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Wool Trade in Upper Mesopotamia and Syria According to Old Babylonian and Old Assyrian Texts

Cécile Michel

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Catherine Breniquet and Cécile Michel

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Front cover: Sheep arriving at Aššur, drawing by W. Andrae;
Sketch of the animal frieze on the ritual limestone basin, Ebla, Temple D.
Back cover: Logogram LANA

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13. Wool Trade in Upper Mesopotamia and Syria According to Old Babylonian and Old Assyrian Texts

Cécile Michel

As one of the basic commodities produced in Ancient Mesopotamia, wool is mentioned in all kinds of contexts. Every palace or private house had a stock of wool; weaving was the main activity of women both at home and in large institutional specialized workshops.[1]

However, our knowledge of trading in wool varies according to the nature of the available sources. For example, large quantities of wool were used daily by Assyrian women in Aššur producing textiles for their households and for long distance trade with Anatolia. Erišum I, king of Aššur claimed, in an inscription, to have set up a free traffic of goods traded by inhabitants of Aššur: 'silver, gold, copper, tin, barley, and wool, down to bran and chaff'.[2] But the Old Assyrian documentation found essentially at Kültepe (near Kayseri in modern Turkey) refers almost exclusively to wool traded inside Anatolia, where it was often used as a mean of exchange.

The origin of the wool sold on the Aššur market is given by the Mari royal archives. These, as well as some few texts from Qaṭṭarā, Harradum or Šubat-Enlil (northern Iraq and Syria), offer a detailed picture of the supply of palaces with wool and the various uses made of it.[3] Combining the data offered by these different cuneiform corpuses, this paper explores various aspects of the wool trade in Upper Mesopotamia and Syria during the 19th and 18th centuries BC: wool provenance and transport, the process from sheep to wool, wool trade in the private and institutional spheres, and its management by the wool office, qualities and prices of wool, as well as its uses.

1. Provenance of wool

According to the many place names mentioned in connection with textiles in the Old Assyrian texts, Assyrian merchants traded textiles produced in southern Mesopotamia and in Aššur, but also

[1] These employed the overwhelming majority of enslaved women and children. McCorriston 1997 (comments after the paper by M. Liverani), 537. Men were often involved in large textile workshops as specialists in some techniques, or as heads of teams of workers, see for example the administrative texts of Mari recording the receipt of wool by heads of teams of weavers (see below). For a study on the economic role of textiles in the economies of Northern Syria and Anatolia during the Early Bronze Age, see Lumb 2013.

[2] Erišum I A.0.33.2:20–25 (Grayson 1987, 22); see Veenhof 2003. Michel and Veenhof 2010 present all the data about textiles in the Old Assyrian documentation. For an inventory of the Old Assyrian texts, see Michel 2003; 2006a; 2011.

[3] Durand 2009 gives a detailed study of textiles in the Mari texts.

in northern Syria, in Upper Mesopotamia and in Anatolia. We have previously shown that when a geographical name qualifies a textile, it does not necessarily mean that this textile was a local product, manufactured in a specific town, but it could also refer to a particular technique that was reproducible somewhere else, or to the material used, i.e. wool, produced in a specific area.[4] The same may be applied to textiles cited in the Mari texts in connection with geographical names.[5]

The important textile production of Aššur used large quantities of wool.[6] Some inhabitants or institutions may have owned herds of sheep; nomads certainly grazed their flocks at least once a year near the city where one could find pastures. Texts give little information on how the women of Aššur got the wool they needed, and where this raw material came from. The most common type of fabric produced by the Aššur women and exported to the West was the *kutānum*-textile which could be weaved with *Šurbuīum* wool. This expensive type of wool is only mentioned in letters when it is lacking on the Aššur market.[7] It originated from the city of Šurbu, known both from 3rd millennium sources, and a geographical list from the early 2nd millennium BC found at Tell Harmal.[8] Šurbu was located in the Hamrin Mountains, Southeast of Aššur, in an area well-known for sheep breeding (Fig. 13.1).

The Mari royal archives give more details about the origin of wool sold on the Aššur market during the 18th century, and explain why it could be lacking. In a letter sent to the king of Mari, Meptûm, a high official, proposed that the plucking of the sheep should take place, not as it used to be, in Aššur where inhabitants could buy wool for money and grain directly from the pastoral nomads, but where the flocks were grazing, in the Suhûm, Southeast of Mari, thus forcing Aššur inhabitants to go there to buy the wool they needed: "The plucking (of sheep) from Suhûm must be done here, so that the Aššur people come and it must be here that they take the wool".[9] The sheep were usually brought to Aššur, to be plucked there, following the Wadi Tharthar where they could graze on their way. As Mari was at war with Ešnunna, which annexed Aššur and Ekallātum, the decision was taken to control the populations of the Suhûm, and to be informed of their contacts with the Assyrians (Fig. 13.1). The seasonal migration of livestock was blocked and no more herds came to Aššur. In a second letter, we learn that Assyrians complained about the Suhûm people who prevented access for their traders and the sheep, and thus the wool.[10] Other texts from Mari show that the palace used to buy wool or goat hairs to Suhûm inhabitants.[11]

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[4] Michel and Veenhof 2010, 218–226.

[5] For example, Durand 2009 mentions that *nahlaptum*-shirts could be made according to the fashion of Elam (p. 69), Haššum (p. 69), Marhaši (p. 71) and Šubartum (p. 71); for Šubartum, see Michel 2012.

[6] Michel 2006b, 290–293. The total number of textiles sent annually by each Aššur household; amounted to dozens, each weighing about 5 minas (2.5 kg), see Veenhof 1972, 89–90 and below.

[7] TC 2, 7:25–26 (LAPO 19, 108), "There is no Šurbum-wool available", *ša-ap-tum*, *Šu-ur-bu-i-tum lá-šu*.

[8] MSL 11, 58:164, see Dercksen 2004, 16, note 32, and Michel and Veenhof 2010, 221. For references to wool from this area, see for example the letter 'Tablet Rendell' (by courtesy of K. R. Veenhof) sent to Pūšu-kēn by his wife Lamassī: 5–7, *a-šu-mì*, túg *ša Šu-ur-bu-i-a-tim*, *ša ta-áš-pu-ra-ni* (...) 14–18, *iš-tí*, *wa-ar-ki-ú-tim*, túg *ša Šu-ur-bu-i-a-tim*, *a-na li-ta-ab-ší-kà*, *ú-šé-lá-kum* "As for the textile (made of wool) from Šurbu about which you wrote me (...) I will send up to you by a later (caravan) the textile (made of wool) from Šurbu for you to wear"; this text is edited in Michel *in preparation*, No. 167. For textiles made of this type of wool, see TC 2, 14:6, 27 túg sig$_5$ *Šu-ur-bu-i-<ú>-tum* are bought in Aššur.

[9] Charpin and Durand 1997, 377 and 387–391, No. 4 (A 2459):rev.3'–6', *ù bu-qú-um Su-hi-im*, *an-na-nu-um li-ib-ba-qí-im-ma*, *ù* lú-meš *Aš-šu-ru-ú*^{ki} *li-il-li-ku-nim-ma*, *an-na-nu-um-ma* síg *li-il-qú-ú*.

[10] Charpin and Durand 1997, No. 5 (A 4535–bis):rev. 2'–5', dumu-meš *Aš-šu-ur*^{ki} *ú-*[*da-ab-bu-nim*], *um-ma-a-mi a-na mi-nim it-ti Zi-i*[*m-ri-Li-im sa-al-ma-ta*], *ù* dam-gàr-meš$^{ru\text{-}ut}$*-ni* udu-há *ù* sí[g...], *ta-ak-la i-na-an-na ši-ta-ap-pa-ar* [*a-na li-ib-bi*], *ma-tim li-ir-du*, "Assyrians co[mplained] as follows: 'Why have you [made an alliance] with Zi[mrī-Lîm] and have you detained our merchants, sheep and wo[ol...]? Now, write continually so that they lead (them) back inside the country!'"

[11] For wool see M. 11281:1–9 (Durand 2009, 312, ZL 5), and for goat hair, see M. 11269:1–7 (Durand 2009, 294).

An important part of the textiles exported by the Assyrians to Anatolia was bought from the Babylonians; these textiles, which were called Akkadian textiles, were sometimes in short supply on the Aššur market, again because of political troubles: "As for the Akkadian textiles you wrote about, since you left, Akkadians have not entered the city, their country is in revolt".[12] Owing to the distance and cost of transport, the quality of textiles from southern Babylonia was highly regarded. The reputation of Babylonian fabrics was based on the quality of weaving, no doubt enhanced by the excellence of their wool. In Mari, we learn from Mukannišum letters that Babylonian wool was needed to produce luxury textiles.[13] Among the varieties of wool imported from Babylon was the precious *tuhšûm*-wool; when the caravans from Babylon could not travel, this type of wool was difficult to obtain to finish a garment to wear for Ištar's sacrifice ceremony.[14]

According to a letter sent by Amat-Šamaš, a priestess of Šamaš living in Sippar, to her sister Iltani, the wife of Karana's king who used to live in Qaṭṭarā, people from the Sinjar area appreciated good quality wool from Sippar: "Now, I just sent you as a honorific present, [x+]5 minas of first quality white wool for your peruke and a basket of shrimps".[15]

One could also find wool further north and west, along the Euphrates. Texts from Harradum, East of Mari, show that this city represented a meeting place for nomads who came there to sell their sheep and their wool.[16] Wool was found in Mari, also sold there by pastoral nomads or coming from the palace flocks.[17] It was sent to Mari from the whole territory: Terqa, Saggarātum and Qaṭṭunān.[18] In Terqa, Sammêtar gouvernor's palace owned sheep which were producing first quality wool but also ordinary wool.[19]

Several documents from Mari and a text from Harradum witness wool transactions in Emar. A letter found in the house of the merchant Rīš-Šamaš at Harradum mentions the purchase of cereals and wool in Emar.[20] J.-M. Durand, who studied Emar activities viewed from Mari archives, has shown that this city was an important centre of commerce on the Euphrates.[21] Emar served

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[12] VS 26, 17:5–8, *a-šu-mì ší-im* : túg *ša A-ki-dí-/e*, *ša ta-áš-pu-ra-ni*, *iš-tù* : *tù-uṣ-ú A-ki-dí-ú*, *a-na A-lim*^{ki} *ú-la e-ru-bu-/nim*, *ma-sú-nu* : *sá-hi-a-at-ma.*

[13] ARMT 13, 10 (LAPO 16, 134). A bag contained 30 minas of such wool and any remainder had to be sealed in the bag again by the queen mother, ARMT 18, 20 (LAPO 16, 135). See also A. 1285 (Rouault 1977, LAPO 16, 136, see below, n. 79).

[14] ARMT 26, 285: 12–14, *iš-tu* kaskal k[á-dingir-ra]^{ki}, *la i-la-ka* síg-du$_8$-šú-a *i-na ma-a-tim an-*[*ni-tim*], *i-ta-aq-'ra'-r*[*a*], "Since caravans from Babylon do not arrive anymore, *tuhšûm* wool became rare in this country". This letter dates from Šamšī-Adad's time.

[15] OBTR 134:33–36, [*a*]*-nu-um-ma zí-ki-ir šu-mi-ki*, [x+]5 *ma-na* síg-babbar sag *ša ú-pu-ur-ti-ki, ù* 1 ^{gi}*qú-up-pa-am ša* buru$_5$ ab-[ba], *uš-ta-bi-la-ki-im*; see Lion, Michel and Noel 2000, 57, n. 12.

[16] See Joannès 2006, Nos 5 and 62 for the sale of sheep; Joannès 2006, Nos 67 and 103 for the sale of wool; Joannès 2006, 27.

[17] Durand 2009, 149–152.

[18] Wool from Terqa is attested in the following texts dated to Zimrī-Lîm's reign: FM 6, No. 41 (30 minas of ordinary quality and 1 talent of second quality wool transferred to Terqa); ARMT 7, 92 (1 talent of wool); M. 10379 (Durand 2009, 267, first quality wool); M. 15096 (Durand 2009, 317, ZL 6: 10 minas of first quality wool); ARMT 9, 35 (various quantities of wool plucked at Terqa). Wool from Qaṭṭunān is attested in the following texts dated to Zimrī-Lîm's reign M. 11606 (Durand 2009, 478, 8 talents 17 minas of wool brought from Qaṭṭunān); M. 10376 (Durand 2009, 462, various qualities of wool from 300 sheep plucked at Qaṭṭunān).

[19] ARMT 23, 583: receipt for 23 minas of first quality wool from the plucking of Sammētar's sheep in the *bît tertim* of Terqa's palace, given to the weavers. This amount of wool corresponds to 11 or 12 sheep; see the comments on this text by van Koppen 2002, 309.

[20] Joannès 2006, No. 70:23–27, *še-um i-na A-lim*^{ki} *la ba-a-ši*, *šum-ma* [*ta-n*]*a-ṭa-al*, *iš-tu E-m*[*ar*]^{ki} *še-a-am*, *le-qé-a-am* síg-há, *le-qé-a-am*, "there is no more grain in the city. If you see that it is possible, take some grain for me from Emar; take also some wool".

[21] Durand 1990, 75.

as a market place for exchange between Mari on one side, and Karkemiš and the Yamhad on the other side. Many animals were transiting through Emar, which became a big market for animals and their by-products. Merchants from Emar bought wool there and then transported some distance to sell it on. One of them sold no less than 50 talents of various qualities of wool for a very low price to the Mari palace.[22] Another one, located at Dêr of the Balih, protested to the Mari authorities that his merchandise, including 30 minas of *tuhšûm*-wool, had been stolen.[23]

Wool was also circulating within the Sinjar area, for example, from Qaṭṭarā to Andarig.[24] And Qaṭṭarā is the origin of a *nibrarum*-textile in an unpublished Old Assyrian document; this textile could have been made from local wool.[25] In the Habur triangle, the requirement for wool was also important within local administrations, but official archives from Chagar Bazar (Ašnakkum?) do not illustrate these aspects; they mainly concern the beer office. In Tell Leilan, designated as Šehna during the kingdom of Šamšī-Adad, we find sheep from Amaz, another town of the Habur triangle. Later on, when the city was named Šubat-Enlil, the palace, which needed much wool, could buy it from merchants who were living in the nearby *kārum*s of Šuna and Amursakku; the sheep had presumably been plucked in the vicinity.[26]

Wool could occasionally be sent from quite far away when there was a shortage. When no more wool was avalaible on Aššur market, women used to ask their husbands to send small quantities from Anatolia: "When you send the purse, enclose some wool (because) wool is expensive in the City".[27] Wool was then carried to Aššur on donkeys together with gold and silver.[28] Thus the text Prag I 554 mentions a shipment of silver to Aššur that includes "3 minas of wool for Waqqurtum".[29] The shipment of some wool from Anatolia may be explained by the existence of important wool markets southeast of Kaneš,[30] as Balihum, near the place where the Balih rises, at Hahhum,[31] probably located at Samsat, at Timilkiya, near the modern city of Pazarcık, or at Hurrama, in the area of Göksün. Luhusaddiya, between Elibstan and Pazarcık, was the most important production centre of textiles and wool of this area; and flocks were plucked nearby.[32] Many texts witness the involvement of Assyrian merchants in the Anatolian wool trade.[33] But these wool shipments to

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[22] M. 20211 (Durand 2009, 404, text previously known as Salle 143, 80, see Kupper 1982a, dated to ZL 12): it gives the lowest price attested for the purchase of wool to an inhabitant of Emar: 50 talents for 2 minas of silver (see below).

[23] A.2500+ (LAPO 18, 926): the merchant of Emar, Habatān, complained that his merchandise – 30 minas of bronze, 30 minas of *tuhšûm*-wool, 3 bronze spears, 60 belts and 10 donkeys – that he had previously bought had been stolen.

[24] In OBTR 106, Iltani supplies wool for a woman named Azzu-ena in the town of Andarig, see Dalley 1977.

[25] Kt 93/k 75:13–14, 1 túg *ni-ib-ra-ra-/am, ša Qá-ṭá-ra*; for the bibliography about the location of Qaṭṭarā, see Michel 2006c.

[26] See Vincente 1991, No. 415: sheep and goats of Hammu-Epuh of Amaz have been entrusted to Zimrī-Hammu at Šehna, a high official in charge of palace flocks. The palace is buying wool from merchants according to Ismail 1991, No. 103:14–18: ⅔ *ma-na* kù-babbar *ši-im* 10 gú síg, *ša a-na ka-ar* lú *Šu-na-a*^{ki} *in-na-ad-nu*, ⅔ *ma-na* kù-babbar 10 gú síg, *ša a-na ka-ar* lú *A-mur-sa-ak-ki*^{ki}, *in-na-ad-nu*, "⅔ minas of silver, price of 10 talents of wool that have been given to the (merchants) of Šuna's *kārum*, ⅔ minas of silver, price of 10 talents of wool that have been given to the (merchants) of Amursakku's *kārum*". See the comments on this text by Eidem 2008, 36.

[27] BIN 6, 7 (LAPO 19, 305): 16–21, *i-nu-mì : ki-sà-am*, *tù-šé-ba-lá-ni*, síg-hi-a *šu-uk-nam*, *ša-áp-tù-um*, *i-na A-lim*^{ki}, *wa-aq-ra-at*. See also BIN 4, 9 (LAPO 19, 304); Garelli 1965, 158, No. 25:13–16 (LAPO 19, 306).

[28] CCT 5, 41a mentions half a donkey-load containing silver and gold, as well as 5 belts and 3 minas of wool. See also AKT 1, 7.

[29] Prag I 554: 9–10, 3 *ma-na* síg-hi-a, *a-na Wa-qúr-tim.*

[30] Michel and Veenhof 2010, 216; Lassen 2010.

[31] A specific quality of wool was named after the town of Hahhum in a late Old Assyrian text from Alişar, see Dercksen 2004, note 492.

[32] Michel 2006b; Dercksen 2004, 273–274; Lassen 2010, 167–170.

[33] See Dercksen 2004, 179, and the contribution of A. Lassen in this volume.

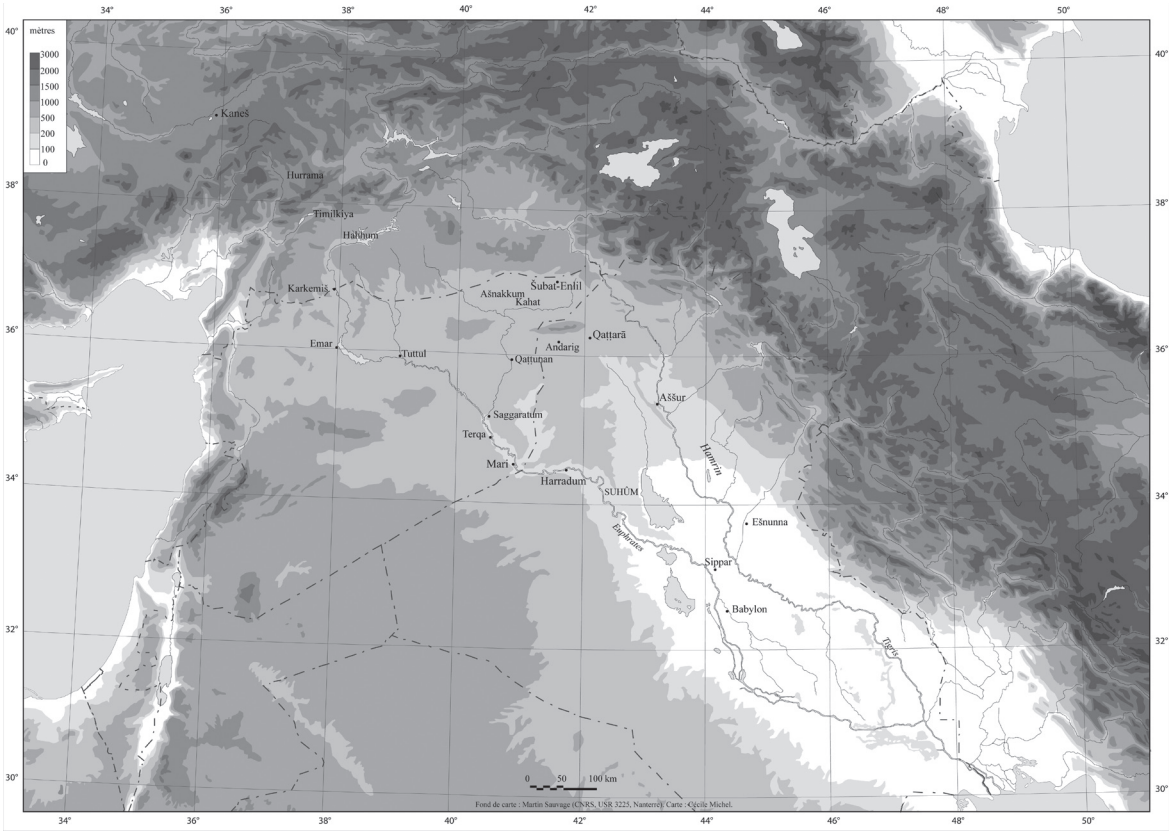

Figure 13.1. Map of the ancient Near East: Location of the cities mentioned in the text.

Aššur remain rare and concern only small quantities of wool, because the cost of the transport would have been too expensive because of the length of the trip.

One must take into account that wool produced in a specific area might come from sheep which grazed in different places, sometimes quite far away, because of war or climatic conditions. For example, Mari palace flocks could summer in the area of Kahat (Yahdun-Lîm's reign) or even Qaṭnā (Yasmah-Addu's reign), because of a severe drought and epizootic.[34]

Beside wool, people from Mari used goat hair, mainly to make ropes and tents.[35] According to administrative texts, goat hair may also come from the Suhûm.[36]

[34] Durand 1992, 105, and ARM 5, 15 (LAPO 17, 722); Durand 1998, 470–471. A letter from Tell Leilan also mentions a sheep disease which might turn into epizootic; see Eidem 2011, No. 85.

[35] Goat hair to make ropes (*eblum*): ARMT 22, 98 (Yahdun-Lîm) and ARMT 22, 85 (ZL). M. 8880 (Durand 2009, 480) mentions the purchase of 4 minas of goat hair to make a *huruppatum*-tent.

[36] M. 11269 (Durand 2009, 294) mentions the payment of 3 shekels of silver for the purchase of goat hair (síg ùz) from Buqāqum, the Suhean. A huge quantity of goat hair is attested in M. 6386 (Durand 2009, 427): 10 talents of wool and 40 talents of goat hair given to Mukannišum in the presence of the king. References to goat hair are quite scarce in our documentation, contrary to the Middle Assyrian one; see the contribution of N. Postgate in this volume.

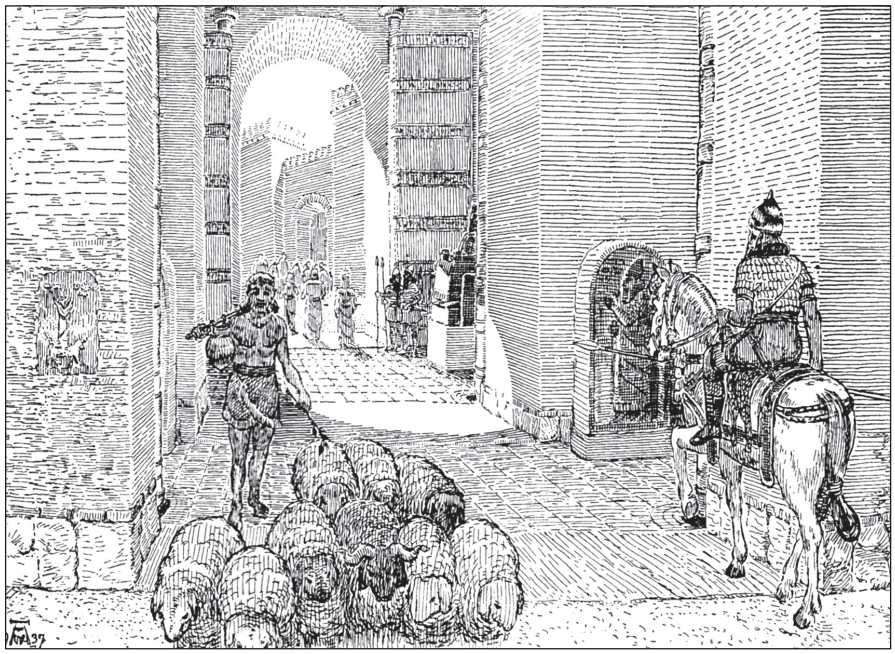

Fig. 13.2. Sheep arriving at Aššur, drawing by W. Andrae (From Andrae 1938, 8, Abb. 4).

2. Transport and preparation

A letter sent by the king of Karkemiš to Yasmah-Addu mentions a voyage of a boat on the Euphrates transporting 30 sheep and 50 jars of wine; this boat is stopped and retained at Tuttul. We do not know if these animals were transported for their wool, for their meat or both, but transport of sheep by boat is quite unusual.[37] As we learn from Mari letters, wool was usually transported directly to Aššur on the hoof, the herds being driven close to the city to be plucked (Fig. 13.2). As the herds were forbidden to move to Aššur because of war, they were plucked in the Suhûm where Aššur inhabitants had to go to buy the wool they needed. The cost of the transport of wool bundles on donkeys thus increased the price of the wool.

The transport of wool on donkeys is attested but not very frequently. A donkey is sent from Andarig to Qaṭṭarā, to transport back some wool and sesame oil.[38] The donkeys coming back from Kaneš to Aššur with consignments of gold and silver occasionally carried an additional 1.5 kg of wool (see above). An unpublished Old Assyrian document mentions a transport of wool and textiles; each of thirteen donkeys was loaded with 75 kg of wool packed in bales.[39] Raw wool or wool that was already treated was also packed into various types of textiles bundles or in leather bags.[40]

[37] ARM 5, 9 (LAPO 18, 915).

[38] OBTR 153:8–12, *a-nu-um-ma* anše *a-na qa-at*, ᵢ*Ṭà-ab-*ᵈ*A-šur*, *aṭ-ṭà-ar-da-am*, síg *ù* ì-giš, *i-na šu-ur-ki-bi-ma šu-bi-lim*. "Now, I have sent down a donkey by Ṭab-Aššur. On loading, send me wool and sesame oil".

[39] Kt 87k 45 (by courtesy of K. Hecker), see comments by Dercksen 2004, 274.

[40] ARMT 22, 321: wool is packed into *šahhû*-textiles and *gusānum* bags. M. 11965 (Durand 2009, 449): 1 talent 57 minas of wool available kept in leather bags (*gusānum* and *luppum*); M. 18159 (Durand 2009, 416): list of leather containers

After the collect of large quantities of wool on sheep belonging to the palace of Qaṭṭunān, the governor announced to Mari king that wool would be transported to Saggarātum on wagons.[41]

The collect of wool is well documented in the Mari archives; it took place once a year, in cool weather during spring, just before the harvest, as the herds were gathered in big pens.[42] Before, this operation, the flock were washed. A letter concerning the North East of the upper Djezireh dated to the reign of Yasmah-Addu details the operations;[43] these can be completed from older and later sources.[44] Washing the sheep removed the dust from their fleeces; males and females were bathed separately. One had to be very careful that, while bathing the sheep, the wool was not lost in the water. The wool was plucked (*qaṭāqum*) by hand;[45] this technique developed for the animals of that period had the advantage of preserving the fibres. This work had to be done quickly after the washing of the sheep so that the wool would not get dusty again and does not fall out. It was important to do it at the right moment, if waiting too long, the old fibres might be mixed with new growth. It was done by men and took some time. Several hundred men, chosen from the military, servants of the king, slaves and foreign workers were needed to pluck the sheep.[46] According to the Mari letters, 300 or 400 men should work for three days: this corresponds to about 10,000 plucked sheep.[47] As it was raining, the work had to be interrupted and thus could last some ten days.[48] When operations were delayed by the lack of 'sheep pickers', weavers were unemployed, waiting for the raw material.[49] The first sample of plucked wool would be sent to the king to assess its quality.[50] A text from Tell Leilān indicates that the palace would employ workers for the plucking: 1438 sheep, presumably belonging to the palace, were plucked by the semi-nomadic Hana people for a fee of 1 shekel of silver for each 7 or 8 sheep.[51]

A sheep produced an average of 2 minas i.e. 1 kg of wool. Administrative documents from Mari register either the plucking of various groups of sheep[52] or receipts of the wool produced by plucking the sheep: "15 minas of first quality wool, 1 talent of second quality wool, 6 talents and 50 minas of ordinary wool. Total: 8 talents 5 minas of wool, product of the plucking of the ewes, that we have enter to (stored in) the sealed room when the plucking (was completed) at Qaṭṭunān".[53] This amount of wool corresponds to about 242 ewes. Smaller numbers of sheep could

containing textiles and wool from the booty of Admatum. M. 11894 (Durand 2009, 518): wool of Amorite sheep amounting to 7 shekels and wool of sheep fattened with flour, kept in leather bags (*gusānum*).

[41] ARMT 27, 37 was sent by Zakira-Hammu, governor of Qaṭṭunān, who announced to the king that he had the sheep of the palace plucked by the workers of the district and sent the wool on wagons to Saggarātum.

[42] See Durand 1998, 670–676.

[43] ARMT 5, 67 (LAPO 17, 852), and the interpretation of this text by Abrahami in this volume.

[44] Cassin 1959 for Nuzi; Lambert 1960 for other sources.

[45] A special comb could have been used sometimes for this operation, see Andersson Strand in this volume.

[46] ARMT 13, 30 (LAPO 17, 853) shows 226 workers requisitioned to pluck the sheep; the work could also be done by foreigners leasing their services, and by the king's personal servants.

[47] ARMT 5, 65 (LAPO 17, 852). According to E. Andersson Strand in this volume a person could pluck around ten small sheep per day. At Ur III, textile workers plucked about 38 sheep a day, Waetzoldt 1972, 14–17.

[48] ARMT 2, 140 (LAPO 17, 854).

[49] ARMT 5, 67 (LAPO 17, 852); Durand 1986, 216.

[50] ARMT 2, 140 (LAPO 17, 854).

[51] Ismail 1991, No. 103; Eidem 2008, 36. Depending on the time necessary to pluck 7 or 8 sheep: a half day or a day, it was not very well paid.

[52] See for example, ARMT 9, 245 recording 229 male plucked sheep.

[53] ARMT 9, 35:1–9, [1]5 *ma-na* síg sag, [1 g]ú síg uš, 6 gú 50 *ma-na* síg *gur-nu*, šunigin 8 gú 5 [*ma*]-*na* síg-há, *bu-qú-um* u_8-há, *ša a-na é ku-nu-ki*, [*š*]*u-ru-ba*, *i-nu-ma bu-qú-m*[*i*]-*im*, *i-na Qa-aṭ-ṭu-na-an*^{ki} (xii ZL 12).

be plucked at once. An administrative text records the plucking of a single sheep in the palace court of Mari; its first quality wool, i.e. 2 minas ⅔ (1.3 kg) was given to three male weavers and a female weaver, perhaps for a specific task.[54]

After being collected, the wool was sorted before being weighed, packed in bundles, and entrusted to the weavers.[55] It was delivered, often as raw wool, immediately after plucking,[56] but some small quantities were cleaned up by female workers, removing dust (*eperum*) and waste wool (*nuqārum*).[57] These operations could considerably reduce the weight of the wool. As well, some records mention the selection of the best quality wool from the fleece: from about 1.5 kg of wool, only 93 g of *tuhšûm*-good quality wool remained after cleaning.[58] In the palace workshops as well as in private houses, the wool was first 'aired' (*napšatum*; i.e. the wool fibres were separated);[59] this airing process would have been done with sticks.[60] Then the wool was disentangled and cleaned by teasing (*pus/šikkum*), an operation done by hand.[61] Finally, it could be combed (*mašādum*).[62] It was then spun into a thread and woven. The dyeing process was applied only to woven fabrics.[63]

3. The circulation of wool

The circulation of wool may be analyzed from a private or an institutional perspective. The first is documented by the Old Assyrian archives of Kaneš, the latter relies mainly on the archives from Mari palace; very few texts from Šubat-Enlil and Harradum are concerned with these aspects. There were several ways to get wool: by purchasing from merchants and nomads, via taxes collected in-kind on nomads' herds, by raiding on herds, or it was simply taken from the palace flocks.[64]

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[54] ARMT 23, 373, xii ZL 6.

[55] ARMT 5, 67 (LAPO 17, 852): wool delivered to the lú-túg (textile specialists) and to the *išparātum* (female weavers).

[56] M. 6032 (Durand 2009, 265): 22 ⅔ minas of raw wool just plucked delivered to Yar'ip-El; ARMT 22, 93: receipt of raw wool corresponding to the plucking of 40 sheep; ARMT 23, 94: raw wool just plucked delivered to Ahu-waqar; ARMT 23, 95: receipt of raw wool just plucked.

[57] See for example ARMT 23, 72. These operations are explained by Bardet 1984, pp. 5–15 who published 23 texts dealing with this topic. Other techniques are also attested. See ARMT 22, 72 in which 12 women have have made a test to 'blow' *tuhšûm*-wool; M. 10023 (Durand 2009, 283): 2 ½ minas of second quality wool delivered to Kāpī-la-rîm in order to clean by 'blowing'.

[58] ARMT 22, 50.

[59] M. 7313 (Durand 2009, 216, Yasmah-Addu): 4 ½ minas of 'aired' (*napšatum*) wool from the female weaver Punzi and 3 ⅔ minas 5 shekels of 'aired' wool from the female weaver Šurunna, receipt by Hissali. The 'airing' of the wool is also attested in the middle Assyrian documentation, see Postgate in this volume. For the 'airing' of wool and textiles against moths, see Michel 1998.

[60] This was suggested by C. Breniquet who showed me several samples from contemporaneous Asia.

[61] T. 543 (Durand 2009, 199, Sumū-Yamam): 3 minas 10 shekels of teased wool (*pušikkum*); M. 7112 (Durand 2009, 286): 15 shekels of teased wool; ARMT 21, 337: account of teased wool. Durand 2009, 287 translates *pus/šikkum* by 'laine cardée', but carding needs special equipment made in metal for which we have no trace in the Ancient Near East; this technique is in fact used 'to air' wool, but is not attested for the 2nd millennium BC. Teasing wool is done by hand (in the French countryside, the technical word is 'écharpillage'); wool is teased to make a band that is later rolled onto the distaff.

[62] ARMT 24, 179 mentions the receipt of combed wool by Zimrī-Šamaš from Rahatum. The verb *mašādum* is also attested in the Old Assyrian sources (TC 3, 17) as well as the word *mušṭum*, 'comb': OIP 27, 55; TC 3, 159:9; TC 3, 193:3; CCT 3, 31:29. Combing allows aligning wool fibres. Note that in southern Babylonia, girls sometimes received combs for wool in their dowries (BE 6/1 84, see Dalley 1980, 60–61).

[63] Bardet 1984, 152, and ARMT 21, 313–314, but see Durand in ARMT 21, 376.

[64] Rouault 1977; Kupper 1991, 48.

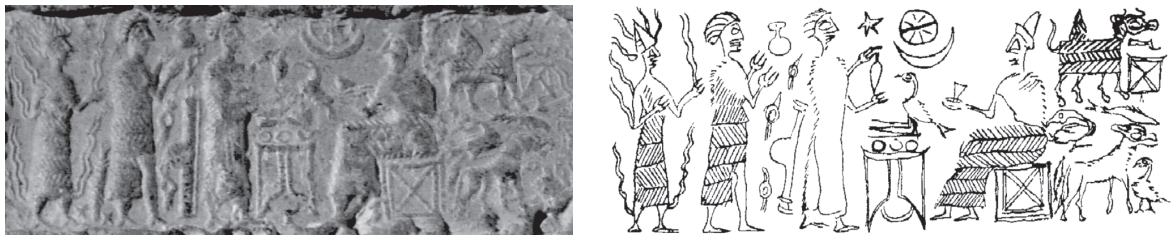

Fig. 13.3. Seal imprint Ka 82, seal A on the envelope KTS 1, 45a.

3.1. Wool trade in the private sphere

The Old Assyrian archives, discovered in the houses of merchants in Kaneš lower city, document indirectly the textile production of Aššur in a domestic context.[65] All the women of the house, including girls of unknown age and female slaves, spun wool and wove woolen textiles as witnessed by the letters they sent to Anatolia. There is a lack of material evidence of spinning and weaving at Aššur, but a seal imprint on a loan contract envelope found at Kaneš shows a woman presenting to the god, sitting in front of her, a spindle with thread wound on it (Fig. 13.3). A scale and a set of weights (or banks) are represented on the back of the woman. This seal, carved in the Anatolian style was used by an Assyrian man and clearly reflects the role of women in the production of textiles.[66]

The total production of a wealthy household amounted to some 25 textiles yearly, which would have included *kutānum*-textiles.[67] These textiles were either used to dress the household members or were exported to Anatolia. The women needed large amounts of wool that they could buy, as already noted, from the Suhûm nomads coming from the southwest to Aššur in order to pluck their sheep and sell their wool, or from the nomads from the Hamrim Mountains (see above). There is no information about centralized textile production in Aššur as attested later on, during the Middle Assyrian period.[68] There is also no mention of the purchase of large amounts of wool by local institutions as existed in the palace archives of Upper Mesopotamia and Syria. However, Aššur eponyms, as well as the House of the Eponym, owned textiles that they could sell or entrust to a merchant in a financial arrangement.[69] But, nothing is said about these textiles and they could have previously been bought by the institution to Babylonian merchants or to Aššur houses; eponyms, as well as the king and other Aššur institutions, participated in the long distance trade with Anatolia. The import of numerous Babylonian textiles supplemented local production to generate the thousands of textiles exported each year to Anatolia.[70]

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[65] Veenhof 1972, Michel 2006b, Michel *in preparation*, chapters 3 and 4.

[66] KTS 1, 45a concerns a credit of Enlil-bāni to Laqēpum; its envelope was sealed by Dan-Aššur, son of Puzur-Aššur, by Dadā, son of Aššur-imittī (= seal B), and by Laqepum, son of Šū-Aššur, and presents three sealings. Note that an animal (a bovid) wears the same type of twilled garment as the deity and other male figurines. I address all my thanks to Veysel Donbaz who gave me his photo of this sealing.

[67] Michel, *Estimating an Old Assyrian Household Textile Production with the Help of Experimental Archaeology: Feasibility and Limitations*. Contribution at 'Traditional Textile Craft – an Intangible Cultural Heritage?' The Jordan Museum, Amman, Jordan, 24th–31st March 2014 (http@//www.traditionaltextilecraft.dk/).

[68] However, Dercksen 2004, 16 suggested that centralized and institutional production did exist. For the Middle Assyrian sources, see the contribution of Postgate in this volume.

[69] Ank. 14–3–80 (Günbattı 1987, 197), and TPAK 1, 143; both texts are quoted by Dercksen 2004, 14–15.

[70] Veenhof 1977, 114, note 18

3.2. Wool trade in the institutional sphere

Palaces and estates could have had large stocks of wool in their storerooms which they needed for many purposes (see below). An inventory from Tell Leilān gives a detailed list of the wool and textile stocks.[71] In addition the palace inventories of Mari list goods such as textiles, wool, oil, salt, and metal vessels that were kept in sealed containers (made of wood, reed or clay) or leather bags.[72] Estates belonging to high officials also kept large quantities of wool as we learn from their house inventories; the goods of Bannum and Zakura-Abum in Qaṭṭunān included numerous personnel, sesame, grain, beans and 1 talent of wool.[73]

Wool was purchased to local merchants or to merchants from other areas. A text from Harradum mentions the sale for silver of x+1 talent and 30 minas of wool to the palace, as well as 12 fleeces; the seller might have been Rīš-Šamaš since he kept the document in his archives.[74] However, the great majority of the documentation comes from the archives of palaces which initiated the wool purchases. A text discovered at Tell Leilān shows the palace delivering silver to buy wool: 13 ⅚ minas of the 14 ⅚ minas of silver used to buy wool and barley to come directly from the king's safe, ⅔ minas of silver were spent to buy 10 talents of wool from the merchants from the *kārum* of Šuna and the same amount was bought from the merchants from the *kārum* of Amursakku (in all 600kg of wool).[75] The examples from Mari are more numerous and more varied.[76] Mari palace would buy wool, goat hair or sheep to pluck from local merchants,[77] but also from merchants from the Suhûm,[78] or from Babylon. Mari palace steward, Mukannišum, required the authorization to use good quality wool from Babylon stored in a bag under the king's seal in order to finish a ceremonial costume for the king. In an impatient answer, Zimrī-Lîm explained that he does not want to depend on Babylon's wool for his own wardrobe, and insisted on the fact that this costume should be made with wool produced by the palace's flock:[79] "How come you depend on wool from Babylon, and you make these demands of me? Before, in the time of Yahdun-Lîm, Šamšī-Adad and Yasmah-Addu, well, did they consider wool from Babylon? (...) Isn't there enough wool from the plucking of the palace (sheep to provide) all the wool needed to weave this garment? So now, you should not consider wool from Babylon!" Wool was also bought from merchants from Emar, sometimes at a quite low price.[80]

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[71] Ismail 1991, No. 81: 24 minas 14 shekels of first quality wool, 1 talent 1 mina of second quality wool, and several garments, some of them made of linen.

[72] ARMT 25, 493 (collations and new edition as ARMT 31, 268).

[73] FM 2, No. 49, see Durand 1994, 87–88.

[74] Joannès 2006, No. 103.

[75] Ismail 1991, No. 103.

[76] Kupper 1982b, 165, n. 14 quotes many texts witnessing wool purchases by the Mari palace. Kupper 1990, 43; ARMT 21, 220 (partly broken) lists several wool purchases.

[77] ARMT 21, 216 mentions ⅔ mina 2 ⅔ shekels of silver to buy 12 talents 14 minas 15 shekels of wool. ARMT 18, 39: second quality wool and coarse wool from sheep bought to Yahaṭṭi-El, 1 talent 22 minas of second quality wool, 32 talents 58 minas of ordinary wool from the sheep purchased which have been plucked in the estate of Yagatti-El.

[78] See below M. 11281 (Durand 2009, 312). See also M. 11269 (Durand 2009, 294) for the purchase of goat hair to Buqāqum from Suhûm. According to ARMT 26/2, p. 401, n. 5, Buqāqum possessed flocks since he sold wool (M.11269, Durand 2009, 294) or brought some (M.10385, Durand 2009, 344).

[79] ARMT 18, 20 (LAPO 16, 135); Rouault 1977 (LAPO 16, 136) [14–18]*mi-nu-um an-ni-it-*[*t*]*a-an ša a-na* síg-há lú ká-dingir-ra^{ki}, *ta-at-ta-aš-ka-na-ma ù tu-da-ba-ba-ni-ne*, *pa-na-nu-um i-nu-ma ia-ah-du-un-li-im*, ^{Id}utu^{ši_d}im *ù Ia-ás-ma-ah-*^{d}*im*, *a-na* síg-há lú ká-dingir-ra^{ki} *ma-a i-qa-al-lu* (...) [21–25]*i-na* síg-há *ša bu-qú-um é-kál-lim*, *ma-li i-ba-aš-še-e* síg-há *ma-li* túg *ša-a-tu*, *a-na na-sa-qí-im ú-ul i-ba-aš-se-e*, [*i-n*]*a*-[*an-n*]*a a-na* síg-há lú ká-dingir-ra^{ki}, *mi-i*[*m-m*]*a la ta-qa-a-al.*

[80] M. 20211, quoted as Salle 143, 80 by Kupper 1982a, see below n. 111. See Also A. 2500^{+} (LAPO 18, 926) in which a

Silver was also sent to district governors with specific orders from the king concerning the price to be paid for wool; the fixed price could be so low that it was difficult to make the purchase as Lâ'ûm explains to the king: "My Lord wrote to me as follows: 'Concerning wool, matter of your letter, the governors received instructions (...) Buy some (wool) for an amount of 3 ⅓ minas of your silver at the rate of 40 minas each (shekel of silver).' (...) *I started to* buy any wool from the merchant and I gave silver to the merchant, but it is with a lot of difficulties that for 3 ⅓ minas (...)".[81]

3.3. Wool from the palace flocks

The wool purchased by the palace complemented its own production. Indeed, palaces and estates owned large herds of sheep which produced important amounts of wool. These animals were transferred to high officials in charge of the livestock. A Tell Leilān administrative text registers 127 sheep and goats of Hammu-Epuh of Amaz entrusted to Zimrī-Hammu at Šehna.[82] Documents from Tell Rimah concern sheep given to shepherds.[83]

Many administrative tablets refer to the plucking of sheep belonging to Mari palace and the transfer of their wool to palace officials and textile specialists in the account house.[84] The palace usually had large stocks of wool of various qualities, but it could also be out of stock as we learn from Mukannišum's letter quoted above in which he asks to open bales containing Babylonian wool.[85]

Flocks were also owned by the high official of Mari[86] or attached to governors' estates in Terqa, Qaṭṭunān and Saggarātum. The wool produced by these animals was collected to be given to weavers locally, to be transported into another district or sent to Mari.[87] After the death of Terqa's governor, Sammêtar, his houses were inspected both in Terqa and Mari, and the wool plucked from his sheep was transferred to three weavers of Terqa's palace.[88]

3.4. Wool paid as a tax

Mari palace also received animals and their products as the payment of taxes. The *sugāgūtum* tax was paid in several installments by the administrative head of local centres, who was a kind of sheikh called *sugāgum*, as his nomination was confirmed by the king; it was paid in silver, gold, animals (oxen, cows, donkeys, sheep), wool and textiles.[89] Thus, the *sugāgūtum* was sometimes paid in

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merchant from Emar owed wool.

[81] FM 2, No. 57 (Durand 1994, 98–99):6–7, 8–9, 2'-4', *be-l*[*í ki*]*-a-am iš-pu-ra-am um-ma-a-mi aš-šum* síg-[há], *ša ta-aš-pu-ra-am* l[ú-meš] *ša-pí-ṭú-ú a-na* síg-há [*w*]*u-ú-ru-ú* (...) *i-na ma*-[*hi*]*-ra-at*, 40 *ma-na š*[*a* 3 ⅓] *ma-na* kù-babbar^{pí}*-kà* síg *ša-am-ma* (...) síg-há *ma-li* dam-gàr, [*ar-ṭu-ub ša-m*]*a-am ù* kù-babbar *a-na* lú dam-gàr, [*ad-di-in i-n*]*a da-an-na ša* 3 ⅓ *ma-na* kù-babbar (...)

[82] Vincente 1991, No. 415, eponym Habil-kēnu.

[83] OBTR 202–203.

[84] ARMT 22, 93 (ZL 5): 18 minas of coarse wool from the plucking of 40 sheep to be plucked. ARMT 22, 94 (ZL 5): 20 minas of coarse wool. ARMT 22, 95 (ZL 5): 20 minas of coarse wool. M. 6032 (Durand 2009, 265, xii ZL 4): 22 ⅔ minas of coarse wool. M. 11539 (Durand 2009, 316, i ZL 6): first and second quality wool from the plucking of 10 white sheep that were in the court.

[85] Rouault 1977, see above n. 79.

[86] TH 82–144 (Charpin 1985, 454), mentions wool plucked on sheep from the fattener, and on palace sheep.

[87] In ARMT 27, 37, Qaṭṭunān's governor explains that, following the orders of the king, he has gathered the palace flocks and proceeded to the plucking of the sheep. The wool collected was then transported on wagons to Saggarātum. M. 10376 (Durand 2009, 462) is an account which gives the amounts of various qualities of wool, which were the proceeds of the plucking of 300 sheep at Qaṭṭunān.

[88] See Van Koppen 2002, 309, and text ARMT 23, 583 which mentions the receipt of 23 minas of first quality wool from the plucking of Sammêtar's flock at Terqa.

[89] Kupper 1990; Durand 1997, 206; Marti 2008.

sheep which were plucked on their arrival in the palace. This assumes that the arrival of the sheep at the palace coincided with moulting: "30 minas of second quality wool from sheep representing the *sugāgūtum* tax of Ibal-pī-El, *sugāgum* of Šakidan, which have been plucked in the date palm tree court, handed on to Mukannišum".[90] When a *sugāgum* disappeared before paying the total amount of his *sugāgūtum* tax, the remainder was added to the *sugāgūtum* of his successor, chosen by the authority, as we learn from a letter sent by Yasmah-Addu to his father: "Previously, Yatarum was *sugāgum* of Ya'il, but he died. Today, 5 men chosen among the notables of Ya'il and x men belonging to the nomads came to me (...) I named Yarkab-Addu as *sugāgum* of Ya'il instead of Yatarum. He shall bring [x] minas of silver and 500 sheep, and I will receive from him [x] minas of silver and [x] hundreds of sheep which correspond to Yatarum's overdue payment".[91] This overdue payment could be paid in wool.[92] The silver from the *sugāgūtum* tax could also be used to buy wool.[93]

Other taxes could result in the delivery of animals or wool to the palace. The *miksum* tax was a commercial tax paid on transactions.[94] The *igisum* tax was paid by notables who contributed to sacrifices ordered by the king for Ištar's festival: the wool of the sheep or the hair of the goats could be collected before the ceremony.[95]

The status of the *šūrubtum* is not completely clear, translated as 'contribution', it is both considered as a periodic fee imposed on provinces[96] and an allegiance 'gift'.[97] It often consisted of textiles, but could also be given in goat hair or wool of various qualities: "14 minas of first quality wool and 1 talent 40 minas of second quality wool represent the *šūrubtum* of Gabûm (from Humsān), given to Māšum".[98]

It is almost impossible to know the percentages of the wool coming from the palace flocks, of the wool originating from taxes and the amount of wool purchased by the palace.

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[90] M. 15093 (Durand 2009, 394), [3]0 *ma-na* síg ús, *ša i-na* udu-há, *ša su-ga-gu-ut I-ba-al-pí-an*, lú *Ša-ki-da-an*, *ša i-na ki-sa-al*, giš-gišimmar, *ib-ba-aq-mu*, *te-er-di-tum*, *a-na Mu-ka-an-ni-ši-im* (ZL 11). M. 11950 (Durand 2009, 342–343) concerns in all 8 talents 51 ½ minas of wool from the plucking of the *sugāgūtum* sheep of Hammān, the *sugāgum* of Dêr. See also the transfer of 100 sheep from the *sugāgūtum* tax of Hâlî-hadun, M. 11558 (FM 10, No. 30), and of 10 rams from the *sugāgūtum* tax of Hayya-Addu, M. 12336 (FM 10, No. 35). Memî'um, a Hanā nomad, paid only half of his tax, he still owes 50 sheep to the king, meanwhile he is in jail (FM 2, No. 52). The levy of a tax on the flocks grazing in the Tharthar area is suggested to the king of Mari (FM 6, No. 24); this could correspond to another type of tax.

[91] ARMT 1, 191 (LAPO 16, 81):5–11, 16–24 (restitutions by J.-M. Durand) *i-<na> pa-nit-tim su-ga-gu-ut*, *Ia-i-il*^{ki} *Ia-ta-rum i-pu-ùš*, *ù Ia-ta-rum a-na ši-ma-ti-šu*, *it-ta-la-ak i-na-an-na* 5 lú-meš, [*i-na re*]-*ša-tim* lú-meš *Ia-i-la-yu*^{ki}, [*ù x* lú-meš *ša*] *hi-ib-ri-im*, [*a-na ṣe-ri*]-*ia il-li-ku-nim-ma* (...) [^{1}*Ia-ar-ka*]-*ab-dim*, [*a-na pu-uh Ia-ta*]-*ri-im*, [*a-na su-g*]*a-gu-ut*, [*Ia-i-il*]^{ki} *áš-ta-kan*, [x *ma-na*] kù-ba[bar] *ù* 5 me udu-há, [*i*]-*n*[*a-aš*]-*ši*, [lá-u-há *ša Ia-ta-r*]*i-im*, [x *ma-na* kù-babbar *ù* x me] udu-há, [*a-ma-ah-ha-a*]*r-šu*.

[92] ARMT 22, 99: more than 3 talents of wool correspond to Yar'ip-El's overdue payment (ZL 5).

[93] M. 6108 (Durand 2009, 289) is a receipt of 2 ⅔ minas and shekels of silver, at the time of the *sugāgūtum* of Gabûm of Humsān, to buy wool; for the same *sugāgūtum*, see FM 10, No. 86.

[94] Kupper 1990. For the *miksum* tax paid by the Almutû, see Durand 2000, 67, a.

[95] M. 6386 (Durand 2009, 427): 10 talents of wool and 40 talents of goat hair originating from the *igisum* tax have been entrusted to Mukannišum. For *igisum*, see Durand 2000, 115–119.

[96] Durand 1997, 125.

[97] Lerouxel 2002 notes the important role played by garments in diplomatic gifts (see below).

[98] M. 11426 (Durand 2009, 316):1–4, 14 *ma-na* síg sag, 1 gú 40 *ma-na* síg ús, mu-tù *Ga-bi-i-im*, si-lá *Ma-ši-im* (ZL v 6). See also T. 543 (Durand 2009, 199): *šūrubtum* of 3 minas 10 shekels of teased wool (Sumū-Yamam); M. 10379 (Durand 2009, 267): *šūrubtum* of first quality wool (Terqa, ZL 5); M. 9783 (Durand 2009, 315): *šūrubtum* of 10 minas of first quality wool (Mari, ZL 6); M. 15096 (Durand 2009, 317): *šūrubtum* of 10 minas of first quality wool (Terqa, ZL 6); M. 11981 (Durand 2009, 323): *šūrubtum* of textiles, 20 minas of superior quality wool, and 7 talents 40 minas of second quality wool (ZL 6); M. 10385 (Durand 2009, 344): *šūrubtum* of first quality wool (ZL 6).

3.5. Acquisition of sheep and wool by raiding

In time of war, there was regularly plundering of humans, animals and goods. The females deported to Mari, with the exception of musicians, were mainly assigned to work with wool.[99] Flocks of sheep were also the object of looting by enemies who could easily take the animals away as Šamšī-Adad explained to his son Yasmah-Addu concerning the herds of Ešnunna: "They will go down to the banks of the Euphrates, and at the moment they will let their sheep drink in the pens, this very day they will be subjected to a raid".[100] According to Tell Leilan letters, the plundering of sheep was done by mercenaries (*habbātum*); in case of threat, herds had to be moved quickly.[101]

Less often, wool was taken as booty; an administrative document records leather bags containing textiles, wool, and nets originating from the booty of Admatum, given to Šamaš-tappe.[102]

4. Qualities and prices of wool

The Old Assyrian documentation quotes a few qualities of wool: good (*dammuqum*) or extra good (*dammuqum watrum*), but also long (*arkum*), soft (*narbum*) or thick (*šapium*) wool. Colour is occasionally mentioned, denoting either natural or dyed wool: red (*sāmum*), white (*paṣium*), red-dyed (*makrûm*) or simply dyed (*šinītum*).[103] But these descriptions mainly concern wool traded in Anatolia. Texts from Kaneš do not give the price of the wool in Aššur. But a royal inscription of Šamšī-Adad I gives a list of basic commodities and the quantities that one could buy for one shekel of silver: "When I built the temple for the god Enlil, my lord, the prices in my city, Aššur, (were the following): 2 gur of barley could be purchased for 1 shekel of silver; 15 minas of wool for 1 shekel of silver; 2 bán of oil for 1 shekel of silver, according to the prices of my city Aššur".[104] The 15 minas of wool obtained for a shekel of silver would correspond to the plucking of 7 or 8 sheep (with an average of 2 minas per sheep).

For Mari, J.-M. Durand distinguishes between four main qualities attested as a sequence in some texts:[105] síg sag 'first quality wool', síg *nisqum* 'top quality wool', síg ús 'second quality wool', síg gurnu 'coarse wool'.[106] To these, one may add the *tuhšûm* wool which received a specific unknown treatment and was used to make precious garments, tents or for furnishing.[107] The quality of wool could also depend on the part of the sheep plucked or on its diet. Few texts refer to wool

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[99] Durand 2000, 347.

[100] ARMT 1, 83 (LAPO 16, 255):34–39, *a-na a-ha* ^{i}₇Buranum, *ur-ra-du-nim*, *ù i-nu-ma i-na pu-ra-sà-tim*, udu-há *šu-nu i-ša-aq-qú-ú*, *i-nu-mi-šu ši-ih-ṭà-am* gal, *iš-ša-hi-tú*. There are several other letters dealing with the plundering of sheep: ARMT 1, 91 (LAPO 16, 321); ARMT 6, 27 (LAPO 16, 424); ARMT 14, 84^{+} (LAPO 17, 700); A. 1025 (LAPO 17, 545); A. 3757 (LAPO 17, 603); M. 9157 (LAPO 18, 924); M. 11009+11010 (LAPO 18, 1084).

[101] See Eidem 2011, No. 171 according to which *habbātum* are plundering the country of Numhum; the sheep flocks have been moved away. Eidem 2011, No. 92, mentions that there has been no plundering of people and sheep.

[102] M. 18159 (Durand 2009, 416, ZL 13).

[103] Michel and Veenhof 2010; Lassen 2010; Lassen in this volume.

[104] Grayson 1987, A.0.39.1:59–72, *i-nu-ma* é ^{d}En-líl, *be-lí-ia*, *e-pu-šu*, *ki-lam a-li-ia A-šur*$_{4}^{ki}$, *a-na* 1 gín kù-babbar, 2 gur še, *a-na* 1 gín kù-babbar, 15 *ma-na* síg, *a-na* 1 gín kù-babbar, 2 bán ì, *i-na ki-lam a-li-ia*, *A-šur*$_{4}^{ki}$, *lu-ú iš-ša-am*.

[105] Durand 2009, 142–155

[106] M. 6700 (Durand 2009, 447) quotes first and second quality wool. Such qualities are also attested in the Tell Leilān sources: Ismail 1991, No. 81 and following texts. For coarse wool at Mari, see T. 99 (Durand 2009, 197); T. 474 (Durand 2009, 199); M. 6088 (Durand 2009, 216); ARMT 21, 323. For other qualities of wool, see ARMT 25, 179; M. 6969 (Durand 2009, 519); M. 11539 (Durand 2009, 316).

[107] For *tuhšûm*-wool, see Durand 2009, 153–155. This type of wool also occurs at Tell Rimah. The letter OBTR 129 to Iltani quotes dye, alum and *tuhšûm*-wool.

from fattened sheep.[108] The colours of wool are very rarely noted at Mari because it seems that the dyeing process took place mainly after weaving.[109]

The range of prices for wool given by the written documentation of Upper Mesopotamia and Syria is quite large and naturally depended on its quality which was usually not specified. The lowest price mentioned, 40 minas of wool per shekel of silver, was quite unrealistic and was suggested by the king of Mari to his governors.[110] Therefore, the actual lowest price of wool attested in the Mari texts concerned a purchase from a merchant from Emar of 50 talents for a price of 2 minas of silver (25 minas per shekel of silver, 25m:1s).[111] A text gives a rate of 20 minas of wool for one shekel of silver,[112] while several prices range around 17 minas of wool per shekel of silver.[113] The price given in Šamšī-Adad's inscription corresponds to the price of common wool at Mari (15m:1s);[114] it is also the price paid by Tell Leilān's palace to merchants from nearby *kārum*s.[115] The *tuhšûm*-wool is much more expensive and could amount to one mina of wool per shekel of silver.[116] Goat hair was much cheaper than wool; one could buy 30 minas of this product for one shekel of silver.[117]

Mari prices of common wool are much lower than those given by a text from Harradum discovered in the house of the merchant Rîš-Šamaš in which 5 minas of wool were bought for 1 shekel of silver.[118] The price paid in Harradum is similar to the prices of various qualities of wool in the Larsa kingdom during the early Old Babylonian period: a talent of choice wool costs 10 ½ shekels of silver (thus 1 shekel of silver bought about 5 ⅔ minas of wool), new wool plucked from the flanks of the sheep cost 9 ½ shekels of silver, and ordinary wool, 8 ½ shekels of silver.[119]

It is also similar to the rates usually found in the Kültepe texts dealing with the wool trade inside Anatolia – between 2 and 10 minas of wool per shekel of silver, the average price being

[108] M. 11894 (Durand 2009, 518): wool from Amorite sheep and wool from sheep fattened with flour.

[109] Durand 2009, 152. See, however, ARMT 24, 175, an account of wool which mentions 1 mina of *nabāsum*-red wool.

[110] FM 2, No. 57, cited above n. 81.

[111] 25m:1s, in to M. 20211 (Durand 2009, 404, ZL 12, text previously known as Salle 143, 80, cited by Kupper 1982a, 117). Durand, in his abstract of the text, translates gú by 'bale' instead of talent in order to avoid a too low price for wool: "50 ballots de laines diverses achetés pour 2 mines d'argent en 2 (lots d')achats de 25 mines chacun, d'auprès de [NP] le marchand d'Imâr". But it is never stated that there are two lots of wool, and the expression '*ina mahīrat* x gín/*mana* àm' is always translated as 'at the rate of x shekels/minas (of the given commodity) each (shekel of silver)'.

[112] 20m:1s, in M. 11281 (Durand 2009, 312, ZL 5).

[113] 17 ¼–17 ⅓ m:1s in ARMT 21, 216 (comments on pages 189–190).

[114] 15m:1s, in the following texts: ARMT 22, 262; Salle 143, 3; M. 15098 (Durand 2009, 300); M. 18147 (Durand 2009, 351); M. 6376 (Durand 2009, 305); M. 11904 (Durand 2009, 298). Again (see n. 111), the editor of this last text translates gú by 'bale' and not by 'talent': "4 mines d'argent (pesé) aux poids du marché pour l'achat de 60 ballots de laine pour les 600 étoffes que les particuliers ont produites", considering that each textile weighed 4 minas, and that we should have a total of 40 and not 60 gú. However, we have to understand that each textile was woven from 6 minas of wool because the price given here, 60 talents of wool for 4 minas of silver, corresponds to the standard price of 15m:1s. The same rate is attested for second quality wool in ARMT 22, 96; ARMT 22, 262 (col v).

[115] Ismail 1991, No. 103 (see above n. 26).

[116] 1m:1s in M. 11780 (Durand 2009, 293): 1 shekel of silver for 1 mina of first quality *tuhšûm* wool; M. 8208 (ARMT 21, p. 376; ARMT 23, p. 8 n. 6; Durand 2009, 296): ½ shekel of silver for ½ mina of *tuhšûm* wool. Also 1 ⅓ m:1s in M.11782 (Durand 2009, 281): ½ shekel of silver for ⅔ minas of *tuhšûm* wool.

[117] M. 10699 (Durand 2009, 450).

[118] Joannès 2006, No. 67:13–18, 5 *ma-na* síg-há, *ma-har Nu-úr-ì-lí-šu*, *a-na* kù-babbar *el-qé*, 1 gín kù-babbar *ar-hi-iš*, *šu-bi-la-am-ma*, *lu-pu-ul-šu*: "I had to buy the 5 minas of wool (which were) at the disposal of Nūr-ilišu. Send me quickly 1 shekel of silver so that I can pay (it)".

[119] CUNES 55–01–008, Owen 2012, 446–450.

about 6m:1s –[120] or in the Ešnunna laws (6m:1s).[121] However, in Anatolia, the standard of value of silver had less buying power than in Mesopotamia.[122]

5. Management of wool and textiles: the wool office at Mari

The wool bought by Aššur women was used to weave textiles in order to make garments for family members and servants. But their production exceeded the needs of their households, so they exported dozen of textiles to Anatolia thus contributing to the international trade. They were paid in return with silver.[123]

Mari royal archives document the importance of wool in the palace economy which was organized through the wool office. The administrative and economic activities of the Middle Bronze Age palaces and estates were organized in economic departments or offices depending on the products or materials they were dealing with. For example, we know much about the beer office at Chagar Bazar,[124] the wine office[125] and the meat office at Mari.[126] These specialized departments were under the control of officials who supervised the supply in raw materials, controlled the stocks and organized the distribution to specialized workers. They could themselves be under the control of high palace officials. For example, under the reign of Yasmah-Addu, Uṣur-awassu was in charge of the management of raw materials and of finished products; he had for example to manage the distribution of wool rations to servants.[127]

In general, textile manufacture was well developed in ancient Mesopotamia. In view of the numerous Mari texts dealing with wool and textiles assembled by Durand 2009, one can easily conclude that a large number of them originated from the wool office; this observation is especially true for the first half of Zimrī-Lîm's reign for which there is a concentration of documents.

In the palace, various wool purchases were registered in many small administrative documents. They usually mention the amount of silver allocated to purchase wool, and the name of the person in charge of the transaction, either a palace official or a palace craftsman,[128] but the quantity of wool purchased is not always recorded.[129] Some texts are particularly detailed: "1 mina 12 shekels

[120] Dercksen 2004, 184, table 10.1. See also AKT 4, 52:6 minas of (soft) wool for 1 shekel of silver; Kt 93/k 236: 10 talents of wool for 2 minas of silver (5m:1s); same rate in TPAK 1, 36:5–6. For other examples, see Lassen 2010, 172.
[121] Roth 1997, LE §1.
[122] Michel and Veenhof 2010, 215.
[123] Veenhof 1972; Michel 2001 (ch. 7); Michel 2006b; Thomason 2013.
[124] Lacambre 2008.
[125] Chambon 2009.
[126] Durand 1983, 59–86; Ozan 1994.
[127] According to ARMT 26, 284, Uṣur-awassu had to manage the distribution of wool rations to the palace personnel. See also ARMT 22, 100 about the allocation of wool from the office of Uṣur-awassu to the great priestess of Dagan.
[128] M.11782 (Kupper 1982b, 165, note 14, Durand 2009, 281): ½ shekel of silver for the price of ⅔ minas of *tuhšûm*-wool received by Dan-El, túg-du$_8$; M. 11780 (Durand 2009, 293): 1 shekel of silver for the price of 1 mina of first quality *tuhšûm*-wool received by Iddi, same amount received by Ṣilli-Annu; M. 6784 (Durand 2009, 286): 10 shekels of silver according to the weight of the market to purchase *tuhšûm*-wool; M. 11904 (Durand 2009, 298): 4 minas of silver weighed with the weights of the market to buy 60 talents of wool which corresponds to 600 textiles. All these samples are dated to ZL 5.
[129] M. 7106 (Durand 2009, 264, xii ZL 4): 10 shekels of silver for the purchase of *tuhšûm*-wool given to Mukannišum in the presence of the king; ARMT 25, 170 (collation and new edition in Durand 2009, 265): 1 ⅚ minas 4 shekels of silver received by Mukannišum. These two texts are dated to ZL 4.

of silver for the purchase of 23 talents 54 minas of wool at the rate of 20 minas (of wool) each (shekel of silver); bought from Yatar-El and Yasîm-hammû, the men of Suhûm; in the *dimtum*-farm of Zippatân (where) the plucking (took place); added to Mukannišum's stock, I will (thus) have to give back [6 shekels], via Mukannišum and Mannum-ša-kīma-abi".[130] Indeed, many of these small administrative accounts mention Mukannišum, the palace steward, as recipient of wool or of silver to buy wool: "1 mina [x] shekels of silver for the purchase of 20 talents of wool bought to Meptûm by the intermediary of Ulluri; the wool must be deposited into Mukannišum department".[131] All these operations were tightly controlled, all the expenses being recorded. Sometimes, even the source of the silver used for the purchase of wool was registered: "2 ½ minas 2 shekels of silver, the cost of the redemption of 13 men (and) 6 women, for the purchase of 38 talents of second quality wool, at the rate of 15 minas (of wool) each (shekel of silver), for the wool rations of male and female weavers".[132] The silver linked to the redemption of personnel was thus centralized by Mukannišum and later allocated to the purchase of wool, alum and tin.[133] Mukannišum had to give public accounts of these operations: "tablets concerning the silver with which wool, copper and tin were purchased from several sources by Mukannišum. He announced the amounts of silver used for his expenses, for the allocation of wool, copper and tin from his office, these tablets were written at the time of presentation of accounts, in the corridor of the date palm court, in the presence of the king".[134]

Several palace officials were involved in the wool office, delivering and receiving quantities of wool: Hamatil (under the reign of Sumū-Yamam),[135] Halimatum (Zimrī-Lîm)[136] and Hissali (Zimrī-Lîm).[137] The destination of the wool was also carefully registered. Among the recipients of wool, we find Yar'ip-El, Ahu-waqar and Idin-Mamma, known as textile specialists,[138] weavers and textile workshops.[139]

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130 M. 11281 (Durand 2009, 312), 1 *ma-na* 12 su [kù-babbar], *a-na ši-im*, 23 gú 54 *ma-na* síg, *i-na ma-hi-ra-at*, 20 *ma-na* àm, *ša it-ti Ia-tar*-an, *ù Ia-si-im-ha-mu*, *lú Su-ha-yu*^{ki}, *iš-ša-mu*, *i-na di-im-ti-im*, *ša Zi-ip-pa-ta-an*, *ib-ba-aq-ma*, *a-na Mu-ka-an-ni-ši-im*, *ru-ud-da-a*, [6 su] *lu-ud-d*[*i-in*], gìr *Mu-ka-an-*[*ni-ši-im*], [*ù Ma-n*]*u-um-ša-ki-*[*ma-a-bi*], (ZL 5).

131 M. 11735 (Kupper 1982b, 578, Durand 2009, 335), 1 *ma-n*[*a* x su kù-babbar], *a-na ši-im*, 20 gú síg, *ša it-ti Me-ep-ti-im*, [*i*]*š-ša-mu*, [gì]r *Ul-lu-ri*, [s]íg *a-na Mu-ka-an-ni-ši-im*, *i-na-da-a*$^{?}$ (text dated to ZL 6). See also M. 11735 (ARMT 30, 335) concerning the deposit 20 talents of purchased wool in Mukannišum's office (text dated to ZL 6).

132 ARMT 22, 262:v1–10, šu-nígin 2 ½ *ma-na* 2 gín kù-babbar, *ip-ṭe*$_4$*-er*, 13 lú-meš, 6 munus-meš, *a-na ši-im*, 38 gú síg uš, *i-na ma-hi-ra-at*, 15 *ma-na* àm, *a-na* síg-ba lú-túg-meš, *ù* munus-uš-bar-meš.

133 ARMT 23, comments on page 501; Kupper 1982b, 171.

134 ARMT 25, 334 (collations and new edition in Durand 2009, 360–361), *ṭup-pa-at* kù-babbar, *ši-im* síg-há urudu, *ù* an-na, *ša Mu-ka-an-ni-šum*, *i-na a-hu-ne-e*, *iš-ta-a-mu*, kù-babbar *a-na* zi-ga-š[*u*], *Mu-ka-an-ni-šum*, *ìš-ši*, *aš-šum bu-ul-lu-uṭ*, síg-há urudu *ù* an-na, níg-*šu Mu-ka-an-ni-šum*, *ṭup-pa-tum an-ni-ta-an*, [*š*]*a-ak-na i-nu-ma ni-pí-iṣ*, [*ni*]*-ka-sí i-na pa-pa-ah,* [*š*]*a ki-sa-al* giš-g[išimm]ar, igi lugal (ZL 7).

135 T. 99 (Durand 2009, 197); T. 474 (Durand 2009, 199).

136 ARMT 24, 177; M. 8394 (Durand 2009, 374).

137 Receiving wool: M. 8529 (Durand 2009, 460; M. 5894 (Durand 2009, 473); M. 5060 (Durand 2009, 479). Delivering wool: M. 6393+9068 (Durand 2009, 455); M. 12002 (Durand 2009, 475); M. 6384 (Durand 2009, 476); M. 7302 (Durand 2009, 478).

138 Yar'ip-El, Ahu-waqar, Idin-Mamma: ARMT 22, 88 (ZL 5) and M. 6643 (Durand 2009, 279, designated as *ša* túg bar-kar-ra) both dated to ZL 5. Idin-Mamma: M. 5988 (Durand 2009, 280, ZL 5) and M. 5982 (Durand 2009, 318, ZL 6). Ahu-waqar: ARMT 22, 91 (ZL 5) and ARMT 22, 96 (ZL 5); in this last text he is qualified as specialist in *barkarrum*. Yar'ip-El: M. 6032 (Durand 2009, 265, ZL 4); ARMT 22 92 (ZL 5); M. 5992 (Durand 2009, 319, ZL 6); ARMT 21, 323 (ZL 2); M. 6623 (Durand 2009, 277, ZL 5).

139 Thread for weaving: M. 5972 (Durand 2009, 223, ZL 2); M. 5939 (Durand 2009, 224, ZL 2); ARMT 21 332 (ZL 3); ARMT 21, 332 (ZL 3); ARMT 21, 337 (ZL 5); M. 6467 (Durand 2009, 317–318, ZL 6), M. 6700 (Durand 2009, 447); M. 10841 (Durand 2009, 450); ARMT 21, 351; 359; ARMT 22, 103; 106; 107; ARMT 23, 234; 373; 459; 583; 597–605; ARMT 24, 177; 180–181.

Such an organization is also visible in private estates. In room XV of the house of Asqudum, royal diviner of Mari, were preserved several baskets with tablets. Clay *bullae* indicating their content were fixed onto the baskets, and one bears the following text: "tablets of wool and textiles received by [PN]".[140] According to these tablets dated to the first years of Zimrī-Lîm's reign, 9 talents 3 minas of wool were stored in a sealed room.[141] This wool came from various sources, mainly Asqudum's flock and purchases. Thus, 3 talents 19 minas were brought by Mannum-balum-ilī from Humzan, and 5 talents were bought by two people in Dūr-Yahdun-Lîm.[142] It was then distributed to Yakun-bahli, Yamama, and Inibsina, heads of three female weaver teams who had to produce textiles of specific weights, the total corresponding to the distributed wool.[143]

Although they are less visible, we can speculate that the production of textiles by the institutions of the other capitals of Upper Mesopotamia and Syria might have worked according to the same scheme. Some letters sent to Iltani by her husband Aqba-hammu, king of Karana, or by an official also deal with the organization of textile production. Wool was sent by these two persons to a textile workshop supervised by Iltani, and in return she was required to send some textiles to her husband.

6. Uses of wool

Wool bought by the Assyrian women was woven into textiles to clothe family members and servants or to be sold abroad. The destination of wool in palaces and estates was much more varied and its circulation was embedded in the palace economy.

6.1. Garments for the palace population and dependents

Huge quantities of wool were distributed via the wool office, to the textile manufacturers where dozens of men and women worked, mainly slaves. The weavers had to give back, as finished products, various pieces of textiles and clothes of more or less fine quality, for which number and weight would be specified. Administrative texts detailed the amount of wool transferred, the recipient of the wool, usually an official heading teams of weavers, its destination (clothes, carpets, tents, etc.), and the date of the transaction: "7 minas ⅔ of second quality wool received by Išhi-Erah; 10 minas of second quality wool received by Iskatan, 8 minas of second quality wool for coats received by Abi-Šamaš. (Date)".[144] The remaining wool which had not been used was also accounted for and

[140] TH 80–117 (Charpin 1985, 454): *ḫup-pa-at* síg, *ù* túg-há *nam-ha-ra-a*[*t* PN]. The tablets which have been discovered in rooms I, II and XV were kept in baskets mainly containing accounts of textiles, food and servants. In the wool receipts and cloth distributions, a woman called Yamama is frequently mentioned; she was clearly the head of a female weavers' team. According to the sealing on TH 82–218 (Charpin 1985, 454, 456), Yamama was a princess, daughter of Yahdun-Lîm and wife of Asqudum.

[141] TH 82–196 (Charpin 1996, 222), and TH 82–144 (Charpin 1985, 458).

[142] TH 82–172 (Charpin 1985, 454, 459).

[143] Charpin 1985.

[144] ARMT 22, 84: 7 ⅔ *ma-na* síg uš, šu-ti-a *Iš-hi-E-ra-ah*, 10 *ma-na* síg uš, šu-ti-a, *Ìs-ka-ta-an*, 8 *ma-na* síg uš, *a-na* gú-há-[è]-a, [š]u-ti-a *A-bi-Sa-ma-ás*. Several documents deal, for example, with the weaving of coarse *barkarrum*-textiles: M. 6088 (Durand 2009, 216, Yasmah-Addu): 16 minas of coarse wool, weight of 4 *b.*-textiles of 4 minas each; ARMT 21, 323 (ZL 2): 1 talent 13 minas of coarse wool, weight of 22 *b.*-textiles; M. 6393+9068 (Durand 2009, 455). ARMT 9, 276: 50 minas of coarse wool, weight of 12 *b.*-textiles; M. 12002 (Durand 2009, 475): 4 minas of wool, weight of a *b.*-textile; M. 6384 (Durand 2009, 476): 9 ⅓ minas of wool, weight of a second quality textile and a *b.*-textile. See also ARMT 22, 97 (Yasmah-Addu); M. 730 (Durand 2009, 478). *Hurrum*- and *uṭublum*-textiles: M. 10430 (Durand 2009, 456): x minas of

could be allocated for another task.[145] The numerous clothes thus made were then distributed to the palace residents (king's family, women, children), to high officials, or to soldiers: for example, the king had to send 2 000 garments to the army because weather was cold.[146]

The king's clothes received special attention and were made directly under the orders of Mukannišum as we learn in a letter that he received from the king:[147] "I gave you some instructions concerning the cloth with the applications to be made (...) Give strict orders to the male and female textile workers. This cloth must be done as if it was a cloth from Tuttub, carely woven and knotted from warp and weft and its inside should look like a sheet of silver. This cloth will have a hem made in the Yamhad fashion and as for a *huššum* textile, a *ṣirpum*(-dyed?) will be added to it. One should be careful that the warp and weft are tightly packed because if the ornaments are too heavy then they will be 'stringed' so that the cloth tears. One must be very careful making this cloth because it will be seen by all the people".

6.2. Garments as gifts

Fine quality clothes or complete suits of clothing were offered by Mari kings to their allies as diplomatic gifts.[148] In return, the king also received fine garments.[149] Many administrative documents register such gifts, both given and received, which also included objects in precious metals: these exchanges of prestigious goods had an extra-economic character with a political and symbolic meaning.[150] Garments were also offered to messengers and ambassadors visiting the king; but messengers often had to give their king part of the gifts received.[151]

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wool, weight of 2 *h.*-textiles and 16 minas, weight of 3 *barkarrum*-textiles; M. 12397 (Durand 2009, 447): 18 ⅓ minas of wool, weight of 5 *h.*-textiles and an *u.*-textile; ARMT 23, 459: ½ mina of wool, weight of a *u.*-shawl. *Harrurum*-textiles: ARMT 22, 89 (ZL 5): wool to make a *h.*-textile for a blanket; ARMT 22, 90 (ZL 5): wool to make a *h.*-textile for a blanket; M. 6623 (Durand 2009, 277, ZL 5): wool for *h.*-textiles for blankets. *Guššum*-textiles: ARMT 24, 177 (ZL 8): 5 minas of wool, weight of a *g.*-textile. Various textiles: M. 8550 (Durand 2009, 216, Yasmah-Addu): ⅓ mina 3 shekels of first quality wool to make shawls; ARMT 12, 324 (ZL 2): wool to make a *hayyum*-carpet; M. 5312 (Durand 2009, 231, ZL 2): 2 minas of second quality wool to make socks(?); M. 12217 (Durand 2009, 320, ZL 6): 1 talent ½ mina of *tuhšûm*-wool for a tent; ARMT 22, 84 (ZL 2): second quality wool to make garments in *tuhšûm*-wool; M. 6092 (Durand 2009, 232, ZL 2): 20 minas of wool for 5 textiles of 4 minas each; M. 11591 (Durand 2009, 474): 10 minas of wool, weight of 3 *šusippum*-bands; M. 11714 (Durand 2009, 471).

[145] For example, ARMT 21, 337.

[146] FM 6, No. 13.

[147] A. 1285 (Rouault 1977, LAPO 16, 136, see above note 77 for a quotation of lines 14–18, 21–27):4–5, 37–54, *aš-šum* túg *ta-ad-dé-e-tim e-pé-ši-im*, *ú-wa-e-er-ka-a-ma* (...) *ar-hi-iš* túg *šu-ú a-na pa-ni-ia li-in-ne-pí-iš*, *ù a-na* ^{lú}túg *ù* ^{munus}túg *dan-na-tim šu-ku-un-ma*, [t]úg *šu-ú ki-ma* túg *Tu-ut-tu-bé-e-em šu-ta-a-am*, *ù bi-it-tam dam-qí-iš lu-ú na-sí-iq*, *ù lu-<ú> ka-ṣi-ir ù ki-ma ru-uq-qí-*[*i*]*m ša kù-babbar*, *li-ib-bi* túg *ša-a-tu lu-ú i-ba-aš-ši*, túg *šu-ú šu-ni Ya-am-ha-di-i iš-ša-ak-ka-an*, ù ki-ma túg *hu-úš-še-e-em ṣí-ir-pu-um*, *in-na-ad-di-i x as-su-ur-re*, *a-na* túg *ša-a-tu* [*ša*]*-te-e-em*, *ù bi-it-tam uš-ta-ba-at-tu-ma*, *ù i-na zu-na-tim ša-ka-ki-im*, *zu-na-tum i-ka-ab-bi-ta-ma*, *ù* túg *uš-ta-ar-ra-at dan-na-tim, šu-ku-un-ma a-na* túg *šu-ú*, *a-na pa-an i-*[*n*]*a-tim* [*ša*] *ma-tim ka-li-ša, iš-ša-ak-ka-an*. See also ARMT 18, 6 (LAPO 16, 133); ARMT 18, 20 (LAPO 16, 135); ARMT 13, 10 (LAPO 16, 10).

[148] Lerouxel 2002 for Mari. For Tell Leilān, Eidem 2011, 60–65 gives a detailed list of events that took place according to administrative texts (L.87); among these, several records mention textiles given to kings.

[149] ARMT 21, 348: cloth given by the king of Zurrā for Zimrī-Lîm of Mari. Textiles were also numerous in the dowries given to the future wives of Mari kings. A letter found at Haṣor mentions the content of the dowry of a princess of Qaṭnā to be married to Yasmah-Addu of Mari, see Hazor No. 12 (Horowitz and Wasserman 2004, 338–340; Horowitz and Oshima 2006, 83–85).

[150] However, as noticed by Lerouxel 2002, 442, when the king of Mari sent South and East textiles made in the western regions these gifts entered the circulation of economic exchanges.

[151] Lerouxel 2002, 456.

According to the Tell Rimah archives, the textile workshop supervised by Iltani produced textiles that her husband Aqba-hammu could use as diplomatic gifts: "Now send me quickly any cloth that you have available, whether of first or second quality for presents (for the king of Širwun)".[152]

6.3. Wool rations (síg-ba)

When not turned into textiles, wool was distributed as a ration.[153] The residents of the palace, who were predominantly female, received rations in wool and oil; there was no distribution of grain rations, because these people were directly fed by the palace kitchen.[154] Wool was distributed at the end or the beginning of a month, but we do not know for which period. Named women of very high rank would receive a 8 to 20 minas (4–10 kg) wool ration, while servants got between 4 to 7 minas (2–3.5 kg).[155] The main recipients were the wives of the king and women members of his family, then big and small musicians. Under Yasmah-Addu, some female musicians in the office of Rīšiya made demands to get more wool.[156] At the time of Yahdun-Lîm, according to a small unpublished account, 32 talents (960 kg) of wool constituted the rations (síg-ba) of the Ṣuprum palace residents.[157] This may be compared with the 36 talents of wool (more than one ton) received by the women of the Mari palace under Zimrī-Lîm's reign; it consisted of rations of mainly 4 to 8 minas each.[158] The amount of wool distributed each year must have been enormous.

Indeed, the distribution of rations concerned not only the palace population but also dependents working for the palace. In exchange for their services, workers received rations (*piqittum*) in grain, oil and wool. Thus, all the palace employees received such wool rations. Among these were textile specialists – male and female weavers,[159] male and female cooks,[160] brewers,[161] stablemen,[162] sedan-chair carriers[163], but also ploughmen,[164] shepherds and cowherds,[165] and other workers.[166] These distributions also involved the military. In a letter sent to his son, Šamšī-Adad insisted on the fact that, instead of spending silver, he should provide 'flour, wool and oil' for the

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[152] OBTR 82:12–16, *i-na-an-na* túg-há, *ša i-na qa-ti-ki i-ba-aš-šu-ú, lu-ú* sag *lu-ú* uš, *a-na qí-ša-tim, ar-hi-iš šu-bi-lim*. See also OBTR 70 in which Aqba-hammu needs garments for his tribute to Babylon.

[153] For the economic role of woolen fabrics in the ration system, see Breniquet 2013, 18.

[154] Durand 1985, 394; Ziegler 1999, 22–26.

[155] FM 4, Nos. 5–10, 12.

[156] FM 9, No. 31: female musicians of Rīšiya's office used to receive 8 minas of wool each; they were now asking for 10 minas.

[157] T. 241 (Ziegler 1999, 37–38, note 69, year Ekallatum).

[158] FM 5, No. 10.

[159] M. 9884 (Durand 2009, 457): 2 textile specialists at 4 minas each; see also ARMT 22, 262:col v.

[160] ARMT 23, 612: wool allocations for 10 cooks, 9 male and 1 female.

[161] ARMT 23, 377: allocation of 8 minas of wool for 3 brewers and of 9 minas for another person.

[162] M. 15098 (Durand 2009, 300, ZL 5): 2 ⅔ shekels of silver, price of 40 minas of wool to give as allocations to 9 stablemen; ARMT 22, 48: list of 8 stablemen who should receive wool.

[163] M. 18147 (Durand 2009, 351, ZL 7): 2 talents of wool bought with 8 ⅔ shekels of silver for wool allocations of the 11 sedan-chair carriers of Inib-šunu: 10 minas each, the remainder of the wool is for the allocations of the palace (given to Mukannišum).

[164] M. 6797 (Durand 2009, 461): distribution of allocations of 10 minas of coarse wool to Dadum, the ploughman.

[165] ARMT 5, 71 (LAPO 17, 783, Yasmah-Addu): Hāliya writes to the king explaining that there was no delay in the distribution of the allocations to shepherds and cowherds, contrary to what Zikrî-Eštar had reported.

[166] ARMT 27, 6; ARMT 23, 51 (ZL 4); M. 12176 (Durand 2009, 455–456); ARMT 23, 51 (ZL 4).

soldiers who came to protect Mari.[167] Wool rations were also given to members of the religious sphere according to an administrative text dated to the reign of Yasmah-Addu which records an allocation of 30 minas of second quality wool given to the great priestess of Dagan.[168]

Wool rations are also attested elsewhere. At Tell Leilān, for example, an official is sent to the king because he did not give enough wool rations to his men: "We do not receive grain allocations, nor are we given wool allocations, and winter has arrived!"[169]

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According to the written documentation of the first centuries of the 2nd millennium BC, palaces and estates of Upper Mesopotamia and Syria would have had very important needs for wool: it was used mainly to clothe the royal family and palace residents, to distribute as allocations to workers dependent on the palace, or to weave prestigious garments offered to foreign kings. Mari textile manufacture was well developed and extremely active; it had a large, mainly female servile workforce, and its substantial textile production was almost exclusively for internal consumption and for diplomatic gifts. There is no attestation of palace textile products which would have been regularly exported and sold. The wool produced by the palace flocks did not suffice for its needs; wool was also acquired via taxes, purchases and even raids. The palace spent great amounts of silver to buy large quantities of wool; the sources of the silver used for these purchases were quite varied. Such a constant need for wool could explain why, in the institutional documentation, apart from the wool distributed as allocations to palace dependents, this material does not seem to have been used much as a primitive currency to buy other goods. The woolen textiles, produced by the wool office as gifts to visitors and foreign courts, were interlinked with social and political relationships.

Other smaller archives of Upper Mesopotamia and Syria, such as those from Tell al-Rimah and Tell Leilān, to a lesser extent, document the same kind of organization for the management of sheep flocks, the collection of wool and production of textiles.

Relatively speaking, the need for wool by the women of Aššur, for internal consumption and for the exports to Anatolia, was also substantial. There, it is possible to follow the complete economic cycle of the wool that was intrinsic to the Old Assyrian long distance trade in Anatolia. To buy wool on the Aššur market, Assyrian women used the silver, which was the proceeds of their sales of textiles sold in Anatolia. There, wool could be exchanged with copper or silver, thus being used also as a means of payment.[170] The profitable Assyrian woolen textile trade to the West went on during the Middle Assyrian period as is attested by a few texts from Late Bronze Age Aššur.[171] Wool and thread had also a symbolic dimension; as suggested by the Old Anatolian style seal imprint, and they could be used as offerings.

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[167] ARMT 1, 52 (LAPO 16, 1).

[168] ARMT 22, 100 (Yasmah-Addu).

[169] Eidem 2011, No. 140:9–12, *ú-lu-ú še-ba ú-ul ni-ma-ah-ha-ar*, *ú-*[*l*]*u-ma* síg-ba *ú-ul i-na-ad-di-nu-/né-ši-im*, *ù ku-uṣ-ṣú-um*, *ik-ta-áš-dam*. See also Eidem 1992, 24.

[170] For the economy of wool within Anatolia, see the contribution of Lassen in this volume.

[171] See the contribution of Postgate in this volume.

Abbreviations

AKT	Ankara Kültepe Tabletleri = Ankaraner Kültepe Texte. Ankara, 1990ff.
ARMT	Archives Royales de Mari, Traductions. Paris, 1950ff.
BE	The Babylonian Expedition of the University of Pennsylvania, Series A: Cuneiform Texts. Philadelphia, 1893ff.
BIN	Babylonian Inscriptions in the Collection of James B. Nies, Yale University. New Haven, 1917ff.
CCT	Cuneiform Texts from Cappadocian Tablets in the British Museum. London, 1921–1975.
FM	Florilegium marianum (Mémoires de NABU). Paris, 1991ff.
Kt a (etc.)/k	Sigla of tablets from Kültepe (Kt), *kārum* Kaneš (/k), found from 1948(=a) until 1972(=z).
kt 73(etc.)/k	Idem, tablets found in *kārum* Kaneš since 1973.
KTS	Keilschrifttexte in den Antiken-Museen zu Stambul. Die altassyrischen Texte vom Kültepe bei Kaisarīje. Constantinople/Istanbul 1926ff.
LAPO	Littératures Anciennes du Proche-Orient. Paris, 1965ff. 16–18 See Durand 1997–1998, 2000. 19 See Michel 2001.
MARI	Mari. Annales de recherches interdisciplinaires. Paris, 1982ff.
MSL	Materialien zum sumerischen Lexicon. Roma 1937ff.
OBTR	S. Dalley, C. B. F. Walker and J. D. Hawkins, *The Old Babylonian Texts from Tell al Rimah*, London, 1976.
OIP	Oriental Institute Publications. Chicago, 1924ff.
Prag I + no.	Siglum of texts in K. Hecker, G. Kryszat and L. Matouš, *Kappadokische Keilschrifttafelnaus den Sammlungen der Karlsuniversität Prag*. Praha 1998.
TC	Tablettes Cappadociennes (Textes Cunéiformes du Louvre/TCL), Paris.
TPAK 1	C. Michel and P. Garelli, *Tablettes paléo-assyriennes de Kültepe 1*. Istanbul, 1997.
VS	Vorderasiatische Schriftdenkmäler der Staatlichen Museen zu Berlin. Berlin, 1971ff.
ZL	Zimrī-Lîm, king of Mari (years of reign)

Bibliography

Andrae, W. (1938) *Das wiedererstandene Assur*. Leipzig.

Bardet, G. (1984) Un aspect du travail de la laine à Mari (Nos 1–7). ARMT 23, 5–15. Paris

Breniquet, C. (2013) Functions and Uses of Textiles in the Ancient Near East. Summary and Perspectives. In M.-L. Nosch, H. Koefoed and E. Andersson Strand (eds), *Textile Production and Consumption in the Ancient Near East*, 1–25. Ancient Textiles Series 12. Oxford.

Cassin, E. (1959) Le bain des brebis. *Orientalia* 28, 225–229.

Chambon, G. (2009) *Les archives du vin à Mari*. FM 11, Paris.

Charpin, D. (1985) Les archives du devin Asqudum dans la résidence du 'chantier A'. MARI 4, 453–462, Paris.

Charpin, D. (1996) Maisons et maisonnées en Babylonie Ancienne de Sippar à Ur. Remarques sur les grandes demeures des notables paléo-babyloniens. In K. R. Veenhof (ed.), *Houses and Households in Ancient Mesopotamia. Papers read at the 40th Rencontre Assyriologique Internationale, Leiden, July 5–8, 1993*, 221–228. Publications de l'Institut historique et archéologique néerlandais de Stamboul 78. Leiden.

Charpin. D and Durand, J.-M. (1997), Aššur avant l'Assyrie. MARI 8, 367–392. Paris.

Dalley, S. (1977) Old Babylonian Trade in Textiles at Tell al Rimah. *Iraq* 77, 155–159.

Dalley, S. (1980) Old Babylonian Dowries. *Iraq* 42, 53–74.

Dercksen, J. G. (2004) *Old Assyrian Institutions*. Publications de l'Institut historique et archéologique néerlandais de Stamboul 98. Leiden.

Durand, J.-M. (1983) *Textes administratifs des salles 134 et 160 du palais de Mari*. ARMT 21. Paris.

Durand, J.-M. (1985) Les dames du palais de Mari à l'époque du royaume de Haute-Mésopotamie. MARI 4, 385–436. Paris

Durand, J.-M. (1986) Villes fantômes de Syrie et autres lieux. MARI 5, 199–234. Paris.

Durand, J.-M. (1990), La cité-État d'Imar à l'époque des rois de Mari. MARI 6, 39–92. Paris.
Durand, J.-M. (1992) Unité et diversités au Proche-Orient à l'époque amorrite. In D. Charpin and F. Joannès (eds.), *La circulation des biens, des personnes et des idées dans le Proche-Orient ancien. Actes de la XXXVIIIe Rencontre Assyriologique Internationale (Paris, 8–10 juillet 1991)*, 97–128. Paris.
Durand, J.-M. (1994) Administrateurs de Qaṭṭunân. In D. Charpin and J.-M. Durand (eds), *Recueil d'études à la mémoire de Maurice Birot*, 83–114. FM 2, Paris.
Durand, J.-M. (1997) *Documents épistolaires du palais de Mari I* (LAPO 16), Paris.
Durand, J.-M. (1998) *Documents épistolaires du palais de Mari II* (LAPO 17), Paris.
Durand, J.-M. (2000) *Documents épistolaires du palais de Mari III* (LAPO 18), Paris.
Durand, J.-M. (2009) *La nomenclature des habits et des textiles dans les textes de Mari*. Matériaux pour le Dictionnaire de Babylonien de Paris, 1; ARMT 30. Paris.
Eidem, J. (2008) Old Assyrian Trade in Northern Syria. The Evidence from Tell Leilan. In J. G. Dercksen (ed.), *Anatolia and the Jazira during the Old Assyrian Period*, 31–41. Publications de l'Institut historique et archéologique néerlandais de Stamboul 111. Leiden.
Eidem, J. (2011) *The Royal Archives form Tell Leilan. Old Babylonian Letters and Treaties from the Lower Town Palace East*. Publications de l'Institut historique et archéologique néerlandais de Stamboul 117, Leyden.
Garelli, P. (1965), Tablettes cappadociennes de collections diverses (suite). *Revue d'Assyriologie* 59, 19–48, 149–176.
Grayson, A. K. (1987) *Assyrian Rulers of the Third and Second Millennia BC (to 1115 BC)*. The Royal Inscriptions of Mesopotamia Assyrian Periods 1, Toronto.
Günbattı, C. (1987) Ankara Anadolu Medeniyetleri Müzesi'nde Bulunan Üç Tablet. *Cumhuriyetin 60. Yıldönümü armaanı*, 189–199. Ankara.
Horowitz, W. and Oshima, T. (2006) *Cuneiform in Canaan. Cuneiform Sources from the Land of Israel in Ancient Times*. Jerusalem.
Horowitz, W. and Wasserman, N. (2004) From Hazor to Mari and Ekallātum: A Recently Discovered Old Babylonian Letter from Hazor. *Amurru* 3, 335–344. Paris.
Ismail, F. (1991) *Altbabylonische Wirtschafsurkunden aus Tall Leilān (Syrien)*, Unpublished PhD, Eberhard-Karls-Universität Tübingen.
Joannès, F. (2006) *Harradum II. Les textes de la période paléo-babylonienne (Samsu-iluna – Ammi-ṣaduqa)*. Paris.
Kupper, J.-R. (1982a) Les prix à Mari. *Orientalia Lovaniensia Analecta* 13, 115–121.
Kupper, J.-R. (1982b) L'usage de l'argent à Mari. *Zikir šumim, Studies Presented to F. R. Kraus*, 1982, 163–172.
Kupper, J.-R. (1990) La vie économique à Mari. In E. Aerts and H. Klengel (eds), *The Town as Regional Economic Centre in the Ancient Near East*, 37–44. Leuven.
Kupper, J.-R. (1991) Le commerce à Mari. *Bulletin de la Classe des Lettres et des Sciences Morales et politiques*, Académie Royale de Belgique, 41–57. Bruxelles.
Lacambre, D. 2008 '10. Le bureau de la bière'. In Ö. Tunca and A. el-M. Baghdo (eds), *Chagar Bazar (Syrie) III. Les trouvailles épigraphiques et sigillographiques du chantier I (2000–2002)*, 180–207. Louvain, Paris, Dudley.
Lambert, W. (1960) Le bain des brebis. *Revue d'Assyriologie* 54, 88.
Lassen, A. (2010) The Trade in Wool in Old Assyrian Anatolia. *Jaarbericht van het Vooraziatisch-Egyptisch Genootschap Ex Oriente Lux* 42, 159–179.
Lerouxel, F. (2002) Les échanges de présents entre souverains amorrites au XVIIIe siècle av. n. è. D'après les archives royales de Mari. FM 6, 413–463. Paris.
Lion, B., Michel, C. and Noel, P. (2000) Les crevettes dans la documentation du Proche-Orient ancien. *Journal of Cuneiform Studies* 52, 55–60.
Lumb, D. R. A (2013) Textiles, Value, and the Early Economies of North Syria and Anatolia. In M.-L. Nosch, H. Koefoed and E. Andersson Strand (eds), *Textile Production and Consumption in the Ancient Near East*, 54–77. Ancient Textiles Series 12. Oxford.
Marti, L. (2008) *Nomades et sédentaires à Mari. La perception de la taxe-sugâgûtum*. FM 10, Paris.
McCorriston, J. (1997) The Fiber Revolution. Textile Extensification, Alienation, and Social Stratification in Ancient Mesopotamia. *Current Anthropology* 38, 517–549.
Michel, C. (1998) Les mites d'Assyrie: Moths in the Assyrian Texts of the Second Millennium BC. *Journal of the American Oriental Society* 118, 325–331.

Michel, C. (2001) *Correspondance des marchands de Kaniš au début du IIe millénaire avant J.-C.* LAPO 19. Paris.
Michel, C. (2003) *Old Assyrian Bibliography*. Old Assyrian Archives Studies 1. Leiden.
Michel, C. (2006a) Old Assyrian Bibliography 1 (Febr. 2003–July 2006). *Archiv für Orientforschung* 51, 435–449.
Michel, C. (2006b) Femmes et production textile à Aššur au début du IIe millénaire avant J.-C. *Techniques et culture* 46, 281–297.
Michel, C. (2006c) Qaṭarā. In M. Streck (ed.), *Reallexikon der Assyriologie* 11, 154–156. Berlin.
Michel, C. (2011) Old Assyrian Bibliography 2 (August 2006–April 2009). *Archiv für Orientforschung* 52, 416–437.
Michel, C. (2012) Šubartum. In M. Streck (ed.), *Reallexikon der Assyriologie* 13, 225–227. Berlin.
Michel, C. (in preparation) *Women from Aššur and Kaniš*. Writings from the Ancient World, SBL, Baltimore
Michel, C. and Veenhof, K. R. (2010) The Textiles Traded by the Assyrians in Anatolia (19th–18th centuries BC). In C. Michel and M.-L. Nosch (eds), *Textile Terminologies in the Ancient Near East and Mediterranean from the Third to the First Millennia BC*, 210–271. Ancient Textiles Series 8. Oxford.
Owen, D. (2012) Three Early Old Babylonian Accounts. In T. Boiy, J. Bretschneider, A. Goddeeris, H. Hameeuw, G. Jans and J. Tavernier (eds), *The Ancient Near East, A Life! Festschrift Karel Van Lerberghe*, 445–456. Orientalia Lovaniensia Analecta 220, Leuven.
Ozan, G. (1994) Viandes et poissons: transport et conservation (textes no. 83 à no. 85). In D. Charpin and J.-M. Durand (eds), *Recueil d'études à la mémoire de Maurice Birot*. FM 2, 151–157. Paris.
Roth, M. (1997) *Law Collections* from *Mesopotamia and Asia Minor*. Atlanta.
Rouault, O. (1977) L'approvisionnement et la circulation de la laine à Mari. D'après une nouvelle lettre du roi à Mukannišum. *Iraq* 77, 147–153.
Thomason, A. K. (2013) Her Share of the Profits: Women, Agency, and Textile Production at Kültepe/Kanesh in the Early Second Millennium BC. In M.-L. Nosch, H. Koefoed and E. Andersson Strand (eds), *Textile Production and Consumption in the Ancient Near East. Archaeology, Epigraphy, Iconography*. 93–112. Ancient Textiles Series 12, Oxford.
Van Koppen, F. (2002) Seized by Royal Order. The Households of Sammêtar and Other Magnates at Mari. FM 6, 289–372. Paris.
Veenhof, K.R. (1972) *Aspects of Old Assyrian Trade and its Terminology*. Studia et Documenta 10. Leiden.
Veenhof, K.R. (1977) Some Social Effects of the Old Assyrian Trade. *Iraq* 39, 109–118.
Veenhof, K.R. (2003) Trade and Politics in Ancient Aššur. Balancing of Public, Colonial and Entrepreneurial Interests. In C. Zaccagnini (ed.), *Trade and Politics in the Ancient World*. Saggi di Storia Antica 21, 69–118. Roma.
Vincente, C.A. (1991) *The 1987 Tell Lei/an Tablets Dated by the Limmu of Habil-kinu*. Unpublished Ph.D. dissertation, Yale University, New Haven.
Waetzoldt, H. (1972) *Untersuchungen zur neusumerischen Textilindustrie*. Roma.
Ziegler, N. (1999), *Le Harem de Zimrî-Lîm*. FM 4. Paris.