.3 s.v.).

The names of Anatolian textile products such pirikannum, sapdinnum, tisābum and memuniānum remain elusive, since they occur only in Old Assyrian and do not appear in later Hittite sources. In texts from the younger period of kārum Kaneš level Ib (first half of 18th century BC), where kutānum and kusītum still occur, kuššatum (only attested in TC 3, 61:3 during the earlier period), which also appears at Mari, becomes more frequent. And we now also meet sakku, which is well attested at Old Babylonian Mari (see Durand 1983, 411–12) and also occurs on the bullae from Acemhöyük, see § 3.3, s.v. The appearance of kuššatum and sakku in later Old Assyrian texts indicates changes in the assortment of textiles, probably due to increased contacts with the area to which Mari belonged.

3.3. The names of textiles in alphabetical order
The large number of attestations of the main textiles traded implies that references have to be selective, restricted to what is more informative; for more data the reader is referred to Veenhof 1972, 144–180, and to the entries in CAD. For rare and less well-known textiles all or most occurrences are given. For names that are nisbes or are connected with the name of a town or region by means of ša, see also § 2.

abarnium (Veenhof 1972, 156–158), a nisbe derived from the town of Abarn(i)um, usually treated as a noun (2 tūg abarnīū), see above § 2.1, s.v., and 2.2.2. Expensive textiles (in BIN 4, 4:4–5 sold for 25 shekels of silver apiece!), also worn by the traders themselves; their price in Aššur, where they were also produced, is once 10 shekels of silver, and in CCT 6, 25d:4’–6’, 3 such textiles of good quality cost 23 shekels apiece. They usually occur in modest quantities (1 to 6 pieces), but in KT 94/k 1687:13, as part of a very large caravan once 10 shekels of silver, and in CCT 6, 25d:4’–6’, 3 such textiles of good quality cost 23 shekels apiece. They “of good quality” (CCT 1, 25:26) and as bar (see above § 2 and 3.3 covers various textile products that share particular traits or are made from a particular fabric

abarnum (see above § 2.1, s.v., and 2.2.2. Expensive textiles (in BIN 4, 4:4–5 sold for 25 shekels of silver apiece!), also worn by the traders themselves; their price in Aššur, where they were also produced, is once 10 shekels of silver, and in CCT 6, 25d:4’–6’, 3 such textiles of good quality cost 23 shekels apiece. They usually occur in modest quantities (1 to 6 pieces), but in KT 94/k 1687:13, as part of a very large caravan carrying more than 600 textiles, we have 46 abarnū lu kamsūtum lu nibrārū ša kutāni damqūtim wattrūtim, “46 Abarian or kamsu- or nibrāru-textiles (made) of fine kutānu-cloth”. They are qualified as damqum, “of good quality” (CCT 1, 25:26) and as damqum watrum, “of extra good quality” (AKT 2, 24:4–5 – read abar-ni-a-am; BIN 4, 185:2–4; CCT 5, 44a:1–2; KT 93/k 288:5–6) and are regularly lumped together with other expensive and fine textile products, e.g. in CCT 4, 29b:4 (together with kutānū and Akkadian textiles) and in KT 94/k 1697 quoted above. Twice we meet a šitrūm (see below s.v.) qualified as “Abarian” (TCL 1, 19:12, 2 pieces ša abarnī; KT 93/k 75:7, one piece ša abarnīnu), where the use of ša + genitive instead of simple abarnī could mean “belonging with an Abarian garment.”

142 See ARMT 22, 164:1–7 and 23, 375:11–19 [and now Durand 2009, 54].
143 KT b/k 21:7–8, from this same period, mentions tūg ša ṣapti, “woollen textiles”, but it is not clear whether this is a descriptive designation or a new name.
144 KT 86/k 193:15–17, “select a heavy, soft Abarianan textile for me to wear” (allitabišia); also BIN 4, 94:12 (abarn’ámn an nišabšā lāššālam). See also § 5, notes 267–268, for evidence of women in Aššur who sent single Abarian textiles to traders in Anatolia, to sell or perhaps rather to wear them.
145 The 92 pieces in KT 94/k 1446:6 (alongside kutānū), according to Larsen, may belong to the same caravan.
146 Somewhat different in the parallel text KT 94/k 1676:13–15, 46 subātū ša abarnī ‘ša kutānū damqūtim wattrūtim lu kamsūtum lu nibrārū, “46 textiles, as well Abarian ones, as kutānū of extra fine quality, kamsu- and nibrāru-textiles”.
b/palītum, TPAK 1, 59:17–18, šīm BA-li-tim lu-bi₄-ri-im ... luptānī(m), “write down the price of the ... textile”; ATHE 47:24, “While I said: ‘Buy and send me textiles to be used as clothing for the servants’, you have kept sending me BA-li-a-tim of 1 and ½ shekel apiece”. Veenhof 1972, 182–183, rejecting AHw 816a s.v., “Palā-Gewand”, and quoting CCT 4, 45b:29 “jattum BA-li-<...> has fallen from me” (followed in line 43 by “send me (from) there whatever BA-li-tām there is, so that I can depart”), considered the possibility of restoring ba-li-<at>, “mine is worn out”, but CAD P, s.v. palītum, restores jattum pā-li-<tum>, “my own palītum”. The combination with lubēru (only occurrence in Old Assyrian, but attested a few times in Middle Assyrian texts and considered a by-form of lubāru by CAD L, s.v.) is not helpful.

**burā’um** (Veenhof 1972, 173–174), only twice without the determinative tūg, occurs in small numbers, frequently only one piece, e.g. in caravans carrying textiles, tin and one burā’um, cf. ICK 1, 189:14’, EL 110:2, CCT 1, 20b:2 (alongside 26 kutānū), CCT 1, 36a:10 (with a nibrārum), TuM 1, 2c:5 (alongside 46 kutānū). CCT 1, 38a:2 mentions that one b. was sold en route to supplement the income. The biggest number in RA 81 no. 3:8–9, “6 heavy (kabtūtum) burā’ū 3 of which’ are soft.” It could be worn: BIN 4, 160:12–13, “[I clothed him in a burā’um of extra fine quality”, similarly in Kt m/k 43:2 (courtesy of Hecker), and the writer of Kt 94/k 966:12–14 (courtesy of Larsen) demands: “Give me garments I can wear (šā litabšia), either a šūrum or a burā’um in Akkadian style (ša Akkidē).” This latter type also occurs in AKT 2, 44, 3–5, “4 Akkadian textiles, among which one burā’um”, and in Prag 1 709:24, 1 tūg bu-ra-ū-um ša Akkidē, alongside a few kusītu-garments, which is also the case in Kt 94/k 1446:12 (courtesy of Larsen) and Kt n/k 524:42: In Benenian 5:7, it appears alongside 1 tūg kutānū, in Kt c/k 710:8 (courtesy of Dercksen), 1 tūg burā’um sig. diri, LB 1268:13–16 one bag contains 3 burā’ū 2 nibrārū ša Apim, 1 tisābu ú, 1 pirikannum. It was probably not one of the types of textiles traded and may thus have been the personal property of the traders, who did wear it, when necessary also during caravan trips.

**DU-DU-ru?**, only BIN 6, 186:7, 5 tūg DU-DU-ru ša PN, meaning unknown; CAD M/1, 141, s.v. makīhu reads tutturū, but this word is not registered in CAD T, s.v.

epattum (Veenhof 1972, 128–129 and above § 2.1.1 s.v. Talhatūm), plural epadātum, occurs a dozen times, frequently qualified as Talhatītum, “of Talhat”, a city in Northern Mesopotamia, which also produced a specific type of išrum, “belt”. This is confirmed by Kt n/k 391 (courtesy of Günbatti), where a man (probably the ruler) of Talhat swears that he will deliver 22 tūg epadātim. The use of the determinative tūg (only once), the (rather doubtful) identification with the Hebrew ‘épōd and Syrian peštā (see CAD E, 183 s.v.) and its occurrence alongside raqquṭum in CCT 1, 32c:14–15, indicate a textile product, perhaps a kind of cloak. They were apparently appreciated in and shipped to Aššur in small numbers, and in the letter CCT 4, 6c:6–8, the son of a well-known trader, who was undergoing scribal training in Aššur, asks his father to send him an epattum as a gift for his teacher. However, the epattum was also traded in Anatolia, since OIP 27, 62:43 mentions 20 epadātum Talhatiātum deposited in Kuburnat. The specific features of this product remain unknown.

ēpišum (Veenhof 1972, 171–172, and earlier Lewy 1958, 98 note 65), first vowel mostly written as e-, but once as i- (BIN 4, 78:6). The reading of the first consonant as p assumes a connection with the verb epešum I, “to make”, or perhaps rather (according to Landsberger) epēšum II, “a type of weaving”. However, CAD B, s.v. ebišu, which lists as alternative readings ebiššu, ibi(š)šu and ip/ib(š)ša, considered it a native Anatolian appellative, “a low-priced textile, a subcategory of pirikannum.” It was a woollen product that may also

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147 For this important city, see Veenhof 2008, 18–21, also connected with other textile products, and see below § 2.1.1.
148 The mention of an epattum worn as a garment, in Veenhof 1972, 96, quoting VAT 9237 (from a photo), should be cancelled; read with VS 26, 40:9, šii-ba-tām.
149 For details, see Veenhof 1972, 172. The letter VS 26, 9 (see Veenhof 1972, 126–127) mentions a verdict of the City
have served as a kind of blanket, as suggested by the combination pirikannū ṣēpiṣi šapātim, “pirikannū (in the shape of/worked into?) ṣēpiṣi of wool”, in VS 26, 9: 6–7, comparable to the combination maškū šapātim, “hides with wool” = “woollen fleeces.”150 Perhaps also usable as a saddlecloth, since AnOr 6, 153:5–6 mentions a transport consisting of one donkey, 27 kutānū and one ēpiṣum, but it does not belong to the standard donkey harness, as reconstructed in Dercksen 2004, 270–277. Mentioned alongside Anatolian textile products in BIN 4, 78: 6–10, “buy pirikannū as/for clothes for the servants, or menunīānu-textiles or i-pī-šu or pirikannū that are strong enough to serve as clothes....”, and also in KT 89/k 421:4, “209 pirikannū, 41 ēpiṣī”. They occur alongside makūnum in TC 3, 132:11, where they are sold at 9½ shekels (of silver) apiece, which demonstrates that they were not a cheap product, cf. the price of c.7 shekels apiece in TC 3, 91:33–34 and KT 91/k 481:12. KT n/k 127:3–4 mentions 15 túg išrum ū raqqutum alongside 20 kutānū, and KT 87/k 452:3–4 (courtesy of Hecker) has the combination 1 kutānūum e-pi-šī, (not ēpiṣī’), perhaps made op ēpiṣu-fabric? AKT 3, 16:10, mentions 9 túg e-pi-šī deposited in Wahšušana.151


**hirurum?** Kayseri 4695:11–13, 3 túg abarnni’ū 1 túg lubūšum, 1 túg hi’-ru-ru-um ū raqqutum.

**illūkum**, BIN 4, 168:16, 121 túg i-lu-ki; TC 3, 192:8, 4 ANŠE ša pirikannī i-lu-ki, perhaps to be connected with lexical túg-nīg-sal-īl-Šīr, túg-du₈-du₈, and túg-gu-za = ulla₄u = lubār šāmu, see CAD I/J, 86 s.v., where no Old Assyrian references are mentioned.

**išrum**, “belt” or “scarf”, plural išrūtum, occurs c.20 times. The meaning is indicated by VS 26, 40:13–14 and KT 88/k 625:11–12, both mentioning an “išrum for my waist” (ana qablā), and CAD I/J, 261 s.v. interprets ICK 1, 88:16–18, 1 túg išram kisam ... PN naš’akkum as “PN is bringing you one išru-belt (with an attached) money bag”. See also the sequence in BIN 4, 88:4–6, “Give 1 išrum to yourself, 1 išrum to [x x], 4 šakkuqatum to ... “, where the last word is another term for a belt or girdle. ICK 1, 88:16 and CCT 6, 3a:1 (5½ túg išrātum) are the only cases where the determinative túg is used.152 In POAT 42:10–13 an išrum is sent to somebody together with a pair of sandals and some oil, TC 1, 19:19–20 mentions it alongside a butcher’s knife. It figures as a gift to a local ruler in OIP 27, 58:26 (3 pieces) and in CCT 3, 25:27, together with a piece of linen, it figures as a (votive) gift for the god Amurrum. Single items are sent to people, apparently for personal use, e.g. KTH 7:34 and TC 3, 210:8; CCT 5, 41a:29–31 mentions 5 pieces, “4 for my representatives, 1 for PN”. Like epattum it is frequently qualified as talhatum, “of Talhat”, see the examples quoted in CAD I/J, 261 and Veenhof 1972, 176–8, especially BIN 4, 160:6–8, “I paid 20 pounds and 32 shekels of copper for 16 išrātum of the people of Talhat”, which makes it a very cheap item. Išrātum of Talhat also occur in KT k/k 46:9 (3 pieces), Prag I 488:6 (14 pieces). Prag I 740:2 mentions 10 išrātum after kutānū and šārūtum textiles and before 1 šīrum ša lubūšim.

**kitā’um**, “linen”, see under “Materials”, § 1.2.

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150 Note also the combination in Prag I 429:17–18, “of the red pirikannū 4 are ša i-pī-ša”, and perhaps TC 3, 65:3–5, “I gave 15 shekels of silver ša i-pī-ša to PN”.

151 This textile product may also be meant in KT 94/k 297:4, lu-tí-a-am ša e-pi-šî-im ša Apim.

152 It should not be confused with túg išrātum, which means “textiles as tithe”, e.g. in KT m/k 45:6 (courtesy of Hecker) and presumably in CCT 6, 36a:1–3, 5½ textiles išrātum, at 13½ shekels per 1½ textile they balanced to you”.
kusītam (Veenhof 1972, 159–161), whose etymology has been mentioned in § 3.1, must have been a garment made of woollen cloth (it could range under the category kutānum), occasionally qualified, as in other periods (see § 3.2), as raqqum, “thin”, as “of good quality” (VS 26, 51:18) and a few times as “white”. We also find kusītu-garments ša Akkidiē, “of Akkadian make/style”, or qualified by the nisbe (m)alkuaum, and once a kusītam qualified as such is described as white in a parallel text. What a kusītam mardātam (only occurrence in CCT 1, 29:6) was, depends on the meaning of the latter term, discussed in Durand 1983, 409–11, where the single Old Assyrian occurrence is not mentioned. A kusītam was not cheap: in Aššur one paid 7 shekels for it (CCT 1, 35:15) or more.

kuššatūm (in Assyrian with vowel harmony), only once attested in a text from kārum Kaneš level II, TC 3, 61:3 (in Anatolia, 20 shekels of silver šīm kuššitim), more frequent in texts from the younger level Ib, in OIP 27, 11:4–7 (after kutānu and kusītām: 2 kuššatūm damqātām 2x-na 5 kuššatūm 1 kuššatūm ša lubāšti, 36:7–8, and 37:5), and now also a few times attested in Mari, see above § 3.2.

kusānum, see see above § 1.1, on its etymology and meaning, where evidence is presented for its nature as a woollen fabric, of more or less standardized size (probably c.4.5 by 4 m.), whose finishing treatment had turned it into a woollen cloth. That it was a large, untailored fabric, explains that texts mention fractions of a kutānum, usually 1/2 or 1/3. Kutānu were traded but could also serve as material from which specific textile products and pieces of apparel could be made, designated as ša kutānim, “made of kutānum-cloth/of kutānu-type”. This qualification occurs with nahlaptum (OIP 27, 11:11–13), namaššuhum (Benenian 5:2–3), nibrārum (Kt 94/k 1686:9–10), and šīrum (RA 59 [1965] no. 14:16). Note also the request in Kt n/k 216:7–9, “If in addition to the linens there is a kutānum (available), give me that kutānum”. In summaries, other textiles or garments made from this material could be subsumed under it, e.g. kusītum, in AKT 4, 23:1–2 and Prag I 616:18–19, “x kutānum, thereof y kusītānum”, see below § 4.1.1 Since kutānum was the main type of cloth and obviously served as material for making various types of garments, the word was occasionally also used with the meaning “garment made of kutānum”, e.g. in kutānum ša suhrim, “a kutānum for a child” (Kt 93/k 756:6–7). The meaning of the combination kutānum e-pi-šī in Kt 87/k 452:3–4 (courtesy of Hecker) is not clear, but also suggests a woollen product (see above s.v. ēpišum). It was the most frequent textile product, thousands of which were shipped to Anatolia. The whole scale of qualifications listed below in § 3.4.1 can be applied to kutānum, and we also find the qualifications kabtum, “heavy” (kt 86/k 193:19–20), and perhaps sānum, “red” (KTS 2, 35:30, 6 kutānī sà-mu-tim). What “thin and yellow kutānū ša hu-šu-x-ī”

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153 On the basis of statements such as “x kutānū of which (šà-ba) y are kusītānum”, AKT 4, 23:1–2, Prag I 616:1–3, see § 4.

154 CTMMA 1, 85b:12 (quoted in § 3.2), Kt 89/k 257:15 (1 kusītum ra-qi-[tum]), KT B 7:5, and perhaps VS 26, 74:41, cf. CAD R, s.v. raqqu, b.

155 See above § 2.1.2. In Yale 13092:8–12 (courtesy of Larsen), 7 lubūšā 6 kusītām 1 šilipka’um and 1 takkuša’um are added up in line 12 as “together 15 ša A-ki-di-NI-im”, which presumably means “of Akkadian style/make”; they were purchased for an average of c.9.2 shekels of silver. Kt 91/356:32–33 also mentions a kusītum together with a šilipka’um and it occurs alongside a burā’um in Kt 94/k 1446:12–13 and in Prag I 709:23–25 (2 kusītām u 1 burā’um ša Akkidiē). See also for ša Akkidiē, Kt c/k 323:9–10 (courtesy of Dercksen), Kt m/k 22:5 (courtesy of Hecker), and 91/k 356:26, and for (m)alkuāum, above § 2.1.1.

156 Durand 1983, 409–411: according to the Mari texts “clairement comme originaire de l’Ouest” ... “pouvait être un habit très orné” ... “une ample pièce de tissu”. [See now Durand 2009, 61–65: tapiserie]. CAD M/1, 277 s.v., “fabric woven with several colors in a special technic”, well attested at Nuzi.

157 In Kt n/k 199:18–20 (courtesy of Bayram), 6 textiles for wrapping and 6 kusītām together cost 69 shekels of silver.

158 See below, § 5.1.

159 The reading “25 pounds of refined copper the price of wool of a kutānum”, in lines 4–6 of this text, accepted by CAD K, 608, cannot be correct, because of the strange writing sīg-tī-em for šaptim, “wool”. See below, s.v. lud/tūm.

of Kt 91/k 356:27–28, and a kutānum ša ša-da-dim of Prag I 741:8’ were, is not clear, but it should be noted that nowhere does a *kutānum ša Akkiddī occur.

**kutīnum**, only two occurrences, but, as shown by RC 1749:8–9, 1 túg ku-ta-num ša Ṭ., 1 ku-tī-num ša 1., not a rare variant of kutānum. Imported from Aššur, according to KTB 2:3, 5 túg ku-tī-nu, “which in the City cost 13 minas (of copper) apiece”, they are sold for 25 shekels of silver apiece in Anatolia.

**lubērum**, only twice, in RA 60, 140–41 no. 8:3–4, “You sent me 10 túg hā šūrātim lu-bi-ri”, which cost 8 shekels of silver apiece, and in CTMMA I, 79:19–23, “Send me also garments to wear (šubāti ana hitabš[a]). I am staying (here) without garments, I am clothed (labbušâku) in his lubērum ...” According to CAD L, 232 s.v., which takes the word as a variant of lubārum, “clothing, garment”, the same word is attested a few times in Middle Assyrian. In the first text, it is in apposition to and qualifies šūru-textiles, in the second, it seems to be worn for lack of a proper garment and here a derivation from the root labārum, “to be old” might fit, but its meaning remains obscure.

**lubūšum**, “garment”, appears independently, in enumerations, “but (tÚg) lubūšû”, can also be qualified by a following genitive, e.g. lubūš šuhârim or lubūšum ša šuhârim, and we meet ša lubūšim qualifying other textile products, e.g. šîrum ša lubūšim (see below § 5.3).

*luḏ/tiḏum, perhaps a textile product, attested in Kt 94/297:4–5 (courtesy of Larsen), lu-DÍ-am ša ēpišim ša Apim, “a l. of a rug/blanket(?) from Apum”, followed by: “3 kurušnanû, a yoke, for the yoke ša lu-DÍ-i, if (there is) 1 hide (1 <ma>-aškum?) of an ox”. The reason to list it is the occurrence in Garelli 1965, 35 no. 14:5–6 of “25 pounds of copper payment for lu-DÍ-e-im, ša ku-ta-nî” (where Garelli’s reading sig-tî-e-im, “of wool”, is excluded). However, what luḏ/tiḏum means is not clear (cf. the remarks of K. R. Veenhof in AbB 14, 210, s.v.).

**makâhum**, not exported from Aššur, but traded in Anatolia, possibly an Anatolian product, but it also occurs in a broken text from Ugarit, a letter from the king of Sidon, alongside other textiles called túg sa-ga-lim (see CAD M/1, 141 s.v., and Veenhof 1972, 169–170). Etymology and meaning are not clear. Trade in Anatolia is documented in Kt n/k 1689:23–29, “I hear that makâhum are expensive/in demand in Burushhattum, buy for 10 minas of silver makâhum and send them to me, so that you may earn 1 or 2 pounds of silver!” The writer of ICK 1, 190:8–9’ states “I am entitled to/ have a share of 18 túg makâhum in the palace in Burushhattum”, and in KTS 18:5 they cost 20 minas of copper apiece. Kt 91/k 436:1–8 lists tin, “24 makâhum, 1 pirikanni and 2 donkeys belonging to me, 21 makâhum, 1 donkey belonging to I.”. They occur together with ēpišû in TC 3, 132:1 (|[x]40 makâhum lu ēpišû, sold at 9½ shekels of silver apiece) and in Kt 87/k 423:1–2 (courtesy of Hecker, 24 túg lu makâhum lu túg ēpišû). In Kt 93/k 277:1–3, 55 pieces occur alongside a large number of šulhu-textiles, and Kt 91/k 344:23–24 also writes “either šulhu or makâhum”. Makâhum are never said to be made of a particular fabric (ša ...), or to belong to a specific category (“thereof/including x makâhum”), but they can be summarized under the general category of “textiles” (šubâti), e.g. in CCT 1, 15a (= El 132):1–6, where 90 kutānum 50 ma-ku-hu 3 lubūšû 3 namašshûh and 2 šulupka’a are added up as 148 šubâti. In AKT 3, 52:17–20, 162 makâhum appear alongside 15 kutānu 12 takkuštû 1 šulupkûm, and 2 túg ša Šubirîm.162

**mardatum**, occurs only in CCT 1, 29:6–7: 1 túg kusîtam, ma-ar-da-a-tam u sahertam given to the chief (barullum) of a town. Also attested at Mari, where, in ARM 6, 67:13 they probably figure as a gift to two commanders and are described by Durand 1983, 409–411, as “un habit très orné”, apparently originating from the west; later also denoting a kind of carpet. (For this word, see also A. Wisti Lassen in this volume). [See now Durand

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162 See further: BIN 4, 113 (= El 261): 4–5, copper of (ša, earned by selling?) “his makâhum or his kutânum, which are his votive gifts” (ikribû); BIN 6, 186:7, 5 túg makâhum u DU-DU-ru. According to TC 3, 132:4 “they took 1 makâhum during the journey”, and in AKT 3, 61:23–25, 98 túg makâhum figure as price of an emâqum (=?), and 28 pieces in line 35.
2009, 61–64, who mentions its embroidered decoration and notes that in inventories it is listed after the textiles and appears alongside fabrics used on furniture, which suggests a meaning “cover” (also used for a sun-shade), “carpet” and when worn by men perhaps a “cape”.

*maškunum*, an item probably made of a textile fabric, perhaps a kind of cover or pouch, as suggested by BIN 6, 84:16, where, in a damaged context, “a double maškunum for/of a textile/garment” ([aššinī]šu maškunam ša [ṣu]bātim) occurs after wool, a [tisā]bum and a šitrum. In BIN 6, 184:4, ¼ šubātom, 1 kusītom maš-ku-num, as part of a trader’s share, the absence of a numeral before maškūnum suggests that it is in apposition and qualifies the kusītu-garment, which served as maškunum. Its function is indicated by AKT 3, 82:25, which requires one to carefully pack a valuable tablet and “to put it in a maškūnum of good quality” for shipment overland. The three ma-āš-ku-nu, costing 7 shekels of silver, mentioned in BIN 6, 140:1–3, together with some tin given for expenses for the transport of a load of textiles, may also have been used for protecting or packing goods. Not informative are ICK 1, 98:7, 8 maš-ki-ni, mentioned after a large amount of wool, and Kt n/k 1385:25, which mentions the availability of copper, the price paid for “my maškunū” (šimm maš-ki-ni-a). A possible identification with maškanum, in which later texts can also mean “tent”, suggested by CAD M, s.v. maškānu, is unlikely.

menuniānum (Veenhof 1972, 171), an Anatolian textile product, never exported from Aššur. In CCT 4, 27a:11–13 menuniānu appear alongside wool, woollen fleeces and pirikannū, in Kt 94/k 463:1–4 (courtesy of Larsen), 21 pirikannū, 14 menuniānu and 22 woollen fleeces are transported on 2 donkeys. In Prag I 740:13–14, 1 menunēnum figures together with 1 pirikannum and 2 nahlapūnum, and in KTH 1:17–19 alongside kusītu-garments of Mamma and woollen fleeces. In BIN 4, 78:6–9, “pirikannū for clothing of the servants (ṣā lubūṣ suhāri), either menuniānu or ̯ēpisā”, they are considered to be suitable as (or for making) clothes, which may indicate that they were made of pirikannu-fabric. Here they cost only 1 shekel of silver apiece, as in KTH 6:6–8 (3 pieces, for clothing servants), in Kt n/k 190:1–2, ¼ shekel. Only Kt n/k 214:14 adds a qualification, “thin” (qatnum). Kt n/k 162:6 writes ma-nu-ni-a-ni-im and in CCT 1, 16b (= EL 131):26, and Prag I 740:13 there is contraction, me-nu-nē-nu-um; the plural in Kt 93/k 522:26 is spelled me-nu-ni-a-e. In EL 131, together with other items, including textile products of Talhat, it seems to have been shipped to Aššur. What a menuniānum was remains unclear (see also § 2.3.2 with note117).

nahlapptum, whose etymology and meaning have been discussed above in § 3.2, occurs a few dozen times in very small numbers (but 10 pieces in OIP 27, 11:8), frequently as personal property (e.g. TC 3, 193:6 and Kt 88/k 714:46). It features occasionally in a list as an article of trade (Prag I 616:9, 2 pieces, after 2 raqqātum; Prag I 740:15, 2 pieces, deposited in a house together with a menuniānum and a pirikannum to be sold in Kt n/k 437:6). It served as a gift to a “lord of the town” (bēl ālim) in Kt 91/k 543:3–4, and in AKT 4, 30:11 it comes from (had been made by?) “our bride-in-spe” (kallatum). It could be made of kutānu-cloth (OIP 27, 7:11.13, ša kutānim), and together with a piece of linen (kitā’um) and a pair of sandals apparently made a full set of clothing in KBO 9, 9 rev. 8’–9’. According to the marriage contract Kt 94/141:9–10, if the wife misbehaves, her husband will strip her of “her subātom and her nahlapptum”, together apparently a normal set of clothing of a woman. That it was worn on the body is shown by Kt k/k 2:24, “a nahlapptum for your breast” (ana irtika); according to ARM 10, 17:10 it is placed around a person’s shoulder. There is, as with most textiles, variety in quality, the best are “extremely fine, soft” (nahlapptān damiqtēn watartēn narībtēn; Kt 87/k 378:16–18, courtesy of Hecker). Differences in quality (and style?) are reflected in differences in weight, as registered in CAD N/1, 139, c (no weight attested in Old Assyrian), ranging between 5 (at Nuzzi), 2½ (Old Babylonian) and 2 pounds (Nuzzi) apiece. Prices also vary, due to quality, size and to where they

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163 Cf. the occurrence in Mari, in T 108:9 (Ziegler 1999, 56 note 359), of a [tūg-bar]-si irtim, a gift to a woman.
were paid, and some nahlapatum (especially those mentioned in the somewhat later texts from Alişar and Boğazköy) were probably Anatolian products. In ICK 2, 83:13’ one nahlapatum can be purchased for 10 shekels of silver, in Kt u/k 5:5 two(?) pieces cost 7½ shekels, in KBo 9, 263–4, one nahlapatum c.5½ shekels, in Kt 88/ K 71:46, some pieces ¾ shekels. That a nahlapatum was smaller and lighter than a normal garment is also clear from the use of strips of complete garments for making them, e.g. ARMT 21, 354, where 4 of them could be made from one ušublu-garment cut into strips (ana šerti ša 4 nahlapatum; Durand translates “pour le rapiéçage”; see CAD Ş/3, 113 s.v. širṭu).

namaššuhum, the Old Assyrian equivalent of lam(a)huššù (see above §3.2), was an expensive item, produced in and exported from Aššur. Most references are to one single piece, but CCT 5, 44a lists “10 namaššuhum of very good quality”, alongside 20 Abarnian and 10 Akkadian textiles, also of extra fine quality; 6 pieces occur in Kt c/k 449:7//458:10 (courtesy of Dercksen). According to Benenian 5:2–3, 4 túg namaššuhum ša kutāni, they could be made of kutānu-cloth and note also the listing in CCT 1, 39a:17–17 of five times 5 kutānu u namaššuhum, as if they belong together. According to the letter Kt 89/k 221:10–22 (courtesy of Kawasaki) an Anatolian ruler had taken a namaššuhum and used it as a garment: “As for the namaššuhum about which you wrote me, up to five times we went up to the ruler saying: ‘We will give you one mina of tin and then you must give us (back) the namaššuhum’. He answered: ‘At that time (when I took it) I asked you for tin, but you did not give it to me. Since you did not give me tin I have dressed myself in that textile and I have now worn it out’ (túg altabāšma u ultabbirīšu”).

nasistum, perhaps a textile product, but never written with the determinative túg. OIP 27, 55:8–9 // BIN 6, 162:12 mention “10 na-si-sa-tum, their price 3 shekels of silver”, KTS 2, 53:5–6 mention 1 shekel of silver as the price of 2 na-si-sa-tim (after a long list of pirikannu), and Kt 87/k 45:8 (courtesy of Becker) lists 11 na-si-sa-tum after wool, tin, palilu-textiles, a kutānum, šubuntu waDiūtium and šapiūtum and before items belonging to the harness of the donkeys. The context of the last two texts suggests that it may have been a textile product.

nibrārum, a name without a convincing etymology for a textile product that appears more than 20 times, both in Aššur, Northern Mesopotamia and in Anatolia, see Veenhof 1972, 172–173. It could be the same product as that mentioned in a Presargonic text from Mari, according to which 130 na-ab-ra-ru tūg are in a storeroom (MARI 5, 78, no. 18). Prag I 686:19–21 distinguishes between nibrārum of Šubarum and of the City.” In BIN 4, 10:35 Lamassū promises that she will send one from Aššur, according to KTB 7:12, 2 túg nibrārum are supplied to a transporter together with “loose tin”. In CCT 1, 36:11, one nibrārum figures alongside tin for expenses, oil and a burā’um textile, and in POAT 19:16–18 one nibrārum is shipped by Dān-Aššur together with 6 kusiātum. In Kt c/k 443:12 6 pieces feature among textiles exported from Aššur, but the parallel texts Kt c/k 449:7 and 458:10 show that this is an error for 6 túg of Šubarum. They are shipped by Dān-Aššur together with 6 kusiātum. In Kt 93/k 75:14–15 mentions one of Qaṭṭārā, Kt 94/k 734:3 (courtesy of Larsen), 5 nibrārum of Šabarum (cf. AKT 4, 30:9–11, “PN of Šabarum brought 1 nibrārum”), and they could be identical to “the nibrārum of Šabarum” of Prag I 686:19–21. We find them among Anatolian textiles, e.g. in Kuliya 57:16, with a sapdinnum and two štrā of Šabarum, and LB 1268:14–15 mentions 2 nibrārum of Apum; in Prag I 588:2–3 and Kt 91/k 372:5, they occur alongside tīsābū. They are qualified as “Akkadian” (Kt n/k 524:10), “of good quality” (damqum, in Kt 91/k 372:6, where they occur alongside tīsābū and štrā), and Kt 94/k 1686:8–10 and 38–40 list “46 Abarnian textiles or either kamsu-textiles or nibrārum of extra good kutānu-cloth” (“ša kutānu damqūtim watrātim”), but the classification remains difficult because the parallel text Kt 94/1687:13–16 writes “46 textiles, either Abarnian ones, or extra fine kutānu or kamsu-textiles or nibrārum”. Prag I 686:19–21 asks to buy “a nibrārum, either of Šubarum or of the City, or an Akkadian kusiātum, paying 10 or 12 shekels (silver), to be worn by me”, which demonstrate that they were valuable products, which were or could be made into garments worn by Assyrian traders.
pālilum, also attested in Mari (ARMT 22, 136:25 and 321:2–5, where the writing with the sign PA identifies the first consonant) and Nuzi, see CAD P, s.v., equated with nīg-šu-gur-ra. In TC 3, 164:12, 2 shekels of silver are paid for 2 túg pālilū, in KT 94/k 823:25–26 (courtesy of Larsen), 5 pālilū cost 10 2/3 shekels of silver, and in KT 94/k 1302:15–16, 8 pieces for 6 shekels of silver. TPAK 1, 37:5 mentions 3 pālīlum ša qātim, “of normal quality”, and KT 94/k 823:27–28 reports that “your servants are bringing you both pālīlum and wool”. Further attestations: Prag I 768:13, pālīlum mādī šarrūţī, “the pālīlum are completely torn into shreds”; KT n/k 97:3, lists 16 pālīlū between silver, tin and donkeys; in KT c/k 355:10–12, 2 pālīlū, mentioned alongside pirikannū, cost 2 ½ shekels 15 grains (of silver); KT 87/k 45:4 (courtesy of Hecker), “tin, 23 pālīlū 1 kutānum usnum, 10% túg waDiātum; KT 94/k 843: 3–4 (courtesy of Larsen), “22 fine textiles, a donkey with its harness, 2 pālīlū; KT 94/k 1302:15–16 (courtesy of Larsen), 2 pālīlū, alongside Anatolian textiles. The combination kita’ātum pālīlū, in CCT 5, 12a:10, “linens being/validating as pālīlum”, suggests that it denotes a specific funtion or shape, and this is comparable to ARMT 22, 321:3–4, 57 túg-ša-ha pa-li-lu, ša sig ša-ba za-am-ra, “57 šahhu-textiles being pālīlū, into which wool has been ...” [Durand 2009, 179, s.v. now suggests that it denotes a type of container on the basis of ARMT 22, 321:2 (p. 240), 35 pālīlū ša 10–ām túg ša-ba, “35 housses-pālīlum contentan chacune 10 étoffes.”].

parsīqum, rare, CAD P, s.v. “a sash, often used as headdress”; wearing one is expressed by the verb apārum in the stative. In Old Assyrian: CCT 3, 31:34, one, brought to a woman (followed by a nahlaptum), BIN 6, 122:11–12, “either a šīrum or a parsīqum”; KT n/k 1459:27, 2 pār-ši-ge ša šārtim (of goat hair; after 2 ropes of palm-fiber), KT 94k 938:7, 2 pā-ar-ši-ge. Not for trade but for personal use.

pirikannum (also parakannum) is by far the most frequent and numerous Anatolian woollen textile product, attested in large numbers, see Veenhof 1972, 124–6 and CAD P, s.v. By means of ša, a pirikannum can be connected with place names (attested are Hahhum, Haqqa, Kaneš, Mamma and Zalpa), which indicates its origin or specific local style of weaving, see above § 2.3.2. The largest number, 317 pieces, occurs in the broken letter CCT 6, 7a:5–6, and trade in these textiles is the subject of the emotional letter CCT 6, 14:47–5, whose writer wonders whether the trade in these cheap items is worth all the trouble and will yield enough profit. However, AKT 3, 19:7–11 mentions the sale of 300 putānum and 300 pirikannū to a local Anatolian palace. KT n/k 1385:15’–18’ implies that “10 soft pirikannu-textiles belonging to Itšar-bēṣīti” (produced by her or was she involved in their trade?) were converted into “refined copper of Taritar”. Texts record prices ranging between ¼ and 4 shekels apiece, which implies differences in quality (and size?) and we meet pirikannū that are said to be “extremely good” (KT 94/k 364:15, courtesy of Larsen). Several times “soft” pirikannū are preferred (see § 3.4.3 s.v. narbum). In TC 2, 60:1–8, 25 shekels are paid for 10 pieces to an Assyrian, and 15 shekels for 4 pieces to a native Anatolian. According to OIP 27, 55:1–4 63 pirikannū for garments for servants cost 110 ¼ shekels of silver, and 40 other pirikannū 86 2/3 shekels, i.e. prices of c.1% and 2 shekels apiece. These textiles become more prominent during the later period of kārum Kaneš level Ib and a text from this period, KT n/k 30:4–8, mentions 90 parakannū that have been deposited in the house of an Assyrian trader because of 2/¾ minas of silver, i.e. at c.1 1/2 shekel apiece. Pirikannū were used as (or for making) clothing for personnel, ana lubūš suhārī, cf. OIP 27, 55 (quoted above), BIN 4, 78:6–8 (“pirikannum that are strong enough to serve as clothing”), and TC 2, 49:19 (ana lubūšti bētim). Prag I 429:17–18 mentions red pirikannū, four of which are ša i-bi-ša, TC 1, 43:16 demands pirikannū that are of

166 CCT 6, 7a:3–11: 22 túg-pilīlum-ka, ša Šubīrim 1 x [...] 13 me’at 17 túg-pilīlum-ka, pirikan[nū] 22 túg-pilīlum-ka, maškūnum 11 maškūnum ša-pàšū, pirikanum [x]-x-rūrum, [...] 10 [šu-nīgin] 3 me’at 91 túg [...], ša šubīrim [...] (broken).

167 Lines 49–54, “What is the profit on pirikannū that I would trade them? May (the gods) Aššur and Šamaš trample it to dung! Are 30 donkey loads worth 30 pounds of silver? How many donkey drivers, how much harness and what journeys do they have to make?”

168 90 túg parakanum ša ina bēt E. A. aššumi 2 mana 15 gín kū babbar išškumūlāti. AKT 3, 91:6–10 mentions that two traders have established a claim on 60 parakanum and 12 Akkadian textiles.
good quality and large (\textit{lu damqū lu rabū}), and \textit{kT} 94/k 364:14–16 qualifies \textit{pirikannū} as being of extremely fine quality and mentions that “fine purchases” (\textit{šīmū tābū}) are possible. That they are made of wool is likely because they are frequently listed together with woollen fleeces (\textit{maškā}, at times qualified as \textit{šapātim} or \textit{šapūtum}), cf. VS 26, 30:4; CCT 4, 27a:11; CCT 6, 7a:5–7; BIN 6, 10:10; OIP 27, 55:19; and \textit{POAT} 8: 28 and 34. Of interest is the occurrence, in \textit{KTS} 10:4–6, of \textit{tūg kutānī pirikannīm}, which suggests that they could be worked into cloth of the \textit{kutānu}-type, which explains the verdict of the City of Aššur quoted in VS 26, 94–11, that forbade Assyrians to engage in their trade, to all appearances in order to protect the Assyrian import of woollen textiles into Anatolia: “Here a court case arose concerning \textit{sapidīnnum}- and \textit{pirikannu}-textiles and many people have been fined. You too have been ordered to pay 10 pounds of silver”. It led to the advice (lines 20–23), “Please do not get involved in \textit{sapidīnnum}- and \textit{pirikannu}-textiles and do not buy them!” Yet later, during the period of level Ib, this was no longer a problem and in the treaty with the ruler of Kaneš (line 69–70) it was even stipulated that he would receive 10% of the \textit{parakannū} imported into his town as tax.\textsuperscript{170} \textit{TC} 3, 192:7 mentions 4 donkey loads of \textit{pirikannī i-lu-ki}, where the last word, also a name for a textile, could be a qualification of \textit{pirikannum}.

\textit{pūkum}, a rare designation. We have both \textit{tūg pūkum} (\textit{RA} 60 [1966] 119:24 and \textit{FT} 4:6, in Larsen & Möller 1991, 231), between a \textit{subūtum} of Šubarum and one of the City, and three references to a \textit{šītrum ša pūkim}, in \textit{kT} 91/k 466:1, \textit{kT} 93/k 542:9 and \textit{kT} 91/k 501, in the last text qualified as “of extremely fine quality”, which cost 4 shekels of silver apiece. It could be a specific type of weave, from which \textit{šītrū} were made, or a type of garment with which it had to fit.

\textit{raqqatum}, “thin textile/garment”, a substantivated adjective (singular in Old Assyrian also written with vowel harmony, \textit{raqqatum}) with and without the determinative \textit{tūg}. It has a clear etymology (the adjective \textit{raqqum} is occasionally also added to other textile names, see below § 3.4). It is well attested at Mari,\textsuperscript{171} and is frequent among the textiles exported from Aššur\textsuperscript{172} and traded in Anatolia, where it occurs in small numbers, bought in Aššur for prices ranging from 5 to 10 shekels silver (of course depending on quality)\textsuperscript{173} and sold in Anatolia for up to three times that price. In \textit{TC} 1, 39:7–8, it occurs together with a \textit{lubūšum}, offered as a gift to a ruler.\textsuperscript{174} Several times qualified as “good” (\textit{damqum}; \textit{CCT} 2, 32a:17, \textit{TC} 3, 269:5, worth 30 shekels of silver apiece) and in \textit{CCT} 4, 48b:18–19 as “good and thin” (\textit{damqum qatattum}), where \textit{qatattum} is the result of using “thin yarn”. It occurs in enumerations alongside \textit{lubūšum, šilipka’um, kusītum, kutānum} and \textit{sārum},\textsuperscript{175} in \textit{kT} c/k 458:10–13 together with \textit{kamsu}-textiles, \textit{namaššuh}, \textit{kusītum}, and \textit{nibrārum}, and it appears regularly alongside \textit{lubūšum}.\textsuperscript{176} Other combinations are: \textit{lubūšū, raqqatum, kutānū (kT} 91/k 299:10–12), \textit{raqqatum, šilipka’um, kutānum (Prag I 74916–19)} and note \textit{VS} 26, 11: 26–30, “110 textiles, thereof 40 \textit{kutānū, 11 takkuštā’ū} and 11 \textit{raqqatum}, including 2 \textit{šilipka’ū (qādum šilipkēn)}”, which could imply that the latter were a specific type of “thin garments” (see below \textit{kT} 94/k 1751, courtesy of Larsen). It also features with Abarnian textiles (KUG 6:3–4) and \textit{kutānum} alone (\textit{KTS} 2, 29:4–5; \textit{CCT} 1, 28b:2–3; in \textit{kT} n/k 469 \textit{kutānum damqum, Kt} 89/k 266:5). Twice \textit{raqqatum} are qualified as \textit{ikribū}, “votive gifts” (and as such property) of a god, of Aššur in \textit{RA} 60, 111, no. 43:22, and of Ilabrat in \textit{VS} 26, 11:20. It is

\textsuperscript{169} For this letter, see Veenhof 1972, 126–127 and for its background Veenhof 2003, 90–94. \textit{AKT} 3, 52:6–4 mentions among the many items belonging to a certain Azu, alongside copper, antimony, oxen, donkeys, ėpišū, makāhū and Akkadian textiles, also three bales of \textit{pirikannū}.

\textsuperscript{170} See Veenhof 2008a, 193, h).

\textsuperscript{171} [See now Durand 2009, 87–90].

\textsuperscript{172} However, note the statements in \textit{TC} 2, 7:29 and \textit{CCT} 5, 5b:26, that there are no \textit{raqqātum} available in Aššur, which could imply imports from Babylonia.

\textsuperscript{173} \textit{kT} 91/k 491:14, “10 shekels of silver for a \textit{raqqatum} of (=made by?) Lamassū”; 6 shekels in \textit{AKT} 4, 17:7.

\textsuperscript{174} See Veenhof 1972, 152–4 and \textit{CAD R, s.v. raqqatu A}.

\textsuperscript{175} \textit{RA} 60 [1966] 116, no. 43:4–7 and 18–20; \textit{CCT} 1, 41a:1–8; \textit{CCT} 5, 28c:6–8; \textit{VS} 26, 74:37–42.

\textsuperscript{176} \textit{TC} 1, 39; 6–7; \textit{CCT} 5, 18b:9–10; \textit{ICK} 1, 92:2–4; \textit{KTH} 11 rev. 8–10; \textit{kT} 94/k 1701:29’–30’.
possible that raqqatum was a ready-to-wear product, because in Kt 94/k 1751:5–7, 2 šulupka’u-textiles and 2 raqqatum of good quality are qualified as ša lubūši ša abini, “for/as garments for our father”. This would also make them appropriate as a gift, e.g. in KTS 57a:6, where two pieces are offered to a local ruler.

sakkum occurred first only in texts from the later period of kārum Kaneš level Ib: in UF 7 (1975) 318, no. 3:4 (alongside kutānī), OIP 27, 11:9 (read: 3 sā-ku), and KBo 9, 8:13 and 9:8 (sā-kā-am). But it has now turned up already in a level II text from kārum Kaneš, in Kt c/k 866:7 (courtesy of Dercksen), where 17 tūg sā-ku sig, occur in a list of exported textiles. Also known from Mari [see Durand 2009, 54–55] and from inscribed bullae from Acemhöyük (Karaduman 2008), it is written tūg sa-kum, but sa-ak-kum in Ac.i.1085. It is distinguished for quality into sag, “top quality”, and ús, “second quality”, and the former, according to ARM 10, 19:5, was worn by Mari’s king. In Acemhöyük and Mari, we also have the combination sa-ak bu-re-(e)-em (Ac.i 1097, ARM 7, 253:5, 270:6, and ARMT 21, 257:18 [cf. Durand 2009, 92–93, ‘tissage (serré) pour un matelas’]), where the second word is perhaps rather the textile sākum when used to make specific fabric or cloth.

sapdinnum, after pirikannum, alongside which it occurs frequently, the most important native Anatolian textile product (see Veenhof 1972, 170, no. 15). Both are also mentioned together in a verdict of Aššur that prohibits Assyrians to trade them (see above s.v. pirikannum). The meaning of the word is unknown. Lewy proposed, tentatively, “fleecy cloth”, connecting it with Syrian spuddā (with an Anatolian ending -innum?), which is better than Garelli’s interpretation “woollen textiles”, who read the word as sapdīnum and connected the word with tūg šapiti(m), “textiles of wool”, which occur in a few texts from kārum Kaneš level Ib (see above § 3.2, end, with note 143). According to KTS 36c:9–10, sapdīnum of good quality were bought in Hahhum, Kt 94/k 1672:20 and Kt 94/k 1387:19–20 (courtesy of Larsen) mention sapdīnum of Talhat, and Kuliya 57:16 lists sapdīnum nibrāram 2 šītrē ša Zalpa. They were not expensive, 5/8 pound of copper was paid for one in BIN 6, 227:8–9, but TC 1 81:5–6 registers a price of 5/8 shekels of silver as a debt. Sapdīnum was a category of textiles that comprised products called tisābūm according to CCT 5, 12a:8–9 and Kt f/k 117:5–7 (respectively 14 and 10 sapdīnum of which 4 and 2 were tisābū), but Kt n/k 141:4–5 lists them alongside each other (1 tūg sapdīnum 1 tūg tisābūm 4 mašē). The biggest number is 23, in Prag I 434:3, where, together with another lot they will be sold piecemeal.177

Many textiles are named or qualified by adding to ša + noun in the genitive to tūg/šubātum in order to indicate its origin or specific nature.

ša Akkidīē, “of the Akkadians”, also without tūg, because the combination is very frequent; see § 2.1.2 and Veenhof 1972, 98–103 and 158–159, where the texts VS 26, 17:4–14 and TC 1, 11:9–18 are quoted, which mention that they were brought to Aššur by “Akkadians”, that is inhabitants of Babylonia. Other items qualified as “of the Akkadians” in Old Assyrian texts are musārum, a type of belt or girdle (CAD M/2, 110–111, s.v. miserru), and a kind sheep (udubu ṣuppu raqqātum ša Akkidīē, “thin Akkadian ṣuppu-sheep”). See for the rare writings ša A-ki-di-im above, § 2.1.2, s.v. These textiles occur frequently, usually in restricted numbers, but 80 pieces in KTK 39:7; 34 in BIN 4, 51:5; 15 in BIN 6, 54:4, CCT 5, 36a:8, and TC 3, 128A:5, etc. They belong to the more expensive products (in Kt v/k 151:4–5 one pays 5 minas of tin for one piece) and some are qualified as “extra fine, of royal quality” (CCT 5, 44a:4), “extra fine” (TC 1, 72:5) and “fine” (TC 3, 36:22). The term refers to a woollen fabric of a particular type or style, which apparently could (also) be used to make specific textiles or garments (see above § 2.1.2, note 82), such as kusītum and burā’um (Prag

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177 23–25, sapdinni išti tamkāri alqema išti, sapdinnišu uš-ta-ta-tim sapdinni ašar, ataddinu ...; KKS 2, 29:4 records an agreement about a trader’s liability for, among others, two sapdinni. Additional occurrences: Kt 94/k 1302:9 (28 pieces at 1/6 shekels of silver apiece); Kt 94/k 1605:81–82.
12. The Textiles Traded by the Assyrians in Anatolia

I 709:23–25, šīrum (Kt n/k 437:3–4), nibrārum (Kt n/k 524:10) and those mentioned in Yale 13092:8–12 (quoted in notes 67 and 282).

ša ālim, “of the City”, scil. of Aššur, see § 2.1.2. It is used of šubātum (Kt 93/k 887:27), in FT 4:25, and AKT 3, 16:3 it occurs alongside “a kusītum of Šubarum”, and Prag I 686:10–20, mentions a nibrārum, either of Šubarum or of the City, or an Akkadian kusītum”. In Kt n/k 437:3–5, 2 šītrū ša ālim occur alongside a šīrum ša Akkidē.

ša b/pard/titi, read ša maššīti in Veenhof 1972, 181, because the first syllable was written in OIP 27, 55:63 with the sign MAŠ or BAR, to be corrected on the basis of a duplicate of this text, Prag I 429:33, which writes “1¼ shekel ana tūg ša BA-ar-dī-tī”, followed by a payment for pīrikannū. However, the meaning remains unclear.

ša liwītim, “for wrapping” (see Veenhof 1972, 28–30, for the various combinations), a functional designation, usually added to šubātum and occurring in the combination “x textiles, including those for wrapping” (qādum ša liwītim), but it is also regularly added to the textile called šūrum. Note also kutānū ša liwītim in CCT 4, 23a:14 and 2 šubatēn kabtēn, “two heavy textiles”, used for this purpose in ATHE 51:2’. Used primarily for wrapping the plaques of tin, but occasionally also for packing other textiles and it is clear that one normally used less expensive, perhaps somewhat coarser fabrics for this purpose. This is ordered in Prag I 718:21, “do not use a fine textile for wrapping” (šubātum damqam illiwičim lā talawwiā), but occasionally also one used a few textiles of good quality for this purpose (HG 74:10), which is understandable because textiles that had served this purpose were also sold. However, in EL no. 123:4 and 6 šubātū ša liwītim are said to be part of a large group of textiles of good quality (damqum), and Kt 93/k 304:5 has the puzzling statement “81 kutānū of medium quality, including those for wrapping (qādum ša liwītim), of which 20 are kutānū of good quality”.

ša ma’ešu, “of its water”, meaning unclear, hardly “waterproof”; two occurrences in Veenhof 1972, 181 and Kt 94/k 723:9, 3 tūg ša ma-e sig,-tum.

ša rab/pād/tim, see for two references Veenhof 1972, 182, and now also Kt a/k 532:5–7, [x]3 abarni‘ū [x] kutānū 1 tūg kamsum, each qualified as ša ra-BA-TIM, given to a man for transport. The presumably long middle vowel (no vowel harmony) suggests the infinitive of the verb rapādam “to run”, although the adjective kablum, “heavy”, added in VS 26, 58:59 does not favor that, but CAD R, 148, 1, a, 2’, accepts it and translates “for traveling”, but this is not exactly what rapādam means; uncertain.

ša qātim, “of the hand” = “of current/normal quality”, also abbreviated to qātum, used as a noun in apposition. Extremely frequent, especially alongside textiles qualified as “good” (damqum), see below § 3.4.1.a.

ša šuhrim, “of/for children (šuhrum is a collective). Qualifies various textile products, such as šubātum, Kt 75/k 78:2, AKT 2, 52:10, etc.; kutānūm, Kt 94/k 75:8; lubūšum, BIN 6, 84:30, but it is occasionally also qualified itself by an added ša + genitive: 1 šubātum ša šuhrim ša lubūšim, KTS 2, 31:3, and 3 šubātū ša šuhrim ša Akkidē, Kuliya no. 229:10–10 (in Prag I 616:4 written ša Akkidēm). In the last case, the addition must indicate from which type of fabric it was made or in which style it was fashioned, but the adjunct ša lubūšim does not mean “for (wearing as) a garment”, but rather made from the fabric used for a garment. In most cases

178 See for the corresponding verb CAD L, 73 s.v. lamū, 3, a, and also Kt n/k 1466:7–9, “4 talents of tin, 8 textiles of you, they wrapped” (i.e. the tin in the textiles?), and VS 26, 149:4–7, “9 bags with tin, of them 6 are wrapped and 3 not” (6 lawīā 3 ulā lawīā), that is 6 bags contained tin wrapped in textiles and 3 unwrapped tin. POAT 19:33 asks that the tablet with the last will of a trader be wrapped in reed (ina qanū‘ē lawwi‘ā) before being entrusted for transport, and Kt n/k 405:10–11 asks to wrap a debt-note “carefully in a hide” (ina maškim damqiš lawwi‘ā) for sending it overland.

179 In EL no. 143:18 one encounters “bags for wrapping/packing” (naruqqum ša liwītim). See also footnotes 218–220.
it is simply listed, but occasionally, the context shows that it was actually meant to be worn by a child, e.g. Kt 75/k 78:2–4, 1 šubātam ša suhrim mer’assu ulabbiš, “I gave his daughter a garment for a child to wear”.

ša šadādim, twice, Prag I 741:8’, [x] kutānī ša ša-da-dī-im, and Kayseri 4698:46–47, “after the textiles had come down from the palace, A. took a textile (šubātam) qā-du ša ša-da-dim.” Identifying šadādim as a genitive of the corresponding verb, “to draw, to haul”, does not yield a suitable meaning. Cf. perhaps Kt 87/k 434:1–3 (courtesy of Hecker), “23 kutānī, of which 5 are tūg ša-da-im and 18 šāru-textiles”, which confirms that they can be made of woollen cloth, but is equally unclear.

šaddum(?). CECT 1, 37b:9 mentions 1 tūg kutānum damqum ša-DU-um and TC 2, 37:26–28 writes “Take a decision on the šubāti ša-du-tim that are here”. CAD Š/1, 42 s.v. šaddu, 3 “(uncertain meaning)”, in the second text transliterates ša-tù-tim and translates “delayed(?)” (which requires a reading šaddātim!), starting from a special meaning of the verb šadādim attested in Old Assyrian (CAD Š/1, 30, 6). The first reference is too laconic to decide whether its fits. The younger text KBo 9, 21:1–10 lists a series of tūg ša-DU (unless one emends into ku'-ša-tū) at different prices (ranging from 4 2/3 shekels to 9 shekels apiece), to end with “1 kutānum for 10 shekels”. This ša-DU probably is a different word, since it lacks the adjective ending and “delayed” does not fit in this list.

ša Sarruttim, abbreviated from ša lubūš šarruttim, “of royal wear”, top quality, see below § 3.4.1.a. Qualifies šubātam (BIN 6, 23:16), abarnīum (Kt n/k 533:18), ša Akkidiē (CCT 5, 44a:4–5) and kutānum (Kt m/k 8:22–23, courtesy of Hecker).

ša Šubrim, “of Šubarum (Šubartum)”, or simply “Šubarian”, see § 2.1.2 and Veenhof 2008, 18–19. It qualifies “textiles” (šubātī) in general (22 pieces in CECT 6, 7a:2–3), but also specific ones, e.g. a kušitu-garment, in Larsen & Möller 1991, 231 no. 4:34–35 (alongside “2 textiles of the City”). In Prag I 686:19–22 a garment to be sent to the writer to dress himself in (ana litabšim) could be a nibrārum, a Šubarian one, one of the City, or an Akkadian kusītum. This shows them to be fine products, qualified as “good” (damqum) in RA 58, 117–118:4, and Kt 91/k 344:10–12 mentions a shipment of “6 ¼ heavy and good Šubarian textiles” (šubātī kābtūtim damqūtim ša šubrim). We do not know what kind of a product it was, it could be in the style or weaving technique used in Šubarum, but it could perhaps also refer to the wool it was made of, since a letter from Šušarrā (Eidem & Laessoe 2001, 50:7) mentions the existence of “Šubarian sheep” (uduhā šubīri). Here the real nisbe is used, also attested in tug šubarm in Mari, see ARM 21, 318:5, 2 tūg šu-ba-ru-ú, perhaps also in 23, 617:1 (1 šu-ba-ram, without tūg).

šiknum, only in Prag I 429:63–64, 2 DU-KU-DU 2 tūg kusītānum 1 ši-ik-nu-um 1 raqqutum, listed in CAD Š/2, s.v. šiku A, 439, but on the basis of an older edition, where the numeral before šiknum is missing so that it might be taken as a qualification (in the singular?) of the preceding kušītu-garments. As a separate name it could mean a spread or cover, as suggested by Durand 1983, 407, for RA 64 (1970) 33 no. 25:1–2, 1 tūg ha-li šiknum ša šānā, on the basis of the final words “of/for a bed”.

šilipka’um (šulupka’um), see Veenhof 1972, 165–166 and CAD Š/2, 444 s.v., presumably a nisbe, see § 2.1.1. Belongs to the more expensive textiles exported from Aššur to Anatolia and usually occurs alongside raqqutum, kusītum, takkuša’um and kutānum of good quality, nearly always only one or two pieces, but four in KTB 16:4, and possibly made in Babylonia (see above § 3.2 on its occurrence in an Old Babylonian text from Kisurra). We know nothing of its characteristics, but according to VS 26, 11:27–30, “42 kutānum 1

\^{180}  We may add to what is mentioned there in footnote 24, that the nisbe in Old Assyrian not only appears as Šubrium (in amtam šu-ub-ri-tām, CCT 3, 25:35), but also as Šubrium, in Kt n/k 213:28–29 (courtesy of Bayram), wardam šu-bi-ri-a-am, and Kt 79/k 101:21, ana ... šu-bi-ri-im, “to a Šubarian”. See also Michel in press b.

\^{181}  [Durand 2009, 111 points out that, as the mention of “Šubarian sheep” at Šušarrā confirms, Šubartum was rich in wool].
texts cost 7
'tied' to the slave-girls" (Veenhof 1972, 168–169, where LB 1293:15–18 is quoted, which mentions that "56 šulhum (courtesy of Larsen) amounts of 3/4 and 1 1/8 shekel of silver, but CCT 1, 50 (= 91/372:5–8. Some occurrences relate it to a town:
šitr ne quality, cf. Kt n/k 214: 24–29 (in a letter to a woman), “Buy for me soft wool for my trip”. It was usually made of wool, cf. Kt n/k 214: 24–29 (in a letter to a woman), “Buy for me soft wool for šitur and send it at the next opportunity, since I have no šitur for my trip”. It was a fairly cheap item, in KUG 19:8–10 the price of some šitrum was 1 shekel of silver, in Kt 88/71:47–48, 4 and 3 shekels were paid for šitrum, in Kt 94/k 432:12–15 (courtesy of Larsen) amounts of 3/4 and 1 1/8 shekel of silver, but CCT 1, 50 (= EL 296):6–8 mentions 6 šitrum of Zalpa sold for 20 shekels of silver. A šitrum made of pūku-fabric cost 4 shekels in Kt 91/k 466:1–2 and must have been of fine quality, cf. the request in Kt 91/k 501:6–8 to buy “šitrum ša pūkin of extremely fine quality”, as may have been the one that was a votive gift for the gods Sîn and Šamaš (together!) in Kt 91/372:5–8. Some occurrences relate it to a town: šitrum of Zalpa in AKT 4, 4:5, BIN 6, 184 rev. 10’, Kuliya 57:13, CCT 1, 50:6; “of the land of Nawar” in Kt 94/k 432:13–15. More frequently it is linked with various types of textiles by means of ša, presumably referring to the fabric from which it was made or the type it should match. TCL 1, 19:10–13 asks to send 2 šitrum ša lubûšē, 2 šitrum ša sapdinnī and 2 šitrum abarnnī, and such specifications occur more often: ša abarnnī (also in Kt 93/k 75), ša Akkidiš (also in KTS 4, 28:13; TPAK 1, 28:10, Kt a/k 253:12–13 and Kt n/k 437:4), ša lubûši/lubûšim (OIP 27, 58:25, TC 1, 19:10–11, RA 60 [1966] no. 43:33, and Prag 1 740:3), ša kūtānim (RA 59 [1965] 35:16 and Kt 94/k 208:23, damqum), ša pūkin (Kt 91/k 501:6–7, Kt 91/k 466:1, and Kt 93/k 542:9), and ša ālim, “of the City (of Aššur)” (Kt n/k 437:3).

šulhum a textile product, usually written with the determinative tūg, that appears c.15 times, but neither etymology nor context illustrate what kind of product it was. See for references CAD Š/3, 239–240 s.v. and Veenhof 1972, 168–169, 13, where LB 1293:15–18 is quoted, which mentions that “56 šulhum and Akkadian textiles cost 7½ shekels of silver apiece”, and indicates purchase in Aššur. This price agrees with CCT.
Šûrum, an adjective (notwithstanding a few plural forms šu-ru-ū) not attested outside the Old Assyrian sources, whose meaning is unclear (see Veenhof 1972, 154–6 and CAD Š/3, s.v.), usually preceded by túg, but occasionally without it, nearly always treated as adjective, but a few times túg šu-ru-ū (BIN 4, 189:19; 6, 60:17). A clue for its meaning is perhaps offered by ICK 1, 172:13, where šûrum qualifies uduḫī šu-pū-tim. According to CAD Š, 249, s.v. suppu A (where its lexical equation with udu-babbar, “white sheep”, is recorded), such sheep were probably characterized by a white and curly fleece, in which case the added šûrum might indicate a darker color (brownish?), which then might also apply to these textiles. Túg šûrum were exported in great numbers from Aššur and in caravan reports they frequently occur alongside the 30 to 50% more expensive kūtānu. They were a cheaper and presumably somewhat coarser textile (made from coarser wool or threads?), but they could nevertheless be subsumed under the kūtānu, as in Kt/87 k 434:1–3, “23 kūtānu-textiles, thereof 5 túg ša-da-im (and) 18 šīru-textiles”. However the summary of various bales of textiles in VS 26, 11:27–39 lists them separately from the kūtānu, takkušta’ū and raqqātum, but BIN 6, 60:13–15, “We counted 85 textiles, thereof 24 Abarnian ones, including (qādum) one šīru-textile” surprisingly ranges one among the Abarnian textiles. We frequently meet túg šûrum ša liwîtim, “for wrapping” (see above under ša liwîtim), regularly used for packing the slabs of tin and occasionally also for other merchandise. “Heavy (kabtum) šīru-textiles for wrapping” occur in CCT 3, 4:7 and ATHE 51:2–3 (read: kabṭen, [ša li-wi]-tim). These textiles were regularly sold in Anatolia. In the records Kt 92/k 98, 110, 113, and 121 many bales of these textiles are said to be of/belong to (ša) a number of persons, presumably their owners or the agents who had shipped them, and they specify how many of them had been paid as tax, had been pre-empted (no doubt by the local palaces), had been used for wrapping, and how many remained available for sale. The large memorandum CCT 5, 36a, which lists substantial numbers of textiles, summarizes in lines 17–20: “In all 335 kūtānu, 128 šīru or Abarnian textiles, 24 thereof for wrapping” (túg liwîtim). Unclear are RA 60 (1966), 141 no. 8:3–4, 10 túgḫī šûritum lu-bi-ri, according to CAD L, s.v. lubēru, “as clothing”, and Kt c/k 173:1–3, 20 kūtānu 17 túg šûrum ša-DE-UM šu-ri-im. That they were appreciated and could be valuable is clear from EL 145:5; where they figure as a gift to an Anatolian queen, and BIN 6, 186 rev.:5’, where they

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187 Michel 1997, 109, with note 156, has doubts, observing that šu-pu-tim is an adjective, while the plural should be suppu, as in CCT 5, 32a:13–15, 14 uduḫī šu-pu-ū raqqātum ša Akkidīti, “14 thin Akkadian suppu-sheep” (another parallel between designations of sheep and textiles). Yet, since no other explanation has been suggested, it seems possible to consider suppu at ICK 1, 272:13 a mistake, understandable since the word follows the noun udu, and perhaps caused by the following šūritum. See for suppu also Kt 94/k 462:1–4 (courtesy of Larsen), which record a payment of 2½ shekels of silver for a sheep (u du) and of (only) 1 shekel 15 <grains> for a šu-pi-im.
188 For the system, see Veenhof 1972, 30–32: one donkey load of tin weighed 130 pounds, 65 in each “half pack”, designated as a “(standard) weight” (šuqlum), which comprised two packets of c.32.5 pounds, each wrapped in one textile.
189 Note in Kt c/k 1104:’5”, the sequence kūtānu, šûrum, kūtānu, tabmūṭum.
190 E.g. Kt 92/k 1211:11: 30 lá 1 túg šu-ru-tum, ša Šu-Ištar, 15 túg ša En-na-Sú-in, šu-nîgin 44 túg šu-ru-tum, ša Šu-Ištar ù En-na-Sú-in, ša-ba 4 túg i-na, ni-witum, 4 túg ni-is-ha-tum, 4 túg i-ši-mi-im, 32 túg (remain available).
are a votive gift to the goddess Ištar. This is confirmed by TC 1, 19:16–18, which mentions two such textiles of fine quality intended as garments for a trader (2 šûrûn damqēn ana litabšia).

ta-dī-im, meaning unknown, in KTS 1, 54b:1–4, ina 22 kutānī, 1 tūg ta-dī-im, 1 tūg kamsum, 2 tūg sapdinnū, which suggests that the final –im is not a genitive ending. See also the mention of its price in Kt c/k 811b:14–15 (courtesy of Dercksen), 1 mina of silver ša šīm, ta-dī-im.

takkuš’āum, an expensive textile, presumably a nisbe, see § 2.1.1, bought in Aššur (TC 1, 47:43–8), exported from there into Anatolia, but also attested at Mari, where a text shows that it had been given to a man from Mari in Babylon (see above § 3.2). It occurs c.15 times, in modest quantities, rarely more than ten pieces (11 in VS 26, 11:28) and according to CCT 5, 46b:6–8 (see Veenhof 1972, 166) the “counter value/equivalent” (mehrātüm) of ten pieces was 2 minas of silver or c.12 shekels apiece, but this may not reflect a normal sale.  

tisābūm (the spelling is conventional, always spelled with Dí-ZA-BA/U/I, which leaves the nature of the consonants unclear, while first vowel could be e or i), a native Anatolian textile product whose etymology is unknown and which has not turned up outside Old Assyrian sources, where it is thus far attested c.15 times (see Veenhof 1972, 170–171). CAD T, 371 s.v. tēsābū lists it together with a few occurrences of te/i-ṣa-bu in Neo-Assyrian sources, which is tentatively translated as “leftovers”, but this is not convincing, because such a meaning does not fit in Old Assyrian, where it is an Anatolian textile product. Kt 94/k 1373:18–19 (courtesy of Larsen) mentions one of very good quality to be used as a garment (1 tūg tisābūm damiqtam āturtam ana litabšia) and shows that the noun was feminine. This may also be the case in Kuliya 54:4–6, where an Anatolian owes “1½ shekel of silver (remainder) from the price of a textile, that (for which?) he bought a tisābūm for his wife”. The relation of tisābūm to the other main Anatolian textile products, pirikannum and sapdinnum, is not very clear. Kt 94/k 1672:19–20 (courtesy of Larsen) asks the purchase of “either tisābū of Hahhum or sapdinnū of Talhat”, while in CCT 5, 12a:9 (which keeps them separate from pirikannū of Kaneš) and Kt f/k 117:5–7 tisābū are said to belong to the category of sapdinnū, and Kt 93/k 891:5–9 writes, “I gave you 9 pirikannū of Zalpa under my seals, 3 thereof are tisābū”. In Kt c/k 141:4–5 a sapdinnum and a tisābūm occur together, while in Kt c/k 102:3–5, “4 tisābū of Timilkiya” figure alongside pirikannū and woollen fleeces. In Kt a/k 626:1–6 a shipment consists of tin, 61 kutānī, 1 tisābūm and three woollen fleeces, BIN 4, 51:39–40 mentions 7 pieces alongside 3 woollen fleeces. In BIN 6, 84:5–6 and 14–15 twice 1 tisābūm occurs alongside wool and other items; Prag I 588:2–3 mentions one together with a nibrārum, as is the case in Kt 91/k 372:4–5, while LB 1268:13–17 lists as the contents of one bag: 3 burāʿū, 2 nibrāū of Apum, 1 tī-sā-bu and 2 pirikannū. The biggest number, 18, occurs in KTB 7:5–6.

tudīqum (d/tudīqum?), only in TC 3, 49:30, DU-dī-qam ... ša 3 inammitim alqe, “I acquired a tudīqum measuring 3 cubits”, perhaps a textile product if to be connected with the verb edēqum, “to don a garment”.

z/š/sirum (quality of the first consonant uncertain), attested in KTS 2, 17;20, 1 tūg Zī-rum, in damaged context, after other textiles, and in Kt 94/k 1023:8 (courtesy of Larsen), 2 tūg Zī-ri 1 tūg abarnūm. This textile, plural Zī-ra-tum, is known from Old Babylonian texts from Susa and from Mari, where, in ARM 18, 47:1, 48:1, and 21, 338:1, the words “x ziratum lawā” head identical lists with pieces of apparel presumably meant for one person, which suggest a use for wrapping or packing goods; see Durand 1983, 450 note 13.

192 The mention of “counter value/equivalent” suggests that the situation was not one of normal sale in Anatolia, but that they were taken over by another trader (line 8, “I gave it to you”), who paid a standard price on receipt and it may even have been a preliminary payment, since line 16 mentions (in broken context) “the outstanding claim (for payment of) your takkuša-u-textiles”.

193 Ina šīm šubātim ša ana aššitišu ti-sā-ba-am iš-ū-mu-ū.

194 CCT 5, 12:8–9, 14 sapdinnūša-ba 4 tisābū, Kt f/k 117:5–6, 10 tūghid sapdinnūm ša-ba 2 tūg ti-sā-bi-im.

195 Additional occurrences in TPAK 1, 200:13, a debt consisting of 13 shekels of silver and 2 tisābū, and in Kt 93/k 253:33.
3.4. Qualifications
3.4.1. Indications of quality
The quality of textile products is indicated by the following adjectives, to which are added those attested in Ur III texts, both for wool and for woollen textiles, especially for the more expensive textiles called guz-za, ni-lám and bar-dul:

Old Assyrian

a) ša (lubuš) šarruttim, “royal class”, “of royal wear”

b) damqum watrum (šig, diri), “of very fine quality”

c) damqum (šig,), “of fine quality”

d) tardium, “of next good quality”

e) ša qātim / qātum, “of normal/current quality”

Ur III196

a) šār (lugal)

b) sig5 / ús-šār

c) ús-sig5 / 3–kam-ús

d) gin

Ur III only knows a), the quality sag, “top quality”, is not used, but occurs e.g. with túg-ni-lám-ma in Hh 19, RS Forerunner (MSL 10, 74ff.), alongside ús, but the standard recension in lines 114–118 distinguishes túg-ni-lám bān-da lugal, sag (equated with rēštū) and ús (=terdennu). In Mari, textiles called ǔtublum and sakkum and barātū are qualified as sag, a sakkum once as ús (Ac, i, 903). At Šušarrā we find the sequence sig5 – ga – terdennu (Eidem 1992, no. 138:1–6), and at Tell Rimah sag – ús (OBTR no. 70:6–7). Instead of sag one occasionally uses bērum, “select” (= igi-zāg/zag-ga, frequent with wool), e.g. ARMT 22, 139:7, túg-guz-za bē-rum; 23, 375:1, ǔtuplu be-ru). In general the quality depends both on the type of weave and the quality of the wool and therefore wool qualified as ús yields a textile qualified as ús (ARMT 23, 376:1–2).


b) damqum watrum: several times of kutānā, but occasionally also of Abarmian (BIN 4, 185:3–4, CCT 5, 44a:1–2) and Akkadian textiles (CCT 5, 44a:4–5), of burā’um in BIN 4, 160:12, of nahlapum in Kt 87/k 378:16 (courtesy of Hecker, + narištum, “soft”), of namaššuhum (šušām-lám) in AKT 4, 24:1–3 and CCT 5, 44a:2–3, of pirikānum in Kt 94/k 364:15–16 (courtesy of Larsen), of tisābām in Kt 94/k 1373:1–19, and of unspecific šubātī. Note also Kt m/k 35:11–12 (courtesy of Hecker): 11 šubātī damqūtim watrūtim qaqqad šubātī, where “extra fine textiles” are called “top textiles”. “Extra fine” of course means expensive, cf. the order in Kt 94/k 729:12–15 to send from Aššur kutānā of extra fine quality that cost at most 12 shekels of silver apiece (ša 12 gīn-ta kū-babbar ū, šapliš).

196 See Waetzoldt 1972, 47–48, who distinguishes for wool an older system (with c, d, ús, and e) and a younger one (with a, c, 3–kam–ús, 4–kam–ús, and e). Occasionally 5–kam–ús is added before e) and in Lagaš (Gudea) šār may alternate with or appear alongside sig5.

197 Note its use of iron, in Kt 94/k 1455:26–27 (courtesy of Larsen): ašiam zakku’am ša šarruttim, “pure, top class iron”. 
c) _damqum_: frequent, used of unspecified _šubāti_ and of _abarnūm, kutānum, raqqutm_ (Bursa 3773:5, Kt 94/k 131:5–6), _kusītum_ (TPAK 1, 173:6–7, KTS 2, 25:16), _šulupk'a_ (Kt 94/k 131:5–6), _kit'a_ in CCT 4, 44b:17–18, _nibrārum_ in Kt 91/k 372:6, _sapidinnum_ in KTS 36c:9 and Kt k/k 29:4, _kuš(š)atum_ in OIP 27, 11:4. Note the reference Chantre 10:6–8: x _tūg _sig, thereof .... 4 _tūg_īša _liwītim_ and passim in the sequence “x _tūg _sig, y _tūg_”.

d) _tardi_um: “of next, following (quality)”, presumably after _damqum_, cf. the sequences _sig, – ús_ and _sag – ús_ in various texts (Mari, Acemhöyük, Tell Rimah, see above). In _Sušarrā_ (see above) and at _Nuzi_ (see CAD T, 227, b, 2’), we have the syllabic spelling _tēr/tdennu_. In Ur III in the combinations _ús-šār_ and _ús-sig_, the relative notion _ús_, “following after”, is specified and this yields a continuous series: _šār, ús-šār = _sig, ús-sig, 3–kam-ús, 4–kam-ús, 5–kam-ús_. What _tardi_um means can become clear when it occurs in a sequence, especially after _damqum_, as in 1 _kutānum damqum_ 1 _kutānum tardium_ 1 _raqqutm_ 1 _ša Akkidiē_ (Kt 94/k 981:1–3, courtesy of Larsen), in “164 textiles, thereof 20 textiles of good quality, the others (_alliiātum_?)” _tardi_ūtim (Kt 93/k 765:12–14), and in “400 textiles, thereof 25 of good quality, including the Abarrinnan ones, 18 textiles _tardi_ūtu ... 17 _maṭti_ūtu_ (Kt c/k 443:5–8). However, from “603 _kutānu_, thereof 100 _kutānu tardium_” (Kt 94/k 1687:1–4) we cannot simply conclude that the other 503 pieces were of good quality. And “82 _tardi_ūtim of good quality shipped by A., thereof 24 _tardi_ūtim, packed in 18 bags ... 94 _tardi_ūtim of good quality shipped by L., thereof 25 _subāti tardium_ (and) 10 textiles for wrapping, packed in 18 bags” (Kt 91/k 106:1–6, 9–15), too is unclear. These last occurrences may indicate that many of the good quality textiles could include a number of textiles which were of less good quality, but still too good to be qualified as “current/standard quality” (_ša qātim_). This may explain the use of _tardi_um as an independent mark of quality, as happened in _Nuzi_, where _tertnnu_ figures as a noun without gender congruence, e.g. in _ītenntūtu hullānu tertennu damqūtum_ (HSS 19, 79:16), “_one nahlaptu tertennu_ (HSS 15, 201:13, cf. CAD T, 227b, 2’).

e) _ša qātim_, “of the hand”, “current, normal quality”, also abbreviated to _simple qātum_, used as an apposition with case congruence, e.g. in BIN 4, 221:6–8, 110 kotānī qā-tām 8 _kotānu damqītim_, and CCT 6, 3a:22–23, _šubāti damqītim qabliūtim _ū qā-tām_. When used in a sequence it always occurs alongside _damqum_, cf. VS 26, 53:10–11, POAT 28:20–22, etc. Note BIN 4, 65:16–17, _ina damqītika 2 maṭti _ūma allibbi ša qātim nad[u], “of your good quality textiles 2 pieces are of less quality and they have been added to those of normal quality”.

Old Assyrian _ša qātim_ is comparable to Ur III/OB _gin_(= _alākum_), which has the notion of “being current”, cf. _māhīrat illaku_, “the current rate of exchange”. Cf. also _sig-gin_, “normal/ current wool”, alongside _sig-igi-sag-ga_, “selected wool”.

f) _maṭium_, “lacking in quality”, a relative notion, rare in enumerations, but 16 _kutānu damqūtum_ 10 _kutānu maṭītum_ (Kt b/k 198:14–15) and 400 _subāti ša 25 _subāti damqūtum_ ... 18 _subāti maṭītum_ ... 17 _maṭītum_ (Kt c/k 443:5–8). More frequently used to single out some textiles that are below standard and are included in a
lower category, cf. BIN 6, 65:16–17, quoted under e). They are used for various purposes, such as paying taxes, making a deposit in the kārum, or for wrapping (Kt 94/k 848:3–4, courtesy of Larsen, “20 kutānū, including 12 kutānū maṭiṣitim for wrapping”), but they still could be sold: “The rest (of them), 3 pieces of less quality among them, were sold at 16 shekels apiece” (Kt u/k 3–9–11, šitti 3 šubāṭa maṭiṣitim). Note also “I took 2 kutānū, the less good ones have been sold for 36 shekels of silver” (CCT 4, 14a:8), and TC 3, 73:337, “he took one textile of good quality and the one of less quality he rejected” (1 tūg šig, ilqema maṭiṣam iddi).

In this list we have not included:

g) qablium, a nisbe derived from qablim, “middle”, whose meaning is not clear. It might refer to quality, “of middle/mediocre quality”, coming after “good”, or refer to the size of a piece of textile. Textiles with this qualification are among the textiles bought in Aššur for shipment to Anatolia: TC 3, 69:16: “for half of the silver arriving in Aššur kutānū qabliūtim must be bought”; CCT 4, 46a:8–9, “x tin, 50 kutānū qabliūtim and 2 donkeys”. The statements in Kt c/k 158:15, “your textiles are qabilū as to ..., they do not appeal to me” (šubāṭa šu-wu-ur qabilū ēnī là mahrā), where the meaning of šuwr is unknown, and Kt 93/93:2–3, “I have looked for šubāṭa qabilūtim whose inside is perfectly finished” (šubāṭi qabilūtim ātamarma ša qerbaš šalmūni) are interesting, but not explicit enough. Since qablium expresses a relative notion, we have to look at enumerations, where we see the following sequences: damqum, qablium, ša qātim/qātam; damqum (warum), tardium, qablium; damqum warum, qablium, ša Akkidī; damqum, Abarnīum, qablium; and Abarnīum, qablium, ša qātim. It is difficult to draw a conclusion from them, unless one takes Kt 93/k 304:5–9 literally: “81 kutānū qabilūtim including those for wrapping, of which 20 are kutānū of good quality”, where kutānū of good quality seem to range under kutānū of qabilūtim quality, which would only make sense only if qabilūtim referred to size or style and not to quality. However, the sequences damqum - tardium - qablium (2x) and qablium - ša qātim/qātam (2x) point in the other direction. Note also Kt m/k 9:4 (courtesy of Hecker) where 14(0 kutānū qa-[ālī-ū-tim], if this restoration is correct, are identical to 140 kutānū wasmūtim in the parallel text Kt m/k 8:5 (courtesy of Hecker).

h) wasum (also usum), “fair, proper”, “of decent quality”, a positive qualification attested a dozen times. Also used of a packet of tin, šuqlam wasumtam, probably referring to its full weight (ideally 65 minas) rather than to its quality. Used alone: Kt m/k 8:5, 140 kutānū wa-as-mu-tim; TC 3, 161:4, 1 tūg ús'-mu-um (akkārim labbusīm); CCT 6, 25d:1–2, [x+]1 kutānū wasmūtim cost 100 shekels of silver; Kt 93/k 288:23, ahamma 20 tūg ús-mu-tim; Kt 94/k 1675:21–22, pirikannā narbūtim wasmūtim. In a sequence, after ša qātim: Sadberk 11:6–7, 97 šubāṭa ša qātim u 47 šubāṭa wasmūtim, but it also qualifies ša qātim: Kt 94/k 415:6–7, kutānī ša qātim wasmūtim; perhaps also Kt 94/k 503:21 (courtesy of Larsen), kutānī ša qātim ú-sí-mu-tim. Alongside damqum (warum): Kt 93/k 497:8–9, 10 šubāṭa wa-as-mu-tim u 10 šubāṭa damqūtim; Kt 93/765:21–22, 20 tūg wa-sū-mu-tim u 3 kutānī šig, dirī; Kt m/k 22:9–10 (courtesy of Hecker), 20[x kutānī] ús-mu-tim 5 ku[tānī] šig, (cf. lines 1–3: 22 kutānī šig, 25 kutānī ša qātim). This suggests the meaning “slightly better than ša qātim, but not damqum”, and Kt m/k 9:4, quoted at the end of g) may indicate that wasmum can be the same as qabilūtim, “of medium quality”. The adjective is also used of the Anatolian pirikannā, in Kt 94/k 1675:21–22, pirikannā narbūtim wasmūtim, “soft pirikannā of fair quality”.

201 30 šubāṭu [damqūtim], 20 qabilūtim, 11 ša qātim, Chantre 14 rev.:2‘-4’; [1]7 šubāṭu damqūtim 23 šubāṭu tardītum 30 šubāṭu qabilūtim, Kt 93/k 308:1–3; 10 šubāṭu qabilūtim 10 šubāṭu ša qātim, Kt 89/k 257:10–11; 1 šubāṭu abarnīm 1 šubāṭu qabilūtim, 1 šubāṭu ša qātim, TP/1 1, 145:1–3; 21 damqūtim warutūm 7 šubāṭu tardītum 4 šubāṭu qabilūtim, Kt f/k 40:17–19; šubāṭu damqūtim qabilūtim u qātam, CCT 6, 3a:22; [x šubāṭu] damqūtim warutūm, [šubāṭu] qabilūtim [šubāṭu] ša Akkidī, BIN 6, 90:4–6; ina šallītim naruqqim 4 damqūtim 2 qabilūtim darkū, LB 12689:9–11; 77 šubāṭu damqūtim, 6 šubāṭu abarnīm 32 šubāṭu qabilūtim qādim ša liwītim, Chantre 10:1–4. Note Kt 94/k 829:3–4, 10 kutānū qabilūtim for wrapping the tin.
The uncertainty about what quality tardium, qablium and wasnum denote has two reasons. These terms express relative notions and the Old Assyrian system is less rigorous than the Ur III one, where “next good quality”, ús, is part of a fixed sequence, as mentioned above under d), tardium. In Mari, too, there are traces of such a sequential ranking, e.g. RA 64 (1970) 32, no. 20:4–5, 1 túg sal-la ús 2 túg-sal-la 3–kam, “one raqqatum of second rank quality, 2 of third rank quality”, which implies the existence of “first rank quality” (sag or sig.). Old Assyrian texts in general offer no concrete information on what a particular quality means, only the prices and the numbers provide a clue and they show – not surprisingly - that the “extremely good”, “Akkadian” and “Abarnian” textiles occur in small numbers and are more expensive. In Aššur they can cost up to twice as much as normal textiles, and the price of course relates to the production costs, that is, the amount of work required, the type and quantity of wool and the thickness of the yarns used for the warp and the weft, their thread count and the finishing procedures. The Ur III texts analyzed in Waetzoldt 1972 and the Old Babylonian tablet AO 7026, edited in Lackenbacher 1982, demonstrate that there were remarkable differences in the amount of labour invested in spinning, preparing the loom, weaving and in the quality and amount of yarn used.

Some Old Assyrian letters show concern for the finishing of the textiles. TC 3, 17:6–22 (see insert) gives instructions about the treatments of both surfaces or sides (“faces”, pānum) of a woollen textile, a concern also expressed in three letters insisting that the “inside” (qerbum) of textiles has to be well finished (lū šalim). TC 3, 17 probably also speaks of “striking/beating” (mašādum) and “shearing/cropping” (qatāpum) the weave, the latter treatment being necessary to create a smooth, flat surface that is not “hairy” (šārtam išûm), which characterizes a kutānum assumed to be woollen cloth. In the unpublished letter “Rendell” lines 5–13, Lamassī in Aššur writes to her husband in Anatolia: “As for the textiles made of wool from Šurbu, about which you wrote me, saying: ‘Send me a garment to dress myself in’, the garment has indeed been made, but it is now with the fuller, so that I have not yet sent it up to you”. This is the first reference to the activity of a fuller in Aššur – the other references to this profession refer to people in Anatolia – and it shows that the finishing treatment by a fuller was a normal procedure for such woollen fabrics. Waetzoldt writes “Das Walken der Stoffe ist bisher nur für einige Sorten belegt, doch dürften fast alle Gewebe so behandelt worden sein”, because it is necessary to make woven fabrics suitable for garments.

202 The writer of TC 3, 17:23–24 is not happy with the Abarnian textile a woman sent him and asks her to make one “like the one I wore over there” (i.e. in Aššur), but we do not know what that meant.
203 BIN 4, 63:19–20, 5 šubātī damqūtim ša qerbam šalmānī; Kt 93/k 497:11, dealing with šubātī wasmūtam and damqūtim, and Kt 93/93:2–3, dealing with šubātī qablūtim
204 We prefer “to shear” over “to pick off bits of wool from the surface of a textile” of CAD Q, s.v. 1, d.
205 ICK 2, 299:10f. distinguishes between 1 túg kutānam and 1 túg lá qa-at-pa-am.
206 Lines 5–13: aššumi, šubātim ša šu-ur-bu-i-a-tim, ša tašpuranni, umma attāma, 1 túg ana litabšia šēbilim, šubātum wadde, epis, išti ašlākimma, adini ulā ušēlišu.
Fig. 12.2. Cuneiform copy of TC 3, 17. Source: Lewy 1935, plate XIV.
Thus Puzur-Aššur, say to Waqurtum:
“1 mina of silver – its excise added, with the transport fee he is satisfied –
Aššur-idī brings you under my seal.

The thin textile you sent me, such ones
you must make and send me with Aššur-idī and I will send

One must strike the one side of the textile, and not shear it,
its warp should be close.

Add per piece one pound of wool more than you used for
the previous textile you sent me,
but they must remain thin!

Its second side one must strike only lightly.

If it proves still to be hairy let one shear it like a kutānum.

As for the Abarnian textile you sent me,

you must not send me again.

If you make (one), make (it)
like the one I dressed myself in there.

If you do not manage (to make) thin textiles, I hear that there are
plenty for sale over there,

buy (them) and send them to me. A finished textile
that you make must be nine cubits long and
eight cubits wide”.

This letter (see Veenhof 1972, 104–109 and Michel 2001: no. 318) contains the most detailed information on various kinds of textiles women in Aššur made for export to Anatolia. The main problem are the instructions on the finishing of both “sides” (pānum), obviously the inside (elsewhere called qerbum, see §3.4.1) and the outside, of a “thin textile”.

Qatāpum (lines 13 and 22), “to pick, to crop, to shear” (“glattstutzen”), to be applied after mašādum, removes raised hairs, the nap (see Lackenbacher 1982, 144 and CAD Q, s.v., 1. d). It is forbidden for one side (which?) and for the other has to be done “lightly”, if the fabric is still
hairy (see § 3.4.1 end). Mašādum (lines 12 and 20), “to comb”, is applied to wool and hair, not to a fabric (also not in AO 7026 = Lackenbacher 1982), although Landsberger claims this, stating that it has the same effect as mašārum, carried out with thorns and thistles (OLZ 60, 1965, col. 158, on no. 299). It seems attractive to follow AHw 623a, who starts from the basic meaning “to beat” (“schlagen, walken”), a treatment applied by the fuller in order to create the smooth surface of a cloth, typical of a kutānum (l. 22). Then “lightly” and “cropping” after “striking” fit, but what the technical difference with kamādum, “fouilage à la main” (Lackenbacher 1982, 141–142) consists of is not clear. Šumma šārtam i-ta-āš-ū, in line 21, is translated by CAD Q, s.v. qatāpum, 1, d, as “if it still has loose hairs”, which probably is an implicit correction of CAD K, 608, s.v. kutānu, d), and CAD N/2, s.v. našū A, 1, f), which translate “if it has (lit. has raised) a nap”. Since final –u with a singular subject is impossible with našānum, the form must be a perfect tense of išū, “if it (still) has”, in agreement with CAD Q, loc. cit. Note that this text uses the word šārtum, “hair”, primarily used for “hair” of animals and humans, in particular “goat hair”, but here clearly referring to the hairs of a woollen fabric. In the only other occurrence of the word in Old Assyrian, Kt n/k 1459:27, “2 headdresses of šārtum” (2 paršīgē ša šārtim), it could mean goat hair.

3.4.2. Colours
Old Assyrian texts offer very little information on colours. Only once (in TC 3, 69:22) a ‘multicolored and dyed textile” (ṣubātam barrumum u šinītam) is mentioned, but the request in this letter not to buy such a piece implies that they were made and for sale, but the “caravan reports” never mention such specification for exported textiles.

Yellow, warqum/erqum. We have 3 references for warqum/erqum, “yellow/green”: 7 lubūšī erqātim, (after 6 white ones, ICK 1, 92:5), 13 tūg war(BAR)-qū-tim (RA 58, 64, 7:5), 2 kutānī ša hu-BA-na-ri qatnātim u er-qū-tim, “2 thin and yellow kutānū ......” (Kt 91/k 356:27–29). Note also Kt 94/k 1686:19–21, 600 samru’ātim ša-ba 86 wa-ar-qā-tim.

White, pašium. There are about a dozen references for “white” (pašium) textile products, most numerous are “white lubūšī” (Veenhof 1972, 164, and also KTS 2, 26:15’, Kt/n k 533:170), but we also have a “white kusītum” (POAT 7:8). A reference to large amounts (80 and 20 talents) of “white and red wool”, in CCT 4, 47a:30–31 applies to Anatolia, where the Assyrians were involved in the wool trade.

Red, samum. A few occurrences refer to pirikannu-textiles, Anatolian products, BIN 4, 162:4, 35 (40 pieces at 2/3 shekel apiece), Prag I 429:17, and TC 1, 43:24–26 (“buy red pirikannu ... the pirikannu you acquire must be red!”), but KTS 2, 35:30 perhaps mentions 6 kutānī šā’ (copy A)-mu-tim. “Red wool” in CCT 4, 47a:31 is an Anatolian product, according to this text available in the towns of Durhumit and Tišmurna. There is one reference to makrām, “reddish”, used of wool in OIP 27, 7:4.

Black, šalmu. One occurrence, AKT 2, 24:23–26, “Let them give you 100 šubāti and send them here with the lady, do not .... black ones!”

Dyed, šinītum. The fem. adjective šinītum, “dyed”, cf. CAD Š/3, s.v., is used once of wool, šīm šīgī šinītum, BIN 4, 54:15, and it occurs a few times as a noun, a name of a textile, in TC 3, 69:22 alongside barrumum, “multicolored”. Note also 2 tūgšī šinītātim in CCT 3, 49b:24, and “He offered us 30 textiles but they are affected by the moth (16) ū šī-ni-a-tū-m; since the textiles have lost value (batqū) ū šī-ni-a-tū-ni we refused to
handle them” (Kt n/k 717:13–19, courtesy of Albayrak). The combination with damage by moth suggests a negative meaning, but it is uncertain whether the writers want to say that the effect of the moth is more damaging on dyed textiles or that such textiles were anyhow less attractive.”

Other adjectives that refer to the outward appearance of textiles are:

- **waršum**, “dirty”**: three references in Veenhof 1972, 188, j, and one in Or 52, 197, no. 2:5’: 66 [fine(?)] kutānū 7 a[barnī], 1 túg šilipka’um 1 túg waršum. Its opposite,


### 3.4.3. Other qualifications

- **ad/tum**, Cole 6:4–5, 90 túg, sig, į 93 túg ad/t-mu-tu-um, meaning unclear, but perhaps the verbal adjective of the verb adānum, “to invest, have a share in”, rather than to be connected with nīg-bāra-ga = atmu, a kind of “spread for the bed” (Civil 1964, 80).

- **anhum**, “weary, old”, Kt 94/k 1106:4–5 (courtesy of Larsen), “there are old textiles” (ṣubātī anhuṭum, ibaššū), that have to be aired (see also footnote 14).

- **dannum**, “strong”, KUG 29:12, 6 túg₃₄ dannātim ana nišī bētim.

**eDium**, see waDium.

- **kabrum**, “thick”, used of wool and garments: Prag I 487:1–2, “túg GA-ar-ZA-am kbram PN is bringing you”.

- **kabtum**, “heavy” [see for Mari, Durand 2009, 104, s.v. ṣubātum kabtum], more than 30 references. Used as adjective with abarnīnum (Prag I 435:11; Kt 86/k 193:15, with added narbam, “soft”), túg šārūnum (CCT 3, 4:7, 4 túg šārūnum kābtum ša liwītim, used for packing merchandise, cf. ATHE 51:2’, 2 túg kābtēn [ša liwītim]). In most cases, túg kābtum is used independently, as a heavy textile, according to CCT 3, 20:19–20 “for (wearing on) a wagon” (ana narkātim), and the writer of TC 2, 7:25–28 states that for lack of wool from Šurbu he will buy a “heavy textile” (ṣubātum kabtum) in the market in Aššur. Note AKT 3, 73:13–18, 40 túg₃₄ ša-ba 20 túg kābtum.....32 túg ša-ba 10 túg kābtum damqātim; Kt c/k 110+:4–5, 35 kutānuš 10 šārūnum 5 túg kābtum; AKT 3, 65: 4–6, 94 túg ša-ba 5 túg kābtum 15 túg tardātum ...., 17–18, 11 túg kābtum 10 túg ša qātim. “Heavy textiles” are qualified as damqum, “of good quality”, e.g. AKT 3, 73:18, as “of Šubarum” (6/₃₄ túg₃₄ kābtītim sig, ša Šūbirim, Kt 91/k 344:10–11), as ša liwītim, “for wrapping” (ATHE 51:2’), and as narbum, “soft” (Kt 93/k 350:10–11). Heavy garments may have been appreciated during the Anatolian winter.

- **kamsum**, a (verbal) adjective of uncertain meaning. AHw’s “etwa mit Appretur versehen” is a guess, possibly by deriving the adjective from kamāsum A, “to finish, complete”. Qualifying a textile as finished (and hence expensive), is a meaning that would fit BIN 6, 165 (see below). There are c.20 references, usually small numbers, and they are also produced by women in Aššur, cf. Veenhof 1972,184, d, and especially ATHE 31:7–8, where Pǔšukēn’s wife entrusted 3 kamsu-textiles of good quality and 7 kutānuš, which she must have produced herself, for transport to Anatolia, and according to BIN 4, 9:24 (cf. line 6) she sent 3 kamsu-textiles and 5 kutānuš there. According to BIN 6, 165:1–6 (note the sequence!), 15 kutānuš of extra good quality, 5 kamsātum, 20 kutānuš of good quality, 20 túg kutānuš tardātum and [x] Akkadian textiles” were sent to Anatolia. This suggests that kamsum (without determinative túg!) describes a type of kutānum of fine quality, less than “extremely good”, but better than simply “good”.

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208 There is one Old Assyrian occurrence of šarpum, “dyed”, used of woolen fleeces in Kt 93/k 915: 7–10, 1 maškum šarpum 2 maškē šārūtim, “I sold him one dyed fleece and 2 dark coloured(?) fleeces”.

209 Wilcke, who edited the text, pointed out that the same lot of textiles is mentioned in CCT 4, 5a:5–6, where, however, túg waršum is omitted.

210 Cf. ATHE, p. 46, 7; in Old Babylonian it is used once of finishing an object (AbB 3, 34:19, a reed door).
In lists, where the sequence has informative value, we find kamsūtum – kutānū (POAT 15:13–14), šubātū ša qātim – kamsūtum - Akkadian (Kt 94/ k 204:1–3), Abarnian – kamsūtum (Kt 94/k 218:19), Akkadian – kamsūm – Abarnian (at 45 shekels apiece, followed by kutānū at 30 shekels; BIN 4, 4:3–6), kutānū qṭum – damqūtum - kamsūtum (BIN 4, 221:6–8, shipped off from Aṣṣūr). See also Kt c/k 443:7–8 (courtesy of Dercksen): 400 textiles of which 25 damqūtum (including the Abarnian ones), 18 tardūtum, 17 maṭīitu ..., and in lines 12–13, 5 kamsūtum 6 nibrārū 2 kusītum 1 raqqūtum 1 nibrārum. Qualifications are rare, we have damqūm, “fine”, in Kt 94/k 1446:15–17, “for a child” in BIN 4, 68:10 (ša suhrim), and in Kt 94/k 204:1–3 they are qualified as “of Akkadian make/style” (2 túgī ša qātim kamsūtum ša Akkiddē). Note for its relation to other textiles especially Kt 94/k 1686:36–40 (courtesy of Larsen): “Of my 100 ... kutānū 35 are of extra good quality 46 abarnū [ka]msūtum ū nibrārū ša kutānī damqūtimm, in all 181 kutānū”, where “(made) of good kutānū-cloth” qualifies the nibrārū, but perhaps also the Abaranian ones of kamsū-quality. However, the parallel Kt 94/k 1697:13–16 (courtesy of Larsen) gives the second series as “46 šubātū, either Abarnian ones or kutānū of extremely good quality or (lu) kamsūtum or nibrārū”, where this group seems to comprise four different types of textiles and the qualification ša kūtānī damqūtīm has become a separate category!

karsum (?) meaning unknown, see Prag I 487:1–2, quoted under kabraum.

lahhub/pum, “?”, ATHE 62:8, 3 túg lá-hu-b/pu-tim; Kt c/k 675:15, 3 túg lá-hu-b/pu-tim, followed by 1 túg raqqūtum. From a verb lalhub/pum, of unknown meaning, see CAD L 239a, with the statement in ICK 1, 15:18-19, “The rest of the textiles I will lalhub/pum so that they can wear them (ulalhab/pma iltabaššūnīšunu). Compare Kt 94/ k 966:17–18, whose writer asks to provide him, from Hurrama, with a set of garments (1 túgī-) for his personal dress, either a šūrum or an Akkadian burā‘um; “let one lalhub/pum and bring it into the town” (lu-lá-hi-b/pu lušēribuniššu).

narbūm, “soft”, usually said of wool (see above, § 1.1) but also applicable to textiles made of soft wool, Kt 86/k 193:15ff., túg abarniam kabtam na[ða]m a-litabšia, “a heavy (but) soft Abarnian textile for me to wear”; Kt 92/k 112:14–15, a šubātum narbam sent by the writer’s sister ana litabšia, “for me to wear”. “Soft” implies better quality, cf. Kt 87/k 378:16–17 (courtesy of Hecker), 2 túg nahlaptēn damqātēn watartēn narībēn, “2 extremely good, soft cloaks”, and does not exclude “heavy”, RA 81, 14:8–9, “6 heavy burā‘u-textiles, including 3 soft ones”. Since narbūm is also used of Anatolian wool, we are not surprised to meet “soft pirikannū”: Kt n/k 1385:16 (10 pieces) and Kt 94/k 1675:21–22, “soft pirikannū of fair quality” (narbātim wasmūtim).

qatnūm, “thin”, refers to the textile as such, also in Old Babylonian, including Mari (CAD Q, 174a, b), because it is made of thin threads (“thin wool”, CAD, loc.cit., c, attested for Old Babylonian but not for Old Assyrian). According to the locus classicus TC 3, 17:6–22 (above, § 3.4.1 end) a šubātum qatnūm to be made by an Assyrian woman, who has to process 1 pound of wool more apiece than she did, should have a dense warp (sūtūšu lā madāt), but “the textiles must be thin” (lū qatnū, line 18). See also Veenhof 1972, 214, Excursus on the difference between qatnūm and raqqūm. Qatnūm is used as an adjective in CCT 4, 48b:18, túg raqqatam damqam qattatam, and Kt n/k 391: 4, 1 túg qatnūm has to yield ½ mina of silver. Note Kt 91/ k 356:28–29, 2 kutānū ša hu-Ba-na-ri qatnūtim u ergūtim, “(send me) 2 thin and yellow kutānū of ......”, and CCT 5, 39b:18–20, “I took 12 Akkadian textiles and from these I took 1 thin textile”. Qatnūm is used independently, without túg, in LB 1201:14–15, 1 Abarnūm 2 qatnūtum 4 ša qātim. Note that in § 182 of the Hittite Laws, a túg-sig is the most expensive quality.

raqqūm, “thin”, used as substantivated adjective and spelled tūg-raqqūtum (not šubātum raqqūm!), denotes a light and thin garment. Cf. above § 3.3, s.v. raqqūtum. Occasionally raqqūm is used as a real adjective: CTMMA 1, 85a:12, 2 túg bar-dul, raqqītēn, “2 thin kusītū-garments”, and KTB 7:4–5, 4 túg kusītūm raqqātūm (see under kusītū in § 3.3.3).
šapium, “padded, thick”, regularly used of wool and woollen fleeces (maškā šapītūm), and saddlecloths (ukāpum), but occasionally also of textiles, JCS 14, no. 2:18–20: “bring together the rest of my textiles, 7 kutāniš šapītūm ė diūtim; Mixon 10:4–5, 13½ tūg šapītūm 9½ tūg waDiūtim.

waDiūn, meaning unknown, also written eDiūn, usually alongside šapium, “thick”, said of fleeces, saddlecloths and garments, e.g. Kt 94/k 734:51, 4½ tūg wa-diū-ū-tum; see under šapium and the comments on Kuliya, no. 57:4.

3.4.4. Format and size
The adjectives “small” (ṣahrum) and “big” (rabium) in general are not used to qualify textiles. There is only one possible reference to šahrum in Kt n/k 469:2 (courtesy of Günbatti), 10 tūg ša li-tab-ši-im, 18 tūg sa-hu-ru-tum PN ilqe, “PN took 10 textiles to be worn and 18 small textiles”. In a letter to his wife (BIN 4, 10:14–15, see below) Pūšu-kēn states that the textiles she sent him “are (too) small, are not good”. “Big” (rabium) is used only once in TC 1, 43:16, an order that pirikannū to be acquired should be big (lu ra-bu-[ū]. “Long” (arkum), occasionally attested elsewhere (ARMT 22, 164 rev. 1’, [tūg-gu]-za gid-a; OBT 80:4–5, gū-ē-a riksu sud-a ù la sud-a), does not occur in Old Assyrian. This suggests that the textiles in Old Assyrian trade had standard sizes, known to the parties involved, which need not be mentioned in caravan accounts and lists. Accordingly we only have very few indications of size, only mentioned in letters for particular reasons: a) the request in TC 3, 17:33–38 that a finished woollen šubātum qatnum should measure 8 by 9 cubits (tiše inammitim lu urukšu šamāni ina ammitim lu rupuššu; see § 3.4.1, end), or c.45 by 4 m; b) the statement in Kt 94/kl350: 31–32 (courtesy of Larsen), raqqatam arbē ina ammitim rupussa u ešar urukša, “a thin textile, 4 cubits wide and 10 long”, or c.2 by 5 m.; and c), in CCT 4, 44b:17–18, a reference to the size of a piece of “linen” (kitā’um; see above § 1.2). While the size in a) is in a request to the woman who produced the textile, apparently because such textiles sold well, the purpose of the linen that has to be bought and sent in c) is unknown and we do not know what size “linens” in general had. In b) the measures of the raqqutum shipped to the addressee may have been mentioned because they deviated from the standard. In this connection also the letter BIN 4, 10:14–19 is interesting (edited Veenhof 1972, 111–112), where Lamassī complains that her husband had written: “They (the textiles) are (too) small, they are not good”, to which she reacts with: “Did I not reduce their size at your own order? And now you write: ‘Add half a pound (of wool) to each of your textiles!’ – I have done so!” This is comparable to the request made in TC 3, 17:15–18 (above, § 3.4.1) to process in each šubātum qatnum 1 pound of wool more than before. These pieces of information show that there could be important differences, but they do not reveal how much wool was processed on average, e.g. in a šubātum qatnum or a kutānum. If we take BIN 4, 10 at face value, processing more wool yields not only a heavier, but also a larger textile and this may have been implied in TC 3, 17 too, and be the reason why the required size is stated at the end of the letter. The adjectives used, on the one hand “thin” (raqqum and qatnum), and on the other hand “heavy” and “thick” (kaštum, kašrum, šapium), suggest different weights, which could be based on the nature and/or the amount of wool processed and on the thickness

211 The reading of ZA is not fully certain, Günbatti writes “maybe A”, which would yield ahhurūtum, “still due, still to be delivered”, which is also unique. Saḥhurūtum is the well-known plural of ṣahrum, a pseudo-D-stem, with an added vowel.
of the threads and density of the weave.\textsuperscript{212} In Veenhof 1972, 89–90, considering both the data provided by texts from Ur III and Nuzi and the carrying capacity of donkeys (one usually carried 25 textiles or a few more), a weight of c.5 minas apiece for the most current types, \textit{kutānū} and \textit{ṣubātū} was suggested, but a “thin” textile (\textit{raqqutum}) and a \textit{kusītum}, also regularly qualified as “thin” (also in lexical texts), must have been lighter and perhaps also (see reference c), above) smaller. This is no problem since the lists of textiles shipped by caravan to Anatolia comprise only small numbers of these textiles. However, we admit that the argument derived from the carrying capacity of donkeys is not very strong, because the textiles’ volume rather than their weight may have determined the amount an animal could carry.

Puzzling and disturbing, finally, is the small text Kt n/k 200 (courtesy of Bayram), which reads: 226½ \textit{ṣubātū} \textit{ṣuqultašunu} 7 GŪ 20 mana, “226½ textiles, their weight 7 talents and 20 minas”, which yields a weight of less than 2 minas apiece. The type of textiles is not specified, but considering the large number it may well refer to those current in the trade.

4. Categorisation

Apart from the generic word corresponding to “textile”, usually written with the logogram túg and less often with the Akkadian term \textit{ṣubātum}, many of the textiles cited in the Old Assyrian tablets belong to specific categories. We have texts with enumerations of various types of textiles that list certain types together or in a particular, probably not coincidental sequence, e.g. by quality/price, in an ascending or descending order. Other enumerations may state that particular types of textiles belonged to or ranged under another, larger category, or that certain types of textiles were considered as alternatives. There are a number of references where a particular type of textile is qualified as \textit{ša} another textile, in particular \textit{ša kutānim}, which most probably means that such a textile was made of a particular type of fabric.\textsuperscript{213} The study of all these combinations provides an understanding of some connections between the many textile types.

4.1. Textile type included in another type

The most informative combination between two categories is by means of an inclusive link, where we have “X textiles of type A, among which Y are of type B”. This can be expressed either by the logogram \textit{ša-ba} (\textit{iqqerbim}), “among which”, or by the Akkadian word \textit{qādum}, “including”. Also, some accounts give the total number (\textit{šu-nígin}) of textiles of a certain type which comprises several other textile categories.

4.1.1. \textit{ša-ba} (\textit{ina qerbim}), “among which”

Many occurrences of \textit{ša-ba} do not offer much information when the first group is simply “textiles” (túg), without any further details. For example, a document presents the following inventory: “94 textiles among which 5 \textit{kabtūtum} textiles, 15 \textit{tardiūtum} textiles, 30 \textit{kusiātum} textiles, 1 \textit{šulipkum} textile, 1 \textit{lubušum}, 2 \textit{nibrarān}”.\textsuperscript{214} We merely learn that all these items are textiles.

\textsuperscript{212} Note that when \textit{Pūšu-kēn}, in BIN 4, 10, qualifies a textile he considers “(too) small” as “not good”, “good” (\textit{damqum}) here, is not the same as when a list textiles are qualified as “good”; “not good” meaning that they are not appreciated, do not sell well.

\textsuperscript{213} See for example 3 \textit{štirim} \textit{ša kutānim} (RA 59 1965, n° 14, 15) and below § 4.3.

\textsuperscript{214} AKT 3, 65 (Michel 2001, no. 167):4–7, 94 túg \textit{ša-ba} 5 túg, [k]\textit{abtūtum} 15 túg \textit{tardiūtum}, 30 túg \textit{kusiātum} 1 túg \textit{šilipka’um},
The enumerated textiles may be of a specific quality. Thus a *namaššuhum* garment is counted among extra fine quality textiles. An *abarńium* textile can be included among extra good quality textiles. An unpublished tablet lists in all 58 bags in which various textiles are packed. In the first 18 bags we find 82 textiles of good quality (túg sig.), among which are 24 *tardiūtum*. This contrasts with the traditional idea that *tardium* refers to items of secondary quality; it seems that *tardium* could be used as an independent mark of quality and means “of next good quality”, after *damqum*, “of very fine quality” (see above § 3.4.1 d). The next 18 bags include 94 good quality textiles transported by Laqēp(um), among which are 25 *tardiūtum* textiles and 10 textiles for wrapping (*ša liwītim*). Again, in addition to those called *tardium*, textiles *ša liwītim*, used for wrapping other textiles and usually cheaper, are included here among good quality pieces.

A link between two textile categories, besides being an indication of quality, may suggest the geographical provenance of a particular type. Among Babylonian textiles qualified as *ša Akkidē*, we find textiles for wrapping and a *burāʿum* piece. This shows that a *burāʿum* could be made in southern Mesopotamia, but it does not rule out the possibility that such textiles could also be woven in another geographical area. The same observation can be made for excellent quality *kutānu*-textiles, among which some are said to be *abarńium*.

More informative are the connections between various textile categories where quality or provenance do not play a role. The *kutānum* category, which is the main type exported from Aššur to Anatolia, includes several other categories: *kusītum*, *šārum* and once *ša šadāʾīm*. The *pirišannum* category, which is the main type of textiles produced in Anatolia, also comprises other types: *tisābum* and *menuniānum*, and the *sapidīnum* category also includes *tisābu*-textiles.

The combination illustrated in the text CCT 5, 12a, where a bale of 14

1 lubūšum 2 nibrārān. See also AKT 3, 61:12–13, 1 meʾar 3 tūgšā: ina e-galšēm izkānīm, ša-ba 66 kutānī u 31 tūg ša a-ki-dī-šī; AKT 2, 34:8–9, 12 tūg ša tamkārim, ša-ba 5 abarnī; Kt 93/k 765:12–13, 164 šubāṭa ša-ba 20 tūg šig, alūtum *tardiūtum*.

216 AKT 4, 24:2–3, 22½ tūg *damqūtum* *waṭrātum*, ša-ba 1 tūg ni-lām, “22½ textiles of extra fine quality, among which one *namaššuhum*”, shipped from Aššur to Anatolia (see above §3.2 s.v. tūg-nī-lām).

217 Kt 93/k 288, 5–6: 8 tūgšā sig, dirī ša-ba, 1 tūg *abarńum*.

218 Kt 91/k 106, 1–5: ina 82 tūgšā sig, ša šēp Ali-abīm, ša 24 *tardiūtum*, ina 20 lā 2 *naruqqātim*, darkā. The same remark applies to Kt 93/k 304 where qabilium garments, usually translated as "medium quality textiles", include good quality textiles of l. 5–8: 81 kutānū, qabilium, qadum : *liwītim*, ša-ba 20 kutānū sigšīm."  


220 See also EL no. 123:4 and 6 where *šubāṭa* ša *liwītim* are part of a large group of textiles of good quality (*damqum*) and Kt 93/k 304:5 81 kutānū of medium quality, qadum ša *liwītim*, of which 20 are kutānū of good quality.


222 Kt c/k 174 (courtesy of Dercksen): 6 tūg šūṭa šigšīm *waṭrātum* ša-ba 3 abarnū.

223 AKT 4, 23:1–2, 21 tūg kutānī, ša-ba 5 kusītum; Prag l 6161:1–2, 18 tūgšā kutānū, ša-ba <x> *kusītum*, followed by few pieces of various types of textiles and we do not know if they are counted among the 18 kutānū, l. 3–8, 4 tūg ša *шуhrīm*, ša *Akkidēm*, 3 šīrē, 5 širātim, 2 *raqqātim*, 2 Nina *nahlapātim*; if we suppose that the missing number of l. 2 is <2>, then we obtain a total number of 18 textiles. Kt c/k 174 (courtesy of Dercksen): 175 kutānū ša-ba 12 kutānū *qaṭīlītum ša *Akkidē* 3 *ṣūrātum*.

224 Kt 87/k 434:1–3 (courtesy of Becker), 23 tūg kutānī, ša-ba 5 tūg ša *da-šīm*, 18 tūg *ṣūrātīm*.

225 Kt 93/k 591:3–9, pirkannī sigšīm, ša Zalpa, ša-ba 3 tisābū; Kt 93/k 891:5–7, 9 tūg pirkannī, ša Zalpa kunukkia, addinakkum ša-ba 3 tisābū; Kt 93/k 60, 1–3: 34 pirkannī, ša Haqqa ša-ba 12 tisābū.

226 Kt 93/k 522:25–27, 71 tūg pirišannum, ša-ba 30 tūg *menuniāde*, 41 tūg ša Tuhpiya.

CCT 5, 12:8–9, 14 *sapidīnnum* ša-ba 4 tisābū; Kt f/k 117:5–6, 10 tūgšā *sapidīnum* ša-ba 2 tūg šī-sā-bi-.im.
sapdinnu includes 4 tisābū (and 2 kita’ātum pālilū. We know that tisābu-textiles may belong to both the pirikannum and sapdinnum categories, which consist of woollen textiles, but it is impossible to decide whether the kita’ātum pālilū, which should be translated as “linen being/serving as pālilū”, could also belong to the sapdinnum type.227 Perhaps it is better to suggest that only the 4 tisābū textiles belong to the sapdinnum category, and that the 2 kita’ātum pālilū are counted apart, but were added to the same donkey load.

4.1.2. Qādum “including”
The same remarks apply to the less common expression “type A qādum (including) type B”. Beside the most common expression qādum ša liwītim “including those for wrapping”228 and the examples referring to tūg in general, we find combinations of specific categories with qualities229 or with geographical provenance: Akkadian textiles including dirty (waršūtam) textiles,230 šūrum ranging among Abarnian textiles231 or raqqātum textiles including šilipka’um.232 More interesting is the reference to kutānu-textiles of qablium quality including textiles for wrapping (<ša> liwītim).233

4.1.3. šu-nígin (ištēniš) “total amount”
Contrary to the situations outlined above where first the total number of textiles is given, followed by a specification about some categories included in this total, many documents list the number of textiles belonging to each category separately and sum up all the textiles (šu-nígin), thus again combining several types.234 In such a combination, textiles made of wool from Šurub (see § 1.1) belong to the kutānu type.235 Lubāšu-garments, kusītu-textiles and two types named by a nisbe, šilipka’u- and tukkūšta’u-textiles, are totalled as Akkadian textiles.236 This combination of two different geographical qualifications is difficult to understand: one name could refer to the real provenance while the second to the technique used to weave the textile or to its shape if dealing with a garment. Again the kutānu-textiles appear as a large category containing several others: šūrum and takkūšta’um237 or abarnīnu kamsum and nibrārum.238

To sum up, there are two main textile categories which include several others: the kutānu type, made in Upper Mesopotamia and the Anatolian pirikannum type. Two terms which were
considered as referring to medium or second quality textiles, *qablium* and *tardium*, may rather belong to good or top quality textiles. We can imagine, for example, that *qablium*, “medium”, does not refer to quality but to size and would indicate a medium sized piece (see above § 3.4.1. g). This explanation is not completely satisfactory because *kutānum qablium* can be used for wrapping, and one would imagine that this operation requires larger size textiles. Finally, categories defined by a nisbe or geographical name do not necessarily refer to the provenance of the textile, but it could indicate a shape, or a special weaving technique.

### 4.2. Alternative textile types

Certain types of textiles were considered alternatives, either by the Akkadian expression *lu ... u lu*, or they were interchangeable in parallel documents.

#### 4.2.1. *Lu ... u lu*

The expression “*(x textiles a,) either textiles b or textiles c*, used sometimes, implies that some categories could be exchanged and thus are considered equivalent. The choice may occur between textiles of two different geographical origins. For example, a *kusītum* garment may be either *(m)alkuāium or *šilipka’um*; a *nibrārum* garment could come either from the Šubarum, from Aššur or be exchanged with an Akkadian *kusītum*. Most often, we observe that a “geographical” type and another category can be alternatives. Among textiles exported from Aššur to Anatolia:

- *kusītum*-textiles may be either *šurūtum* or Akkadian,
- good quality textiles may be either *kutānum*, *abarnīum* or Akkadian,
- *raqqatu*-textiles may be either *lubūşum* or *takkušta’um*,
- a *lubūşum* from Susē and a *kutānum* of fine quality are alternatives for an extra fine Abarnian textile to be worn by a man.

Among the Anatolian textiles:

- textiles may be either *menuniānum* or from Tuhpiya,
- *tisābūm* from Hahhum may alternate with *sapdinnūm* from Talhat.

Since we do not know the criteria along which the Assyrian merchants distinguish or compare these categories, it is a difficult task to choose between these alternatives. The trade being the main purpose of this documentation, it is most probable that the first criterion is the commercial value of the textiles (Kt 93/k 344:9–21).

#### 4.2.2. Parallel texts

Some caravan accounts were written in several copies to be kept by the sender, the transporter and the recipient of the merchandise. In few cases, we observe small variations between

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239 TC 3 169:10–12, 1 túg kusītum, lu alkuaātim, ū lu šilipka’um.
240 Prag I 686:19–21, nibrāram, lu ša Šubirim lu ša ālimi, lu kusītam ša Akkidīē.
241 CCT 5, 36a:18–19, 1 me’at 28 túg lu šurūtum, lu ša Akkidīē.
242 CCT 4 29b:3–4, túg tu ; sig, lu túg kutānā, lu abarnī Lu ša Akkidīē.
243 Kt 93/k 344:19–20, 18 túg raqqātum lu lubūšā, Lu takkušta’āū.
244 AKT 2 24:4–5, 10–11, 1 túg abarnīam, sig, wartram ... lu lubūšam susēiam, lu túg kutānām sig.,
245 Kt 93/k 517:21–22, 55 túg lu menuniānum lu ša, Tuhpiya.
246 Kt 94/k 1672:19–20, lu túg tisābī ša Hahhim, lu sapdimmīma ša Talhat.
duplicates, either in the number of items counted or in the name of the item. For example, the three parallel documents Kt c/k 443, 449 and 458 (courtesy of Dercksen) show the following variations (underlined).

Kt c/k 443: 12–14  
5 túg kamsütum 6 túg nibrārū  
2 túg kusīān 1 túg raaqatum  
1 túg nibrārum  

Kt c/k 449: 7–9  
6 túg kamsütum 6 túg namaššuhū  
2 túg kusīān 1 túg raaqatum  
1 túg nibrārum  

Kt c/k 458: 9–13  
5 túg kamsütum 6 túg namaššuhū  
2 túg kusīān 1 túg a-ra-qá-tim  
1 túg nibrārum  

The 6 nibrārū textiles listed in the first text are changed into 6 namaššuhū textiles in the two other documents. Either it is a confusion made by the author of the document, or those two types are in fact very alike. Note also the variation between 1 túg raaqatum into 1 túg a-ra-qá-tim, “1 piece of textile for a raaqatum”, which expresses a purpose rather than a textile type.

Another example is given by two texts excavated in 1994 (courtesy of Larsen).

Kt 94/k 1686: 3–6, 8–11, 36–40  
603 kutānī, šà-ba 100 kutānī tār-dī-ūtum,  
ahamma 35 kutānī sig., dīrī,  
šà-ba 3 kutānī ...  
ahamma 46 tūg abarnīū, lu kamsütum  
lu nibrārū, ša kutānī sig., ṭawrūtūm,  
šu-nīgin 684 tūg hī ...  

Kt 94/k 1687: 1–7, 10–11, 13–15  
603 tūg kutānī, ... ina qerbim, 100 tūg kutānī, tārdī-ūtum,  
35 tūg sig., ṭawrūtūm,  
inā qerbim, 3 kutānī ... šu-nīgin 600, u 38 tūg ...  
ahamma 46 tūg lu abarnīū, lu kutānī sig., ṭawrūtūm,  
lu kamsütum lu nibrārū  

The interpretation of these two tablets is not clear. In lines 8–11//13–15, should we read:

“abarnīū textiles either kamsütum or nibrārū of good quality kutānī”,
“abarnīū, kamsütum and nibrārū of good quality kutānī”,
or should we understand:

“abarnīū textiles, either good quality kutānī, or kamsütum or nibrārū”?

This example demonstrates the complexity of such statements. In the first two translations, the nibrārum type may be made of kutānīm fabric, but not in the third one. In addition, according to the first and the third interpretations, abarniūm is the broad category that comprises kamsütum, nibrārum and perhaps kutānīm textiles, but not in the second version.

4.3. Textile “ša” another type of textile

Another very informative categorial link is provided by the expression “textile A ša textile B”, which we may understand as “textile A made from/in the style of textile B”. One of the two items again may be a geographical name or nisbe:
Several textile types can be produced in different places or made in different shapes or techniques, but it does not help to identify each category.

When the word combinations do not include a toponym, one of the main issues is the question of whether the items mentioned were textiles or garments. For example, the šīrum is said to be of (ša): kutānum, sapdinnum, pûkum and lubūšum. We can imagine that the šīrum was a piece of clothing that could be made of several types of textile that are different as regards to their material or weaving technique. This definition nicely fits the first three types, kutānum, sapdinnum, pûkum, but not the last one, lubūšum, which has usually been interpreted as a piece of clothing. In this case, a šīrum ša lubūšim may be translated “a šīrum belonging with/of the same type as a lubūšim”.

Both nahlaptum and namašuhhum are made of kutānu-fabric and must correspond to garments. The nahlaptum is usually translated as an outer garment, a coat or a shirt (see above § 3.3 s.v.). The case of the nibrārum type is more complicated. It belongs either to the categories of well-known Anatolian textiles, pirikannum and sapdinnum, or it can be made from a woollen kutānum fabric, usually produced in Aššur.

5. Textiles or garments?

5.1. Context, names and fractions of textiles

Did the Assyrians trade in woollen fabrics in the shape of large sheets or textiles of standard sizes or in ready-to-wear garments? It is a more general problem when dealing with the names of ancient textiles, also encountered in connection with the texts from Mari, where it has been clearly formulated by Durand 1980, 394–395. The names of the “textiles” frequently are not informative enough to answer this question and we also have no pictorial evidence to help us, while information on textile production is almost completely absent. The preference for “soft” textiles (§ 3.4.3, s.v. narbum) and for those whose “inner side has been well finished” may apply to both. Occasional information on garments worn, e.g. in the letter TC 3, 17:23–28, “As for the

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247 ATIHE 46:7–8, 4 kusitum ša Akkidiē; Kt m/k 22:6–7 (courtesy of Hecker), 1 kusitum ša, Akkidiē.
248 Kt 94/k 966:14–15: lu burāuµ, ša Akkidiē; AKT 2, 44:3–5, 4 tug, ša Akkidiē, ša-ba 1 burāu[m].
249 Prag I 686:19–20, nibrāram, lu ša Šubirim lu ša Ālim
250 Kt c/k 524:10, 1 tug nibrārum ša Akkidiē.
251 TC 1, 19:12, 2 šītrē ša abarnū; Kt 93/k 75:7 šītram ša abarnūm.
252 BIN 6, 64:7, 1 šītrum ša Akkadiē; Kt n/k 437:4–5, šītrum, ša Akkidiē.
253 Kt n/k 437:3–4, 2 šītrē, ša Ālim.
254 BIN 6, 184:9–10, 1 šītram, ša Zalpa; CCT 1, 50:6, 6 šītrē ša Zalpa.
255 3 šītrēm ša kutānim (RA 59 1965, n° 14:15); šītrum ša sapdinnim (TC 1, 19:11); šītrum ša pūkim (Kt 91/k 501:6; Kt 93k 542:8); šītrum ša lubūšim (Prag I 740:3; RA 60, 1966, 113, n° 43:33; OIP 27, 58:25).
256 The correct interpretation of the lubūšum is given below § 5.3.
257 Nahlaptum ša kutānim: OIP 27, 7:11, 13; namašuhhum ša kutānim: Benenian 5:2–3 (unpubl.).
258 Kt 93/k 891: 9, tug pirikannum ša Zalpa including 3 tisabum; CCT 5, 12a:9, 14 sapdinnum including 4 tisabū.
259 Kt 94/1686, 9–10: nibrāru, ša kutānu šig, wattrūnum. Note the writing: Kt 87/k 452:9 (courtesy of Hecker), 1 tug kutānu ti-si-bu.
260 In Assyrian ša qerbam šalmūni, see footnote 203.
Abarrian textile you sent, a similar one you must not send again. If you make one, make it like the one I wore there (= in Aššur), may apply to the woollen fabric from which it was made or to the finished garment. Even the distinction been a woollen sheet and a garment is not always clear, since some of the latter were hardly tailored and more of the type of a (large) “wrap-around” garment. Of course, tailored garments of various types and shapes, at times provided with fringes and tassels, did exist and there was also a distinction between undergarments and shirts, and outer or upper garments such as cloaks, the more ceremonial “toga-garments”, and coats.

Above (§ 1.1) we concluded that the most frequent textile product exported to Anatolia, kutānum, was not a garment but a woollen fabric, presumably a kind of cloth, which could be used for making garments and specific pieces of apparel qualified as ša kutānim, “(made) of kutānum”. Therefore kutānum may also occur as a type or category of woollen fabric under which other textile products or garments, made from it, could be subsumed, e.g. kusītum, see above § 4. The absence of a statement of the type “x subātū, of which y are kutānū” suggests that, in many cases, textile products designated by the generic term subātū may have been kutānū-textiles and not garments. Besides, what is true for kutānum is most probably also valid for šūrum (see § 3.3, s.v.), essentially a somewhat cheaper and possibly coarser alternative, much used for wrapping merchandise, for which a tailored garment would not have been used.

A further argument for considering most common “textiles” woollen fabrics of standard sizes is the occurrence of parts or fractions of them. While some of these fractions may reflect shared ownership (like the occasional occurrence of “half a donkey”) or be the outcome of a balancing of accounts, most are real and imply that certain woollen textiles could be cut into pieces still retaining a commercial value. This is understandable considering the (few) data we have on their large size: a “thin textile” (subātum qatnum) could measure c.4 by 4.5 m and a raqqatum c.2 by 5 m (see above § 3.4.4). Fractions usually occur when an Anatolian palace levies a tax (nishaṭum) of 5% on imported textiles and uses its right to pre-empt 10% (or a the tithe, išrāṭum) of the remaining ones. This regularly yields odd figures and in such cases the Assyrians hand over parts of textiles, regularly a half, one third and even occasionally one fourth of a textile, which for the above mentioned items means pieces of between 9 and 2.5 square meters, which could still be used for making garments. There are even a few cases where pieces of textile are exported from Aššur, “6 ⅓ heavy Šubarian textiles of good quality” in Kt 91/k 344:10–12, and “31 textiles and 1/3 Akkadian textile” in Prag I 704:8–9. For still smaller pieces or fractions due, a “balancing payment” (nipiltum) in silver is made. That such fractions only occur in subātū, kutānum and

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261 For the Assyrian text, see § 3.4.1.
262 See the contribution by B.R. Foster in this volume.
263 As shown here, this applies to nahlapī, namassūtam, nibrārum, and šīrum.
264 Note also TC 3, 164:21–22, “I paid two shekels of silver for one textile and I used them to provide clothing to two servants” (2 šuhrā ūlabbīš).
265 The curious writing 31 subātū ¼ tūg ša Akkidī suggests that the last item was an addition to the load, still saleable in Anatolia, which is feasible, since an “Akkadian textile” is not a tailored garment, but a woollen fabric or type of textile from which other, more specific pieces of apparel could be made (see above § 2 and 3.3. s.v.).
266 The tax paid may consist of a fraction of a textile plus some silver, and if, in order to avoid fragmentation of textiles, the palace receives a little more, it compensates by paying some silver back, but occasionally tiny fractions are ignored. For examples, see Larsen 1967, 122–134 and 156–159 (the edition and analysis of his texts “type 3” nos. 11–130) and also Veenhof 1972, 85–86 and 94–95. To give some examples: in BIN 4, 61:5–10, the tax on 85 kutānū amounts to 4 ¼ pieces and after deduction of the tithe of 8 kutānū, there remain 72¾ textiles; in CCT 5, 39a: 9 of the presumably 9[1] textiles,
šūrum, never in textiles called abarnīum, kusītum, namaššuhum, šilipka’um, and takkušta’um, suggests that the latter were either tailored garments or textiles of specific shapes and styles, that could not be cut into pieces.

A further argument for considering many textiles as being woollen fabrics of standard types is that there is almost no evidence of specific textiles meant as garments for women. There are several references that link a šitrum with a woman, but men also wear it (see § 3.3, s.v.), and there must have been differences in the headdress (e.g. paršigum), but a nahlap tum was worn by persons of both sexes. The two cases (see below § 5.2) of women claiming to have given up a garment (ṣubātum) of their own to add it to the merchandise sent to Anatolia, suggest that their garment was of a standard type that could be sold in Anatolia, not necessarily only to and for women. According to KTS 50c (= EL 150):1–7, the queen of Wahšušana, on the occasion of her arrival (in town), received as a gift one kutānum and one šūrum which apparently were suitable for her wardrobe. And the statement in RHA 18, 37:15–16, “I clothed his wife and him in two garments of good quality” (see below § 5.2) does not suggest that they received two different textile products. The same is true of the Anatolian textile called tisābum, since Kuliya 54:4–6 mentions that an Anatolian bought one for his wife (see § 3.3, s.v. tisābum). This picture is confirmed by data from other periods. In Mari, the textiles allotted to women in the royal harem are not different from those given to male personnel of a more or less similar rank, and both usually receive a tūg-si-sá (perhaps to be read īsār(t)um, “ordinary, normal textile”), whose name indicates the type of weave and fabric rather than its function or characteristics as a garment. Among the “textiles” listed as part of a dowry during the Old Babylonian period (we lack dowry lists for the Old Assyrian period), we also do not find specific garments tailored for women. Those listed are the usual items that occur in administrative and economic texts such as tūg, tūg-bar-si, tūg-guz-za and occasionally tūg-gú-ē(-a), tūg-sal-la, utublum, laharītum, and kitītum. In the text published by Lackenbacher 1982 (III:1 and VI:23), a tūg-guz-za can belong both to the god Enki and to the goddess Nanaya, and also the garments in the wardrobe of the goddess Ištar of Lagaba, as far as identifiable, do not seem to be typically feminine.

After deduction of the tax of [4½ pieces] and the tithe of [8½ pieces] there remain 77 ⅝ textiles; in AnOr 6 no. 15, the tax on 27 kutānū amounts to 1⅔ pieces, the tithe to 2½ pieces, so that (line 14) 23 1/6 pieces remain.

We must disregard cases where the woman mentioned is not the recipient of the textile, but the one who had made it or sent it to a trader in Anatolia, e.g. in CCT 1, 25 (EL no. 166):26–28, “one textile of good quality and a Abarnian one of the lady I entrusted to A.”; TC 1, 105:5–6, “one Abarnian textile of his wife N., I. and E. brought to Suejja”; TC 3, 158:27–30, “I gave you one Abarnian textile of his wife N., I. and E. brought to Suejja.”; AKT 4, 30:11–13, “One nahlap tum of our bride-to-be (kallatum) P. brought me.”

See Ziegler 1999, 193–196. Higher ranked women may receive an utublum (text no. 25:3’), which is also given to men; Durand 1980, 405–406, for tūg-si-sá and the fact than an utublum is characterized by a specific kind of weave (result of “tissage de la serge”, shared by the textile called raqqatum).

See the data presented above in § 3.1, with note 7 and 11, and for several texts Dalley 1980 nos. 3–6, 10 col. II (where the meaning of tūg il-ZU-un in line 8 remains unclear) and 11, and Bruxelles O 342, col. I. An exception could be the tūg-sal-la sūnim in BM 16465 II:5 and 12, and a tūg-bar-si īrtim, attested once at Mari (see § 3.3 note 43, but the nahlap tum ana īrtiku in Kt k/k 24:24–25 is meant for a man).

See Leemans 1952,1–2, where apart from various kinds of paršigû, we also find the rare aguhhum, gadamahhûm, tūg tuqnâtum (meaning unknown), tūg taktîmum (perhaps a fine blanket, cf. CAD T, s.v.) and tūg-sal-la = raqqatum.
Taking into account comparative data as well, we may conclude that a *kusītum* was a type of garment (which could be “thin”, made of *kutānu*-fabric, or “of Akkadian make/style”, see § 3.1 and 3.3 s.v.), although possibly not much tailored and rather of the “wrap-around” type. The same may be true of *raqqutum*, “thin textile”, because in Kt 94/k 1751:5–7, 2 šulupka’u-textiles and 2 *raqqatum* of good quality are qualified as “for/as garments for our father” (*ša lubūši ša abini*). In the Old Babylonian period too, this textile was worn as a garment and belonged to a person’s or a god’s wardrobe (see CAD R, s.v. *raqqatu*, 169, b–c), which made it appropriate as a gift, e.g. in KTS 57a:6, where two pieces are offered to a local ruler. Products with specific names, such as *namaššuhum* (=lamahuššûm), *šilipka’um* and *takkušta’um*, which figure in small quantities among the items exported, probably also were garments. Babylonian sources show that *lamahuššûm* was a rather sumptuous garment and its Old Assyrian counterpart was worn as a garment by an Anatolian ruler according to Kt 89/k 221 (quoted in § 3.3, s.v. *namaššuhum*). That a *šilipka’um* was a garment is suggested by Kt 94/k 1751, quoted above, and for *takkušta’um*, it may be inferred from the fact that in Mari it figures as a gift received by a man at the court in Babylon (see § 3.3, s.v.), since kings and courts (as is well attested at Ebla, Mari and Babylon) used to hand out (sets of) garments as gifts to important visitors. It is, however, impossible to say what the nature of these garments was: perhaps a specific type of weave, with finishings and perhaps colours, rather than extensive tailoring.

### 5.2. The use of the verb *labāšum*

Further evidence for the issue of “textiles or garments” can be found by studying the occurrences of the verb *labāšum*, “to put on clothing”, in Old Assyrian attested in the reflexive Gt-stem (*litabšum*), “to clothe oneself in ...”, and in the D-stem (*labbušum*), “to clothe, to provide somebody with clothing”. This raises the question of the meaning of the derivative noun (*tūg*) *lubūšum*, which in Old Assyrian occurs in different contexts and with different meanings.

The D-stem occurs several times (also in the stative) and when the impersonal object is *šubātum*, the latter apparently means “clothing, garment”, see CAD L, 19 b, 1’, and apart from the two examples quoted below, also RHA 18, 37:15–16, “I clothed his wife and him in two garments of good quality” (2 *tūg* sig ... *ulabbiš*), and Kt 94/ k 486:10–12, “you failed to give me the price of the garment in which I dressed you”. Note also Kt 75/k 78:2–3 and 29–30, “I provided his son / the daughter of Š. with one garment for a youngster” (1 *tūg* ša *suhrim ulabbiš*), where the garment given matches the age, gender and size of the recipient. However, TC 3, 164:21–22, “I paid 2 shekels of silver for a *šubātum* and clothed (with it) two servants” (2 *šuhārī ulabbiš*), suggests that *šubātum* here was a large sheet of textile that could be cut into two to make garments.

The Gt-stem, *litabšum*, occurs about two dozen times, inter alia in letters where traders in Anatolia ask to send them, usually from Aššur,272 textiles “to be worn, to be put on by me” (*ana litabšiša*). In several letters they ask to send or buy an unspecified *šubātum* for that purpose, provided either by a fellow trader273 or by a female relative. In Kt 91/k 508:13–15, Ummī-Išhara writes to her brother, “With the next caravan I will send two garments (*šubātum*) of good quality for you” 272 However, in VS 26, 40:8–8–10, “a textile for me to put on” (*šubātum ana litabšiša*) has to be bought for 6 shekels of silver in Anatolia, since it is followed by a request to buy a *pirīkannum* and a belt.

273 CCT 4, 45b:27–29 (meant for women, *alitabšiša*); CCT 6, 3a:24–26 (will be sent when the road is open again); CTMMA 1, 79:19–21 (“send me *subāt* to put on, I am staying here without *subāt*”); Prag I 477:19–25 (may cost 20 shekels of silver); see also ICK 2, 210:2 and Prag I 440:45–47 (“the oil you left behind for me to anoint myself and the *šubātum* to put on…”).
to wear”, Kt 92/k 102:18–20 asks “Why did you hold back the garment (ṣubātum) my sister sent for me to wear?”, and TC 3, 210:3–6 mentions the shipment of 12½ shekels of silver (to Aššur) to the address of two women “for buying subātū for me to wear”. That a subātum was worn as a garment is also clear from Kt 91/k 543:25–27, where a woman writes from Aššur, “You know very well that I stripped the garment from my shoulders to give it to you”. In Prag I 440:3–6 (also a letter from a woman in Aššur to a trader in Anatolia) such a subātum, worn by a woman, is put on a pair with the subātū that to all appearances had been bought in Aššur for export to Anatolia: “Together with your own subātū (plural) one is bringing you a subātū that is my own garment of which I stripped myself!” Other texts also mention that some of the textiles traded could be worn or used as garments: ICK 1, 15:18–19, “The rest of the textiles I will ......276 and (so that?) they can wear them”, and Kt 91/k 449:1–8, “When we counted the textiles (ṣubātū) of my transport, the palace took 2 ṣurbū, ... 5 textiles they (had) put on” (iltabšū). In CCT 3, 20:17–20, “Since the girl has now grown up, I have now made a few heavy textiles for (on) the wagon” (túg ištēn u šina kabtūtim ana narkabtim ētapeš), it is not clear whether she had to wear them as garments or they were used as covers or blankets on the wagon.

Other texts mention particular types of garments in which people dressed:

- **Abarnāium**, apart from TC 3, 17:23–28, quoted above, also Kt 86k 193:15–25, “If (you have?) a heavy and soft Abarnian textile for me to dress in, wrap it and also select two heavy kutānū, either from those of mine or from those belonging to the trader ...”. Perhaps also in AKT 2, 24:4–12, “Š. owes me one Abarnian277 textile of very fine quality. Ask it from him and when you ... Š., make him wear it” (labbištēšu), and the letter adds that if Š. refuses, the addresssees should give Š. a lubušum of Susē (? süs-fē-a-am, see § 2.1.1, s.v.) or a fine kutānūm for that purpose.

- **burū’um**, BIN 4, 160:11–13, “Š. owes me 11 minas of refined copper (because) I dressed him (ulabbištēšu) in a burū’u-textile of good quality”, and Kt m/k 43:1–2 (courtesy of Hecker), “When the textile(s) came up from the city, I dressed A. in a burū’u-textile (1 túg burū’ām A. ulabbištēšu). Also Kt 94/k 966:12–20 (courtesy of Larsen), “Get yourself out of there! Give one of the textiles that I can wear, either a šāru-textile or a burū’um in Akkadian style ... to an independent trader and let one ... (it) and bring it into the town. There are (here) no textiles I can dress myself in”.278

- **kutānūm**, CCT 5, 33:9–15, “I gave him a kutānūm to put on (allitabšīšu) and will send up for him from the City an Abarnian textile”; with the D-stem of the verb, Kt 94/k 1226:18, “I provided the Hattians279

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274 In Kt 93/k 325:10–13, a woman writes from Aššur: “Send me silver so that we can buy wool and then we will make one garment for you to wear” (1 túg ana litaššika lu nēpušakkum). When this was impossible, garments could also be bought, as in TC 3, 17:29–33, “If you don’t manage to make thin textiles (ṣubātū qatnūtum), as I hear there are plenty for sale there, buy and send them!”, and this could be done on the local market, cf. TC 2, 7:25–28, “Because there is no šurbu-wool (for making a textile) available, we will buy a heavy textile on the market (ina mahirīm)”

275 Attāma tidē su-ba-tumic bu-di-[a] [ah-m]u-üş-ma addinakkum. Cf. ARM 10, 17:10–14, where the queen of Mari writes to her husband, “Let my lord put the cloak I made on his shoulders (1 ṣubātam u nahlap tam ... ana budišu liškun).

276 Śitti šubātī u-lā-ha-āp-ma itlabbušušīšanu. CAD L, 18, c, 1’, suggests for lahhupum a meaning “to set aside” or “to select” (p. 239, s.v. luḥhubu, “to treat textiles in a particular way”); AHW s.v. la’uḫum II, referring to Arabic la’hf, proposes “in ein Tuch hüllen”, but this action is always expressed by the verb lawā’um in Old Assyrian. For this verb, see also line 18 in footnote 278.

277 Sic? The edition has tūg A-ni-a-ñi-a-am.

278 Lines 12–19, ramakkunu ʾuliḫā, 1 túgii ina litašša, li šārušic lu burā’ām, ša Akkidiḫi ištu, Hurama ana mer ummīānim, dimma lu-lā-hi-pu, lāšerrebāniššu, túgii allitabšīša lā ʾišā.

279 Courtesy of Larsen; Hattūtim, presumably a nisbe derived from Hattum, probably also in KTS 1, 8a:4–5, i-na a-lim (written a kl lim) ša [H]a-ti-e.
with two kutānū as clothing” (2 kutānū Ha-tī-e ulabbīšt), and see above, under Abarnīm, for such a use of a (fine) kutānum in KT 86/k 193:19–20 and AKT 2, 24:11.

- lubāšum, see AKT 2, 24:10, quoted above, under Abarnīm.
- palilum, TC 3, 164:11–13, “I paid 6 shekels of silver for two tūg pā-li-li and the slave-girls have put them on” (ištubṣašunu).
- raqquatum, KT 93/k 93:6–9, “The thin textile that A. promised you – I saw it and it is not fit for you to wear, it would be a shame” (lā ša ištubṣika magriat).
- šūrum, TC 1, 19:17–21, “Send two šūru-textiles of good quality to me to wear (and) 2 sapdinnu of good quality”; also KT 94/k 966, quoted under burā’um.
- tīsābhum, KT 94/k 1173:18–21, “A. promised me one extra fine tīsābum to dress myself in” (1 tūg, tīsābam sig₂, uṭtu-r-tam, ša ana litabšia).

These data show that different varieties of textiles could be and were used as garments, not only those called abarnīm, burā’um, palilum and raqquatum, but also kutānum and šūrum, textiles whose names, as indicated above, probably refer primarily to a particular type of woollen cloth. They may have been appropriate to use as “wrap-around garment” or perhaps their fabric, after some tailoring or cutting may have been turned into a garment. This would put them on a par with the unspecified šubātī, which various texts show to have been worn as garments, although there is also evidence for cutting them into pieces to yield more than one garment.

### 5.3. lubāšum

This brings us, finally, to the noun lubāšum, which etymologically means “what one wears, is put on”, according to CAD L, s.v., “1. clothing, 2. piece of apparel, 3. clothing allowance”. In Old Assyrian it occurs in various constructions and contexts.²⁸⁰

The third meaning is frequent in conjunction with the hiring of caravan personnel who, in addition to a wage, receive a “clothing allowance”, normally in the form of some silver (c.1½  to 2 shekels per person). This could be the price paid by a trader for buying (cheap) garments for his employees or the silver he had actually handed over to them.²⁸¹

The first meaning, not always well distinguishable from the third one, occurs in general statements, such as “we will spend it (the copper) for clothing (ana lubāš) for your wife and son and for their food” (BIN 6, 187 rev. 13’-16’), and in combinations where a textile is qualified as “clothing of/for” a particular person either by a construct state, as in textiles ša lubāš šarruttim, “as clothing of kings” (see § 3.4.1,a) and ša lubāš šuhārī, “for clothing of servants” (Prag I 429:1, pirikanbu-textiles), or by means of lubāšum ša, e.g. lubāšam ša šurrim, “a garment/clothing for a youngster” (AAA 1, 2:5–6). We also find textiles qualified as ša lubūšim ša, e.g. 1 tūg ša lubūšim ša šurrim, “one textile as garment for a youngster” (BIN 6, 84:30), or “2 šulupka’ū ... (and) 2 thin textiles (raqqātān) as garments (plural!) of our father” (ša lubūši ša abini, Kt 94/k 1751:1–6). However, ša lubūšim is also used more independently, as in 1 tūg ša šurrim ša lubūšim (KTS 2, 31:3) and 1 šītrum ša lubūšim (OIP 27, 58:25, Prag I 740:3, alongside kutānū and ištātum). Since a translation “as garment” would amount to tautology and the contexts make “as (part of a) clothing allowance”

²⁸⁰ Old Assyrian also knows lubūšum (see § 3.1), “clothing, clothing allowance”, but it is very rare, see CAD L, 233, d, 1’.²⁸¹ See Larsen 1967, 150–151, table, under “clothes”, and Veenhof 1972, 97 with note 160. We regularly meet in descriptions of caravan expenses the phrase “x silver the wages of the harnessors, together with their clothing allowance” (x kassārū qadum lubāšīšunu), e.g. in KTB 17:8–9. Cf. also POAT 41, 17–18, “send 5 minas of wool, her clothing ration” (lubūša, plural or mistake for lubūša?)
unlikely, we take it as referring to a particular (kind of) garment to which the item mentioned belonged or which it had to match, to make a set.

In such cases, lubūšum may be used because it was the standard type of garment and this may also apply in cases where a number of lubūšu are listed together with small numbers of specific types of textiles or garments, exported from Aššur. Here a meaning “garment” is not distinctive enough and would make all other exported textiles more or less automatically not garments, which is difficult to accept, as indicated above. CAD L, s.v., 2 therefore takes it as “a specific type of apparel” and the occasional use of the determinative túg before lubūšum supports this view and distinguishes it from textiles with more specific names that appear alongside it, but what its characteristics were is difficult to say. In the listing in Yale 13092 (see footnote 282), together with other textiles, it is qualified as “Akkadian” and this is also the case in Kt n/k 1228:13–17 (courtesy of Çeçen), “among the Akkadian textiles, both yours and mine, there are a lubūšum, a kusītum and a šulupka’[um]”. There are a number of references to white and one to yellow lubūšu (see § 3.4.2) and they could be of fine quality,283 expensive products according to Kt n/k 533:16–22 (courtesy of Günbatti), “if the textiles, either a white lubūšum or an Abarnian one, both of extremely fine, royal quality, seem right to you, give one to her”.284 In TC 3, 161:1–3, 3 lubūšu, among which a white one, are a gift for a queen,285 and in AKT 2, 24:10–12 a lubūšum of Susē (sū-sī-e-a-am) and a kutānum of fine quality are alternatives for an extra fine Abarnian textile to be worn by a man.

These data indicate that túg lubūšum was a fine garment, presumably of a standard type, a valuable product exported in small quantities, which could be provided with a matching šitrum and of which also a smaller version, fit for children, existed.

* * *

The Old Assyrian archives contain an important number of textile names, but the data concerning them are restricted to particular features, such as: the numbers, qualities and prices of the textiles traded, their geographical origin and, sometimes, also the material they are made of. The production techniques and the textile usages are rarely mentioned. The Assyrians and the Anatolians used only two materials: wool and linen, goat hair being mentioned only rarely. However, the terminology dealing with textiles is rich: there are about seventy different words referring to the various kind of fabrics, material, shape, use of textiles, and a few data on their weights. We found also twenty different words to specify the colour, quality or appearance of the textiles. The great majority of this vocabulary is peculiar to the Old Assyrian corpus; in fact,

282 We have the following enumerations (cf. CAD L, s.v. 2, a): 5 túg lubūšu 1 túg kusītum 2 raqqātān (Prag I 623:1–3); 5 šū[rūtum] [x] lubūšu, [y] raqqātum (Prag I 672:4–6); 7 lubūšu 6 kusītum1 Šilipka’um 1 takkuštām, “in all 15 Akkadian textiles” (Yale 13092:8–10); 5 kusītum 1 túg Abaruni sig, 2 túg lubūšu 1 túg nibrārum ša Akkidiš (Kt n/k 524:8–10); 10 kusītum 2 túg burā’ū 5 lubūšu (Kt n/k 524:32–33, exported from Aššur); 1 kutānum 5 túg lubūšu 1 túg raqqatum (Kt 91/k 299:11–12), etc.

283 Note RA 60, 139:18–21, “As for the garment (lubūšum) for (the woman) A., I looked for a fine lubūšum, but I could not find one to send her”.

284 Šumma subātī, lu lubūšum pašium, lu Abaruni, damqātum wattrūtim, ša šarruttum, išširūnkinum, diššim.

285 Lines 1–6, 1 túg lubūšum pašium, ša A. 2 túg lubūši, ša P. a-rašišum išši, 1 túg pašium inūmi ana 5 bēt mūšim igrūšuni, akkārim lubūšum, “one white lubūšum of A., two lubūšu of P. he brought as a gift to the queen; one white garment when they invited him to the house of the māšium to dress the kārum”.

284
there are relatively few words dealing with textiles, which are also found in cuneiform sources from other areas and periods. Thus, textile crafts have a strong regional tradition compared to other crafts. The important geographical aspect of the production is confirmed by the twenty geographical terms referring to textile types.

The study of textile terminology, in the absence of archaeological remains, rests on etymology, categorization and the combination of various terms, apart from a few more detailed descriptions. One can see that, most often, it is difficult to give an accurate and appropriate translation for each term, but, at least, we could distinguish textiles from garments. The translation of the technical terms will be enhanced by a good knowledge of weaving techniques, and the workshop, whose results are published in this volume happened to be very successful in this respect.286

Abbreviations

AAA Annals of Archaeology and Anthropology. Liverpool.
AbB Altbabylonische Briefe in Umschrift und Übersetzung. Leiden.
AnOr Analecta Orientalia, Roma.
ARM(T) Archives Royales de Mari (Traduction). Paris
BE The Babylonian Expedition of the University of Pennsylvania. Philadelphia.
CAD The Assyrian Dictionary of the Oriental Institute of the University of Chicago. Chicago (1956–).
CCT Cuneiform Texts from Cappadocian Tablets in the British Museum. London.
CT Cuneiform Texts from Babylonian Tablets in the British Museum. London.
FAOS Freiburger Altorientalische Studien. Stuttgart.
HUCA Hebrew Union College Annual. Cincinnati.
ICK Inscriptions cunéiformes de Kültepe. Prag.
KBo Keilschrifttexte aus Boghazköi. Berlin.

286 See also the contribution of A. Wisti-Lassen in this volume.
KUG
Kuliya
LB
Texts in the collection de Liagre Böhl. Leiden.
MARI
MDP
Mémoires de la Délégation de Perse. Paris.
MSL
Materialien zum sumerischen Lexicon. Roma.
NABU
Nouvelles Assyriologiques Brèves et Utilitaires. Quoted by year + number of contribution.
OBTR
OIP
Oriental Institute Publications. Chicago.
POAT
Prag I + no.
RA
RGTC
Répertoire géographique des textes cunéiformes. Wiesbaden
RHA
RIMA 1
Sadberk
TC
TCL
TLB
Tabulæ Cuneiformes a F.M.Th. de Liagre Böhl Collectae Leidae Conservatae. Leiden.
TPAK
TuM
Texte und Materialen der Frau Professor Hilprecht Sammlung. Leipzig.
UF
VS
WO
YOS

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12. The Textiles Traded by the Assyrians in Anatolia


Agnete Wisti Lassen

Craft production was of prime importance in the ancient Near East, and both rich and poor needed clothes, furniture, tools, pots, and weapons. Unfortunately, not much evidence is available for the study of ancient crafts in Western Asia, and only few workshops have been firmly identified archaeologically.¹ A few investigations on the basis of the Sumerian written material have been undertaken,² but the Akkadian terminology is often left as an unexploited resource of information about technology and the evolution of crafts in ancient society.

The perishable nature of archaeological evidence means that certain aspects of some crafts are completely lost, and it is often not possible to reconstruct processes and social or religious aspects of the ancient crafts on the basis of physical remains alone. Studies in terminology can therefore corroborate both the archaeological evidence we possess, and shed light on issues not illuminated by archaeology at all. An example of the latter is the possible symbolic connotations of certain raw materials. For instance, we learn from the written evidence, that a particular fibre known as ú-ki-kal, perhaps nettle, was used only for religious garments in the city of Ur in the late 3rd millennium BC.³

It is possible to identify a textile term in Akkadian on the basis of the word’s context, of the use of the determinatives túg and gada, and on the basis of etymological evidence, such as the occurrence of the word in later Semitic dialects, e.g. Arabic and Hebrew. Often, however, these criteria will not reveal any precise technical information about the term, and this presents a great obstacle for a better understanding of the Mesopotamian textile production, namely the changing degree of accuracy in the extant translations of the specific technical terms. Often, our dictionaries⁴ place great emphasis on a correct understanding of etymology or context, whereas the specific translations seem to be based on a limited technical knowledge, and translations

¹ A good example is the textile workshop at Gordion, Burke 2005. For a general introduction to ancient Near Eastern crafts and technology, see Sasson 1995, chap. 7: Technology and artistic production.
² See e.g. Waetzoldt 1972 and van de Mieroop 1987.
³ Lassen 2008, 42.
of textile terms are left broad and open. Thus, when reviewing the Akkadian textile vocabulary in the dictionaries, a striking number of words are simply translated: “a textile”, “a garment” or “a tool”. Many of these terms occur only in lexical lists, or in texts written in the common uninformative tone of self-informedness. For this reason, it is well-nigh impossible to reach any clear understanding of what these objects actually were.

It is striking just how often textiles are mentioned in the cuneiform sources. Plainly, regardless of period, geographical area and sphere of society, textiles had enormous economical and social importance. This just makes it all the more problematic that the translation of the terminology is so vague. In the present article I hope to demonstrate that it is often possible to offer more precise translations of words in this technical vocabulary with a knowledge of the actual physical procedures involved in ancient craft production.

There are a number of problems to be faced during this exercise. First is an issue of representativeness. Although an overwhelming number of texts written on clay tablets in the Akkadian language has come down to us, there are numerous aspects of society that are less than well illuminated by the written evidence. There is, so to speak, a periphery to the literate world. Textile production often belongs to this periphery, as it is frequently associated with the private sphere and the female gender. Also, as in many other ancient societies, Mesopotamia was home to a large textile production administered by palaces and temples and recorded by bureaucrats. Yet, the terminology of administrative records kept in such large organisations tends to be generalised and focus on raw materials and products rather than on the actual work procedures and tool repertoire. Plainly, there existed a rich vocabulary of technical expressions and terms beyond those noted in our texts, and we cannot simply assume that the extant textile terminology preserves a complete record of ancient processes and production. In addition, the types of texts that have come down to us from each individual period and region are not uniform, which can present a problem of comparison.

The methodology is very simple: the presence of a linguistic term of a given procedure or tool implies its existence in the society where the language was spoken. It follows that a study of a particular technical vocabulary in a diachronic perspective can inform us about the nature and evolution of craft and production. Whenever a new technique or technology was invented it needed a name. Often, it seems, this new name was provided by just adding another meaning to a word already present in the vocabulary. In addition to a general sense, the word would adopt a technical meaning. In such cases only the new usage of the word reveals its new specific and technical meaning.

Loanwords from foreign languages were also adopted, most importantly Sumerian, which has provided Akkadian with a great number of words basic and fundamental to the textile craft, e.g. qû, “yarn, thread”, and kîtûm, “linen”. A less apparent feature of the Akkadian textile vocabulary is the large number of terms that occur in texts from the site of Nuzi and/or are loanwords from Hurrian. Oppenheim suggested already in 1966 that a revolution in dyeing technology took place at Nuzi. Indeed, the great variation in the textile vocabulary, especially with regard to work procedures, indicates that several techniques may have been developed here in addition to dyeing.

\[5\] Note, however, that it cannot be excluded that these words were borrowed into Sumerian from Akkadian and not the other way around.

\[6\] Oppenheim 1966.
1. Textile terminology in private letters

From the Old Assyrian private letters found at the site of Kültepe in Central Turkey we catch a glimpse of the diverse and complex Akkadian textile terminology as employed by private craftspeople. The women of this period, as presumably in most other periods, spun and wove fabrics in their own home. Their husbands or male relatives sold some of these textiles on their behalf, and the women were thus able to earn some extra cash for themselves.7 The travelling merchants selling goods in Anatolia seem to have had a thorough knowledge of the techniques of weaving, and they were able to send home very detailed specifications of what was in demand on the markets in Anatolia. Among the most discussed and interesting of these texts is TC 3, 17, which is a letter from the merchant Puzur-Aššur to the lady Waqqurtum:

Let them full one side of the textile.
They should not teasel it.
Its warp should be close, so compared to the textile you sent previously process one more mina of wool into each textile – but keep them fine/thin.
The other side

11 ša ṣū-ba-tim pā-na-am
iš-tē-na-ma li-im-šu-dā
la i-qā-tū-pu-šu
šu-tā-šu lu ma-da-at
15 i-sé-er pā-ni-im
šū-ba-tim ša tū-še-bi, li-ni
ša-áp-tám 1 ma-na-ta
ra-di-i-ma lu qā-at-nu
pā-na-am šā-ni-a-am
20 i-li-la li-im-šu-du-šu
šu-ma ša-ar-tām i-ta-āš-ū
ki-ma ku-ta-nim li-iq-tū-pu-šu-nu

The text is an instruction in how Waqqurtum should make her textiles in order to sell them on the market. Lines 11–13 seem to be concerned with the finishing treatments of one side of such a textile, lines 14–18 with the warping, lines 19–22 with the finishing treatments of the other side of the textile, and lines 34–37 with the size of the textile.

More wool can be added to a textile by either using thicker threads or increasing the number of threads. If the threads are thicker the textile will become coarser, whereas if the thread count is higher, the textile will become denser.9 In lines 14–18 Puzur-Aššur requests that the fabric should be denser, but that it should retain its fineness by increasing the thread count.

After weaving, each side of the textile is exposed to two basic treatments: mašādum (l. 12 and l. 20) and qatāpum (l. 13 and l. 22). A third effect (l. 21 ša-ar-tām i-ta-āš-ū) is attainable if the textile is exposed to qatāpum. The translation of these processes is disputed, and the standard dictionaries offer incompatible suggestions.

It is agreed that the verb mašādum has the basic meaning “to beat, to hit”. In technical contexts CAD s.v., 352 adds the technical meaning “to comb wool”, connecting mašādum with the noun mušṭum (gīš-ga-zum), “a comb”. The dictionary even refers to TC 3, 17 specifically, although it provides no translation of the passage. However, the connection between mušṭum and mašādum is uncertain, and a mušṭum is only used to comb wool – not finished textiles. Also, it is never mentioned alongside woven textiles. Finally, it is difficult to see how exactly the abovementioned

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7 Veenhof 1972, 103–123.
8 For lines 1–10 and 23–37 see Michel & Veenhof pp. 249–251, in the present volume.
9 Mårtensson, Andersson, Nosch, Batzer 2007.
textile could be “combed”, and the suggested translation seems unlikely in the context. Instead of “to comb”, the AHw II, 623 translates mašānum as: “walken?”. Fulling is indeed a standard procedure in finishing a woollen textile, and this translation seems preferable.

The second treatment the textile was exposed to is qatāpum, a verb which CAD s. v. translates as “to pluck, pick”, and in relation to textiles, d) “to pick off bits of wool from the surface of a textile.” In CAD §, 222–223, however, we find the translation of qatāpum: “to tease.” AHw II, 907 has “heraus, -abflücken”, and in regard to textiles: 1) “Haare aus Stoffen.” In their treatment of the text, Michel & Veenhof disagree with both dictionaries, and translate qatāpum “to shear”. 11

The suggestion “to pick off bits of wool from the surface of a textile” seems unlikely. Cleaning a finished textile for any bits of wool, threads or dirt is standard procedure and does not change the textile in any particular way. It would thus not be a feature qualifying a textile. Instead, qatāpum is connected to the third effect mentioned in line 21: šartam našā’um. The meaning of našā’um (to lift, carry) seems to acquire a technical meaning in connection with šartum (hair). The verbatim translation “to lift the hair” points to a technical process known from many other contexts as “to raise the nap”. 12 If this is indeed the correct understanding, it means that qatāpum must be a process similar to “teaselling”, as suggested by the CAD vol. §. 13

In line 22, TC 3, 17 states that the kutānum textile was also teaselled. The kutānum is the most common type of textile mentioned in the Old Assyrian sources – more than 30,000 individual pieces are attested in some 800 texts. Scattered references to kutānus used for clothing, similar to TC 3, 17 make it possible to get a vague idea of what a kutānum could have been, but no certain conclusions can be drawn. The etymology of the word is debated. 14 The most obvious connection is to Akkadian kitū and Aramaic ktn, “linen”, and perhaps also Phoenician ktn, “coat”. Much emphasis has been placed on the fact that the kutānum could be made of wool, 15 leading to the rejection of an etymological relation between kutānum and a word for linen kt(n). 16 In this context it is interesting to note the apparent similarities between Akkadian kutānum, Hebrew kuthnoh (cotton), Arab qutūn and Hebrew kuttoneth (tunic, coat, shirt), and its relation to Arab kattan (flax, linen), W. Semitic ktn (flax, linen), and Akkadian kitūm (flax, linen). This root was adopted into Greek khitōn (Linear B ki-to), Latin tunica and perhaps also Hittite kattanipu. 17

A modern equivalent to this shift in meaning over time is the usage of the word linen in English, which today only rarely refers to a textile that is specifically made of flax. More commonly, it denotes cotton textiles, as in “bed linen” or “table linen”. 18 What characterises “linen” in this

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10 Note, however, that textiles with the adjective “combed” also appear in Linear B texts from Mycenae. See Del Freo, Nosch & Rougemont in this volume.
11 Michel & Veenhof in this volume, p. 251.
12 The writing i-ta-daš-ú is ambiguous. I follow Veenhof’s (1972, 104) understanding of the inflexion as a Gt durative, but on the basis of the suggested meaning of šartam našā’um as a terminus technicus describing the raising of the nap, I prefer a different reading than Veenhof’s: “If it is still hairy”.
13 CAD §, 222–223. Teaselling is a treatment of a woven textile in which the surface is rubbed with a thistle/teasel pulling out the fibre ends to give it a soft and slightly fluffy surface.
14 See Michel & Veenhof in this volume pp. 216–217.
16 Cf. CAD K, 608; Landsberger 1967, 158.
18 Oxford English Dictionary: s.v. “linen”, 3: “Garments or other articles made of linen; often by extension applied to garments normally or originally made of linen, even when other materials are actually used.”
context is not that it is made from flax, even though this is indicated by the etymology, but rather its dense tabby weave (also called “linen weave”), its white or light (bleached) colour, and its stiff quality. Fabrics of other fibre types, but with the same qualities, fall into the same category. It is possible that the same principle was valid in the case of ktīn/kutānum; perhaps it was originally used to refer to a type of textile made of flax, but that its properties – weave, colour and texture – eventually became a more important characteristic than the fibre it was made of.

Meaning shifts of this type presents an obstacle in the translation of technical terminology. Etymology becomes a very unsecure source of information and placing too much emphasis on it can at times even be misleading. It is necessary to consider the usage and context of these terms in the different periods and combine it with the technical knowledge we possess.

2. Procurement of wool and spinning

The textile tool repertoire of the Akkadian-speaking cultures as represented in the written evidence is limited. In the category of tools for obtaining raw materials we have only 3 words attested. The first is magzazu, which occurs only in Standard Babylonian lexical lists. The word derives from the verb gazāzum, which I will return to later; a tentative translation would be “shearing blade”. In addition, there is the serpu or sirpu, “shears”, which occur in lists of tools, among items given as a dowry etc. In the texts is often stated that shears were made of iron and were for shearing (gizzu). So far, the term occurs exclusively in Neo-Babylonian texts. Finally, we have muštu šipāti,19 “wool comb”, occurring from Old Assyrian and Old Babylonian times onwards. Other words for comb are attested, but none seem to appear in contexts that connect them to wool or textile production.

In spite of its limited size, this vocabulary of tools coincides well with what we know of shearing in ancient times: in the Bronze Age wool was plucked, combed, and shaved off the back of the sheep, and only in the Iron Age, with the arrival of iron shears, could wool also be sheared.20

The verbal act that goes along with the shears is gazāzum – a word that occurs already in Old Akkadian texts, but which seems to have undergone a shift in meaning at some point. In the Old Babylonian texts gazāzum is used only of goats, whereas baqāmum, “to pluck”, is the verb preferred for the action of obtaining wool from sheep. In Neo-Babylonian texts, however, gazāzum appears with the shears, and is used instead of baqāmum. It seems likely that gazāzum initially meant “to cut hair” e.g. wool off goats, but that later, with the invention of shears, it came to be used with the meaning “to shear”.21

Only the name of a single tool used for spinning fibres is attested in the vocabulary, namely pilaqqum “the spindle”. In the texts spindles occur as prestigious items made of gold, silver, lapis and rare types of wood given as royal gifts, and such spindles have indeed been found in excavations.22 Furthermore, lexical lists record words for different parts of the spindle, for instance, the spindle whorl (qaqqad pilaqqi), words for different types of spindles, such as the hooked spindle (pilaq qarni), and a word for spindle container (bīt pilaqqi).

19 The comb, the spindle and other “women’s items” often occur together also in magical texts.
21 Similarly, Barber 1991, 261 suggests that the mistake of not differentiating between plucking and shearing was made by Liddell and Scott in their Greek-English dictionary in the translation of πεκείν (pekein) as “to comb, card; shear”. Note also that there seems to have been some confusion of gazāzum and Sumerian giš-ga-zūm “comb”.
Likewise, a group of words refers to the process of spinning. Most common is ταμûm or ταωûm, which denotes spinning in general, while pataûm seems to refer only to the spinning of plant fibres and intestines, and could thus perhaps be more accurately translated as “to twine”. Also the word ešēpum is usually translated “to twine”, but from the contexts it appears in, I would suggest that the precise technical meaning should be “to ply”. The basic meaning of the word ešēpum is “to double”, and beside contexts related to textile production, it occurs also in mathematical texts. An example of its use comes from the text known as Šurpu: “she plied with white wool and black wool a double-stranded thread with a spindle, an excellent thread, a great thread, a double-coloured thread”. In Sumerian the equivalent to ešēpum is tab, a sign that consists of just two parallel wedges. Tab appears in a sequence of textile procedures: nu-nu: to spin, tab: to ply, zé: to prepare the warp, and tag-tag: to weave.

In some texts, three instead of two strands are plied into a thread. This presumably made the CAD suggest an additional and rather different meaning of the verb, namely “to plait”. There is, however, no compelling evidence to suggest that the word should have had this connotation, and of course, plying can be done with more than two strands.

### 3. Warping and weaving

Before weaving can commence, the yarn must be set up on the loom in a process called warping. Two words document this process, dêpu and šatû. Both are known from bilingual lexical lists that do not offer any details of the process. The warping process is naturally unattested in the archaeological record, but there are pictorial representations on cylinder seals that might depict it.

The seal shown above seems to illustrate the process of warping on what has been suggested to represent a ground loom. If this interpretation is correct, the ground loom was in use in Elam, and probably also Mesopotamia, from very early on. Another type of loom in use in ancient Mesopotamia was the vertical two-beam loom, which Elisabeth Barber has suggested was invented at Ebla in the 3rd millennium on the basis of this town’s supposed outstanding position as a textile production centre. The Akkadian loom terminology is relatively sparse and not very well understood, and we cannot say for sure when and where the various types of looms were used. Words for looms and loom parts come mostly from lexical lists, which makes accurate translations of the terms difficult. Nevertheless, there is occasionally some room for progress in our understanding and identification of an Akkadian loom terminology. In the CAD we find

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24 van Dijk 1953, 65.
25 CAD Ṣ/3, 383.
26 See e.g. Breniquet 2008, 295.
27 Barber 2000.
the term asû, which is translated simply as: “a wooden part of a loom.”

However, a closer look reveals further details. Firstly, asû is a word also used for a part of a door. Secondly, an upper, elû, and a lower, saplû, asû is attested. Finally, the asû tend to come in pairs in the texts. On the basis of these three circumstances, it seems plausible to suggest a more precise translation and interpretation of the term: that the asû is a part of the frame of a loom – as well as the door – probably the transversal beams of the loom and the threshold and the lintel of the door. Such beams make up the frame of both the horizontal and the vertical loom, but he existence of an “upper” and a “lower” asû indicates that the loom which the asû are part of is in fact be the vertical two-beam loom.

The word is first attested first already in Old Akkadian texts, and it occurs also in Old Babylonian and Middle Babylonian sources, at Nuzi, and in Neo-Assyrian lexical list. As already mentioned, this does not suggest that the loom type was used only in these periods, but it does demonstrate its existence, and probably over a large geographical area. This is more than could be deduced from the archaeological evidence. Plainly, it also means that we must reconsider Barber’s proposal that the vertical two-beam loom is primarily a Syro-Palestinean tool invented at Ebla.

An important aspect connected to the two-beam loom is its use in the weaving of tapestries and knotted pile. Evidence for these textile types comes from a Middle Assyrian inventory text from Kār-Tukultī-Ninurta, which records precious objects brought into the palace of that city. All the objects are carefully described, and figuring on the list, immediately below the royal throne and some illegible object, are two valuable textiles.

The first word of the text, which gives the name of the textile, is unfortunately broken. It reads:

27 [1 tūg x] ša iš-pár ka-ši-ri ̀ù [x] [x x x] lu-ri-DU-e i-na ša-[ap-li-ti] ∀ù ú-ma-am-tu ta-ra-ha ̀ù [x]
28 te-qî-a-tu-šu zi-qu ia-û-rľu [x]
30 gu-ha-šu-šu ša šîr-pa-ni eš-rľ[u ...]

1 tūg mar-du-tu ša 5 pi-x [x] 1 mardātu-textile with 5 [x] (the work)
ša šî-pár uš-bar bir-mu-šu [x] of a ‘weaver of colourful textiles’...
i-nî-shê ú ú-ma-ma-ni a-x-[x] of people and wild animals...
35 ša uru-didli du-un-nu ̀ù [x] of different towns and
ša-lam lugal i-na šîma-ˇa-[x] fortifications, and...
šî-x-a-hu [n]a-ha-x-ˇ[x] the image of the king on a pedestal(?)...
ša-lam lugal i-na [x] the image of the king on a x...

Köcher, who published the text, restored [1 tūg mar-du-tu] in line 27, presumably on the basis of the mardātu-textile being mentioned in the second section of the text, line 32. However, the craftsmen who produced the two textiles clearly were of different professions – one was a knotter, the other a type of weaver – and the detailed description of the two textiles shows that they were of a different nature. Köcher’s restoration thus seems unconvincing. The first textile is said to

27 CAD A/2, 347.
28 For an image of the vertical two-beam loom and the warp-weighted loom, see Andersson Strand, this volume.
29 Köcher 1958, 300–313.
30 Köcher 1958, 300–313.
31 For the translation of tēqītu, see Barrelet 1977, 57(b).
have been produced by a kāṣiru, “knotter”. Our earliest attestation of the word appears in an Old Assyrian text, but it becomes frequent from the 16th century BC onwards. Only a few texts state clearly which types of fabric the knotter produced, but in some instances lamhuššu-textiles are mentioned. The only connection between the mardatu and the kāṣiru is the unconvincing restoration made by Köcher. Regrettably, no knotted carpets have survived in Mesopotamia, but they are known from pictorial representations, for instance from the rugs carved in stone in the doorways of Neo-Assyrian royal palaces.

The second textile mentioned, the mardatu, is woven by an “išpar birmi”, a type of craftsman who wove textiles in multiple colours. I would like to suggest that the mardatu is in fact a type of pattern weaving, perhaps tapestry, and that the išpar birmi was a tapestry weaver. As mentioned above, words, even technical terms, can change their meaning over time, and išpar birmi seems to be an example of this phenomenon. In the present context išpar birmi denotes a weaver of a specific type of textile. In the Neo-Babylonian period, however, the term simply means “textile worker”. The term thus developed from having a very specific meaning to a more general meaning.

The craftsman producing the mardatu is a specialised weaver holding his own occupational term. Textual evidence from Mari mentioning mardatu shows that it was an expensive type of

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32 CCT 5, 32b.
34 E.g. Camp. 245:4, 7
36 I thank Stefan Zawadzki for pointing this out to me.
textiles exchanged as royal gifts. For instance, one mardatu carrying the image of a lamaštum was
given by a certain Mukannišum to the king of Babylon.\textsuperscript{37} There are also records of mardatu sashes,
mardatu loin-cloths, mardatu cushions, mardatu curtains, “large mardatus”, and mardatu garments.\textsuperscript{38}
The Akkadisches Handwörterbuch translates mardatu, as: “ein Teppich?”.\textsuperscript{39} However, it is important
to note that a textile woven in tapestry technique is not necessarily a carpet, or another heavy
type of textile for that matter. This weaving technique is used also for producing garments and
other light fabrics. Unfortunately, the suggestion offered in the AHw has later led to some curious
translations, such as the: “1 ku-sí-tám ma-ar-da-a-tám” in an Old Assyrian letter: “ein kusîtum-
Gewand in Teppich Art?”.\textsuperscript{40} The kusîtum is a garment wrapped around the body, presumably a
type of robe or mantle, which in the first millennium BC. could be elaborately decorated, and
was worn by gods, goddesses and kings on special occasions.\textsuperscript{41} Kusîtus could be purple, red and
‘multicoloured’ (birmu and gün), and a list from Nuzi records wool of many different colours
used in the making of kusîtus. If we accept the translation of mardatu as a ‘tapestry woven textile’,
the meaning of the word becomes much clearer. Then the kusîtu mardatu is what we see on Neo-
Assyrian reliefs as worn by the king and his elite.
In the present paper I have used some of the extant Akkadian textile vocabulary to review the

\textsuperscript{37} Durand 1983, 410.
\textsuperscript{38} Durand 2009, 63 and 107.
\textsuperscript{39} AHw II M-S, 611.
\textsuperscript{40} CCT 1, 29: 1 tūg ku-sí-tám ma-ar-da-a-tám ù sà-he-er-tám a-na ba-ru-lim ša Pá-ha-tí-ma. (note also the occurrence of an
\textsuperscript{41} Postgate 2001, 378–381.
different stages of the textile production in ancient Mesopotamia. These terms, however, make up only a tiny sample of a rich vocabulary concerned with textiles and textile production. With a basic understanding of the technology involved in the making of textiles, I have attempted to show that the translations offered by our dictionaries at times leave room for improvement and specification. And such specifications can in turn reveal information about the history of textiles. Behind a word, such as asû – the wooden part of a loom, – lies information about the existence of a specific technology. Behind mardātu a concretisation of the images of dress we see in wall paintings and on stone reliefs.

Etymology can provide hints to the original meaning, but meaning shifts occur, and it is important to look at the terms in their different usages from period to period to get a fuller understanding. At times, placing too much emphasis on etymology can even be misleading.

It is interesting to note that so many different translations of the text TC 3, 17 occur. Several suggestions for each of the technical terms mentioned in the text can be found in the dictionaries and in the literature, as is the case in this volume. It is in some way symptomatic of the difficulties we face when dealing with textile terminology.

When most of the primary evidence is missing – the tools as well as the textiles – we must be creative in order to reconstruct the past. We must tease out bits and pieces of information from different sources and put them together with the hope of getting the broader picture. Hopefully, this article shows how a combination of linguistic evidence and practical knowledge of the actual technology can be used in the reconstruction of the history of textiles.

Abbreviations

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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>CAD</td>
<td>The Assyrian Dictionary of the Oriental Institute of the University of Chicago. Chicago (1956–).</td>
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<tr>
<td>CCT</td>
<td>Cuneiform Texts from Cappadocian Tablets in the British Museum. London.</td>
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<tr>
<td>KBo</td>
<td>Keilschrifttexte aus Boghazköi. Berlin.</td>
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Bibliography

14. Les textiles du Moyen-Euphrate à l’époque paléo-babylonienne d’après un ouvrage récent

Anne-Claude Beaugeard


On trouve dans ce livre un inventaire des termes désignant toutes les catégories des textiles à usages divers présents dans le corpus des textes de Mari, avec un certain nombre d’éléments provenant d’autres sites syriens de l’époque paléo-babylonienne. L’auteur souligne dans son avant propos qu’il ne s’agit pas d’une synthèse sur l’industrie textile ou sur les habitudes vestimentaires à Mari. Néanmoins, ce livre est plus qu’un simple lexique, car l’auteur présente ses réflexions au fil des pages et, grâce à cette méticuleuse recherche, les historiens disposent maintenant d’un matériau particulièrement fiable. Le corpus de base ne représente pas l’ensemble des textes exhumés à Mari mais les textes dont disposait l’auteur, en fonction de la constitution des lots de textes pour leur publication. Néanmoins, l’échantillon de textes est suffisamment important pour pouvoir proposer un lexique que l’on présume complet.

Malheureusement pour l’historien des textiles, les textes dont nous disposons ne sont pas les archives de gestion de la production textile, mais les archives de la gestion des stocks textiles : le vocabulaire spécifique de la production manque presque totalement. L’allocation générale de vêtements distribuée par le palais se dit tŭg-ba/*lubuštum*. Il peut aussi y avoir une allocation de laine (*sīg-ba*). En dehors des vêtements, le palais gère beaucoup d’étoffes qui servent uniquement à l’“ameublement” (en général). Dans ce cas, les fonctions des différents textiles repérées par J.-M. Durand sont les suivantes :

– la literie :
  *burē’um* : la toile à matelas (destinée à être rembourrée de roseaux), qui peut être faite de différents tissus, y compris les plus luxueux.

1 Le terme donné en premier correspond à l’idéogramme sumérien utilisé dans les textes de Mari, et le terme écrit en italique correspond au mot akkadien attesté dans ces textes.
litum : le drap de lit.
 nalbašum : la couverture en lin.
nâsisum : un type de couverture
tūg-(nīg)-barâ/ūsum : un type de couverture.

- l’équipement des équidés, des chars, des chariots, des bateaux et tentes diverses :
duzurum : le tapis de selle.
gaba-gál/gabagallum : le pectoral, le décor frontal d’un char.
kammakum : la bâche du chariot, en laine ou lin.
hayyû : le tapis de siège.
hurpatum : le tissu en laine servant de velum dans une cour ou sur un bateau. Il faut imaginer une pièce de
 tissu d’une dimension considérable (son poids est de plus de 50 kg).
kuštârum : la tente de bédouin.
nakbasum/nakbisum : la carpette.
napdû : la toile de protection (?)
sîrum/zîrum : un tissu épais servant pour garnir un chariot, un palanquin ou une tente.

Le vocabulaire collecté dans cette étude est celui qui est utilisé dans le palais, et non celui des
textiles fabriqués à domicile par les particuliers, à une exception près semble-t-il.

Les tissus de laine peuvent être travaillés de façon diverse, mais les termes qui servent à
désigner les textiles sont souvent peu éclairants sur l’aspect fini qu’ils pouvaient avoir. On connaît
les termes techniques utilisés pour désigner la chaîne (sig-nâ-àm ou bittum) et la trame (nîdum).
Les termes relatifs aux techniques de tissages et de finition des tissus relevés par J.-M. Durand
sont les suivants :

aguhhum : le tissu de style “kaunakès” (tissage avec de longues mèches de laines qui ressortent). Il s’agit d’un
tissage démodé au début du 2ème millénaire, qui n’est plus couramment porté et qui est réservé à la garde-
robe des statues de dieux.
tūg-bar-kar-ra/barkarrû/barkarrîtum : un tissu épais et résistant de qualité commune ou “tissu grossier”.
sûnum : un tissu servant à faire un galon ou une ganse pour “ourler” les tissus. (Sur cette question, voir plus
bas).
halûm : un tissu avec frange amovible, parfois tressée (?) de style šipparim.
hamdâ : un tissu de petite taille et d’un tissage très fin.
huršânim/huršanîtum : un tissage “à la mode montagnarde”.
si-sâ/išartum : un tissu naturel ou “écru”. Le palais gère de très grandes quantités de textiles non teints. Il
semble que la majorité des textiles utilisés à Mari aient été de ce type.
ilbum : un tissu à poils longs
itqum : une frange, réalisée probablement par torsade de fils pour créer un “effet ressort”. La frange est réalisée
séparément de la réalisation du tissu et peut être ajoutée ou enlevée au gré des envies.
kap lurrim : un tissu décoré de plumes d’autruches : la question de la technique utilisée pour fixer les plumes
d’autruches sur le tissu reste ouverte.
kabtum : un tissu “lourd”, de grand luxe, à la mode uniquement à l’époque du début des archives de Mari.
mazzû : un tissu élamite.
narbâtum : un tissu fait de laine fine.
hurrurum ou harrurum : un textile rasé, très courant (équivalent du terme gizzum).
tūg-guz-za/gizzum : un textile fabriqué de laine de piètre qualité (laine de mouton mort?) et rasé ensuite. Ce
textile est utilisé pour l’ameublement.
lamahuû : un tissu de laine assez précieux, qui peut servir comme toile à matelas.
sakkum : le tissage typique de Mari et de Haṣor, peut-être un tissage très serré. Ce tissu est utilisé aussi bien pour
le vêtement que pour l’ameublement.
ustha : le tissu royal et princier typique de Mari, servant à faire des capes pour hommes et femmes.
Les textiles du Moyen-Euphrate

ša panûm : le tissu double face, réversible (pour le tissu de couverture).
qaršum : J-M. Durand n’a pas de proposition définitive pour ce terme. Peut-être s’agit-il d’un tissu où l’on a aménagé une fente permettant de le nouer facilement au niveau de la ceinture (fermeture style “portefeuille”).
La mode n’est connue qu’au début des archives de Mari.
šahhû : une toile résistante qui peut servir pour faire une tente ou une voile de bateau.
ša šûṣupum : un tissage avec un fil double (pour le tissu de couverture).
terdennûm : un tissu de seconde qualité.
ša tûšurum : un tissage lâche ou ajouré (pour le tissu de couverture).
utublûm : un tissu sergé, assez riche, c’est la qualité d’étoffe la plus courante à Mari, produite en grande quantité.

Ce textile est toujours originaire de haute Mésopotamie et est probablement fabriqué dans les maisons. Les coupons semblent avoir une taille plus ou moins standard.
zakûm : un tissu lustré ou qui brille (?)
zûnum : une broderie figurative(?) effectuée sur un tissu destiné à servir de voile de luxe pour les femmes.

Le corpus couvre trois générations et semble indiquer des modes vestimentaires et textiles, car certains termes tombent en désuétude. Ces évolutions correspondent aussi à l’importance de telle ou telle ethnie sur le palais de Mari. Le vocabulaire listé est spécifique à Mari et ne semble guère avoir de correspondance dans les textes plus récents de la même zone géographique comme le corpus d’Emar. Beaucoup de termes de “technique textile”, font en fait référence aux pratiques textiles des régions avec lesquelles le palais de Mari est en contact économique et politique. Dans la liste précédente, on aura par exemple déjà relevé le mazzum, tissu à la mode élamite.

Dans de nombreux cas les qualificatifs textiles nous informent simplement sur le fait que ces textiles étaient considérés comme “exotiques” à Mari, sans que l’on sache si c’était en raison de leur couleur, du type de tissage, de leur dimension ou de la forme des vêtements auxquels ils servaient. Parfois simplement, on sait qu’il s’agissait de vêtements/tissus de prestige, qui devaient être représentatifs de l’artisanat de luxe de chaque région.

À défaut d’autre information, on apprend donc que les traditions textiles sont très spécifiques à chaque zone géographique ou à chaque ethnie. Le tissage comporte une forte dimension identitaire. Les toponymes et les qualificatifs ethniques attestés correspondent aux régions qui avaient des contacts économiques et politiques avec Mari. On a relevé les mentions suivantes :

ša bišri : l’étoffe à la manière du Bishri.
elamûm : l’étoffe de style élamite.
gublâyûm : le tissu à la mode de Byblos.
ḫuršânû : l’étoffe de Huršânûm.
uḫšûtûm : l’étoffe de Haḫšûm.
iamhadu : l’étoffe du Yamhad.
kiššihhu : l’étoffe de Kiš.
laharû : l’étoffe de Lahâru.
lullûm : l’étoffe des Lullû.
maratû : l’étoffe de la côte Méditerranéenne.
nûrûgûyu : l’étoffe du Nûrûgûyu (Nord-est de la Mésopotamie).
paramûtûm : l’étoffe à la mode de Marhašî.
sûhum : l’étoffe souhéenne.
šûbarûm/šûbarîtûm : l’étoffe à la mode du Šubartum.
tuttûbûm : le tissu de Tuttûb.
La compréhension des différents termes relatifs aux textiles est extrêmement difficile car on ne possède ni données archéologiques ni corpus figuratif suffisant qui permettrait d’éclairer le lexique présent dans les textes. De plus, le vocabulaire textile actuel signifie des réalités et des classifications tellement différentes de celles qui sont signifiées par le vocabulaire mariote que chaque ébauche de classification ou de traduction pose plus de problèmes qu’elle n’en résout.

Le premier problème est celui de l’emploi du mot actuel “habit”. Dans quelle mesure est on en droit de considérer qu’un objet textile est spécifiquement un vêtement? Doit-on se contenter du vocable général “tissu”? J.-M. Durand propose comme définition minimale du terme “habit”, “celle d’une pièce d’étoffe dont la destination principale est d’être portée par le corps humain, et qui est par là même dotée d’une certaine forme (“coupe”). Si la première partie de la définition peut faire consensus, la seconde partie de la définition est beaucoup plus problématique. La notion de “coupe” est extrêmement ambiguë. La notion de “coupe”, suppose l’utilisation d’une géométrie complexe visant à créer des volumes tout aussi complexes qui ne peuvent être obtenus par simples pliures, drapés, serrages et fixations au moment de l’habillement lui-même, et il est peut-être difficile d’utiliser cette terminologie pour une première approche du lexique textile d’une période aussi reculée. La forme générique d’une pièce de tissu est le rectangle, plus ou moins parfait, de grande ou de petite taille. Il peut exister des techniques de tissage créant d’autres formes, mais cela reste à établir. On devrait s’en tenir à une notion de dimension et de qualité de l’étoffe, même si, précisément, les textes mariotes ne nous donnent pas d’indications de dimensions, ni très souvent de poids des tissus, ce qui ne facilite pas l’enquête.

Le terme générique à Mari pour dire l’étoffe est tŭg/subātum. Deux sumérogrammes servent à classer les textiles : le classificateur gû-ē-a s’oppose au classificateur tūg. La distinction essentielle est donc entre le tissu “par lequel passe la nuque” et les autres tissus qui servent ou non à l’habillement. Le premier est traduit par “chemise” et le second par “étoffe”, mais les deux sont portés.

Une question importante dans le cas d’étoffes-vêtements, est celle de l’existence ou non d’une façon permanente sur ces étoffes. La façon permanente peut provenir certes d’une coupe de la pièce initiale de tissu, mais concerner également la création d’un volume permanent. La “forme” du vêtement est alors liée à une pratique d’assemblage du morceau d’étoffe sur lui-même, ou de plusieurs morceaux d’étoffes entre eux de façon permanente. C’est à proprement parler la technique de la couture. Des pièces assemblées peuvent faire l’objet de désassemblage pour récupération. La question du décor surajouté au tissu est également importante car le textile est avant tout un élément de parure, au moins pour les parties supérieures de la société. Il n’y a que quelques indices de formes particulières pour les vêtements de Mari (voir ci-dessous la liste des vêtements particuliers recensés). Pour le reste, J.-M. Durand utilise le vocable général de “finitions”, et l’on pense surtout à des broderies ou à des techniques qui concernent l’obtention de boucles ou de fils qui sortent du tissu et qui sont coupés ou rasés en complément du simple tissage. Il semble même que l’on pouvait enfiler des perles sur le tissu au fur et à mesure du tissage.

Un élément important de cette enquête lexicale est l’existence, selon J. M. Durand, d’une profession particulière, celle de “couturier” (lú-tūg, “tailleur” selon sa terminologie), à côté du simple tisserand (lú-tūg-du 8). Le premier terme ne serait pas la simple abréviation du second. Cette information est importante car cela laisse entrevoir que les tissus utilisés en guise de
vêtement ne sont pas de simples étoffes rectangulaires de taille ou de qualité différentes, mais peuvent recevoir un début de “façon” (assemblage par couture, coupe ?…). On note que des éléments tels que les coiffes peuvent être confectionnées avec plusieurs pièces de tissus qui ne sont pas forcément cousues entre elles mais simplement arrangées directement sur la personne.

La technique du ravaudage des vêtements par ajout de petits morceaux de tissus (*pirsum*) sur l’étoffe trouée est l’affaire de spécialistes (*lú-túg-kal-kal amukabbû*). Les vêtements peuvent donc être ravaudés (*kubbûm*). Le tissu peut être donné à reprises (*ana šâšurim*). Les vêtements sont parfois donnés à laver (*ana mesîm*).

En fin de vie, il y a de multiples attestations de la coupe des tissus afin de fabriquer différents bandages, langes etc… Le tissu est déchiré (*šarâṭum*) pour former des bandes (*ṣertum*).

Une des questions importantes quand on aborde les techniques de couture est celle de la finition des bords du tissu. Selon les exemples réunis par J.-M. Durand, il semble que les bords des vêtements étaient traités avec une ganse surajoutée (*le galon-sûnum*). Il semble que ces galons n’étaient pas considérés vraiment comme des tissus (une seule attestation de galon prêt à l’emploi). Souvent ce galon était classé parmi les laines. L’aspect de ce que nous traduisions par “ganse” ou “galon” n’est donc pas certain. Par ailleurs, la technique de l’ourlet simple semble être attestée à l’époque paléo-babylonienne (*sûn ramânišu* : “bord” pris dans l’étoffe elle-même). Dans la comptabilité du palais, il est très souvent fait mention de tissus qui sont *là sûnim* (sans ourlet). La pratique du gansage en bordure de vêtement est, selon J.-M. Durand, typique de la région du Yamhad : il ne s’agit donc pas, là non plus, d’une technique universelle, mais d’une tradition ethnique particulière.

Selon J.-M. Durand, il semble établi que certaines *formes* de vêtement existaient bel et bien, qui n’étaient pas simplement des rectangles de différentes dimensions. Néanmoins, on a en fait très peu d’indications sur les formes, et ce terme reste problématique en l’état de nos connaissances. On sait qu’un ensemble d’habillement complet se compose d’un petit nombre de pièces essentielles : la “chemise” (*gú-è-a*), le manteau, la ceinture, éventuellement le voile pour les femmes ou la coiffe pour les hommes, et bien sûr les sandales.

Le terme générique que l’on traduit par “chemise”, (*gú-(è-a)/nahlaptum*) ne concerne probablement pas un vêtement ayant reçu un quelconque façonnage particulier, mais un tissu qui est principalement utilisé pour jouer le rôle de “chemise”. La dimension du tissu doit entrer en ligne de compte, et probablement la possibilité ou non de draper l’étoffe sur la personne. Par contre, on ne sait pas si ces “chemises” faisaient l’objet d’un quelconque procédé de couture. En effet le tissu *nahlaptum* peut être parfois utilisé comme textile d’ameublement, en guide de “housse”, ce qui serait difficile s’il avait reçu une véritable façon. J.-M. Durand semble penser que les “chemises” ont au moins des coutures latérales (d’où peut-être sa traduction par “housse” lorsqu’il s’agit de tissu d’ameublement), mais pour l’instant cela n’est pas prouvé. Il existe des *gú-(è-a)/nahlaptum* en lin (gád/*kitîm*). Le fait que ce terme *gú-è-a/nahlaptum* serve de classificateur à toutes sortes de textiles indique simplement l’usage prioritaire de ces textiles.

J.-M. Durand remarque que le terme utilisé pour signifier “se vêtir” (*labâšum/lubbušum*) correspond au terme akkadien qui rend le sumérien *túg*, terme générique désignant l’étoffe, et non au classificateur général *gú-(è-a)/nahlaptum* que l’on traduit par “chemise”. De ce fait on peut déduire que la notion de “chemise” (*gú-è-a*) est secondaire par rapport au simple fait de nouer un tissu autour de son corps, *túg* désignant le “manteau” mais aussi simplement le pagne.
Les types de vêtements attestés se répartissent en plusieurs groupes :

- celui des pagnes qui peuvent servir de “sous-vêtements” divers :
  *maksûm* : les langes, faits de tissus récupérés.
  *nahramum* : le pagne masculin.
  *nâsisum ša iški* : le cache sexe.
  *túg-bar-si/parsikkum* : c’est le vêtement le plus courant à Mari. Cela doit être une sorte de foulard que l’on peut nouer à différents endroits du corps, y compris autour des reins en guise de pagne. C’est en tout cas une pièce de tissu assez légère.
  *túg šusippum* : bande qui peut servir soit à faire un pagne, soit à enrouler autour des mains pour les protéger.

- celui des voiles féminins :
  *kutummû* : les voiles de la mariée (mot toujours utilisé au pluriel).
  *mardatum* : le voile brodé typique de la Syrie.

- celui des “chemises” :
  *gú-(ê-a)/nahlaptum* : ce terme est un classificateur, et désigne en général toute “chemise”, comme nous venons de le voir.
  *nahZaBum* : une chemise ornée de pierres précieuses.

- celui des ceintures :
  *patinnu* : la ceinture rigide.
  *nasbadu* : la ceinture, le châle plié en bandeau, parfois en lin.

- celui des accessoires vestimentaires divers :
  *ahatum* : les manches (?). Le terme n’est attesté qu’une fois, dans le cadre de pièces de tissus récupérées. Cette réalité textile peut donc exister mais n’est visiblement pas courante à Mari.
  *kaballu* : en laine, typiques des montagnes, ce sont des sortes de bandes molletières ou des “chaussettes”. Il en existe une variante en cuir.
  *karikkum* : les chaussettes (?). J.- M. Durand suggère que ce terme fasse référence à un tissage fermé sur lui même pour créer un tissu tubulaire. Le mot n’est attesté qu’une fois à Mari : il s’agit d’une réalité étrangère.
  *rittum* : des gants (?).

- les différents “manteaux” sont les suivants :
  *dabadu* : est un mot générique pour désigner un vêtement à la fin du 3ème millénaire et qui est encore en usage dans les archives de Mari les plus anciennes.
  *kimura* : une étoffe servant de manteau précieux, peut-être d’un blanc brillant, attesté seulement au début des archives de Mari.
  *kussatum* : une sorte de manteau, attesté seulement au début de l’époque des archives de Mari.
  *kutânum* : vêtement cappadocien en laine. La question de savoir si ce mot a un rapport avec le grec *chiton* reste problématique.
  *lullumtum* : un vêtement fait de laine babylonienne, connu à la fin du 3ème millénaire, mais passé de mode à l’époque de Mari et employé seulement en contexte liturgique.
  *taddiâtum* : un vêtement du couronnement, recouvert de pierreries, d’or et d’argent.


Les tissus sont conservés dans des sacs en cuir, des corbeilles en roseau, et mis dans des housses de lin destinées à les protéger.
14. Les textiles du Moyen-Euphrate

Certains vêtements du type “chemise” (gú-è-a) sont en peau (kuš), et même formés de plusieurs peaux (kušḫa), ce qui signifie que ces morceaux de cuirs étaient cousus ensemble pour former des vestes. De même, les sandales (mešēnum) étaient en cuir, garnies ou non de divers accessoires.

En général, les tissus attestés sont en laine, mais quelques vêtements en lin (gad/kitûm) sont connus également. On trouve :

- le tissu de lin hîrum qui est une bande de lin de dimension modeste, destinée à toutes sortes d’usages, aussi bien pour le vêtement (autour des reins, sur la tête...), que pour servir de lien ou pour empaqueter des produits.
- le šà-ga-dù/nēbahum, la ceinture. Le terme désigne un tissu de lin, probablement plus long que large qui sert en général de “ceinture”, mais qui peut aussi être utilisé enroulé autour de la tête pour faire une sorte de turban (agûm).
- différentes sortes de liens (riksum).
- des bandelettes (šusippum) qui servent pour les reins (birki) ou pour les mains (qatim).
- quant au terme kitûtum, il semble bien désigner un tissage particulièrement fin plutôt qu’un simple tissu de lin.

Au total, l’usage du lin est bien moins courant à Mari que celui de la laine, et semble ne se présenter que sous la forme de tissus de petites dimensions.
15. Linen in Hittite Inventory Texts

Matteo Vigo

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

Linen makes up the largest part of the Egyptian economy and is also its main export produce. 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. Egyptian linen is referred to in writings from the middle Babylonian period as a cloth used to dress statues of deities.

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

A list of attestations (GADA ideographic form with and without phonetic complements), updated to Siegelová 1986, with corrections: KBo VII 23, obv.1 2; KBo VII 26, obv.7 right col. 1; KBo IX 89, rev. col. VI 5, 11; KBo IX 90, col. V 7; KBo IX 91, left edge 377; rev. B 5 (DAD.TAR(?); Cf. Košak 1982, 29; HZL, 174, No. 173); KBo XVIII 154, rev.1 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.1 left col. 2; KBo XVIII 184, rev. 5, 8, 9; KBo XVIII 185, obv.1 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.7 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.2 col. IV 3, 5; KUB XLII 15, rev. left col. 6; KUB XLII 16, rev. col. IV 7, 8; col. V 11; KUB XLII 17 obv. left col. 4–5; right col. 377; KUB XLII 31, obv.1 2; KUB XLII 34, obv.7 10, left edge 1; KUB XLII 42, obv. col. II 9, rev. col. III 777 (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, 357; KUB XLII 53, obv.1 8; rev. 1; KUB XLII 54, obv.1 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.

Bibliography is too short 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.


CT 2, 2: 8: GADA ša ušu.Mišir.

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

Cf. Waetzoldt 1980, 30–31; van de Mieroop 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 (šś 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 šarrī, 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\(^{11A}\) an-da, and those alike, but not identical, such as SIG ḤA-SÄR-TUM A.AB.BA-kán an-da (line 17), SIG ḤUR-RI-kán an-da (line 25), and above all BI-IB-RI\(^{11A}\)-kán an-da (line 18), clearly demonstrate that it is difficult to establish whether items

\(^7\) See Gardiner 1931, 161–183; Hannig & Vomberg 1999, 471.
\(^8\) Already Forbes 1964, 43.
\(^10\) 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: ʿGIS-PISAN SA₂ GAL GİR UR.MAH IGLU₃ A ŠA KUR A-MUR-RI-kán Ḫ GADA\(^{11A}\) an-da IŠ-TU GIŠḪUR-gul-aš-ša-an ʿEGIR-an-da-ya-kán 37 GADA \(\text{[ur]a}-\text{la-ši-ya}, “one large, red basket, (on) lion feet, (fit for) a gift. Contains: Amorite linen. As jotted down on a wooden board \(^7\). Furthermore 37 items of linen (from\(^7\) Cyprus”\). The impossibility of a link between the term IGLU₃ 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 IGLU₃ A, also, translated by Goetze as "show piece \(^{77}\)”, 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.\textsuperscript{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.\textsuperscript{19} In a quote from ‘Ezekiel’s Prophecy on Tyros’,\textsuperscript{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.\textsuperscript{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,\textsuperscript{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).\textsuperscript{23}

In EA 40 the “governor”\textsuperscript{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)

\textsuperscript{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 (Contrà 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 + kán) 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 dactus and on the presence of grammatical elements characteristic of so-called ‘classical Hittite’, it should be possible to date the text further back.

\textsuperscript{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 Aḥat-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.MES SALLA ša KUR Ḫur-ri 20 TÚG.ME.MES SALLA ša KUR.MAR.TU.KI 20 TÚGŠA-bat-tu ša Ḫu-ri 20 TÚGŠA-bat-tu, ša KUR.MAR.TU.KI. However no mention of linen is made in this passage, even though the expression TŪGŠA-nalbašu raqqatu (logographic form: TŪG.ME.MES SALLA), 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.

\textsuperscript{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.

\textsuperscript{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.

\textsuperscript{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 Yağış et al. 2005, 560.

\textsuperscript{23} EA 34, obv. 22, 23, 25.

\textsuperscript{24} For the Hittite term (\textsuperscript{10}piddûrus) reference is generally made to CHD “P”, 368 with the relative bibliography; Tischler 2001, 134; HEG “P”, 638–639, with the relative bibliography. See also, among others, Carruba 1968, 29, with note 65; Steiner 1962, 135–136; Kühne 1973, 85–86; Moran 1987, 209, note 1.
of boxwood, and a ship’s mast. There is no mention of linen cloths.

These same goods are also found in the Annals of Thutmose III (summary of the 34th year of reign), which mentions a tribute made by the ‘chief’ (wr) of ‘Asiya (Cyprus) which that year included 108.5 ingots of smelted (?) copper ore (lit. “heavy”) 2.400 deben, five (+X) ingots of lead/tin, 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 Thutmose 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 36–37 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. 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 “Alašiyan” way’.

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. 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 ši-gu. See also CAD “T”, 280–282; AHw “S-Z” Band III, 1336–1337.

26 EA 40, obv. 10–15.
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.
34 KBo XVIII 175, obv. col. I 5. See Košak 1982, 10; Siegelová 1986, 410.
of linen from Ḫurri,\(^{35}\) whereas in the fourth line it refers to 39 linen shirts of which two are in red linen and one in šuḫru linen.\(^{36}\)

Lines 6–7 of the obverse even describe the route traveled by the produce: by caravan (ŠA KASKAL) to the Palace ("ŠA É.GAL 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 ‘Tapaspa style’”.\(^{38}\) In this case too it is a reference to the method of crafting the cloth.\(^{39}\) It should be stressed

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\(^{35}\) [1 ĀPI]SAN ȘA, LÚGUD.DA 40 TŪGÛ ḪUR-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 čnač. See also CTH 250.1=KBo VII 23, obv. 2; TŪGÛ ḪUR-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, Mooney 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.

\(^{36}\) TŪGÛ GADA 2 GADA ȘA, 1 GADA ŠU-UH-U-RU. For the meaning of šaru(m), here given as šuḫru, 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) interprets the expression “black cloth” by Landsberger (1925, 14), who, in TÇ I, 27: 2 translated, “zehn schwarze Stoffe”. Also, again, AHw “S-Z” Band III, 1287 translates šaru(m) as “schwarz, grau”, accepting the equation with šaḥōr “schwarz werden” from Hebrew and Aramaic. As Veenhof (1972, 30, note 59) 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 TŪGSIG, which would hence refer to a fine cloth. The possibility should not be excluded here that the term šuḫru, 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 TŪGSIG (“fine fabric”), almost as if highlighting the difference. See the statements in Košak 1982, 14. Cf. MVAeG 33 No. 155: 4, a-na 1 TŪGŠU-ri-im ū 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 Sumeroegram ḤI.HI linked to textiles (in the forms TŪGĤI.HI, "ADAHI.HI, TŪGĤI.HI-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 “mielert(?)”. 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 šaru(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 TŪGŠAL.LA or TŪGSI G. Cf. Veenhof 1972, 153. See also the considerations by Siegelová 1986, 204–206, note 2; HZL, No. 335, “Farbbezeichnung(?).”.

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


\(^{39}\) 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 el-hi-li-pa-ki appears. It seems plausible that this expression may also refer to a type of linen. Goetze claims that the term ehlipakki is undoubtedly to be linked to ehlipakk(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 ḥi-li-p/ ba stone.45 It is highly likely to be a precious stone, as Laroche rightly observed;46 the expression 1 GADA el-hi-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.A18 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

40 Goetze 1956, 36.
42 Bottéro 1949, 18, with note 2.
43 Bottéro loc. cit.
44 Cf. Goetze 1956, 36, note 52.
45 Laroche 1976, 76; compared to Košak 1982, 8.
46 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. ḥilibá in CAD “ḥ”, 186.
48 Linen in Hittite Inventory Texts is mainly attested in connection with metals, designating a metal ingot; here ḥuwa-rā ṣ-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.
49 As far as the term g[ad]u-ua-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 ḥuwa-ant “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 XII 43, obv. 11 (Košak 1982, 111–112; Siegelová 1986, 482–488), in KUB XII 34, left edge, line 1 (Košak 1982, 54–55; Siegelová 1986, 56–59), also in KUB XII 60, obv. 7 (Košak 1982, 186; Siegelová 1986, 524–525). See, for example, the adjective derived from it, attested in the neuter, plural form, ḥuwardaruvwanda. Cf. Beckman 1985, 141.
50 Like Siegelová 1986, 225, “[x +] 1 Minen Leinen (für) 4 gemusterte, erstklassige Gürtel”.
51 KBo IX 90, obv. 7. It could have been a loose fitting tunic tied at the waist (E.IB), 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 XII 48, obv. 354, 11, 15; KUB XII 44 (+) KBo IX 89, obv. 1–2, 7, 9. The garment E.IB could be associated with the Hittite ḥuwa-rā ṣ-eš. Cf. Goetze 1955, 56; Tischler 2001, 72; HEG “A-K”, 490, “tunic with kilt”, maybe not to be confused with TUG ⅣB.LAL, Hitt. putalliy- “lichtestes Marschkleid der Soldaten”, thus wrongly Ünal 1978, 126. Cf. the valid observations by Goetze 1955, 56, “tunic with kilt which the ‘soldier gods’ from Yazilikaya are wearing”. See also what is claimed by Siegelová 1986, 213–216.
52 The Akkadian word maššu often used in the inventory texts as Akkadogram, could have meant the meaning “trimmed” or
mentioned in a list of gifts (IGI.DU₈-A) from different parts of Anatolia. Other types of linen also existed such as karnaša linen. This was, in all likelihood, a special type of cloth used for covering precious pieces of furniture. In the same text one also comes across the expression GADA tiyalan which possibly refers to a type of cloak for special occasions worn as an over-garment. Speaking of which, it is interesting to note the term used without the "embellished", also in this context. The word in fact occurs nearly always next to insertions of gold and silver in the clothing. Cf. Beutel 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.

The textiles in this group of texts (CTH 243.3 = KBo XVIII 197 (+) 197a (+) 197b + KBo I X 89 + 90 (+) KUB XLII 44), come from the city of Paniša (KUB XLII 44, rev. col. V 5, 8), Parnaša (KUB XLII 44 + KBo I X 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 Haranaša; Lat. Corniaspā?) from Hattuša towards the south (Kaneš?). Cf. Cornelius 1967, 71; del Monte & Tischler 1978, 300–301; Košak 1982, 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-Kızılrmak. 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. Last of all, as far as Zarwiša is concerned, it may have been near Tarḫuntašša and Karadağ, in the area between the Taurus mountains, the H >/ulia 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 (?), İlkkuwaniya (Konya), Waššaniya (according to Forlanini [2009, 49, 68] to the west of Kültepe/Kaneš and near the Kızılrmak river), as far as Zarwiša, near Ḥurniya/Korne (personal communication by Forlanini). Cf. Košak 1982, 203.

The term occurs, in association with the items on which it is placed, in KBo XVIII 181, rev. 5, 7 (integrated: kar-nja-aš-ša in KBo XVIII 181, rev. 6). In KBo XVIII 186, left edge 6, Košak (1982, 170) suggests for GADA (karnašaš: "the cloth for the karnasa-table", while Siegelová (1986, 379) transcribes directly 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 GİŞ), and with no possibility of being mislead by the various spelling of the two symbols (cf. HZL, Nos. 174, 177), since, just before (line 3: GADA GİŞar-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 (GİŞ) in KUB LII 96, obv. 3.


It is not clear if the linen takes the name of the object on which it is placed (karnašaš:). 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 (linen [for a] chair). The term karnašaš/karnasi- could be formed by the Luwian term karna- – of unknown meaning – with the Luwoid appurtenance suffixes -ašša/-ašši- (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-tš-ša-ú' of KUB I 1, col. IV 80: "schalten und warten". 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 karnaša. Compare Klinger 1996, 482–483, 775.

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

The term is in fact almost definitely retraceable to the verb tiyalaiš- ("to cover", "to wear", "to put over"), from which the noun tiyalaiš. 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.
15. Linen in Hittite Inventory Texts

its determinative GADA, in KUB XLI 106, obv. 4: ]x 1 TUGGÚ.È.A. 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 (TUGGÚ.È.A). This garment is almost always linked to the land of Ḫurri. It is therefore assumed that the GÚ.È.A cloak originates from Hurrian lands.62

The element that appears to confirm the link TUG/GADA 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 TUGGÚ.È.A ḪURRI ŠURIPU tiyalan appears very convincing.66

The Luwian term67 lakkušanzani-, 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 GADÁ ("bed").69 The textile referred to is evidently used in connection with beds.70 The most viable hypothesis is that the expression TUG/GADA lakkušanzani- 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

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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[kkarî]) 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 “Ṣ-Z” Band III, 1284. 6a.
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. 1 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 in fact anticipate Pluralia Tantum. Cf. also Goetze 1953; 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, 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.
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.
3. A propos colours of fabrics in the Hittite world

In a Hittite medical text there is reference to a remedy for an ophthalmic complaint which probably causes profuse lachrymation. The treatment procedure is described in detail. A compress made with an ingredient (possibly obtained from Alashiya) 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. The main ingredient in this preparation could be chrysocolla (hydrated copper silicate), a substance probably used for the same purpose also in the Akkadian ritual AMT 9, 1: 39 and mentioned again by Puhvel in a passage from his Naturalis Historia as an excellent remedy for "initia glaumatum". It is however difficult to establish how mar(ru)waša- 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 (DSI-A) attested in the

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 gonorrheal conjunctivitis in newborns. Yellow mercuric oxide cream is used for parasites such as lice and phthirius 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 diagnostiziert und behandelt. Der Krankheit sind vor allem Kinder und Jugendliche aus der Bauernwelt zugewachsen. Erst später ist sichergestellt worden, dass Trachom eine sehr verbreitete Erkrankung der Kinder und Jugendlichen ist, die in der Regel ohne medizinische Behandlung nicht heilen kann. Die Behandlung besteht aus einer Kombination von lokaler Behandlung mit Antibiotika und systemischer Behandlung mit Antibiotika und Immunsuppressiva.”

77 (sH) handa–. Compare Tischler 2001, 38; HEG “A-K”, 154; HW, 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)waša- seems to be borrowed from Luwian. Compare CLI, 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 was also 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.
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 chalcanthite (copper sulphate) and “copper rust” – from Cypriot mines – used for their medicinal purposes.
Hittite texts (the modern ²SA₄ transcription), “red river” (the old Halys, today called Kızılirmak, which in fact means “red river” in Turkish).⁸⁸ Later Güterbock too, following Goetze,⁸² suggested placing the ideographic form ²SA, with the same hydronym ²Marəšanda, 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)waša a noun derived from the Luwian *mar(ru)wa(i)- (rougir).⁸⁵

The suffix -(a)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,⁹⁰ tried to explain why the suffix -asha-⁹⁰ 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)waša- is a nominal deverbative

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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)la- (KUB XXII 70, rev. 11), designating a colour other than white (harki-), 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 Marásstanta 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)la- 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 armuwalasša- (“moonlight”) from the verb armuwalalī- (“rising like the moon”), maliyasša- (“approval”) from the verb malāī- (“allow, approve”); harnamniyasša- (“restlessness”) from the verb ḥarnamniya- (“incite, stir up”); etc.


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 \(^{\text{id}}\)SA₅ (lit. “red river”) with \(^{\text{id}}\)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)wašḫa-, can hardly be seen to qualify the colour red.

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

\[\text{numu } \text{D}^\text{2}Ištar \text{ URU Šamuḫa GAŠAN-YA warriśšišta nu šarazzi katterraya anda :maruwāit nu nepiš tekanna katkattenut.}\]

In this passage is described the epiphany of Ištar, who, on coming to the aid of Ḫattušili III, “darkened” above and below\(^{97}\) (all the lands of Ḫatti); shaking the sky and the earth.

In the same way the deities in KUB LIV 78, rev. 6\(^{98}\) and in KUB VII 38, obv. 6,\(^{99}\) are clearly “dark divinities”.\(^{100}\)

The term mar(ru)wašḫa-, 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)wašḫa- was interpreted based on the derivation from the verb *mar(ru)wa-, where *mar(ru)wa- = “to be red” > mar(ru)wašḫa- = “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.

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97 katterraya anda maruwāit.
98 \text{DINGIR.MEŠ}^\text{2}mar-ku-wa-ya[aš].
99 \text{D}^\text{2}Mar-ku-wa-ya-aš.
100 The markuwašaš deities (dat. nom. plur. neuter of markuwa-ya-?) quoted in the Hittite text should correspond to D\textit{Marwayanza} of KUB XXIV 11, col. II 8 and KUB XXIV 9, col. II 27 (cf. \text{DINGIR.MEŠ}^\text{3}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 \[\text{NA}^\text{3}\]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 ṭapa, 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 \textit{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.\textsuperscript{103} If we try to apply the same logic that scholars used in trying to identify the mineral on the basis of its colour,\textsuperscript{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.\textsuperscript{105} Chrysocolla \([\text{Cu},\text{Al}]_2\text{H}_2\text{Si}_2\text{O}_5(\text{OH})_n(\text{H}_2\text{O})]\) 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 \((\text{NA}_4)\) into the text KUB XLII 18, obv. col. II 5, or to identify \((\text{NA}_4)\text{mar russh}a-k\) as chrysocolla. One option automatically excludes the other.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{109}

\textsuperscript{103} Although this observation is irrelevant to the definition of the meaning of the verb ‘mar russh awa- and the noun maybe semantically linked to it \((\text{mar} \text{ru} \text{wa} wa(l)-a)\), perhaps related to Hittite in the form mar \text{ru} \text{wa} waya(-), 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.

\textsuperscript{104} It has been essentially based on the equation: mar \text{ru} \text{awa}- (a verb that indicates a colour): mar \text{ru} \text{wa} wsha- (abstract noun of this colour) = mar \text{ru} \text{wa} wsha- (abstract noun of this colour): \text{NA} \text{mar russh}a- (stone X of this colour).

\textsuperscript{105} So proposes, with reservation, Polvani 1988, 65, “crisocolla”; “verderame”.

\textsuperscript{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 \text{NA} \text{YASPU}, a term rarely used in Hittite documents, but always provided with the determinative. Cf. Polvani 1988, 123–125, with preceding bibliography.

\textsuperscript{107} μαλάχης with the variants μολόχης/μολάχης. Also in Pliny, Naturalis Historia, 37. 8: μολοχίτις λίθος. Cf. Hebrew: malūḥah.

\textsuperscript{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.

\textsuperscript{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.\textsuperscript{110}

Azurite $[\text{Cu}_3(\text{CO}_3)_2(\text{OH})_4]$ 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.\textsuperscript{111} It can often be found in the form of clumps or joined together in aggregations with radial texture. Azurite is highly soluble.\textsuperscript{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.\textsuperscript{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)$\text{wa}\text{ša}$- 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)$\text{wa}-$ – from which the term mar(ru)$\text{wa}\text{ša}$- could have been derived – seems completely acceptable.\textsuperscript{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.\textsuperscript{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.\textsuperscript{116}

\textsuperscript{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.

\textsuperscript{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.

\textsuperscript{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.

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


\textsuperscript{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\textit{lupan(n)i}

The definition of linen as a luxury good\(^{117}\) 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\(^{(4)}\),\(^{119}\) perhaps related to a chair; two (cloths?) of linen presumably for a “royal seat”.\(^{120}\) The most difficult fabric to identify is definitely GADA\textit{lupannes},\(^{121}\) quoted in line 2.

The term TÜG/GADA\textit{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 \textit{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 \textit{lupan(n)i-}.\(^{127}\)

Moreover, in a statue – literally “image” = ALAM – dressing ceremony, representing the king, it states as follows: “A \textit{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 \textit{lupan(n)i-}, as seems to be evident in a passage of the ritual recently Berlin & Kay 1969.

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\(^{117}\) 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 GIS sar-pa-aš. For the controversial meaning of the term GIS/KUS sarpa- refer to CHD “š”, 287; Tischler 2001, 146; HEG “š”/1”, 928.


\(^{122}\) For the meaning of the term see CHD “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 GT-77.

\(^{125}\) TÜG lu-pa-an-ni LUGAL-a[n’-na-š]. As perhaps also in KUB XLII 98, obv. col. I, 10–11: TÜG NIG LAMMES LUGAL GTières TÖ/7 TÖ/7 GÜ.E.A ḪUR.RI 1 TÖ/7 EIB 1 TÖ/7 lu-[pa-an-ni-š], “(the substitute) is dressed in royal clothes: one Hurrian overcoat (coat?)”, one light tunic and one \textit{lupan(n)i-}”.\(^{128}\)

\(^{126}\) Cf. Siegelová 1986, 35; Mora 2007, 539.


\(^{129}\) KUB XVII 15, obv. col. II 13 and duplicate KUB XXXV 145, obv. col. II 17: [(na-aš-ta an-da)] ŠA ḪUTU lu-u-pa-[an-ni-i(n) KLMIN nu-aš-ta an-d(a) ŠA "U], 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 250.36 132 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


131 1 TÚG.ku-lu-pa-aš ZA.GIN 1 l[i]-pa-ni-iš ZA.GIN SUM ʿAš-pu-na-wa-ya, “one blue vest, one blue lupanni: (present from/to)’’ Ašpunawiya”. The name is a šapqa leqyêmenou 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 XLI 51.

133 KUB XLI 51, obv. 4: x +] 6(9) TÚG.lu-pa-an-ni-iš. Probably also in line 8: TÚG.lu-pa-a]n-ni-iš ZA.G(D(9).


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 study. 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 to li-Kušu 138), often within religious contexts (KUB XXVI 66, col. III 3: DINGIR.LUR A-ru-uš-(uš)-na; col. III 11: MUNUS šarna-wa-aš), but even typically administrative contexts (KUB XXVI 66, col. III 15), if one follows the interpretation of the verb ḫarkanzi 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 šarnawaš while the remaining mina is sent for the embellishment of divine statues in Urkina.”). 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.

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) 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.

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 bulla there remain traces of two syllables of which Güterbock, comparing various texts dated at the time of the reign of Šuppiluliuma I, suggests the name Ḫenti. 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. On the basis of this supposed royal couple (Šuppiluliuma I – Ḫenti), it is then suggested that the integration of a fragmentary passage of a decree pertaining to the ‘kizzuwatnean priesthood’ of Telipinu. Assuming the historical credibility of the so called ‘royal lists’ are accepted with some reservation, the chronological sequence of the queens appearing in the text reconstructed by Carruba (Daduḫepa – Ḫenti), seems to be confirmed from another fragment of a ‘royal list’ and completed by the contemporary presence of other Middle-Hittite queens (Walanni – Nikkalmadi – Ašmunikkal – Duduḫepa – Tawannanna) in the ‘ritual of the Queen’ at Taḫurpa (the fifth day of the nuntarriyaḫa- festival). The name Ḫenti is also found in a fragmentary letter(?) dated to the Middle-Hittite period, and in a very damaged text.

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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: mIb-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.
143 Ibidem, 5.
144 Otten 1951, 56, “Daduḫepa und Ḫinti sind die Namen von Šuppilulimmas 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 Šuppiluliumas ansetzen ...”.
148 KUB XI 7 + KUB XXXVI 121 + KUB XXXVI 122 [(+) KBO XIII 42 (+) KBO XIII 43]. Carruba 2007, 137–139, in particular 139.
150 Cf. Goetze 1940, 77, note 312.
151 Cf. already Güterbock 1940, 31–32 (No. 60).
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 Šuppiluliuma I, as his second wife, in a sequence that lists the following royal couples: Walanni – Kantuzzili (?), Nikkalmadi – Tuthaliya II (?), Ašmunikkal – Arnuwanda I, Daduḫepa 156 – Šuppiluliuma I (?), Tawannanna II/III(?) 157 – Šuppiluliuma 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 certainty 162 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 tuḫukanti cited in line 2 of the obverse can be identified as Tūḫaliya IV. 167

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

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.
163 KUB XLII 51, rev. 5: 8Ne-ri-ik[. For the prosopography of this figure refer to van den Hout 1995a, 96–105.
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 Tūḫaliya 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 & Ünal 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 Tūḫaliya IV (Nerikkaili), without a royal title. For events relating to the appointment to the kingship (LUGAL-iz-na-ni tapariya-) of Tūḫaliya 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.
15. Linen in Hittite Inventory Texts

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.

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), inside of which are listed lupan(n)i- in association with weapons.

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?)”.

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.

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” or bronze) could

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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: 6-11[100]lu-p[a]-an-ni ZA.GÍN 1 GADA.DAM ZA.GÍN x[9] ŠAḪÉ-pá-tī-ň.R. 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 100lu-pa-an-ni LUGAL-x[i]), together with other precious fabrics, objects and cult weapons made of bronze.

The afferent 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.


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.


175 For the interpretation of the term AN.BAR GE e see Maxwell-Hyslop 1980, 87–88.
Matteo Vigo

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.\(^{178}\)


\(^{178}\) 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 S091–S0109) and Fig. 15.8. For the presence of bronze plates (diadems) in elite funeral contexts (Šakkanakku); ibidem, 186 (III D1 S04 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)
Goetze’s suggestion,\textsuperscript{179} which was rejected for a long time,\textsuperscript{180} of identifying the term $\text{TUG}^\text{GAD}$ $\text{lupan(n)i}$- with the Sumerogram $\text{TUG}^\text{BAR.SI}$ (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.\textsuperscript{181}

The relationship between $\text{lupan(n)i}$- 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

\textsuperscript{179} Goetze 1955, 62.
\textsuperscript{180} CHD “L-N”, 86.
\textsuperscript{181} We agree with the observation of Košak 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”.

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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)
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”. There is less of a tendency to consider the object as an article of clothing used exclusively by men.

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, could suggest a word of Hattic origin, 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. Even a Hurrian derivation of the term 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, although suggestive, raises many doubts. Thus, Indo-European origin is very difficult to support. It is therefore tricky to think of Luwian word, as Rosenkranz has already postulated and subsequently been accepted also by Melchert. The term lupan(n)i- could be a loan word or a ‘Hittite’ adaptation of a foreign word of non-Anatolian origin.

In the recent past Kammenhuber has highlighted the probable link between the term TUGlu-pa-ri, āŋaξ leqômevon attested in the fragmentary oracular text KUB XVIII 29, col. IV 6, and the Akkadian (TUG/GADA) lubāru. The term generally indicates a fabric or cloth, often of high quality, 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 Amenхотep IV and Burna-Buriyaš of Babylon, but above all as a headdress or headgear, such as in the ritual BRM 4. Even if the examples given are interesting, it is difficult to ascertain that the term lupan(n)i- could be an ‘Anatolian adaptation’

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183 See Košak’s doubts 1982, 200.
185 Cf., for example, Puhvel 2001, 121.
186 Cf. del Monte 1985, 154.
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-pō “I break”, Vedic rōp- “to break” (rūpa- “form, structure” and for thoroughness “beauty”). Cf. rūpin- (literally: “to have form”), but even in Old English rēofan “break”. The proposal is nevertheless clearly unfeasible from a semantic point of view.
190 Rosenkranz 1957.
191 CLL, 129.
193 Cf. Košak 2002 (CTH 577). The fragment is to be surely placed in relation to KBo LIII 110. Cf. Miller 2005a, Inhaltsübersicht VII.
194 Kammenhuber 1985, 541.
195 Cf. AHw I “A-L”, 560; CAD “L”, 228–231, 1; CDA, 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.
197 6:21, 44: niši māti subāt qaqadīšunu šaštú ina lubārašunu qaqqasunu katmu, “the people of the village remove their headdress and cover their heads with their lubāru”; ina lubārašunu nukkasūtu 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 suggests 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 luwaanni- 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 TUG 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)
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, or relief No. 34 of Room A, also at Yazılıkaya, just to cite some examples from monumental art. Obviously it is only a speculative hypothesis that requires further investigation.

* * *

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 Syria).
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

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>A.N.</td>
<td>Author’s note.</td>
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<tr>
<td>CAD</td>
<td>The Assyrian Dictionary of the Oriental Institute of the University of Chicago – Chicago 1956–.</td>
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<tr>
<td>col.</td>
<td>Column.</td>
</tr>
<tr>
<td>CT</td>
<td>Cuneiform Texts from Babylonian Tablets in the British Museum – London 1986–.</td>
</tr>
<tr>
<td>IBoT</td>
<td>Istanbul Arkeoloji Müzelerinde bulunan Bogázköy tabletleri – Istanbul.</td>
</tr>
<tr>
<td>KBo</td>
<td>Keilschrifttexte aus Boghazköy – Berlin 1916–.</td>
</tr>
<tr>
<td>KUB</td>
<td>Keilschrifturkunden aus Boghazköy – Berlin 1921–.</td>
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<tr>
<td>NBC</td>
<td>The Nies Babylonian Collection – Yale.</td>
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<tr>
<td>obv</td>
<td>Obverse.</td>
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<tr>
<td>PA</td>
<td>Proto-Anatolic.</td>
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<tr>
<td>PIE</td>
<td>Proto-Indo-European.</td>
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<tr>
<td>rev</td>
<td>Reverse.</td>
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<tr>
<td>RS</td>
<td>Field numbers of tablets excavated at Ras Shamra – Ugarit.</td>
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<tr>
<td>TC</td>
<td>Tabletes Cappadociennes – Paris.</td>
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<tr>
<td>VBoT</td>
<td>A. Goetze (hrsg.), <em>Verstreute Boghazköy-Texte</em> – Marburg 1930.</td>
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\(^{208}\) 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.
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15. Linen in Hittite Inventory Texts


15. Linen in Hittite Inventory Texts


16. Textile Terminology in the Ugaritic Texts

Juan-Pablo Vita

1. Ras Shamra and the Kingdom of Ugarit

In 1929, Claude Schaeffer carried out the first archaeological campaign in modern Ras Shamra (Syria).¹ The tell is located about 10 km to the North of the modern city of Latakia (Syria) and less than 1 km from the Mediterranean coast.² The mound site contained the remains of the ancient city of Ugarit, the capital of the kingdom of the same name. From 1929 to the present, except for the duration of World War II, Ras Shamra-Ugarit has regularly been excavated, almost annually, by a French – later Syrio-French – mission. The long series of archaeological campaigns has brought to light the royal palace and a complex of buildings closely linked to it, several temples, remains of fortresses, important residential areas, several private and palace archives and a great amount of all sorts of archaeological objects. Just about 1/6 of the tell of Ras Shamra has been excavated.

Therefore, almost eighty years of research and more than fifty archaeological campaigns have allowed us to gradually know the history and culture of the ancient kingdom of Ugarit, located in the modern Arab Republic of Syria. Because of its geographical extension, political power and military capacity, it was a middle-sized kingdom within the parameters of Syria in the 2nd millennium BC, but a leading one from an economic point of view. Bordered by the Mediterranean to the west and a mountain range parallel to it to the east, its boundaries suffered several modifications throughout history. Ugarit’s foreign policy also had to adapt to the changing political circumstances of each period, determined by the converging interests in Syria-Palestine of the great powers at the time, in particular Egypt, Mitanni and Ḫatti. Ugarit disappeared from history at the beginning of the 12th century BC, swept away by the wave of the so-called “Sea Peoples”, a time, which witnessed the collapse of the main Syrian centres of the Final Bronze Age and the disappearance of the kingdom of Ḫatti.

¹ This chapter is also one of the results of the Research Project “Bancos de Datos Semíticos Noroccidentales: Desarrollo y aplicación de nuevas tecnologías para el estudio y conservación de la documentación semítico-noroccidental del II y I milenio a.C.” (HUM2007-65317), funded by the Spanish “Ministerio de Ciencia y Tecnología” within the National Plan for Scientific Research, Development and Technological Innovation (I+D+I) and by the European Union (Feder Funds).
² On Ugarit see e.g. Yon 1997; 2006; Watson & Wyatt 1999; Cornelius & Niehr 2004; Al-Maqdissi & Matoïan 2008.
2. Languages and scripts in Ugarit

Most of the texts found in Ras Shamra-Ugarit were written in two main scripts and languages. On the one hand, Akkadian, a Semitic language written in the cuneiform syllabic script of Mesopotamian tradition, which reached the status of the international language of the Ancient Near East throughout the 2nd millennium BC. The Akkadian texts found in Ugarit comprise a great variety of genres, such as school, literary, religious, legal and economic texts as well as letters. On the other hand, Ugaritic, a northwest Semitic language of local use, had an alphabet of 30 signs; Ugarit is the only place in Late Bronze Age Syria, which has yielded abundant literature written in the local language. The Ugaritic corpus is made up of the same genres as the Akkadian, with the addition of some exclusive genres such as the hypiatric texts (veterinary texts dealing with the health of horses) or a sizeable collection of rituals.

Nowadays, Ugarit provides philologists and historians with hundreds of texts dealing with the most varied aspects of life within the kingdom and international relations at the time. As a whole, the archives of Ugarit are crucial to the understanding of the history of the ancient Near East from the second half of the 14th century to the beginning of the 12th century BC.

3. The textile industry in Ugarit

The texts from Ugarit provide information regarding different crafts and trades, such as work with hard stones, precious stones and metals, construction of houses, ships and chariots, production of different weapons, manufacture of pottery and food and the textile industry. The research carried out in the last twenty-five years has always been interested in the question of textiles in Ugarit from different yet complementary perspectives. Archaeology has allowed us to find in Ras Shamra physical elements regarding textile activity, mainly in the domestic sphere; for example, spindle whorls and loom weights, which indicate that there were looms in many households. In some houses, what can be interpreted as sinks for washing raw materials to make fabrics or for dyeing them, have been found. An area which could be exploited is the iconographic study of the garments depicted in some images of Ugaritic art, in particular, human images which illustrate a great number of cylinder-seals made in Ugarit.

Some other research work focused on the economy of the kingdom of Ugarit has also taken into account the written documents regarding textiles. This work has given us more accurate knowledge of the economic importance of the textile industry of Ugarit and its global dynamics. Some authors have paid particular attention to the question of raw materials – mainly wool.

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3 On this subject see e.g. Malbran-Labat 1999; Bordreuil & Pardee 2004.
5 Callot 1994, 190: “des pesons et des fusaïoles qui indiquent que de très nombreuses maisons possédaient des métiers à tisser”. See also Mallet & Matoían 2001, 121.
6 Callot 1994, 190.
Textile Terminology in the Ugaritic Texts

(Ugaritic šʾrt, RS Akkadian síg = šīpātu)\(^8\) and linen (Ugaritic ptṭ, RS Akkadian gāda(.meš) = kitū)\(^9\) – their prices and the prices of the manufactured products,\(^10\) the different qualities of the fabrics and cloths\(^11\), the dyeing elements and the types of dyes and colours,\(^12\) as well as the accessories (such as fibulae or belts). Finally, other works have studied the terms used to describe occupations and professions connected with textiles,\(^13\) such as the “ fuller and/or washers” (kbs/s, = syll. kābisu, RS Akkadian ūtúg.me\(^14\)), the “spinners” (gēzm), the “weavers” (mḥṣ = syll. māḥisu, RS Akkadian uš.bar), or the “purple-dyers” (šāripūtū).\(^15\)

4. Brief history of research into textile terminology in Ugarit

The most important combined study specifically dealing with terms regarding textiles in the Ugaritic language continues to be the work of Sergio Ribichini and Paolo Xella, La terminologia dei tessili nei testi di Ugarit, from 1985. It produces a total of 78 lexical entries, with an annexe which presents, both in transcription and translation, a selection of 22 Ugaritic texts dealing with textiles. This work was completed and expanded by some recensions, in particular, those made by Hartmut Waetzoldt (1987) and Jean-Marie Durand (1990), by specific research work on some particular terms\(^16\) and by the work of Wilfred H. van Soldt in 1990 on fabrics and dyes.

The Ugaritic-English dictionary by Gregorio del Olmo and Joaquín Sanmartín of 2003, can be placed at the other chronological end of the most recent lexicography. It offers the most comprehensive and recent state of the matter regarding Ugaritic textile terminology. Later works by Wilfred Watson, Lexical Studies in Ugaritic (2007) and Josef Tropper, Kleines Wörterbuch des Ugaritschen (2008) are equally useful in this respect. Likewise, we should highlight the recent work by Durand (2009); although dealing with textiles and garments in Mari, it provides significant comparative material for the Ugaritic lexicography as well as a good number of proposals on the possible meaning of specific Ugaritic terms.

A comparison between the Ugaritic terms which are considered as part of the textile semantic field by the aforementioned work of Ribichini and Xella, on the one hand, and by del Olmo and

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\(^{10}\) Heltzer 1978, 38–50; Stieglitz 1979, 17 and 19; Ribichini & Xella 1985.

\(^{11}\) For example, mlk “royal”, that is, “of superior quality”, or “fine”, in RS 17.111:11 (4.270), mrbd mlk, cf. DUL 554 sub mlk 2)b, contra Ribichini & Xella 1985, 50 n. 68; 12 túg qallu “12 small garment(s)” (PRU 3, 206, RS 15.135:1; Huehnergard 1987, 174; 1989, 386).

\(^{12}\) The costume all, for instance, is presented in RS 15.115:4–6 (4.182) in the colours white, carnelian red and violet purple; another one, hpn, presents the colours violet and reddish purple, cf. RS 15.082:1 (4.168).

\(^{13}\) Especially Heltzer 1979; Ribichini & Xella 1985, 18–22; van Soldt 1990, 352–354; Sanmartín 1995, 177, 179 and 181; cf. also Vita 1999, 486–487.

\(^{14}\) See also Lackenbacher 2002, 1238: “Foulon et/ou blanchisseur, lú túg.lá; dans la tablette inédite RS 94.2519, où les mêmes termes sont écrits en alphabétique et en idéogrammes, dans le même ordre et avec les mêmes chiffres, (lú) túg.lá a comme équivalent kbsm”.


\(^{16}\) E.g. Watson 1990; Sanmartín 1992.
Sanmartín on the other, shows great differences between both of them. Suffice it to say that 37 out of the 78 terms studied by Ribichini and Xella, are not collected as textile or textile-related terms by del Olmo and Sanmartín, (that is, practically half of them). In contrast, at least ten terms considered by del Olmo and Sanmartín as belonging to the textile world, are not studied by Ribichini and Xella. This situation shows, indeed, the reality of our knowledge of Ugaritic textile terminology, with many uncertainties as regards the meaning of a large amount of terms used to describe fabrics, garments, dyes or professions dealing with textile production. On the textile terminology existing in the syllabic texts from Ugarit, see below sub §6.1.

Ugaritic terms regarding textiles appear in all types of genres: literary or economic texts, letters, rituals, etc. Most of them, however, appear in economic or administrative texts. The so-called “East Archive” of the royal palace offers the highest number of documents with references to textiles or dealing entirely with them.17 Thus, we find texts which register the delivery of raw materials for making fabrics and costumes, the production of garments, the price of them, raw materials and garments for officials, costumes for worship as well as lists of various textiles. In general, however, a comprehensive and detailed study on the exact function of the economic texts dealing with textiles is still pending, a study which will allow us to understand the raison d’être of each document within the administration machine of the palace and kingdom, although the first steps have already been taken in this sense (Vita 2007; Rougemont & Vita 2010).

5. Problems in the study of textile terminology in Ugaritic

As we have already pointed out, the dictionary of del Olmo and Sanmartín may be considered the most modern and comprehensive lexicographic study of the Ugaritic language. However, despite the high scientific quality of the work, in a few cases it is not possible to accept the meanings given to certain terms regarding textiles; this is due to the well-known problems posed by Ugaritic lexicography: suffice it to recall that the Ugaritic alphabetic script does not indicate (except for a few special cases) the vocalization of the words or the reduplications of consonants.

An example of this is the term $m\text{ṣ}rr(t)$, which del Olmo and Sanmartín translate as “A piece of fabric or a garment (?)” (DUL 589). The term occurs only once in an administrative text, in the phrase: $\text{ṯl}m \text{ṯl} \text{kbd } m\text{ṣ}rr \text{pt}$ “thirty three m. of linen”. In all certainty, it is a Semitic nominal pattern mVq(t)tVl from the root $\text{Ṣ}RR$ “be narrow; lock in, besiege”. In Hebrew, the verb $\text{ṣ}rr$ “to tie, wrap” has an intensive participle form (Pual) $m\text{ṣ}rrm$ ($m\text{ṣ}or\text{ā}r\text{m}$) with the meaning “bundled”. On these grounds, some authors have suggested the meaning “bundle” for the Ugaritic term. On the other hand, in Akkadian, the term $m\text{uṣ}arr\text{īrt}um$, intensive form of the verb $\text{ṣarāru}$ “to flow, drip”, is attested too, and it denotes a type of vessel (AHw: “ein Tropgefäβ”, CAD M/2 241: “a flat dish”). Consequently, $m\text{ṣ}rr(t)$ could be a) either a type of vessel or box for flax (based on the Akkadian $m\text{uṣar}r\text{īrt}um$) or b) some kind of “packs” or “bundles” of flax (based on the Hebrew $m\text{ṣ}or\text{ā}r\text{īm}$). In neither of the two cases do the possible etymologies allow us to consider that $m\text{ṣ}rr(t)$ alludes to a “piece of fabric” or “garment”, and therefore, it must be discarded from the question we are dealing with.

Another example which illustrates the ambiguity rendered sometimes by the Ugaritic material is the syllabic term *mašlahama*.¹⁸ Nougayrol¹⁹ suggested the meaning “un certain façonnage d’étoffe”, CAD M/1 379 includes the term as “adj. (?); (qualifying textiles?)”, which would be a northwest Semitic term attested to only in Ugarit. Huehnergard puts forward the general meaning of “a garment” (alternative: “throw”) and links it to the alphabetic term *mšlḥ*.²⁰ The meaning of *mšlḥ*, however, has not been properly determined yet; Xella²¹ translated it as “Lieferung” (Semitic root ŠLḤ), Sanmartín²² suggested (based on the same root) the meaning “battering ram” (of a ship), a meaning which is also shown in DUL 593: “battering ram (?)”. DUL (ibid.), on the other hand, does not include the possible equivalence syll. *mašlahama* = alphabetic *mšlḥ*, which, nevertheless, does seem plausible.²³ However, both instances would be *hapax* (one within the syllabic corpus and the other within the alphabetic corpus) and the contexts of the texts PRU 6, 123 and RS 20.008 (4.689) which mention them do not allow us to state with certainty that these terms denote a type of garment or qualify it in any way.

Another type of problem posed by Ugaritic texts is the actual reading of some of the terms, due to the poor state of preservation of some of the tablets; in this respect, see below (§6.1), for example, the comment of the term *kndpnt*.

6. Textile terminology in Ugarit

The following lines offer a state of the matter regarding the vocabulary on cloths and garments produced by the texts from Ugarit.²⁴ The lexemes are shown in two sections, respectively dealing with the present terms in the alphabetic and syllabic texts. Only the texts which can be deemed as written in Ugarit are taken into consideration.²⁵

6.1. Alphabetic Texts

Each of the following lexemes is accompanied by its (possible) etymology and a brief comment.²⁶ In the selection of the terms, which can be identified as designating textiles in the alphabetic texts, we generally follow DUL, although with a critical approach, providing also the relevant information given by Ribichini & Xella (1985). Some other terms, both debated and debatable, could have also been part of the list, and they will be revised in the future. The bibliography for each entry is preferably amongst the most recent available on each term (and refers to earlier previous bibliographies).²⁷ Precise textual references for each term can be found both in DUL and in CUW.

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¹⁸ PRU 6, 123:3; a discussion on the morphology of the term in Sivan 1984, 111; Huehnergard 1987, 181.
¹⁹ Nougayrol 1970, 159.
²⁰ Huehnergard 1987, 181.
²¹ Xella 1982, 33.
²³ Cf. also Vita 2000, 284–285.
²⁴ The rest of the aspects concerning textiles in Ugarit, such as, for instance, types of dyes, colours, prices, qualities, garments with leather, ropes, etc., will be the subject of a future global study of the Ugaritic textile industry.
²⁵ In other words, all the texts in alphabetic script and part of the texts written using the Mesopotamian syllabic system; this latter corpus was, to a great extent, outlined by Huehnergard 1989, 285–311.
²⁶ The common Ugaritic term for “clothing” is *lbš* (DUL 492; Ribichini & Xella 1985, 44–45; Sanmartín 1992; Tropper 2008, 64; Watson 2007a, 91); add *lbš* in RSO 14, 53:36”.
²⁷ Good use will also be made of the bibliography by Dietrich & Loretz 1996.


ʿrp: two possible etymologies have been suggested: a) < Semitic ʿ/ʾGer “to cover”, with metathesis, hence lbšm ʿprm “ciertas prendas de vestir dotadas de ‘capucha’ o de cierto tipo de tocado, esclavina, guardapolvo, etc. ... vestidos dotados de ’rp (capucha(?))” (Sanmartín 1992, 101); b) < Semitic ʾRP “to be dark”, cf. Watson 2007a, 41: “This indicates that the Ugaritic term ʿrp in connection with clothing does ... refer ... to the shelter (from the sun) it provides”. Accordingly, the meaning ‘cape’ or ‘cloak’ would be quite suitable”. DUL 184: “A type of garment (with a hood ?)?

blḥdr: < Hurrian *pilaḫ(a)=t=are, cf. Sanmartín 1980, 335: “bestehend aus einem Element *blḥ, offensichtlich eine Nebenform zu plk ‘Spindel’ ... und aus den Affixen -t- (- d) (Zustand, Eigenschaft) und -are. Die blḥdrm dürften somit vorläufig als ‘gesponnene Tücher oder Kleidungsstücke’ lexikographisch zu bestimmen sein”; DUL 222: “Piece of cloth or garment”; Watson 2007a, 127: “it denotes spun cloth or garments”; Ribichini & Xella 1985, 34: “un panno tessuto o di un capo di vestiario”.

ʾgprt: Uncertain etymology (cf. DUL 323: “n. f. of a garment”). According to Sanmartín 1992, 101: “es un producto morfoléxico de la ... [semitic] base ’/ʾGer ‘cubrir’ [see above], y tiene su isolexia en el ac. epartu”; but Akkadian epartu does not seem to be an (Semitic) Akkadian term, cf. AHw 222: “u.H, ein Gewand” and
Textile Terminology in the Ugaritic Texts

CAD E 183a: “(a coat)...foreign word”). Ribichini & Xella 1985, 57 compare the term to Hittite ḫ̄uppara, a type of fabric (cf. also Watson 2007, 120).


**kpt**: cf. syll. kuspū.
Juan-Pablo Vita

**ktn:** Uncertain etymology (DUL 468; cf. van Soldt 1990, 332: “whatever its etymology and vocalization”). Syllabic ṭūg gāda (van Soldt 1990, 329; DUL 468. In PRU 6, 172:5, a specific type is mentioned, ṭūg gāda kūd meš, Nougayrol 1970, 158: “chiffon”?, cf. also Huehnergard 1989, 66; RSO 7, 25:48, 1 ṭūg gāda še-e-r-tu, Malbran-Labat 1991, 60: “couverture”). “Kultur-” or “Wanderwort” attested to in various languages, both Semitic and Indo-European (references in DUL 468). van Soldt 1990, 332: “refers to a cloth made of linen. It is not a finished garment but a piece of cloth which can be used to manufacture garments ... ktn are not weighed but counted, which suggests that they had a standard size”; several texts, both Ugaritic and Akkadian, clearly support van Soldt’s conclusions (contra DLU 468: “A type of ‘tunic’”). Ribichini & Xella 1985, 43: “veste ... usualmente resa con ‘tunica’, una traduzione che può essere verosimile, anche se risente forse del parallelo con miceneo ki-to”; Tropper 2008, 61: “Leinen; Leinenstoff, -gewand”; Pardee 2000b, 233; Watson 2007a, 148. Cf. also kutānum in Mari (Durand 2009, 55).


**mḥtrt:** Uncertain etymology (DUL 538). Ribichini & Xella 1985, 48: “potrebbe essere plausibilmente un tipo di veste traforata o trapunta”; a proposal which Durand (1990, 661) considers “peu crédible” and he suggests: “Puisque une formation en ma- peut désigner un nom d’objet, pourquoi ne pas y voir un ‘ciseau’ assez fort pour être capable de couper du lin?”. DUL 538: “Article of clothing”. Watson 2007a, 93–94 reviews the possible explanations of the term and concludes: “No clear conclusion can be drawn”.


331 Textile Terminology in the Ugaritic Texts

coperta, un arazzo, una cortina”; Tropper 2000, 297; Watson 2007a, 95; Durand 1990, 662: “c’est un habit bien connu, souvent caractérisé par des broderies dès la période OB, puis, à époque moyenne, un tapis ou au moins un rideau”. In Mari, Durand 2009, 64: “Il n’y a donc pas, en fait, de contexte net où la mardatum soit un habit porté par l’individu ... il est possible ... qu’il designe la tapisserie de mur, ou de recouvrement d’une structure”.


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28 Huehnergard 1989, 298 (cf. also id. 1999, 387: “proveance unknown”) does not consider this letter part of the epistolary corpus from Ugarit; see, nevertheless, Nougayrol’s considerations in this respect (1970, 9 n. 1).
**sk**: Hebrew SKK “to wrap, to cover (with a dress)” (Huehnergard 1987, 156; DUL 756; Tropper 2008, 110).


### 6.2. Syllabic Texts

The textile terminology in the Ugarit texts written in Akkadian has been less studied. In this respect, we could mention the following statement by Malbran-Labat:29 “les termes [of garments] notés syllabiquement (...) sont rarement connus en akkadien (...) et leur sens reste souvent mystérieux”. Indeed, the syllabic texts from Ugarit produce a number of terms of difficult reading and/or interpretation, as can be noted, for instance in the list of cloths and garments provided by Nougayrol.30 We try to offer below a state of the matter regarding our knowledge of this terminology, each entry is accompanied by the readings of the term and the corresponding textual references.


**Kanādu** (PRU 6, 163:5’, 1 tiqg, ka-na-dū): cf. alphabetic kndpṣ.


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29 Malbran-Labat 1999, 92.

Juan-Pablo Vita
et un tissu relativement lourd, comme celle d’une tapisserie ou d’un tapis” ; ibid., p. 51 : “kimdu ... C’est le tissage qui renvoie au procédé kamâdum”, dont le précisément, as Durand states, has been pointed out by Lackenbacher 1982, 141-142 : “je pense qu’il ne peut s’agir de tissage ... il doit s’agir du foulage à la main, bien attesté dans les techniques traditionnelles”.

**kitû (gada)** : cf. alphabetic ktn.

**kupšu** (PRU 6, 128:4, 2 tug.sagasu; RS 15.076:20 (= CAT 4.165:20 = PRU 6 p. 99c:5), 10 tug.mes ku-up-šu) : Durand 2009, 53 sub g) : “[kup/pšum] n’a pas d’étymologie évidente en akkadien”. AHw 497 : kupšu “Kopfbinde, Turban” ; CAD K kupšu 485 : “headdress, cap” ; Nougayrol 1970, 158 : “bonnet”. It is very likely that the alphabetic version of the term is kpt (see, for example, Ribichini & Xella 1985, 43 : “turbante” ; Huehnergard 1987, 140) , hence the possible script kupšu of the syllabic version (instead of the more common kupšu, see Nougayrol 1970, 158 : kupšu(?)) ; cf. regarding this Durand 2009, 52 : “La transcription des textes ougaritiques pourrait faire abandonner la lecture kupšum des dictionnaires, s’il ne s’agit pas d’un traitement phonétique -bš- -> -pš- propre à cette langue, comme ṣps provient de ṣmṣ”). However, the meaning “turban, etc.” of kpt continues to be debated, see for example DUL 453 : “1) ‘flour’ (‘firmament, sky’), 2) ‘gangplank’”, Tropper 2000, 111 and 139, and Watson 2007a, 89 with n. 198. In Mari (Durand 2009, 52-53) it was a typical ornament of the king, decorated with fine gems and precious metals : “On peut s’imaginer le kupšum d’après le bonnet que porte Hammu-rabi sur la tête ou est rédigé son code ... devait donc comporter une structure solide, même si les documents l’attestent en laine et non en lin ... Il devait donc s’agir ... d’un objet tout d’une pièce et assez volumineux”. A text from Mari, originating from Haṣor, shows, however, that the kupšum was a much more common object in the West “et certainement pas uniquement une marque royale. On songe, dès lors, à une utilisation comme un casque ou une protection de la tête dans les combats”. This could have also been the case in Ugarit.


**ma’azaru** (PRU 6, 126:4, 2 tug.mes ma-za-ru-mes; PRU 6, 168:4, 2 ma-za-r[u-ma(?)] ), < Semitic ZR, cf. alphabetic mizrt.

**mardētu** (PRU 3, 206c:5, tug.ar-de-tu), < Semitic RDY(?) “?” or MRD / WRD, cf. alphabetic mrdt.

**martû (PRU 6, 126:8, 3 tug.mes ma-ar-tu-[u] ; cf. Durand 2009, 108 ; diff. Nougayrol 1970, 100; Huehnergard 1987, 192, 3 tug.mes ma-ar-TU? ; id. 1989: 88, 3 tug.mes ma-ar-tu, CAD M/1, 300, 3 tug.mes ma-ar-tu [(x)]; PRU 6, 129:11, 2 tug.mes ma-ar-TU(?), cf. Nougayrol 1970, 102; Huehnergard 1987, 192, with a discussion of the possible etymology). Qualifying adjective of tug = šubatû. AHw 610 : “Stoff nach Marad(ON)-Art”; CAD M/1, 276 (sub maratû) : “adj (describing garments)”; CAD M/1, 300 (sub martû B) : “(a garment)”, whose only testimony would be PRU 6, 126:8, and adds : “Possibly to be connected with mardatu”, a possibility which was rejected by Nougayrol 1970, 158 n. 6. AHw does not compile the examples from Ugarit. As Nougayrol already did (1970, 158 n. 6), CAD considers that the testimonies from Ugarit do not belong to the lexeme maratû. But, following Durand 2009, 108, we must accept the identification of martû from Ugarit with mar(a)tu from Mari : in Mari the most frequent script ma-ra-šu-(u) alternates with the variant

31 The text PRU 6, 6 (RS 17.144) is not part of the corpus of texts written in Ugarit, cf. Huehnergard 1989, 298. However, the passage quotes the contents of the letter from the prefect of Ugarit to which PRU 6, 6 is the answer; in the passage the prefect requested the delivery of a garment kuššatu.
ma-ar-tu-ú (cf. Durand 2009, 108); dictionaries only knew the script ma-ra-tu-ú. It would be a nisbe, see Durand 2009, 108: “Le plus simple serait donc de considérer que l’on a affaire ici à ‘l’étoffe/l’habitat de la Côte méditerranéenne’. À l’Ouest, on devait ainsi distinguer le Marratum ‘(Region of) the Mer’, de l’Amurrum ‘(Region of) the Sea’, soit tout la frange des déserts au sud de l’ancien royaume d’Ebla” (ibid. 600: “à la façon de la Côte méditerranéenne”).


\textbf{naktu} (PRU 3, 206:c:6, n]a-ak-tu] gada; 10, 1 tüs-na-ak-[tu] /tu; 14, 10 na-ak-tu gada; 15, 3/tušišna-ak-tu šu gada; cf. CAD N/1, 197; Huehnergard 1987, 151; van Soldt 1990, 329). AHw 724: na-ak?-tum “aus Leinen ganz. uns.”; CAD N/1, 197: “a garment or fabric”; Huehnergard 1987: 151: “?NGD /nagdu/? ‘a linen garment’ … It is quite uncertain whether the same word is written in all four lines … Whether this word (or these words) is Semitic, and if so the composition of the root, remain uncertain”.


\textbf{qaqqaru} (PRU 3, 206:c:12, 3 tüsqa-qa-ru): CAD K, 124: “a type of wool or garment”.


\textbf{šabattu} (PRU 3, 39a:4, tša-brat-tum): AHw 119: “ein Gewand”; CAD Š/1, 8: “a garment or textile”; Durand 2009, 114: “c’est une fabrique qui existe aussi bien pour le pays.hourrite que pour les régions occidentales (Ugarit) … Le terme est certainement originaire de la culture matérielle du nord de la Mésopotamie … Le terme, d’après la documentation mariote, pourrait donc être posed šabatšu au singulier, et représenter une forme primitive *šaybatum. Il s’agirait d’une toile ‘blanche’ ”.

** **
Ugarit offers thus a variety of terms to refer to fabrics and garments. However, it can be seen that, although in the last few years, certain advances have been made in the understanding of the meaning of some terms, there are still plenty of generic translations such as “a garment”, “a cloth or textile”, etc. The Ugaritic texts often give too little information regarding a particular term and the only possibility of attempting to understand it is through etymology, which, as is well known, involves plenty of problems and risks when it becomes the only available tool. Due to this, the study of a term regarding textiles or garments in a text from Ugarit frequently requires checking the information provided about that same term in other external archives in order to better understand it.

From a linguistic point of view, it can be noted that, as could only be expected, most of the textile terminology of Ugarit is Semitic. At times Biblical Hebrew and Akkadian are the main Semitic languages, which contribute to fix the meaning of an Ugaritic term. After the Semitic component, Hurrian is the language, which can provide most assistance in the understanding of some Ugaritic textile terms.\(^{32}\) We must bear in mind that Hurrian was, after Semitic, the second most important cultural component of Ugaritic society, and that Hurrian was a living language in Ugarit until the end of the kingdom.\(^ {33}\) In other cases we can question whether a given term is directly Hurrian, used as such in the Hurrian from Ugarit, or it is a Hurrian term, which arrived in Ugarit as a Hurro-Akkadian loan (for example pīdru, pīndru). Certain terms seem to be exclusive to the Ugaritic vocabulary (for example plēd).

Finally, we consider that a new and detailed analysis of the Ugaritic textile terminology, that takes into account, for instance, the lexicographic advances made in the last few years (both in Ugaritic and in neighbouring languages) as well as the information offered by other archives on each term, will certainly allow us to make some of the meanings more precise and to propose new ones. In this sense, collaboration with specialists in other archives and other languages could be of enormous interest; suffice it to consider in this respect that several authors have also proposed Eblaite, Hittite or Mycenaean etymologies for several Ugaritic terms, proposals, which should be carefully revised and reassessed.

### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD</td>
<td>The Assyrian Dictionary of the University of Chicago. Chicago-Glückstadt.</td>
</tr>
</tbody>
</table>

\(^{32}\) On some occasions, Hurrian can indirectly help us to understand a Ugaritic term. This is the case with the term all, for which Ribichini and Xella 1985 were not in a position yet to provide a satisfactory etymology. In 1996, Erich Neu published the entire bilingual Hurrian-Hittite text known as “Epos der Freilassung”. The following could be read in a passage in the Hurrian version: “(Ist) Teššub nackt, wollen wir (ihn) – jeder von uns – mit einem alāli-Gewand bekleiden”. The Hittite version of the same passage says: “Wenn der Wettergott aber nackt ist, bekleiden wir – jeder (von uns) – ihn mit einem kušiši-Gewand”. The parallel with the Hittite word tua kušiši- thus allowed us to know that the Hurrian term alāli, unknown until then, denoted a type of garment. From this equivalence, and independently, several authors (Neu 1996, 314) suggested identifying the Ugaritic all with the Hurrian alāli, which perfectly fits within the context of the Ugaritic passages that mention this term.

\(^{33}\) Vita 2009.
Bibliography


16. Textile Terminology in the Ugaritic Texts


17. The Terminology of Textiles in the Linear B Tablets, including Some Considerations on Linear A Logograms and Abbreviations

*Maurizio Del Freo, Marie-Louise Nosch and Françoise Rougemont*

Terminology can be defined as (1) the vocabulary specifically linked to a field of expertise, as (2) the academic discipline devoted to the study of this vocabulary, or as (3) the linguistic theory reflecting on these terminologies: their formation, evolution, functioning and use.¹

As such, it is clear that terminology can only apply to deciphered scripts and languages that are identified and understood, so that its application to the non-deciphered Linear A documents is a bit far stretched. Nonetheless, the nature of this script, as well as the state of research on the phonetic value of some of its signs may allow a few observations on the logograms and adjuncts used to designate textiles. However, it is clearly not intended by the authors as terminology in the full sense of the concept.

Linear B tablets have been found on the island of Crete as well as on sites on the Greek mainland (See Fig. 17.1, map, below). They are dated between c.1450 and 1200 BC, according to the site on which they have been unearthed.²

How can one study the corpus of Linear B tablets recording textile matters from the point of view of the tools of terminology? In a lexicographical perspective, the words belonging to the Mycenaean textile vocabulary have already been gathered, recorded and classified especially by J. T. Killen, J. L. Melena, Y. Duhoux, A. Morpurgo Davies, E. Barber, M.-L. Nosch and E. Luján.³ As it emerges from the contributions of these authors, in order to study the textile vocabulary, one can rely on different approaches. Basically one can try to understand the meaning of a Mycenaean word by studying its context or its etymology. It is clear that safe results can only be achieved when it is possible to combine these two methods. The elements of the textile vocabulary can then be grouped together and compared from both a historical and a structural perspective.

¹ See Dury & Lervad, this volume.
² At Knossos on Crete, the texts found in the so-called Room of the Chariot Tablets (RCT), which is the oldest deposit of Linear B texts known until now, are dated to the Late Minoan (=LM) II period (c.1450–1400 BC), whereas the bulk of the archives found in the same palace is dated to LM III A2 or III B (c.1375–1325 and 1325–1190 respectively); the Pylos and the Thebes tablets, as well as the Mycenaean tablets found in the citadel, are dated mainly to the end of the Late Helladic (=LH) III B2 period (LH III B2 = c.1225–1200 BC); the Mycenaean tablets found in the so-called House of the Oil Merchant are dated to the end of the LH III B1 period (LH III B1 = c.1300–1225 BC).
The aim of this chapter is to combine the approaches mentioned above in a new perspective. Firstly, the reader will find below a classification of the extant textile terminology according to the chaîne opératoire; second, we present a reflection on the relationship between logographic notations and textile terminology, as can be grasped from the study of Linear B texts, but also going back to the elements provided by the Linear A documents, as far as they can be understood; then the focus is on the terminology of tools and weaving, and its relationship to technical characteristics; and finally a reflection on the use of words in textile terminology (antonyms, synonyms, and what can be inferred from it about the information that was particularly important to the Mycenaean scribes) is presented.

4 This first section owes a great deal to the reflections already developed in the framework of a workshop on the processing of thread held in Nanterre, see Rougemont (forthcoming). See also Del Freo & Rougemont (forthcoming).
1. From raw fibres to finished textile products

1.1. Fibres: wool and linen/flax

Two main textile fibres have been identified in Linear B records: they are, unsurprisingly, wool and linen/flax.

1.1.1. Wool

Wool is designated in Linear B by the logogram *145, conventionally transcribed by the Latin word LANA. The corresponding word is not directly attested, only known through other designations, such as the adjective we-we-e-a, meaning “woollen”, related to Gr. εἶπος.

The logogram is also used as metrogram, i.e. to indicate a quantity, the value of which is estimated to be 3 kg. It denotes, to the best of our knowledge, exclusively sheepswool. However, it has been suggested by M. Perna that the logogram *142 could represent goatshair, which would fit nicely into the wider range of textile fibres recorded in contemporary Near Eastern documents, for example those found at Nuzi. Bronze Age goatshair textiles are also attested in the archaeological record.

---

Fig. 17.2. Chart of Linear B wool/flax and textile logograms. Drawings by L. Godart.

Table A

1. LANA logogram. From KN Lc(1) 525 by scribe 103
2. SA, syllabogram and also logogram for flax. From KN Gs (1) 685 by scribe 135
3. TUN+KI logogram. From KN L 870 by scribe 114
4. TUN+RI logogram. From KN L 178 by scribe “124”
5. *146 logogram. From KN M 467 by unidentified scribe
6. *164 logogram. From KN L 520 by unidentified scribe

Table B

1. TELA logogram. From KN Lc(1) 534 by scribe 103
2. TELA+PA logogram. From KN Ld(2) 787 by scribe 114
3. TELA+TE logogram. From KN Lc(1) 526 by scribe 103
4. TELA+KU logogram. From KN L(4) 516 by scribe 208
5. TELA+PU logogram. From KN L(4) 515 by scribe 208
6. TELA+PO logogram. From TH Lf 139 by unidentified scribe.
7. TELA+ZO logogram. From KN L 433 by unidentified scribe.
8. *166+WE logogram. From KN Oa 745 by unidentified scribe.

---

5 On this logogram, see Nosch 2007.
8 Spantidaki & Moulherat 2009; Frangipane et al. 2009.
J. T. Killen has demonstrated that the palatial sheep flocks which were the source of the wool used by palatial workshops were constituted of castrated wethers; they contain in general 100 animals or a multiple of this number; the quantity of wool expected by the palace is 1 unit of wool (3 kg) from 4 adult sheep, meaning around 750 g per animal. Even when a flock is not a wether-only flock, but also contains ewes, old animals and yearlings, the production target for wool is identical. However, in flocks destined for reproduction, the composition of which include ewes and lambs, the wool target is only 10 animals : 1 unit of wool, i.e. c.300 g per animal.

Fig. 17.3. Map of the Knossos palace

The Knossos records include mentions of fleeces designated by the word *po-ka /pokai*/:

Fig. 17.4. Drawing of KN Dp 997. Drawing by L. Godart

<table>
<thead>
<tr>
<th>KN Dp 997 + 7206</th>
<th>(I3/118)¹⁰</th>
</tr>
</thead>
<tbody>
<tr>
<td>.a</td>
<td>po-ti-ni-ja-we-ja [</td>
</tr>
<tr>
<td>.b</td>
<td>to-sa , / ne-wa , po-ka OVIS' [</td>
</tr>
<tr>
<td></td>
<td>“so many new fleeces of/belonging to Potnia, EWES xx (numbers broken)”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KN Dp 7742</th>
<th>(-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>.1</td>
<td>?pe-ru-si-]nwa , po-ka</td>
</tr>
<tr>
<td>.2</td>
<td>po-ti-ni-ja-we-i-jo</td>
</tr>
<tr>
<td>line 1: “fleeces from last year (?)”</td>
<td></td>
</tr>
</tbody>
</table>

There may be, at the same site, a mention of “tufts of wool”, *ti-ra /tilai*/:

Fig. 17.5. Drawing of KN Od (1) 681. Drawing by L. Godart

<table>
<thead>
<tr>
<th>KN Od (1) 681</th>
<th>(F18/103)</th>
</tr>
</thead>
<tbody>
<tr>
<td>.a</td>
<td>'e-na-po-na , o-nu , pa-i-ti-jo' e-ti-wa-ja-qa LÁNÁ[</td>
</tr>
<tr>
<td>.b</td>
<td>qo-ja-ṭe , a-pu-do-ke , ti-ra [</td>
</tr>
<tr>
<td></td>
<td>qo-ja-ṭe over [ ]</td>
</tr>
<tr>
<td>line .b: “qo-ja-te (personal name) has delivered fleeces ...”</td>
<td></td>
</tr>
</tbody>
</table>

¹⁰ 118 is the indication of the scribe, I3 the findspot. For the findspots of Linear B tablets in the palace of Knossos, see Fig. 17.3.
There is no regular mention of lambswool as opposed to sheepswool, except in one Knossos tablet, Dk(2) 1066, where 200 lambs are recorded along with 19 units of wool, which have all been delivered to the administration (no deficit indication is attested):

\[
\text{KN Dk(2) 1066 (J1/119)}
\]

\[
.A \] 'ki' ne X OVIS \text{ 200 LANA 19}
.B \] tê-u / ku-ta-to[ ] vac.
“tê-u (shepherd’s name) at ku-ta-to (place-name) new LAMBS 200, WOOL 19 units”.

Since LANA 19 equals 57 kg, here there are ca. 285 g of wool per lamb, if the numbers are complete.

There is also one Mycenae record, MY Oe 111, which registers on lines 1 and 3 sheepswool, o-u-ka /owika/ and on line 2 lambswool, wo-ro-ne-ja /wroneia/ (cf. ὅίς and ἀρην).

\[
\text{MY Oe 111 + 136 NMA 52–111 + 136 (51)}
\]

\[
.1 \] pe-ru-si-nwa , o-u-ka[ \\
.2 \] wo-ro-ne-ja , pa-we-si / [*]-me-'jo-i' LANA[ \\
.3 \] ne[-wa ] o-u-ka LANA[ \\
.4 \] [-ki-*56 LANA 100[ \\
.5 \] o-ta-pa-ro-te-wa-ro LANA 200[ \\
.6 \] vacat
\]
Finally, textiles are described as *we-we-e-a /werwehæa/ “woollen” (cf. Gr. εἶπος) in two Knossos records: KN L 178 (cf. below *u-po-we/e-pi-ki-to-ni-ja?, § 4.1.3) and L 870:

\[
\text{KN L 870 + fr.} \quad \text{o-} \overline{\text{da-ku-} \text{we-ta} / \text{we-we-e-a}} \quad \text{TELA}^3 1 \quad \text{TUN+KI} 1 \quad (I3/114?)
\]

1.1.2. Flax/linen
Flax as a cultivated plant is designated by the syllabic sign *31 used logographically, and transcribed SA. It is attested at Pylos and Knossos in records related to fiscal matters. Since SA cannot be related to any Greek word indicating flax or linen, it is in general assumed that this is the abbreviation of an unknown foreign word.

The Mycenaean palace administration received a tax in kind on plots of land which were cultivated with flax (certainly identified as a cultivated plant by PY Na 520, with the formula *pu2-te-re ki-ti-je-si, “the planters cultivate”.

The adjective ri-ta, “linen (clothes, items)”, or its abbreviation RI is applied to a variety of textile designations to indicate the fibre used for making them: *146, *166+WE, TUN+KI, TUN+RI as well as ki-to and pa-we-a. The adjective is attested at Knossos five or six times. Finally we have one attestation of *ri-no re-po-to λίνον λεπτόν (KN L 693.1).

1.1.3. Designations for thread?
No obvious designations for thread have been identified in the Linear B records; the Classical Greek terms for warp (στῆμα) and weft (πίπτη) are not attested in the extant Linear B documentation. However, J. L. Melena has suggested\(^{12}\) that the Mycenaean word o-*nu, pl. o-nu-*ke, might refer to the weft threads, whereas the mentions of e-ne-ro would correspond to the warp.\(^{13}\) Lastly, he has hypothesized that another designation, e-ta-wo-ne, may be a kind of hyperonym (a word for any kind of thread).\(^{14}\) Finally, there is one possible interpretation of the adjective ko-ro-to as /klōston/ “spun”, applied to wool at Mycenae. Yet, the word could also be understood as /khrōston/ “dyed” (cf. below, § 4.2.1, ki-ri-ta/ko-ro-to). To sum up, although some words have been tentatively interpreted as designations for thread, these suggestions remain very fragile.

However, when it comes to flax versus linen, two different syllabograms are used logographically

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\(^{11}\) On this formula, see Del Freo 2001, 27–44.
\(^{12}\) Melena 1975, 112–113.
\(^{13}\) Melena 1975, 90.
\(^{14}\) Melena 1975, 88–91. It is interesting to note that, according to Luján 1999, 129, *eta-wo-ne does not exist in 1st millennium Greek, except perhaps through a personal name in Homer.
in the tablets, and, as argued elsewhere, the coexistence of two notations might reflect two different stages in the processing of flax: on the one hand, SA, in the land/fiscal records, which is certainly identified as flax by the use of the word ri-no /linon/ in the heading of the Pylos text Nn 228:

```
PY Nn 228 (S106-H1/Archives Room)
1 o-o-pe-ro-si , ri-no , o-pe-ro
2 u-ka-jo , SA 20 ro-o-wa , SA 35
3 pu-ra-a-ke-re-u , SA 10 ke-i-ja-ka-ra-na
4 SA 5 di-wi-ja-ta , SA 60
5 a-pi-no-e-wi-jo SA 28
6 po-ra-pi , SA 10 e-na-po-ro , SA 33
7 te-tu-ru-we SA 38
8–15 vacant
```

On the other hand, RI, attested in the Pylos Ma series as well as on PY Mm 11 and KN Nc 5100, which seems to be used in order to designate the processed flax fibre when ready to be spun, or even linen thread.

### 1.2. Textile production through professional designations

Various steps of the textile production are known in the Linear B documentation through nouns designating specialised workers.

#### 1.2.1. General professional designations, which can apply to any kind of fibre.

They include mentions of “combers” (pe-ki-ti-ra₂ /pektriai/) listed twice in records of personnel at Pylos (PY Ab 578, Ad 694); then of “spinners” (a-ra-ka-te-ja attested at Thebes, Knossos, and Pylos); there is also a professional designation related to the textile item e-ne-ra, e-ne-re-ja, and of which it has been suggested that it might be related to warp threads (?);¹⁷ the designation is attested twice at Knossos (KN Ak [1] 638, X 522). The interpretation is by no means certain.

**e-ta-wo-ne-we / e-ta-wo-ne-wo** appears twice at Knossos. The question is whether there is a relationship with e-ta-wo-ne. Different interpretations have been suggested, but the designation remains obscure; J. T. Killen¹⁸ has suggested “a finisher of cloth (fuller vel sim.)” which would imply a meaning close to that of ka-na-pe-u /knaphesus/ “fuller”; but then what would be its relationship with e-ta-wo-ne, which might supposedly be a kind/part of textile item?

The tablets mention “weavers” (i-te-ja-o, i-te-we and pe-re-ke-u /pe-re-ke-we),¹⁹ “seamstresses” and/or “tailor” (ra-pi-ti-ra, and ra-pte).

People called o-nu-ke-jā/o-nu-ke-wi are attested respectively at Pylos (PY Ab 194, Ad 675) and at Thebes (TH Oh 206.2). The word o-nu-ke-ja is a professional designation built on o-nu-ke, maybe “fringes”, or “endings”.²⁰

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¹⁶ See also below, § 3. Terminology and technical characteristics, by M.-L. Nosch.
¹⁷ Melena 1975, 91.
¹⁸ Killen 1979, 159 ff.
¹⁹ Cf. below, § 3.5. Weaving terminology, by M.-L. Nosch.
Finally, the tablets also document specialists for the decoration or finishing (a-ke-ti-ra\textsubscript{1}/a-ke-ti-ri-ja\textsuperscript{21}/a-ze-ti-ri-ja); among the professional designations linked with textiles, Linear B texts also mention a more general designation: a-pi-qo-ro, “servants”, known at Pylos and Thebes (PY Aa 804, Ad 690, TH Of 34).

1.2.2. Professional designations strictly related to a specific fibre or technique
First comes the problem of the “linen workers”, ri-ne-ja /lineiai/: are they working only on the fabrication of linen textiles or do they also prepare the fibres? There is no way to decide, since among professional designations both possibilities are attested like te-pe-ja, “te-pa makers”, or me-re-ti-ri-ja/-ti-ra\textsubscript{2}, “corn grinders”, i.e. women processing the “raw material”.

At Pylos, a “linen collector”, ri-na-ko-ro /linagoros/ is recorded; this designation is unfortunately attested only outside the context of the professional activity of these people (PY An 129 is a record of personnel where people are counted and enumerated by name and sometimes also by professional designation). It is difficult to say more about the activity of the person designated by this word;\textsuperscript{22} he could have been collecting the flax and/or linen (products) at various stages of the processing (from retting to the finished product). However, in the Linear B terminology, it seems that the closer one is to the 1st millennium Greek word for linen, the nearer one is to the finished product; if this observation is correct, it would make the idea of a collector of thread or finished textiles more plausible than a collector of retted flax fibres.

The word ka-na-pe-u, /knapheus/ “fuller”, is known at two sites, Pylos and Mycenae;\textsuperscript{23} it is mentioned in this category since this technical process applies only to animal fibres, in Linear B texts sheepswool, and not vegetal fibres.

1.2.3. Professional designations related to a particular cloth item
a-pu-ko-wo-ko, meaning “headband makers”, is a word attested twice in Pylos lists of personnel (PY Ab 210, Ad 671); this item (a-pu-ke, “headbands”) may have existed in textile and in leather, as indicated, for the latter, by PY Ub 1315.

ko-u-re-ja, a word designating “(pa-we-a) ko-u-ra makers”, has five attestations at Knossos.

Lastly, the documentation includes the designation te-pe-ja, “te-pa makers”. It comes as no surprise that the word is attested at three sites (KN Le 641, TH Of 35, PY Ad 921), since it is built on one of the most common textile names.

Another designation in this category is more debated: to-te-ja, possibly “*to-ta makers”;\textsuperscript{24} appears only once, at Knossos (KN Ak 611.1). The word to-te-ja has been interpreted by C. J. Ruijgh\textsuperscript{25} as /stortei/, feminine of /storteu/, derived from *storton, “objet qui peut être étendu, couverture, tapis”. However, the case is considerably weaker than others, since it relies on a reconstructed garment/textile name (*to-ta) which is, in fact, not attested in the documentation.

\textsuperscript{21} Cf. Morpurgo Davies 1979, 91, 99 and n. 44.
\textsuperscript{22} Rougemont 2007.
\textsuperscript{23} PY Cn 1287, En 74/Eo 267, Eo 269, MY Oe 129, Oi 701.
\textsuperscript{24} See Melena 1975, 116 ff.
\textsuperscript{25} Ruijgh 1967, 252–253.
1.3. Designations of textile items/garments

1.3.1. Textile items recorded by means of logograms

The most frequent one, the TELA logogram, has the shape of a rectangle with small vertical strokes at the bottom. Numbers are conventionally added to the transcription of the logogram according to the number of strokes drawn by the scribe. The TELA logogram can be specified by a number of endograms /abbreviations, for example TELA+TE, for te-pa, a kind of cloth. However, there are also textile logograms with shapes which are less obviously similar to a textile, for example: *146, its variation *160, *164 or the ligatures *166+WE and *168+SE.

1.3.2. Textiles designated by words written syllabically

Some of these words, whose origin is either known or unknown, can be found in 1st millennium Greek:26 for example pe-ko-to /pektō/ from the verb πέκω, “to comb”, pa-we-a /pʰarweha/ (cf. φόρος, word of unknown origin), or te-pa (unknown origin, cf. perhaps Gr. τάπης?). The Linear B records also attest words which can be etymologized, but not in Greek, such as ki-to /kʰitōn/ (cf. Gr. χιτόν, a word which might be of Sumerian origin; it corresponds to Akk. kitū, Sum. GADA, “linen”),27 but which have sometimes been integrated in words whose composition is Greek, like e-pi-ki-to-ni-ja, a designation for a piece of clothing worn “over the χιτόν”. Lastly, there are words which cannot be etymologized in Greek nor, so far, in any other language, like tu-na-no.

1.3.3. Names of garments

Linear B texts record a surprisingly small number of names of garments28 (e-pi-ki-to-ni-ja, a garment worn “over the khitōn”; e-pi-ro-pa-ja, a garment worn “over the lōpe”; ki-to, khitōn; u-po-we, a garment “worn under”; and we-a2-no, /wehanos/ “garment”). In some cases, it is difficult to say if the nouns designated a garment or a piece of textile.29 The same can be said also for pa-we-a, /pʰarweha/, since in Homer φόρος is either a garment or a piece of textile, according to the context.30 Furthermore, in Linear B, some garments are designated both by a noun written syllabically and by a logogram (e.g. *146,31 which contains the endogram WE / we-a2-no).

1.3.4. Coloured textiles

In the Linear B texts, designations related to colours are apparently always associated with finished textile products, and never with fibres, nor with woollen or linen thread. This, however, does not imply that dyes were not applied to thread or fibres, only that the colour of woollen or

26 The classification of words into the three categories described below goes back to Morpurgo Davies 1979, 90–91, who distinguishes three main categories of words, i.e. “words which are formally preserved in Greek”, “words which are not attested as such in the Greek of the First Millennium but can be easily ‘etymologized’ from Greek material” and “words which have no definite equivalent in Greek and cannot be readily ‘etymologized’”.
27 Cf. J. P. Vita, in this volume.
30 On the attestations in Homer, see Luján 1996–1997, 337, with bibliography.
31 On this logogram, see below § 2.1.
linen threads was not recorded by the Mycenaean scribes. There seems to be a predominance of red hues.

The colours attested are the following: *e-ru-ta-ra*, “red” (Gr. ἐρυθρός), *pa-ra-ku-ja*, perhaps “blue/green” (see also *56-ra-ku-ja* (cf. Gr. σιφάραγδος)), *po-ki-ro-nu-ka* “with multicoloured fringes/endings” (Gr. ποικιλός), *po-ni-jo*, another shade of “red” (Gr. φονίκικος), *po-pu-re-ja* / *po-pu-re-jo*, “purple” (Gr. πυρφύρες), *po-ri-wo*, “grey” (Gr. πολύς), *pu-ru-wa*, maybe “red-brown” (Gr. πυρρός), *re-u-ko/ka*, “white” (Gr. λευκός; see also *re-u-ko-nu-ka*, “with white fringes/endings”). Notations such as TELA+PO or re TELA/’re’ TELA+TE might also be understood as including abbreviations of the colours of the textiles (PO, re, see above, *po-pu-re-ja* / *po-ri-jo*, and *re-u-ko*, etc.).

The tablets also contain words perhaps referring to the dyeing process (*ko-ro-ta* and *ki-ri-ta*); on these two words, see below § 4.2.1 True or false synonyms?

2. Logographic notations and textile terminology: a complex relationship

2.1. Logograms in Linear B

In order to record the economic data that were of interest to the palatial administration, the Linear B scribes used a mixture of logographic and syllabic notations; some items can be designated exclusively by means of logograms, or by means of logograms and of words written syllabically. Last but not least, logograms can be combined with abbreviations (adjuncts, endograms, ligatures), some of which can be related to words written syllabically.

This sometimes complex relationship can be traced back to Linear A, which will be treated below.

For textiles, scribes have mainly used logograms, for example TELA, *146, *158, *160, *166, *189; additional information is often provided by means of endograms, i.e. syllabic signs written inside the logograms; the best example is TELA, which can be associated with the following endograms (see Fig. 17.2): TELA+KU, perhaps to be compared with *ku* LANA at Thebes (?); TELA+PA, with PA standing for *pa-we-a* (cloth name); TELA+PO, where PO might be *po-ni-jo*, *po-ki-ro-nu-ka*, or *po-pu-re-jo*, which are designations for colours or coloured items (in the case of *po-ki-ro-nu-ka*, which qualifies cloth items “with multicolored fringes or endings”); TELA+PU, with PU standing for *pu-ka-ta-ri-ja*; TELA+TE, with TE for *te-pa*; and lastly TELA+ZO, where ZO stands for a word so far unidentified.

2.2. Logograms in Linear A

2.2.1. Reading the Linear A documents

Studying the “Minoan” textile terminology through the Linear A documents is beyond our present capabilities for more than one reason.

32 Although the word *ko-ro-to*, which might be understood, among other possibilities, as “dyed”, is directly recorded with the LANA logogram on tablets of the Knossian Od series. See below § 4.2.1 True or false synonyms, and DMic s. v. ko-ro-to.

33 On red coloured textiles, see Nosch 2004.

34 For the linguistic analysis of these designations, see Luján 1996–1997, 347–352.

35 From other texts (PY An 35, Un 443, maybe also TI X 6), we also know about *tu-ru-pte-ri-ja*, “alum”, see Perna 2005 and Firth 2007.

36 See § 2.2, Logograms in Linear A, by M. Del Freo.
More than 70% of the Linear B syllabograms are clearly derived from Linear A, but it is by no means certain that all these syllabograms had the same phonetic values in both scripts. Therefore, the transcriptions of Linear A documents with the phonetic values of the Linear B homomorphically syllabograms have to be considered as purely conventional.

It is generally agreed that the homomorphic syllabograms belonging to identical groups of signs in both scripts had the same phonetic values. However, identical groups of signs in Linear A and Linear B are very rare and a rigorous application of this rule makes it possible to “read” only a dozen syllabograms.37

Given these circumstances, it is clear that at present, even when for contextual reasons a syllabic sequence can be interpreted as a textile term, it can neither be read nor analysed with absolute confidence.

For these reasons, the study of “Minoan” textile terminology relies nearly exclusively on the evidence which is directly or indirectly provided by the logograms.

2.2.2. **LANA in Linear A (?)**

The ligature A 559, formed by syllabograms AB 80+26, closely resembles the Linear B logogram *145 LANA “wool”.38 The Linear A logogram is attested on four tablets respectively from Phaistos (PH 3a.3), Hagia Triada (HT <12>.4, HT 24a.1.2.3.4.5) and Khania (KH 43.1).39

Ligature AB 80+26 is recorded alone on HT 24a and, along with other commodities, on HT <12> (A 608, A 304, A 510, AB 38, A 626, AB 30 e A 511),40 PH 3a (A 556, A 557, A 563)41 and KH 43 (A 527).42

The interpretation of AB 80+26 as “wool” seems to be confirmed by HT 24. On the side b of this tablet three different ligatures are followed by the sign AB 118 “talent” and by the figures 1+J+E, 1+J+E and 1 (where J and E are conventional

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39 PH 3 was found in Room XLIV/38 and dates back to Middle Minoan (=MM) III (Militello 2002a, 67–69); HT <12>, which was perhaps unearthed in the area of Room 59 (Militello 2002b, 116), and HT 24, which was certainly found on the threshold between Corridor 9 and Room 26 (Militello 1988, 235; Militello 2002b, 113), are assignable to LM IB; KH 43, finally, has been brought to light in the Odos Katre excavation and dates back to LM IB (Hallager 1996a, 50–51).
40 Some of these commodities can be interpreted as olive oil (?) (A 608 = ‘A 303’ ‘AB 07’), cyperus / grain (?) (A 626 = ‘A 704’) and figs (AB 30).
41 All these ligatures contain the syllabogram AB 80: A 556 (AB 80+8), A 557 (A 80+8), A 563 (A 80+8).
42 The ligature A 527 is formed by AB 40+74[...].
transcriptions of fraction signs). As it has been observed, the sum of these figures, which probably amounts to 4.5 talents, can be related to the 45 noduli found nearby. Since the ratio 1:10 between talents and noduli coincides with the ratio between the talent and the weight unit for wool in Linear B, it is likely that AB 80+26 was the Linear A sign for “wool”. In theory, the records on the two sides of HT 24 could have been unrelated. Yet, as it has been observed, if one admits that the two missing figures on HT 24a.4–5 were close to the average of those preserved on lines 2–3 (\[6, 10, ]9 J, 6), for side a of the tablet a total of 46–47 units of wool can be restored, i.e. a figure fully compatible with the 4.5 talents recorded on side b. The relationship between AB 80+26 and AB 118 “talent”, furthermore, is confirmed by HT <12>.4, where the ligature is followed by five units of AB 118. In Linear B, the phonetic values of AB 80 and AB 26 are respectively ma and ru/lu. Therefore, it has been proposed to read AB 80+26 as MA+RU and to relate it to Gr. μαλλός “tuft of wool” (cf. also Hsch. μάλλους: τρίχες). However, it is by no means certain that AB 80 and AB 26 had the same phonetic values in both scripts.

In some cases, ligature AB 80+26 is preceded or followed by isolated syllabograms, the aim of which was likely to specify acrophonically the quality or the destination of the commodity.

On HT 24a.1, ligature AB 80+26 is preceded by a syllabogram of uncertain reading, perhaps AB 67, and immediately followed by a lacuna; on lines 2–4, it is followed by the syllabogram AB 13; on

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43 Hallager 2002.
44 For J = ½ and E = ¼, see Bennett 1950, 204–222.
45 The noduli, all of the same type and stamped by the same seal, were found on the windowsill between Corridor 9 and Room 27 at less than one meter from HT 24 (Militello 1988, 235; Hallager 1996a, 41).
46 According to this hypothesis, each nodulus would represent a wool unit.
48 For the lacunae of lines 1 and 2, the following supplements can be suggested: [‘AB 13’] and respectively [AB 80+26 ‘AB 13’] (see below).
49 If this reconstruction is correct and each nodulus corresponded to one unit of wool, the fractional quantities on the tablet exclude that the figures were directly related to the 45 noduli. It is possible, therefore, that the noduli referred to a separate weighing of the wool recorded on HT 24. The uncertainty about the function of the noduli (Hallager 1996a, 130–133) makes it difficult to define the aim of such an operation (for a possible explanation, see Hallager 2002, 107–108).
50 A quantity similar to that recorded on HT 24b. The quantities recorded on PH 3a and KH 43 are much lower: fraction A 717 (DD) (PH 3a) and two units (KH 43).
51 In GORILA the juxtaposition ‘AB 67’ AB 80+26 is conventionally classified as A 546.
52 In GORILA the juxtaposition AB 80+26 ‘AB 13’ is conventionally classified as A 561.
The Terminology of Textiles in the Linear B Tablets

17. The Terminology of Textiles in the Linear B Tablets

351

In the Linear A tablets, AB 67–02 and its abbreviation AB 67, which may be read respectively as KI-RO and KI, convey the notion of “deicit” (like o-pe-ro and o in the Linear B documents, see above, § 1.1.3 Designations for thread, with the tablet PY Nn 228). Thus it is possible that on HT 24a.1 a “deicit of wool” was recorded. AB 13 is not among the syllabograms which can be confidently read through the comparison with Linear B, so that the transcription ME remains hypothetical.

On KH 43.1 the ligature AB 80+26 is preceded by a lacuna and followed by the syllabogram AB 27. Like AB 13, AB 27 cannot be read with confidence. Thus the transcription RE is purely conventional and has to be regarded as a mere hypothesis.

2.2.3. TELA in Linear A (?)
The Linear A sign AB 54, when used logographically, is directly comparable to the Linear B logogram *159 TELA “cloth”. The logographic use of AB 54 is attested on six different documents: one roundel and three tablets from Hagia Triada (HT Wc 3019, HT 16.2, HT 20.4 and HT 38.3), a fragment of tablet from Akrotiri (Thera) (THE 8.2), and, apparently, a graffito from the Palestinian site of Tel Haror (TEL Zb 1).

The logogram AB 54 is written alone on Wc 3019. On the rim of this roundel, three seal imprints are visible, one of which is superscribed by the fraction sign A 704 (E). On HT 16 and HT 20, AB 54 is listed with other logograms

53 Since it could be followed by a syllabogram different from AB 13, AB 80+26 is conventionally classified as A 560 in GORILA. For similar reasons, AB 80+26 is conventionally classified as A 558.
54 In GORILA the juxtaposition AB 80+26 ‘27’ is conventionally classified as A 562.
55 Cf. Docs', 36, 49, 313; Palaima 1994, 317; Schoep 2002, 131. Apparently a logogram for “cloth” is attested also in Cretan Hieroglyphic: cf. the medallion CHIC #103 from the Dépôt hiéroglyphique at Malia and the observations on sign *163 in Oren & Olivier 1996, 101–102. The medallion, like the other texts from the hieroglyphic deposit, can be dated to the final phase of MM III (CHIC, 28).
56 All the Hagia Triada documents come from the Villa: HT 16, 20 and 38 perhaps from Room 59 (Militello 2002b, 116); Wc 3019 probably from the area corresponding to Rooms 3, 11 and 13 (Hallager 1996b, 13, 31) or perhaps from Room 59 (Montecchi 2007, 15); THE 8 comes from Room Δ18a (Boulotis 1998, 407; Boulotis 2008, 72, Figs. 11–13); TEL Zb 1 has been found in a cult area (Oren & Olivier 1996, 92). These documents are datable respectively to LM IA (THE 8), LM IB (HT 16, 20, 38 and Wc 3019) and the 17th–16th cent. BC (TEL Zb 1). Theoretically, the graffito from Tel Haror could also be ascribed to Cretan Hieroglyphic (Oren & Olivier 1996, 109). According to the Chronique des fouilles en ligne, one new roundel with the AB54 logogram has been brought to light in Chania by M. Andreadaki Vlazaki in 2007 (see http://chronique.efa.gr/index.php/fiches/voir/273/).
The commodity is measured by fraction signs, A 702 (B) and A 704 (E). On HT 38, the logogram appears twice with other logograms and is followed by whole figures (2 and 1 respectively). Finally, on THE 8, AB 54 is apparently followed by the figure 200. On HT 38.3, the logogram is ligatured with two different syllabograms: AB 54+81 and AB 54+A 312; a third ligature, AB 54+04, is attested on TEL Zb 1, while a fourth one, AB 54+09, can be read on THE 8. In the first case, the syllabogram is placed on top of AB 54, while in the other three cases, it is placed inside the logogram, similar to the position of endograms of TELA in Linear B (see above, § 2.1, Linear B).

The convention of specifying the meaning of a logogram by a ligatured syllabogram is common both to Linear A and Linear B administrations. In Linear A, many ligatures of this type are known, e.g. for grain (AB 120), wine (AB 131) and other commodities. In Linear B, it is clear that the function of these syllabograms was acrophonic. In the case of cloth, as already mentioned (see above, § 2.1, Linear B), PA of TELA+PA was the abbreviation of pa-wo /pʰarwos/, TE of TELA+TE was the abbreviation of te-pa, etc.

It is reasonable to think that in Linear A these syllabograms had the same function as in Linear B and that, consequently, AB 04, AB 09, AB 81 and A 312 were abbreviations of cloth names.

While the syllabograms AB 04 and AB 09 can be read as TE and SE, the phonetic value of the syllabogram AB 81 cannot be ascertained with confidence and consequently the transcription KU is simply a hypothesis.

It is interesting that ligatures AB 54+04 and AB 54+81 can be directly compared to ligatures TELA+TE and TELA+KU of Linear B. As it has been observed, AB 54+A 312 might correspond to Linear B TELA+ZO. However, the endogram A 312 is slightly different from AB 20 ZO. For the ligature AB 54+09, finally, there are no direct parallels. However, it can be observed that in Linear

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57 It is likely that fractions referred to weight units as in the case of wool, but it cannot be excluded that cloths were fairly large and subdivided in fractional amounts (Palaima 1994, 317; Schoep 2002, 131). It is possible that the other seal imprints on the roundel corresponded to one unit and that the roundel recorded a total of 2 E units (i.e. prob. 2¼ units: see above).
58 On the Tel Haror graffito there are no figures.
59 In GORILA, the two ligatures are conventionally classified as A 535 (AB 54+81) and A 536 (AB 54+A 312).
60 See the discussion in Oren & Olivier 1996, 101–105.
61 See the photograph in Boulotis 2008, 68, Fig. 2. The new ligature AB 54+09 should be classified as A 536bis.
62 The logogram *163 of Cretan Hieroglyphic (see above) contains one sign, which does not match any of the signs attested so far for this script. Therefore, it is difficult to say if it was an endogram (cf. Oren & Olivier 1996, 102 n. 6).
63 Melena 1975, 110.
17. The Terminology of Textiles in the Linear B Tablets

B the syllabogram SE is attested in ligature with the logogram *168, which could be a product of the textile industry.64

Another Linear A logogram possibly related to cloths is AB 164.66 This hypothesis is based on the fact that in Linear B *164 is attested in textile contexts (KN L 520, L 698). In Linear A, where it is also used as a syllabogram (HT 17.1 and 19.1), AB 164 is attested at Khania in four different variants (a, b, c, d) as an isolated logogram on eleven different roundels (KH Wc 2036–2045, Wc 2111).67

2.2.4. Cloth names in Linear A

The Linear A evidence for cloth names is limited to the above mentioned acrophonic abbreviations. In other words, there is evidence for different types of cloth whose names began with TE, SE, AB 81 (KU?) and A 312.

Comparing this evidence with that provided by the Linear B documents is not of much help. The correspondence between AB 54+04 and TELA+TE suggests that, as in Linear B, TE could be an abbreviation of te-pa, a cloth name with no clear Greek etymology.68 As for AB 54+81, the possible comparison with Linear B TELA+KU (if AB 81 = KU) is unhelpful, as in this case it is not known which word KU abbreviates. In the case of SE, similarly, no comparison is possible, as in the Linear B documents there are no cloth names beginning with se.

If, as it has been argued above, the commodity recorded on HT 24b was wool, it is possible that the ligatures A 531 (AB 41+13 ‘67’) and A 539 (AB 57+77) referred to cloth produced (or still to be produced) with that wool.69 Read with the phonetic values of Linear B, AB 41+13 ‘67’ and AB 57+77 would be respectively SI+NE ‘KI’ (AB 41+13 ‘67’) and JA+KA (AB 57+77). Yet only JA and KI can be read with some confidence.

In conclusion, a brief comment needs to be made on the ostracon THE Zg 5 from Akrotiri. In her edition, A. Michailidou has suggested that, among the isolated signs that precede the figures, AB 80 MA was the acrophonic abbreviation of MA+RU “wool”, and that the other signs were the abbreviations of at least

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64 On all the Knossos Pp tablets, except on Pp 498.
67 The seal imprints on these roundels fluctuate from one to five.
68 Cf. DMic s.v.
69 The ligature AB 41+13 (A 530), followed by the figure 10, is attested on HT 23.5, a tablet with mixed commodities (wine, olive oil, cyperus, etc.).
three different cloth names. In this particular case, one would have 40 units of AB 80 MΑ (wool), as well as five PU (AB 50), seven ΤΕ (AB 94) and nine ZO (AB 20) pieces of cloth.

This hypothesis, which relies on the comparison with the Mycenaean words pu-ka-ta-ri-ja, te-pa and zo-ta as well as on the abundant archaeological evidence of textile activities in Akrotiri, is attractive, but regrettably still uncertain.

In fact, it can neither be proved that MΑ was a current abbreviation of MA+RU nor that ΤΕ is the correct reading for the third sign. Moreover, it is not known if syllabograms AB 50 and AB 20 had the same phonetic values as in Linear B, i.e. PU and ZO. In any case, it is hardly conceivable that a Greek word like pu-ka-ta-ri-ja could have been attested in Minoan Akrotiri. Finally, as far as zo-ta is concerned, the contexts suggest that it was instead a personal name.

3. Terminology and technical characteristics

Textile tools are attested in the archaeological record, and iconography illustrates the Bronze Age loom. The types of textile tools used at the time of the Linear B records had already been in use for several millennia, and continued to be in use for a further two to three millennia.

The terminology for textile tools in Linear B is mainly attested indirectly through professional designations. We have thus far preserved evidence for four textile tools.

3.1. Tools for spinning

There is a professional designation a-ra-ka-te-ja “spinner”, known from Thebes, Pylos and Knossos (TH Of 34, KN Ak 5009, Lc[1] 531, PY Aa 89, PY Aa 240). a-ra-ka-te-ja is built on the term for the spinning tool *a-ra-ka-ta which is the Mycenaean predecessor for the 1st millennium Greek ήλακάτη.

PY Aa 89          (S60–H4/Archives room)
a-ra-ka-te-ja MUL 37 ko-wa 26 ko-wo 16 TA 1
   “37 women spinners, 26 girls, 16 boys, one supervisor”

PY Aa 240         (S240–H1/Archives room)
a-ra-ka-te-ja MUL 21 ko-wa 25 ko-wo 4 TA 1[
   “21 women spinners, 25 girls, 4 boys, one supervisor”

PY Ad 677          (S290–H23/Archives room)
pu-ro a-ra-ka-te-ja-o ko-wo VIR 30 ko-wo 9
   “At Pylos, the spinners’ sons: 30 men, 9 boys”

71 The four TA (AB 59) are tentatively interpreted as oxhides, but a relationship with TA “supervisor” of textile workers in the Linear B texts cannot be excluded (Michailidou 1992–1993 [1995], 18).
17. The Terminology of Textiles in the Linear B Tablets

Fig. 17.14. Drawing of KN Ak(1) 5009. Drawing by L. Godart

Fig. 17.15. Drawing of TH Of 34. Drawing by L. Godart

KN Ak(1) 5009 + 6037 + 8588
.A ] ka-pa-raœ [ (103/F1473)
.B ] ko-wa , me[.
.C a-ra-ka-te-ja , / kο[.A Possibly DA[.74

TH Of 34 (303/Epam. str.)
.1 a-pi-qo-ro , ne-wa , ko-tu-roœ , DA , LANA 3 [5 PA 1]] [.
.2 a-ra-ka-te-ja , pa-ra-ja LANA 1 [.

"Servants, young, the DA supervisor Κότυλος, 3 units of wool
Spinners, old, 1 unit of wool"

The word ἡλακάτη designates the distaff, not the spindle, according to the Greek-English Lexicon by Liddel-Scott-Jones.74 In the 1st millennium, the spindle is termed ἀτρακτος. The spindle is the turning rod, whereas the distaff is the stick onto which the prepared wool fibres are fixed. For efficient and conventional spinning, a spindle is necessary, but a distaff is not.

Elizabeth Barber has reviewed the attestations of the term ἡλακάτη in 1st millennium Greek, and she demonstrates how the term has systematically been mistranslated as distaff.75 Plato76

73 Firth & Melena forthcoming.
74 DELG, s.v. translates it as “quenouille” but adds: “p.-ê. aussi fuseau”.
76 Republic 616c-617b.
describes a spindle as a shaft (ηλακότη) and a whorl (σφόνδυλος), and it is reasonably clear that ηλακότη is not a distaff but the spinning device, the spindle. An older piece of evidence, but less strong, is the Odyssey, in which a servant brings Helen her equipment: a silver wool basket and a golden ηλακότη. If ηλακότη is a distaff, then there is not much for Helen to do, but if ηλακότη is instead a spindle, then she can immediately start to spin.

The loss of this hand spinning technique in the medieval period has probably led to the present general confusion between spindles and distaffs, not only in dictionaries, but also in works on terminology and in archaeological classifications. The mistranslation is especially prevalent in Anglo-Saxon scholarly literature but less in German publications, as demonstrated by W. P. Lehmann.

Whatever the confusion between spindle and distaff, the translation of a-ra-ka-te-ja remains “female spinners”. It is significant to notice that the a-ra-ka-te-ja women recorded in the Linear B documentation could never have spun all the wool produced in the villages. The average amount of wool available to be spun was about 500 kg per village and according to the calculations made by Andersson Strand, this would have produced approximately 1500 km of thread and required about 30,000 hours of spinning. This suggests that the a-ra-ka-te-ja specialised in some types of spinning, for example producing warp yarn, or yarn of very fine quality. However, it must be emphasised that the a-ra-ka-te-ja women recorded on Lc(1) 531 by scribe 103 produce pa-we-a cloth, not thread.

Fig. 17.16. drawing of KN Lc(1) 531 + 542. Drawing by L. Godart

KN Lc(1) 531 + 542 (103/F10)

.A ] 'pa-we-a ko-u-ra' *161 TELA\(^1\) 15[ ]
.B ]q-ra-ka-te-ja / tu-na-no TELA\(^1\) 1 [ ]

“Spinners, 15 pieces of pa-we-a ko-u-ra, 1 piece of tu-na-no”

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77 No term is preserved for the spindle whorl in the Linear B records. Barber (1991, 263–264) notes that it is “curious that there is no common Indo-European word for the spindle whorl and that instead Greek and Latin (which uses fusus) seem to have picked up a loan word for this little utilitarian object.”

78 4.125–135.

79 Pace Due 1965, 8, note 22.

80 Artemis’ epithet χρυσηλάκατος is translated and understood as “with the golden spindle” by some scholars, “with the golden dart” by others. See discussion in Due 1965, 1–10.

81 See also Gleba 2008.

82 Lehmann 1995, 54.

83 Andersson & Nosch 2003. For further data, see Andersson Strand, this volume.

84 Nosch forthcoming B.
3.2. Tools for wool preparation: combs

Before spinning, the fibres need combing. The verb used in the 1st millennium is πέκω, “comb”.85 This tool whose 1st millennium Greek name is κτείζ86 is built on the same root ( *)(pkt-en-) and related to Latin pecten. The verb is again attested indirectly, through the formation of the occupational designation pe-ki-ti-ra2, “female combers”.

Combing ensures that the fibres are free from foreign material and parallel. In several works, the term is translated as “carders”87 but carding is an Iron Age technology in which the fibres are completely mixed and blended.

A second example of a term based on the same root for combing is the substantive or adjective pe-ko-to/pektos employed in connection with very heavy te-pa textiles (measured in terms of the 30 kilos of raw wool for one te-pa pe-ko-to). In this context, it may also be found in its abbreviated form pe. More technical knowledge and more documents are necessary to understand the meaning of the term in this context.

An example of pe-ko-to textiles is shown on tablet KN Lc(1) 526. It is written by the main textile scribe 103 at Knossos and comes from the same find-place as all other records of central Cretan production targets (F10 and F11). It registers a production target for the place da-wo located in southern Crete. The women at da-wo are commissioned to produce 10 pe-ko-to textiles, 14 te-pa, and 3 tu-na-no. After listing the three textile types, the scribe 103 calculated the necessary amount of wool for the production. The tablet is unfortunately broken, but John Killen has highlighted the ratios between wool and Mycenaean textiles.88 Thus the production target can be calculated as follows:

10 pe-ko-to textiles = 100 units of wool = 300 kilos
14 te-pa textiles = 98 units = 294 kilos
3 tu-na-no = 9 units of wool = 27 kilos

The tablet records a total of 621 kilos of wool (= 207 units of wool) and this corresponds to wool from 828 sheep.89 The production of the 10 pe-ko-to textiles alone consumes approx. half of the allocated wool. The pe-ko-to textiles are thus by far the heaviest textiles (30 kilos of wool per piece). How and whether this fact is technically related to combing is still an open issue.

85 DELG, s.v.
86 DELG, s.v.
87 Docs’, 158, 570.
89 The calculation is based on wool yields from castrated wethers. See Killen 1964.
From the same root of πέχω “to comb” is derived the Mycenaean nominal form po-ka “fleece”.

The meaning of πέχω in Mycenaean Greek therefore seems to cover both the treatment of wool and also a treatment of textiles.

3.3. Tools for weaving

Textiles are made on a loom. There are several types of looms in prehistory, such as the horizontal loom, the back-strap loom, the two-beam-loom or the warp-weighted vertical loom. There is indirect evidence for the terminology for the vertical loom via the occupational designations for both male and female weavers:

- i-te-ja-o, feminine genitive plural form, “of the female weavers” (PY Ad 684)
- i-te-we, masculine dative singular (histewei) “for the male weaver”, or nominative-accusative plural form (histewes) “male weavers” (PY Un 1322).

PY Ad 684 (S290–H23/Archives room)
(lat.sup.) a-pu-ne-we e-re-ta-o ko-wo
pu-ro ti-nwa-ti-ja-o i-te-ja-o ko-wo VIR 5 ko-wo 2

“At Pylos, the women of Tinwato (toponym), the weavers’ sons, 5 men, 2 boys,
The Apunewe (toponym) rowers’ sons.”

Although the term for loom is not attested in Linear B, it seems plausible that the professional designation is built on the term for loom, and we can thus infer the existence of *i-to-/histos “loom”.

A loom is a rather simple device with which a very complex technology is carried out and complex items result. The loom in classical Greek is histos, from the verb histamai. The root is related to the Indo-European root *sta- for “standing”, “upright”. It indicates the upright concept of the vertical loom where both the weaver and the loom are placed in a vertical position. This idea of a standing device can also be found in the modern European languages, for example Ger. Webstuhl. This contrasts to the horizontal loom in use in e.g. Mesopotamia.

Most parts of the warp-weighted loom are not preserved archaeologically. The exception is the loom weights: the warp-weighted loom is attested through the thousands of loom weights found in Europe and in Anatolia. In 1st millennium Greek they are called ἄγνυθες, a term without Indo-European etymology, or simply termed “stones”, λᾶξες.

90 Killen 1962.
91 DELG, s.v.: “Cette famille de mots est surtout employée pour les brebis et pour la laine, d’une part au sens de ‘tondre’, de l’autre au sens de ‘carder’. D’où l’emploi pour ‘peigner’ .”
92 See also woman’s personal name i-ta-ja in the formula o-pi i-ta-ja on tablet KN Xe 537, which is written by scribe 103?? Her name is possibly built on the same root.
94 DELG, s.v. and supplement.
95 Harlizius-Klück 2004.
96 Breniquet 2008, and this volume.
97 The term “stones” is attested in Linear B ra-e-ja/ *lahaeia PY Ta 642, 713.
Furthermore, as already seen by Barber, “the terms for the mechanisation of the weaving process are also without Indo-European etymologies”. This implies that terms for the devices, which are employed in operating the warp-weighted loom are of non-Greek origin: the term for the heddles (mitos) is of Semitic origin, and the words for the heddle bar (kanon) and shed bar (kairos) are also of non-Indo-European origin. These are integrated parts of the Bronze Age weaving technology but the words are only attested in 1st millennium Greek.

3.4. Tools for sewing
The term for needle is not preserved but needles are preserved archaeologically, and in the occupational designations in the feminine plural form ra-pi-ti-ra_j, “seamstresses”, and in the masculine singular ra-pet/apet “tailor”. The perfect participle form e-ra-pe-me-na, errhap(h)mena, “sewn”, and the adjectival form ra-pet-ri-ja/rhapteriai (PY Ub 1315), suggest that the Mycenaean needle was termed *ra-pi /ραφις.

Fig. 17.17. The elements of the warp-weighted loom. From Harlizius-Klück 2004.

Fig. 17.18. Drawing of KN L(2) 647 + lower edge. Drawing by L. Godart

However, tablets from Pylos (La 626, 630) record pa-we-a cloth, which is qualified as a-ro-ta, which could be ἀλοστα, meaning “not-sewn”, and thus employing another root for the sewing technique. From the contextual analysis of the use of ῥάπτω in the Linear B inscriptions, we learn that the same term for stitching or sewing is both used for textiles and for leather. Barber notices that 1st millennium Greek preserves two terms for sewing: kassuein, a cognate of English “sew”, and raptein which has no known etymology but is the main form used in Mycenaean Greek.

3.5. Weaving terminology

A rather rich semantic field exists for the process of weaving. Mycenaean Greek, like other Indo-European languages, distinguishes between weaving (on a loom) hyphainein, and plaiting, plekein. To this comes the root yielding the terms for loom *histos, and weaver *histeus.

1. hist-. From the root *sta-, “to stand”, derives the terms i-te-we, “male weaver(s)” > *i-te-u /histeus, here attested either in the dative singular histewei, or in the nominative-accusative plural histewes (PY Un 1322), and i-te-ja-o/histeiaon, genitive plural feminine form “of the (female) weavers” (PY Ad 684).

2. hyph-. Another Greek term for weaving is hyphansis “weaving” and the verb ἦφαίνω ‘weave’, and the weaver hyphantès. The root *webh- is in use in other Indo-European languages as Engl. weaving, Toch. A. wäp-, German weben. The Greek term hyphaino is a zero-vocalism verb (*ubh-) with a specific suffix, which according to Pierre Chantraine does not seem archaic. In Linear B, this root is perhaps attested in the designation of a Goddess of Weaving (?), u-po-jo po-ti-ni-ja at Pylos (Fr 1225).
The designation is composed of the word Potnia, the Mistress, and u-po-jo. Some scholars interpret the goddess’ designation as Hypoíôn < hypo, being the Goddess from below, chthonian, under ground. Other scholars, however, interpret the designation as the goddess of weaving < *hyphoio < ωφαίνω. Since the context on Fr 1225 concerns textiles, we would tend to prefer the interpretation as goddess of weaving.

3. plek-. Another term for weaving is related to the root of πλέκω found in the occupational designations pe-re-ke-u and pe-re-ke-we/plekeus. It is significant that this occupational designation occurs both at Mycenae (a record of wool MY Oe 130) and Pylos (a record of animals PY Cn 1287 and another record of men, PY Ae 574,) and has recently also been found at Thebes (TH Oh 208). It is a designation for a male occupation related primarily to wool working.

Fig. 17.20. Drawing of MY Oe 130. Drawing by L. Godart

\[\text{Fig. 17.19. Drawing of PY Fr 1225. Drawing by E. Bennett}\]

\[\text{PY Fr 1225} \quad \text{(Room 23/S1217-Cii)}\]

1. e-ra₃-wo , u-po-jo , po-ti-ni-ja
2. we-a₂-no-i , a-ro-pa OLE+A S 1

"Oil for the u-po-jo Potnia
Ointment, for the garments, 9.6 litres of oil"

\[\text{PY Ae 574} \quad \text{(Cii/Archives room)}\]

\[\text{pe-re-ke-we VIR 13}\]

\[\text{MY Oe 130} \quad \text{(56/H. Oil Merch.)}\]

\[\text{qa-da-wa-so} \quad \text{pe-re-ke-we} \quad \text{LANA 4}\]

\[\text{Van Leuven 1979.}\]

\[\text{Boëlle 2004, 46 note 47. According to Boëlle, hyphos would be an unattested inverted thematic derivative from ωφαίνω which is not attested. Hyphos is attested in Greek but it is a neutral sigmatic form (-es/-os) and its Mycenaean genitive form would thus be written *u-pe-o/huph-eh-os.}\]

\[\text{Nosch forthcoming A.}\]
On a tablet from Knossos, another term may be the verbal form of *plek-, *pe-re-ke (KN L 520). The verb πλέκω signifies braiding and is primarily used for basketry as well as for the braiding of hair and crowns, techniques which from a technological point of view are closely related to weaving. The term seems closely associated with wool and weaving in Mycenae and Thebes, and *pe-re-ke is employed in connection with wool and textiles at Knossos. Thus, this term is strongly integrated within the textile manufacture and textile vocabulary at several palace sites, and seems to have a wide range of applications.

4. It is possible to see an e-vocalism in the development of *web- in the form of the future participle *e-we-pe-so-me-na, “to be woven”, as was suggested by Chantraine and Perpillou.

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108 According to Docs4, 488, *pe-re-ke is rather not a verb but a man’s name.

109 DELG, s.v. Chantraine does not mention any Mycenaean evidence in his analysis of πλέκω. Today, in modern Greek, the verb has the sense of knitting. It should be noticed that in Althochdeutsch the verb flehtan (flechten, “braid”) is related to flahs (Germ. Flachs, Eng. flax). Barber 2001.

110 DELG, s.v. 1123: “Enfin, on pourrait retrouver le vocalisme e en grec même, si l’on interprète le mycén. ewepesomena, épithète de tissus, comme représentant un participe futur passif d’un verbe *έφέσω, avec prothèse *έφέσω, cf. Beekes, Laryngeals 67.” Beekes (1969, 67) conjectures a verb *έφέσω corresponding with prothetic e- to Old Hoch German weban, Eng. weave, later replaced by ύφαινω.

111 Perpillou 1996.
17. The Terminology of Textiles in the Linear B Tablets

MY Oe 127
pa-we-a₂, e-we-pe-se-so-me-na, LANA 20

"Paweha cloth, to be woven, 20 units of wool (= 60 kilos)"

20 units of wool equals 60 kilos, and this is the necessary – and precise - quantity for weaving 12 pieces of pa-we-a cloth. If this etymology is followed, Oe 127 becomes equivalent to the Lc textile targets at Knossos in which the scribes allocate large quantities of wool to groups of workers for textile production. However, the word e-we-pe-se-so-me-na is conventionally interpreted as future participle passive, “to be well boiled” < hepsô, “boil” (see below, § 4.2.1).

There are thus several terms available to express weaving in Mycenaean Greek. Finally, José Melena has suggested another term for weaving: he relates ke-do-si-ja with the Greek gerdiós, “weaver” (Melena 1975, 78–79). The term ke-do-si-ja is recorded after a list of male names on KN B 799, 804 and 8206. Gerdiós is only attested quite late, and according to Chantraine, Latin gerdius and Hebrew girda’a are loan words from Greek gerdiós. Chantraine, however, states that “de toute façon le mot grec risque fort d’être emprunté.” (DELG, s.v.). Hesychius equals gerdiós with hyphantès. Thus, according to Melena, ke-do-si-ja is gerdonsia, with the meaning “textile workshop” or “loom team” (Melena 1975, 79). This interpretation, however, seems less plausible.

4. Reflections on the use of pairs and groups of words in Linear B textile terminology

In the vocabulary linked with textile fibres and textile production in the Linear B corpus, some words seem to express opposite meanings (antonyms), whereas others apparently have very close, if not identical significations (synonyms). It is assumed here that by gathering and studying the pairs or groups of words concerned, it might be possible to obtain a better idea of technical differences, or technological details, which were particularly important to the scribes, and in general to the palatial administration, since they were carefully recorded.

4.1. Pairs of antonyms expressing important technical differences?

In the list of terms related to fibres, thread and textiles, some pairs of words functioning like antonyms can be identified; one hypothesis is that they correspond to the indication of (technical?) differences, which were particularly important to the scribes. One document, Knossos Ln 1568, seems to be especially revealing from that point of view, since it records repeated mentions of

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On the textile targets Lc(1) and Lc(2), see Killen 1966; Killen 1974.

Finally, José Melena has suggested another term for weaving: he relates ke-do-si-ja with the Greek gerdiós, “weaver” (Melena 1975, 78–79). The term ke-do-si-ja is recorded after a list of male names on KN B 799, 804 and 8206. Gerdiós is only attested quite late, and according to Chantraine, Latin gerdius and Hebrew girda’a are loan words from Greek gerdiós. Chantraine, however, states that “de toute façon le mot grec risque fort d’être emprunté.” (DELG, s.v.). Hesychius equals gerdiós with hyphantès. Thus, according to Melena, ke-do-si-ja is gerdonsia, with the meaning “textile workshop” or “loom team” (Melena 1975, 79). This interpretation, however, seems less plausible.
two words and their abbreviations. Other examples can be found, where the relevant words are attested not only in more than one document, but also in more than one corpus of texts.


The adjective **mi-ja-ro**\(^{114}\) appears on KN Ln 1568,\(^{115}\) once completely written, on line 1a; and in the form of the abbreviation **mi**, written just before the logogram TELA+TE (on lines 1b, 2b, and 6):

\(^{114}\) On this adjective, see mainly the study by Killen 1974, esp. note 10, with bibliography, alternative interpretations proposed by other scholars, as well as a detailed analysis of the opposition between **pe** and **mi** on Ln 1568, where the author suggests that the sense of **mi-ja-ro** might be rather “rough or the like” and wonders if it did not “serve to designate cloth made from uncombed wool, as opposed to cloth made from combed (**pe-ko-to**: cf. *pškw??*) wool (or, alternatively, ‘rough’ cloth as opposed to ‘sheared’ cloth [*vel sim.*]) ”

\(^{115}\) On this document see also Varias Garcia 1992.
The same document contains four instances of the abbreviation pe just in front of the same logogram TELA+TE (on lines 1b, 3b); pe could theoretically be the abbreviation of pe-ru-si-nu-wo, “from last year”, or of pe-ko-to, “combed”.

On the same document, the scribe wrote both pa-ra-ja “old” (line 6) and the abbreviation pa (lines 1a, 2a, 3a, 4a), which is an argument against the interpretation of pe as pe-ru-si-nu-wo, since, as demonstrated by Killen, normally a scribe either writes pe-ru-si-nwa/pe or pa-ra-ja/pa.

The term which is believed to be the opposite of mi-ja-ro, namely pe-ko-to, appears in eight tablets (KN Lc[1] 526, 527, 535, 536, Lc 646, L 698, 5090, 8105), and six of them are records of production targets and of cloth by the same scribe, 103, as Ln 1568.

On these tablets, the precision pe-ko-to is also systematically applied to the kind of textiles described by TELA+TE, just as mi and pe here, which reinforces the hypothesis of a pair of words functioning as antonyms (not merely for the meaning, but also in the use of the designations). Thus, it can be concluded that pe-ko-to is almost certainly the word behind the abbreviation pe on Ln 1568.

4.1.2. a-ro-ta / e-ra-pe-me-na “not sewn” versus “sewn”

These two designations, attested at two different sites, may form a pair of antonyms; a-ro-ta (alph. Gr. ἀλοστα) is written on PY La 626 and La 630, whereas the second appears on a Knossos tablet (KN L[2] 647). These terms are both quite rare; a-ro-ta, at Pylos, is applied to the textile item designated by TELA+PA, where PA is an abbreviation of pa-we-a.

PY La 626  (S626–H13/Room 6, SW sector)

*Supra mutila*

.a  366 2  a-*35-ţo 3[  
.b  a-ro-ta TELA+PA 1 [  
  verso  ]ku x 1 o 1 [  

PY La 630  (S626–H13/Room 6, SE sector)

.a  ko-[u-]ra  
.b  a-ro-ta TELA+PA 1[  
  verso  ]do P 7 PE 4[  

---


117 KN Lc(1) 526, 527, 535, 536, Lc 646; L 698.
The references being exceptional, were the pa-we-a cloths normally sewn, but in some cases not? E. Luján,\textsuperscript{118} referring to S. Marinatos,\textsuperscript{119} has argued that pa-we-a were generally not sewn, which would confirm the interpretation of a-ro-ta as “not sewn”. Yet, as a matter of fact, a number of different suggestions can be made: pa-we-a may have been given or stored without sewing at all, or before sewing; or it may in some cases have been sewn and then restored in its primary state.

The word e-ra-pe-me-na, at Knossos, is applied to plain TELA\textsuperscript{1}. If the two words are indeed antonyms, it might be interesting to note that they are built on different roots, and that sewing thus must have been expressed by two terms, one which has yielded the occupational designations ra-pte and ra-pi-ti-ra\textsuperscript{2}, and another (less productive?) root for sewing (cf. Hesychius \$lwstoi: \$rrafoi?).\textsuperscript{120}

4.1.3. u-po-we/e-pi-ki-to-ni-ja?
The word u-po-we is attested once on KN L 178; e-pi-ki-to-ni-ja also appears at Knossos (KN L 693 and probably also on L 7514).

The mention u-po-we /hupowes/ is interpreted as something “worn under”, whereas e-pi-ki-to-ni-ja /epik\iota\iota\iota\iota\iota/ is probably a piece of clothing worn “over the χιτών”; a parallel may be suggested with e-pi-ro-pa-ja /epil\iota\iota\iota\iota\iota\iota/ attested on KN Od 696, which might designate something worn “over the λ\omega\pi\eta”.

\textsuperscript{119} Marinatos 1967, A6.
\textsuperscript{120} Cf. DMic s.v. a-ro-ta. For the origin of the root, cf. DELG s.v. λ\omega\mu\alpha.
On L 178, the scribe has recorded first a woollen cloth and then a linen one. The fibre used is coherent with the idea of something worn under (other clothes). The word *e-pi-ki-to-ni-ja* appears on the following Knossos tablet:

<table>
<thead>
<tr>
<th>KN L 693 (103/F19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>ri-no</em> / <em>re-po-to</em> / 'qe-te-o' <em>ki-to</em>, AES M 1 [</td>
</tr>
<tr>
<td>2. <em>sa-pa</em> P 2 Q 1 <em>e-pi-ki-to-ni-ja</em> AES M 1 [</td>
</tr>
</tbody>
</table>

"1. fine linen, to be paid, χιτών, 1 kg of BRONZE [  
2. sa-pa (ca.) 68 g *e-pi-ki-to-ni-ja* 1 kg of BRONZE]"

This document, which mentions quantities of bronze after textiles, has been interpreted by specialists as a possible indication of the value or “price” of these textiles.\(^{121}\)

### 4.2. True or false synonyms?

It has been suggested that some words/designations could be defined as antonyms. On the other hand, the scribes have used words the etymology of which points towards a very close meaning. The question is whether they were simply synonyms, or if they were used to indicate something different, and, if so, how different?

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\(^{121}\) Cf. Killen 1988, esp. 183: “The tablet may simply be a record of bronze which is due to be affixed to linen garments (...). On the other hand, it is perhaps a point in favour of the view that the tablet records the ‘price’ of linen expressed in terms of BRONZE that we find the phrase *ri-no re-po-to* written large as the heading of the tablet.”
4.2.1. ki-ri-ta / ko-ro-to

E. Luján has argued\(^{122}\) that the word ki-ri-ta / kʰrʰista / (cf. χρίω, “to rub”, “to anoint”) attested on KN Ld 785.1, may have designated a technical process in which the colour was applied onto the cloth, as opposed to ko-ro-to / kʰróston/ (cf. χρωζω, “to dye”) (KN Od 485, 486, 487, MY Oe 106), which would have implied the immersion of wool/cloth into a dye bath. However, he also indicates that it cannot be entirely excluded that the difference might be explained by a personal preference of the scribe, thus not necessarily corresponding to a technical difference.

It might be interesting to add to this pair of designations the participle form e-we-pe-se-so-me-na, which has been interpreted, \textit{inter alia}, as “to be well boiled”, since the meaning of the word could be related to dyeing techniques (by heating in a colour bath). It must be stressed that many other interpretations of this form have been suggested, and that P. Chantraine mentions the form under \(\dot{e}\pi\omega\) “to take care of”,\(^{123}\) \(\dot{e}\psi\omega\), “to boil, to cook”\(^{124}\) and ύφαίνω “to weave”.\(^{125}\) It means that the possible interpretations range from “requiring attention, finishing”\(^{126}\) to “to be well boiled”\(^{127}\) and to “to be woven”. In any case, the future form indicates a process to be applied to the wool (or to the pa-we-a\(_2\), grammatically both solutions seem possible) recorded in the Mycenae tablet:

\[
\begin{array}{c}
\text{MY Oe 127} \\
pa\text{-we-}a_2, \text{ e-we-pe-se-so-me-na , LANA 20}
\end{array}
\]

The quantity is quite important (20 units = 60 kg of wool). With 60 kg of wool, it is possible to make 12 pa-we-a (3 pa-we-a = 5 units of wool).

4.2.2. i-te-we/pe-re-ke-we

Among textile related professional designations, two words seem to have described two types of activities related to weaving: i-te-we, /histēwes/ and pe-re-ke-we /plekēwes/.

On this subject, see above, § 3.5. Weaving terminology.

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\(^{123}\) \textit{DELG} s.v. \(\dot{e}\pi\omega\), Chantraine writes: “Doute également pour l’interprétation de \textit{ewepesesomena} suggérée par Palmer, voir Chadwick-Baumbach 193”.

\(^{124}\) \textit{DELG} s.v. \(\dot{e}\psi\omega\), Chantraine indicates: “Le mycénien a peut-être le futur passif \textit{ewepesesomena} = \varepsilon\dot{\omega} \dot{\psi}\rho\sigma\omega\dot{\mu}\varepsilon\nu\alpha, dit d’étoffes, mais voir aussi sous \(\dot{e}\pi\omega\)”.

\(^{125}\) \textit{DELG} s.v. ύφαίνω.

\(^{126}\) See also Palmer 1963, 421, who explicitly rejects the interpretation “to be well boiled”.

\(^{127}\) \textit{DELG} s.v. and \textit{Documents}, 394.
One of the aims of this paper is to provide the reader with an overview, as complete as possible, of the variety of terms directly or indirectly related to textile fibres and fabrication in the Mycenaean Greek vocabulary, as attested by the extant documentation. The principle of this overview is the (attested) steps of the chaîne opératoire (§ 1. From raw fibres to finished products).

For the purpose of recording textile fibres and textile products, Mycenaean scribes used not only words, but also logographic notations; this practice has been inherited from the Linear A administration, as shown by the examples from Haghia Triada, Khania and Thera (§ 2.2 Logograms in Linear A). In particular, it is probable that Linear B logograms for LANA and TELA had their origin in Linear A, even if some doubts remain on the equation AB 80+26 = LANA. An interesting but sometimes problematic aspect of the notations used by the Linear B scribes is the joint use of endograms and adjuncts (syllabic signs abbreviating words, and placed inside or beside the logograms) on one hand, and of complete words written syllabically, on the other hand, to designate the same type of textile items. In the majority of cases, it has been possible to identify more or less securely the word referred to by the abbreviation, but some terms remain unclear. As this also is a practice inherited from Linear A, it has been attempted to study in parallel the same phenomenon in the Linear A documents (see § 2.2.4 Cloth names in Linear A), but the very limited number of preserved inscriptions, as well as the undeciphered state of the script prevents the drawing of any kind of definitive conclusion from this comparison. In any case, it seems reasonable to conclude that the Linear A signs AB 04, AB 09, AB 81 and A 312 (the first two readable as TE and SE) were abbreviations of Minoan cloth names, and that the ligatures AB 54+04 and AB 54+81 are comparable to the Linear B ligatures TELA+TE and TELA+KU.

When it comes to the use of words written syllabically, the working hypothesis has been to suggest that the vocabulary used by the Mycenaean scribes may reflect technical characteristics which were important and thus carefully recorded. The study of these words has shown that some of them had opposite meanings (e.g. mi-ja-ro/pe-ko-to, ]a-ro-ta / e-ra-pe-me-na, u-po-we / e-pi-ki-to-ni-ja, see § 4.1. Pairs of antonyms expressing important technical differences?) whereas others seem to convey closely related concepts (e.g. ki-ri-ta/ko-ro-to, i-te-we/pe-re-ke-we, see § 4.2. True or false synonyms?); in the last case, the question is whether these words were indeed synonyms, or if the simple fact that the scribes chose different words implies that they signified different technical characteristics, and how different? This last question is far from being definitively answered. However it is suggested that an in-depth study of such lexical items might lead to a better understanding of some technical realities.

Within the long and continuous history of textile production, it is not surprising to find some similarities in the ways of recording wool and textiles from the Minoan to the Mycenaean administration.

E. Barber128 notes as “interesting and highly significant the distribution in particular of the terms for looms and weaving” within the field of Greek textile terminology. She places these terms within the historical frame of the arrival of the Greek speaking populations in Greece, and the blend with other pre-Greek languages such as Minoan.

An important conclusion to be drawn is that Greek employs some terms for the action of weaving, such as the possible interpretation u-po-jo, which might be related to hyphainein, while they construct the term for the upright loom, histos, from yet another root. Finally, plaiting has

its own distinct terminology, although plaiting seems to have been integrated in the Late Bronze Age textile production and terminology. This suggests that plaiting, weaving and the loom could have come independently and perhaps at different periods into the Greek vocabulary.

It must be taken into consideration that the archaeology of Bronze Age Greece represents a particular situation regarding textile tools: spindle whorls are extremely abundant at Bronze Age sites in Mainland Greece and clay loom weights near to absent; in Crete, the archaeological excavations display a wealth of clay loom weights but only few spindle whorls are found. We know that thread was spun in abundance in the Bronze Age, and we know that the warp-weighted loom was in use. The use of the term λάξας “stone” in the 1st millennium could thus be explained by a traditional use of stones instead of clay loom weights, in particular in the Bronze Age Mainland weaving tradition.

It is very important to integrate the research on terminology within the research of the development of textile technology. Plant fibres were processed some 4000 to 6000 years before animal fibres were introduced. This innovation must have enriched the vocabulary as well, because it required the appropriation of new techniques. Barber\footnote{Barber 1991, 227.} points out that the textile terminology for wool fibre processing has partly been taken from non-Indo-European languages. Woollen textiles needed fulling (ka-na-pe-u), and woollen textile opened up for dye opportunities with a mordant (tu-ru-pte-ri-ja), two technical terms, which seem to have come from outside the Greek and Indo-European vocabulary.

Note

The authors of this chapter have divided the study of the various topics and categories of documents as follows below: section 2.2 Logograms in Linear A is the work of M. Del Freo; section 1 From raw fibres to finished products, as well as sections 2.1 Logograms in Linear B and 4 Reflections on the use of words in textile terminology are the work of Fr. Rougemont; section 3 Terminology and technical characteristics is the work of M.-L. Nosch.

Abbreviations


\footnote{Barber 1991, 227.}
17. The Terminology of Textiles in the Linear B Tablets

Bibliography


17. The Terminology of Textiles in the Linear B Tablets


Textile production was one of the most important activities in the Mycenaean economy,¹ as evidenced by the great number of Linear B tablets which deal with the organization of textile production. We have information on textiles from various Mycenaean centres, specifically from Knossos, Pylos, Mycenae, and Thebes; the most extensive data comes from Knossos. On the Knossos tablets we can recover information about flocks, wool and the production of cloth.

Linear B tablets thus provide a rich textile terminology concerning types of cloths, garments and decoration. The complexity of the terminology employed by the scribes is indicative of the care and attention commanded by this industry inside the Mycenaean society.

Mycenaean textile terminology has been dealt with at length in the previous chapter, so in this chapter I will focus on a particular set of tablets which deal with textiles: the Lc(1)-set, written by the scribe 103 from Knossos. This is arguably the most informative set of tablets concerning the Mycenaean textile industry and contains extensive textile terminology. It is thus highly representative both of the kind of information that we can access from the Linear B tablets, and also of the problems that can arise from this type of information. From this perspective, special attention will be given to a particular terminological problem concerning the way in which groups of female workers are referred to by an occupational noun as it relates to the production of textiles. I will analyse the consistency of the use of those occupational nouns in relation to the production of the particular textiles for which these workers are responsible.

However, before we go into detail in the analysis of some of the terminology employed by this scribe, it is important to provide some background in order to contextualize this set of tablets. The so-called “hand 103” is one of the most active scribes from Knossos. He is responsible for various sets of tablets dealing with textiles, wool, and groups of female workers (sets Am(1), Lc(1), L(1), Od(1), M(1), etc.).²

The Lc(1)-tablets were found at the F10 find-spot in the area of the Western Magazines (XI) of the Knossos palace; tablet Lc(1) 561, though, was found nearby at find-spot F11 (Western

¹ An overview of Mycenaean economy can be found in Killen 2008. For the place of textile manufacturing in Mycenaean technology, see Bernabé & Luján 2008.
18. Mycenaean Textile Terminology at Work

Magazine XII. In general, all the tablets written by scribe 103 were found in the area of Western Magazines of the palace of Knossos.  

1. The Lc(1)-set

In current editions, the Lc(1)-set consists of 39 “regular” tablets plus two “tallying” tablets (535 and 536). Except for the latter, the information found on the tablets follows a regular pattern, typical of the pragmatic display of the information which is characteristic of the Linear B tablets. The standardized structure of the entries of this set is shown on Table 18.1.

<table>
<thead>
<tr>
<th>Identification of group responsible for the production of cloths</th>
<th>type of cloth</th>
<th>cloth logogram + quantities</th>
<th>wool logogram + quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(tu-na-no)</td>
<td>type of cloth</td>
<td>cloth logogram (TEL\textsuperscript{A}) + quantities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>wool logogram + quantities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This structure is typified by tablet KN Lc(1) 525, which reads as follows (see Fig. 18.1):  

KN Lc(1) 525

.a ‘wa-na-ka-te-ra’ TELA\textsuperscript{A}+TE 40 LANA 100[

.b se-to-i-ja , / tu-na-no TELA\textsuperscript{A} 3 LANA [  

Fig. 18.1. Drawing of the tablet KN Lc(1) 525 [from CoMIK I]  

\footnote{The find-places of the Knossos tablets have been extensively revised by Firth 1996–97. For the find-places of the set that will be analysed in this chapter, see Firth & Nosch 2002–2003, 121–125.}

\footnote{CoMIK, KT\textsuperscript{A}. See also Firth & Nosch 2002, 123–126.}

\footnote{See Bernabé & Luján 2006, 205–210.}

\footnote{For a comprehensive table of the data provided by the KN Lc(1)-set, see Appendix I.}
However, we find a certain number of deviations from this scheme: 7

- Tablets 526, 527, and 5746: on the first line there are two series (instead of just one) of cloth logogram plus quantity after pe-ko-to. However, only one quantity of wool is provided for both of them together.
- Tablet 551: on the second line we find an additional mention of pe (= pe-ko-to) plus two series of cloth logograms followed by quantities of wool.
- Tablets 530 and 532: on the second line there is an additional series of cloth logogram TELA+TE, followed by an additional quantity of wool.
- Tablet 558: tu-na-no appears on the first line. This tablet does not seem to follow the pattern of the other tablets in this set.

As discussed in the previous chapter, the Mycenaean logogram TELA represents a woven piece of cloth, while the superindex denotes the number of small vertical traits (fringes) at the bottom of the cloth. In the case of this set, that number varies between 1 and 4.

The logogram TELA is qualified in this set by various terms, specifically: 8

- wa-na-ka-te-ra /wanáktera/ ‘royal’ (cf. wa-na-ka /wanaks/ ‘king’, cf. Gk. ἄναξ);
- pe-ko-to /pektón/ ‘combed’ (cf. Gk. péko ‘to comb’);
- tu-na-no (?), uncertain interpretation;
- pa-we-a ko-u-ra /pʰárweha koura(?)/ (cf. Gk. phāros ‘cloak, mantle’).

The identification of the group responsible for the production of the cloths listed on each tablet is made by one of these four possibilities – a personal name in the genitive case, a place name, the mention of a group of female workers or a combination thereof (a place name followed by a mention of a group of female workers). We find three personal names on this set: e-me-si-jo (KN Lc(1) 551), we-wes-i-jo (KN Lc(1) 7392), and ]ku-wo (KN Lc(1) 532). e-me-si-jo is a well known character in the Knossian administration, one of the so-called “collectors”, 9 involved also in the control of flocks, as shown by tablet KN De 1381. we-we-si-jo is another collector, who also plays a role in the control of flocks, wool and groups of workers, as shown by various Knossian tablets.10 In fact, he might even have a “speaking” name related to his function if it can be rendered as werwesios, that is, a derivative by means of the suffix -yos from *werwos/verwes- ‘wool’ (cf. Gk. εἶρος). However, the preservation of intervocalic -s- is problematic – one would expect that it had evolved into [h].11 Of these three possibilities, ]ku-wo can only be the final part of a personal name in the genitive case, but no name attested elsewhere on the Knossos tablets fits with it.

Two place names serve to identify the groups in charge of the productions listed on tablets KN Lc(1) 525 and 547. On the former we find se-to-i-ja, a place name that is mentioned on various tablets of the Knossos D-series dealing with flocks. The case of tablet KN Lc(1) 547 is slightly different: it is broken after tu-ni-ja, so that we cannot know for certain whether it was followed

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7 See Firth & Nosch 2002, 124–125, for a discussion of the classification of the tablets of this set.
8 For further discussion of these terms see previous chapter.
9 “Collectors” have been traditionally understood by scholars as certain palatial agents in charge of collecting the sheep, wool or cloth registered on the tablets. Recently, Rougemont 2001 has proposed to interpret them as inspectors sent by the palace to oversee production which was not proceeding to plan.
10 References can be checked on the DMic., s.u., as well as in F. Aura’s General Index of the Linear B, available on-line: http://www.cervantesvirtual.com/portal/diccionariomicenico/.
11 At Pylos there are also the we-we-si-je-ja workers attested on various tablets (PY Aa 762, Ab 217, Ad 318). This female noun poses similar problems; it is usually considered a derivative from the personal name we-we-si-jo rather than an occupational noun meaning ‘wool workers’.
by something else. In any case, given that it appears frequently on the tablets of the D-series, it must have been an important centre for the raising of sheep, too.

Place names combine with the reference to a group of female workers on three tablets of this set:

- a-mi-ni-so ko-u-re-ja (KN Lc 550.B);
- ko-no-so ko-u-re-ja (KN Lc 548);

It should be noticed that this combination only happens with two of the biggest centres, Amnisos and Knossos, where it is expected that various groups of female workers were responsible for the production of textiles. Identifying them just by the place name, therefore, would have been impossible.

Mentions of groups of female workers alone can be found on various tablets of this set. They can be classified into two classes according to what the noun by which they are referred is based on:

- Feminine ethnic nouns: da-wi-ja (cf. da-wo), da-*22-ti-ja (cf. da-*22-to), e-ki-si-ja (cf. e-ko-so), e-ra-ja (cf. e-ra), ija-pu*-wi-ja (cf. i-ja-pu*-we), pa-i-ti-ja (cf. pa-i-to), qa-mi-ja (cf. qa-mo), ri-jo-ni-ja (cf. ri-jo-no), and tu-ri-si-ja (cf. tu-ri-so). With the only exception of i-ja-pu*, all place names appear on tablets of the D-series on which flocks are recorded. It is thus no wonder that specialized groups of female workers dealing with textiles are named after those place names.

In a couple of instances there may be doubts concerning the classification of the noun. This is the case with ne-we-wi-ja, which is also attested on various tablets from Pylos (PY Aa 695, Ab 560, Ad 357) – this is probably an argument in favour of its interpretation as an occupational noun, but it cannot be ruled out a priori that two different places had the same name. Something similar happens with da-te-we-ja, which seems to be used as a place name on KN D 8174.

2. Groups of female workers named after their activities in the Mycenaean textile industry

Our focus now will be on the occupational nouns used for the identification of groups of female workers and their relation to Mycenaean textile terminology. Table 18.2 provides comprehensive information about occupational nouns of the textile industry and the products they are related to, including data both from the Lc(1)-set and other tablets.12 Our goal will be to determine to what extent naming a group of textile workers after a textile product or activity is consistent with the data that we have about the production of that type of cloth and the distribution of the activities of the textile industry.

12 Unless otherwise specified, the information is found on the Knossian tablets.
Table 18.2. Types of cloth and occupational nouns

<table>
<thead>
<tr>
<th>Type of cloth or textile product</th>
<th>Groups of female workers (occupational nouns)</th>
<th>Masculine occupational nouns</th>
<th>Related nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>pa-we-a ko-u-ra</td>
<td>ko-u-re-ja</td>
<td></td>
<td></td>
</tr>
<tr>
<td>te-pa</td>
<td>te-pe-ja</td>
<td>te-pe-u (?)</td>
<td></td>
</tr>
<tr>
<td>pe-ko-to</td>
<td>PY pe-ki-ti-ra</td>
<td>e-ro-pa-ke-ja</td>
<td></td>
</tr>
<tr>
<td>e-ne-ko</td>
<td>e-ne-ko</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o-nu</td>
<td>PY o-nu-ke-ja</td>
<td>TH o-nu-ke-wi (Dat.)</td>
<td>a-ke-ti-ri-ja/ a-ze-ti-ri-ja</td>
</tr>
<tr>
<td>a-ra-ka-te-ja</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to-te-ja</td>
<td>MY to-te-we- (Dat.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ne-ki-ri-de</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>]ru-wo-we-ja</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.1. ko-u-re-ja

The ko-u-ra type of cloth is attested at Knossos, Mycenae, and Pylos. It is obviously a kind of pa-we-a, but no specific understanding of this adjective has been deduced at present. The $\phi$arweha (Gk. φαρος) were sizeable pieces of cloth that could be employed for various purposes, if we can rely on the evidence provided by the Iliad and Odyssey, in which they are used as cloaks for protection in cold weather, for making sails, and also as shrouds. It is precisely a pharos for her father-in-law that Penelope weaves and unweaves to deceive the pretenders in the Odyssey. According to the Mycenean data, the quantity of wool required to produce one pharos was Lana 1 M 2 (= 5 kg).

The occupational noun ko-u-re-ja is only attested at Knossos and is always combined with a place name, as we have already seen – ko-no-so ko-u-re-ja can be read on KN Lc(1) 548 and a-mi-ni-so ko-u-re-ja on KN Lc(1) 550. However, the textile product called pa-we-a ko-u-ra was not only made by the specialized workers ko-u-re-ja, as one might think. We could speculate with the possibility that women working at other places were not so specialized in their tasks and produced a wider variety of cloths. However, according to the extant documentation as seen on Table 18.3, pa-we-a ko-u-ra were made by other groups that are referred to by other occupational nouns and not only by groups referred to by means of ethnic adjectives. The pa-we-a ko-u-ra were thus produced also by the a-ra-ka-te-ja (KN Lc(1) 531), the e-ro-pa-ke-ja (KN Lc(1) 534), and the da-te-we-ja (Lc(1) 540).

Unfortunately, the tablet Lc(1) 548, where the ko-u-re-ja women from Knossos are mentioned, is broken. If, as can be conjectured, it had the same structure as the rest of the set, we would expect it to record quantities of tu-na-no cloth on line 2. The ko-u-re-ja workers would thus not only produce pa-we-a ko-u-ra, but also tu-na-no. The same reasoning is valid for the ko-u-re-ja workers from Amnisos on KN Lc(1) 550.

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13 pa-we-a, ko-u-ra can be read on MY L 710.2. ko-u-ra appears on PY La 623 v., followed by TELA+PA, and is a likely restitution on PY La 630.a ko-[Ju]-ra.

14 Further information about all the types of cloth briefly discussed here can be found in the previous chapter.
### Table 18.3. Types of cloths and groups responsible for their production

<table>
<thead>
<tr>
<th>Type of cloth</th>
<th>Workers responsible for production</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>pa-we-a ko-u-ra</td>
<td>a-ra-ka-te-ja Lc(1) 531</td>
<td>*161 TELA 1 15[</td>
</tr>
<tr>
<td></td>
<td>e-ro-pa-ke-ja Lc(1) 534</td>
<td>*161’ TELA 1 10[</td>
</tr>
<tr>
<td></td>
<td>da-te-we-ja Lc(1) 540</td>
<td>TELA 1 3[</td>
</tr>
<tr>
<td></td>
<td>ko-[u-re-ja] ko-u-re-ja Lc(1) 548 Lc(1) 550</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>ne-we-wi-ja Lc(1) 560</td>
<td>?</td>
</tr>
<tr>
<td>TELA+TE</td>
<td>ri-jo-ni-ja Lc(1) 529</td>
<td>TELA 2 TE 30</td>
</tr>
<tr>
<td></td>
<td>ri-jo-ni-ja Le 642</td>
<td>TELA 1+TE</td>
</tr>
<tr>
<td></td>
<td>[ja Lc(1) 530</td>
<td>TELA+TE 7</td>
</tr>
<tr>
<td></td>
<td>[ja Le 642</td>
<td>TELA 1+TE 2</td>
</tr>
<tr>
<td></td>
<td>tu-ri-si-ja Lc(1) 533</td>
<td>TELA 4+TE</td>
</tr>
<tr>
<td></td>
<td>[ja-pu]-wi-ja Lc(1) 541</td>
<td>TELA 1+TE 22</td>
</tr>
<tr>
<td></td>
<td>qa-mi-ja Lc(1) 543</td>
<td>TELA 1+TE 11[</td>
</tr>
<tr>
<td></td>
<td>qa-mi-ja Le 641</td>
<td>TELA 1+TE 1</td>
</tr>
<tr>
<td></td>
<td>e-ra-ja Lc(1) 561</td>
<td>TELA 1+TE 1</td>
</tr>
<tr>
<td></td>
<td>te-[pe-ja] Lc(1) 549</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>e-ki[-si-ja] Le 5629</td>
<td>TELA 1+TE 2</td>
</tr>
<tr>
<td>tu-na-no</td>
<td>a-ra-ka-te-ja Lc(1) 531</td>
<td>TELA 1</td>
</tr>
<tr>
<td></td>
<td>e-ro-pa-ke-ja Lc(1) 534</td>
<td>TELA 1 1[</td>
</tr>
<tr>
<td></td>
<td>da-te-we-ja Lc(1) 540</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>ko-[u-re-ja] ko-u-re-ja Lc(1) 548 Lc(1) 550</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>te-[pe-ja] Lc(1) 549</td>
<td>?</td>
</tr>
<tr>
<td>pe-ko-to</td>
<td>da-wi-ja Lc(1) 526</td>
<td>TELA 1+TE 10 TELA 1+TE 14[</td>
</tr>
<tr>
<td></td>
<td>e-ki-si-ja Lc(1) 527</td>
<td>TELA 1+TE 2 TELA 1+TE 19</td>
</tr>
<tr>
<td></td>
<td>o-pi-si-ri-ja-we L 8105</td>
<td>TELA 4[</td>
</tr>
<tr>
<td>pe</td>
<td>e-me-si-jo-jo Lc(1) 551</td>
<td>TELA 1+TE 2 TELA 1+TE 10[</td>
</tr>
<tr>
<td></td>
<td>pa-i-ti-ja Le 641</td>
<td>TELA 1+TE 2</td>
</tr>
<tr>
<td></td>
<td>da-wi-ja Le 641</td>
<td>TELA 1+TE 1 [</td>
</tr>
<tr>
<td></td>
<td>Ln 1568</td>
<td></td>
</tr>
<tr>
<td>mi</td>
<td>te-pe-ja Le 641</td>
<td>TELA+TE 3</td>
</tr>
<tr>
<td></td>
<td>pa-i-ti-ja Le 641</td>
<td>TELA 1+TE 14</td>
</tr>
<tr>
<td></td>
<td>do-ti-ja Le 641</td>
<td>TELA+TE 6</td>
</tr>
<tr>
<td>mi-ja-ro</td>
<td>Ln 1568</td>
<td></td>
</tr>
<tr>
<td>o-nu-ke</td>
<td>a-ze-ti-ri-ja M 683, Ln 1568</td>
<td></td>
</tr>
</tbody>
</table>
2.2. te-pe-ja
The word te-pa as such does not appear in the Lc(1)-set. However, it is found on other documents from Knossos (KN L 5090.2, Ws 8153,β) and also from Mycenae (MY Oe 107.1). Many of the tablets of the Lc(1)-set nonetheless record this kind of cloth. On Table 18.4 it can be seen that in many cases the logogram TELA (cloth) has a phonetic complement on it, the transcription of which is TE, that is, the abbreviation for te-pa. te-pa entries are thus found on tablets Lc(1) 525, 526, 529, etc., and they must have also appeared on other records which are now broken.

Te-pa must have been heavy cloths; for the production of one te-pa seven units of wool were needed and that amounts approximately to 21 kg. Although there are some phonetic difficulties, it must be related to the Greek word τάπης. It is significant that we find the adjective οὖλος ‘thick’ qualifying some tapetes in the Iliad (XVI 224). In Homer tapetes are not used as garments, but to make a bed or a seat more comfortable.

We may thus assume that the te[-pe-ja workers mentioned on KN Lc(1) 549 were responsible for the production of te-pa cloths, just like the other groups of workers in this set. However, since that tablet is broken, we cannot know for certain. The word te-pe-ja is also attested at Thebes (TH Of 35.1) and Pylos (PY Ad 921). At Pylos the personal name te-pe-u, which may be simply the masculine form of the noun, also occurs (PY An 340.9).

In this case, according to the extant evidence, the te-pa type of cloth only combines with groups of workers referred to by an ethnic adjective or else identified by a place name or the name of a “collector”. This is interesting when compared to what we just have seen in the case of the pa-we-a ko-u-ra, in the production of which some groups of female workers referred to by other occupational names were involved, too.

Table 18.4. Types of TELA+TE

| 'wa-na-ka-te-ra' | TELA⁺¹·TE 40 | LANA 100 | Lc(1) 525 |
| 'wa'            |              |          | Le 654   |
| 'pe-ko-to'      | TELA⁺¹·TE 10 TELA⁺¹·TE 14 |       | Lc(1) 526 |
| 'pe-ko-to'      | TELA⁺¹·TE 2 TELA⁺²·TE 19 | LANA 153 | Lc(1) 527 |
| pe[-ko-to]      | [TELAK⁺¹·TE] 18 |          | Lc(1) 536 |
| pe              | TELA⁺²·TE 2 TELA⁺¹·TE 10 | LANA 250 | Lc(1) 551 |
| mi-ja-ro        |              |          | Ln 1568  |
| 'mi'            | TELA⁺¹·TE 14 |          | Le 641   |
| TELA⁺·TE 3      |              |          | Le 641   |
| TELA⁺·TE 6      |              |          | Le 641   |

The quality or type of these te-pa cloths can be further specified by means of various adjectives, as shown on Table 18.4. In the KN Lc(1)-set we find the adjectives wa-na-ka-te-ra and pe-ko-to. On tablets KN Le 641 and Ln 1568 (also written by scribe 103) we find the additional mention ‘mi’, which is an abbreviation for the adjective mi-ja-ro, attested on KN Ln 1568.

According to the extant evidence the wa-na-ka-te-ra kind of te-pa were only produced at one place, se-to-i-ja, which is mentioned on KN Lc(1) 525 and on Le 654 (both written by scribe 103).
These *te-pa* must have been of special quality given that they are qualified as ‘royal’ (*wanaktera*, cf. *wa-na-ka*, the Mycenaean equivalent of Gk. ἄναξ ‘lord, king’). Since tablet KN Lc(1) 525 is broken we cannot know whether this involved using even more wool for the production of this cloth.

As for *pe-ko-to*, this word is a verbal adjective in -*to* related to the Greek verb πέκω ‘comb’. It has been proposed that it means ‘shorn’, but this does not make sense given that all the wool must have been shorn before it can be used for producing cloth. J. L. Melena has argued that it refers instead to a special finishing labour, probably the taking of the nap of the garment so that it becomes especially soft.

This *pe-ko-to* variety of *te-pa* was produced by various groups of workers, identified either by an ethnic adjective or by the name of the collector. Interestingly, there exists the occupational noun *pe-ki-ti-ra*, which occurs several times on the Pylos tablets (PY Aa 891, Ab 578.B, Ad 694, etc.) and which can also be safely supplied on two broken Knossos tablets: Ld(1) 656 and Xe 8537, the latter written by scribe 103.

The third possibility is *mi-ja-ro*, usually abbreviated into *mi*. It is the adjective μιαρός, which in first millennium Greek means ‘stained’. In Mycenaean, however, it may mean that the cloth has been dyed. The use of various types of dyes is well attested on the Mycenaean tablets. No occupational noun related to this type of *te-pa* cloth seems to be attested on Linear B tablets, but the *te-pe-ja* are mentioned as responsible for the production of this type of cloth, too (see Table 18.5).

### Table 18.5. Groups of workers producing various types of cloth

<table>
<thead>
<tr>
<th>Groups of workers</th>
<th>Type of cloth</th>
<th>Lc(1) 540</th>
<th>Le 641</th>
</tr>
</thead>
<tbody>
<tr>
<td>da-te-we-ja</td>
<td>pa-we-a ko-u-ra</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[tu-na-no]</td>
<td></td>
<td>Lc(1) 540</td>
<td></td>
</tr>
<tr>
<td>ri-ta pa-we-a</td>
<td></td>
<td>L(1) 594</td>
<td></td>
</tr>
<tr>
<td>te-pe-ja</td>
<td>[pa-we-a ko-u-ra]</td>
<td>Lc(1) 549</td>
<td></td>
</tr>
<tr>
<td>[tu-na-no]</td>
<td></td>
<td>Lc(1) 549</td>
<td></td>
</tr>
<tr>
<td>mi</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.3. *e-ne-re-ja*, *o-nu-ke-ja*, and *a-ke-ti-ri-ja*

We can assume that the *e-ne-re-ja* workers, mentioned on KN Ak(1) 638.A, were responsible for the production of the *e-ne-ro*, mentioned on several tablets dealing with textiles (KN L 695.4, Ai(2) 762). The interpretation of the word *e-ne-ro* is, however, problematic. Its occurrence on the tablet KN L 695.4 (*e-ne-ro re-u-ko N 2*), written by scribe 103, shows that this ‘white (λευκόν) *e-ne-ro*’ is measured as a quantity of wool (roughly equivalent to 500 g) and is not followed by the logogram TELA. This has been used as an argument to defend the theory that it is a kind of thread. The word *e-ne-ro* must be related in some way to the Greek word ἔνεροι (éneroi) ‘those underneath, the dead’, and Melena has argued that this must be the ‘warp’.

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15 See DMic., s.u.
17 It has been proposed that we have *pa-i-to* / e*-ne-re-ja* on KN X 522 (Melena 1975, 89).
This brings us to the problem of how to interpret o-nu, a word which appears on various tablets (KN Od 681, Ln 1568, Ld 584, etc.) and is part of the compounds re-u-ko-nu-ka and po-kiro-nu-ka, meaning, respectively, 'with white o-nu' and 'with variegated o-nu', adjectives which are frequently found qualifying cloths. 19 J. L. Melena argued that o-nu was the weft, 20 but J. T. Killen has defended that it must have been some kind of ornament added to the cloth as part of the finishing process, probably some kind of wedge-shaped ornaments or else the fringes of the cloths. 21 We must acknowledge that it would be unexpected to find that there were workers specialized in producing either the thread of the weft or the thread of the warp and not both, even if their qualities may be different.

There is a feminine occupational noun related to o-nu, o-nu-ke-ja, but, interestingly, this noun does not seem to have been used at Knossos, though it appears on two Pylian tablets (PY Ab 194. B and Ad 675). Instead, at Knossos the noun a-ke-ti-ri-ja/a-ze-ti-ri-ja ἀσκήτριαι (askētriai) is found in contexts that suggest it was these workers who were responsible for the production of the o-nu (KN Ln 1568 and M 683, both written by the scribe 103). 22 On another tablet of this scribe (KN Xe 544.b) we even find the exceptional combination of ethnic name plus occupational name: da-*22–ti-ja / a-ze-ti-ri-ja.

Askētriai is related to the Greek verb ἀσκέω (askéo) ‘work, form by art’. It is interesting to see that in the Odyssey the adjective ἀσκητός (askētós) is used with νῆμα (nêma) ‘thread’ (Od. IV 134), and in the Iliad and the Odyssey we find the formulaic phrase ἦσκειν εἰρία καλά (ḗskein eíria kalá) ‘produce fair threads of wool’ (Il. III 388). It would thus seem that these workers would be particularly concerned with the transformation of wool into thread. 23

### 2.4. a-ra-ka-te-ja

There is yet another occupational noun that is clearly related with the transformation of the wool into thread to be used for the production of textiles. It is one of the nouns found in the Lc(1)-series: a-ra-ka-te-ja ἀλακατεῖαι ‘spinners’ (cf. Gk. ἀλακάτη [élakáte] ‘distaff’). It also appears on KN Ak(1) 5009.C, as well as on some tablets from Pylos (PY Aa 89, 240, and Ad 380) and Thebes (TH Of 34.2). The Greek interpretation of this noun is clear and has not been questioned. 24 It would be expected, accordingly, that they produced spun wool. However, the information provided by the tablet KN Lc(1) 531 shows that this was not the case: just like other groups of female workers they too had to deliver cloths, specifically pa-we-a ko-u-ra and tu-na-no.

If we consider the descriptions of spinning and weaving in the Iliad and the Odyssey, we can gain some insight into why this is so. At Odyssey VII 103–106 we read:

And fifty slave-women he had in the house, of whom some grind the yellow grain on the millstone, and others weave webs, or, as they sit, twirl the yarn, like unto the leaves of a tall poplar tree; and from the closely-woven linen the soft olive oil drips down. 25

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19 See Luján 1996-1997, 347–349, with further references.
22 The masculine noun a-ke-te ἀσκητήρ occurs twice on PY Jn 832, but in this case it refers to an activity related to bronze smiths.
24 See DMic., s.u.
This passage shows that the same female slaves were responsible for spinning and weaving. In fact, in the *Iliad* a formulaic way of telling a woman to mind her own business is to ask her to busy herself with the loom and the distaff, as shown, by the following passage from *Iliad* VI 490–492:

Nay, go thou to the house and busy thyself with thine own tasks, the loom and the distaff, and bid thy handmaids ply their work. 26

Even more than with other nouns, the case of the Mycenaean *a-ra-ka-te-ja* is a caveat against assuming, without further support from the sources, that the occupational noun by which a given group of workers was referred is sufficient proof that a univocal relation can be established between that noun and the actual activity that the group carried out.

### 2.5. Other occupational nouns

The noun *e-ro-pa-ke-ja* is attested on KN Lc(1) 534.B. It also appears on KN Ld(1) 595.1 and on a tablet from Mycenae (MY Fo 101.9). Its interpretation is uncertain, although it is generally agreed that it must refer to an activity inside the textile industry. 27 The masculine noun *e-ro-pa-ke-u* is attested at Knossos too (KN As 4493.2), showing thus that the activity referred to could be performed by both women and men. Like other groups in the Lc(1)-set the *e-ro-pa-ke-ja* women had to produce *pa-we-a ko-u-ra* and *tu-na-no* cloths; this cannot be used therefore as an indication of what their specific activity was.

Similar problems arise when deciphering the obscure nouns *ne-ki-ri-de*, and *ne-we-wi-ja*, mentioned on tablets written by scribe 103. For the former, if a relationship to Gk. νεκρός (nekróς) ‘corpse’ is possible, the interpretation ‘shroud-makers’ or the like would seem to follow. As for *ne-we-wi-ja*, as already stated, we are not even sure this is an occupational noun, just like *da-te-we-ja*. 28 The latter are responsible for the production of various types of cloth, as we saw on Table 18.5 above.

Finally, the noun *to-te-ja* should be mentioned for the sake of completion. It does not appear in the Lc(1)-set, but it is attested on a tablet written by the scribe 103 (KN Ak(1) 611.1) and can be possibly supplied on KN X 7846.b, where *to-te* is to be read. The masculine form *to-te-we-* (Dat.) can be found on a tablet from Mycenae dealing with wool (MY Oe 106.1). J. L. Melena suggested that these *to-te-ja* produced rougher garments from which the nap has not been plucked, so that their product would be the opposite to the *pe-ko-to* type that we saw above (§ 2.2). 29 The most probable interpretation of this term seems to be *stórteiai*, thus makers of a cloth called *to-ta stortá*, which is not directly attested in Mycenaean (cp. Gk. στόρνυμι ‘spread’ and στρώματα ‘bedcloths’).

* * *

The analysis of the structure of the tablets of the Lc(1)-set from Knossos provides special insight into how Mycenaean scribes actually used the rich and developed terminology related to cloths and textiles available to them.

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26 Translation by Murray 1965.
27 See *DMic.*, s.u. for the various proposals.
28 See *DMic.*, s.uu.
Particularly important is the relationship between the products and the activities of the textile industry and the occupational nouns used to refer to certain groups of female workers responsible for the production of various types of cloth. Some of these occupational nouns are clearly derived from the nouns of those products or activities and provide additional key information in the field of textile terminology.

However, a careful study of the data provided by the Linear B tablets, especially those written by the scribe 103 from Knossos, clearly shows that we cannot take for granted that there is a univocal relation between the meaning of the occupational noun given to a specific group of workers and the actual activity performed by that group. We have found deviations in various ways: first, groups of workers who are not specialized in the production of the item after which they are named, such as the te-pe-ja, who produce te-pa but also tu-na-na; second, groups that carry out other activities than is to be expected according to their designation, such as the a-ra-ka-te-ja, who not only spin but also weave; third, textiles manufactured not only by the workers named after that product, but also by other groups, as is the case with the pa-we-a ko-u-ra, which were made not only by the ko-u-re-ja, but also by the e-ro-pa-ke-ja, a-ra-ka-te-ja and da-te-we-ja.

Linear B tablets are an invaluable source of textile terminology that can shed light on practices concerning textile production in the Bronze Age. However, the study of the relation between nouns and other data available, that is, the study of Mycenaean textile terminology at work, provides a cautionary lesson against arriving at quick conclusions.

Abbreviations


Bibliography


### Appendix I: Structure and contents of KN Lc(1)-set

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19. Les textiles néo-assyriens et leurs couleurs

Pierre Villard

Une caractéristique de la documentation néo-assyrienne sur les textiles est l’existence d’une très riche iconographie, qu’il n’est cependant pas toujours facile de relier aux sources écrites. Les bas-reliefs, fresques ou ivoires qui offrent de nombreuses représentations de costumes, mais aussi de textiles faisant partie du harnachement des chevaux ou du revêtement des machines de guerre, ont déjà fait l’objet de nombreuses études, parmi lesquelles celles de Kristine Brown ou de Stephanie Dalley.¹

Malgré le grand intérêt des représentations figurées, ces études soulignent aussi les limites de l’entreprise. S’il est possible d’analyser l’évolution des formes et des décorations, principalement pour les habits d’apparat ou les uniformes, il est plus difficile d’identifier les matières, les textures ou les techniques.² Il demeure surtout hasardeux, sauf dans quelques cas, d’identifier les vêtements représentés à des termes apparaissant dans la documentation écrite.

Les visées de la présente étude sont plus modestes. Elle se propose, à partir des sources écrites, d’une part de réfléchir sur l’organisation de la nomenclature des textiles à l’époque néo-assyrienne et d’autre part de présenter ce que l’on peut connaître de leurs couleurs.

1. Les listes de textiles

Étant donné que de nombreux termes ne peuvent encore recevoir d’équivalence précise, il n’est pas aisé de déterminer les catégories selon lesquelles les pièces d’ habillement ou étoffes étaient classées. Une manière d’aborder la question consiste à envisager et à comparer les divers types de listes enregistrant des textiles, en commençant par celles dont la nature semble la plus claire.

1.1. Listes de tribut

Les listes de tribut incluses dans les inscriptions royales mentionnent fréquemment des textiles parmi les objets de valeur, mais sans y consacrer une très grande place. La formule standardisée, *lubulti birme u kitù, « étoffes multicolores et étoffes de lin »* revient le plus souvent,³ avec

2 Voir cependant les importantes contributions d’Oppenheim 1949 et Barrelet 1977.
3 Cf. e.g. Tadmor 1994, 56:1’, *kuš am-si zú am-si sīg-za-gîn-sa, sīg-za-gîn-gî, lu-bul-ti bir-me tûg-gada-meš luʼ*bulʼ-[ti]
quelquefois des mentions chiffrées, allant jusqu’à 3000 pièces reçues du royaume de Damas selon la stèle d’Adad-nērārī III et Nergal-ērēš de Tell Al Rimah.\(^4\) Il est également parfois mentionné que ces étoffes figurent au nombre des produits de grande valeur\(^5\). Les évocations plus précises restent cependant rares.\(^6\)

En dehors des inscriptions royales, les mentions d’étoffes provenant de tributs sont relativement rares. On peut néanmoins mentionner un document administratif du temple d’Aššur, enregistrant 338 textiles (kuzippu) originaires du pays de Hamath\(^7\) ou la lettre de Sennacherib à Sargon II (SAA 1 34), dressant l’inventaire de divers produits, dont des étoffes, provenant de présents d’audience (nāmurtu) ou de tributs (maddinatu) et distribués au palais et à de hauts dignitaires. Outre 15 tentes (tūg-zārūtu) haséennes destinées au palais, il est fait mention en assez grandes quantités d’étoffes de lin (kītū) et de šaddīnu.

Certains de ces termes ont manifestement une valeur générique. C’est le cas pour kuzippu, utilisé pour faire la somme d’habits de diverses sortes, et qui doit donc à cette époque signifier quelque chose comme « textile »\(^8\). D’autre part, lubulti birme est une expression qui ne se trouve que dans les inscriptions royales.\(^9\) Les textes de la pratique utilisent simplement birmu, pour désigner des textiles multicolores,\(^10\) īspar birme\(^11\) étant le nom du tisserand capable de les produire. Le mot birmu a généralement été compris comme désignant des garnitures de type passementerie fixées aux vêtements de luxe,\(^12\) mais M.-Th. Barrelet n’écartait pas l’hypothèse d’autres procédés pour la création d’étoffes décorées, tissage ou broderie.\(^13\) Lubulti birme peut donc correspondre à une « pièce d’habillement pourvue de parures multicolores » mais aussi à toute sorte d’étoffes décorées. Dans les deux cas, l’expression semble fonctionner comme un générique pour divers types de vêtements ornés de motifs. Quant au terme kītū, qui correspond à l’étoffe de lin en général, il peut aussi renvoyer à une forme standardisée de vêtement, comme ce pourrait être le cas dans SAA 1 34.\(^14\) En revanche, le šaddīnu dont on peut préciser qu’il est de byssus\(^15\) ou de lin,\(^16\) ou grand,\(^17\) doit correspondre à une forme particulière.\(^18\)

\(^4\) Page 1968, 142:7, 3 lim lu-bul-ti bir-me ū gada-meš.


\(^6\) Pour un exemple de description d’un vêtement dans une liste de butin, voir ci-dessous, note 78.

\(^7\) STAT 3 1:35.

\(^8\) Radner 1999, 117.

\(^9\) CAD B, 258a, s.v. birmu ; CAD L, 235a, s.v. lubuštu.

\(^10\) E.g. SAA 7, 70i:2’, ou SAA 16, 84:r.12.


\(^12\) E.g.CAD B, 257b, s.v. birmu ; Dalley 1991, 126.


\(^14\) La traduction « tunic » proposée dans Parpola 1957, 35–36 et 216, reste purement conventionnelle.

\(^15\) SAA 1, 34 :11, 4 1̂̀gād-din bu-ši. Cf SAA 7, 63:r. iii 3’.

\(^16\) CAD S, 17, s.v. saddinna.

\(^17\) SAA 1, 34:12, 10 1̂̀gād-din kalag-meš.

\(^18\) Parpola 1987, 35–36 et 227 propose la traduction « toga ». 
1.2. Les dots

Parmi les documents juridiques, les dots, bien qu´assey peu nombreuses, présentent l´intérêt de documenter à la fois des « étoffes d´ameublement » et des vêtements. Les informations les plus intéressantes à cet égard proviennent de deux textes de Kalhu.

CTN 2, 1 est un fragment de contrat de mariage dont il ne reste que l´inventaire de la dot. Parmi les items dont la lecture est sûre, sont enregistrés deux dappastu, [x] SI-LUH, [x] ḫissiptu ša puškāyi, [x] 1/2 ša-hili de laine rouge, des ḫissiptu de laine pourpre accompagnés de textiles-, 6 nahlaptu ordinaires, deux ša-hili, 4 gulēnu, soit en tout 32 textiles (tūg-pa-meš), suivis de divers ustensiles.

L’autre document, ND 2307 = FNALD n°14 est le contrat de mariage de la fille d’une gouvernante du harem (šakinu) du nouveau palais de Kalhu. L’inventaire de la dot comprend d´abord des métaux précieux et des bijoux, suivis de textiles de prix, puis d´objets divers de moindre valeur, parmi lesquels d’autres textiles (l32–33) et enfin de petits ustensiles domestiques.

Dans la liste des textiles de valeur, on trouve des kuzippu, dont deux de laine rouge « du port » (kāri), des urnutu dont deux de laine rouge « du port » et plusieurs de lin, des huzūnu et des tūg-Uš, le tout étant estimé à la somme de 9 mines et 34 sicles d´argent.

Dans la liste des objets de moindre valeur, on trouve, après la mention d´un lit de bronze et d´un marchepied de cuivre un rouleau de ḫuṣuff, deux dappastu, deux qirmu, un gulēnu, ainsi que deux gammidu, un šaddīnu de lin, dix É-SAG, des kuzippu, trois urnutu dont un de lin, des tūg-Uš et des huzūnu.

Il est clair qu´une partie des textiles mentionnés dans ces inventaires correspondait à des pièces d´étoffes plus qu’à des vêtements. Ce doit être le cas du ša-hili, que l’on peut partager en deux selon CTN 2, 1, du qarrāru, qui peut se présenter enroulé, et aussi du ḫissiptu, pièce d’étoffe coupée selon la suggestion de J. N. Postgate. Certaines étoffes apparaissent quant à elles comme des éléments de literie, comme on peut le voir en comparant ces inventaires de dots avec SAA 7, 117, un mémorandum concernant le mobilier d’un temple qui enregistre deux dappastu, un qirmu, un gulēnu, un qarrāru, un tūg-SI-LUH « tout cela se rapportant au lit du temple de Šēru’a ». On a manifestement ici un ensemble de literie, mais faute de savoir exactement comment les Assyriens se couchaient, il reste difficile de déterminer la fonction de chaque élément. « Couverture » pour dappastu, « dessus de lit » pour qarrāru, « oreiller7 » pour SI-LUH sont davantage des propositions

19 Radner 1997, 163–164.
23 ND 2307 = FNALD n° 14:14–21.
24 ND 2307 = FNALD n° 14:22–33.
25 Il s´agit probablement d’une autre réalité que la qualité ūš attestée à Mari pour des vêtements de laine. Cf. Durand 2009, 14–16.
26 ND 2307:20–21, pap 9 1/2 ma-na 4 gín kù-babbar an-ni-ū e₁₁, u, bā-la-ta kù-babbar an-ni-e « Cela ressort à 9 mines 34 sicles d´argent. » La formule qui suit sert à introduire la section suivante de l’inventaire : « Non inclus dans cet argent. »
28 Postgate 1973, 37 n. 2. En faisant dériver le terme de kasāpu, qui semble prendre forme néo-assyrienne de kasāpu.
plausibles\textsuperscript{30} que des traductions assurées. D’autant que nous ne savons pas si ces dénominations se rapportaient à des fonctions précises ou simplement à des types d’étoffes.

Les autres items mentionnés dans les inventaires de dotts pourraient être des vêtements, mais il n’est jamais précisé qu’il s’agisse de vêtements spécifiquement féminins. On notera enfin que l’ensemble des rubriques de CTN 2, 1 est repris dans le total par tūg-pa-mēš\textsuperscript{31}. La lecture de cet idéogramme reste incertaine,\textsuperscript{32} mais pourrait être kuzippu, terme utilisé dans l’inventaire du temple d’Aššur\textsuperscript{33} pour faire la somme de textiles de diverses formes.

\textbf{1.3. Ensembles vestimentaires}

Pour ce qui concerne les textiles pouvant servir à l’habillement, les rares textes présentant des ensembles vestimentaires, soit des pièces d’habillement susceptibles d’être portées ensemble et destinées à une personne ou à un petit groupe, apportent des indications précieuses.

Une lettre adressée à Sargon II par Nabû-šumu-lēšir, responsable militaire en poste en Babylone (SAA 17, 122), mentionne les riches habits remis à un membre de la famille royale nommé Abu-erbiba: une robe-kusītu, un ša-hili, des musīptu en rouleau\textsuperscript{34} de Tukriš. Le kusītu est connu pour être une robe, généralement de valeur, entrant en particulier dans l’habillement du roi, des hauts dignitaires et des dieux. Elle est ici portée avec un ša-hili et des musīptu,\textsuperscript{37} qui ne doivent pas être des habits ayant une forme précise, mais plutôt des pièces d’étoffes susceptibles d’être drapées par dessus une robe.

Pour un ensemble plus complet, on peut considérer un document (SAA 11, 28) qui enregistre la contribution-ilku d’un individu, manifestement destinée à l’équipement d’un militaire. Sont enregistrés un šupalītu halluptu, un gulfēnu, un couvre-chef (kubšu), un šipirtu, un urnutu, six mines de laine, un sāgu, des outres, des sandales neuves.\textsuperscript{38}

Il doit s’agir de l’équipement standard d’un homme appelé à se déplacer avec un minimum de protection, puisque l’on retrouve plusieurs de ces items dans une liste de présents remis à des émissaires urartéens (SAA 7, 127) : des šupalītu halluptu, dont deux noirs, deux paires de jambières\textsuperscript{7} (šahartu), deux paires de sandales, deux elītu noirs, deux ša-Iš,\textsuperscript{39} deux šipirtu.

Dans son très bel article, « Assyrian Uniforms », J. N. Postgate a étudié en détail les divers éléments de l’équipement militaire et a pu proposer une série d’équivalences.\textsuperscript{40} Dans ces contextes, le nahlaptu, pourvu d’une encolure,\textsuperscript{41} est une sorte de manteau, qui peut être éventuellement

\textsuperscript{30} Fales & Postgate 1992, XXIX.
\textsuperscript{31} CTN 2, 1:12’.
\textsuperscript{32} Postgate 1973, 28.
\textsuperscript{33} StAT 3, 1:35.
\textsuperscript{34} L’expression est difficile à comprendre. Le CAD K, 217b, s.v. karku, traduit «musīptu-garment of twined (?) thread », Dietrich 2003, 108 proposant « a threaded work dress ». On pourrait aussi songer à un adjectif dérivé de kirkū, « rouleau », terme qui peut s’appliquer à des textiles. Cf. CAD K, 408, s.v. kirku B, qui cite un texte néo-babylonien (Nbk. 369 :2), où le mot est associé à un musīptu.
\textsuperscript{35} SAA 17, 122:7–9 tūg-bar-dib, šā-hī-ib lāmu-šī-pe-tī, kar-ke-e-tī ša tuk-riš.
\textsuperscript{36} Oppenheim 1949, 179 ; Postgate 2001, 378–379.
\textsuperscript{37} « A standard size piece of cloth » selon le CAD M II, 242, s.v. musīptu. Ces étoffes pouvaient être décorées par des ornements d’or. Cf. Oppenheim 1949, 173.
\textsuperscript{38} SAA 11, 28:11–15.
\textsuperscript{39} S’agit-il d’une étoffe destinée à se protéger de la poussière (šahar) de la route ? Voir Fales & Postgate 1992, XXIX.
\textsuperscript{40} Postgate 2001, 387.
renforcé par du métal, pour constituer une sorte d’armure.42 Elītu, « vêtement de dessus » désignerait le châle à franges porté par dessus les autres habits, le sāgu serait une sorte de kilt, le sipīrtu une ceinture tissée,43 le gulēnu et l’urnutu des sortes de tuniques. Enfin, le šupālītu, « vêtement de dessous » serait une chemise, qui renforcée, formerait une sorte de cotte de mailles (šupālītu halluptu).

1.4. Inventaires administratifs divers
Les autres documents administratifs dans lesquels apparaissent des textiles sont assez variés.

A Ninive, des listes d’objets divers, généralement précieux, comportent quelques pièces d’étoffes,44 mais on dispose aussi d’une série de textes qui ne concernent que des textiles (SAA 7, 93–116).

De Kalhu, provient un court billet (CTN 2, 152), probablement attaché à un sac contenant des étoffes : des traces de tissu sont en effet visibles sur la partie inférieure, anépigraphe, du verso.45


Toutes ces étoffes, provenant du pays de Hamath et conservées en partie dans un qabūtu,47 étaient placées sous l’autorité d’un économe-lahhinu.48 Malgré la présence de « cottes de mailles » (šupālītu halluptu),49 mais il ne s’agit pas d’un élément discriminant,50 car l’ensemble des étoffes qu’ils enregistrent ne diffère pas sensiblement de ce qui apparaît dans le reste de la documentation.

Or des remarques similaires peuvent être faites à propos des autres documents administratifs du corpus. Certains mentionnent des šupālītu halluptu,51 mais il ne s’agit pas d’un élément discriminant,52 car l’ensemble des étoffes qu’ils enregistrent ne diffère pas sensiblement de ce qui apparaît dans le reste de la documentation.

Par ailleurs, les fonctions précises de ces documents, parfois mal conservés et souvent de

42 Cf. SAA 7, 89r.8, gū-ère urudu, nahlaptu de cuivre.
43 Ces pièces étaient réalisées par des tisserands spécialisés, appelés išpār șiprāti. Cf. e.g. SAA 7, 115r. i 7.
44 E.g. SAA 7, 117, 119, 120, 124, 126.
45 Postgate 1973, 165.
46 Voir ci-dessous, section 2.4.
47 On songe à un coffre (de grande contenance !), mais le terme désigne ordinairement un contenant de métal ou une sorte de bol ou cuve. Voir CAD Q, 43–44, s.v. qabūtu.
48 STAT 3, 1:35–37.
49 SAA 7, 97, 102, 104, 105, 108, 109, 119, 124, 126, STAT 1, 38:4, 9–10. STAT 1, 38:9–10 enregistre en particulier un šupālītu halluptu pour gammidū, ce qui suggère que le gammidū doit probablement être rangé dans la catégorie des habits.
50 Pour un avis différent, Fales & Postgate 1992, XXVIII.
formulation elliptique, ne sont pas toujours faciles à déterminer. On peut cependant supposer que la tablette provenant d'une archive privée d'Aššur a été réalisée après l'inventaire d'un coffre,\footnote{Pour une mention de coffre servant à ranger des étoffes, cf. SAA 7, 119:ii 14', 1 giš-é-šu-quip-pu sud, « un coffre en bois pour textiles, vide. »} puisqu'elle dresse la liste des étoffes manquantes.\footnote{Stat 1, 38:11, [pa]b an-ni-u mu-tu-te-e « Total de ce qui manque. »} Pour ce qui concerne des documents provenant du palais de Ninive, les quantités parfois très importantes des textiles\footnote{E.g. SAA 7, 101:r1 (total de plus de 300 étoffes) ; SAA 7, 104:r.5' (total de plus de 700 étoffes) ; SAA 7, 112:3' (400 textiles fournis par [NP] et r.1–3 (1500 nahhaptu fournis par Udini).} ou des fibres fournies\footnote{E.g. SAA 7, 110, 111, 115, 116.} qui y sont mentionnés témoignent de l'activité des ateliers et de l'ampleur des magasins du palais. Il est également probable que certaines de ces listes furent établies lors de la fourniture à des invités ou de la récupération de textiles à l'occasion de diverses cérémonies organisées dans les palais. Selon SAA 7, 112, l'un des responsables chargé de fournir des vêtements était aussi chargé d'organiser des banquets.\footnote{SAA 7, 112:4'-9', Idpaš-e-zib-an-ni...} Dans d'autres cas, les distributions devaient concerner des personnes résidant de façon permanente dans le palais. Un court billet portant la date du 2-i₂-658 (SAA 7, 93) enregistre ainsi la livraison de deux habits-maqātu bēte (d'intérieur\footnote{E.g. SAA 7, 107:r.3', [0 0 0 0 gú]-la bē-te ša mi-méš.}, de la part d'un certain Ibbiya, dans le quartier domestique (bētānu). Et l'on peut aussi signaler la mention dans SAA 7, 107 de capes-hullānu d'intérieur\footnote{SAA 7, 115:ii 4–5, sab 2 me 74 gū-un, sīg-gada, r. i 9, sab 1 me 9 gū 10 ma, r. ii 2, sab 30 gū 21 ma-na.} pour des femmes »,\footnote{SAA 16, 82 et 83.} qui est d'ailleurs pour ce corpus la seule attestation explicite d'habits féminins.

2. Qualifications, descriptions et couleurs
La liste importante, quoique non exhaustive des noms de textiles néo-assyriens mentionnés jusqu'ici, reste assez frustrante, car il n'existe dans la plupart des cas que peu d'indices pour proposer des traductions bien argumentées. Au moins, la documentation existante fournit-elle parfois des informations concernant les qualités de textiles, la façon de les décrire et les couleurs utilisées pour les teindre.

2.1. Qualités de textiles

2.1.1. Les fibres

\footnote{Pour une mention de coffre servant à ranger des étoffes, cf. SAA 7, 119:ii 14', 1 giš-é-šu-quip-pu sud, « un coffre en bois pour textiles, vide. »}
(et il m’a dit) : ‘nous fournirons de la laine rouge provenant du palais et eux agiront selon leurs instructions.’ J’ai aussi questionné Aplāya (et il a dit) : ‘Ils nous donneront de la laine rouge. Les tisserands d’Ištar d’Arbèles viendront (la) travailler à Kurbail’ ».59

Les autres fibres ne sont que très rarement mentionnées. Le byssus, tissu très fin et de grande valeur, réalisé à partir de filaments produits par des mollusques,60 était réservé à quelques vêtements de luxe. Quant au coton, il demeurait une curiosité, même si Sennacherib se vante d’en avoir cultivé dans ses jardins : « on tondit les arbres porteurs de laine et on en tissa (le produit) pour faire des vêtements ».61

Par ailleurs, il est parfois précisé avec quelle fibre étaient réalisés certains types de textiles. Pour les étoffes de laine, sont ainsi attestés des kisiptu (CTN 2, 1:7’-8’), des kuzippu (FNALD 14:14) des maqātu (SAA 7, 111:2), des ša-hili (CTN 2, 1:6’) et des urnutu (FNALD 14:15).


2.1.2. Les origines
Dans quelques cas, la mention d’un textile est accompagnée par un ethnique, qui constitue peut-être une indication des origines, mais pourrait aussi se référer à une forme particulière ou à un type de finition. On rencontre ainsi au fil des textes des muṣiptu de Tukriš (SAA 17, 122:8–9), des urnutu de Gubla (SAA 7, 108:r ii 4), des cottes de maille phrygiennes (SAA 7, 126:4), des nahhaptu guréennes (SAA 7, 112:r 1–2, SAA 7, 115:ii 18), un niksu d’Akkad (StAT 3, 1:31), un SI-LUH du Tabal (StAT 3, 1:24) ou des chaussures cimmériennes (SAA 7, 120:ii’ 8–9).

On trouve d’autre part assez fréquemment les mentions kur, « du pays » ou kar, « du port », pour qualifier certains textiles. En certaines occurrences, ces mentions permettent de distinguer des habits ou pièces d’étoffes qui présentent par ailleurs les mêmes caractéristiques, par exemple dans SAA 7, 98 : « [x] qirmu, le « front » rouge, du port […], [x] idem, le « front » rouge, du pays […] ».62 Il pourrait s’agir ici d’une distinction entre des productions locales et des étoffes de fabrication étrangère obtenues par le grand commerce. On remarque aussi que ces qualificatifs peuvent aussi s’appliquer à de la laine, par exemple dans SAA 16, 8263 et 83.64

2.1.3. L’état et la finition
Les inventaires mentionnent enfin régulièrement le degré d’usure des textiles. La liste du temple d’Aššur (StAT 3, 1) oppose ainsi les pièces neuves (gibil) aux vieilles (sumun).65 Dans StAT 1, 39, la distinction se fait entre les textiles neufs (gibil) ou élimés (qalpu),66 terme que l’on retrouve dans CTN 2, 152.

59 SAA 16, 54:12–r 11 a-na 'ba-la-si-i, as-sa-'a-al, R. ma-a sig sa₄₅, ta ša é-gal ni-dan, ma-a šá-nu a-na tè-mi-šú-nu, ep-pu-šú, à a-na 'a-ia, as-sa-'a-al ma-a sig sa₄₅, id-da-nu-na-ši, ma-a lú-uš-bar-meš, ša 4₁₅ ša u₇₅arba-šu, il-la-ku-u-ni, ina u₇₅kur-ba-il ep-pu-šú.
60 Dalley 1991, 121.
62 SAA 7, 98:9’-10’, [x] qirmu, le « front » rouge, du port […], [x] idem, le « front » rouge, du pays […].
63 Voir ci-dessus, n. 58.
65 STAT 3, 1:21 et 34.
66 Postgate 1973, 165.
Les textiles néo-assyriens et leurs couleurs

Par ailleurs, biršu, « de texture grossière » ou « feutré » peut qualifier toutes sortes de textiles de laine. Il pourrait s’agir de l’indication d’un type de finition ordinaire. On peut aussi noter la mention isolée de 70 maklulu de troisième qualité. Enfin, le qualificatif zakiu s’applique à un qirmu noir dans StAT 3, 1:12. Il ne s’agit probablement pas d’une étoffe nettoyée, mais comme J.-M. Durand l’a mis en évidence à propos de la documentation de Mari, d’un type de finition donnant au tissu un aspect brillant.

2.2. Les éléments descriptifs

Si les inventaires donnent rarement des descriptions détaillées, il est parfois précisé que certains textiles sont pourvus d’un « front » (zag, pūtu), qui peut correspondre au devant, mais plus probablement au petit côté. StAT 3, 1:10–11 enregistre en effet 38 niks blancs, dont la longueur (ús) et la largeur (zag) sont rouges. D’autres étoffes comportent une bordure (nīgīn) et plus rarement, il est fait mention d’une « queue » (kun, zibbutu) qui s’oppose au front.


D’autres éléments descriptifs apparaissent ça et là. Certaines pièces d’étoffes (maklulu, kuzippu) sont décorées de pierres,73 sans que plus de précisions ne soient données. D’autres sont qualifiées par le terme sāiu,74 qui signifie peut-être « à point noué ». Par ailleurs, les noms de végétaux ou d’animaux (grenade, bovins, caprins),76 que l’on trouve parfois associés à des textiles correspondent sans doute à des motifs décoratifs, de même peut-être que les « dessins » (uṣurtu) associés à un ša-GIL.77

Les documents administratifs ne comportent pas de descriptions plus détaillées, mais on peut relever dans la célèbre lettre de Sargon II à Aššur, dans la liste du butin réalisé lors du pillage du temple du dieu Haldi à Muṣašir, une évocation précise quoique difficile à comprendre d’habits

67 Cf. SAA 7, 95, 96, 97, 98, 99, 100, 102, 105, 107, 109, 119.
68 SAA 7, 112:r 4 70, muk-lāl ša-la-šu-te.
69 Faist 2007, 13.
70 Durand 2009, 137–138.
71 SAA 7, 107:2’ [...] x zag kun-tū. Les autres occurrences interviennent dans des passages encore plus lacuneux.
72 Le maqāṭu est un textile qui comporte normalement un « front » puisqu’il est précisé dans SAAVII 107:r 9’, nu zag, « sans front ».
73 SAA 7, 96:7’, 2 muk-lāl bir zag ša, na, –[meš 0], « deux maklulu, feutrés, le front rouge, avec des pierres […] » ; SAA 7, 97:13’, 1 ku-zip-pi na, –[meš 0], « une pièce d’étoffe, avec des pierres. »
75 Fales & Postgate 1992, 221.
76 SAA 7, 109:ii 2’ [...] ditto ditto ditto nu-ūr-ma ; SAA 7, 109:ii 2’–3’, 1 ur-nat gi, nīgīn za[g 0], sa-a gud, « un urnutu noir, avec une bordure, le front […] , noué, (avec) un bovin. » Cf. SAA 7, 109:iv 4’ ; SAA 7, 109:4’ 1 ditto ditto nīgīn māš, « un (urnutu noir), avec une bordure, (avec) un chevreau. »
77 SAA 7, 108:r ii 6’ [00 ša-GIL giš-hur-meš.]
destinés à revêtir des statues divines : « 9 vêtements de sa tenue divine, dont les gaufrures étaient garnies de disques d’or et de rosettes d’or formant un liseré ».

2.3. Teintures et fibres teintes

Une grande partie des étoffes étaient teintées, mais la documentation écrite néo-assyrienne reste assez peu éclairante pour ce qui concerne les techniques et colorants utilisés. Les listes de tribut des annales mentionnent assez souvent la laine teinte de pourpre rouge (argamannu) ou bleue (takiltu), mais sans donner davantage de détails. Il s’agissait toutefois de produits très prisés et en une occasion, le rédacteur des annales de Tigrath-phalazar III mentionne même une curiosité sous la forme de « moutons vivants dont la laine est teinte de pourpre ». On peut également citer la lettre de Sargon II à Assur, qui mentionne parmi le tribut pris sur Mušašir : « 130 étoffes multicolores et étoffes de lin, de la laine pourpre bleue et de la laine à tisser de couleur rouge des pays d’Urartu et Kíllu ».

Quelques lettres font aussi allusion à des fournitures de fibres teintées ou de produits utilisés pour la teinture. La fin d’une missive de Sennacherib à Sargon, à propos du tribut de Commagène, montre que la laine teinte d’origine étrangère était un produit suffisamment prisé pour intéresser les marchands : « Ils ont aussi amené de la laine rouge. Les marchands m’ont dit : “nous avons choisi là-dessus 7 talents, mais les Commagéniens n’ont pas été d’accord et ont dit : ‘qui pensez-vous donc être ? Vous n’avez pas à choisir (vous-mêmes). Qu’on apporte (la laine) pour que les tisseuses du roi fassent ici leur choix’” ». La production locale existait cependant. Dans une de ses lettres à Assarhaddon, Marduk-šarru-ušur se plaint de ce que les livraisons attendues ne lui aient pas été fournies : « 31 talents de fil de lin, 80 talents de laine rouge du pays, 7 talents de (laine) noire du pays, 30 talents d’alun, 10 talents de natron, en tout 158 talents ». La présence dans cette liste de natron et d’alun, servant de mordant, montre que les ateliers dont ce personnage était responsable s’occupaient à la fois de teinture et du traitement des fibres teintées. On trouve d’ailleurs un autre témoignage de cette activité dans un document administratif (SAA 7, 116), qui se présente sous forme de tableau. La première colonne enregistre des quantités de laines rouges, la seconde des quantités de garance (hūrutu, rubia tinctorum), la troisième comporte une série de villes des provinces occidentales d’où ces produits étaient originaires. Enfin, un autre document administratif (SAA 7, 110) répertorie les quantités de laines rouges et noires nécessaires à la fabrication de diverses étoffes.

84 SAA 16, 82:5–10, 31 gú-un ti-nu gada, 80 gú-un šig sa, kur, 7 gú-un (šig) gi, kur, 30 gú-un na,ga-bu-u, 10 gú-un na ni-ti-ru, pab 1 me 58 gú-un.
85 La nature des produits est explicitée en ṣ 4’, qui récapitule les rubriques précédentes [... g]ú hé-med 60 gú giš-hab x x, [x] talents de laine rouge, 60 talents de garance [...]. »
2.4. Les couleurs des textiles

Pour connaître l'utilisation de ces fibres teintes, les inventaires apportent des indications précieuses en précisant assez fréquemment les couleurs des textiles. Sont ainsi attestés le multicolore (birmu), le pouppe avec les nuances rouge et bleu, le rouge (šāmu), le blanc (pešū), et le noir (salmu).

En considérant d’abord les textiles pour lesquels une seule couleur est mentionnée, on peut dresser la liste suivante.

2.4.1. Textiles poupres
Kišiptu de laine-argamannu (CTN 2 1:8'); pariktu de laine-takiltu (StAT 3, 1:29)

2.4.2. Textiles rouges
Dappastu de laine rouge (tabrību) (StAT 3, 1:18); elītu (SA 7, 105:11'); kusītu (SA 7, 105:7'); kuzippu de laine rouge (FNALD n° 14:14) SI-LUH rouge sombre (sa gi₆) (StAT 3, 1:20); SI-LUH de laine rouge (SA 7, 105:5'); šahartu (SA 7, 96:9'); ša-hīli de laine rouge (CTN 2, 1:6'); ša-IŠ (SA 7, 105:7'); urnutu de laine rouge (FNALD n° 14:15)

2.4.3. Textiles blancs
Kitû (StAT 3, 1:3 2); kubšu (SA 7, 105:11'); nahlaptu (StAT 3, 1:26); nīksu (StAT 3, 1:10); šubātu (StAT 3, 1:16); šubātu ša muhhi šarri (StAT 3, 1:30); šupālītu (SA 7, 94:1)

2.4.4. Textiles noirs
Dappastu (StAT 3, 1:19); elītu (SA 7, 127:8'); šupālītu halluptu (SA 7, 127:9')

2.4.5. Textiles multicolores
Parmi les textiles comprenant plusieurs couleurs, les textiles dits multicolores, c’est-à-dire comportant probablement des motifs, étaient les plus estimés. Les inscriptions royales montrent qu’ils étaient réservés aux plus hauts personnages de l’État. Dans les textes administratifs, les attestations sont les suivantes : kusītu (SA 7, 99:1, 105:6'); ceinture-nēbetu (StAT 3, 1:25); qarrāru (StAT 3, 1:9); qirmu (StAT 3, 1:23); sasuppu (StAT 3, 1:28); ša-IŠ (SA 7, 105:6').

2.4.6. Textiles à plusieurs couleurs
Si le terme birmu semble avoir été réservé aux étoffes à motifs, il arrivait assez fréquemment que des textiles soient ornés de bords d’une autre couleur, réalisés peut-être au moyen de bandes de tissu cousus à la pièce principale. Les inventaires précisent dans ce cas la couleur du « front » ou de la bordure : le rouge est alors de loin la couleur la mieux représentée, le noir venant ensuite.

Sur les couleurs des textiles, le témoignage des sources textuelles est en partie confirmé par les fresques subsistantes et les traces de couleurs encore visibles sur les bas-reliefs des palais.85 Le vert et le jaune sont cependant totalement absents de la documentation écrite, alors même qu’ils figuraient sur certains textiles représentés dans le décor des palais.86

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85 Albenda 2005, 66–69.
86 Cf. e.g. le génie ailé vêtu de jaune et vert sur une brique peinte du palais de Sargon II à Khorsabad : Albenda 1986, Pl. 150.
Il n’existe malheureusement presque pas de textiles anciens conservés, mais on a néanmoins retrouvé dans le bâtiment M de Sultantepe une pièce de tissu ornée de perles. Le décor présente des rangées de losanges, alternativement blancs avec une bordure rouge sombre et rouges avec une bordure jaune. Malgré leur intérêt, ces données sont insuffisantes pour permettre des comparaisons fructueuses.87

* * *

Au terme de cette étude, deux points méritent d’être soulignés. Pour ce qui concerne les principes organisant la nomenclature des textiles néo-assyriens, on constate que les termes renvoient plus souvent à une forme qu’à une fonction précise. Par exemple, dappastu est généralement traduit par « couverture ». Mais il s’agit d’une étoffe qui peut aussi bien être de laine que de lin.88 Dans ce dernier cas, il s’agirait plutôt d’un drap. En outre, les scribes croient parfois utile d’indiquer « dappastu de lit »,89 précision qui laisse entendre que l’étoffe pouvait servir à d’autres usages, par exemple de manteau. On remarquera aussi que des maqāṭu, des hullānu ou des sasuppu qui semblent être respectivement des sortes de toges, des capes et des serviettes, sont parfois dits « de maison », ou « d’intérieur » (bēte).90 Là encore, ces termes doivent renvoyer à des formes d’étoffes dont on peut préciser la fonction particulière. Dans le même ordre d’idée, on peut signaler l’existence d’une « étoffe pa-[...] de salle de bain ».91

Pour ce qui concerne les couleurs, la documentation écrite, qui ne présente qu’une palette assez restreinte et probablement inférieure à ce qui existait dans la réalité, est sans doute biaisée par le prestige associé à certaines couleurs. Dans une longue lettre où il est question de malversations à Gūzāna, le compte-rendu d’un conseil tenu entre les hauts dignitaires de la province contient à cet égard une indication intéressante : « Šamaš-ēmuranni, le gouverneur, a tenu conseil avec Palti-Iaū et Nerī-Iaū disant : ‘À qui devons-nous faire allégeance ?’ Eux ont (répondu) au gouverneur : ‘À celui qui t’a revêtu de laine rouge et t’a donné le bracelet d’or et la dague d’or’ ».92

On dispose par ailleurs dans les inscriptions royales de multiples témoignages montrant que le don d’étoffes multicolores était pour les rois un moyen d’honorer leurs serviteurs. Les vassaux en recevaient parfois et le geste de Sennacherib en revêtant les travailleurs qui avaient creusé son canal dut être ressenti comme un honneur exceptionnel.93

Tout cela montre que les inventaires dont nous disposons, où la couleur rouge domine et où les étoffes à motifs sont bien représentés documentent principalement des textiles de valeur. Provenant du palais où de riches particuliers, ils ne donnent pas forcément une image fidèle des couleurs que portaient les Assyriens de l’époque, mais reflètent plutôt la mode du moment, avec sans doute des influences occidentales marquées, et les goûts d’une élite.

88 Voir ci-dessus, section 2.1.
89 SAA 7, 97:9‘, 6 6$ dá-p-pa-sat giš-ná ; SAA 7, 105:4‘.
90 Pour le maqāṭu, SAA 7, 93:1, 94:4, 104:2‘. Pour le hullānu, SAA 7, 107:x 3‘. Pour le sasuppu, SAA 7, 120:ii’ 4–5.
91 SAA 7, 120:ii‘ r 1–2, 1 106pa-x-[0 0], é-ra-ma-ki.
93 Luckenbill 1934, 82:33.
19. Les textiles néo-assyriens et leurs couleurs

Abréviations

CAD Chicago Assyrian Dictionary, Chicago.
CTN Cuneiform Texts from Nimrud, Londres.
OIP Oriental Institute Publications, Chicago.
ND Documents de Nimrud/Kalhu; Londres et Bagdad.
SAA State Archives of Assyria, Helsinki.
SAAS State Archives of Assyria, Studies, Helsinki.
STAT Studien zu den Assur-Texten, Wiesbaden.

Bibliographie

20. Textile Terminology in the Neo-Babylonian Documentation

Francis Joannès

The vocabulary related to the treatment of textiles is far from simple, since it is often dependent on and closely associated with a given moment in the history of techniques. For example, mukabbu, which refers to a Babylonian worker, can be translated into English as a “mender” or more exactly a “clothes mender” according to the CAD. In French, however, it is translated according to the – quite poetic – activities of the professional designation, such as “rentrayeur”, “stoppeur”, “piquirier”, “éplucheur”, “épinceteur”, “raccoutreur”, “nopeur”, and, when this person works with leather, “bichonneur”. On the other hand, it is not easy to provide an exact translation, for instance, of the Akkadian term lubāru, which frequently appears in Neo-Babylonian textile terminology, as it is at the same time a fabric (French: “tissu”), a cloth (French: “étoffe”), a garment (French: “vêtement”), as well as a dress or a suit (French: “habit”).

Nonetheless, in the current paper my intention is not to present the various aspects of the terminology of textile. Two major studies recently published, one by P.-A. Beaulieu, the other by S. Zawadzki, provide an exhaustive answer to many questions concerning the use of textiles in the Neo-Babylonian temples. Rather, my overall aim is to follow the production processes from the shearing of wool to the finishing of garments, mainly in the great Babylonian institutions of the 1st millennium BC. I will also examine the degree of documentation (i.e., recorded in detail, less documented, and no documentation at all), and the possible explanations for such differences in the levels of documentation. We will then examine the acquisition and storage of the raw textile material, followed by the first technical operations on the textile, especially the spinning and the weaving, and finally the manufacturing of fabrics.

1. Acquisition of the textile fibres

The concept of “wool circulation” has not been adequately illustrated or understood, despite the abundance of written attestations in connection with textile production. This state of affairs is due to the unevenly distributed documentation of the large institutions in 1st millennium BC

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1  CAD M₄, 181b.
3  Zawadzki 2006.
Babylonia: we know when, who, and with which teams of workers the sheep shearing took place, i.e., generally during springtime. However, the following stage, the storage of the wool and how it was allocated to the spinners, remains scarcely documented.

1.1. Storage of the wool
What happened with the wool before it was spun? There were apparently three possibilities:

- direct allocation to the temple workers or to the royal palace workers, in relation to their system of maintenance: this refers to the “lubuštu/síg-ba” allocation.
- insertion into commercial networks. This suggests that most Babylonian families did not have sufficient wool resources for their personal use and that they had to buy it from peddlers. This would be most true for urban families; it is likely that the rural communities always kept a few cattle on hand.
- finally, wool was allocated to craftsmen to be processed, by means of an iškaru-contract: sometimes private families, mainly specialised workers in the service of the sanctuary, received wool to be transformed into a fixed number of pieces of cloths. It appears that most of the people in the weavers’ workshops were working outside the temple, since there is no mention of a factory or a workshop in the inner area of the Babylonian sanctuaries.

It must be noted, however, that in the temples, the wool was inspected and divided into several qualities and destinations: one qualification of the wool was termed “sattukku’s wool”, which was probably reserved for the manufacture of the gods’ clothes.

There are only scattered attestations of the places where the wool was stored. In Sippar, some wool came from the bīt qāṭi, i.e., a (or a group of) warehouse(s): BIN 1 26 is a letter, the sender of which asks for two talents of wool to be taken from the “northern building” (in the temple). He insists that the recipient of the letter should not take wool that is kept in store for the weavers. Accordingly, the sanctuary of Šamaš in Sippar contained several buildings with that name, one of them located at the main entrance of the temple. In the same bīt qāṭi, garments made of linen were kept and piled up in wicker-baskets (nakmaru). Other storage buildings are known, sometimes without more detailed information. It is clear, however, that the finest wool reserved for weaving was kept in well-identified locations. Finally, the wool could have been stored in the royal warehouses, as shown by the text Nbn 788.

Even if there is no specific vocabulary in connection with textile terminology, it is still possible to reconstruct a part of the wool circulation. For example, a group of cuneiform dockets concerning women in charge of spinning in the palace of Dūr-Yakīn, under the reign of Merodach-baladan II, the Chaldean king of Babylon, provides evidence for an interesting case study. It is a set of 24 clay dockets, each of them with a hole for attaching a cordon: these dockets consequently must have been tied to something. Each of them includes:

- A personal name (at least 16 of these are female names).
- An affiliation, probably administrative, following the formula “ša + (masculine) name”; most of these names, like Bāba-alsika-abluṭ, Hamkānu, Marnalu or Šin-ereš, appear several times.
- A date, consisting of the month (always the eleventh) and the year of the reign of Merodach-baladan II (ninth, tenth, eleventh and twelfth years). For one docket, the date is unknown.

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4 Zawadzki 2006, 38.
5 ina sig-hā šā ina ē-tu₉₃-si-sá 2 gun sig-hā kapdu šūbila ana muhhi sig-hā ša išpari la taqarrub.
6 1 gun sig-hā ultu šatūmmi šarrī ana lubušṭi ša Šamaš.
One distinctive feature of these dockets is that they were found in different places: primarily in Khorsabad, but also in Kalhu, and even in Ur. The presence of the tags has been associated with the capture and plunder in 709 BC of the southern capital of Merodach-baladan II, the city of Dūr-Yakin, which was totally destroyed in 707 by Sargon II of Assyria. The explanation proposed by J.-M. Durand for the *raison d’être* of these dockets is rather convincing: the dockets were tied to bundles of wool ready to be spun and which were already assigned to workers. After the capture of Dūr-Yakin, these bundles would have been carried to Assyria, with their dockets, and subsequently distributed between several Assyrian royal palaces. According to G. van Driel, however, the shearing operation took place in southern Babylonia mainly during the spring. The dating of the dockets, i.e., referring to month eleven, is therefore not in accordance with the shearing time. We thus have to imagine an intermediate period of several months, between the time of shearing and the time of the distribution of wool to the workers in the palace of Dūr-Yakin and of the preparation of the wool for spinning. It seems equally possible here that this was not combed wool for spinning, but wool already spun and prepared as bundles of yarn ready for weaving.

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7 Durand 1979.
This wool must have been the yearly quota of raw material assigned to female weavers either working in a royal workshop or working at home according to the system of an īškaru-contract; that is, a contract of employment by which a major economic institution supplies the raw material (and sometimes the equipment itself) to some individuals, provided they deliver back the finished product after a certain period of time.

There are some other scattered references concerning an allocation to spinners of the wool collected by the large Neo-Babylonian religious or royal institutions. For example, in the text *BRM* 1 7, we find such an allocation for spinning or for combing of eight talents (210 kg) of wool with the aim of producing combed wool. ⁹

The process of combing the wool was referred to in Akkadian by the term ṣuppu or ṣuppātu according to the CAD, which considers ṣuppu an Aramaic loan, a term denoting “a strip (or layer) of combed wool”. ¹⁰ This product is thus mentioned in the text *Nbk* 286 next to ishunu, another kind of strip. ¹¹ In *Nbn* 222, we find the transfer of strips of red combed wool (ṣuppātu ša tabāri) by an īspar birmi (“weaver of multicoloured cloth”) to a mukabbu (“mender”): this transfer seems to concern mainly wool used for repairs.

For the time being, there has been only one reference to the process of spinning: in *CT* 56 454: rev. 8, we find the purchase of spindles (pilaqqu) by the temple of Šamaš, for [x] shekels of silver given to an individual. ¹²

Regarding linen, the finest quality of this textile was often imported as a fabric already woven. ¹³ Furthermore the mention of “byssus” (Akkadian būṣu) as a fabric of extra-fine linen is only attested in texts from the neo-Assyrian period or, for Babylonia, in texts dated to the beginning of the 1st millennium. Thereafter būṣu is no longer recorded.

However, in addition to imported linen, there was also linen of local origin. The discussion by S. Zawadzki¹⁴ concerning the linen fabrics referred to by the Akkadian words salhu/šalhu and qatān indicates that at least qatān denotes that the fibres were in a state in which they were ready to be woven. A possible translation could be “bundle of linen”, which could well correspond to the modern expression “bundle of yarn” ready for weaving, that is to say, retted, beaten, combed and spun.

### 1.2. From spinning to weaving

Spinning yarn (called ṭīmu, ṭīmutu or ṭimātu) was either of wool or linen. The references to yarn might concern not only the raw material, but also yarn already dyed (sometimes imported) and allocated directly to specialised craftsmen: actually it was chiefly for embroidery, or for sewing together pieces of complex sets of clothing.

As noted by S. Zawadzki,¹⁵ the mixture of wool and linen, which is prohibited in the Bible (Lev.

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⁹ sig-há zi-ga mu-ni, 8 gun mí-uš-bar-meš, a-na sig pu-šik-ki, iti izi u, 20–kam, mu 7–kam 4nà-pap lugal.
¹⁰ CAD § p. 249 b.
¹² CT 56 454:rev. 8 [x] gin kù-babar šá a-na pi-la-qu a-na utu-sig,-KAL sì-[na], [......] x ½ gin kù-babar ina pi-la-qí 1 gin re-hi.
¹³ cf. CT 2 40, for instance.
¹⁵ p. 32, note 70.
is not a priori excluded in the Mesopotamian texts. However, except for a single example of the manufacture of a curtain (tunšū) mixing wool and linen – perhaps only for embroidery or for strengthening the edges – there is no example in the administrative records of the textile documentation of such a mixture.

1.3. Manufacturing the fabrics

References to the next stage, i.e., to the process of weaving strictly speaking, are almost totally absent in the textual documentation. This activity is in fact strongly attached to a home-made production. It seems logical to suppose that the īsparu weavers carried out their activity for the Ebabbar temple either at home or in specialised workshops for those fabrics demanding more elaborate work. Women are also mentioned as producing fabrics. The text Dar. 43, for example, makes clear that widows taken care of by the Ebabbar temple had to weave three coats (gulēnu) a year for the temple. The yearly gulēnu coat, which is practically never attested in a religious context, but is considered private clothing, seems to be the standard production of one person working in a private environment. Finally, a text from Uruk, published by M. Jursa, dated to the year 31 of Nebukadnezzar II, reveals the functioning of the system in temples. We can deduce from this reference that an individual weaver at home could produce at least 2.5 kg of wool fabric in 6 months. But it cannot be concluded that 5 kg of wool would yield only 2.5 kg in terms of fabric. Without doubt, the remuneration of the weaver has to be included in the initial allocation.

2. Technical operations on the textiles

The management of fabrics and garments is especially well documented by the administrative documentation of the Neo-Babylonian temples. However, the management appears complex due to the fact that two spheres of economic and artisanal activity are linked: on the one hand, a group of highly specialised craftsmen, authorised to work within the sanctuary and to use expensive dyeing materials, especially the different kinds of purple, and, on the other hand, another group of craftsmen working outside, in their urban family workshops. As already noted by H. Bongenaar, however, some of these outside specialists were oblates, i.e., slaves of the temple, and it is often mentioned that they live in houses rented to them by the temple of Šamaš. The analysis by S. Zawadzki of the Sippar documentation is particularly enlightening from this point of view: he shows without doubt that there was a vertical division of labour, with a succession of stages like shearing / spinning / weaving / bleaching / dyeing / and final ornamentation. Each of these stages required the intervention of a specialised craftsman. Simultaneously, however, there was

16 Dar. 43: “Among them, Idintu, Mistaia and Bažitu will have to supply, from their own production, 3 gulēnu-coats a year, following the rules of the īškaru, to the god Šamaš” (ina lîb-bi ʾi-DIN-tu, ʾi-is-ta-a u ʾba-zi-tu, (6’) ina mu-an-na 3 tūg gu-le-en īš-ka-ri a-na ṣatu (7’) ta ra-man-ši-na i-nam-din-na-ʾa).

17 Cf. the texts (NBDMC)-Michigan 47, where a woman has to weave a gulēnu-coat a year, and VS 5 24, where in the yearly obligations of the gardener of Tābiya appears the production of one gulēnu-coat for his landowner, from 5 mana of wool supplied to him by Tābiya.

18 Jursa 1997, n°13: “5 mana of clothes, equivalence of 10 mana of wool, property of the Treasury of Ištar and Nanaia are charged on Tu quània. She will have to deliver it in the month of Duʾuzu” (5 ma-na tūg mi-ḥi-ši šām 10 ma-na šig-hā nīg-ga ṣaṭān ša unūkī u ṣa-na-a ina ugu ṣu qa-na-a dumu-mi-su ša iš-en-mu-gar-un ina iti šu ta-nam-din).


a horizontal division of labour depending on whether wool or linen was used, or whether simple wool or purple wool was used, and so on. This system produced specialisations (for instance ašlāku and puṣṣayu) which took place together at a given stage of the fabrication process or at several levels, such as the ḫṣparu, whose job was to weave and to finish the garments. From this we can see a kind of grid, which can seem very complex and not rational, but which in fact has its own logic.

Moreover, in the administrative documentation of the neo-Babylonian temples, at least two systems of circulation of the textiles can be found: on the one hand, a circuit of manufacture from the raw material until the final decoration; on the other hand, a circuit of maintenance, implying cleaning and restoration for the re-using of the gods’ clothes. All these operations correspond to terminology which can be summarised in a table, although of course not exhaustive:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Assyrian</th>
<th>Babylonian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shearing</td>
<td>gāzzû</td>
<td>gāzikû</td>
</tr>
<tr>
<td>Spinning</td>
<td>ṭamû</td>
<td>tāmîtu</td>
</tr>
<tr>
<td>Weaving</td>
<td>kašâru, šâpû, maḥâšû</td>
<td>ḫṣparû</td>
</tr>
<tr>
<td>Fulling</td>
<td>[ašlākûtu epēšu (?)]</td>
<td>ašlāku</td>
</tr>
<tr>
<td>Bleaching</td>
<td>pûṣû</td>
<td>pūšâya, ašlāku</td>
</tr>
<tr>
<td>Cleaning</td>
<td>zîkûtu</td>
<td>ašlāku</td>
</tr>
<tr>
<td>Dyeing</td>
<td>saḥ/pû, šubîtû</td>
<td>ḫṣpar birme, šâbû</td>
</tr>
<tr>
<td>Finishing</td>
<td>šâpû(?)</td>
<td>ḫṣparu</td>
</tr>
<tr>
<td>Repair</td>
<td>batqa šâbâtû</td>
<td>mukabbu</td>
</tr>
</tbody>
</table>

It has also been noted that the jobs of the ašlāku and the pūšâya are still quite unclear: it seems that when a new garment was given to them for work, they had to bleach it; on the contrary, when the garment had already been worn, they mostly had to clean it. But many other questions remain, for instance, concerning the nature and format of the products used as dyes: dyeing products were mostly of vegetable origin, with the exception of the mineral alum used as mordant. The use of yarn already dyed is also well attested, as shown by some allocations of blue or red purple wool, of which is said they are given for repair (ana batqa): certainly, this concerns dyed yarn.

As demonstrated in the written inventories of clothing taken from storage for the divine processions (ana tabê), the management of the different sets of clothing was a rather complicated task: clearly, entirely new clothes (eššû) manufactured especially for these occasions are combined with “old” clothes which had already been used for a while (labîru). Thus, we can conclude that the garments of the gods were not kept in the Treasury for a very long time, nor that such clothes were cleaned frequently. As a consequence of the continual search for a completely pure environment for the divine statues, the ceremonies of clothing (lubûštu) mostly implied a presentation of new clothes.

At the same time, however, we may assume that most of the really valuable clothes (especially those made of fine linen) were kept safely in coffers or some kind of chests in the Treasury of the temple: a text dated to the Hellenistic period reports, for instance, the fact that the Seleucid king Antiochos III visiting Babylon had the opportunity to see the ceremonial coat of Nebukadnezzar II, preserved for three centuries in the Treasury of the Esagil.

Finally, it should be noted that there is no attestation of simple manufacture of garments in
the records of allocations to specialised craftsmen; on the contrary, there are numerous records of transfers of precious or rare products from the temple’s store rooms: chemicals for bleaching, and also products for dyeing as well as bundles of purple wool of various shades. Such distributions to craftsmen resulted in many administrative documents in the form of receipts and inventories.

Besides the operations of laundering, dyeing, and repair, the craftsmen certainly also intervened to decorate the edges or the main surfaces of cloth. Techniques included binding, fringes, hems, embroidery or braiding. There are only few indications of these activities, but P.-A. Beaulieu, resuming a study by L. Oppenheim, collected data concerning the application of ornaments made from precious metal on the kusītu dress, the mēṭu garment, and the nēbeḫu belt of the statues of Ištar and others goddesses in Uruk. He terms these ornaments of precious metal “sequins” in the form of lions, stars, crosses and rosettes. The manufacture of these pieces of gold or silver introduced a new type of craftsmen, specialised in the processing of precious metals, into the circuit of garments.

Moreover, besides wearing single-coloured garments and multi-coloured garments decorated with ornaments or combining elements of different colours, the divine statues were decorated with great assemblages of jewellery, particularly on the headgear, which combined complex headdress with ornaments in precious metals and stones.

3. Neo-Babylonian clothing

As has been noted before, there is not always a clear distinction between “fabric” and “garment” in the neo-Babylonian terminology. P.-A. Beaulieu considers, for instance, mihšu a generic term which can designate either a coat or a fabric. S. Zawadzki establishes the basic signification of the Akkadian šibtu as a fabric that was probably rectangular and draped to form a garment. On the other hand, some inventories mentioned rolls of a fabric called kirku, a term of Aramaic origin.

It is well known that during the Neo-Babylonian period, some very general designations were used for clothing such as mušiptu or tūg-kur-ra, for which the best translation would probably be “dress” (in French: “habit”). According to M. Roth, in her article concerning the Neo-Babylonian dowry, the word mušiptu is “a generic term for garments” and may refer to small or large, simple or complex garments. The same generic function is fulfilled by the Sumerian sequence túg-kur-ra, even if it is not the ideographic equivalent of Akkadian mušiptu.

The same use of generic designation may be applied to the word lubāru as a kind of standard garment; for instance, in some Neo-Babylonian contracts of sale, a clause is added concerning a gift for the seller’s wife, with the expression: “... the dress for the owner’s wife”. In some cases, lubāru is even substituted by túg-há.

Finally, the frequent designation širʾam/sariyam of Aramaic origin applies to a common outdoor garment, a sort of coat or military jacket. It seems to be the secular equivalent of nahlaptu, which during the Neo-Babylonian period applied only to religious or royal ceremonial-dress.

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22 Cf. in TBER 93 a kirku “woven at home” (ša ina bīti māḫšu).
23 Roth 1989/90.
24 lubāri ša bēlet bīti.
As a matter of fact, the entry šir‘am in the CAD\textsuperscript{25} shows that during the Neo-Babylonian period, a great variety of šir‘am existed, found mainly in the text Nrg 28 from the Ebabbar-archive, combined with designations such as:

\begin{itemize}
  \item šir‘am ša zikārī “men’s š.”
  \item šir‘am ša kitī (ša) amīlti “linen š. for a lady”
  \item šir‘am ša kitī “simple linen š.”
  \item šir‘am ša tabārī “red š.”
  \item šir‘am ša inzahurēti “blue š.”
  \item šir‘am ša qallatu “made of red purple wool”
  \item šir‘am ša sīg hé-me-da “small š.”
  \item šir‘am ša zikē “red š.”
  \item šir‘am ša kitē “linen š.”
  \item šir‘am ša inzahurēti “blue š.”
  \item šir‘am ša sīg hé-me-da “small š.”
\end{itemize}
and so on ...

To conclude, two main facts must be considered concerning textiles and clothing during the Neo-Babylonian period: we have, on the one hand, some very precise and functional terms for the garments created for and adapted to specific occasions and mainly used in the luxurious environment of the temples; on the other hand, we have many quite vague cloth and clothing designations, often of Aramaic origin, and commonly used for the ordinary people. To identify the exact meaning and translation of the name of garments remains almost impossible, but we do have the possibility of perceiving some general features or combinations in costumes like headdress/coat/belt. The investigation of these features can lead to a better understanding of the series of garments mentioned in the Neo-Babylonian administrative documentation.

\textbf{Abbreviations}

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>CAD</td>
<td>The Assyrian Dictionary of the Oriental Institute of the University of Chicago. Chicago (1956–).</td>
</tr>
<tr>
<td>CT</td>
<td>Cuneiform Texts from Babylonian Tablets in the British Museum. London.</td>
</tr>
<tr>
<td>CTN</td>
<td>Cuneiform Texts from Nimrud. London.</td>
</tr>
<tr>
<td>JA</td>
<td>Journal Asiatique.</td>
</tr>
<tr>
<td>NBDMC</td>
<td>S. Michigan coll.</td>
</tr>
</tbody>
</table>

\textbf{Bibliography}


\textsuperscript{25} CAD S, 314b.
21. Garments in Non-Cultic Context  
( Neo-Babylonian Period)

Stefan Zawadzki

Research on the terminology of garments, clothes and fabrics in non-cultic contexts encounters a fundamental obstacle caused mainly by the character of the documents on which they are based. Whilst for studies of garments of the gods great importance is given to the so-called tabulated lists enumerating garments taken from a temple’s wardrobe to be repaired or cleaned and returned before the celebration,¹ no such category of documents exists for the study of the textile terminology in non-cultic context. The production of garments in private houses did not need written documentation.

1. Sources

The abundance of documents concerning the textile industry, which comes mostly from temple archives, should be interpreted with great caution to prevent the drawing of false conclusions. Let us take an example of the prosopographical data. Among weavers in the Neo-Babylonian temple household only a few names of women are known, which might be interpreted as proof that the manufacture of garments there was almost exclusively in the hands of men. Such an opinion might be based on the data from the Neo-Babylonian Ebabbar temple at Sippar. Except for the woman called Muranātu who appears quite often,² the names of only two other women are known: Rī’du³ as a member of the group of five weavers, and Ubartu as manufacturer of garments for the lubuštu ceremony for the month Arahsamnu;⁴ additionally Dar 43 mentions three women manufacturing garments for the Ebabbar temple as their labour assignment (iškaru). The poverty of data is striking and it is in sharp contrast with the data from Old-Babylonian Mari,⁵ where the

¹ The texts which are discussed in Zawadzki 2006, will be published in his Garments of the Gods, Part II: Texts (abbreviated: GG II). I would like to thank John MacGinnis for his comments and improvement of my English.
³ Unpublished BM 66172: 4’.
⁴ See BM 69225 (= GG II 494). She was supplied with blue-purple wool and made her job in the workshop called bīt asī. For the meaning of the term, see the comments to GG II 494.
⁵ A few years ago I had the chance to familiarize myself with the Mari documents concerning the manufacture of the textiles when Jarosław Maniaczyk, Ph.D., studied them while preparing his dissertation written under supervision of prof. J-M. Durand and myself.
number of women manufacturing cloth is quite high.⁶ The difference can easily be explained, i.e. in the Neo-Babylonian period the temple textile industry was organized in the prebendary system, owned by men, while in Mari the textile industry was an important part of the palace economy, located partly in the women’s interior quarter of the palace. At least some of the ladies mentioned in the documents from Neo-Babylonian Sippar appear probably because they inherited the prebends of their fathers, who might have had no male successors.⁷

2. Basic terminology

In the Neo-Babylonian period the textile terminology in non-cultic context appears mostly in documents dealing with the following categories:

- dowries⁸
- issues of rations (as an obligation to a benefactor)⁹
- payment for wet-nurses¹⁰
- as part of the soldier’s uniform¹¹
- worker’s clothing¹²

where garments are only one component among many others such as real estate, slaves, silver, food, furniture, etc. Some texts used the terms in their precise meaning, in other the terms are used in their generic meaning, simply to stress that the person is obliged to provide a regular supply of clothes to another person (wet-nurse, former owner who gave his property for a care, etc.). It means that the same term can describe a specific garment or only denote “clothing” in general, regardless of their specific function. In such different meanings the terms lubuštu, lubāru,¹³ musištu, but also tūg-kur-ra were used.

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⁶ It seems that similar situation was also in the Neo-Babylonian palace economy, see Kleber 2008, 246 ff. (5.3. Textilherstellung im Palast).
⁸ For analysis of garments terminology in such a context, see Roth 1989/1990, 29–33.
⁹ Cf. for example Nbn 697 (Wunsch 1993, No. 211), where Iqīša freed his slave under the condition he would supply him with kurummatu and lubuštu. However, the freed slave escaped and Esagila-ramat, the wife of Iddin-Marduk/Iqīša took over the care of Iqīša supplying him with ipri piššatu u lubuštu. In such a situation Iqīša cancelled the previous agreement and established the woman as the owner of the disloyal slave. Cf. also VS 5, 21 (= NRV 12) from Dilbat where Uraš-šum-iddin who was ill, asked his daughter Ṭabatu for care because his brother disappeared and his son escaped. According to an agreement a father established his daughter the heir of his measurement (mandidūtu)–prebend for the ration (kurummatu) comprising ipri piššatu u lubuštu, obliging himself not to sell the prebend, not to grant it to anybody else, and not give it as a pledge or deduct any (other) expenses. For other such texts, see CAD under ipru, piššatu and lubuštu. Cf. also VS 5 47 (Baker 2004, No. 31) establishing the supply of one gulēnu garments yearly by the adopted son to his adoptive father.
¹¹ Concerning soldiers’ uniform, see MacGinnis, in press.
¹² No special studies exist, although the data appears in many documents. The most popular were tūg-kur-ra and širam garments.
¹³ The lubuštu appears in a document establishing a type of remuneration for a person who needed special care, for example because of old age or illness, see examples cited in Note 9. It is interesting to note that in the contract concerning the sale of real estate in which additional payment (atru) and a garment are sometimes added to the full price, the garment is always described with the term lubāru, cf. for example Cyr 345:26 (sale of a built plot in the district Šuanna in Babylon); Cam 423:15 (sale of a plot with a derelict house and a hut in the district Tē in Babylon); Nbk 4 (sale of a small plot with a derelict house in the same district as in the previous document); Wunsch 1993, No. 292,
Let us consider first the term lubāru, which usually describes clothing in general. The term does however have a more specific meaning in Uruk in comparison with Sippar. In Sippar the lubāru is an outer dress of three gods: Šamaš, Bunene and Adad, and only one goddess: Anunītu, while the outer dress of goddesses (except Anunītu) was called kusītu. In Uruk the situation is more complicated as some goddesses (but not all, an exception is for example Nanaya) could be dressed in a lubāru, made of white wool, the heaviest item in their dress, but their wardrobe (again with four notable exceptions: Bēlti-ša-Rēš, Uṣur-amassu, Urkayītu and Ladies) also contained a kusītu, comparable with the kusītu of goddesses in Sippar. Might the lubāru be dressed over the kusītu? A positive answer can be suggested, as the weight of lubāru of Lady-of-Uruk was more than double that of the kusītu. This suggests that lubāru was a very large loose poncho laid over the richly adorned kusītu. The tradition of Sippar was different, as lubāru did not belong to the attire of goddesses there.

How to explain such a difference between these two cultic centers? At least one of a few possibilities is that there existed in society an association of lubāru with the highest or dominant position of a deity, held in all important cities by gods, except for Uruk, where the dominant positions were held by goddesses. By dressing the goddesses in Uruk in the position of a deity, held in all important cities by gods, except for Uruk, where the dominant position, comparable to the position of gods, was stressed. It should be noted, however, that known texts from Sippar and Uruk never mention adornments of the lubāru with precious metals or precious stones; such adornments concern exclusively the kusītu and mušiptu garments. One can say that some goddesses in Uruk had two outer garments – the lubāru, and when this was taken off, a kusītu.

Evidently the term mušiptu was also used in such a broad manner. This is clear from BM 76968/72, where mušiptu describes 13 items enumerated earlier as a part of a dowry. A similar situation appears in Stigers, No. 42 where the first line, to be treated as a heading, reads “garments and household goods of the abarakku” (tāš-mu-ṣi-p-tu₄ ʾu-ʾdi-e šá šaḫ ur-agrig), followed by a listing of túg-ṣeš-ra šuš, lubāru ša qabli, and one additional garment which cannot be identified due to the condition of the tablet. Basing herself only on first text, M. Roth recognized that mušiptu “is a generic term which may be used to refer to several types of garments”. It seems true, and one can add additional observations, based on a few details present in some other texts. For example, according to Dar 530 mušipētu were placed rolled in the chest (arannu); rolled mušipētu, in addition to túg-šuš-šuš, were mentioned also in Nbk 369. This means that, after having been taken of, off, they could have been easily rolled up. If so, the mušiptu must be a rather large piece of fabric or cloth, which could be shaped around the person. Specific threaded mušipētu, typical of the region around Tukriš are mentioned in the Neo-Assyrian letter.
that the term is almost always used in non-military contexts. I know only one text BM 70342, where muṣiptu were given to soldiers who went on a military expedition, but in all other cases muṣiptu was a term describing civilians’ clothes. This is supported by BM 103452: 16, where the garments stolen from a private house are designated muṣiptu. In one text muṣiptu was part of remunerations paid to a wet-nurse.

The túg-kur-ra usually refers to a specific garment, but sometimes, as demonstrated by BM 63956, the term can have a generic meaning:

BM 63956 (= Bertin 1441); collated:
1. 3 túg-kur-ra la ḫi-ri
2. 6 ṭuššil-ta-pi ḫi-ru-[tu,]
3. 5 túg-kur-ra ḫi-ru-t[u]
4. pap 14 túg-kur-ra-m[eš ...]

In this text īltapi is recognized as a special type of garment included in the general category of túg-kur-ra garments. However, the same term could also be used in a highly imprecise way as is demonstrated by the comparison of two texts, where in the first one the name of the garment is written ideographically túği-a, for which the syllabic writing lubāru is well established, while in the second, where evidently the same garment is meant, the ideogram túg-kur-ra is written. In fact túg-hiₐ = lubāru cannot be the same as túg-kur-ra, for which the reading lubāru is excluded.

CT 55, 859
1. ½ ma-na 6 gín1 sig-za-gin-kur-ra
2. a-na túg-hiₐ šá duṭu û
3. Bu-ne-ne

There are many texts similar to BM 59621 where 30 shekels are given for lubāru (túg-hiₐ) of Šamaš and 6 shekels for lubāru of Bunene, so it is evident that túg-kur-ra in BM 59621 stands for túg-hiₐ. Although two different ideograms are used, obviously the same garment, lubāru is meant in both texts.

A similar imprecise use of a term concerns taḫapšu denoting a type of blanket used as cover and made quite often of old used items, such as salḫu or kibsu. However, in BM 65145, instead of the typical data that the garments listed below are destined for the lubuštu ceremony, we have the entry [sâ] ta-ḥap-s[ú .../ [sâ u]d-15-kam “for the taḫapšu of the 15th day” what is unparalleled. A similar situation appears in BM 70592, where Ardiya, the well-known weaver producing multi-coloured cloths, received wool “for (manufacturing) the blanket for the month Ayaru” ([a]-na

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21 Edited by Zawadzki 2003, 280*.
23 Cf. also BM 64880 (MacGinnis 1998, No. 4: 9) where muṣiptu denotes also garment in general.
25 Cf. also BM 73306: 4’-7’ (Appendix No. 3).
26 In the many parallel texts published in GG II the writing túg-hiₐ or lu-ba-ri, ṭuššu-lu-ba-ra, ṭuššu-lu-ba-ri, ṭuššu-lu-ba-ru is used.
27 See GG II 455.
28 Additionally it should be noted that túg-kur-ra is not noted as a garment for the gods.
30 See GG II 275.
31 See GG II 423.
Garments in Non-Cultic Context

21. ta-ḫap-šú šá iti-gu₄), again instead of expected a-na lubuštu šá iti-gu₄ “for the lubuštu ceremony in the month Ayaru”, known from many other parallel texts.

The problem, which in my opinion is not definitely resolved concerns the Akkadian equivalent of the above discussed term túg-kur-ra, for which different readings have been suggested. The oldest proposal – to read túg-kur-ra as muṣiptu²² – was already refuted by Oppenheim because muṣiptu is feminine while túg-kur-ra is followed by masculine adjectives,³³ and is now definitely excluded by the above quoted BM 76968/72, where túg-kur-ra is one of additional 12 garments described together as 13 muṣiptu. The next proposed reading was sadru,³⁵ refuted, however, by Borger.³⁵ The latest reading, suḫattu or supātu, is suggested by CAD S, 346 based on a comparison of two texts, UCP 9, 271 and Dar 253. The first of these enumerates the equipment for one soldier, the second for 12 soldiers:

UCP 9, 271  
one suḫattu  
one sirʾannu (= sirʾam) parzilli  
one kārāpānu ša suḫattu  
one karballatu ša sirʾannu  
12 nātus  
24 šēnus (= 12 pairs)

Dar 253  
12 túg-kur-ra (i.e. one for each soldier)  
12 sirʾam  
—  
12 karballatu

The parallelism between both texts is striking, and the probability that túg-kur-ra should be read suḫattu or supātu is high, though some doubt still exists. The problem is that by using the same method one could propose reading túg-kur-ra as muṣiptu, which, as already mentioned, can be excluded. Such an obviously wrong equation might also be formulated by comparison of the texts concerning payments to wet-nurses or to the adoptive parents for raising a child.³⁶ The last entry in these texts is usually túg-kur-ra, though in a similar text (GC I 14, concerning the repayment of the costs of nutrition and raising), in the case that the sister demands to take her son back from his adoptive father (his uncle) she has to pay all costs including, among other garments, the muṣiptu.

An interchangeable use of ideogram and syllabic writing as a proof that a syllabic writing is the equivalent of an ideogram should therefore be used with great precaution, though equally it cannot be discarded. I used this method when establishing that patinnu is the syllabic writing of túg-murub₄.īb-lá. Despite the reservation to this equation expressed by the authors of CAD P, 277,³⁷ who describe my proposal as a “suggestion”, I still maintain my view. When searching for convincing arguments for identifying an ideogram and the corresponding Akkadian word at least four criteria should be observed:

1. The texts should belong to the same category of documents and be laid according to the same format.
2. A generic meaning for both the ideographic and the syllabic writing should be excluded.
3. The term discussed should denote an element of a specific costume.
4. Data from texts outside the group being compared should not be in conflict with the proposed equation.

³² Ungnad 1937, 96.
³⁴ CAD S, 225b.
³⁶ For the list of components, see Wunsch 2003/2004, 214.
³⁷ The CAD authors knew only my short text in NABU 1997, no. 16, now enlarged a little in Zawadzki 2006, 121–122.
There are some significant differences in the processes by which the equations túg-murub₄.īb-lá = patinnu and túg-kur-ra = suḥattu/supātu were established. Firstly, for túg-murub₄.īb-lá a generic meaning is excluded and all items in the texts being compared comprised the attire of just a single god or goddess. Only in such a context, where the entries occupy the same position in a stereotyped list, can an interchangeable use of idiomatic and syllabic writing be supported. This gives a good base for the recognition of the equivalence. Because in the text quoted above iltapi was included in the general category of túg-kur-ra we cannot exclude that also suḫattu/supātu is used with a similar sense, i.e. that it is one of the small number of terms covered by the generic term túg-kur-ra. To be sure that suḫattu/supātu is a real equivalent of túg-kur-ra more examples are needed.

An interesting observation relating to túg-kur-ra can be made on the basis of BM 79658, which concerns the dispatch of equipment for 30 soldiers fighting against Tyre. Apart from one túg-kur-ra for each soldier, 9 túg-kur-ra were given “for their tents” (ana maškanatušunu), which evidently suggests that it was a loose long coat to be used as a cover by soldiers in their tents. Such an opinion is also supported by the fact that instead of 8 šir’am the soldiers received an additional 4 túg-kur-ra, which suggests that túg-kur-ra were longer/larger than šir’am. The important thing is that two texts mention “half” (mišil) túg-kur-ra, which suggests that two types of túg-kur-ra, long and short, were in use. Of all garments, túg-kur-ra was evidently the most popular garment used by people working in every branch of human activity. It seems to me that soldiers used it as a daily garment, while šir’am was a piece of military equipment, put on before a battle against enemies.

Although šir’am was an important element of the uniform of soldiers and of the archers employed by the temple as a guard for temple flocks, slaves and workers (such as for example millers), it also appears as a component of dowries. If the same term was used to describe the clothing of persons active in such different fields and of different social positions (free and non-free), it is obvious that there must have been some elements in common, making it possible to define it as šir’am. The use by members of such different groups as soldiers, archers or millers rules out the possibility that it was a long suit. Rather it must be a close-fitting garment, otherwise it would hinder workers from performing their work. A similar meaning is proposed by John MacGinnis in his forthcoming book, where the translation “jerkin” is given. Depending on the use šir’am might be manufactured from linen, wool or even hides. It is well known that šir’am for soldiers in earlier periods were produced with leather, reinforced with metal pieces or scales; in the Neo-Babylonian period it was manufactured mostly of wool because the term is regularly preceded by the determinative túg, not kuš as in the earlier periods. There were probably differences between the kinds of šir’am depending on the wearer’s profession and position in the society. Both men and women used the garment, there was an outer (elēnītu) and an inner (supālītu) type, and it could be cheap (non-dyed) or expensive, dyed with red and blue-purple dye (see CAD S, 314).

38 Zawadzki 2003, 279*.
40 Basing himself on this and a few additional texts Oppenheim 1950, p. 189 suggests that túg-kur-ra was simply a blanket.
43 Cf. the full list given by F. Joannès in this volume.
In the following I wish to present and discuss an unpublished fragment of a text belonging to the collections of the British Museum, as it includes a number of words which are either new or have new attributes. Although the tablet reached the British Museum together with the vast collection of tablets uncovered in Sippar, it does not look like a typical text written in the Ebabbar temple. The signs are well written, precise and elegant; the tablet was prepared in advance and before use it was covered with a cloth impression of which are preserved in a few places. Only part of 12 lines of the obverse is preserved; the reverse is totally damaged; based on l. 11’ which mentions “this silver” it is certain that a significant part of the beginning of tablet is missing.

3. New evidence: BM 76136

BM 76136 (83–1–18, 1501)\(^44\)
7.5 × 5.8 cm

1’. 2 ḫ̣a(?)-túg-kur-ra eš-šú {eš-šú} ḫ̣a 1en túg-kur-ra iš-ḫi eš-šú
2’. 2 ḫ̣a(?)-ta šú-mu-ši-tu ra-ki-is-tu ḫ̣a 2 ḫ̣a(gu)-nak-ku
3’. 1 ḫ̣a(?)-mu-ši-tu šá šu-mu-un-du eš-šé-tu 2–ta gam-mi-da-tu
4’. 1 ḫ̣a eš-šé-tu, 1 ḫ̣a ga-di-it-tu, 1 ḫ̣a gu-li-en-nu
5’. 1 ḫ̣a túg-lam-lam 2–ta šá ri-še-e-tu eš-šu-tu ḫ̣a 1en kab-ḫu(?)-šu-ši iš-ḫi eš-šú
6’. 2 ḫ̣a a-mur-sak-ku ḫ̣a sam-tu, pa-ri-it-ta-nu 2 ḫ̣a šap(?)-x-1-1
7’. 20 dan-nu ga-ra-bi 2–ta nam-zi-tu, 2 nam-ḫa-ra-i
8’. 1 ḫ̣a šed-da-tu šá nam-zi-tu ḫ̣a gan-gan-na
9’. 1 ḫ̣a e-si-it-tu na na ma uš /duq t[u₃-]
10’. ḫ̣a(?)-eš-su ‘geme- ḫ̣a gaš-an-á [....]
11’. [pap x ḫ̣a]-ša-pi-ri ḫ̣a ša-babbar-ā iš [....]
12’. [....] [x x] GAL-tu [....]

.... one new túg-kur-ra garment, one new tied túg-kur-ra garment, two linen garments, two tied mušiptu garments, two gunakkū garments, one new mušiptu-garment dyed with šumuttu-plant, two gamidatu garments, (of which) one is new (and) one gadittu,\(^45\) one gulēnu garment, one túg-lum-lum, two new bolsters, one kabtu-garments with šin[...], two linen a-mur-sakkū garments, one šantu garment of bright colour, two [...], 20 vats with gurābu-wrappings, two fermenting vats, 2 vats [...], one stand for fermenting vat, one pot stand [.....], one stone pestle, ..... Nabû-erība, Amat-Bêtiya, P[Nf, total three?] slaves, the above mentioned silver- 1+ [x minas] large (?) [....]

BM 76136

\(^{44}\) Published with the kind permission of the Trustees of the British Museum.

\(^{45}\) Or: “two gamidatu garments, one new garment, one gadittu garment”.
The interpretation of the text is not easy, as we do not know its provenience or the reason for its composition. Three possibilities can be suggested; that it is a marriage agreement with partly preserved dowry list; the division of an inheritance; or a part of a business inventory. It is possible to interpret it as a list of dowry components, because all these goods – garments, vessels for producing and storing of beer, stone tools, slaves and money – are known from such lists.\(^46\) However, in the dowry lists, real estate is listed first, followed by money, slaves, and further on garments, sometimes preceded by other “household goods” (furniture, jars, etc.). In the text under discussion, silver was indeed mentioned before the garments, but the slave only after the garments. The number of garments is high (20 or a little more), but similar quota are known from other published texts: 13 garments in BM 76968/72,\(^47\) 20 mušitūtu rabītu u qallṭ in BM 47492\(^48\) and even 50 mušibtus in BM 76029.\(^49\)

The second possibility is that the text concerns the division of an inheritance, but in such documents also the sequence is totally different: first real estate (fields, orchards, houses), then money and slaves, and other less expensive goods are enumerated at the end. It might be part of a business inventory, but this is less probable because larger numbers would be expected, whereas here only one or two items of each category are enumerated. It seems to me that even despite the abnormal order, an interpretation as a dowry is the most probable. If this is correct, a major part of the text, which would most likely have taken the form of a dialogue contract, is missing. This would have included stipulations typical for marriage agreements; the list of witnesses, place of composition and date are also missing.\(^50\)

The first item cannot be identified; the preserved parts of the wedges make the reading tūgšir-a-am (garments which are not mentioned further) improbable. Next there is one new tūg-kur-ra garment,\(^51\) and one new tūg-kur-ra described by the attributive īši. The word is known from a Neo-Babylonian text from Ur as the name of a leather object followed by a quiver: kušiš-ḫi and kuššal-tu.\(^52\) It seems to me that the translation “tūg-kur-ra garment with a quiver” has no sense and another possibility is to recognize īši as a separate garment, as tūgšiš-ḫi is known from one Neo-Assyrian tablet.\(^53\) The third and in my opinion most probable idea is based on reading iz-ḫi, “tied”. Such a description is known from the list of garments for Šamaš of Sippar (BBSt 36): 6, 10 and 11. The reading was established by Christopher E. Woods:\(^54\)

\[1^{\text{st}} \text{tūg-ib-lá iz-ḫi, “1 tied nēbehu-belt” (l. 6), supported now with two additional attestations: BM 50209+: 8 (“1 ni-bi-ḫu šā iz*-hi*”),\(^55\) and BM 50963, rev. 5’: tūgšiš-ša šā iz-š-ḫi}^{56}\]

\(^{46}\) See Roth 1989/90.

\(^{47}\) Roth 1989, No. 42.

\(^{48}\) Wunsch 2003, No. 7:13.

\(^{49}\) Roth 1989, No. 33.

\(^{50}\) For the structure of such texts, see Roth 1989.

\(^{51}\) The first two signs following tūg-kur-ra are badly preserved; the second is almost certainly read šā, but the reading of the first one (eš?) is not (over eš part of Winkelhaken is seen, but it is not certain if it is accidental or it belong to the previous line). The preliminary interpretation is that eš-šā was repeated mistakenly by the scribe.

\(^{52}\) UET 4 117: 8.

\(^{53}\) Fales & Postgate 1992, No115 II 15 (3 gū a-na tūg šiš-ḫi).

\(^{54}\) Woods 2004, 100f.

\(^{55}\) Read wrongly in Zawadzki 2006, 120, note 364 as ni-bi-ḫu šā giš-ban; the text was subsequently cleaned and the reading iz-ḫi is now certain, see Zawadzki, GG II, No. 171.

\(^{56}\) Zawadzki, GG II, No. 383.
Garments in Non-Cultic Context

1. "1 blue-purple kulūlu-headband with golden (ornament) fastened on it" (ll. 10–11)

2. "1 blue-purple lubāru-garment with golden (ornament in shape of the) gate fastened to it" (ll. 10–11).

If the suggested reading is correct, the difference between the first and the second túg-kur-ra lies in that the first one was loose while the cut of the second was more closely fitted.

There are two types of muṣiptus, described with the word rakistu, or with the word šumundu, which, according to my knowledge appears here for the first time. The first description is not new, as it appears in a text dated to the time of Artaxerxes published by Strassmaier as early as in 1893 concerning a dowry (nudunnu) consisting of silver, households utensils (kù-babbar ú-du-ú) and ṭug-ṣu-šu-ri-kis-tu, obviously derived from the verb rakāsu “to bind” with the possible translation “tied, attached, joined”. As no details are given in our text, it is difficult to say whether the adorned garments were described in such a way, or rather the fashion was meant. The first possibility should be taken into account by comparison with CT 56 388, where, as one may think from the preserved fragment, anšabtu (ring-shaped adornments) were attached to a pišannu bag: an]-šab-tu, šá gada piš-an-ni [.....] 4/šá ra-ki-su-tu,4. Such an interpretation is also suggested by the authors of CDA who tried tentatively to derive muṣiptu from the verb suppu II “to decorate, inlay”. This seems, however, doubtful, as according to my knowledge, there is no basis for thinking that muṣiptus were decorated (with the exception of those that formed part of divine attire). A rather more ordinary, simple item of clothing must be taken into account as it was used by ordinary people: slaves, shepherds, workmen, apprentices, wet-nurses. The clear suggestion that muṣiptu was an ordinary garment appears in GC 2 349 where these garments were given to people working for the temple under rab ūnṣe, chiefs of 50 workers (though in fact the group there usually consisted of only ten persons, and only once of 40 and once of 30 workers). The named supervisors are responsible for these garments described as their u’iltu ša Eanna “the debit of the Eanna temple” and for their return to the temple by the month of Ulūlu, i.e. at the time when it was expected that the workers would finish the work. As we see, the garments were lent to the workers for the period when they were employed by the temple. This is the best evidence that muṣiptus cannot be expensive, but rather inexpensive garments made of cheap (or lower quality material). Coming back to the muṣiptu rakistu, in our text no attachments are mentioned, which makes a second possibility, that it was more tied than the other widely used muṣiptus, more probable. BM 74577 from Sippar, 18th year of Darius reveals the garments were also subject of loans. A very well known prebendary Luṣi-ana-nūr//šangū Ištar Bābili obliged himself to deliver in the next 20 days one uzāru-cover of good quality (babbanitu) to Šamaš-iddin/Šamaš-rēšûnu; if he fails he should pay Šamaš-iddin 10 shekels of silver. We do not know why Šamaš-iddin needed the garment, but it is obvious that it was destined for a
special occasion, as he demanded an additional warranty giving him the possibility of buying it in case the contractor did not fulfil his obligation.

The second *muṣiptu* is described as *šumundu*, which might be derived from *šamādu* “to apply ornaments, inlay” except for the fact that no elements which should be attached are mentioned. I would suggest connecting it with the name of the plant *šumuttu*, known already from the Sumerian period, written sumun-dar or su-an-dar. Mixed with different plants it was used widely in pharmacology for producing poultices, salves, lotions, etc. According to a Middle Babylonian literary text it grows in meadows together with *arsupp* barley, “bitter barley” (*šigūšu*), emmer (*kunāšu*), *inninmu*-plant and *kakkû*-lentils (?) (CAD S, 383). Because in two texts the plant is compared to blood (CAD Š/3, 301) CAD tentatively suggests identifying it with beetroot. This is possible, as the use of local plants for the dyeing of clothes is well established. If *šumundu* stands for *šumuttu*, this would be the first attested use of *šumuttu* as a dyeing substance and we can suggest recognizing here a *muṣiptu* of red beetroot or of beetroot-like colour. 62

L. 2’ enumerates 2 *gunakku*. Except for our text the term is known from two additional documents, one dated to the time of Alexander, 63 where two sons give their mother 1/3 of their share of the house, the *gunakku* and a small bronze pot, and from BM 76968/72: 1364 from Borsippa, dated to the 8th year of the Seleucid’s reign, i.e. from the time of Antiochus III (203 BC), where one *gunakku* is given as a part of the dowry, summed as 13 *muṣiptus*. Our text might also belong to the late Babylonian or Hellenistic period. CAD G, 134 suggests identifying it with the Greek *kaunakes* and Aramaic *gonakkā*, however a different possibility was suggested by CDA, 96, where an Old Persian etymology is suggested. 65 The term appears also in the Targum where it is a counterpart of Hebrew *machber* “covering or mat” and *smicha* blanket in contemporary Hebrew. 66

The text enumerates next two *gamidātu*, followed by one *eššetu* and one *gadittu*. We can translate each one separately, or recognize in the second and third more precise descriptions of the first one. If this is correct, one can say that the first one was new, while the second one differed from the former; the lack of any acceptable etymology makes a translation impossible. As the first described quality (“new”), the second might be a counterpart of the first, i.e. “threadbare, worn”, but this is not so obvious as others factors may have had to be taken into account, such as the material used or the method of weaving. Such a possibility is suggested by GC 2, 361 from Uruk where it is stated that [x] *gamidāti* were made of *šundu*-wool and *šupētu* wool, according to CAD Š/3, 328 “thick wool”. According to one text, a *gamidatu* garment was probably destined for a female singer as the request was made by a *rābītu* *ša nārer*. 67 If our list is part of a marriage agreement this would be the first attestation of *gamidatu* as a component of a dowry. It is interesting to note that *gamidatu* could be borrowed together with money. 68 BM 6479869 counts 20 shekels of red wool, 50 shekels of blue-purple wool, 1 mina of alum and [1 mi]na(?) of apple-colour-dye (*ēšhašur*) given

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62 The last possibility is the kind suggestion of Marie-Louise Nosch.

63 BRM 2, no. 50 and dupl. RIAA 295 (Boiy 2003, 28ff with copy on p. 58).

64 Roth 1989, No. 42.

65 According to the kind information of Miguel Ángel Andrés-Toledo it exists in OIr. the word *gaunaka*, an adjective from *gauna* “hair”, Av. *gaona*, “hair, colour” and Middle Pers. *gœnag*, “colour, kind”.

66 Jastrow 1903, 224 (courtesy M. Sandowicz).


68 VS 4, 157.

69 See below, Appendix No. 4.
to Śāpik-zērī, son of Šamaš-ah-iddin, a well-known weaver producing multi-coloured cloths and dyer (šāpu) for dyed fabric (a-na [s]-bu-tu)\(^{70}\) for two gamidatu-garments. At least some part of a gamidatu or its applications could be made of different kinds of coloured wool.

\textit{gulēnu} garments appears three times as part of a dowry, so it must be a garment for young women. In TMH 2/2, No. 2 two gulēnu precedes four túg-kur-ra šam-tu and four šir'am, i.e. it was recognized as more precious than four túg-kur-ra and four šir'am. However, from VS 5, 47\(^{71}\) we know that gulēnu was also worn by men, as the adoptive father obliged his adoptive son to deliver him one gulēnu yearly. In a new agreement made only three month later\(^{72}\) between the adoptive son and the wife of the adoptive father (because her husband was at that time seriously ill), she relinquished her right to the gulēnu, i.e. it suggests that in her opinion her husband did not need it anymore and she also did not wish to take it for herself. Perhaps because of its size and fashion it would be difficult to adapt it for woman. An interesting situation appears in VS 6, 168\(^{73}\) where the person acting as the performer of the prebendary owner is paid with one gulēnu, one lubāru and one hullānu yearly. Again, gulēnu was recognized here as the most expensive of three items. According to a promissory note\(^{74}\) in the space of five days one person must deliver a gulēnu or pay 8 shekels of silver.\(^{75}\) Probably this represents the formalisation of a pre-existing obligation. According to Dar 43 gulēnu garments were manufactured for the Ebabbar temple by three women as their labour assignment (iškaru), one garment each per year. From BE 8/1, no 138 where 32 gulēnu are destined for the harranu enterprise we know that the garment was the subject of commerce.\(^{76}\)

Although gulēnu and gamidatu are known already from the Neo-Assyrian period, the earliest data from Babylonia comes from the end of the Neo-Babylonian period. It cannot be excluded that this type of garment came to Babylonia with Assyrian prisoners after the fall of Assyria and found wider acceptance in Babylonia only after a few decades.

Here it is the third attestation of túg-lam-lam, the first in TBER 94,\(^{77}\) where a multi-coloured one is mentioned,\(^{78}\) the next, chronologically probably the earliest attestation (Borsippa, 10th year of Nabonidus, 546 BC) appears in L 1639,\(^{79}\) where 1 túg-lam-lam was sold for 12 kur 2 pi 4 sūtu of dates, i.e. it was quite expensive garment.

The 2 sā re-še-e-tu\(_4\) can be compared with the following attestations:

\begin{align*}
2 \text{ túg Šā re-šē-tu}_4 & \quad \text{VS 6 275: 3} \\
1\text{st túg Šā re-šē-tu}_4 & \quad \text{BM 61494: 3}\^{80}
\end{align*}

\(^{70}\) šibûtu, see CAD §, 171b “dyed fabric”.

\(^{71}\) Baker 2004, No. 31.

\(^{72}\) BM 114728 (Baker 2004, No. 35).

\(^{73}\) Baker 2004, No. 67.

\(^{74}\) Baker 2004, No. 252 and her comments in p. 81.

\(^{75}\) Cf. unp. BM 60585, badly preserved text concerning gulēnu-garments, where in the first entry (ll.1–2) the price of 4 gulēnu is 53 shekels of silver.

\(^{76}\) We can mention here the performer, who was paid partly with uzāru garment by prebendaries for the work done by him on their order (VS 5, 87/88 = Baker 2004, no. 39).

\(^{77}\) Durand 1981.

\(^{78}\) For the correct reading, based on collation of the text, see Joannès 1984, 72: ‘1\text{st túg-lam-lam} Šā bir-mu. The reading suggested by Roth 1989, No. 34: 17 (3 túgšāšē-tu) did not take into account Joannès’ collation of the tablet.

\(^{79}\) Such number is given in Joannès 1989, 239, while in Joannès 1984, 74 as L. 1659.

\(^{80}\) See Appendix, No. 1.
CAD R, 378 suggests, based on Ner 28: 13 (1 túg é re-še-tu₄) plural form rēšētu, supported now by our text.

There are two different proposals concerning the meaning of the term. Roth, based on the word rištū “rejoicing, jubilation”, gave a tentative translation as “festival garment”,82 accepted by CAD R. A new meaning was suggested by Jursa and accepted by Kessler. According to Jursa, who compared the word with Aramaic by s’dy’ it is a bolster: “Behältnis des Kopfendes”, also “Polster”, (Kessler used the German word “Kopfstütze”). In Kessler’s opinion the lack of determinative túg suggest that this object was made of a wooden box [“Kasten aus Holz”] wrapped around with textiles.83 The question is if there is any significance that texts mention two or only one ša rēšētu. One can postulate one long bolster for two people in bed or each person had his/her own. I refrain from any comments on the next garment as the reading of the sign following kab is uncertain (it looks as if it was written over an erasure); the ši is sure but the following sign is not.

The linen a-mur-sak-ku appears also as a component of a dowry in a text (with duplicate) published by M. Roth84 and dated to Seleucid period (203 BC). It must accordingly be a female garment. Our text might belong to the same category of documents and might be dated also to the late period, i.e. this garment might have appeared in Babylonia in that late period of Mesopotamian history.

The next entry is šamtu parittanu. Two things need to be commented on. Up until now šamtu, written šam-tu or ša-an-tu was attested as an attributive of túg-kur-ra (CAD Š I, 339 and BM 67367).85 Here however it is evidently a noun, not an adjective, qualified with the attributive parittanu. This means that šamtu was used as an additional element of a túg-kur-ra garment or as a separate garment. My suggestion is that it might be an “apron”, a small one added to túg-kur-ra and a large one functioning as a separate piece of clothing. The word parittanu is known till now only from documents from the Nuzi archives as a description of the colour of horses.86 It is obvious that it reached Mesopotamia with the Hurrians, famous for their great experience in the training of horses and their use in army. The word is based on Indic bharita or palita87 and, by comparison with the colour of other horses mentioned in the Nuzi texts, it was suggested by the authors of CAD that it denotes a light colour, while the CDA 39 gave a tentative translation “grey” (with question mark). The text discussed here is important because it demonstrates that despite

81 Jursa 2003, 229 with copy on p. 238; Ner 28: 13; PTS 3853: 8; Kessler 1999, 246, with copy on p. 257
84 Roth 1989, No. 42.
85 See Appendix, No. 5.
86 Cf. CAD B, 112a.
87 Miguel Ángel Andrés-Toledo drew my attention to OIr. *pari-tanū, with the meaning “around the body”.
the passage of a few centuries, the word known previously only in northern Mesopotamia later appears in the south of the country and no longer restricted to describing the colour of horses, but also other objects such as garments.

A few additional words known from the Neo-Babylonian period deserve our attention:

*bultu*. The *bultu* garment appears in the administrative text BM 61528 belonging to the Ebabbar archives at Sippar, written in the 3rd year of Cambyses. The only parallel can be found in Amarna and Nuzi texts, where the writing *bul-da* (EA) or *bu-ul-du* (Nuzi) is standardized by dictionaries to *bultu*. The tentative translation “quilt or blanket” has been suggested (CAD B 311, CDA 48). This is, according to my knowledge, the first attested use of the word in Mesopotamia after a gap of almost 800 years, and, just like the word *parittannu*, it spread from north to south. Despite the fact that Babylonia witnessed the intrusion or resettlement of new people of different origin, the *bultu* was still worn by inhabitants of Babylonia at the end of VI century BC.

*il-ḫu*. It appears in BM 29378: 16, 20, known before only from the synonym list Malku and the lexical series An= Anum (CAD I/J 71).

*il-ta-a'-pi qalpi*. “Threadbare iltapi” appears in the above-cited BM 29378: 16, 20. This is known also from Nbn 703: 5 with the qualification la ḫi-ri, while in two consecutive lines it appears tôg-kur-ra la ḫi-ri and tôg-kur-ra ḫi-ri. Scholars have connected it with *iltepitu* and translated “loincloth”. However, as in Malku list VI 123 *iltepitum* is equated with *naḫlaptu* with the qualification ú-ri, and *naḫlaptu* is certainly not a loincloth but a type of shirt or short garment, such a meaning should be taken into account. Instructive is the above-cited BM 63956 where *iltapi* is included into the broad type of garments called tôg-kur-ra. Obviously it is not “loincloth” but a separate garment comparable in some way to tôg-kur-ra.

*tūg-kišku*. Known earlier from three texts, *tūg-kišku* appears also in FLP 628: 4 in a clearer context: 1 en gišná šá me-suk-kan-na a-di-i tôg-ki-iš-ki-šu making it possible for Waerzeggers to recognize it as “a kind of bedcloth, possibly suspended above the bed”. The word is based on the verb karāku, “to roll up”, so it was presumably a rectangular blanket, which can be easily rolled up and might also be used for other purposes.

*tarpuštu*. It appears again in the above cited FLP 628:5–7 as a garment for women and men 1 en tôg-tar-pu-uš-tu, /lainita 2-ta[tar-pu-uš-tu, /a-mil-tu], derived according to Waerzeggers from *rapāšu*. That however does not really help us in identifying it further beyond the fact that it was a garment for both men and women.

*mu-ri-si* and *(lubāri) ša qātē (TŪG.ŠU)*, appears only in BM 49913: 6, 10, all subsumed in the *mušipētu*, which included additionally a linen *saiḫu* tunic, a garment called *pān mušē*, *ṣibtu*, *naḫlaptu birmu* and *kusītu*. The etymology of the last item suggests that it was a type of cover for hands, maybe comparable to our gloves.

*tūg-ra-šu-ti-ik-ka*. This is known from BM 25630 /25653 (Borsippa, 23.1.Dar 20), transliterated and discussed in her unpublished dissertation concerning Šaddinnu of the Belija’u family by J. Wojciechowska, who kindly

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88 See Appendix, No. 2.
90 CAD I/J 89.
92 Waerzeggers 2002, 333, n. 5.
93 Cf. the copy of the text in Lorenz 2009, No. 3. My copy (to be published in GC II 356) differs in a few places from Lorenz copy and readings, although I accept his reading of line 3 (in Lorenz, l. 2).
gave me permission to quote the appropriate fragment. This is an agreement establishing Šaddinnu as heir of a date palm orchard in the ḫanšû (50°) in Bīt-Habāširtu on the following conditions:

\[
\begin{align*}
1^\text{a} & \text{mu} 2 ½ qû še-bar û [x qû] zû-lum-ma munìxìa \\
1^\text{b} & \text{sah-li-e} 1 \text{bàn še-giš-i [(x) i]-na mu-an-na} \\
1^\text{c} & \text{ša-din-nu (} a-nàmd \text{ en} \text{[mu]} \text{ i-nam-din} \\
1^\text{d} & \text{túg-kur-ra} 1^\text{e} \text{ši-rå-ši-ik-ka} \\
1^\text{f} & \text{esšu-tu} \text{ i-nam-din} \\
\end{align*}
\]

(1) Šaddinnu will supply Bēl-iddin with 2½ qû of barley and [x qû] of dates daily (plus) salt, cress (and) 1 sîtu of sesame yearly. (Additionally) each year Šaddinnu will deliver Bēl-iddin one túg-kur-ra, one šîr'am and one new raš̄utikku-garment.

It seems to me that the same garment appears also in Stigers 1976, No. 42: 5 r[a-šu]-ti-ik-[ka]. To make any suggestion on the function of these garments additional attestations are needed.

1^\text{a} GADA maš-šá-nu known only from BM 61494: 6\(^{95}\)

bīt panē (part of the bowmen equipment).

\[
\begin{align*}
1^\text{a} & \text{ši-r'a-am} \\
1^\text{b} & \text{pa-ni-e} 1 \text{kuš al-li} \\
1^\text{c} & \text{šib-ib-bu} \\
\end{align*}
\]

“one jerkin, one ..., one shield? (and) 2 belts.”

BM 61425 (to be edited by John McGinnis, quoted with his kind permission)

\[
\begin{align*}
4^\text{a} & \text{túg-ša-} \text{m} \\
5^\text{a} & \text{murub ša} \text{1 túg } \text{pi(??)-} \text{ni-} \text{e} \\
6^\text{a} & \text{x x x} \text{zu méd} \text{1 túg kar-ra-} \text{bal} \text{tu} \\
\end{align*}
\]

L. 5. The filling of the gap is mine.

“two jerkins, [x] loincloth belt(s) .... one karballatu cap.”

By comparison with bīt rešētu “bolster” one might suggest that bīt panē also might be an item made partly of wood and covered with fabric.

* * *

To sum up, just as current terminology is unable to keep pace with the thousands of new patterns and production techniques of clothing and textiles, a similar phenomenon held in the ancient world despite the incomparably smaller scale of production, technologies and materials. It is not surprising that quite frequently the same term was used for widely different clothing. Given the relative poverty of available iconography, combined with the relatively imprecise information contained in these texts, working out the functions and differences between individual pieces of clothing and textiles will be a long and probable unending process.

\footnotesize{94 See Paszkowiak 2005, No. 186/186a.}  
\footnotesize{95 See Appendix, No. 1.}  
\footnotesize{96 MacGinnis (in press)}
Appendix

1. BM 61494 (82-9-18, 1468)
4.2 × 3.2 cm

3.9. Nbn 12

1. 1 túg-kur-ra
2. 1st na-ši-ba-tu4
3. 1st re-še-e-tú
4. ina igi md'amar-utu-mu-ùru
5. kù-dim pa-qì-id
6. 1st ss[maš-ša-n][ú ([x])]
Revised.

7. iti-gan u4-3-kam
8. mu-12-kam [md']ag-i
9. lu[gal] tin-tir

L. 2. Concerning našbatu, see Kessler 1999, 255, according to him it was a long coat with a hood.

L. 4. Marduk-šum-ùr, the kutimmu was active in the period from Nbn 12 to the beginning of Cambyses’ reign, cf. the list of attestation in Bongenaar 1997, 389, to which our text should be added.

Because the garments were delivered to a goldsmith it seems that they belonged to the attire of cultic statues and the best candidate is Anunītu-ša-Sippar-Anunītu, a warrior goddess worshipped in Sippar. As they were entrusted to a goldsmith it is logical to think that all of them were adorned with gold or silver ornaments.

One túg-kur-ra garment, one našbatu-coat, one bolster handed over to Marduk-šum-ùr, the goldsmith. (Additionally) one linen maššanu garment (was given to him).

Month Kislimu, 3rd day, 12th year of Nabonidus, king of Babylon.

2. BM 61528 (82-9-18, 1501)
7.1 × 6.0 cm

Cam 3

1. 2 túg-kur-[ra-meš šá] a-na [x] gín [kù-babbar] [(x)]
2. 2 túg-[x x x x] [a-na] 11 [gín] kù-babbar 'ina] [(x x)]
3. 1 túg [x x x] [x x] gín [kù-babbar] ....
4. 15 gín kù-babbar šá[m] 1st bul-tú] [(x x)]
5. 2l (written 1/3) ši-ib-'ba'1-n[u] [x] maš-ka-n[u] meš?] [(x x)]
6. 2 gín 4-tú kù-babar a-na 16 maì-na [x x]
7. pap 2/3 ma-na 6 gín [kù-babbar] a-na 1'x'[x x]
8. šá i-di é-še-a-na [PN lù][x x x x]
9. ù bù'er[ín-meš-šú] it-ta1-[din iti.x u-kam]
10. mu-3-kam [Kam-bu-zi-ja [lugal e-ki lugal kur-kur
Revised.

11. 4 túg-kur-ra-meš [x x x] gín (?) [kù-babbar (?)]...
12. [me]n-kàd it-tan-nu túg?-[x]-r[a?] [meš?] .... [PN]
13. ù bù'er[ín-meš-šú] sum
2 tūg-kur-ra garments for [x] shekels [of silver]
2 ... garments for 11 [shekels] of silver [....
1 ... garments for [x] shekels of silver [....
15 shekels, the price of one bultu-garment
2 ¼ shekels for 6 minas of ....,
total 46 shekels [of silver] for ....from the rent of houses for [PN,(the ...)] and his workers he has given.
[Month x, nth day], 3rd year of Cambyses,[king of Babylon, king of Lands].
5 tūg-kur-ra garments [....for x] shekels [of silver (?)] Bēl-kāṣir has given .... and his workers he has given.

3. BM 73306 (82-9-18, 13317)
5.1 × 5.9 cm

Obv. 1'. [x bá] n (?) saḥ-li-e a-na 1/m [...
2'. mdag-mu-mu a-na "Na-ṣir u ["Šu-la-a sum
3'. iti-sig s-16-kam mu-12-kam 4-ag-[lugal tin-tir[i
4'. 13 tūg-kur-ra la hi-ri [a] [...
5'. 1m tug-lat-[pi hi]-ra-tu [i]
6'. [2] tug-lat-pi la [hi]-f-ri
7'. [pap] 6 [tūg-kur-ra ša ta é][x x] zi
8'. [x x x] Bu-ne-r[e-...
9'. a-na é-gu[r]-meš i[t-a-dín
10'. iti-ne u₄ 21-[kam ...
11'. 56 tūg-κυr-ra ...
12'. iti.i[x] [...

Rev. 1'. pap [...
2'. hi-ši-i-h-tu[i [...
3'. mu-12-kam 4-ag-[i lugal tin-tir[i...
4'. 50 tūg-kur-ra a-na [x][(...
5'. tug-lat-pi hi-ru-tu[i ...
6'. la hi-ri 5 tūg-kur-ra hi-ši-[i[h-tu]
7'. la hi-ri pap 10 tūg-kur-ra a-na [x x]
8'. ina igi "Na-ṣir u Šu-la-a 10 kūr qé-me
9'. 2 tūg-kur-ra [x x] 2 tūg-kur-ra ina igi "Na-ṣir
10'. u [m] "Šu-la-a i[x x iti]-šu u₁₂-kam
11'. mu-12-kam 6 dan-nu 'kaš' dūg-ga ina šu "Na-ṣir
12'. ina igi "Gu-za-nu ša é-šu i a-na
13'. [x x] 'ga(?): šu-bul 20 dan-nu pa-šu-[ú]
14'. [x x x x]-dīn[?)] iti sig s₁₂-kam[x-kam]

L.e. 15'. [x x x x]-x₁-ú ša.mdag-šēš-[...
16'. [x x x u] šu-d₄₄-a₈₄ 4-f[i?]
17'. [x x x] [x x x x] ša/4 kab [x x] [...
Lh.e. 18'. [x x x] ri 2 ni-gāl-la [x x]

Obv. 2’ and rev. 8’. Naṣir and Šula. They should be identified with traders acting usually together in the time of Nabonidus (see Bongenaar 1997, 285), however the state of preservation of the text makes it impossible to explain their activity, though it is at least clear that they also issued garments.
Obv. 10’. Or u₄ 20-[1-lal-kam], i.e. 19th of Simanu.
Only about half of the text is preserved, which causes a serious problem with its interpretation. The text might be a yearly settlement account from objects issued in the 12th year of Nabonidus. In rev. 16' the city of Kutha is mentioned, but the content is broken. Quite an important number of garments is enumerated, i.e. in total about 120 tūg-kur-ra including iltapi garments.

Rev. 11'. Guzānu ša bīt qāṭi is a well-known person active in the period from Nbn 4 till Nbn 12 (see Bongenaar 1997, 216), where, as in this text, he is responsible for providing beer.

[x sūt[u (?) of cress for 1/m? [...] Nabû-šum-iddin [has given] to Naṣir and [Šulā]. Month Simanu, 16th day, 12th year of Nabonid[us, king of Baby]lon.

[3] tūg-kur-ra garments without hīru f[or]
1 iltapi garment [......]

[2] iltapi garments without [hī]ru, [total] 6 tūg-kur-ra garments, which were [taken from x storehouse ....] Bun[e-x] has delive[red] to bīt karê–storehouse. Month Abu, 21st [day, 12th year of Nabonidus, king of Babylon].

65 tūg-ku[r-ra] garments [....] month Ulúlu?

Rest lost

Rev. [... ] total [.....], demand [....] for 12th year of Nabon[idas, king of Babylon]

50 tūg-kur-ra garments for [x] [...]

[x] iltapi garments with hīru [x] without hīru, 5 tūg-kur-ra garments, the dema[nd] without hīru, total 10 tūg-kur-ra garments for [x] at disposal of Naṣir and Šulā (was given), 10 kur of flour, 2 tūg-kur-ra garments ... 2 tūg-kur-ra garments at disposal of Naṣir and šulā (?)... month ? Du’uzu, 12th day, 12th year; 5 dannu vats of good quality beer by the hand of Naṣir at disposal of Guzānu, of the rear house are brought to ... ; 20 dannu vats of strong beer [..... has been delive]red(?). Month Simānu, day 12*[4?] ..... of Nabu-ah-[x] ... of Kutha ... ? ... sicles ...

4. BM 64798 (82-9-18, 4779)

4.3 × 3.3 cm

1. 1/3 ma-na sišta-bar-ri
2. 5/6 ma-na =sta-kil-tu
3. 11 ma-na =a+gab-bu-ú
4. [1’ ma]-na giš-ḫašṣur a-na
5. [sš]-bu-tu, šu 2-[ta]
6. [wa]gam-mi-da-tu,]
Edge 7. [a-na] =dub-numun
Rev. 8. [A-sú šá =]jatu-šēš-mu
9. [sumwa] iti-apin
10. [u-x]-kam mu-3-kam
11. =m[U+GUR-lugal]-úru
12. [lugal] tin-tir?

L. 4. The narrow damaged space excludes any significantly different reconstruction of the numeral.

L. 7. Šāpik-zērī, son of Šamaš-ah-iddin, head of išparātu birmi/šapū was active between Nbk 35 and Cyr (Bongenaar 1997, 349–351 and Zawadzki 2006, 230–231), which gives the argument for dating the text to the 3rd year of Neriglissar.

5. BM 67367 (82-9-18, 7363)  
4.3 × 3.4 cm

1. 2 tūg-kur-ra šam-tu  
2. šá mdutu-su a-na  
3. ūl sur  
4. [x tūg-kur-ra šam-tu]  
5. [šá mdutu-su a-na]  
6. ūl sur

Edge 7. [it]i-sig, u₄-9-kam  
Rev. 8. [m]u-6-kam

2 tūg-kur-ra garments with apron(?) Šamaš-iddin sold for 8 shekels of silver (but) silver has not been paid (to him). [x] tūg-kur-ra garments with apron(?) Šamaš-erība sold for [x] shekels of silver (but) silver has not been paid (to him). Month Simānu, 6th year.

6. BM 62740 (82-9-18, 2709)  
5.0 × 2.9 cm

1. 14 tūg-kur-ra-meš  
2. md-en-ka-šir a-šú  
3. šá mën-ka-šú  
4. sum na iti-gu₄  
Rev. 5. u₄-25-kam  
6. mu-31-kam

14 tūg-kur-ra garments were given to/by (?) Bēl-kāṣir, son of Bēl-ētir.  
Month Du’uzu, 25th day, 31st year.

7. BM 75889 (83-1-18, 1244). Copy: Bertin 3059; Str. II 315/4  
5.0 × 4.2 cm

1. '[6] tūg-kur-ra-meš šá 'Ina-giš-mi₄-U+GUR  
2. 'a-na É-babbar-ra id-din-nu  
3. ina lib-bi 1₄ tūg-kur-ra a-na  
4. md-šēš-mēš-bul-li₄ sum₅  
5. 1₄ tūg-kur-ra a-na 'Dan-nu₄-U+GUR sum₅  
6. mi-šîl tūg-kur-ra a-na₄ 'md-AG-[x]  
7. (erased) [(x x)] 'x-tu₄ [(x)] 'x₄  
Edge 8. mi-šîl t[u-g-kur-r]a a-na  
Rev. 9. md-DI.KUD-[x]-[x]-KAM SUM₅
10. mi-šil tūg-kur-ra mšAG-na-din*-[x]
11. mi-šil tūg-kur-ra mšAG-KIŠ-di-nu
12. šš KÁ me-e

L. 1. At the beginning of the line we see now 2+2, which suggests the reconstruction ⌈6⌉, not ⌈5⌉ as in the Strassmaier’s copy. Note, however, that in Nbn 662 two “half tūg-kur-ra” are recognized in total as one tūg-kur-ra.

L. 6. mi-šil is written over erasure.

L. 7. The idea that whole line was erased is supported by the fact that 6 tūg-kur-ra garments for 6 persons are enumerated.

L. 10. din, contra Strassmaier ⌈šir⌉ and Bertin šīr.

⌈6⌉ tūg-kur-ra garments, which were delivered to the Eabbar temple by Ina-šilli-Nergal, including:
one tūg-kur-ra garment which was given for Šamaš-aḫḫē-bullīṭ.
half tūg-kur-ra garment (for) Dannu-Nergal was given
half tūg-kur-ra garment (for) Nabû-[x][(x) was given]
half tūg-kur-ra garment (for) Māndanu-[x]-ereš was given
half tūg-kur-ra garment (for) Nabû-nādin-[x was given]
half tūg-kur-ra garment (for) Nabû-kiššat-dīnu of the water gate.

Abbreviations

AfO Archiv für Orientforschung.
BE The Babylonian Expedition of the University of Pennsylvania. Philadelphia.
BM British Museum. London. Tablet inventory number.
CAD The Assyrian Dictionary of the Oriental Institute of the University of Chicago. Chicago (1956–).
CT Cuneiform Texts from Babylonian Tablets in the British Museum. London.
NABU Nouvelles Assyriologiques Brèves et Utilitaires.
OIr. Old Iranian.
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22. Some Considerations about Vedic, Avestan and Indo-Aryan Textile Terminology

Miguel Ángel Andrés-Toledo

The method of the historical comparative linguistics allows us to reconstruct the language of the Indoeuropeans. As Watkins\(^1\) states, “a language necessarily implies a society, a speech community, and a culture, and a proto-language equally necessarily implies a proto-culture”. So we can also reconstruct part of the Indoeuropean culture by means of this method and observe that there was a common vocabulary related to textile.

Because of their close relationship the Indian and the Iranian languages offer a good chance to approach this common vocabulary, which was inherited from Indo-Aryan and sometimes even from Indoeuropean times. As a matter of fact, as Puhvel\(^2\) states, “a firm Indo-Iranian prototype is also a doubly secure foundation for further cross-Indo-European comparison”.

A word can surely be traced back to Indo-Aryan when it is preserved in both Old Indian and Old Iranian. In the Old Indian group Vedic must be preferred with regard to Sanskrit, while in the Old Iranian group Avestan offers a broader material than Old Persian. With less degree of certainty, languages of a middle or even modern period can also be used in one group for the reconstruction.

According to Schlerath,\(^3\) when at least two etymologically related words appear together in the same syntagm in both Old Indian and Old Iranian, and provided that they are used in the same or at least similar context, they can be reconstructed as an Indo-Aryan formula. If we find parallels of this formula in other Indoeuropean languages, it can also be traced back to Indoeuropean. However, as Campanile and Watkins\(^4\) have observed, sometimes a single word of this formula was substituted by a synonym in one language, so that this formula could have been semantically, though not morphologically nor lexically, preserved.

I will focus on how the Indo-Aryan and Indoeuropean linguistic reconstruction can contribute to identify which textile terminology existed among the Indo-Arians before they became separated in the Indian and the Iranian groups, that is, at a certain period before c. 1500 BC. Some Old Indian and Old Iranian textile terminology was inherited from Indo-Aryan, but lacks

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3 Schlerath 1968, viii–xv.
in other Indoeuropean languages. Conversely, other Indoiranian words can be traced back to an Indoeuropean textile terminology. As we will see, some of them belong to Indoiranian and even to Indoeuropean poetic formulas.

In my analysis of this terminology I have followed Adams & Barber’s\(^5\) classification according to the different processes of the elaboration of the textile. To it I have added some roots lacking in their list and especially other words of Indoiranian languages not quoted by them.

### 1. Wool

Concerning the material of the textile, the only Indoiranian root which can be traced back to Indoeuropean is that for “wool”, IE. \(^h_2\)l̥h₁nēh₂ - > IIr. \(^H\)l̥HnaH- “wool”, which is attested in the following Indoeuropean languages:

- **a)** Old Indian: Ved. ūrṇā- “wool, woolen thread”.\(^6\)
- **b)** Iranian:
  - Old Iranian: YAv. varṇā- “wool”.\(^7\)
  - Middle and New Iranian: Khwar. w’n, Šuyūnī w’n “wool”.\(^8\)
- **c)** Other IE. languages: Hit. /hulana-, /hulija-, Dor. Gr. lānos, Lat. lāna, OHG. wolla, Lith. vilna, Serbocr. vūna “wool”.\(^9\)

Besides this, another root existed in Indoiranian which mainly designated the goat’s or camel’s wool: IIr. \(^d\)ṛHčā-.

- **a)** Old Indian Ved. dūrśa- “rough clothing (maybe from goat’s skin or wool)”.\(^10\)
- **b)** Middle and New Iranian: Khot. dairśa- “of goat’s wool”; Waxī ḍīrs, ḍūrs, Yidīya Ṽīr, Ļīr, Šuyūnī ḍoḡī “goat’s wool”; NP. ḍīrs “camel’s hair; threadbare garment”.\(^11\)

These words for wool are the only ones for a material of textile which can be reconstructed to Indoiranian, since words for flax, cotton or any other material do not stem from a common source in the Old Indian and Old Iranian languages.

### 2. Thread

From that wool single threads were drawn. The animal origin of this material is manifest through the terminology of the only word for “thread” that can be traced back to Indoiranian as well as to Indoeuropean: IE. root \(^dek\)- “thread, hair”\(^12\) > IIr. \(^d\)āc- “thread”. This root yielded some Iranian words referred to goat’s wool and other words meaning “hair” in some Indoeuropean languages:

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\(^7\) Bartholomae 1904, 1372.
\(^8\) Morgenstierne 1974, 90.
\(^11\) Bailey 1979, 165a.
\(^12\) Adams & Barber 1997, 569.
3. Braid, plait

Concerning the processes of preparation of textiles, at least four Indoiranian roots referred to braid and plait can be traced back to Indoeuropean. The first, IE. *derbh- “to braid” > IIr. darbh- “to braid”, gave at least one Indian word and some Iranian words related to sewing and needles:

a) Old Indian: Ved. daśā- “fringe”,
   b) Middle and New Iranian: Khot. dasa “thread”; Bal. dasag “thread”; NP. dasah, Munji lāsā “rope of goat’s wool”; Yidya loso, lāsā “neck-rope”,
   c) Other IE. languages: OIcel. tāg “thread, fibre”; MHG. zāch “wick”; OIr. dūal “lock of hair”; Goth. tagl “a single hair”; OHG. zagel, OE. tæg(e)l “tail”.

14  Bailey 1979, 154a.
17  Bartholomae 1904, 742.
18  Cheung 2007, 60.
20  Cheung 2007, 60.
21  Weber 1849.

This root seems to belong properly to the vocabulary of basketry. However, it has further implications in the Indoiranian context. On one hand, the New Iranian words indicate that the meaning “to braid” of this root was very close to the semantic field of “sewing” and “needle” in Iranian, as Kurd. dirūn “to sew”; Sariq. def “needle-hole”; Waxī drav-/dravd-, Parāčī andarf- “to sew”, etc.

This Vedic passage is very important for the Comparative Mythology, because it reveals that the Indoeuropean image of the thread of life, from which the creatures are made, is also found in India. Let us return to its implications for the Indoiranian textile terminology.

Ved. sāmdṛbdha- means literally “tied together”. However, the Vedic verb sām-darbh-, from which this participle stems, is etymologically identical with Parāčī andarf- (< *ham-darf-) “to sew”. As this Vedic participle is accompanied by Ved. sūtra- “thread” in ŚBM 14.6.7.6b: sūtraṇa sāmdṛbdhāṇi bhavanti “(the creatures, Ved. bhūtāṇi) are sewn by a thread”.

Therefore, the Indoeuropean root meaning “to braid” designated in Indoiranian a type of sewing. We could think of some techniques, like the Nålebinding or sprang technique, which is still used in Iran, or the ply-splitting, which is used in Rajasthan with camel’s hair. However,
this information cannot be inferred by the only comparison between Ved. sāṁḍḥḍha- and Parāčī andarf-.

The second Indo-European root inherited by Indoiranian which refers to braid and plait is IE. *kert- “to plait” > IIr. *kart- “to twist”.

a) Old Indian: Ved. kart- “to spin”, Ved. káṭa- “mat”.
b) Middle Iranian: Khwar. knyc- “to turn (one’s head)”; Khwar. nknc “needle”.
c) Other IE. languages: Hit. kar-za, kar-za-na-aš “weaver’s tool to make yarn” (?); Gr. kártallos “basket”; Lat. crātīs “wickework”; Goth. haírds “door”; OIcel. hurð, OHG. hurt, OE. hyrdel “hurdle”; OPrus. corto “hedge”.

Although Hit. kar-za, kar-za-na-aš and Ved. kart- are more closely related to the meaning “to spin”, it is unlikely that they reflect the oldest Indo-European meaning. In fact, the meaning “to plait” is preserved not only in the words of western Indo-European languages, but also in Ved. káṭa- “mat” < *kťa-. Since the meaning of the western languages is confirmed in the eastern part by this Vedic word, a meaning “to plait” matches better the Indo-European root *kert-. According to the words stemming from this root, it should have designated some kind of wickerwork, from which the meaning “to spin” developed in some eastern Indo-European languages.

The third Indo-European root related to braid and plait, IE. *plek- “to plait”, does not actually belong to the textile terminology. Moreover, it is not present in Indoiranian. As a matter of fact, the only Vedic word stemming from it, Ved. praśna-, which is translated as “turban, headband”, must rather be understood as some kind of wickerwork used to protect the head.

a) Old Indian: Ved. praśna- “turban, headband (?)”.
b) Other IE. languages: Gr. plékō, Lat. plectō “I plait”, OHG. flehtan, OE. fleohtan “to plait”, OCS. pletp “plait”; Gr. plókos, plókamos “braid, plait”; OHG. flahs, OE. fleox “flax”.

The fourth Indo-European root preserved in Indoiranian which belongs to the semantic field of braid and plait, IE. *resg- “to wattle” > IIr. *rasg- “to wattle” must be excluded from the textile terminology too.

a) Old Indian. Ved. ráju- “rope, cord”; Ved. rajjusarja- “rope-maker”.
b) Middle and New Iranian: Sogd. ryz “cloth”; Yidya royz “woman’s cloak”; NP. rayza “woolen cloth”.
c) Other IE. languages: Lat. restis “rope, cord”; OCS. rozga “root, branch”; Latv. rezg(i)û “I knit”.

As the Indo-European words stemming from this root demonstrate, IE. *resg- designated the process of wattling fibres in order to make a rope or cord. Since a meaning related to textile is only present in the Iranian group, it must be excluded from the Indo-European and even from the Indoiranian textile terminology.

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22 Adams & Barber 1997, 571.
24 Cheung 2007, 244–245.
25 Eichner 1973, 98, n.78.
30 Adams & Barber 1997, 571.
4. Twist > Spin

As Barber already observed, roots meaning “to twist, to turn” were used for “spinning” in some Indoeuropean languages, because the process of spinning implies the twisting of fibres together. Likewise these roots yielded words for “sinew”, where fibres are naturally twisted. This is the case of the first root of this semantic field: IE. sneh₁- > IIr. *snaH-:

a) Old Indian: Ved. snáyu-, Ved. snávan- “sinew”.34
b) Old Iranian: YAv. snáuuar- “sinew”, YAv. snáuuara.bážura- “having sinews like arms”,35
c) Other IE. languages: Hit. išḫunaqar, Gr. neurá, Lat. nervus, Arm. neard, Toch. B šñaura “sinew”; Gr. nēό, Lat. neō ‘I spin’; Goth. nēbla, Oice. nādl, OE. nādl (≠ IE. *sneh₁-tleh₂-) “needle”; OHG. nā(w)en “sew”; OHG. sena(wa), OSax. sinewa, OE. seonu “sinew”; Latv. snāju “to twist together, to spin”.36

Bader considered that these words stem from a deverbal variant of a present stem with nasal infix of the Indoeuropean root *seh₂- “to bind”. However, I agree with Adams & Barber’s reconstruction as IE. sneh₁- “to twist fibres together”.

Although the connection of this root with the textile terminology is corroborated by some Indoeuropean languages, it is not shared by the Indoiranian group, which only inherited the Indoeuropean heteroclite noun *sneh₁r-/*sneh₁n- “sinew”.

The second Indoeuropean root with the meaning “to twist” which could have been applied to the textile terminology since Indoeuropean times is IE. *terk(ʊ)- “to twist” > IIr. *tark- “to twist”:

a) Old Indian: Ved. tark- “to twist”, Ved. tarku- “spindle”.40
b) Middle Iranian: OKhot. hatalis- “to flutter” < *fra-tark- (?).41
c) Other IE. languages: Hit. tarku- “to turn oneself, to dance”; Gr. átraktoς “spindle”; Lat. torqueō “I twist, I torment”; OE. prāstan “to turn, to twist”; Toch. B tārk- “to twist around”; OCS. trakā “band, belt”; Alb. tjerr “to spin”.42

As we observe, the meaning “to spin” and its derivates “spindle” are attested in Alb. tjerr “to spin” as well as in Ved. tarku- and Gr. átraktoς “spindle”. Hence we can conclude that it is very likely that the Indoeuropean root *terk(ʊ)- “to twist” was already used with the meaning “to spin” since Indoeuropean times. However, it was not inherited by the Iranian group, but only by the Indian, so that it cannot be traced back to Indoiranian.

There is a third Indoeuropean root which means “to twist”, IE. *yrešč- “to twist”, and was continued by IIr. *yrajič- “to twist”, but it must be excluded from the textile terminology.

a) Old Indian: Ved. vrēš- “whirling (epithet of the waters)”.41
b) Iranian:

33 Barber 1975, 297.
35 Bartholomae 1904, 1629.
37 Bader 1990, 25.
38 Adams & Barber 1997, 571.
41 Bailey 1979, 488a.
22. Some Considerations about Vedic, Avestan and Indo-Aryan Textile Terminology

- Old Iranian: YAv. uruuaēs- “to twist, to turn”, YAv. uruuaēsa- “whirl”.
- Middle and New Iranian: MP. rištaq “rope, string, thread”; CSogd. rwyšt “spun”; Khwar. rys “thread”; NP. rēštān, rēs-/rēśidan, rēs- “to spin”, etc.; Bal. rēštān, rēs- “to twist threads”.
  c) Other IE. languages: Gr. riknōs “bent”; OE. wriġian “to tend, to incline”; Latv. rišti “to bind, to tie up”.

The only connection of this root with the textile terminology is found in Middle and New Iranian languages, so that it can neither be reconstructed as Indo-Aryan nor as Indoeuropean. Therefore, it seems that the meanings “thread” and “to spin” of the Iranian group developed from a general meaning “to twist”, which was applied in Middle Iranian and hence in New Iranian to the twisting of threads.

5. Stretch

When spinning the thread, and in particular after the spinning is finished, the thread must be more or less stretched, according to the technique and the type of textile to be made. When it is put on the loom it must be stretched and tightened too. This action is expressed in some Indoeuropean languages by the Indoeuropean root *ten- “to extend, to stretch”, which was inherited by IIr. *tan- “to extend, to stretch” and yielded some words related to the textile in Indian and Iranian languages.


b) Iranian:
- Old Iranian: YAv. tan- “to extend, to stretch”.
- Middle and New Iranian: MP. tadan, tan- “to spin a thread”; NP. tanīdan, tan- “to turn, to spin”; Kurd. tan- “to weave”, etc.

c) Other IE. languages: Gr. teínō “I draw, I tighten”; Lat. ten-dō “I stretch”; OHG. den(n)en “to stretch”; OPrus. sasin-tinclo “rabbit-snare”; Lith. tiňklas “snare”.

Indoeuropean languages other than Indian and Iranian did not develop words specifically related to the textile from this root. Several words from IIr. *tan- developed in Vedic, mainly related to the weaving on a loom. With regards to Iranian, the connection with weaving is only found in Kurd. tan-, while the rest of Middle and New Iranian words point to the spinning of threads. Therefore, it is possible that this root was related to the textile terminology in Indo-Aryan, but it cannot be assured that it designated the same process.

44 Bartholomae 1904, 1533–1535.
45 Cheung 2007, 437.
49 Bartholomae 1904, 633.
50 Cheung 2007, 377.
Furthermore, it is noteworthy that this root was applied to an Indoeuropean image connected with textile: that of the Night as a woman who spreads her dress through the sky. As Christol already observed, this action is expressed by the same Indoeuropean root *ten- in Vedic and Greek, as we see in RV 1.115.4:

\[
tát sūryasya devatvā tān mahātuḥ madhyā kārtor vítataṁ sāṁ jāhāra
\]

\[
yadēd āyukta harītaḥ sadhāsthād ād rātrī vāsas tanute simāsmaṁ
\]

This is the divinity of the Sun, this is his greatness. In the midst of the work she (i.e. the Night) has withdrawn the spread (dress). When he has harnessed his fallow (horses) from their abode, then the Night spreads her dress for herself.

And in Homer, Od. 11.19:

\[
all' epi nūx olo tétatai deiloīsi brotoīsi
\]

but baneful Night is spread over wretched mortals.

Therefore, the image of the spread dress of the Night is attested in an Indoeuropean formula: “Night” (in Nom. Sing.: Ved. rātrī- and Gr. nūx) + IE. *ten- (Ved. tanute and Gr. tétatai, both in 3rd. Sing. Middle).

With regards to Indoiranian, the root *tan- appears in an IndoIranian formula referred to the same image, that of a woven sky. As Skjærvø has noticed, Vedic and Avestan attest the same image of the universe as a textile. However, he has not observed that this image is expressed by the IndoIranian formula “the thread of Truth”. Ved. tánputa-, a noun from the IndoIranian root *tan- “to extend”, is used together with the genitive singular rtāsyā “of Truth” in AVŚ 2.1.5:

\[
pārī viśvā bhūvanāṅy āyam rtāsyā tánputaṁ vítataṁ dpśé kāṁ
\]

\[
yātra devā amṛtam ānaśānāṁ samāṁ yōnī ādhy āirayanta
\]

Around all beings I went in order to see the stretched thread of Truth,7 in the same womb where the gods, having attained immortality, were begotten.

In Old Avestan, Ved. tánputa- was substituted by the synonym OAv. hiθā “thread” in Y 34.10, but the exact Old Avestan cognate of the Vedic genitive singular rtāsyā, namely OAv. aṣahiia (= *fθasja), remained:

\[
hiθa. vaŋhāuš. manañhā. šiiaðanā. vaocat. ḡaravm. huuratuš.
\]

\[
samātmcā. ārmaitīm. ḍqmūm. višivā. hiθam. aṣahiia.
\]

\[
tácā. vispā. ahurā. ḡpalī. mazdā. xšaðrōi. ā. viθiavṛā
\]

By means of the action of this Good Thought, the well-minded proclaims his understanding, who knows the Beneficient Ārmaiti, the creator, the thread of Truth, and all the tools of the loom in her power, o Ahura Mazdā.

53  Geldner 1951, 1.152; Christol 1986, 191, 193.
54  Von der Mühll 1962, 193.
55  Skjærvø 2005.
56  vid. Whitney & Lanman 1905, 39; Lüders 1959, 472; YV, VS 32.10; TĀ 10.1.4 and MnārUp 2.5. AVŚ 2.1.5a=AVP 2.6.4a; AVŚ 2.1.5b=AVP 2.6.5b.
57  cf. Ved. rtāsyā tánputaṁ in RV 9.73.9 and Ved. rtāsyā tánputuṁ in AVŚ 13.3.19.
58  Geldner 1886; Skjærvø 2005, 272.
Therefore, in both Vedic and Old Avestan there was a mere variation of a common Indoiranian formula “thread” (in Acc. Sing.: Ved. tán̄tum and OAv. hiḍ̄qām) + IIr. *ṛtāṣṭa / ṭaṣṭa “of Truth” (Gen. Sing.).

To summarise, it is obvious that the Indoeuropean root *ten- “to extend” was associated to the textile in Indoiranian and possibly in Indoeuropean times, as the Indoiranian formula for the “thread of Truth” and the Indoeuropean formula for the spread dress of the Night demonstrate.

6. Weave

One of the most famous Indoeuropean roots of the textile terminology is IE. *h₂e-u- “to weave” and its extension IE. *(h₂)ebh- “to weave”69 > IIr. *(H) yab- “to weave”.

The first yielded some technical terms of the process of weaving in Vedic, but it seems not to have been inherited by the Iranian group, so that it cannot be traced back to Indoiranian.


b) Old Iranian: YAv. [u]qvasnāuuaiō (‘uuaiō ?).61

c) Other IE. languages: OIcel. vād “weaving”, OHG. wāt “clothes”; Lith. ùūsti “to weave”, Rus. usló “weaving”.62

Conversely, its extension IE. *(h₂)ebh- “to weave”,63 through IIr. *(H) yab- “to weave”, is well attested in both the Indian and the Iranian groups as well as in other Indoeuropean languages.

a) Ved. vabh- “to bind”; Ved. ṛvābhī- “binding, weaving”.64

b) Iranian:

- Old Iranian: OAv. / YAv. vaf- “to sing, to praise” = “to weave songs”; YAv. ubdaṇa- “made from textile”.65
- Middle and New Iranian: MP., Parth. waf-, Sogd., Khwar. waf-, NP. bāftan, bāf-, Oss. I. wafyn/wafī, Oss. D. wafīn/wafī “to weave, to intertwine”, etc.66
- Other IE. languages: Hit. ḫuppai- “to ensnare, to interlace”; Hit. ḫuppala- “net”; Hit. ḫup(a)r(a)- “name of a textile”;67 Gr. huphaiōn “I weave”; Toch. A wāp-, Toch. B wāp- “to weave”; OHG. weban “to weave”.68

It is noteworthy that Hit. ḫuppai- and Ved. vabh- did not mean “to weave”, but “to interlace” and “to bind” respectively and that the Iranian words for “to weave” also meant “to intertwine, to braid”. In my opinion, it is very likely that IIr. *(H) yab-, and even IE. *(h₂)ebh-, developed a specialized meaning regarding IE. *h₂e-u- “to weave”. Provided that its extension designated a kind of weaving by means of a technique of binding or knotting, it could have been applied to the manufacture of knotted rugs. Accordingly, the relation between the knotted rugs and the poetic

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61 Bartholomae 1904, 411.
63 Adams & Barber, 1997 572.
65 Bartholomae 1904, 1346 401.
66 Bailey 1979, 305; Cheung 2007, 402.
67 Kronasser 1967, 47.
composition, widespread in the Indoeuropean literatures and expressed by this Indoeuropean root *(h2)ebh- in both cases,69 becomes clearer. As the same verb designated the composition of poetry and the knotting of rugs, Tuck’s70 theory about the common mnemonic fundaments of the patterns of Indoeuropean textile and those of the Indoeuropean poetry seems even more likely.

7. Dye

The process of dying is also represented in the Indoeuropean textile terminology by IE. *(s)reg- “to redden, to colour”71 and was inherited by IIr. *rag- “to redden, to colour”.

a) Old Indian: Ved. raj- “to redden, to colour”, Ved. rajayitrī “dyer (Fem.)”, Ved. rāga- “colour”.72
b) Middle and New Iranian: Khwar. rxtk “red”; Khot. rrāṣa- “dark-coloured” < *raxāa-; Kurd. raš “black”;
   Waxī rakš “grey, brown”.73
c) Other IE. languages: Gr. rézō “I colour”, Gr. rogeús “dyer”; Gr. rēgos “rug, blanket”.74

As Adams & Barber75 observed, “to colour” was the same as “to redden” in the Indoeuropean terminology of dyes, because red was the first colour used as a dye in Europe and the Near East.

Concerning Indoiranian, Vedic agrees with Greek in the use of this root as a technical term for dying, but the Iranian group offers a non-specialized broader spectrum of terms related to colour, among which only Khwar. rxtk shares the meaning “red”.

8. Sew

Another widespread Indoeuropean root related to the textile terminology is IE. *sjeuyh₁-/ṣuḥ₁- (> *suḥ₁-) “to sew”76, which was continued by IIr. *sjaḥH-/*ṣuḥH-.

b) Middle Iranian: Khot. hiyā- “sewn stuffs”.78

c) Other IE. languages: Hit. sum(m)anza(n) “thread”; Gr. humēn “membrane”, OPrus. schumeno “shoemaker’s thread”; Lat. suere, Goth. sīwan, OIsl. sýja, OHG. siuwen, OE. sōwian, OCS. šijo, Toch. A su-, Lith. siūti, Latv. šūt “to sew”.79

Besides this, another root was used in Indoiranian for the meaning “to sew” or a similar one: IIr. *ćajH- “to sew”.80

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69 West 2007, 36–38.
70 Tuck 2006.
76 Adams & Barber 1997, 573. According to Bader 1990, IE. *sh₂-, which is enlarged as IE. *sh₂-ḥ and *sh₂-ų-.
78 Bailey 1979, 483.
80 Cheung 2007, 29.
a) Old Indian: Ved. cīra- “strip, rag”, Ved. cela- “dress”.

b) Middle and New Iranian: MMP. bżyn- (*upa-) “to sew”; Parth. bţyn’gr “tailor”; Sogd. šwm- “to sew”; Khwar. bcn- (*upa-) “to mend, to patch up (clothing)”; Yāyn. šiša- “to sew”; OKhot. cile (Pl.) “dress”, Rōš. cīl “large woman’s head-dress”, Yazy. cīl “head-dress”.

No Indoeuropean word inherited by Indoiranian attests the meaning “needle”. Nevertheless, an Indoeuropean root with the meaning “sharp” was already used in Indoiranian to designate it: IE. *kůH- “sharp” > IIr. *ćuH- “sharp > needle”.

9. Manufactured textiles

Only two words designating manufactured textiles can be traced back to Indoiranian. The first stems from the Indoeuropean root *drep- “to cut”, which gave the word for “rag” in some Indoeuropean languages and was inherited by IIr. *drap- “rag”. In the Indian and the Iranian groups it yielded the word for “banner”, but also other words related to manufactured textiles, such as Ved. drāpī- “mantle, garment”.

a) Old Indian: Ved. śūla- “pike”; Ved. sūcī- “needle” < *sūcī-, probably due to contamination with the verbal root Ved. śiv- “to sew”.

b) Iranian:
   - Old Iranian: YAv. sūkā- “needle”.
   - Middle and New Iranian: Khot. suṃjṣaṅu, MP. sōzan, NP. sōzan, Bal. sūčīn, Parāčī sīčīn, Oss. sūžīn/sōžīnæ, Šuγīn sīj “needle”.

   c) Other IE. languages: Lat. culex, OIr. cuil “mosquito”; Arm. slak’ “pike, dagger”.

The second word related to manufactured textiles is that for “mantle”: IIr. *atka-.

a) Old Indian: Ved. ātka- “mantle”.

b) Old Iranian: YAv. aška-/afka- “mantle”.

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82 Cheung 2007, 29.
83 Bailey 1997, 103.
85 Bailey 1997, 103.
88 Barholomae 1904, 1582.
89 Barholomae 1904, 427a.
92 Barholomae 1904, 771–772.
93 Cheung 2007, 77.
95 Barholomae 1904, 61.
10. Dress, wear

Although it does not belong to the terminology of the materials and processes of preparation of textiles, there is a widespread Indoeuropean root with the meaning “to dress, to wear clothes” which yielded many words for “dress” and “cloth”: IE. *yes- “to dress” > IIR. *yas- “to dress”.


c) Other IE. languages: Hit. ya-aš-še-iz-zi “he wears”; Gr. (F)eîmai “I dress”; Lat. vestis “cloth, garment”; Goth. wasjan “to wear”.96

As Schlerath97 observed, this root was used as a figura etymologica in the Indoiranian formula *yaustra-/ yasana- yas- “to dress a dress”, as the comparison between Vedic and Avestan demonstrates.98 However, he did not observed that this formula could be traced back to Indoeuropean, because it is found in many passages in Homer99 and it is applied to the Moon’s dress in h. Hom. 32.8,100 where Gr. eîmata essaméně is attested. Therefore, we can state that an Indoeuropean formula *yes- yas- “to dress a dress” existed and that it referred to gods that dressed the sky.

In other non-Indoeuropean cultures gods dress the sky.101 As this seems to be a widespread image, the most striking in the Indoeuropean cultures is not that they also attest it, but that they expressed it by means of the same poetic formula.

Notwithstanding, this is not the only formula that this root attests. It was used in a further Indoeuropean formula, IE. *yes- “to dress” + *pejk- “to adorn”,102 which reveals an important fact for the Indoeuropean textile terminology: the existence of textiles with precious stones set, maybe pearls. Indeed, the gods spreading their dress adorned with stars through the nocturnal sky were assimilated to mortals who wear a dress made with pearls. This Indoeuropean image is manifest in the Indoeuropean formula *yes- “to dress” + *pejk- “to adorn”, as we see in Vedic, Avestan and Greek:

- Vedic: RV 10.1.6103 sá tú vástrāṇy ádha péśanāni vásāno agní rābhā pṛthivyāh “He, Agni, who is wearing now adorned dresses, (is) in the navel of the earth.”
- Avestan: Yt 13.3104 yim. mazdā. vaste. vahhanam. stahrpaśayhom. mainiīu.tāstam “(the sky), which Mazdā

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94 Bartholomae 1904, 1394.
95 Bartholomae 1904, 1385–1386.
96 Cheung 2007, 405.
97 Schlerath 1990.
98 See for instance RV 10.5.4b adhīvāsāṁ ... vāvasāne and Yt 13.3 vaste. vahhanam. stahrpaśayhom.
100 Allen 1912, 90.
101 cf. Sum. AN.MA and Akk. nalbaš šamē “dressed with the sky”, referred to the god Nabû. According to Parpola 1985, 35, this image could have influenced the Harappan representation of gods dressed with the sky.
102 Jackson 2001; West 2007, 353.
103 Geldner 1951, 3.123; Schlerath 1968, 84.
dresses as a dress adorned with stars (/ or with set stars), fashioned by the Spirit”

- Greek: Aischylus, Pr. 24105 ἡ ποικιλείμον νυξ “the Night dressing an adorned dress”; Nonus, Dion. 40.416–417 ποικίλλω εἴμα πέρην, τάπων αἰθέρος, εἰκόνα κόσμου “dressing an adorned dress, image of the sky, similar to the universe”.

As we observe, this Indoeuropean formula makes manifest that, among the Indoeuropeans, the gods of the nocturnal sky were thought as humans who wear a dark dress adorned with some kind of bright or precious stones. As this image can be linguistically reconstructed to a common Indoeuropean period, it must necessarily reflect the existence of this type of textile with precious stones set.

* * *

To summarise, the linguistic reconstruction of the Indoiranian and the Indoeuropean yields many details about the textile terminology. Concerning the materials, it seems that the Indoiranians mainly used wool in their textiles. It is unlikely that they did not use plant fibres. However, no word for them can be traced back to Indoiranian. Conversely two roots for “wool” can be traced back to Indoiranian: a) I Ir. *H₂₁₁ ḱraH- “wool”, which stems from IE. *h₂₁₁ ḱraH₁ “wool” and possibly is applied to the sheep’s wool; and b) I Ir. *d₁钇₁ “wool”, which probably designates the goat’s wool, but is used for the camel’s wool in New Persian. The connection between the wool and the name for “thread” in Indoiranian and Indoeuropean (IE. *dek- “thread, hair” > I Ir. *dać- “thread”) remained in some Indoeuropean languages, where this word means “hair”.

With regards to the processes and techniques of the textile and other terms related to textile, words for “to stretch (threads / manufactured textile)”, “to weave, to knot rugs”, “to redden, to colour”, “to sew”, “needle”, “rag”, “mantle” and “to dress” can be traced back to Indoiranian.

At least two Indoeuropean roots inherited by Indoiranian were applied to the technique of braiding thread. The first, IE. *derbh- “to braid”, became specialized in Indoiranian and designated a type of sewing, maybe the Nålebinding, sprang, or the ply-splitting. The second, IE. *kert-, designated some kind of wickerwork, but developed the meaning “to spin” in some Vedic words. However, an Indoiranian meaning “to spin” cannot be reconstructed only by means of Ved. *karta- “to spin” and Khwar. ’nknc “needle”. Moreover, Ved. káta- “mat” is closer to the words related to the wickerwork of the rest of indoeuropean languages than to Ved. *karta- “to spin”, and demonstrates that this meaning developed secondarily. Those Indoeuropean roots with the meaning “to twist” also developed secondarily and independently the meaning “to spin” in Indian and Iranian, so that this meaning did not belong to the Indoiranian textile terminology.

Conversely, the Indoeuropean root *ten- “to stretch” was related to the textile terminology in Indoiranian, although it did not designate the same process in the Indian and the Iranian groups. Nevertheless, it was part of an Indoeuropean formula “Night” + IE. *ten-, referring to the dress of the Night, spread through the sky.

Of the two roots with the meaning “to weave”, IE. *h₁ evoke- and its extension IE. *h₁ yebeh₁-, only the second can be traced back to Indoiranian. It could have been applied to the manufacture of knotted rugs and is also connected with the poetic composition in some Indoeuropean languages.

Concerning dyes, the Indoeuropean root *(s)reg- “to redden, to colour”, which is continued by

105 Jackson 2001, 123.
IIr. *rag- “to redden, to colour”, demonstrates that red was the first colour used as a dye among the Indoeuropeans. This is confirmed by the archaeological evidence in Europe and the Near East and is connected with the selection of sheep with pale to white wool.\(^{106}\)

Two common words for “sewing” and one for “needle” can be traced back to Indoiranian. On one hand, we can reconstruct IIr. *sjaH-/*sjuH- “to sew”, which stems from IE. *ṣjeH₁/*ṣjuH₁ (→ *suh₁) “to sew”, and IIr. *cjaH- “to sew”. There is apparently no difference in meaning between both. On the other hand, the word for “needle”, IIr. *ćuH-, surely stems from the Indoeuropean root *kH- “sharp”.

Two common words for “rag” and “mantle”, IIr. *drap- “rag” and IIr. *atka- “mantle”, also stem from Indoiranian. The first stems from the Indoeuropean root *drep- “to cut”, while the second is only found in the Indoiranian group.

Finally, there was an Indoeuropean root *yēs- “to dress”, inherited by IIr. *yas- “to dress”, which yielded some terms for “dress” and “cloth” in the Indian and the Iranian languages, but was also used in two Indoeuropean poetic formulas. The first, IE. *yēs- *yēs- “to dress a dress”, was applied to gods who dressed the sky. The second, IE. *yēs- “to dress” + *peH₁- “to adorn”, was applied to gods dressing the nocturnal sky and reveals the existence of textiles adorned with some kind of bright or precious stones among the Indoeuropeans.

### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc.</td>
<td>Accusative</td>
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\(^{106}\) Barber 1975, 296.
22. *Some Considerations about Vedic, Avestan and Indoiranian Textile Terminology*

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<th>Language</th>
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<td>Yaśt</td>
</tr>
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<td>YV,VS</td>
<td>Yajurveda Vājśaneyi Sarṇhitā</td>
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</table>

**Bibliography**
