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Kapsam

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Dipnot (kitaplar için)

Richter 1977, 162, res. 217.

Dipnot (Makaleler için)

Oppenheim 1973, 9, lev.1.

Diğer Kısaltmalar

age.	adı geçen eser
ay.	aynı yazar
vd.	ve devamı
yak.	yaklaşık
v.d.	ve diğerleri
y.dn.	yukarı dipnot
dn.	dipnot
a.dn.	aşağı dipnot
bk.	Bakınız

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Footnotes (for books):

Richter 1977, 162, fig. 217.

Footnotes (for articles):

Oppenheim 1973, 9, pl.1.

Miscellaneous Abbreviations:

op. cit.	in the work already cited
idem	an auther that has just been mentioned
ff	following pages
et al.	and others
n.	footnote
see	see
infra	see below
supra	see above

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OLBA XXII, 2014

ARAKHNE'S LOOM: LUXURIOUS TEXTILE PRODUCTION IN ANCIENT WESTERN ANATOLIA

Tuna ŞARE-AĞTÜRK*

ABSTRACT

The fame of the high quality textiles produced in Western Anatolia during the Roman Empire is well attested in a variety of literary and epigraphic sources. As one can deduce from these sources, certain cities of Western Anatolia have become so famous with the textiles they produced that their highly prized products took on the cities' name. The Laodikene chlamys, for example, was a highly priced clothing item produced in Laodikeia of Western Anatolia and exported to all around Roman Empire. This article aims to trace the origin of the tradition of luxurious textile production in ancient Western Anatolia through Bronze Age to the fourth century BCE, with an emphasis on the textual evidence, material evidence, and artistic evidence related to the Archaic and Achaemenid Periods of the region. The overall examination shows that starting with the Bronze Age, Western Anatolia had a significant role in the production and in some cases in the export of luxurious textiles and raw materials used in the manufacture of these textiles in interregional markets. The study also reveals four major specializations in high-quality textile production in Western Anatolia: textile dyes (especially the royal purple-dye), gold woven textiles (embroidered with golden threads or decorated with golden appliqués), high quality wool, and fine linen. Starting with the Bronze Age the industry is controlled by the elite. The essay consists of two main parts, a chronological overview of the textile production, followed by a short discussion of the elite clothing fashions in Western Anatolia between the fourth and seventh centuries BCE.

Keywords: luxurious textiles, ancient textile industry, purple dye, ancient clothing fashions, ancient Western Anatolia

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I use the word textile to refer to any kind of woven cloth made from fibers or animal hair, used as coverings for people and things.

ÖZET

Arakhne'nin Dokuma Tezgahı: Antik Batı Anadolu'da Yüksek Kalite Tekstil Üretimi

Bu makalede, antik kaynakların, arkeolojik buluntuların, özellikle tekstil parçaları ve tekstil üretim aletleri kalıntılarının ve tekstil ile ilgili antik tasvirlerin analizinden yola çıkılarak Antik Batı Anadolu'da yüksek kalite tekstil ve tekstil hammaddeleri üretimi incelenmiştir. Antik kaynakların da açıkca belirttiği gibi Roma Imparatorluk Dönemi'nde Laodikeia gibi bazı Batı Anadolu kentleri, Imparatorluğun yüksek kalite tekstil ihtiyacını karşılayan dokumacılık merkezlerine dönüşmüştür. Bu çalışmada Batı Anadolu'daki yüksek kalite tekstil üretiminin daha erken dönemlerdeki izleri sürülmüş ve aşağıdaki çıkarımlara ulaşılmıştır: Bronz Çağı'nda uluslararası markete yönelik gelişmiş tekstil endüstrisine dair delil azdır. Ancak Demir Çağı'nda Frigya, Lidya, Iyonya, ve Karya bölgelerindeki bazı kentlerin hem domestik hem de uluslararası pazara yönelik yüksek kalite tekstil ve yün, keten ve boya gibi tekstil hammaddeleri üretimi yaptığı gözlenmektedir. Bronz Çağı'ndan itibaren bu pahalı endüstrinin elit kesimin tekelinde olduğu anlaşılır. Bu makalede ayrıca Antik Batı Anadolu'da iyi kalite tekstil üretiminin dört ana kategori altında gerçekleştiği tespit edilmiştir. Bu kategoriler: tekstil boyaları (özellikle kraliyet moru diye de adlandırılan mor tekstil boyası), altın işlemeli tekstiller, yüksek kalite yün ve tül gibi ince keten kumaşıdır. Makalenin ilk kısmında Batı Anadolu'da lüks tekstil endüstrisi kronolojik olarak incelenirken, Fabrics and Patterns (Kumaşlar ve Desenler) adlı ayrı bir bölümde de kısaca antik Batı Anadolu elitinin kıyafet modalarına değinilmiştir. Çalışmanın temel odağı Batı Anadolu'nun Arkaik ve Akamenid Dönemleri yani M.Ö. 7. yüzyıldan 4. yüzyıla kadar olmuş olsa da, gerekli olduğunda Neolitik Dönem'den Roma Imparatorluk Dönemi'ne kadar Batı Anadolu'da lüks tekstil üretimine yönelik bilgilere de değinilmiştir.

Anahtar Kelimeler: Antik tekstil endüstrisi, Antik Batı Anadolu kıyafet modaları, yüksek kalite tekstil ve hammaddeleri, mor tekstil boyası, altın işlemeli kıyafetler

This essay examines the production of luxurious textiles and high-quality raw materials used in the manufacture of these textiles in ancient Western Anatolia through an analysis of textual evidence, mostly in Greek and Latin sources; material evidence, including remains of textiles and textile production tools; and the artistic evidence; figural representations of textiles and textile production. As well known from literary sources, certain cities of Western Anatolia, such as Laodikeia, served as "weaving towns" supplying the high-quality textiles of the Roman Empire. This study traces the tradition of luxurious textile production in Western Anatolia to earlier periods. The evidence for a structured luxurious textile industry geared towards an international market in the Bronze Age is scarce. Yet, in the Iron Age, certain cities of Phrygia, Lydia, Ionia, and Caria seem to have produced luxurious textiles and raw materials necessary

for the production of such textiles (such as high quality wool, flax, and dyes) both for the domestic and the international market. Starting with the Bronze Age, this expensive industry seems to have been controlled by the elite. The essay also reveals the four major categories of luxurious textiles in ancient Western Anatolia; textile dyes (especially the royal purple-dye), gold woven textiles (embroidered with golden threads or decorated with golden appliqués), high quality wool, and sheer linen. In addition, the elite clothing fashions specific to ancient Western Anatolia are discussed under the Fabrics and Patterns section[1]. Though the main focus of this study is on the Archaic and Achaemenid periods[2], roughly between the seventh and fourth centuries BCE, when necessary I shall consider the evidence from Neolithic to Roman times, from all around Anatolia[3].

A Chronological Overview of the Textile Production in Ancient Anatolia

Neolithic Çatalhöyük provides not only the earliest evidence for textile production in ancient Anatolia, but also one of the earliest known examples in the ancient world. Finely threaded textiles of flax discovered in the Level VI date from the sixth millennium[4]. These textiles from Çatalhöyük also provide the earliest possible evidence for the knowledge of warp-weight loom, which is an important development in textile production technique since it allows weaving of a cloth longer than the height of the loom[5]. Spindle whorls and loom weights occurred in several Late Neolithic and Chalcolithic sites such as Hacılar, Mersin, and Beycesultan, testifying to the knowledge of and continuity in textile production in an extensive area of ancient Anatolia in the fourth millennium[6]. Remains of a rug from

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1 The title of this section is inspired by Bonfante's influential book on Etruscan dress, see Bonfante 2003.

2 "Archaic" is used to refer to the late eight to the mid sixth centuries.

3 Henceforth, all dates are BCE, unless indicated otherwise.

4 Barber 1990, 10, 11, 59; also see Helbaek 1963, 39-46.

5 Cecchini 2000, 213 and Barber 1994, 99. A warp-weighted loom, basically, consisted of two vertical wooden beams linked at the top by another beam from which warps hang. As the cloth is woven, from bottom to top, it could be rolled around the top beam. The evidence for the use of warp-weighted loom is plenty in the Early and Middle Bronze Age, both in Anatolia and also in Palestine, but Cecchini (2000, 214) notes that they are replaced by two-beam vertical loom in the Late Bronze Age. Two-beam vertical loom consisted of warp stretched between two vertical beams. For ancient loom types, see Barber 1990, 79-125.

6 Barber 1990, 59, note 13 (Barber cites Mellaart (1961, 46) for Hacilar, Garstang (1953, 32-33, 43, 52) for Mersin and Lloyd and Mellaart (1962, 268-69) for Beycesultan).

an Early Bronze Age sanctuary at Beycesultan further provide the earliest known specimen of felting, the matting of wool or hair together into a stable fabric by pressure instead of weaving[7].

With the increase in demand and the technical developments, textile production in the Bronze Age turns into an organized industry with its different stages in the process of turning the fiber into a textile, such as the retting, the spinning, the doubling up of the threads, the dyeing, the weaving, and the bleaching. In her recent comprehensive study, Tütüncüler examines the weaving implements found at the Middle and Late Bronze Age settlements of Western Anatolia[8]. The main purpose of her study is to determine the interactions of the technologies of weaving tools within the Aegean, but her investigation also reveals the use of a great variety of weaving tools, especially of the whorls, thus a great variety of yarns produced in Western Anatolia in the second millennium BCE[9]. Tütüncüler rightly concludes that despite the large variety and quantity of weaving implements found, it is safer to assume that the "weaving production was carried out -in a local scale-for a domestic market" since the textile production was part of the daily life in each household in antiquity[10]. The luxurious textiles or raw materials used in the manufacture of luxurious textiles such as the purple dye or the high-quality linen, however, might have had an export value under the control of the elite[11]. Indeed, inscriptions on cuneiform or linear tablets from several Bronze Age sites in Mesopotamia and in the Aegean refer to the textile industry and textile trade controlled by the palace or the temple[12]. Linear B tablets from the palace at Knossos, for example, mention the export of woolen textiles, manufactured from thousands of sheep raised under the control of the palace[13].

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7 Barber 1994, 215.

8 Tütüncüler 2005. Her PhD dissertation, typologically classifies and analyzes three main weaving implements; whorls, loom weights, and pulleys found at archaeological sites at Chios, Rhodes, Aphrodisias, Beycesultan, Çeşme-Bağlarağası, Iasos, Kusura, Limantepe, Miletos, Panaztepe, Troy, Liman Tepe, and Yanarlar Cemetery.

9 Varying sizes of the spindles are indicative of the production of threads in varying thicknesses.

10 Tütüncüler 2005, 189. In a personal conversation, Tütüncüler rightly pointed out that more concrete evidence in the archaeological record is needed to talk about a high volume production for an international market, such as traceable workshops with several looms within.

11 See Killen 1984 for the evidence for palace or temple controlling the textile production in the Aegean. Killen's review of the linear tablets shows that the wool and linen production was controlled by the palace.

12 See Tütüncüler 2005, 52-92 for the organization of textile workshops in several Bronze Age palaces.

13 Wiener 1987, 264.

The increasing importance and the involvement of the "elite" in the cloth industry in the Bronze Age are not only evident in the inscriptions, but also in the discovery of sophisticated weaving implements of precious material from several sites. Barber, in her monumental study of prehistoric textiles, interprets the silver, gold, bronze, electrum, and ivory spindles and distaffs found at the sites of Merzifon, Alacahöyük, Horoztepe, Karataş, and Troy as an early sign for the tradition of "weaving noblewomen" in Anatolia[14]. Indeed, Homer mentions Trojan queens and princesses as weaving luxurious cloths using precious implements[15].

Excavations at the Late Bronze Age levels in Troy (primarily in Troy VI) show another aspect of the luxurious cloth industry at the site. Thousands of crushed murex-shells along with grinders and worn mill-stones, which were used to crush the shells, and installations used to boil the shells indicate the existence of purple-dye industry[16]. Perhaps, it is no coincidence that both Trojan princesses, Helen and Andromache, are referenced as weaving "double-folded purple robes" as they wait for the fate of their husbands in the Iliad[17]. Surprisingly, later legends recount Helen of Troy's dog as the inventor of purple dying. According to the legend the dog accidentally chews a murex shell, which turns his mouth purple[18]. Purple dye, so expensive in antiquity, known as the royal color, was reserved for

14 Barber 1994, 209. For the possible spiritual meaning of precious weaving implements in Bronze Age Anatolia also see, Yakar - Tafet 2007.

15 Homer Iliad III.125-127-XXII.441-42.

16 Singer 2008, 28. Little is known about the details of purple-dye production in antiquity. The general descriptions of the method survive in Aristotle (Historia Animalium V.15.22-25), Pliny the Elder (NH IX.62-133), and Vitruvius (De Architectura VII.13.1-3). Also known as "Tyrian purple", because of the reputation of Phoenician town of Tyre from where purple dyes are exported to the Mediterranean, the color is made from the snails collected from shallow seafloors. The process of production seems to have included sun drying, boiling, and then smashing the snails to get the purple liquid out. Extracted purple liquid are then used to die wool. Since each snail yields only a single drop of the dye, the expensive purple garments of the antiquity seem to have been popular only among the elite, eventually becoming a "royal code" of the Byzantine emperors. Earliest archaeological evidence for purple-dye production comes from Minoan Crete and from fifteenth century Ugarit, on the northern coast of Syria. Phoenician colonies set up all around the Mediterranean were also closely involved with the purple-dye industry throughout the Late Bronze Age and Early Iron Age. Herodotus (IV. 25) refers to the existence of the industry in the Eastern coast of Crete in the fifth century. For purple dye production and consumption in general, see Barber 1990, 228-229; Singer 2008, 25-27.

17 Helen's work at the loom in Iliad III.125-28, Andromache's loom in the Iliad XXII.441-42. See, Pantelia (1993) in general for the references to spinning and weaving in the Iliad.

18 Palaephatus de Incredibilibus. 62, cited in Singer 2008, 25.

the garments of the elite. The cuneiform tablets from Boğazköy, the capital of the Hittite Empire, provide further evidence for an active purple-dye industry controlled by the elite in the vicinity of Troy, in North-Western Anatolia in the Late Bronze Age[19]. The inventories, price lists, and laws inscribed on cuneiform tablets from Boğazköy refer to a variety of garments. Significant for our purposes is the mention of expensive purple-dye fabrics in these texts. A specific letter refers to the purple dyers of Lazpa (Island of Lesbos, very close to Troy) working for the Hittite king Mursili II.

Besides the Late Bronze Age evidence for purple-dye industry controlled by the elite, there is an earlier possible evidence for the textile production intended for a larger area beyond the territories of Troy. Over ten thousand spindle whorls discovered from the Early Bronze Age levels might indicate that not only the elite, but also the common people were busy with cloth production, perhaps not only for their own self-sufficiency[20].

The earliest textual evidence regarding the textiles in Anatolia mentions the import of a variety of high-quality textiles from Assyria, as well as locally produced textiles. The cuneiform tablets from Kanesh- Kültepe, an Assyrian trading colony active in central Anatolia in the 19th century, describe the exchange of textiles and tin from Ashur for gold and silver in Anatolia[21]. The tablets also mention variety of locally produced textiles of medium/low quality and different colors that was on demand in the domestic market[22].

Our current state of knowledge of the textile industry on the western coast of Anatolia in the Early Iron Age is limited. Evidence for active textile production, during this period, however, comes from the southeastern part of Anatolia. After the collapse of the Hittite kingdom in the eleventh

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19 Goetze (1955, 48-62) through his study of several tablets pinpoints eleven different items of dress, mostly of men's wear, including tunics of different type, headdresses, belts, and veils. One very interesting dress item mentioned in the texts is the Tugguea, "Hurrian shirt" embroidered or trimmed with gold borders. Also see, Singer 2008, 29-30 for the purple-dyers of Lazpa.

20 Barber 1994, 214. This comment is open to debate since it is hard to distinguish spindle whorls from just whorls, and the latter have more functions than just weaving, see Tütüncüler (2005, 95) for the problem. Thus, the context and a through typological analysis of the Trojan whorls are needed to conclude that they are all certainly used in the textile production.

21 Bryce 2005, 27. This evidence indicates the Assyrian influence on Anatolian dress fashions.

22 For the tablets, see Cebesoy 1995. Also, see Tütüncüler (2005, 53-63) for the discussion of textile products mentioned in the Kanesh tablets.

century, independent city states, established in southeastern Anatolia, seem to have inherited and carried the Hittite cultural legacy into the seventh century, until their total absorption by Assyria[23]. In close contact with Phrygians in the northwest, Urartians in the northeast, and Assyrians in the south, these Neo- Hittite states seems to have been at the center of textile production and trade in the Near East. Assyrian annals mention textile products as tributes or booty coming from these Neo-Hittite states to the Assyrian kings, making it clear that the textiles of the region were highly valued and that there existed a developed textile industry[24].

An iconographic examination of a funerary stele of a woman from Zincirli (fig. 1), one of the most powerful Neo-Hittite states, provides a glimpse into the lively textile industry in the region. Dated to the late eight century, the stele depicts the deceased woman seated on a backed chair holding a distaff with a ball of "wool" wrapped around it. The representation of such distaffs held by spinning women is a common motif both in earlier Near Eastern art and later Greek and Etruscan art[25]. The motif is often interpreted as an attribute, alluding to the gender role of aristocratic women[26]. What is unique about the Zincirli relief is the second figure who accompanies the seated woman. Unlike many Greek funerary reliefs, which typically show a deceased woman with her maids, who often appear as to be offering their mistress a jewelry box, the Zincirli woman is accompanied by her scribe[27]. The scribe holds a tablet and a stylus, perhaps references to his mistress' accounts, thus, perhaps implying her wealth made through textile business.

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23 Hawkins 1982, 372-441.

24 Cecchini 2000, 229.

25 A famous case for Near Eastern art is a Neo-Elamite relief of a spinning lady from Susa dating from early ninth century, Louvre Sb 2834, see Root 2004, fig. 20. For Greek art, most famous example is a black figure lekythos by Amasis Painter at the Metropolitan Museum of Art, Fletcher Fund, 1931: no. 31-11-10, see Barber 1990, fig. 2.38. The Metropolitan lekythos, dating from around 560, shows a group of Athenian girls in sequential stages of wool working, which also includes spinning with the help of a spindle and a distaff. For the Etruscan examples see Bonfante 1975.

26 See Bundrick (2008) for the meaning of the motif in the Athenian context in the Classical Period.

27 Perhaps the best-known example of "mistress and maid" motif in Greek art is the so called Hegeso relief. A perfect example of High Classical sculpture, the relief shows seated Hegeso (her name inscribed above) and her maid with a jewelry box in her hand, Athens National Museum, inv. no. 3624, see Pedley 2007, 280, 8.45. This motif also appears on Greek vases with nuptial and funerary scenes, see for example Oakley and Sinos 1993, 76, fig 45.

The Phrygian kingdom, which flourished in west-central Anatolia beginning in the tenth century, seems to have had an importance in textile production equal to that of its southwestern neighbors, the Neo-Hittite states. Pliny (NH VIII.74.196) ascribes the invention of embroidery to Phrygians and terms garments with a lot of ornament as "Phrygianic". He may not be right in assigning this invention to Phrygians, since archaeological evidence from Egypt shows the existence of the craft already in the Early Bronze Age[28]. Yet, his statement points to Phrygia as an important source of embroidered textiles in the Classical world. In fact, excavations at the Phrygian capital of Gordion have revealed the importance of a centrally organized textile industry in the Phrygian royal economy as early as the ninth century. The standardized workshops at the so-called Terrace Building and the Clay Cut Structure behind the elite residential quarter at Gordion (Megaron 1-4, perhaps Megaron 3 is the royal palace) have produced thousands of textile production implements including clay spindle whorls, loom weights, metal knives and other tools of ivory, wood, and bone[29]. The enormous amount of textile equipment and fairly standard shapes and sizes of this equipment indicate a mass production of garments controlled by the elite. This phenomenal evidence for the textile industry at Gordion may be related to the wealth of legendary King Midas[30]. Not much gold or any evidence for gold refineries were found at Gordion, but according to Barber's calculations, the Phrygian elite or the royalty seems to have employed over a hundred women weaving next door to their royal quarters[31]. This number is two times more than the number of women employed by the legendary king Alkinoos, whose wealth Homer emphasizes through his power to employ fifty weavers in his palace[32].

Surprisingly, excavations at Gordion have also revealed several textile fragments, including woven linen, woven wool, and felted wool. The preserved fragments were discovered in the tumuli around the city and

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28 Barber 1990, 198.

29 Burke 2005, 69-81 also see Barber 1990, 102.

30 Most famously known story about his wealth is his "Golden Touch" told in detail in Ovid's Metamorphoses (XI .85-145). Already in seventh century Spartan poet Tyrtaios uses "Midas" as a proverb for great riches. Tyrtaios fr 12, line 6. For the legend of King Midas in Greece, see Roller 1983.

31 Barber 1990, 102. Her calculation is based on nearly 2300 loom weights within 90 meters of each other and average of 21 weights for each loom.

32 Homer Odyssey VII. 103-106.

also from buildings of the city, burned by the Kimmerians in the attack of around 690. Aside from the miraculously surviving of textile fragments from Neolithic Çatalhöyük, the fragmentary Gordion textiles provide the earliest first-hand evidence in ancient Anatolia and their variety and quantity are more extensive than the examples from Çatalhöyük. The types of textiles include blankets (best preserved are the ones which covered the bier of the royal deceased from the Great Tumulus-Tumulus MM), wall hangings, bags, cloths, pads, and tapes for tying up bundles and for edging garments[33]. The patterns include quadruple lozenges, meanders, and double barred stripes[34]. Barber stresses the "fancy" quality of many of the Gordion fragments, as one might expect for the elite, who obviously administered the textile production at the site[35]. Thus, fragments of the textiles themselves and the evidence for mass production at the royal quarters in Gordion indicate that textiles were prestige items of the Phrygian kingdom and might have been used as a medium of exchange.

After the Kimmerian invasion of 690, the Phrygian kingdom lost its political power. The neighboring Maionians, who were to become the powerful Lydians of Western Anatolia under the Mermnad dynasty, seem to have inherited the textile industry of the Phrygians. Several ancient Greek texts, possibly due to the close interaction between Eastern Greeks and Lydians in the seventh century, refer to Lydian textiles. Sappho, writing in the late seventh century, praises elaborate items of dress in Lydia (frs. 34-99). She compares, for example, a plain headband of her hometown of Mytilene with an ornate one imported from Sardis (fr. 98). Her contemporary, Alkman, also refers to imported luxurious Lydian headgear (frs. 1.67-9). The bright colored dyes of Lydian textiles are also highly praised in the ancient literature. Aristophanes' chorus in Peace (1367-70), for example, when talking about a dazzling red cloak refers to the red textile dyes of Sardis. Fourth century inventory lists from the Sanctuary of Hera at Samos list several Sardian chitons, which are distinguished from the other dedications by their elaborate fringes[36]. In the Persica, an unknown Greek ethno-historian in the fourth century refers to the fine quality of brightly

33 Barber 1990, 197.

34 Richard 1981, 294-310, Pl, 101 C D; Bellinger 1962, 5-34; Barber 1990, 198.

35 Barber 1990, 197.

36 Greenewalt – Majewski 1980, 136.

colored Sardian carpets, used exclusively by Persian kings[37]. As discussed in detail below, the textual evidence also mentions Ionian cities of Western Anatolia, such as Miletos, in close contact to Lydian cities in the context of the textile related industry.

Perhaps it is no coincidence that the legendary Arakhne, the best of all mortal weavers, who dared to challenge goddess Athena's skills in weaving, is said to have lived in Lydia. Ovid, in Metamorphoses (VI.1-148), tells that Arakhne's fame in weaving swept through Lydia, so much so that numerous nymphs came to her, to admire the cloths she wove and to see her spinning wool. In a weaving competition with Athena, Arakhne portrays the gods in the guise of animals chasing after mortal girls, while Athena depicts them seated on high thrones. Angry at her arrogance and impiety, Athena drives Arakhne crazy, and she hangs herself. The goddess then transforms her into a spider, arakhnês in Greek. Pliny (NH VII. 196) also names Arakhne and her son Closter as the inventors of the spindle in the manufacture of woolen, linen, and nets. In addition, Pliny (NH VIII.74-196) refers to the golden woven vests, Attalica, of the Pergamene kingdom, established on the 'previously' Lydian land in the third century. Pliny's account has prompted scholars to recognize the Lydian legacy in the fame of the golden woven-textiles of Pergamon in the Hellenistic and Roman periods[38].

Later sources like the Early Byzantine Johannes Laurentius Lydus, a native of Lydia, mentions two types of garments originally designed by Lydians: gold woven chitons and sandykes, a fine linen transparent chiton, which caused Lydian women to appear to wear nothing, like the one worn by the legendary Lydian queen Omphale[39]. Though it is later in date, Greenewalt and Majewski note that Laurentius' account might be based on Kameiros of Rhodes, a poet of the seventh or sixth century[40].

Unlike the case at Gordion, excavations at Sardis, the capital of Lydia, have not yet revealed any fragments of textiles or evidence for their mass production to support the reputation of the Lydians as makers of fine

37 Greenewalt – Majewski 1980, 134 (cited from Heracleides Cumanus, Persica I. fr. 1).

38 Greenewalt – Majewski 1980, 134, note 20.

39 De Magistratibus Populi Romani III, 64. (Cited in Greenewalt – Majewski 1980, 136).

40 Greenewalt – Majewski 1980, 134, note 19.

textiles[41]. Yet, there is indirect evidence. Modern investigations in the vicinity of Sardis showed the availability of abundant mineral agents with a variety of hues for the famed dyes[42]. Minerals such as antimony, arsenic, cinnabar, yellow ochre, sulphur and the availability of murex shells on the nearby coast point to the possible production of a variety of colors including white, black, murex-purple, blood-red, pink, orange, and various yellows[43]. Other types of natural resources in the region such as perfect topographical and climatic conditions to grow flax for the production of linen or to raise sheep as sources of wool and mohair, further confirm, though indirectly, the fame of Sardian textiles in antiquity.

The excavation of houses at Sardis destroyed by the attack of Cyrus the Great in 547 has produced a large number of loom weights. Including the not yet published 11 pyramidal weights in a partly excavated space dug in 2007, the total number of the loom weights discovered from the site so far reaches to 205[44]. Loom weights come from four different houses and vary in shape and weight, indicating production of different kinds of cloth, "demanding threads weighed at different tensions" [45]. The numbers are large, but not comparable to the large-scale production at Gordion. Indeed, Cahill sees these loom weights as evidence of normal household production[46].

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41 For now, the closest we have of an actual Lydian textile are iron plates discovered in a plundered tomb in Tumulus BT 63.2, dating somewhere between the seventh to fifth centuries. The plates carry the slight remains and patterns of the textiles to which they once were attached. Within the burial, the textile fibers in contact with the iron surfaces were replaced by metal salts creating a replica of the textile. A careful study of these iron plates by Greenewalt and Majewski has shown that they were parts of a wooden coffin, which was covered with layers of cloth. By looking at the patterns on the plates Greenewalt traced the existence of embroidery, fringes, and "threads indicating sewing of parts together". See, Greenewalt and Majewski 1980, 138-140. The main aim of the article is to illustrate the possible origin of the well-preserved Pazyryk Textile found in Siberia as coming from Sardis.; also see, Barber 1990, 1999.

42 Dusinberre 2003, 22-23.

43 ibid.

44 I am grateful to Prof. Nicholas Cahill, director of the excavations at Sardis, for this information. The numbers can be divided as 46 in one house; about 121 in another, in two groups, and in 6 or so different sizes; 21 loom weights, probably in a bag from another house; 11 pyramidal weights in a partly excavated space dug in 2007.

45 Cahill 2002, 179. This variation is true at least for 105 loom weights discovered from the courtyard of the North House.

46 Cahill points out that the good preservation and recovery at other sites produce similar numbers, since every household would have had loom weights in antiquity (Personal conversation with Prof. Cahill).

Though during the seventh and sixth centuries Sardis does not reveal much in terms of actual fabrics, there are plenty of other kinds of material evidence for the existence of gold-woven (or sewn) luxurious Lydian textiles. This fashion seems to have been popular among the elite, not only at Sardis but throughout Western Anatolia. The archaeological evidence ranges from Bronze Age to Roman times. The earliest material evidence comes from Troy in the mid-third millennium. Room 206 in Level IIg in Troy revealed the remnants of a loom destroyed in a sudden fire. Along with four sets of loom weights, nearly two hundred gold beads were found scattered around the loom in the room. Barber, in her re-evaluation, disagrees with archaeologist Blegen, who explains these beads as parts of a woman's jewelry burned with the textile as she rushed out of the room in the fire, leaving her jewelry inside[47]. Barber suggests a more probable explanation that "she was weaving a cloth with gold beads strung on the weft or was sewing them onto the finished web as it hung" [48]. Hittite texts, referring to a kind of garment (possibly worn by the king), embroidered with gold and precious beads, further indicate the production of the golden woven/sewn dress in Bronze Age Anatolia[49].

Nearly 150 square, circular, cruciform, and lozenge shaped golden appliqués came from at least four looted tombs (Aktepe, Toptepe, Ikiztepe and Harta) from the modern Uşak-Güre and Manisa regions of ancient Lydia. Regular holes perforated at the corners of these thin plaques indicate that they were once sewn to the garments and headdresses buried in the tombs with the deceased (fig. 2)[50]. The foundation deposit of the Archaic Artemision commissioned by Kroisos in the second quarter of the sixth century also revealed several golden and electrum appliqués similar in

47 Blegen et all 1950, 350-351. Also see Barber 1990, 172 and Barber 1994, 212- 213.

48 Barber 1990, 172. Barber (1994, 212) also mentions a section from Schliemann' s excavations diaries, in which he describes a clay box in which he found fragments of a linen fabric decorated with luxurious beads, and a spindle with thread.

49 Goetze 1955, 55.

50 Of the square appliqués, 36 bear an embossed scene with a raptor and a hare, 32 a star-like floral motif, 34 a petalled rosette, and one a decoration with four bosses. Two lozenge shaped appliqués bear a motif with palmettes and paired volutes, see Özgen – Öztürk 1996, 165-167, cat nos. 115-119. Of the circular appliqués, 24 are embossed with three notched bow-coils set back to back and one is embossed with a star-like floral design, see Özgen – Öztürk 1996, 208-209, cat nos. 180-181. Two cruciform shaped appliqués bear four bow-coils formed from beaded wire. This final group lacks perforation, but one of them carries a metal ring and a small metal strap at the back for attachment to a textile, see Özgen – Öztürk 1996, 207, cat nos. 178-179.

shape to those from the Lydian tombs[51]. Pins and fibulae found along with the appliqués indicate that they all once belonged to the now perished garments dedicated as offerings to the goddess at the sanctuary[52]. A seventh century golden medallion from Toprakkale provides visual evidence for the appearance of such dresses (fig. 3). On the medallion a veiled woman appears seated on a throne with a spindle in her hand. Another veiled woman approaches her from the right. The dresses and veils both women wear are decorated with square metal appliqués[53]. Considering the fame of the Lydian gold, archaeologically attested through discoveries of gold refineries at Sardis, one can assume that this Lydian city and its vicinity was indeed the source of luxurious gold-woven garments produced in the seventh and sixth century[54].

With slight changes in the iconography, the fashion seems to have continued unabated during the Achaemenid period in Western Anatolia. A variety of gold foil appliqués, with Achaemenid motifs such as lamassu, winged figures, lotus flowers, and bud chains occurred in several tombs in and around Sardis, all possibly dating from the Achaemenid period. A jour rosettes on golden appliqués also occurred in cremation burials in the Achaemenid levels of Gordion[55]. The shapes and sizes of some of these appliqués indicate that they were sewn onto garments along the hems and seams[56]. Dusinberre in her study of the mortuary evidence from Achaemenid Sardis shows that the designs on these gold appliqués are made by cut stones or metal stamps bearing the images in intaglio, and thus share the same technique used for personal stamp seals[57]. By pointing out

51 Jacobsthal 1951, figs a, b, c, e, f.

52 Indeed, surviving inventories from Greek sanctuaries of Artemis indicate that women dedicated their finest textiles and the tools they used in weaving and spinning to mark transitional stages of their life such as puberty, marriage, and childbirth. Most famously known are the inventories of the sanctuaries of Artemis at Brauron with duplicates from the Athenian Akropolis. The lists of dedications for Artemis also survive from Miletos, a site very close to Ephesos and famous with its cult of Artemis Kithone (The chiton-wearer). For Brauron see Linders 1972; for Miletos see Günther 1988; for sources and general discussion see Cole 2004, 213-218.

53 The medallion is Urartian, but illustrates the continued popularity of such fashion in general in Anatolia in the late seventh and sixth centuries. The relation between the medallion and the Lydian golden appliques was also pointed out by Özgen – Öztürk 1996, 166.

54 For the Lydian gold see most recently Ramage and Craddock 2000.

55 Özgen – Öztürk 1996, 166, Dusinberre 2003, 146-154.

56 Dusinberre 2003, 146-154.

57 Ibid.

a variety of stamp seals from Persepolis with similar Achaemenid motifs, and inscribed with names of people from different ethnicities, Dusinberre also posits the introduction of a new artistic koine which does not exclusively belong to a certain ethnic group[58]. Thus, the change in the iconography of the gold appliqués does not signify the ethnic identity of the owner/wearer, but his or her membership in the polyethnic elite of Achaemenid Western Anatolia.

Two other burials, one from the late fourth century Halicarnassos, the other from Roman Philadelphia in Western Anatolia, further testify the continued fashion of gold woven or sewn textiles favored by the elite. In 1989, rescue excavations in the ancient city of Halicarnassos revealed a tomb chamber with a plain sarcophagus. The sarcophagus contained the skeletal remains of a woman in her 40s. The fabric of the dress in which she was buried had perished, but the "golden appliqués of a variety of shapes and designs including astragals, rosettes, myrtle flowers, triangles, hemispheres, and tubes"[59] survived. A selection of gold jewelry including two necklaces, three rings, stud earrings and a myrtle wreath also found in the sarcophagus even led some to speculate that the burial is that of Carian Queen Ada, sister-wife of Mausolos[60]. The other sarcophagus discovered at Philadelphia in Lydia, contained an assemblage of loose gold threads. As Greenewalt and Majewski rightly point out, the threads were possibly parts of remnants of an Attalicum veste, the famed gold woven cloths of late antiquity, the origins of which lie in the elite dress fashion of the earlier Lydians[61].

Classical accounts mention not only Lydians and Phrygians, but also other Greek and non-Greek populations of Western Anatolia in the context of fine textiles and textile production**.** Herodotus (V.87-88), when explaining the origin of sleeved linen chitons adopted by Athenian women, points to his homeland of Caria, a region under Lydian cultural/political influence in the seventh and early sixth centuries. As relatives of the Athenians, Ionians living in Western Anatolia and their dress find frequent mention in the literary sources. The fine quality and delicate decorations of Ionian dress are often associated with "effeminacy." Aristophanes in

58 Dusinberre 2003, 147.

59 Özgen – Öztürk 1996, 58. Also see Isager 1994.

60 Isager 1994.

61 Greenewalt – Majewski 1980, 136, 137, fig. 4.

the Thesmophoriazousai (159-167), for example, emphasizes (or mocks) the feminine quality of Ionian dress items worn by the poet Anakreon, who came to Athens at around 522 and lived there until 487[62]. Anakreon, in some of his surviving lines, mentions the items of Ionian dress, among them earrings, as part of the male costume that must have been striking to many Athenians[63]. Indeed, modern scholars have labeled a group of late Archaic Athenian komastic vases decorated with male figures dressed in long chitons (unlike the contemporary fashion for male dress in Athens, which consisted of a simple sleeveless short tunic) and usually with earrings and headdresses as "Anakreontic." These figures on the Anakreontic vases are either interpreted as cross-dressed transvestites or as Athenians wearing Ionian/Lydian dress[64].

Malay, in his examination of the Greek and Roman epigraphic and literary sources, cites, along with Sardis, seven Western Anatolian cities (in the regions of Lydia, Ionia, and Caria) involved in the production and export of luxurious textiles: Miletos, Thyateira, Saittai, Kolossai, Laodikeia, and Hieropolis[65]. The export-oriented textile industry in most of these cities was probably fully developed in the Roman period, but the evidence for such a production at Miletos goes back to the Archaic period. Several accounts name the Archaic Ionian city of Miletos as a center of luxurious textiles and high-quality wool and linen production, and its harbor as famous for the textile export to the entire Mediterranean. The high quality Milesian wool, for example, inspires Polykrates of Samos to animal husbandry with the seedstock sheep he brought from Miletos in the sixth century[66]. The close relationship between Miletos and Sybaris, mentioned in Herodotus (VI.20), might have developed in the early sixth century through a wool and linen trade between the two cities. This trade can also help explain the origin of the "Ionian fashion" which became popular in the Etruscan

62 These dates are proposed by Miller 1999, 233.

63 Anakreon in (fr 82 Gentili) attacks his Samian enemy "There was a time when he wore a berberion – that wasplike covering (sakkos)- wooden pegs (?) in his ears, and a worn cowhide about his body…..Now he rides in a chariot, wears golden earrings …and carries an ivory parasol, like a woman." Translation after DeVries 1973, 33. Miller also (1999, 234) discusses the same passage in the fragment.

64 For "effeminate" looking Ionian/Lydian dress see DeVries 1973, 33-34 and also Van Wees, 2005, 46; for transvestitism, cross-dressing in cult activities, and confusions in determining the gender on representations of elaborately dressed figures on Anakreontic vases see Miller 1999, 11-12.

65 Malay 1983, 58.

66 Strabon VII, 578; Pliny NH, VIII, 190.

market in the sixth century: the famed wool possibly woven at Milesian looms seems to have reached the Etruscan market through Sybaris[67]. The importance of fine clothes for the Milesians is further evidenced in the development of a unique cult to Artemis Kithone (Artemis the chiton-wearer) in the city. In her festival, called Neleis, after Neleus, the legendary founder of the city, dancing Milesian girls (on display for an arranged marriage) are said to have dressed in fancy linen chitons[68]. The cult is better known from the Hellenistic period, but the discovery of a fragment of an Archaic perirrhanterion inscribed for Artemis Kithone at Miletos confirms the existence of the cult as early as ca. 525[69].

Another Western Anatolian city located at the intersection of Ionia and Lydia renowned for its textile industry and high quality wool is Laodikeia[70]. Along with nearby Hieropolis and Saittai, the city seems to have become a "weaving town", a "center producing -luxurious textiles- for regular export to distant market"[71] during the Roman Imperial Period. Both Cicero (Letters to his Friends, 2, 17. 4, and 3, 5. 4) and Strabo (Geography, 12, 8. 16) talk about the widespread trade and manufacture of wool, which brought fame and wealth to the city[72]. According to the literary tradition, the city was founded by Antiochos II in the third century, and was named after his wife Laodike[73]. Archaeological excavations, however, point to a continuous occupation since Bronze Age[74]. The importance of the textile industry in the early phases of the city and its vicinity is uncertain, but Vitruvius' mention of the raven colored sheep, specific to the region

67 See Bonfante 2003, 81 for the Ionian revolution in Etruscan dress.

68 Cole 2004, 224.

69 Based on the letter forms Günther (1988, 236-237, fig 2) dates the inscription somewhere between 525-500.

70 The ancient site of Laodikeia is located 3 km north of the modern town of Denizli. Dr. Celal Şimşek of Pamukkale University directs the excavations at the site. The website prepared by the excavation team, http://www.pau.edu.tr/laodikeia/english (July. 2012) provides detailed information about the ancient history of the site and the current state of excavations. Also see Şimşek 1999.

71 Pleket 1988, 33. Pleket considers Saittai, Laoidikea, and Hieropolis as Weberian production cities which produced and sold textiles for an interregional market in the empire. Also see Jones 1960, 186.

72 Strabo, in his Geography (12, 8.16) implies a competition in textile industry and trade between Miletos and Laodikeia. Strabo finds the soft wool of the raven colored sheep of Laodikeia superior to that produced by the sheep of Miletos and so Laodikeians earned great income.

73 Pliny NH, V,105; Stephanus of Byzantium Ethnicorum, 411.

74 Şimşek 1999, 2-4.

around Laodikeia, and the high quality soft wool produced from these sheep as well as the location of the city at the crossroads may imply the existence of textile production earlier than the third century. Even today, the Turkish town of Denizli, where the ancient site of Laodikeia is located, is the heart of the modern textile industry in Turkey, Denizli textiles enjoy a worldwide fame.

After the defeat of Lydian Kroisos by Persian Darius in 546, a new, "Achaemenid Age" starts in Anatolia. Despite the political changes, the textile industry seems to have maintained its significance for the people of the region, most of whom were ruled by satraps appointed by the King at Persepolis until the coming of the Alexander the Great in 336. The continued fame of the fine quality Western-Anatolian textiles in the Achaemenid period can be best traced in the artistic representations of the subject Anatolians on the Apadana reliefs in Darius' palace at Persepolis.

The monumental eastern stairway leading to the great audience Hall of Darius at Apadana bears processional reliefs on its façades. The sculptural program, designed and executed between 522 and 465, during the reigns of Darius and Xerxes,[75] shows the enthroned Persian king in two central panels on each side accepting his subjects and their gifts for the New Year's celebration, an actual ceremony that took place in the Hall to which the staircase leads. Two main processional groups approach the king. On wing A, the Persian elite in varying court costumes, possibly signifying their roles and statuses, move toward the king in a more or less relaxed manner in anticipation of the start of the New Year's ceremony. On Wing B, the twenty-three groups of delegations, each representing a different subject ethnicity of the empire, each led by Persian officials, and each holding a variety of tributes, approach the king from both the eastern and northern façades. The costumes the delegates wear and the gifts they bear signify their specific nation and are emblematic of the contribution of the region to the economy of the Persian Empire. The gifts include exotic animals, food, specific weapons, jewelry, precious vases, and textiles. The lack of inscriptions causes problems in identification of each group, but at least five of the twenty-three groups are Anatolian in origin for certain. Interestingly four of the five; Group III- Armenians (fig. 4); Group VIII-Cilicians (fig. 5);

75 These dates are proposed by Root (2007, 177). Based on the inscribed tablets found in the foundation deposit of the staircase, she also proposes the year 515 for the laying out of the foundation for the staircase.

Group IX- Cappodocians (fig. 6), and Group XII- Ionians and Lydians (fig. 7) offer the king a variety of textiles as tributes, indicating the high status the textile industry in Anatolia. Three of the delegates representing the Armenians of eastern Anatolia carry the items of dress, which they also appear to be wearing: a tunic, an overcoat, and trousers (fig. 4) [76]. Of the Cilician group from southern Anatolia, on both façades, two men carry a long piece of textile, possibly a kilim, a rug made of felted ram wool still famous in the region, and two men carry animal skins. Four other Cilician delegates lead a herd of rams, the source of the wool of the former gifts, the kilim and animal skins (fig. 5)[77]. Like the Armenian group, six of the Cappodocian delegates hold in their hands items of dress like those they themselves are wearing: a tunic, an overcoat and trousers (fig. 6)[78]. The similar items of dress: tunic, overcoat, and also a three-knobbed headdress (bashlyk) with muffler flaps worn both by Armenian and Cappadocian delegates indicate the popularity of this costume ensemble in these neighboring nations. The fact that both groups consider this costume as worth presenting to the mighty king further implies the importance of the production of these garments in these regions.

Since this study's focus is specifically on Western Anatolia, Apadana Group XII with Ionians and Lydians is perhaps the most important for an investigation of the luxurious textile industry (fig. 7)[79]. The total of sixteen figures, led by two Persian officials, on both northern and eastern façades appear in a solemn procession. On the east façade, two of the gift-bearers hold balls of wool in their hands; the following two hold folded textiles; while the other three in front of them hold metal vessels, containing precious dyes according to some scholars[80]. Each figure wears a short-sleeved long tunic (chiton) possibly of linen (the fine texture is indicated by closely

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76 Schmidt 1955, Pl. 29.

77 Schmidt 1955, Pl. 34.

78 Schmidt 1955, Pl. 35.

79 Schmidt initially identified this group as Greeks (Yauna) of the Persian empire, but the almost identical (except the headdress) costumes worn by the Lydians of Group VI, and the fact that both Greeks and Lydians were culturally intermingled and ruled from one satrapy at Sardis makes it possible that both are present in the Group XII. Indeed Dutz and Matheson (1997, 54) identify the group as Ionian and Lydian. Root (2007, 178) accepts the ambiguities, but identifies the group as Greeks and their colonies, not including the Lydians. She provides (2007, 212-10n) a summary of all different scholarly identifications.

80 Dutz – Matheson 1997, 54.

packed lines of crinkles) and a scarf (himation) with tassels at the corners, draped over one shoulder and boots with slightly upturned toes. The tassels sticking out from one of the two folded cloths indicate that these textiles are the representations of the two-piece garment the figures are wearing, a himation with tassels and a short-sleeved long chiton (fig. 7a)[81]. The members of the Ionian and Lydian group on the north façade carry similar gifts to those of the group on the east: vases, folded garments, and balls, but with slight variations in detail. The lack of thick wavy lines on the balls of the north façade may imply that they are not of wool, but of thinner spun linen threads[82]. Also slightly different is the dress of the figures. Over their thin chiton the figures appear to wear a himation without tassels but with decorated borders, draped over on both shoulders. Again, the two- piece dress northern delegates wear is possibly identical to the folded cloths they are bringing as gifts to the king. Root, in her iconographic study of Group XII, notes that while all other subject delegates, who bring loom-made garments and textiles as tributes on Apadana relief bear the clothes openly in a presentation mode, Group XII's textiles are folded[83]. She links this difference in the presentation manner of Group XII with the Achaemenid perception of these textiles simply as commodities rather than display objects, a notion emphasizing the total Greek submission. Yet, the "folded" appearance of the specific garments might also be an implication of their fine linen fabric, best stored folded. Indeed, a fresco fragment from Harta Tomb in Lydia shows a processional scene with a figure bearing white folded textiles in his hand in the manner of the Apadana bearers (fig. 8). The fact that these textiles are shown "folded" might also be a reference to their fine quality; the more finely twined a linen textile, the more expensive

81 Root 2007, 188, also noted this.

82 The difference between the balls of the north and eastern façades can also be explained by the fact that the solid sphere (without wavy lines) balls of the north are simply unfinished. Yet, this would be the only "unfinished" portion of the relief, of which the details are carefully carved. Root (2007, 193-210) proposes several different possible identifications for the balls of the northern façade. Her possibilities include: "unfinished" representations of balls of wool, ostrich eggs or cakes, votive or cultic orbs, balls for games, sling shots and hurling stones, and beehives. She carefully shows that all possibilities have some sort of associations with Ionians (and Lydians) of Western Asia Minor. In every case, she shows that the gifts would have been perceived as effeminate to a male Athenian looking at the Apadana reliefs.

83 Root 2007, 189-192. She points out that the folded cloths are almost absent in Near Eastern iconography while they do appear only in the woman's sphere in Greek iconography, famously known from the Locrian plaques.

and luxurious it is. Indeed, the expensive character of the "folded" finely twined textile is referenced in a variety of ancient sources. As mentioned earlier, for example, Homer when talking about the luxurious purple robes Helen and Andromache weaving stresses their fine quality by stressing the fact that the robes are "double folded (Iliad III.125-28, XXII.441-42). Johannes Lydus, in his account of luxurious robes invented by Lydians, along with gold woven chitons counts the sandykes, a fine linen transparent chiton, which caused Lydian women to appear to be wearing nothing[84].

Though the style of the Harta figure points to an earlier period, radiocarbon dating places the tomb in the late fifth century[85]. As an indigenous representational source, the folded textile bearer at Harta testifies to the continued production of high quality linen garments worthy of royals in Lydia.

This detailed investigation of the Apadana reliefs clearly demonstrates that one of the major economic contributions of the Western Anatolians to the economy of the Persian Empire was the textile industry, with cloths made of high quality wool and fine linen.

Fabrics and Patterns

Two main fabrics, wool and linen, seem to have been used for the manufacture of a variety of clothes in Western Anatolia. Though there is no direct evidence, mohair made from the silky hair of the Angora goat from ancient Angora in Phrygia could have been another fabric manufactured exclusively in ancient Anatolia. Felt, due to its tough and waterproof quality, was reserved for the making of headdresses, floor coverings, belts and shoes.

Though the material evidence is lacking, the different textures of various fabrics can be detected in Western Anatolian art as early as the seventh century. The fine linen tunics are depicted with closely packed pleats and without any appliquéd or embroidered decoration, since unlike wool, linen cannot be easily woven into decorative bands. The heavier woolen tunics, on the other hand, appear without pleats and with a variety of decorative bands. The comparison of the tunics worn by two of the late

84 De Magistratibus Populi Romani III, 64. (Cited in Greenewalt – Majewski 1980, 136).

85 Root 2007, 214 note 36.

seventh century ivory figurines, Antalya C and Antalya D discovered from Bayındır D at Elmalı, clearly illustrate the actual appearance of wool and linen textures (figs. 9- 10).

Artistic representations reveal three major features of the Western Anatolian dress that continuously occur from seventh to fourth century: the decorated borders at the hems, seams or collars, decorative appliqués of precious material, and fringes and tassels at the hem or at the corners. Woven decorative bands are also typical of Greek, Etruscan, and Near Eastern dress, but the precious metal appliqués sewn into garments are typically Anatolian, the fashion's origin going back to the royal dress of the Hittites[86]. A great example is the seventh century Toprakkale medallion (fig. 3). The fashion seems to have been used to signify a high social status and thus reserved for the elite.

Originally a Mesopotamian fashion, fringes, basically loose threads at the edges of a certain length of cloth reshaped in the production process of a garment and used especially at the hem for decorative purposes, appear both as part of female and male dress[87]. Zincirli woman and her scribe on the eight-century Neo-Hittite relief wear tunics with fringes (fig. 1). Fringes appear at the hem of the Neo-Hittite king Melid's tunic on a monumental sculpture of the late eight century and Antalya D, an ivory figurine of a mother, from the late seventh century wears a tunic with fringes at the hem (fig. 1). Ionians and Lydians who appear wearing tasseled himations on the fifth century Apadana reliefs and the fourth century inventory lists from Heraion of Samos, which mention Lydian chitons with fringes, indicate that the fashion continued into the fourth century[88].

Democritus of Ephesos describes an Anatolian dress of the sixth century as follows: "the garments of the Ionians are violet-red, and crimson, and yellow, woven into lozenge pattern; at the top borders are marked at equal intervals with figured patterns" [89]. The artistic representations indeed show that lozenges are among the most common motifs used in the embroidered

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86 Goetze (1955, 55) translates the Hittite word Tugguea in the cuneiform tablets from the royal palace as, "Hurrian shirt" embroidered or trimmed with gold borders.

87 For fringes in the production process of a cloth see Bonfante 2003, 15.

88 See Greenewalt – Majewski 1980, 136 for the Samian inventory lists.

89 Bonfante 2003, 14 quotes from Athenaeus Deipn. XII. 525 c-d, who also quotes from the book by Democritus of Ephesos on the Temple of Ephesos.

or appliquéd decoration in seventh and sixth century Western Anatolian dress (fig. 9). Also popular are meanders, double hooks, and spiral armed crosses[90]. In the sixth century, new motifs such as rosettes, bud chains, lotus flowers, and animal figures demonstrate that Achaemenid influence increasingly enters into the Anatolian repertoire[91].

Though the artistic evidence for the early periods is lacking, patterns with human and animal figures are also favored in Ionia. From Homer to Pliny, literary sources describe legendary women all around the Aegean, such as Helen of Troy, Arakhne, and Penelope, as weaving mythological stories into the cloth they are looming. Dresses with figural bands also appear in Greek vase painting[92]. Perhaps the only archaeological evidence comes from Pantikapaion, a Milesian colony founded on the northern coast of the Black Sea in the seventh century. The cold climate of the region enabled the preservation of the textiles in the Kurgan burials until their discovery in the 19th century. A large woolen cloth used to cover a wooden sarcophagus in Kurgan 6 consists at least a dozen of friezes with mythological, animal, floral, and geometric figures[93]. The burial dates to the early fourth century, but the carefully mended cloth might have been manufactured much earlier. The cloth is likely of local production[94], but is similar to the Milesian textiles with figural bands mentioned by Democritus.

The figural representations from Anatolia also hint at the tailoring techniques used in the region. The construction of the clothes implies a Western Anatolian preference for clearly sized and shaped to fit sleeved tunics rather than loose large rectangles of woven fabrics shaped with pins and by folding such as the Greek peplos. Fibulae and belts are also used extensively, but without the primary function of fastening to the body a large piece of cloth worn as a garment.

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90 See Megabyzos, fig. 10; Spinner, fig.12 in Şare 2010.

91 Özgen – Öztürk (1996, 166) notes this change in the motifs of golden appliqués in the Achaemenid period.

92 One of the goddesses attending Peleus and Thetis's wedding on the Francois vase for example wears a peplos with figural bands, possibly depicting a mythological story. (Barber 364, fig. 16.3).

93 Barber 1994, 206-207, fig. 7.11.

94 ibid.

Conclusion

In sum, the analysis of literary, material, and artistic evidence reveals several different aspects of the Western Anatolian textile industry in antiquity. One can trace the tradition of the Western Anatolian high-quality textile production, of which fame swept the Roman Empire, all the way back to the Bronze Age. The industry seems to have specialized especially in the production of various dyes, especially the "royal" murex-purple, high quality wool, sheer linen, and the production of gold-woven cloths. As evidenced from Hittite annals and archaeological finds from Troy and Gordion, starting with the Bronze Age, we can trace elite/royal investment in the industry of luxurious textiles, and even the possible use of high quality textiles as a medium of exchange.

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Fig. 1 Zincirli funerary relief, late eighth century BCE, Adana Regional Museum, inv. no.1756, after Özgen and Öztürk 1996, p. 62, fig. 143.

Fig. 2 A square golden costume appliqué from a burial at Sardis, seventh century BCE, Uşak Museum, inv. no. 1.92.96, after Özgen and Öztürk 1996, p. 166, cat. no. 117.

Fig. 3 Toprakkale Medallion, 600 BCE, Vorderasiatische Museum, after Özgen and Öztürk 1996, p. 166, fig. 158.

Fig. 4
Apadana Group III-Armenians, between 522 and 465 BCE, after Schmidt 1955, pl. 29.

Fig. 5
Apadana Group VIII-Cilicians, between 522 and 465 BCE, after Schmidt 1955, pl. 34.

Fig. 6 Apadana Group IX- Cappadocians, between 522 and 465 BCE, after Schmidt 1955, pl. 35.

Fig. 7 Apadana Group XII- Ionians and Lydians, between 522 and 465 BCE, after Schmidt 1955, pl. 38.

Fig. 7a
Apadana
Group XII-
Ionians and
Lydians,
detail of
the textile
bearers,
between 522
and 465 BCE,
after Schmidt
1955, pl. 38.

Fig. 8
Harta Fresco,
late fifth century
BCE, Uşak
Museum,
inv. nos.
(fragments)
1.3.96, 1.4.96,
1.5.96, after
Özgen and
Öztürk 1996,
p. 39, fig 65.

Fig. 9
Antalya C,
ivory figurine
of a mother
with her two
children, late
seventh century
BCE, Antalya
Museum,
inv. no. 2.21.87,
after Işık 2000,
pl. 3.

Fig 10
Antalya D,
ivory figurine
of a woman,
late seventh
century BCE,
Antalya
Museum,
inv. no.
3.21.87, photo
by the author.