

Margarita Gleba

## 29 Textiles and Dress

**Abstract:** An understanding of the development of textile production in Etruria is crucial to any attempt to set textile technology in its social and economic context and to place textile production among other crafts, such as metal and pottery manufacture, in order to ensure a more balanced assessment of the Etruscan economy. Among the various sources of evidence available for the study of Etruscan textiles is archaeological material, consisting of textiles and tools, as well as iconographic sources. The extant textiles illustrate that the Etruscans were familiar with complex spinning, weaving, and dyeing techniques. The great quantity of surviving implements associated with textile manufacture, such as spindle whorls, loom weights, and spools, can be used to study the organization of textile production in Etruria. Iconographic sources provide important documentation of textile production processes and information about the appearance and function of Etruscan textiles. The accuracy of the latter is confirmed by the surviving textiles, in particular the almost complete garments recovered at Verucchio.

**Keywords:** textile, dress, textile tools, Verucchio

### Introduction

Throughout antiquity, textile manufacture was practiced on all levels of society and was one of the most labor-intensive of all occupations.<sup>1</sup> As such, it was an industry of great cultural and social importance, which should be factored into any balanced assessment of the ancient economy. Textiles were used for a variety of purposes in Etruscan society and textile production was an integral part of local and regional economies and local, regional and long-distance exchange. The social significance of textile production was expressed in Etruscan funerary ritual through the inclusion of textile implements among the burial goods, as well as in religious activities through the deposition of textile tools in votive deposits. Among the various sources that provide evidence for the study of textile production in Etruria, archaeological material is the most direct as it documents the productive activities through tools, installations, raw materials and finished products. With the help of other, secondary sources of information, namely the iconographic material and later written sources, it is then possible to reconstruct the sequence of production processes involved in textile manufacture.

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<sup>1</sup> Barber 1991.

## 1 Precious fragments: Textile preservation

The belief that textiles hardly ever survive in archaeological contexts of Italy has tended to discourage discussions of textile production in broader studies of production and exchange in Etruria. Textiles, however, survive much more frequently than is commonly believed.

Like any organic material, textile preservation requires special conditions to prohibit their destruction by microorganisms, but many of them can be found on the Apennine peninsula. One of the largest surviving groups consists of linen textile fragments found in various Neolithic and Bronze Age sites in the north of the peninsula, where they have been preserved by the alkaline conditions of the Alpine lakes.<sup>2</sup> Textile fragments made of wool, on the other hand, have been recovered from Iron Age burials, where they were conserved in waterlogged and/or acidic environments. A few Iron Age articles of clothing were recovered from the Alpine glaciers, preserved practically unaltered in the permafrost.<sup>3</sup> Carbonized or charred textiles survive as a result of exposure to fire, as at Pompeii.<sup>4</sup> The vast majority of textiles in Italy, however, have been preserved in association with metal objects as mineralized formations in which metal corrosion products form positive or negative casts fibers retaining their external morphology and size almost unchanged. Even when consisting of minute traces, these traces can provide a considerable amount of information about ancient textiles.

Etruscan textiles are, in fact, preserved mostly as such mineralized traces (Fig. 29.1).<sup>5</sup> Occasionally, textile fragments surviving in their organic form have been found, for example in an eighth century BCE cenotaph at Sasso di Furbara near Cerveteri<sup>6</sup> and in the Orientalizing tombs of Casale Marittimo.<sup>7</sup> Exceptional finds have been made at the site of Verucchio, where the only nearly complete Villanovan garments have been excavated.<sup>8</sup>

<sup>2</sup> Moser et al. 2003.

<sup>3</sup> Bazzanella et al. 2005.

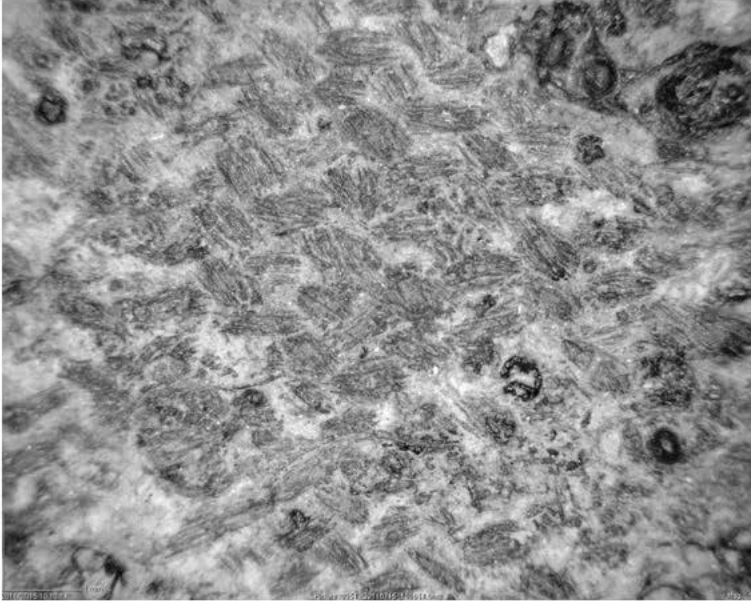
<sup>4</sup> Médard et al. 2011.

<sup>5</sup> Gleba 2008, 45–57.

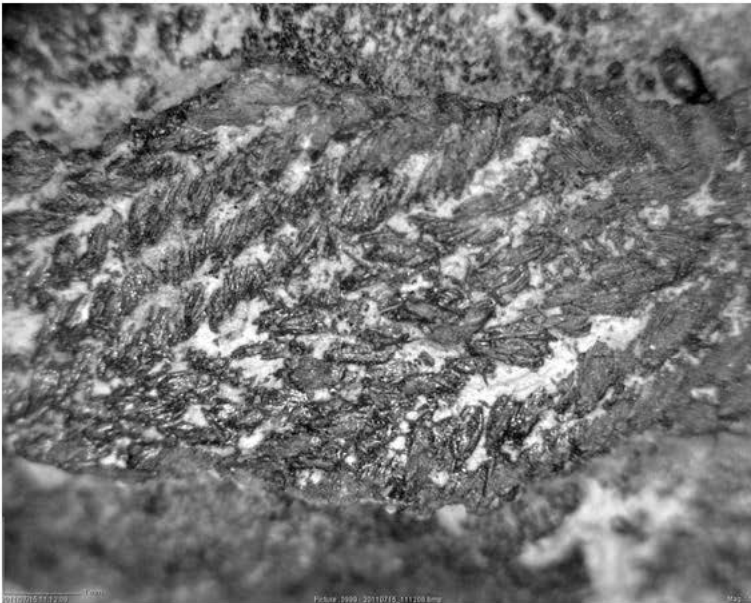
<sup>6</sup> Masurel 1982; Mamez, Masurel 1992.

<sup>7</sup> Esposito 1999.

<sup>8</sup> Røder Knudsen 2012; Stauffer 2002; 2012.



a



b

**Fig. 29.1:** Mineralized textiles from Poggio Aguzzo, Murlo, seventh century BCE: (a) on an iron knife from Tomb 4; (b) on an iron spear counterweight from Tomb 1 (Photo: M. Gleba)

## 2 Textile function

### 2.1 Garments

The Etruscans used textiles for a variety of purposes. Clothing is the most obvious and, without doubt, primary textile function and numerous iconographic sources, such as the tomb paintings of Tarquinia, illustrate the variety and splendor of Etruscan garments. In her seminal *Etruscan Dress*, Larissa Bonfante has extensively studied Etruscan clothing depicted on figurines, statues, vases and tomb paintings.<sup>9</sup> Typical male dress, at least through the sixth century BCE, was the loincloth, observed for example on the bronze figurines from Brolio (Fig. 71.7a),<sup>10</sup> and reflecting the Italic “modesty.”<sup>11</sup> Both sexes were represented wearing rectangular and semicircular mantles (*tebennae*) and tunics of various lengths, pointed hats and pointed shoes. The fashions changed over time and reflected internal developments of dress as well as external influences. During the sixth century, Greek and Oriental fashions influenced Etruscan dress to some extent. This is evident in the adoption of short chiton for men, well illustrated in the painted terra cotta plaques from Cerveteri,<sup>12</sup> and in the use of elaborate lotus palmette decoration painted on stone statue from Polledrara, Vulci.<sup>13</sup> By the fourth century BCE, Etruscan garments have clear connection—in form or meaning—with Roman costumes. Thus, the figured mantle worn by Vel Saties in the Tomba François at Vulci—not a *toga picta* but a *himation*—has the same meaning as the Roman triumphal garment.<sup>14</sup> The first century BCE statue of Aulus Metellus is clad in a tunic with vertical stripes or *clavi*, which signified a high social standing in Roman society.<sup>15</sup>

Of the surviving Etruscan textiles, most are garments as well. The spectacular finds of Verucchio provided for the first time direct archaeological evidence for what some of the Etruscan garments looked like. One of the richest is Tomb 89, the so-called *Tomba del Trono*, a chieftain’s burial from around 700 BCE.<sup>16</sup> In addition to numerous small fragments surviving on the funerary pyre, it contained two semicircular mantles, a garment with two curved edges and a small nearly square textile with stitched hems on all four sides.<sup>17</sup> The large semicircular mantles decorated with a decorative tablet-woven border running all around the edges and originally measuring

<sup>9</sup> Bonfante 2003.

<sup>10</sup> Bonfante 2003, 168.

<sup>11</sup> Bonfante 2000.

<sup>12</sup> Bonfante 2003, 179.

<sup>13</sup> Verri et al. 2014.

<sup>14</sup> Lesky 1998.

<sup>15</sup> Granger-Taylor 1982.

<sup>16</sup> von Eles 2002.

<sup>17</sup> Stauffer 2002; 2012.

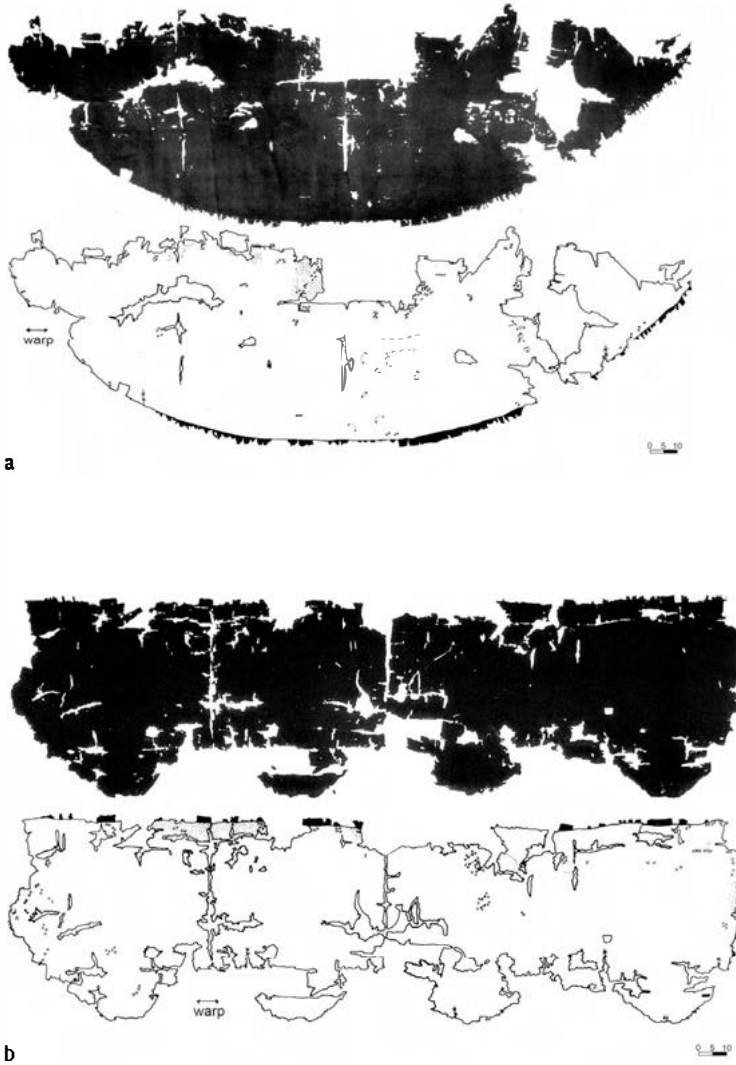


Fig. 29.2: Mantles from Tomb 89, Verucchio, late 8th century: (a) mantle 1; (b) mantle 2 (● Cologne University of Applied Sciences)

approximately 270 by ninety centimeters were dyed and preserved traces of further decoration with amber buttons and other appliqués in the form of stitching holes (Fig. 29.2). The mantles from Tomb 89 are the earliest *tebennae* known and, as such, are the predecessors of the Roman toga. Unlike the latter, the Verucchio mantle would have covered only parts of the wearer's back while the long ends could be wound around the arms as depicted in iconographic sources. A later and longer version of the

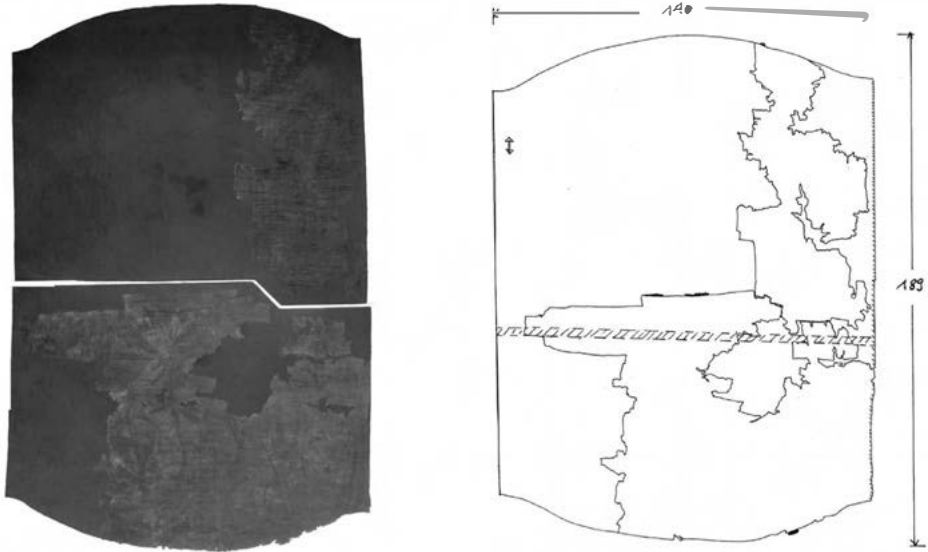


Fig. 29.3: Garment from Tomb B/1971, Verucchio, late 8th century (dimensions in centimeters) (● Cologne University of Applied Sciences)

*tebenna* can be observed on the first century BCE statue of Aulus Metellus.<sup>18</sup> Another garment found in Tomb 89 had four semicircular edges, decorated with tablet-woven borders. Two of the opposing curved sides may have served as sleeves. Garments of this type are possibly depicted on the later wall paintings in Tarquinia. The Romans acknowledged the Etruscan origin of their *tunica*.<sup>19</sup>

Tomb B/1971 at Verucchio, dated around the same time as Tomb 89, provided evidence of another type of male garment, a large rectangular garment with straight side edges and rounded lower edges (Fig. 29.3).<sup>20</sup> A similar garment of this type was found in the same tomb or Tomb 85. A remarkable feature in both of these garments is the presence of regular pleats in two directions. Elaborate pleating is a common feature of garments depicted in Etruscan iconography, e.g. on the Apollo of Veii, which until now has been regarded as a decorative element or artistic convention.

Another distinctive Etruscan textile and dress element illustrated by the iconographic sources and encountered in the Verucchio finds is the decorative border present on both male and female mantles and other garments. Both Verucchio mantles have elaborate borders featuring a triangle motif and three horizontal lines

18 Granger-Taylor 1992.

19 Bonfante 2003, 31, 102.

20 Stauffer 2012, 249–50.

made by the tablet-weaving technique.<sup>21</sup> Even more elaborate are the tablet weaves found in the eighth century BCE cenotaph at Sasso di Furbara.<sup>22</sup> Tablet weaving involves passing threads through holes in the corners of (usually) square tablets, which, when rotated forward or back, force the threads to form different sheds. By rotating cards in different combinations, it is possible to achieve numerous patterns. This method is suitable for weaving narrow bands, such as belts, heading bands for the warp of a warp-weighted loom, or decorative borders for the base textile. Such tablet-woven borders are technically complex, extremely labor-intensive, and time consuming. Such textiles must have served as indicators of social rank or as “ceremonial” clothes, with the border being the distinguishing element characterized by technique, pattern and color.<sup>23</sup> In fact, the toga, the Roman descendant of the Verucchio mantles, retained the border as the status symbol, in this case dyed purple.

It is all the more significant that purple was likely the color of the borders of the Verucchio mantles as well. Dye analyses of the textiles of Verucchio provided for the first time direct evidence for the colors of Etruscan textiles.<sup>24</sup> Thus, Verucchio Mantle 1 was dyed red with madder, while the fibers of its border were most likely treated with madder and woad resulting in a purple hue. Mantle 2, on the other hand, was dyed red-orange with madder and a yellow dye, while its border was also dyed with woad, creating a purple-red effect. The garment from Tomb B/1971 was dyed blue with woad. Dye analyses thus demonstrate that several different dyes were used to add color to the Verucchio textiles, while their combination in some textiles shows an understanding of a complex, multiple-stage dyeing process.

A glimpse of the female garments is provided by the yet to be analyzed textiles discovered in Tomb 26/1969 at Verucchio, which are woven in diamond twill binding and have a checkered pattern.<sup>25</sup> Such checkered textile designs are frequently depicted on Etruscan monuments<sup>26</sup> but only with the discovery of the actual textiles their complexity and sophistication is becoming apparent.

The textiles discovered at Verucchio thus demonstrate not only that the garments we know from iconography reflect the reality of Etruscan dress in terms of shape, color and decoration but also that these garments date to a considerably earlier period.

While less spectacular, mineralized textile traces on metal articles of personal decoration such as bracelets, belts, and, most commonly, fibulae also provide information about Etruscan clothing. Thus, when traces of different weave type are found on the same fibula, as for example in some of the finds from Tarquinia Le Rose

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<sup>21</sup> Ræder Knudsen 2012.

<sup>22</sup> Masurel 1982.

<sup>23</sup> Stauffer 2012, 251.

<sup>24</sup> Stauffer 2012.

<sup>25</sup> Bentini, Boiardi 2007, 128.

<sup>26</sup> Bonfante 2003, 12–14.

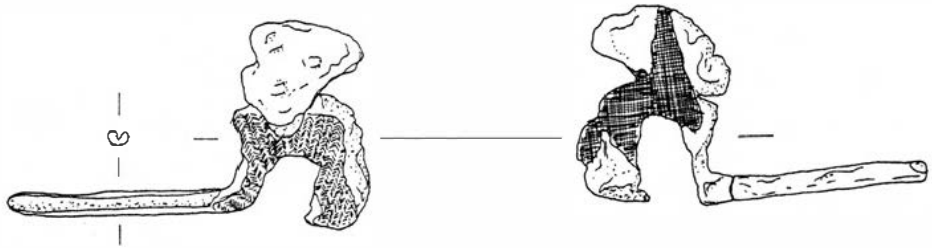


Fig. 29.4: Textile traces on a fibula from Tomb XLIV, Tarquinia Le Rose, early 7th century; the drawings show two sides of the same fibula, preserving different textiles (after Buranelli 1983, fig. 102)

(Fig. 29.4),<sup>27</sup> a conjecture may be made that the deceased was wearing several layers of garments. If a number of textile traces are present in a burial, it may be possible to reconstruct how the garment was located based on their distribution and position. Even if textiles do not survive, their presence may be indicated through other evidence, such as the presence of fibulae and other decorative ornaments. In some instances, reconstructions of garments are possible based on the position of surviving decorative elements in relation to the skeleton, sarcophagus, or trench, as in the case of some female costumes for the burials at Verucchio.<sup>28</sup>

Ongoing analysis of numerous mineralized textile fragments preserved in rich burials demonstrates that Etruscans were familiar with complex textile technologies, which allowed creation of fabrics that would have had a specific appearance. Just like the Verucchio garments, the vast majority of these textiles are made of wool and woven in twill weave. In a twill, the horizontal weft threads pass over and under vertical warps in a regular staggered pattern, each row being stepped to one side of the row above, creating a diagonal effect. The variants include a plain diagonal, warp- or weft-chevron, broken and more complex diamond and dogtooth twills. These twills are often spin or shadow-patterned, i.e. made using alternating groups of threads spun in opposite directions, which would have created a subtle pattern of checks or stripes, visible only up close and in a raking light. The quality of these textiles is also rather homogeneous. Threads have diameters of less than half a millimeter and thread counts per centimeter are usually twenty to thirty. The textiles are usually balanced, i.e. have a similar number of threads in warp and weft. Last but not least, these twill textiles often have tablet-woven borders.

These technical characteristics find almost exact parallels in Central Europe, where Hallstatt elite consumed very similar textiles: there is an almost infinite variety of dyed and patterned twills, many of the twills are spin patterned, and many complex

27 Buranelli 1983, 129.

28 Bentini, Boiardi 2007, 135 figs. 13–14.



tablet weaves have been found.<sup>29</sup> In contrast, the contemporaneous extant textiles found in Greece are tabbies or weft-faced tabbies,<sup>30</sup> tabby being the simplest textile structure attainable with two systems on a loom, with vertical warp and horizontal weft threads alternating one over one in each direction—a textile culture more closely related to the Near East.

Occasionally, textile remains are found on the inside of armor, suggesting that they may have belonged to lining or a garment worn under the metal, as in the case of the Tomba del Guerriero at Tarquinia dated to the end of the eighth century BCE.<sup>31</sup> Furthermore, iconographic evidence suggests that textile fibers were used for particular kind of linen amour, depicted in the Amazon Sarcophagus, Tomba François and Tomba dell’Orco II.<sup>32</sup>

In some cases, the dead were provided with very sumptuous dresses. The garments found in the burials of Verucchio, as well as the Polledrara Tomb at Vulci were decorated with thousands of amber, glass or *faïence* beads and appliqués.<sup>33</sup> Whether such garments would have been worn before their deposition in burials is a debatable issue. Still, the majority of clothing articles found in graves could have been, and most likely were, used in life. Confirmation comes again from the Verucchio garments, which have wear marks and, hence, must have been used by the deceased in life.<sup>34</sup>

## 2.2 Wrappings

The vast majority of extant Etruscan textiles come from burial contexts, thus demonstrating that they constituted a very important part of broader mortuary practices. Thus, one use of textiles in burial ritual was to wrap the cremated remains of the buried individual. Many scholars connect this practice to a ritual described by Homer for the burials of Hector and Patroklos (*Il.* 24.796 and 23.254), which is believed to have been adopted by the elites throughout the Mediterranean during the Iron Age.<sup>35</sup> This “Homeric” ritual then spread quickly among the Etruscan elites, as attested for example by the finds at Casale Marittimo, where a bronze cinerary urn found in Tomb A contained textile remains that probably served as wrapping for cremated bones.<sup>36</sup> In Tomba del Duce at Vetulonia, a cloth was found inside a bronze and silver box

<sup>29</sup> Grömer 2012.

<sup>30</sup> Spantidaki and Moulherat 2012.

<sup>31</sup> Stauffer 2013.

<sup>32</sup> Gleba 2011.

<sup>33</sup> Bentini, Boiardi 2007, 128.

<sup>34</sup> Stauffer 2002, 210.

<sup>35</sup> Bérard 1970, 28; d’Agostino 1977, 59–60.

<sup>36</sup> Esposito 1999, 42.

(*larnax*), which contained cremated bones.<sup>37</sup> The custom survived into later times as well. Travertine urns in the second–first century BCE Strozziacapponi cemetery of Perugia contained mineralized textile remains in which cremated remains were wrapped.<sup>38</sup>

Italy, however, had a well-developed “wrapping” tradition of its own, as attested by the grave finds dated as early as the ninth century BCE.<sup>39</sup> The cinerary urns at Bologna and in particular the ossuaries in the burials of Verucchio were wrapped in textiles that were then fastened with fibulae and decorated with other accessories, as if wearing a garment.<sup>40</sup> These textiles have been interpreted as clothing for the urns, and thus as representing the deceased.<sup>41</sup> It has also been suggested that biconical urns—containers of cremated remains typical for the Villanovan period and frequently covered with bronze or ceramic helmets—represent the deceased, and that their incised geometric patterns, which are similar to woven motifs, are intended to represent a garment.<sup>42</sup> “Canopic” urns typical for the region of Chiusi may strongly support this theory. The tradition was probably much more widespread. While textiles do not usually survive, the position of various small decorative objects, such as fibulae, around the urn, may indicate presence of a cloth, which was fastened with them, as is the case of several cinerary urns at Tarquinia.<sup>43</sup>

Occasionally, finds indicate a combination of wrapping the cremated remains with “dressing” of the ossuary. Thus, in the Orientalizing “princely” Morelli tumulus at Chianciano Terme, an anthropomorphic cinerary urn found in the southern cella of the tomb was wrapped with a textile that was fixed around the neck of the urn with a fibula.<sup>44</sup> The iron fibula preserved the mineralized traces of the textile. Inside the ossuary, traces of another fabric were identified, which likely contained the cremated remains.

Textile traces indicate that, apart from cinerary containers, certain metal objects came into close contact with textiles because they were intentionally wrapped or enclosed in fabric.<sup>45</sup> Knives, weapons, strygils, spits, and mirrors are among the most common objects to bear textile traces. In some cases, the traces are clear enough to reconstruct the direction of a cloth band wrapping a particular object. The deposition of thus “enclothed” objects in urns excludes the possibility of accidental contact

37 Torelli 2000, 582 no. 130.

38 Cencioli 2004, 8; Gleba and Vanden Berghe 2014.

39 Gleba 2014.

40 Bentini, Boiardi 2007, 127; see chapter 42 Trocchi.

41 Bonfante 2003, 106 note 3.

42 Iaia 1999, 29, 114.

43 Trucco 2006, 98–99.

44 Paolucci, Rastrelli 2006, 14, 17, 20.

45 Gleba 2014.

with textiles. It is unclear whether this phenomenon has a ritual significance in funerary context or represents a regular practice of safekeeping of precious metal objects. However, the finds indicate that wrapping was common not only throughout Italy, but also in Hallstatt societies (modern-day France, southern Germany and Austria), suggesting that it had a wider, pan-European significance.

### 2.3 Furnishings, utilitarian fabrics, ship sails and books

Besides garments, there are frequent representations in Etruscan tomb paintings of colorful bed covers, cushions, tablecloths and other utilitarian textiles.<sup>46</sup> Although to date no direct evidence for wall hangings in Etruria comes in the form of textile remains, a clear indication of their existence is given by the ceiling and wall paintings in the tombs of Tarquinia. Checkers and small flowers on the ceilings are unquestionably textile patterns, the entire tombs representing tents or pavilions with roofs made of cloth, best exemplified in the Tomb of the Hunter.<sup>47</sup>

A unique ancient use of textiles in Etruria was for books. Called *libri lintei* by the Romans, they were made of linen and used for recording religious rituals. Fragments of one such book, the so-called Zagreb mummy wrappings were preserved in Egypt.<sup>48</sup> Evidence for their use also exists in Etruscan art and Latin literature. Production of textiles for these ritual objects must have been strictly controlled and adhered to specific regulations.

Another important use of textile fibers—especially flax and hemp—was for sails and ship rigging. Etruscans were notorious throughout the Mediterranean as sailors and—according to their enemies—as pirates. Their ship building technology was among the most sophisticated for their era, including the use of the earliest foresail.<sup>49</sup> No Etruscan sail fragment has survived but it should be kept in mind that manufacture of large textile quantities, as in the case of sail production or army supplies, required considerable resources, organization and planning.

## 3 Textile production

In order to create a textile, raw material has to be transformed in a series of processes that include raw material acquisition and preparation, spinning, weaving, dyeing and finishing. Each stage of this transformation leaves its mark on the final product,

<sup>46</sup> Steingraber 1986; 2006.

<sup>47</sup> Gleba 2008, 25–27.

<sup>48</sup> van der Meer 2007.

<sup>49</sup> Macintosh Turfa, Steinmayer 1999.

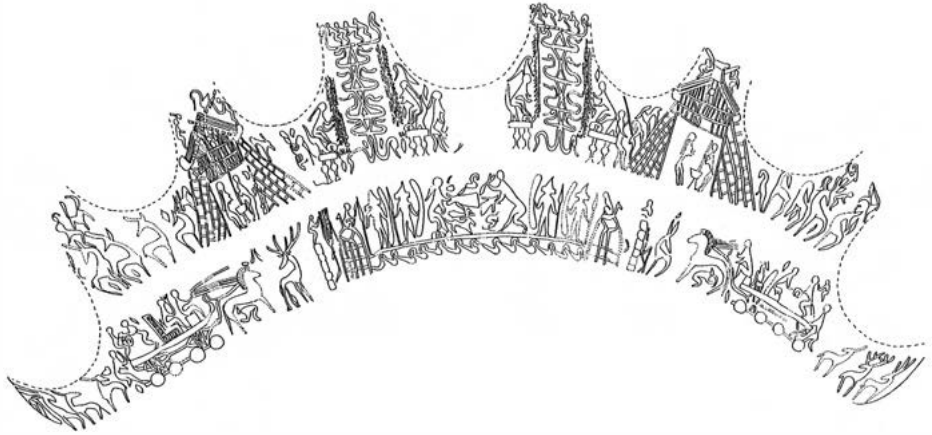


Fig. 29.5: Scenes from the Throne of Verucchio depicting women spinning and weaving, Tomb 89, Verucchio, late 8th century (after von Eles 2002, fig. 127)

which can be recovered through textile analysis. Resources for making textiles include plant and animal products used for fibers and dyes, as well as those used in various stages of textile making, such as washing or fulling. In this way, agriculture, animal husbandry, exploitation of environmental resources, and landscape use are closely linked to textile production.

Procurement of raw materials is the first step of any production process. Two fiber groups, divided on the basis of their origin into plant and animal, were used for making textiles in Etruria. The principal plant fiber was flax. The major animal fiber was sheep wool. Wool was sorted according to color and fiber quality. Flax required much more complex processing to extract fibers from plants, which involved retting in dew or water.

Once the fiber mass has been obtained and prepared, it can be converted into a yarn and woven into a fabric. Several Etruscan iconographic documents illustrate these stages of textile manufacture, underlining the economic and social importance of the craft for the Etruscan society. An important scene related to textile production appears on the wooden cylindrical throne found in Tomb 89 at Verucchio (Fig. 29.5). While interpretations of the intricately carved scenes vary,<sup>50</sup> most scholars agree that spinning and weaving are among the activities depicted.

Another important object comes from the area of Bologna and is one of the most important and detailed representations of textile production in the ancient world, a bronze rattle or *tintinnabulum* found in Tomb 5 of Bologna's Arsenale Mili-

50 Torelli 1997, 63–69; von Eles 2002.

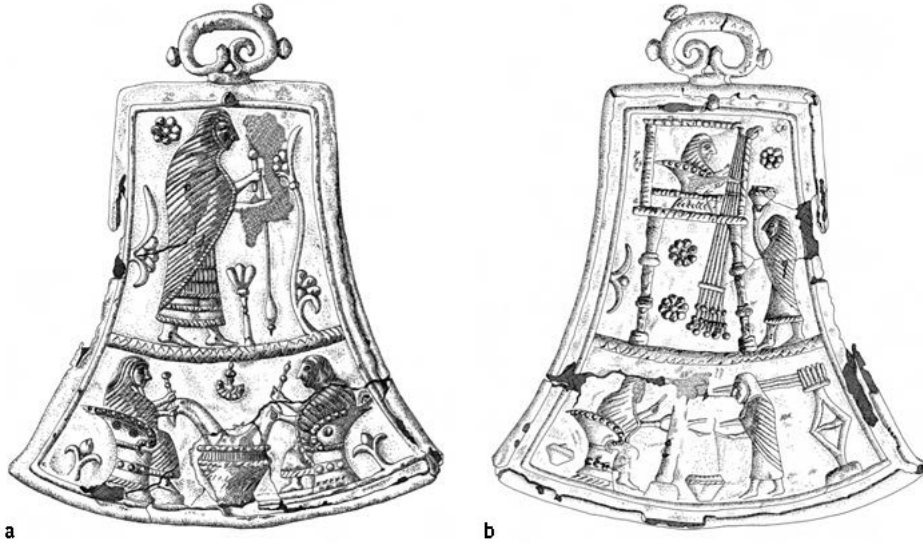


Fig. 29.6: *tintinnabulum* from Bologna, Arsenale Militare, Tomba degli Ori, bronze, late 7th century: (a) side A, with scenes of dressing the distaffs (bottom) and spinning (top); (b) side B, with scenes of warping (bottom) and weaving (top) (● Bologna Museo Civico Archeologico)

ture necropolis, dated to the late seventh century BCE (Fig. 29.6).<sup>51</sup> It is a flat, bell-shaped object, made of two bronze sheets connected at the edges and decorated in a *repoussé* technique. Each side of the *tintinnabulum* is divided into two sections, allowing space for four scenes depicting various stages of textile manufacture. The bottom scene of side A depicts two women seated in throne-like chairs, reminiscent of the Verucchio throne. In their left hands, each woman holds a distaff, and with their right hand, each pulls a strand of fiber from the basket in the center; they are dressing the distaffs for spinning. The top scene of side A shows a woman performing the task of spinning. She is standing in profile, holding a dressed distaff in her extended left hand, while a drop-spindle hangs from her right hand. Side B of the *tintinnabulum* shows activities associated with weaving. The bottom scene represents the weaving of the starting border necessary for the warp-weighted loom, while the last scene provides a rendering of an unusual two-storied warp-weighted loom.

Both of these iconographic documents illustrate that textile production processes are associated with particular tools. Unlike the textiles themselves, textile implements are ubiquitous on Etruscan archaeological sites. The great number of implements associated with textile manufacture can be used to study the craft and its tech-

51 Morigi Govi 1971.



Fig. 29.7: Ceramic spindle whorls, Poggio Civitate di Murlo, 7th–6th century (courtesy of Anthony Tuck)

nological and economic aspects. Spinning and weaving implements constitute the single most important and plentiful type of evidence for the assessment of the scale of production and the technology of this industry in Etruria. Furthermore, many textile tools have been found in burial and votive contexts, providing another interpretative framework.<sup>52</sup>

Spinning activity is well attested archaeologically in both burial and settlement contexts in Etruria.<sup>53</sup> A long spindle, with its whorl still on the elaborately decorated wooden shaft, was recovered from the underwater village of Gran Carro in Lake Bolsena, dated to the early ninth century BCE.<sup>54</sup> In addition to the rare surviving wooden and bone items, there are examples made of metal, all of which were found in burial contexts. One example is a set of a bronze spindle with a bronze biconical whorl and a bronze distaff from the eighth-century BCE Benacci-Caprara Tomb 56 in Bologna.<sup>55</sup>

Since most spindles in antiquity were made of wood, often the only evidence for their use consists of the less perishable spindle whorls. The vast majority of spindle whorls in Italy are made of fired clay (Fig. 29.7), but whorls made of luxury materials like glass and amber have also been found in Etruscan burial contexts. Spindle whorls, have often been found in large numbers at practically every Etruscan settlement site. The majority of sites yield a variety of whorl shapes, although a specific type often predominates, suggesting either that it was traditional at the site, or that

<sup>52</sup> Lipkin 2012; Meyers 2013.

<sup>53</sup> Gleba 2008; Lipkin 2012.

<sup>54</sup> Tamburini 1995, 169 no. 2081, Fig. 51.

<sup>55</sup> Forte, von Eles 1994, 55 no. 3.



Fig. 29.8: Terracotta loom weights, Poggio Civitate di Murlo, 7th–6th century (courtesy of Anthony Tucl)

the site specialized in a certain quality of yarn and, consequently, a certain type of textile.

Weaving in Etruria was accomplished on a vertical warp-weighted loom. Occasionally, charred remains of the wooden beams are preserved in association with loom weights, which allows speculation about their probable position. For example, at the fourth-third century BCE building at La Piana, some of the charred wood timbers, found together with an accumulation of loom weights near the north wall in one of the rooms of the house, probably were remains of a loom frame.<sup>56</sup>

The most common evidence of the warp-weighted loom, however, consists of loom weights, which were made of fired clay and therefore survive well in the archaeological contexts, allowing us to trace the presence and sometimes even location of a warp-weighted loom on sites (Fig. 29.8).<sup>57</sup> The trapezoidal or truncated pyramidal shape seems to have been prevalent in Etruria, although ring-shaped loom weights were common in northern areas. Occasionally loom weights are found *in situ*, having fallen to the ground when the warp to which they were originally attached was destroyed or deliberately cut, as for example at Acquarossa.<sup>58</sup> Such finds provide important information about the location and size of the loom.

<sup>56</sup> Whitehead 1996, 114, Figs. 6 and 8.

<sup>57</sup> Gleba 2008, 125–7.

<sup>58</sup> Östenberg 1975, 11–12.



Fig. 29.9: Ceramic spools, Poggio Civitate di Murlo, 7th–6th century (courtesy of Anthony Tuck)

Tablet weaving in Etruria is attested by tablets, metal clasps, bone spacers with pegs, and particularly by terracotta spools (Fig. 29.9).<sup>59</sup> The latter were probably used as weights in tablet weaving.<sup>60</sup> Finally, the evidence of sewing activities consists of numerous finds of bronze and bone needles.

## 4 Conclusion

Surviving evidence illustrates the abundance and variety of textiles and their uses in Etruria. Garments, furnishings, utilitarian fabrics, sails, and even books were made of textiles. Different functions required different properties, which in turn demanded different choices and careful planning at various stages of textile production. A sophisticated technology with the capacity to produce highly complex and labor-intensive textiles developed in Italy by the Villanovan period and reached its peak during the Orientalizing and Archaic periods. The abundance of textile tools on settlements and in burials from the Villanovan period onwards demonstrates that

<sup>59</sup> Gleba 2002, 139–53.

<sup>60</sup> Raeder Knudsen 2012.



textile production was one of the main economic activities and sources of wealth for the Etruscans. During the Orientalizing and Archaic periods, there was a significant increase in the scale of textile production, indicated by the large number and standardization of tools. Frequently, textile implements are concentrated in specific areas where the production of other goods, like ceramic or metal, has been documented, suggesting a household or even workshop mode of manufacture and the existence of at least part-time specialist craftspeople. Cloth was likely produced for commercial purposes and textile trade in Etruria has been tied to salt, amber, slaves and other commodities.<sup>61</sup> Textile trade seems to be indicated indirectly by the spread of Etruscan fashion to central Europe as attested in the Situla Art.<sup>62</sup> While there is no evidence that textile production in Etruria ever reached an industrial scale of organization before the Roman period, there is strong indication of a manufacture mode, which greatly exceeded in quantity the simple subsistence-based household production.

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<sup>61</sup> Gleba 2008, 195.

<sup>62</sup> Bonfante 2003, 4–5, 132.

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