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Clothes make the man : early medieval textiles from the Netherlands

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8. Discussion

8.1 INTRODUCTION

The previous chapters have discussed the finds from individual cemeteries and settlements. In this last chapter the results of all these case studies will be discussed together. For reasons discussed in chapter 1, the finds from the cemeteries provided the most reliable dataset for reconstructing the use of textiles in the Merovingian period. Moreover, due to their often excellently documented context, these textiles are more suitable when trying to discern differences within sites, gender and age differentiation and chronological developments. Settlement textiles on the other hand are generally younger than the Merovingian period and are more suitable for establishing the cut and shape of garments and mode of production. Consequently, this final chapter focuses firstly on grave textiles and their use and the finds from the settlements are treated separately from those from the cemeteries.

The results of the textile analyses are presented as follows: technical aspects of the cemetery textiles are described in section 8.2, followed by an assessment of their quality (section 8.3). The use of the textiles in this period will be discussed, including a reconstruction of early medieval burial dress (8.4), the custom of covering objects in a grave with fabrics (8.5) and the use of other cemetery textiles (8.6). Differences in the use of fabrics become evident when comparing the graves of men, women and children (section 8.7). The finds from the settlements will be discussed in section 8.8, as well as a comparison between the cemetery textiles and those from settlements. This chapter ends with a discussion of the variation of (the use of) textiles observed in the Netherlands and the meaning we may attach to these trends.

8.2. TECHNICAL CHARACTERISTICS OF THE TEXTILES FROM THE CEMETERIES

8.2.1 Fibre types

Fibre identification of the textiles in the cemeteries resulted in a considerable number of identifications of woollen fabrics. Plant fibres have only sparsely been recognised in the dataset. However, no systematic fibre analyses were possible due to the often-poor condition of the textiles. Gold thread has been documented once in Maastricht-Sint-Servaas church and twice in Maastricht-Pandhof.[387] It also occurs in the sixth cemetery of Vlodrop, which has not been published yet.[388] The occurrence of gold thread is therefore evidently not reserved for the high status burials in Maastricht.

8.2.2 Dyes

As described in section 1.5.1, dye analysis could only be carried out on a small percentage of the textile fragments examined in this study. Although the analysis of dye materials as a result lies beyond the scope of this research, some general remarks can be made regarding the use of colour in the early medieval textiles examined in this study.

Several attempts have been made to analyse dyes from both settlements and cemeteries. A number of fragments from the cemetery of Rhenen were selected

387. For an overview of the way gold thread has been used in embroideries see Owen Crocker 2004, 308-315. The use of gold thread in woven bands (gold-brocading) is discussed by Walton Rogers 2007, 96-97. For a detailed description of the gold thread in Maastricht see chapter 4 (section 4.5.2) and Brandenburgh 2015, 42-45.

388. Personal comment J. Kempkens of Restaura restauratieatelier.

for dye analysis but no dyes could be identified in these samples. The same can be said regarding the mitten found in Dorestad.[389]

From the *terpen* area seven textile fragments were selected for dye analysis. The results cover a diversity of colours. Red dye could be identified in the hat from Oostrum (700-900 AD), which had been made from a white fleece for the main body of the hat, with decorative stitching in fawn wool. The same madder type dye was present in both the cloth and the sewing thread, but it was much more concentrated in the stitching, making it likely that the ground fabric was light red, salmon or peach and the needlework a deep dull red. In the hat from Berg Sion (568-651 cal AD), which was made out of naturally brown wool, the chemical signature of a tannin-based brown or black colorant was present. This was detected in the main fabric of the hat but not in the needlework, which suggests that the tannins were present in a dye applied to give a solid black to the already naturally dark fleece colour of the headdress.

8.2.3 The types of weaves used in the cemeteries in the Netherlands

8.2.3.1 Tabby weaves

The popularity of this fabric varies among the cemeteries: in some sites such as Bergeijk and Lent approximately 15% of the textiles were woven in tabby while in other sites more than 60% of the textiles were tabbies. Especially Maastricht - Sint-Servaas church, Maastricht-Vrijthof, Leusden and Posterholt show a predominance of tabbies. The majority of tabbies in all sites (except Lent) are woven out of z-spun yarns in both warp and weft (z/z). Small quantities were woven out of s-spun yarns in both systems (s/s) or z-spun yarns in one system and s-spun yarns in the other system (z/s). Several of the tabbies were woven in a spin-pattern. This pattern is created using both z- and s-twisted threads in one or both systems. The different direction of the twist of the yarns bestows a very subtle but clear striped pattern to the fabric. A number of 46 tabbies was woven out of woollen threads, whereas 21 were probably made out of plant fibres. Fibre identification however was not possible in nearly 200 fabrics, making it impossible to estimate the occurrence of these fibre types among the tabbies.
Most tabbies were rather balanced with approximately the same number of threads in both thread systems. Several fabrics however show a large difference between warp and weft with more than thrice as many threads in one system than in the other. This occurs only in the cemetery of Maastricht-Pandhof, Maastricht - Sint-Servaas church.[390] Normally a ratio of 2:1 or a difference of at least ten threads per cm is used to justify the use of the term repp.[391] When applying this to the textiles another four from Sint-Servaas church, a textile from Maastricht-Vrijthof and five textiles from Rhenen qualify as repp.[392]

8.2.3.2 2/2 twills

In most cases where the fabric was evidently woven in 2/2 twill, it was not possible to ascertain whether it was a 2/2 plain twill or a variety of this weave, such as diamond twill. Only where the fragments were large enough to cover part of a reversal in the pattern, the difference between the types of twill could be discerned. Consequently, most of the smaller fragments (< 1 cm) are assigned to the group of 2/2 plain twill, leading to a considerable overrepresentation of this group.[393] In many sites 2/2 twills are equally important as tabbies. There are however regional variations such as Bergeijk with twice as many 2/2 twills than tabbies, and Leusden, Maastricht – Sint-Servaas church and Maastricht-Vrijthof where the ratio tabby-2/2 twill is approximately 2:1. Local variation can also be observed regarding the preferences in the direction

389. Here traces of red and yellow were found but one could not tell whether these were derived from dyes or from the sediment in which the mitten had been excavated (analysis Instituut Collectie Nederland, 09-01-2009/1219).

390. Pandhof: find number 40.1.TX1; Sint-Servaas church: find numbers 17-02-07.1 (stray find) and 21-02-03.1 .
391. Bender Jørgensen 1991, 13.
392. Sint-Servaas church find numbers 03-06-01.1, 16-DD-01, 16-DD-03 & 23-03-01.1; Vrijthof find number 1419.1; Rhenen find numbers 31, 73, 82, 460 & 733.
393. 87 of the 2/2 twills were made out of wool, whereas it was not possible to identify the fibre type in the other 2/2 twills

of spin within the fabrics. Some sites show equal amounts of z/s and z/z in the 2/2 twills but there are also sites where z/z twills are completely lacking or sparse (again Leusden, Maastricht – Sint-Servaas church and Maastricht-Vrijthof).

Diamond twills are in small quantities present in practically all cemeteries. These fabrics are generally woven in z/s (22x), but small quantities of z/z (5x), s/s (4x) and spin pattern (1x) have been recognised as well. We may however assume that this fabric occurred more often. When we look at the fabric distribution among Dutch settlements (fig. 8.1) it becomes obvious that diamond twills were very popular and constituted 40% to 80% of the total body of fabrics.[394] Here we have to take into account that the settlements are generally located in the north of the country whereas the cemeteries are located in the centre and south of the country. Moreover the settlements have a broader lifespan making a comparison between settlements and cemeteries less reliable. We can however expect that patterned fabrics such as diamond twills are underrepresented in the diagrams of the cemeteries.

8.2.3.3 Other types of twill

Variations of twill such as 2/1 twill, 3/1 twill, 3/3 twill and Rippenköper are present in very small quantities and only in Lent, Rhenen and Maastricht-Sint-Servaas church. 2/1 twill has only been observed once in Lent and twice in Rhenen (in both z/s and z/z variations), while 3/1 and 3/3 twills made out of z/z-spun yarns have been documented solely in Rhenen. One fabric from Sint-Servaas church could be identified as a Rippenköper pattern.

8.2.3.4 Tablet weave

Tablet weave has only been documented twice, and both fragments were discovered in the cemetery of Rhenen.[395]

394. Brandenburgh 2010a, 60 (chapter 6).
395. Rhenen find number 470 & 714, Wagner & Ypey, 2012, 342 & 497.

8.2.3.5 Conclusions regarding the fabric types

There is very limited variation in the types of fabrics documented in Dutch cemeteries (fig. 8.2). This distribution pattern is undoubtedly influenced by the small size of the textile fragments that very often does not allow an establishment of variations of twills. In large find complexes such as Maastricht-Sint-Servaas church and Rhenen special weaves have been identified occasionally (<1%), therefore the chance of recognizing these special weaves in a smaller complex is very small. The fact that these weaves have not been found in the smaller cemeteries therefore does not automatically imply that they were totally absent.

We can nevertheless discern certain trends with clear preferences for certain groups of weave types in different cemeteries. When we look at figure 8.3a-i the cemeteries of Leusden, Maastricht - Sint-Servaas church and Maastricht-Vrijthof show a similar distribution of textiles with a preference for tabbies and twills occurring in smaller quantities. Posterholt also shows this preference but here the differences between the numbers of tabbies and twills are smaller. In other cemeteries such as Lent, Wijchen, Rhenen and Maastricht-Posterholt tabbies and twills are present in approximately equal numbers. Bergeijk is the only cemetery where twills seem to have been more popular than tabbies.

It is very difficult to establish a chronology of textile types within the cemeteries. The graves are dated into overlapping phases, often resulting in a small number of fragments per phase. These numbers do not allow any statistical use of the textile data yet. Since one of the research questions relates to the differences between the fifth/sixth and seventh century an attempt has been made to compare the textile remnants from these periods. In Bergeijk only 2/2 twills z/s are present in the sixth century. In the seventh century different types of weaves come in use: first the diamond twills z/s, the 2/2 plain twills z/z and diamond twills z/z emerge and in the second half of the seventh century there are also tabbies present. We must however take into account that the sixth century is only represented by four fabrics

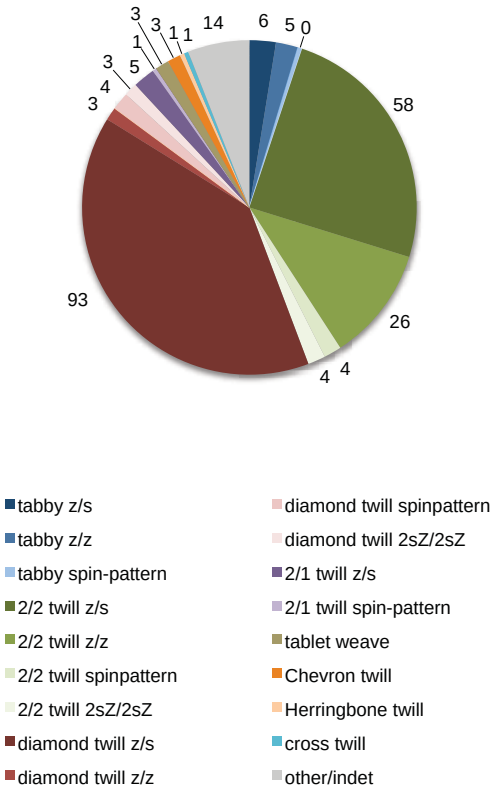


Fig. 8.1 Distribution of the fabric types in the settlements. N=235. These textile remains will be discussed in section 8.8.

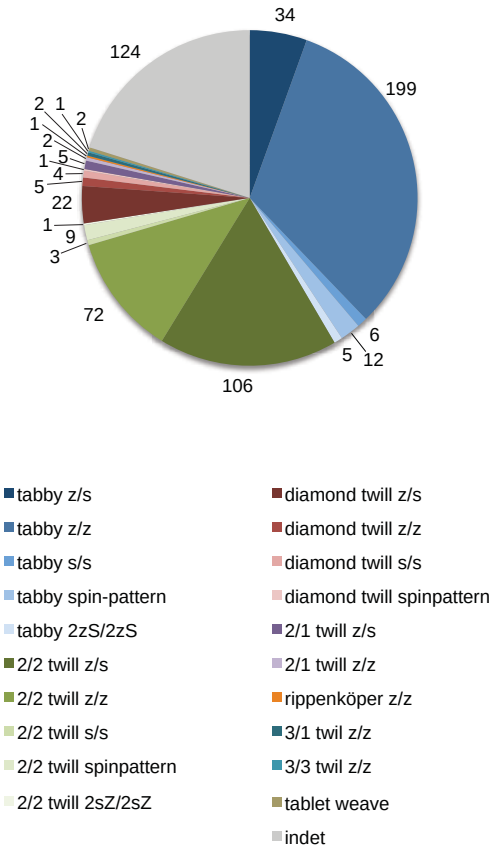


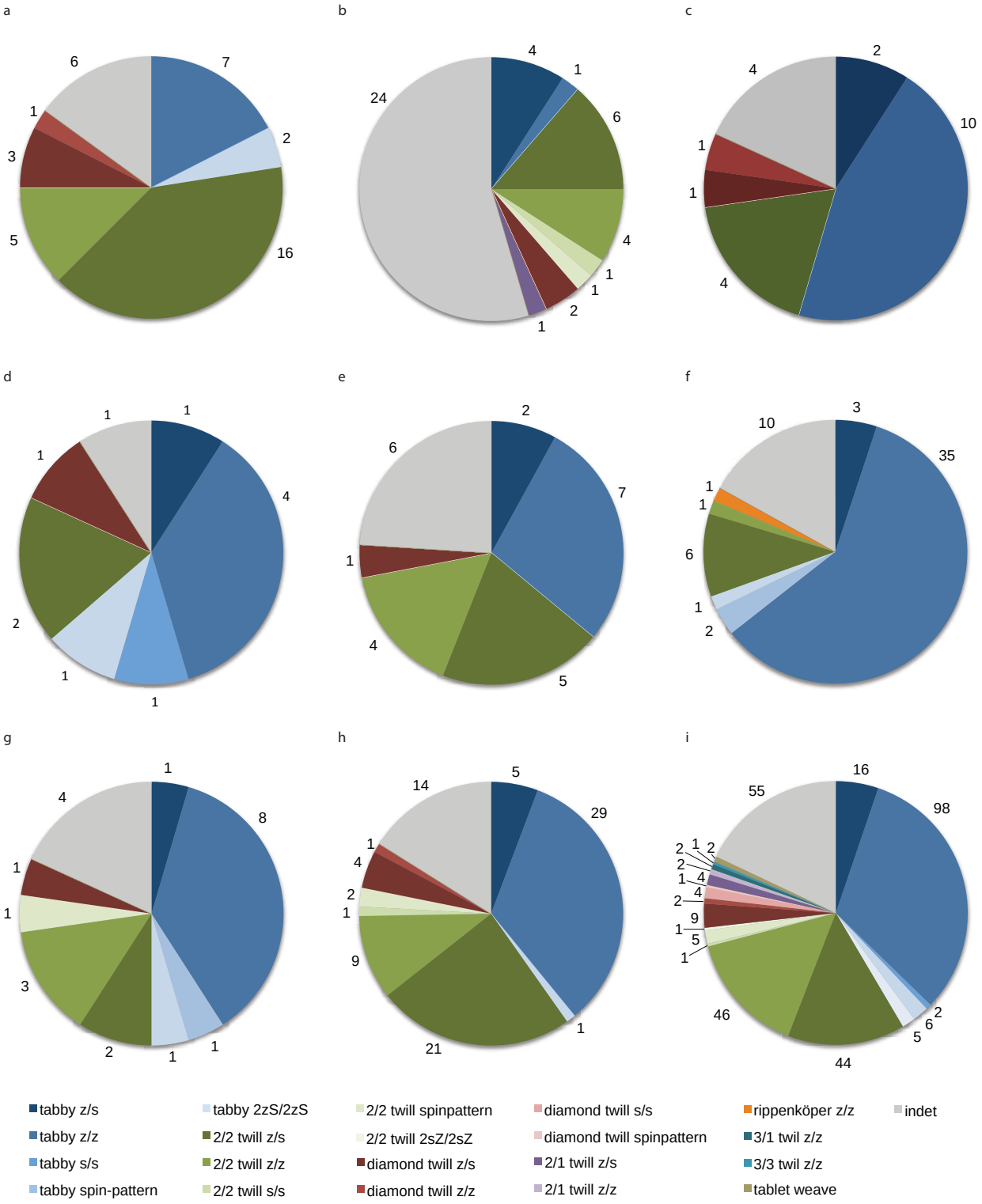
Fig. 8.2. Distribution of the fabric types in all cemeteries throughout the entire period.

in this cemetery.[396] The fabrics from Maastricht were also divided according to the different phases the cemeteries were in use, but no clear difference between the sixth and the seventh century could be observed in the three cemeteries from this city.[397] In the cemeteries of Posterholt and Lent-Lentseveld a comparison between the sixth and seventh century proved impossible as well: in Posterholt only one of the 15 graves containing textiles was ascribed to the sixth century,[398] while the textiles from Lent-Lentseveld were all from the fifth and sixth century.[399] The cemetery of Wijchen has the greatest potential for comparing the chronology of textiles within a single cemetery with 24 pieces of fabric from the fifth/sixth century and 32 textile fragments from the seventh century. Here it is remarkable that the predominant textile type in the fifth/sixth centuries is 2/2 twill (which is also observed in Bergeijk). In the seventh century 2/2 twills and tabbies become equally popular in this cemetery.[400]

Since the individual cemeteries do not provide enough datable fragments to analyse the development within the burial sites, the textiles from these cemeteries have been grouped together in order to discern crude trends and differences between the sixth and seventh century (fig. 8.4a-b). Of the 616 textiles that have been documented 94 could be firmly assigned to the fifth/sixth century, while 106 were dated to the

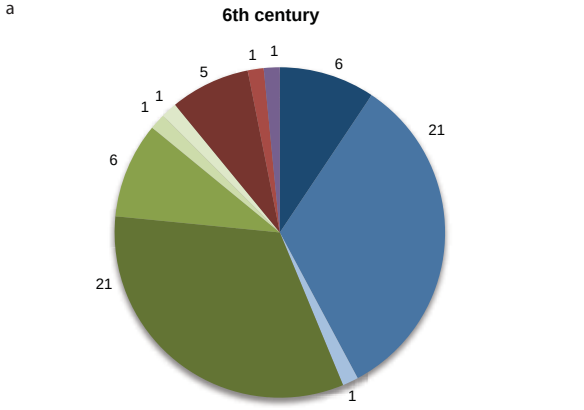
396. Brandenburgh 2012a, 132, fig. 7.8.
397. Brandenburgh 2015, 46 (chapter 4).
398. Brandenburgh 2013, 134.
399. Chapter 5, (section 5.4).

400. Chapter 5, (section 5.4).



8.3a. Bergeijk (N = 40)
8.3b. Lent-Lentseveld (N = 44)
8.3c. Leusden (N = 22)
8.3d. Maastricht – Vrijthof (N = 11)
8.3e. Maastricht – Pandhof (N = 25)
8.3f. Maastricht – Sint- Servaas church (N = 59)
8.3g. Posterholt (N = 22)
8.3h. Wijchen (N = 87)
8.3i. Rhenen (N = 306)

a



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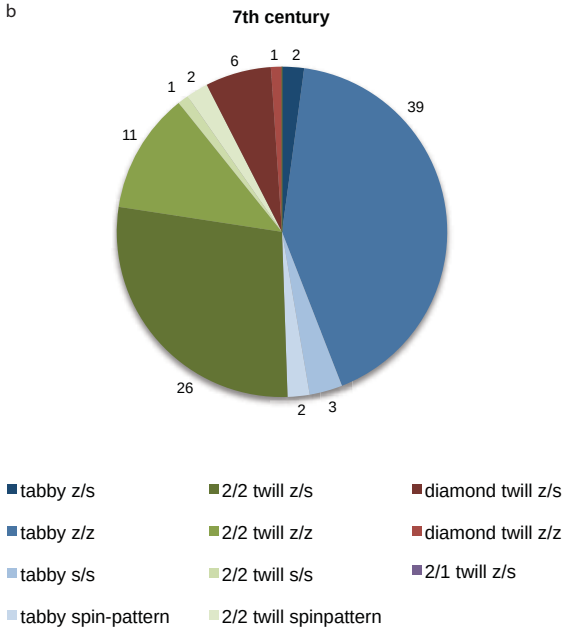


Fig. 8.4a Distribution of the fabric types from the cemeteries of Bergeijk, Lent-Lentseveld, Leusden, Maastricht (Vrijthof, Pandhof & Sint-Servaas church), Posterholt and Wijchen in the fifth/sixth.
Fig. 8.4b. Distribution of the fabric types from the cemeteries of Bergeijk, Lent-Lentseveld, Leusden, Maastricht (Vrijthof, Pandhof & Sint-Servaas church), Posterholt and Wijchen in the seventh century.

seventh century.[401] A considerable number of these remains however were indeterminate fragments, leaving us with 64 fabrics from the fifth/sixth century and 93 fabrics from the seventh century. As is shown in figure 8.4a-b there are statistically no differences between both periods in terms of fabric types.

8.3 QUALITY OF THE TEXTILES FROM THE CEMETERIES

In this section two definitions of textile quality will be discussed, starting with the 'standard' thread count, followed by a discussion of aspects and factors that may be of importance in assessing textile quality.

8.3.1 Quality of textiles based on thread count

Comparing the textiles of the cemeteries in the Netherlands solely on the basis of thread count we can establish that there are differences between the sites (fig. 8.5a-j). The three cemeteries from Maastricht and Leusden contain textile fragments that are generally of higher quality than those from the other sites. Here, most of the remnants have thread counts in the range of medium-fine and fine quality (between 10 and 20 threads/cm). In the case of the three cemeteries from Maastricht there are many exceptions in the extra fine category with thread counts above 20 threads/cm. Other sites such as Bergeijk, Posterholt and Wijchen yielded coarser fabrics with thread counts between 5 and 15 threads/cm and a few exceptions up to 20 threads/cm. Rhenen and Lent-Lentseveld show a mixture of these two groups: here textiles are present in coarse qualities with 5 threads/cm and equal numbers of finer fabrics ranging up to 20 threads/cm. In nearly every cemetery the tabbies are generally of higher quality than the twills. The textiles from Lent-Lentseveld are an exception: here the twills are finer than the tabbies.

Within the group of tabbies the z/z variant is on average slightly finer than the other spin combinations (fig. 8.6). Spin patterned tabbies and tabby z/s are present in coarse fabrics but also make up for the finest of the tabbies. Figure 8.7 shows that the fibre type does not influence the quality of the tabbies: fabrics made out of wool are present in the same range of quality as those made of plant fibres. In the group of 2/2 twills and diamond twills there seem to be no differences in quality between the different spin-combinations

401. The graves from Rhenen have not been dated yet and the pieces from this site can therefore not be used for this purpose.

(fig. 8.10 & 8.8). Plant fibres have been identified only four times in 2/2 twills making a comparison between fibre types in 2/2 twills futile. The special fabric types all have thread counts between 5 and 17 threads/cm, underlining the notion that thread count is only one of many factors that can determine the value of a fabric (fig. 8.9).

8.3.2 Quality of textiles based on texture

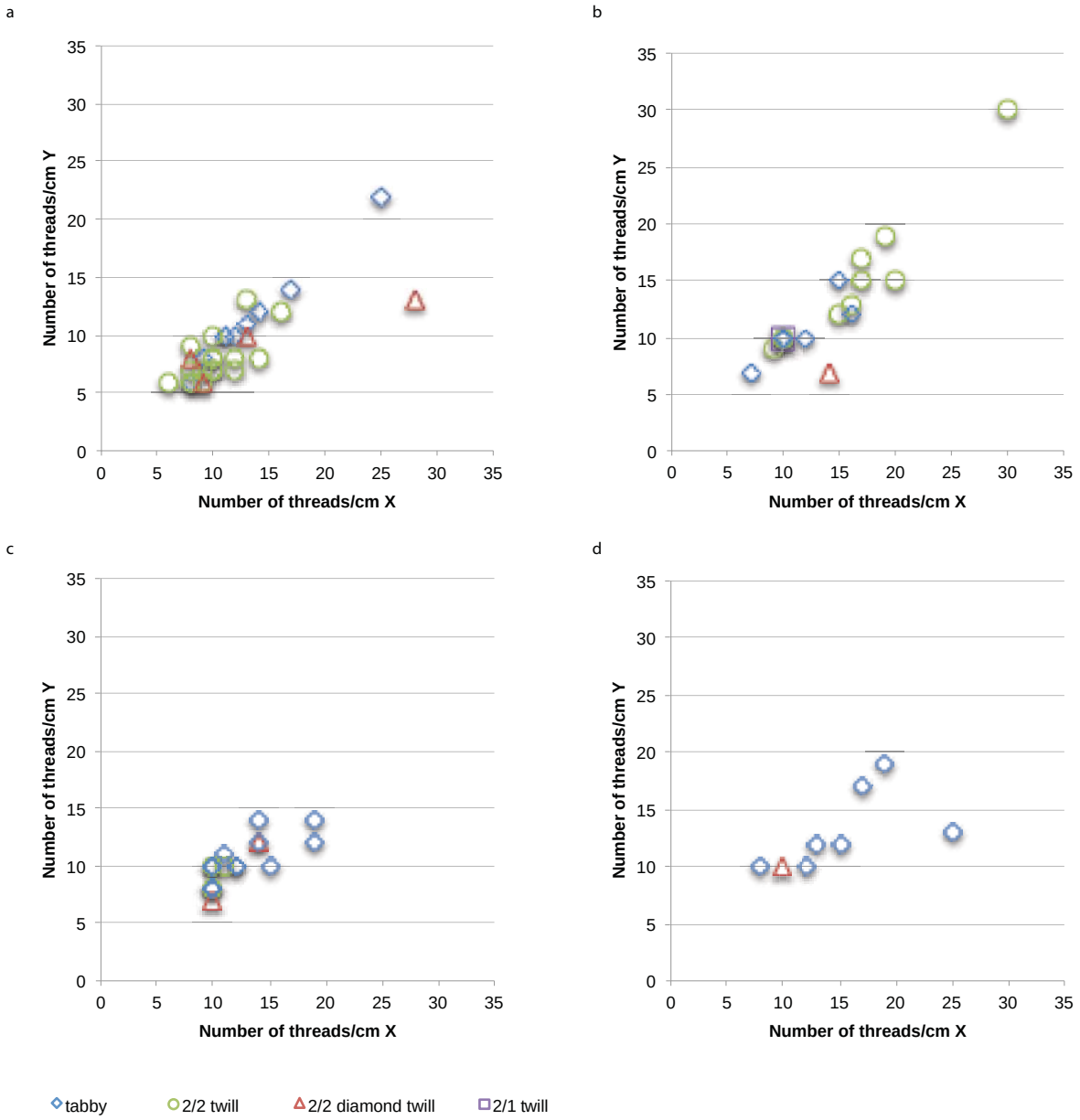
Texture is probably one of the most important characteristics of any object within a burial. The way the light reflects on a surface defines the way we perceive its texture. This is very important when discussing the role and quality of textiles: clothes consist of large surfaces that are appraised by the cut and shape of the garments, their colour and their texture. The patterns woven into the fabrics, the thread count, the thread thickness, regularity and degree of spin of the yarns and the density of the fabric (open spaces or not) determine the drape, functionality and texture of a fabric and may have played a role in the way textiles were valued. Several weave types may be mentioned here that will have caught the eye of any observer. Rippenköper, spin-patterned fabrics and repp (tabby) each create a pattern that is visible with the naked eye. Rippenköper has only been observed in Maastricht - Sint-Servaaschurch, repp is present in all three cemeteries of Maastricht and in Rhenen, while spin-patterned fabrics occur in nearly every cemetery (except Leusden and Maastricht-Pandhof). This is also the case with diamond twills. Due to the small sizes of the remaining fabrics in burials it is often difficult to recognize these patterns and therefore it is equally difficult tot assess the rarity of these fabric types in the cemeteries. Nevertheless diamond twills have been found in nearly every cemetery considered in this study.

Another angle of approach towards textile quality is to incorporate the degree of twist and thread thickness into the picture. Thick threads generally result in heavier fabrics that may have had a different function than fabrics woven out of thin threads. Thin threads may be woven into thin and pliant fabrics or -when using only few threads/cm - become fragile and veil-like fabrics. Examples of these fragile open fabrics have been found in Posterholt,[402] Maastricht-Pandhof[403] and Wijchen.[404] The degree of spin of the yarns greatly influences the appearance of a textile as well. When looking at the relation between degree of spin and the regularity of the fabric it becomes clear that fabrics that are perceived as regular generally have been made out of regularly spun yarns with a low to medium twist. Moreover, low and medium twisted yarns are nearly always used together in both thread systems. We seldom see a combination of low-medium spun threads in one thread system and medium-high spun threads in the other system. This makes the fabrics very balanced. Contrastingly: fabrics with an irregular and wobbly appearance are generally made out of irregularly spun threads with a medium to high twist. Textiles with an irregular appearance occur in much smaller quantities than regularly spun and woven textiles, therefore the overall quality of the cemetery textiles in terms of texture is high.[405]

8.3.3 Quality of textiles: shining objects

Shiny objects, such as gold thread, used to embellish the clothing, attract attention as well. The place one would expect that gold thread was applied on clothes would be the area around the head, the torso (including the area of the belt), wrists and feet. These areas attracted by itself most attention and would have been the ideal place to add prestigious accessories and decorative embroideries with gold thread.[406] Concurrently Elisabeth Crowfoot and Sonia Hawkes (1967), examining gold-brocaded braids from the 5th -7th centuries, found that those deriving from female graves mostly were found on the head of the deceased, and suggested they might

402. Posterholt find number 52-III-2.
403. Maastricht-Pandhof findnumber 60.1, grave 10042.
404. Wijchen find number 04.076.TX1 (a very fragile and open fabric); less distinct examples are present in find numbers 01.155.TX1, 05.072.TX1, 07.019.TX1, 13.017.TX1 & 20.032.TX2.
405. These characteristics have not been documented consistently in all cemeteries and the boundary between 'regular' and 'irregular' is somewhat subjective, to say the least. Nevertheless it is noteworthy that regular textiles have been documented by the author far more often than irregular ones in all cemeteries.
406. Wells 2008, 68.



8.5a. Quality of textiles from Bergeijk, measured in threads/cm. Exceptionally fine textiles were found in women's graves 50 and 89.
8.5b. Quality of textiles from Lent-Lentseveld, measured in threads/cm. The fragment of exceptionally high thread count was found in women's grave 23.
8.5c. Quality of textiles from Leusden, measured in threads/cm.
8.5d. Quality of textiles from Maastricht – Vrijthof, measured in threads/cm. Women's grave 85 contained the finest textiles.

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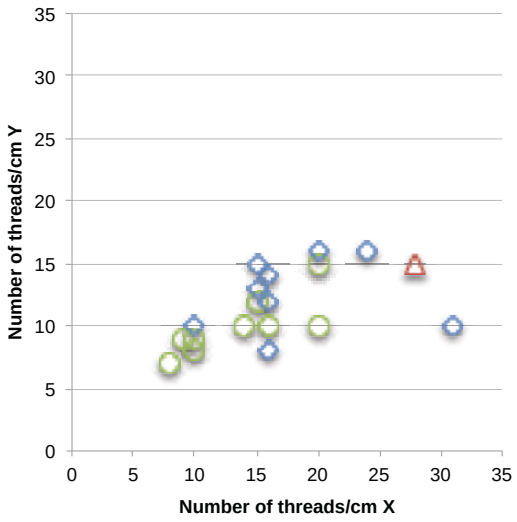

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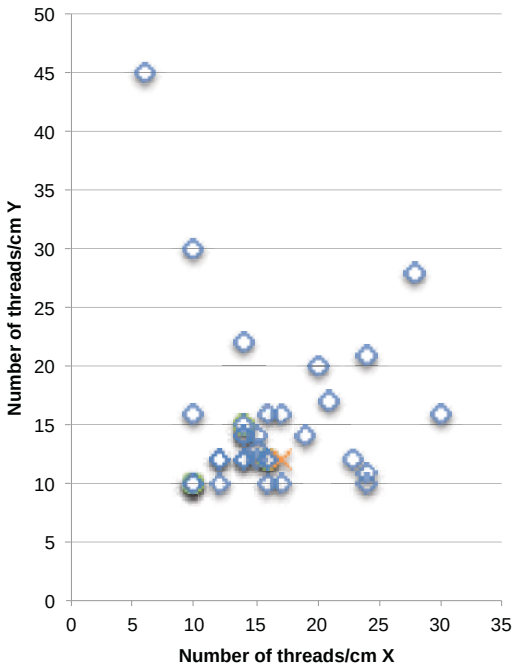

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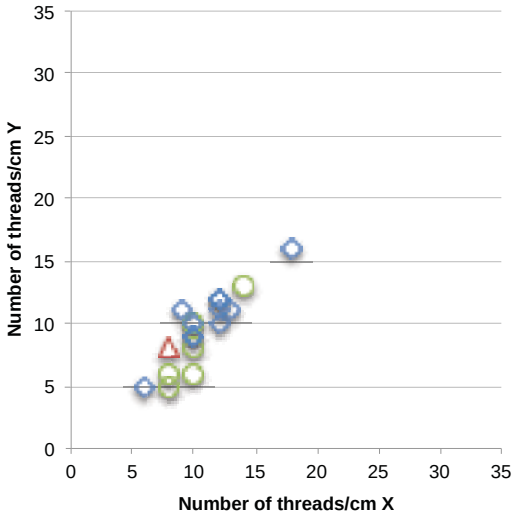
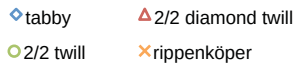
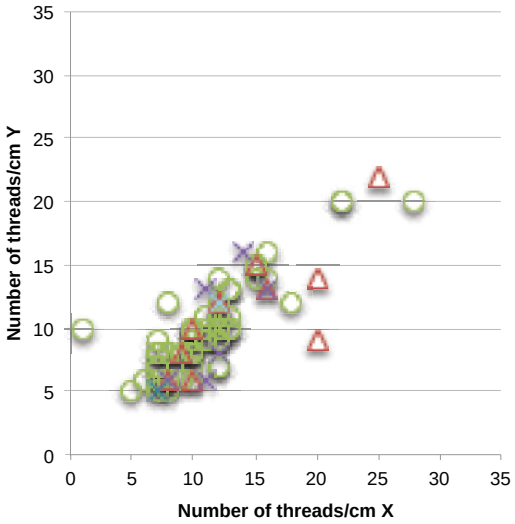




8.5e. Quality of textiles from Maastricht – Pandhof, measured in threads/cm. The finest textiles were found in graves 11341 and 10128.
8.5f. Quality of textiles from Maastricht – Sint-Servaas church, measured in threads/cm. Very fine textiles were found in graves 1, 26, 137 and 164 (sex unknown)
8.5g. Quality of textiles from Posterholt, measured in threads/cm.

h



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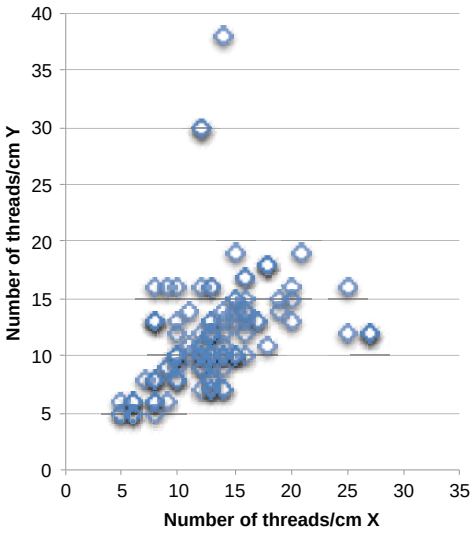

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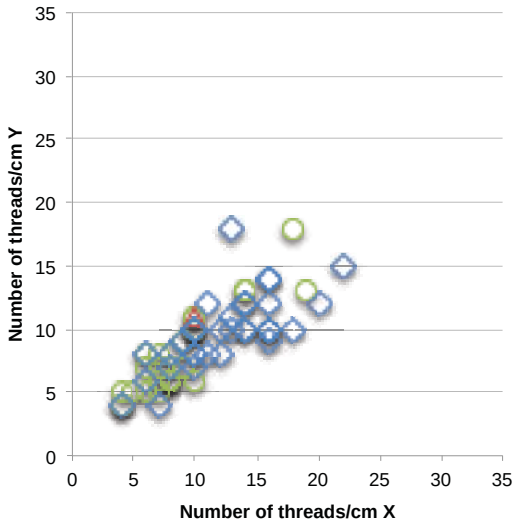
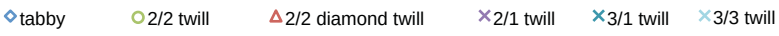




8.5h. Quality of the twills from Rhenen, measured in threads/cm. The finest textiles from Rhenen were found in graves 73 (F), 413 (F), 433 (F), 460 (M), 476 (M) and 733 (?).
8.5i. Quality of the tabbies from Rhenen, measured in threads/cm
8.5j. Quality of textiles Wijchen, measured in threads/cm.

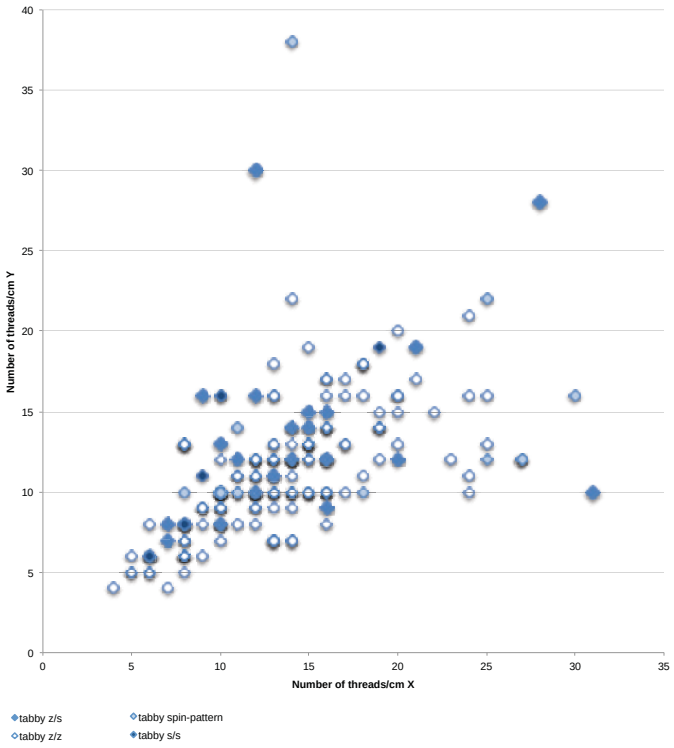


Fig. 8.6. Quality of the different types of tabby (from all cemeteries), measured in threads/cm.

be the *vittae* often mentioned in descriptions of highborn Frankish ladies. The occurrence of gold thread in a grave of Maastricht – Sint-Servaas church and two graves of Maastricht-Pandhof is therefore considered as a sign of high quality and wealth.[407]

8.3.4 Quality of textiles over time

The cemetery of Wijchen has the greatest potential for comparing the chronology of textiles within a single cemetery with 24 textiles from the fifth/sixth century and 32 textiles from the seventh century. The quality of these textiles has been projected in fig. 5.8. Here it becomes obvious that there are no differences regarding thread count between the sixth and seventh century. Since the other cemeteries do not provide enough datable fragments to analyse the development within the individual burial sites the textiles from these cemeteries have been grouped together again, but as we can see in fig. 8.11a-b no differences between both periods could be established.

8.3.5 Conclusions regarding textile quality

Some of the cemeteries contain textiles that are in general of a higher quality than others. The fragments from the three cemeteries from Maastricht and Leusden were woven in higher thread counts than those from the other sites. Moreover, the cemeteries of Maastricht contain gold thread and several types of special fabrics, making these sites stand out from the others in terms of textile quality. Rhenen also contains several special fabric types and the textiles from this site are of a relative high quality as well. The other cemeteries are rather homogeneous in terms of textile quality. Some, such as Posterholt and Wijchen contain special fabrics as well: here examples of veil-like fabrics have been found. Diamond twills occur in nearly all cemeteries and must have been far more regular than we can judge on the basis of cemetery textiles only.

407. Crowfoot & Chadwick Hawkes 1967, 48 & 65.

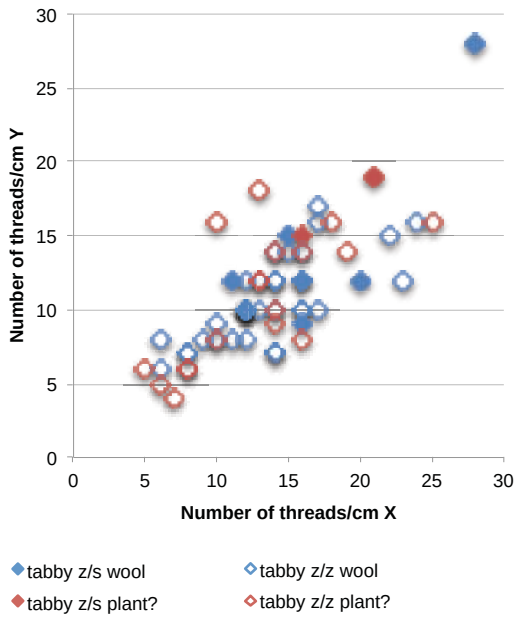


Fig. 8.7. Quality of the tabbies (from all cemeteries) made out of wool and plant fibres, measured in threads/cm.

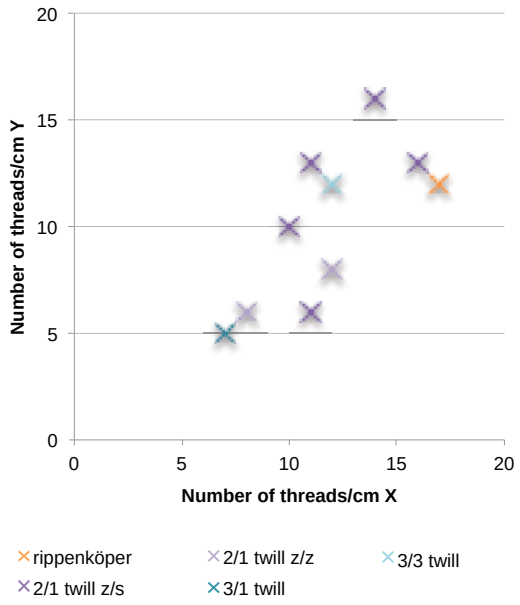


Fig. 8.9. Quality of the different types of broken diamond twill (from all cemeteries), measured in threads/cm.

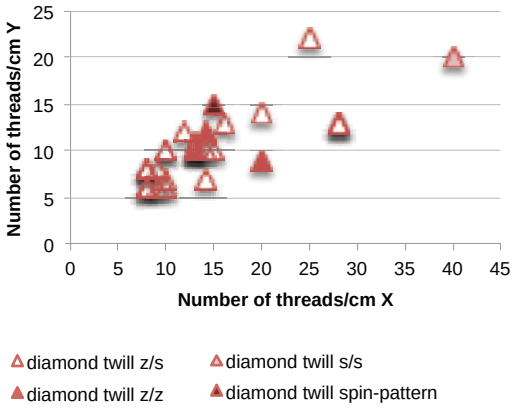


Fig. 8.8. Quality of the different types of 2/2 twill (from all cemeteries), measured in threads/cm.

8.4 RECONSTRUCTING BURIAL GARMENTS

The textile fragments that have been preserved in the corrosion of the metal objects in the graves are generally considered to be the remains of the clothes in which the dead were buried and of other grave textiles such as shrouds, mattress covers, etc.

Several archaeologists have attempted to reconstruct the clothing of the dead using the dress accessories and textiles found in burials. This resulted – as will be discussed below – in various reconstructions of early medieval dress. Geijer was one of the first to attempt a reconstruction of women's dress in the Swedish town of Birka in her publication of 1938. Her reconstructions were partly based on the analyses of (a selection of) the textiles from this site but she also relied on the evidence derived from contemporary metal figurines and the rather conservative national costume tradition of the area. From this she gathered that women were dressed in a pleated undershirt, a pinafore dress and a mantle.[408] Inga Hägg took a somewhat different approach. She chose to focus on the archaeological evidence the textiles could provide and did not use historical sources as much as Geijer did. While she analysed all of the (over 4000)

408. Geijer 1938, 134-156.

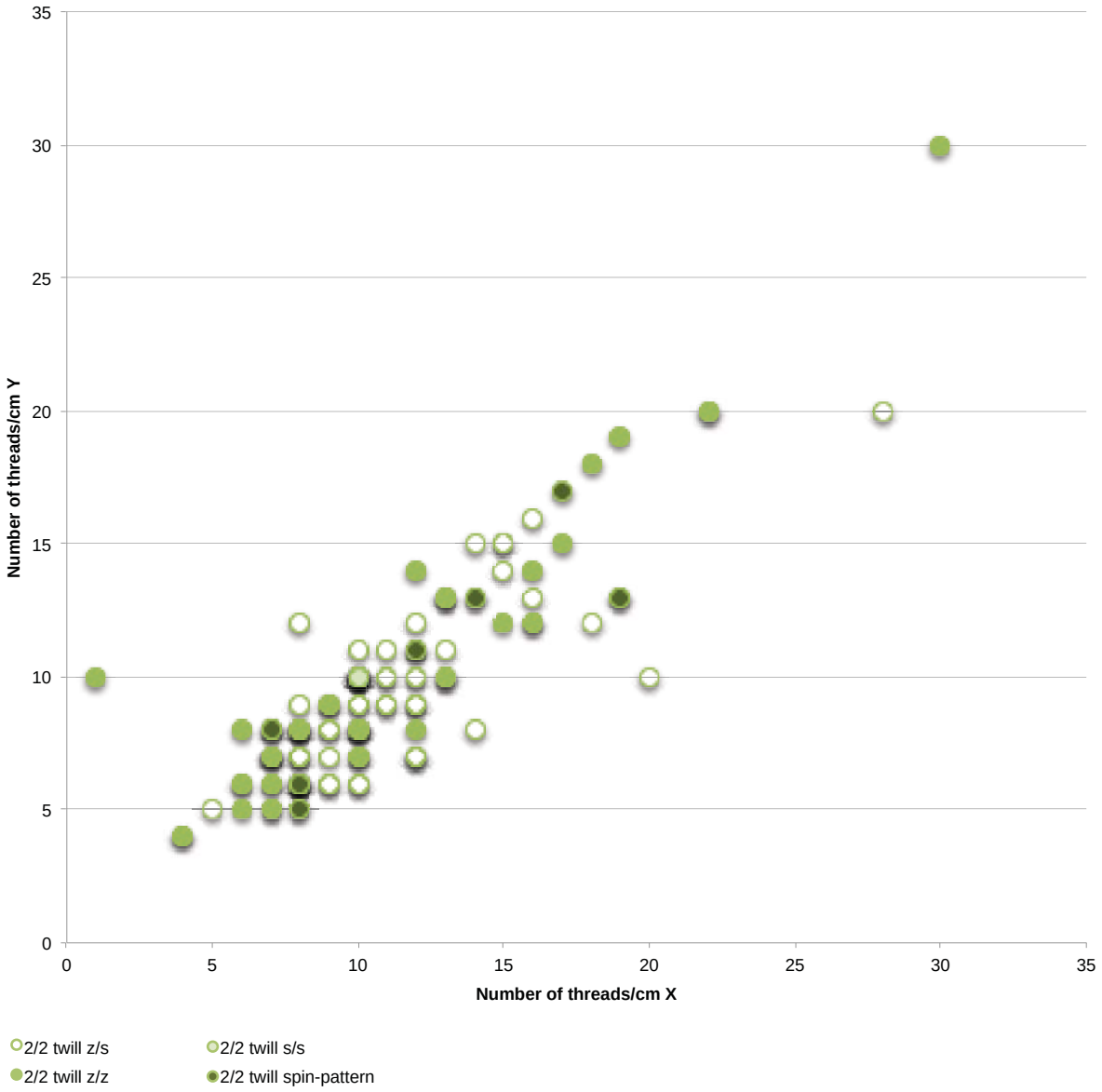


Fig. 8.10. Quality of the different special fabrics, measured in threads/cm

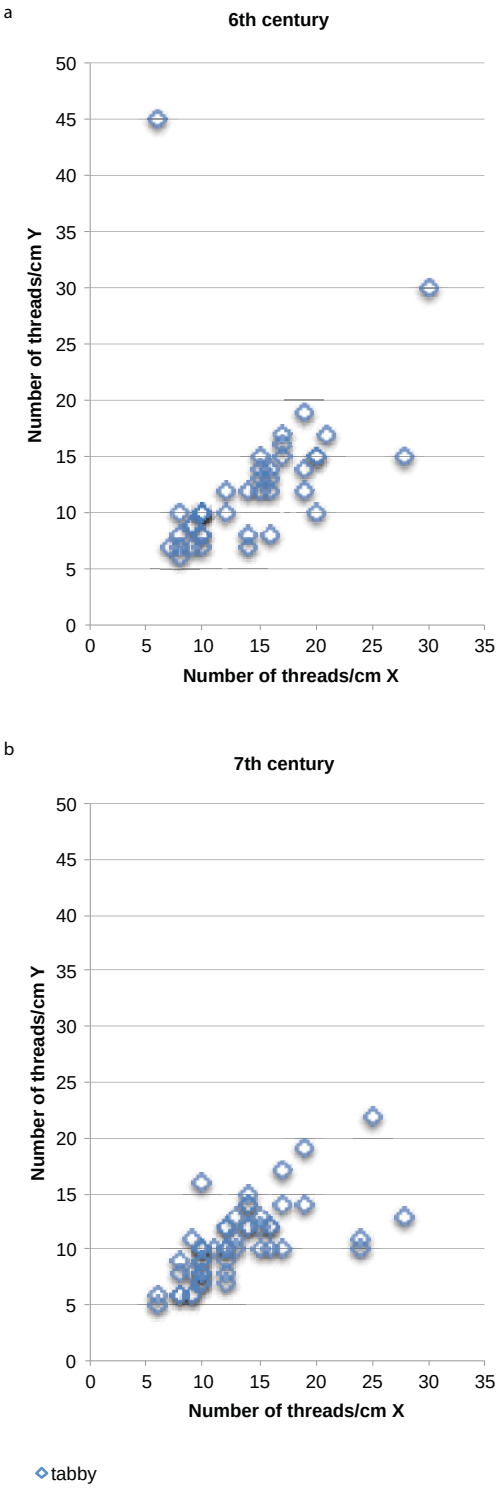


Fig. 8.11. Quality of the sixth century (a) and seventh century (b) textiles from the cemeteries of Bergeijk, Lent-Lentseveld, Leusden, Posterholt, Maastricht-Vrijthof, Maastricht-Pandhof and Maastricht - Sint-Servaas church, measured in threads/cm.

pieces of textiles from this site, Hägg took great care to document both the technical characteristics of the textiles, but also the position of the metal objects in the grave as well as the stratigraphy of the textiles in relation to the objects they were attached to, making schematic drawings of this stratigraphy. This systematic approach resulted in new ideas regarding Birka women's dress. From this Hägg concluded that there were other garments present in the cemetery as well: women would have worn a linen tunic under their pinafore dress and a sleeved caftan which was often decorated with bands of silk and silver thread and was closed at the front by an oval brooch.[409]

Looking back, Hägg may be considered one of the precursors of a systematic approach towards textile archaeology, which uses an object-based approach focussing on both the textiles as well as the objects they were attached to. Parallel to this way of carrying out textile research, another object-based approach has been practiced for several decades. This approach fits in a tradition wherein typologies, chronological schemes and distribution maps are a means to distinguish large-scale developments through time and space. Using the chronology of brooches and the position of these brooches on the body, scholars have reconstructed the way people may have been dressed in different regions and different periods. The outcome of these analyses has often been described in terms of *Tracht* or *Fibeltracht* but in fact no systematic textile analyses have contributed to the outcome of these studies. Many examples of this approach have been published in German literature by - among others - Vierck, Martin, Muller & Steuer, Siegmund and Strauβ.[410] Some of these were purely object-based, while others – such as Martin – also incorporated contemporary historical depictions of dress. Problematic in this type of publications is – as pointed out by Siegmund - that there often is no attention for the fact that objects may have been moved during or after burial or that objects may have been removed from the burial altogether.[411] Furthermore, Martin stressed the fact

409. Hägg 1983, 334.
410. Vierck 1979a-c; Martin 1991, 1994; Müller & Steuer 1994; Strauβ, E.G., 1992; Siegmund, F., 1998.
411. Siegmund 1998, 55.

that one can make many interpretations of dress based on the same set of dress accessories.[412] Even when adding textile data to the picture sketched by the dress accessories there is still room for variation. The burial of queen Arnegunde is a good example of such different interpretations. Where previous reconstructions, based mainly on the configuration of the dress accessories and a cursory analysis of some of the textiles, depicted this woman in a knee-length dress showing decorated garters beneath[413] (fig. 8.12), current interpretations are completely different. These are based on a systematic re-analysis of the technical characteristics of the fabrics and a reconstruction of the position of the textiles on the dress accessories and on the body (which information was gleaned from the sparse surviving excavation documentation and the presence of textiles on skeletal remains) by Desrosiers and Rast-Eicher, something that had previously not been done. This new reconstruction shows a woman dressed in an ankle-length robe with embroidered sleeves that is open at the front and completely covers the decorated garters. The front opening of the garment was decorated with wide silken tablet woven bands and the cloak was fastened under the chin with a single brooch and around the waist with an elaborately decorated belt. Under this gown the queen wore two garments, one made out of wool and underneath probably a linen undergarment. On her head and shoulders was a veil.[414]

Current textile research more or less combines the above-described two object-based approaches. These modern studies integrate a systematic technical documentation of the textiles, including their stratigraphic relation with the metal dress accessories they are adhered to. Furthermore they use information about the location of the dress accessories on the body. It is however important to keep in mind that we deal with funeral attires, and that the placement of garments and dress accessories do not necessarily reflect how the clothing was worn. Furthermore there is evidence from a number of burials that

Fig. 8.12. Early reconstruction of the garments of queen Arnegunde (Martin 1991).

fibulas were placed in cases and were not used as dress accessories for the burial garments.[415] After all data has been acquired and a picture emerges of the stratigraphy of fabrics that have clothed the body and the positions where dress accessories were present to fixate these garments, they refer to historical sources such as sculptures, illuminations and mosaics to determine the possible ways in which the garments may have been worn. For details such as these we need to look into historical documents concerning or mentioning early medieval garments and dress code. For the earliest phases after the Roman period we may also rely on some continuation of the dress as is seen on Roman sculptures and described by Roman historians. Written sources from the early Middle Ages include an enumerable amount of descriptions of clothes and their context in (everyday) life but

412. Martin 1991, 652-654.
413. Martin 1991, 639.
414. Desrosiers, S. & A. Rast-Eicher, 2012, 6-7; Périn et.al. 2012.

415. Bartel 2003.

these should be used in a critical way. Literary texts for example may mention pieces of clothing that are fictional or are described in such a way as to meet the needs of the author, story, audience etc.[416] Other types of texts, such as hagiographical genres, however include very useful descriptions of pieces of clothing: how, when and by whom they were worn, not only of the upper classes of society, but also of the lower. For the eighth century onwards several manuscripts are available – such as the Stuttgart Psalter – containing illuminations, which depict clothing from both the working classes and the nobility. From these manuscripts we gather information about the drape of clothes: for instance that they were not loose garments but rather tight fitting and fastened at the waist with a cord or belt. Together these historical texts provide us with the general picture of early medieval dress and it's social context. Ideally a study of the material remains of these garments involves the available historical sources. Good examples of this have been published by Walton Roger, who is critical of the different sources she uses, allows for differentiation between gender and age groups and often provides several alternatives to reconstruct the cloths in a single burial.[417]

In this study the textile remnants from the Dutch burials were subjected to a similar approach. The simple fact that textiles are only preserved in connection to metal objects means that only a meagre sample of the original abundance of cloth and clothing in a burial remains. Therefore it would be optimistic to assume that it is possible to fully reconstruct the use of fabric in graves or the shape and fit of the actual garments. Nonetheless, the dataset does allow conclusions based on the stratigraphic position of certain textile fragments on the body and in relation to the dress accessories. Using this information it has been attempted to reconstruct which types of fabrics were used on specific areas of the body and which types of textiles were worn over or under each other. This research provides us with information on the look and feel of the fabrics out of which the clothes were made. A full study of literary sources goes far beyond the scope of this project and since a lot of research has already been done regarding dress in historical sources, I will refrain from repeating this and will briefly summarize what has been published on this subject in section 8.4.1. In section 8.4.2 the evidence from graves from the Netherlands will be presented, which is followed by a discussion of both sources in section 8.4.3.

8.4.1 Reconstruction of early medieval dress based on previous research

8.4.1.1 Women's clothing

In the earliest centuries after the Roman period (fourth/fifth century) women in the areas around the Netherlands generally would have worn garments made out of a wide tubular or rectangular cloth, loosely wrapped around the body and fastened at the shoulders or the upper torso by two brooches. This type of garment had already been in use for centuries and is called a peplos-gown –derived from the Greek word πεπλος, denoting a similarly constructed garment worn by women in antiquity. Complete examples of this garment have been found in Iron Age Denmark in Huldremose (210-30 BC) and one unknown location (400-200 BC).[418] The peplos continued to be used in northern Europe in the Roman period as is testified by numerous Roman sculptures (among which the column of Marcus Aurelius) depicting Germanic women. The occurrence of pairs of fibulae on the shoulders in women's graves is common throughout northern Europe up until the fourth century and this is considered proof of the widespread and continued use of this type of garment in this period.[419] Roman sculptures provide us with more information on the shape and drape of this garment. The peplos was often secured around the waist by a belt and the fabric probably partly pouched over the belt. Hanging from the belt were all sorts of utensils, either hanging loosely from the belt or in a pouch suspended from the belt. Most sculptures show that the peplos was generally worn

416. See for a detailed description of this phenomenon Coon 1997.
417. Walton Rogers 2007. Other examples have been recently published by Owen-Crocker 2004, Rast-Eicher 2010, 2012.
418. Hald 1980, 54, 76, 358-360; see Mannering e.a. 2010, 263-266 for the most recent dates of these finds.
419. Owen-Crocker 2004, 42-54.

long (ankle-length) but it may also have been worn somewhat shorter (calve-length or even shorter), perhaps showing the lower part of the undergarment. The shoulders and arms would have been left bare and it is assumed that women wore an undergarment under the peplos to cover the arms and provide extra warmth. Not many details are known regarding undergarments because they were for the most part covered by the peplos and are only partially visible on sculptures. They seem to have had rather tight fitting sleeves and in some regions such as England and Scandinavia they were fastened at the wrists with one or more wrist clasps.[420] Finds from Anglo-Saxon England show us that the edges of both the peplos and the undergarment were often decorated or reinforced with tablet woven braids or the starting borders of the fabric were made in tablet weave.[421] This was not only decorative, but also functional, because these braids are much stronger than normal fabrics and would have reinforced the areas attached to the brooches significantly. There is not much known about what type of garment was used to cover the legs, or whether they were covered at all. A long peplos, combined with one (or more) long undergarment(s), would have been quite warm by itself but we cannot be certain if women wore socks, hose, leg bindings or trousers as well. Lastly, there is evidence for the use of cloaks over the peplos-gown. These could be fastened on the chest, at one shoulder or tucked into the belt. An example of the occurrence of these garments has been observed by Vons-Comis in the grave of the so-called Princess of Zweeloo. This grave from the middle of the fifth century was excavated in 1952 in the north of the Netherlands and quickly received the epithet of a princely grave due to the rich grave assembly. Since then many more graves have been uncovered and we now know that the grave goods in this woman's grave are not extraordinarily rich at all and that the grave is not likely a princely burial. Nevertheless great attention has been given to the attire of the buried woman.[422] The woman was dressed in a peplos-gown, made out of a linen fabric woven in diamond twill. This gown was fastened at the shoulders by two disc brooches. Over the gown she wore a woollen cloak or shawl fastened by another brooch (fig. 8.13).

Fig. 8.13 Reconstruction of the peplos-gown of the "princess of Zweeloo" (Vons-Comis 1988).

From the end of the fifth century regional differences start to become visible in the archaeological record. Walton Rogers concluded that most of Anglo-Saxon England continued wearing the peplos gown for at least a century.[423] The dress of Frankish women on the continent (and of women in the east of Kent) is dominated by a different fashion. Here the paired shoulder brooches cease to occur which leads to the conclusion that the peplos-gown disappeared and was replaced by a different set of clothing. The configuraton of dress accessories in this period is by many authors characterised as the so-called

420. Many examples of wrist clasps have been found in England and Scandinavia. Owen-Crocker 2004, 56-57.
421. Owen-Crocker 2004, 52, 56-57. No evidence for this has been documented in the Netherlands yet.
422. Van Es & Ypey, 1977; Vons-Comis 1988.
423. Walton Rogers 2007, 151.

Fig. 8.14 Reconstruction of the *Vierfibeltracht*. Drawing: C. van Hees.

Vierfibeltracht: the occurrence of four brooches in a more or less vertical line on the body. The upper two brooches were generally a pair of small round brooches, whereas the lower two were a set of larger bow brooches.[424] Brooch configuration alone however will not explain how women were actually dressed because several variations are possible using the same brooch-configuration and even using the same stratigraphy of textiles. Current day publications – such as Walton Rogers - give room for these different possibilities. Based on the textile finds associated with the brooches it is likely that the lower set of brooches was used to fasten a cloak and that the upper had the same function or were used to close the head aperture of the gown beneath the cloak (fig. 8.14).[425] This model has been taken as a reference in this thesis and it has been checked whether the textiles that were attached to the brooches in the Dutch graves fit this model or not. From the middle of the sixth century onwards the two brooches at the chest are slowly replaced by one larger brooch and at the end of the sixth century the two lower bow brooches have disappeared as well.[426] From pictorial sources it becomes evident that women wore a gown (or long tunic) with sleeves. This gown could be ankle-length or somewhat shorter, reaching to the calves. The gown was secured at the waist by a belt, from which women could hang one or more utensils. Archaeological finds show us that under the gown one usually wore an undergarment made out of linen.[427] Socks or hose that were held in place by garters often covered the legs of the women in France and Germany. In these countries many garter fittings from the sixth and seventh century have been found.[428] Over the gown women could wear a sleeved cloak or outer gown, or a sleeve-less mantle (as is shown on mosaics and illuminated manuscripts). This outer garment is generally assumed to be open at the front and fastened at the chest or hip with one or more brooches.

The latest reconstruction of the burial textiles of queen Arnegunde's grave paints a vivid picture of how (high ranking) women from this region could have been dressed at the end of the sixth century. Cloaks

424. See the various contributions by Viercke 1979; Martin 1991 & 1994; Strauβ 1992; Siegmund 1998.
425. See for example Walton Rogers 2007, 190, fig 5.44 for various reconstructions of the dress associated with the *Vierfibeltracht*.
426. Strauβ 1992, 79 and Siegmund 1998, 55-56 have summarized the chronology of the configuration of brooches in Frankish burials. Siegmund states that the pared brooches at the shoulders, associated with the peplos gown, are characteristic for the period 400-440. In the middle of the fifth century the Vierfibeltracht occurs for the first time but is still scarce. From the end of the fifth century to the middle of the sixth century the *Vierfibeltracht* is dominant with two small brooches at the chest and two large bow brooches at the waist. From 555-585 the two brooches at the chest are slowly reduced to one brooch. In this same period the two bow brooches that were previously positioned at the waist are now present lower on the body: on the upper leg. Also present in this is a dress type with only two small brooches at the chest. From the end of the sixth century the pair of bow brooches at the hip disappear and now we only see one large filigree disc brooch at the chest.
427. Undergarments are not visible on the images from this period but are mentioned in several contemporary literary sources and have frequently been found in the archaeological record.
428. Owen-Crocker 2004, 162.

or sleeve-less mantles have previously been subject of regional analysis in Switzerland and southern Germany. Rast-Eicher shows that in Switzerland these (in this region sleeve-less) garments were generally made out of fine and dense tabbies (15-28 threads/cm). They occur in wool, linen, silk and mixed fabrics of wool and linen. Moreover the cloaks were lined with narrow tablet woven selvedges. In Germany more variation is observed with diamond twills and plain twills as well. Here remains of sleeves have been documented, providing evidence for the use of sleeved cloaks.[429]

Women in Scandinavian countries had a different way of dressing themselves. In the late Iron Age women wore an ankle-length dress and often a cloak, which could be closed at the front.[430] In the Viking Age (800-1000) women's dress consisted of a tunic under a pinafore dress, fastened by two brooches.[431] Furthermore they could have worn a sleeved caftan, which was closed at the front by an oval brooch.[432]

8.4.1.2 Men's clothing

In the fifth and sixth century men probably wore short tunics with long sleeves or without sleeves. Several examples of these garments have been found in bogs in North Germany and these have been summarised and compared recently by Möller-Wiering. Tunics have been found in Thorsberger Moor (sleeves, third century), Obenaltendorf (sleeveless, 260-380AD), Marx-Etzel (sleeveless, 45-125AD), Reepsholt (sleeves, Roman Iron Age), Bernuthsfeld (sleeves, seventh century) and Liebenau and at Högom in Sweden (sleeved, 500 AD).[433] The most recent find of a nearly complete tunic is from 2011, when a sleeved tunic dated 230-390 AD melted out of the Lendbreen glacier in Norway (fig. 8.15).[434] Tunics would have been gathered at the waist by a belt. Underneath the tunic one may have worn one or more undergarment(s). Men generally also wore trousers, with or without sewn on socks and fastened at the waist by a belt. Two complete examples of such trousers were found in Thorsberg Moor (fig. 8.16) and other finds are known from the German sites of Damendorf (135—335AD), Dätzen, Marx-Etzel (knee-length) and Obenaltendorf.[435] The lower part of the legs may have been covered with hose and furthermore with leg-wrappings (as suggested by Möller-Wiering and Schlabow), to keep the hose or trousers in place. On the continent we also see leggings with garters: a rectangular piece of fabric that was fastened with straps and buckles just below the knee and around the ankle. Also common on the continent were cross-garters wrapped around stockings. Cloaks have been found in Thorsberg and various sites in Germany and Scandinavia[436] and are depicted often on Roman sculptures as well. These could be short or long reaching to the hip or knee and were made out a rectangular piece of fabric, fastened at one shoulder with a brooch.[437] In Scandinavia and England wrap-over coats have been identified on decorated bronze plaques and sheets of gold, while archaeological evidence for this kimono-style cloak was found in a grave in Cologne and in several graves in England.[438] Many of the archaeological finds of cloaks have been decorated with tablet woven borders. Cloaks could be made out of woven fabrics (smooth or coarse, shaggy fabrics) or fur.[439] Crowfoot has pointed out that the similarity

429. Rast-Eicher 2003, 113-114.
430. Mannering 2008, 62.
431. Geijer 1938.
432. Hägg 1983, 334.
433. Möller-Wiering 2011, 40-48, 109-111; For Germany see Schlabow 1976, 69-76, Farke 1998, For Sweden see Nockert 1991. C14-dates by Van der Plicht 2004 and Van der Sanden 1996, 192.
434. Vedeler, & Bender Jørgensen 2013.
435. Möller-Wiering 2011, 48-53, 113-114; Schlabow 1976, 76-80.
436. Möller-Wiering 2011, 54-57, 117-120, table 1.5; Schlabow 1976, 50-69.
437. Shorter cloaks became popular from the ninth century onwards
438. Mannering 2008, 64; Owen-Crocker 2004, 180-181.
439. Historical sources state that fur was a sign of wealth/ luxury (Owen Crocker 2004, 182)

Fig. 8.15 The tunic from Lendbreen, Norway front (left) and back (right). Photo: M. Vedeler.

between the garments from the third century and those depicted on much later illuminations and on the Bayeux tapestry suggests that men's clothes changed little during the early Middle Ages.[440]

8.4.1.3 Headwear for men and women

There is quite some evidence available for how people have covered their heads throughout history.[441] For the fifth and sixth century however only very few examples of headgear are known, and evidence from art is sparse as well. Remains of veils are recognized in several Anglo-Saxon graves and Byzantine mosaics at Ravenna (fifth to sixth centuries) depict women wearing veils and coifs.[442] One of the female heads on the scepter from the Sutton Hoo ship burial shows a woman with parted hair drawn away from the face, which suggests that the head wasn't necessarily covered.[443] The (probably male) figure on the Spong Hill pot lid wears a pillbox cap at the back of the head.[444] In the Netherlands one headdress was found that has been radiocarbon-dated to the period 568–651.[445] Owen-Crocker pointed out that archaeological and pictorial evidence from the seventh to ninth centuries is more abundant.[446] Historical sources give testimony of the fact that after Christianisation it was custom for women to cover their heads: in the seventh century the front locks of hair were still allowed to be visible but by the eight century women covered their hair completely with a headdress. The Netherlands has yielded six hats and headdresses from this period,[447] but there are hardly any contemporary finds of headwear available in Europe.[448] We may however assume that women generally wore veils, often in combination with a headband (called a choif or fillet) to keep it in place. Small scraps of these have often been found on the dress accessories in graves in France and England. There is ample variation in the appearance of the veil in these burials. Veils could be made out of different types of fibres (wool, silk, linen). Their fabrics can be

440. Crowfoot 1983, 415.
441. See for a summary of the history of relevant head coverings Brandenburgh 2012c, 36-45 (chapter 7).
442. Walton Rogers 2007, 162-63.
443. Owen-Crocker 2004, 78, fig. 57.
444. Walton Rogers 2007, 209, fig. 5.58; Owen-Crocker 2004, 20, fig. 3; also discussion at 79.
445. Brandenburgh 2012, 32-36.
446. Owen-Crocker 2004, 157-159.
447. Brandenburgh 2012c (chapter 7).
448. Owen-Crocker 2004, 159.

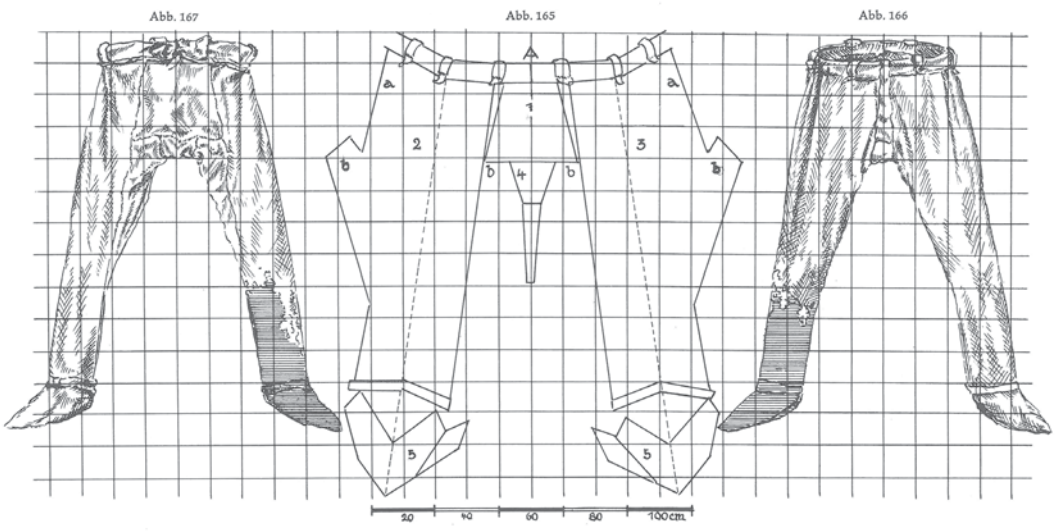


Fig. 8.16 The best preserved Thorsberg trousers F.S. 3684 (Schlabow 1976, fig. 165-167) .

fine, open and delicate or heavy and densely woven and they can be made in the natural colour of the raw fibre or dyed in bright colours, decorated with embroidery or strips or braids of gold, worn in pleats and folds, short or long, reaching to the shoulders, chest or even as far as the knees.[449] The enormous variation in appearance of the veil may be attributed to regional variety, personal choice and perhaps also the (marital) status of the wearer.[450] In the Netherlands remains of a very fine and open fabric woven in tabby have been found in the site Leens. This fabric has been described as *Schleiergewebe* and may have been used as a veil.[451] Comparable weaves have been found in England,[452] Germany[453] and Denmark.[454] Other types of headwear may have been common in this region as well, as is shown by the different shapes of the six nearly complete hats found in the north of the Netherlands.[455]

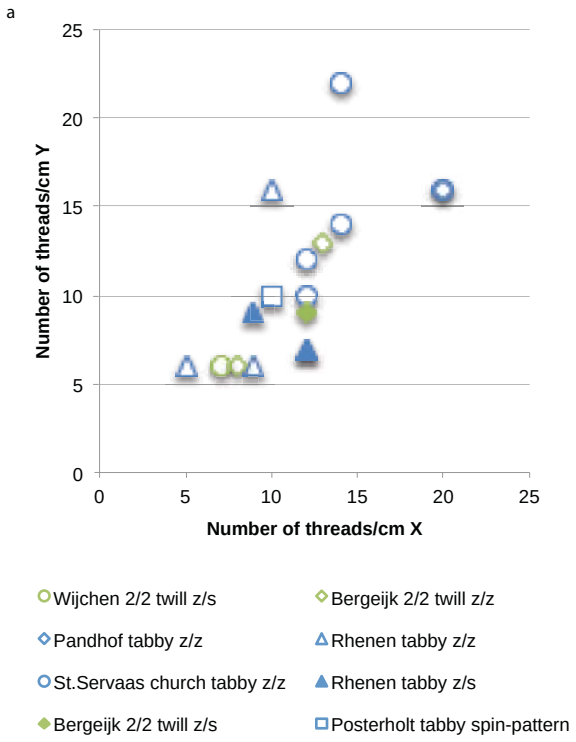
449. Magoula 2008, 99-100.
450. Magoula 2008, 136-137.
451. Brandenburgh 2010, 63.
452. Walton Rogers 2007, 68.
453. Settlement of Hessens; see Tidow 1995, 367; Haithabu see Hägg 1991, 164-165.
454. Mammen; see Hald 1980, 102–11 and fig. 97;.
455. Brandenburgh 2010, 66-70; Brandenburgh 2012.

8.4.2 Evidence of early medieval dress in the burials in the Netherlands

8.4.2.1 Textiles associated with the lower body (of both men and women)[456]

In Maastricht - Sint-Servaas church a set of garter buckles was found on which several types of fabric were present.[457] The textiles show that the legs were clad in roughly woven hose or leg windings, which were tightened by a strap or garter with small buckles.[458] Over the lower legs a long undergarment woven in tabby (z/z, 16x10 threads/cm) was worn, which was covered by another garment of approximately equal length woven in twill.[459] Another strap end, also belonging to leg or shoe wear, was found in the cemetery of Bergeijk.[460] This object had

456. Since gender or sex of the individual could often not be established the paragraphs below give a generalised overview of the textiles associated with specific parts of the body of both men and women. Where possible individual cases of men or women are mentioned.s
457. Findnumber 29-03-07, dated to the period 460/80-725 AD, sexe unknown.
458. A 2/2 twill z/s 10x10 threads/cm.
459. The twill has been removed during restoration, no details regarding the twill were documented.
460. Bergeijk woman's grave 77, find number 77.q4; 610/20-670/80.



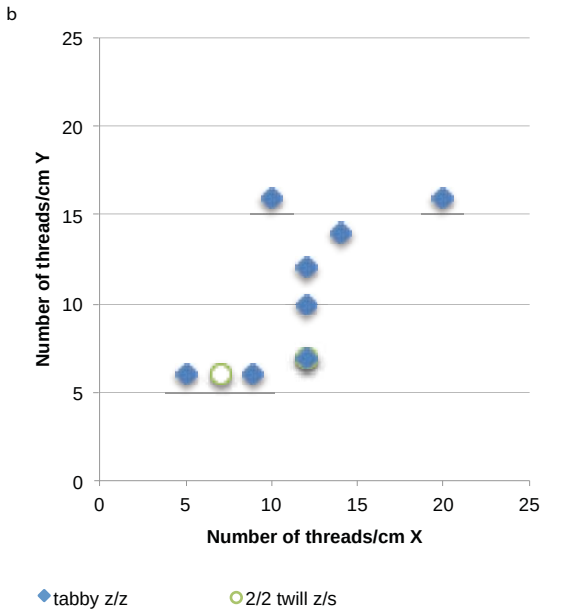


Fig. 8.17a. The quality of the different types of textiles associated with strap ends, measured in threads/cm. Fig. 8.17b. Quality of the fabrics found on the back of the strap ends, measured in threads/cm.

been covered by a coarse and rather open woollen 2/2 twill z/z (8x6 threads/cm), which may have been part of a long garment or a shroud covering the body.

Garments of the lower body are often also preserved on the strap ends of belts. When present on the back of a strap end or folded around the object we can assume that the fabric belonged to the garment worn under the belt. Textiles that are present on the front of strap ends may be the remains of outer garments but may also be a fold of an undergarment. Fig 8.17a shows the quality of the fabrics found in association with strap ends, while fig. 8.17b shows the quality of the fabrics that were evidently worn under the strap end (thus under the belt). From both graphs it becomes evident that in most cemeteries tabbies z/z were present under or on top of the strap end, ranging in quality from 5-15 threads/cm with a few exceptions of higher quality.

One object will be discussed in more detail here. On strap end 23-04-00 from Maastricht – Sint-Servaas church a stratigraphy of several organic layers was preserved. From this we can reconstruct that the strap end was lying between two different garments. The person buried in this grave was dressed in a garment made out of fine and open tabby (20x16threads/cm, z/z), which was worn directly on the body and held in place by a belt. Over this garment, he or she wore another garment made out of 2/2 twill. Both garments reached the thigh but may have been longer.[461]

8.4.2.2 Textiles associated with the belt

In Dutch graves textile remnants are often found attached to belt parts such as buckles, buckle plates and belt plates. As stated in the previous chapters (for example section 4.5.5.1) these textiles can be remains of

a. garments worn under the belt, such as a tunic or gown (when preserved on the back of a belt part, or folded over the front);
b. garments worn over the belt such as a cloak or an outer tunic (when preserved on the front of a belt part);

461. Brandenburgh 2015 (chapter 4, section 4.5.5.2).

c. remains of shrouds (when present on the front of the body), mattress covers or coffin lining (when present on the back of the body).

In Sint-Servaas church there is in general a distinct preference for tabbies and this is reflected in the garments worn under as well as over the belt. The qualities of these fabrics vary between 14x15 up to 24x22 threads/cm. Only occasionally a garment woven in twill is present on the front of back of the belt.

One example of Rippenköper was documented on the front side of a back plate. This back plate was originally positioned at the back of the body leading to the assumption that the person was lying on top of this fabric, which may have been a mattress cover or an outer garment or cloak. Rippenköper is a rather rare fabric in Dutch cemeteries. In men's graves in southern Germany and Switzerland it is far more common and here Banck Burgess has interpreted the fragments as remnants of wide cloaks.[462] Rast-Eicher however states that this fabric type is used in women's graves as garments, while in men's graves it is used to cover the body.[463] It is therefore more likely that this fabric was part of a garment than a mattress. Unfortunately the back plate is a stray find of which neither context nor sex of the individual is known.[464] Attached to the fabric was straw, which suggests that the body was lying directly in straw on the bottom of the coffin.

Unlike Sint-Servaas church, the cemetery of Pandhof shows an almost equal amount of tabbies and twills worn under and over the belt. These fabrics are generally dense, but several exceptions of more open fabrics have been documented as well. In two graves a stratigraphy of two fabrics was documented on belt parts. This has been observed in a sixth century grave (grave 10332) where the belt was covered by a fine 2/2 twill (20x10 threads/cm) over which lay another garment woven in an even finer diamond twill (28x15 threads/cm).[465] In grave 10042 a medium tabby was worn under the belt (10x10 threads/cm) and a rather thin, open tabby worn over the belt.[466] The function of this fine, open tabby is not clear. It may have been part of veil or an outer garment – although this fabric is rather different from the fabrics that have until now been recognised as outer garments.

In the Vrijthof cemetery only a small number of textile fragments has been found that can be associated with belt parts. These consisted of two garments made out of twills that were evidently worn under the belt. One grave (105) showed a stratigraphy of several fabrics.[467] An undergarment made out of a fine twill was worn under the belt and was covered by another garment, also made out of a fine fabric (weave unknown). On the front side of the buckle there was also a fragment of a fine, dense but also very thin tabby (20 threads/cm) present. This garment, which was worn over the belt, was of a similar high quality as the undergarments and may have been a thin cloak or a shawl or veil.

In the cemetery of Lent-Lentseveld four buckles and one belt plate with textile remains were found. In all cases the textile was adhered to the front of the object. The objects were found in graves of three men, one woman and a child. Without exception the textiles were densely woven 2/2 twills (one was a diamond twill). The fabrics were of medium fine quality with thread counts ranging between 10x10 and 17x17 threads/cm.

In the cemetery of Wijchen 22 buckle-parts with attached textile fragments have been documented. In eight cases the fragments were present on the front

462. Findnumber 01-04-03.TX1, an undated stray find. Banck-Burgess summarises the use and distribution of rippenköper in burials in Switzerland and southern Germany. She shows that in men's graves the fabric is often present on the outside of belt parts and (based on the many folds in the surviving textiles) concludes that these fabrics represent wide mantles (Banck-Burgess 2003).
463. Rast-Eicher 2010, 171.
464. Sint-Servaas-church; find number 01-04-03.TX1.
465. Findnumber 556.1, grave 10332, sex unknown, 565-580/90 AD. It is possible that the first textile was worn under the belt and partly folded over it.
466. Findnumber 60.1, grave 10042, sex unknown, 565-640/50 AD. The outer fabric was rather open, made out of 0.2mm thin threads,16x12 threads/cm. The sex of the person in this grave could not be identified.
467. Findnumber 1473, grave 105, sex unknown, 610/20-670/80 AD.

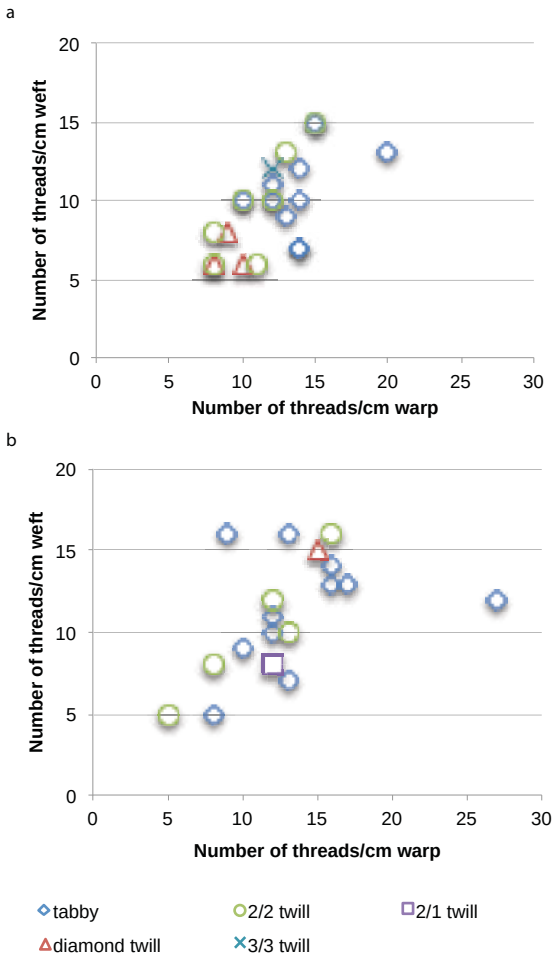


Fig.8.18a. Textiles present on the back of belt parts (worn under the belt) from the cemetery of Rhenen.
Fig.8.18b. Textiles present on the front of belt parts (worn over or under the belt) from the cemetery of Rhenen.

or edge of the buckle, the other 14 buckles were evidently worn over the textile. On the backside of three buckles a stratigraphy of two layers of textile was present which enables a reconstruction of the different garments under the belt.[468] In all these cases the fabrics worn directly on the body were dense and thin woollen tabbies or twills. Remarkable is the fact that one undergarment was made out of a spin-patterned tabby. These undergarments were each covered by another garment made out of a coarser and sometimes more openly woven fabric. The fabrics found on the front of the buckles were mostly twills and all were coarser than 10 threads/cm.

Textiles associated with belt parts were found in Bergeijk, Posterholt and Leusden as well. Here the fabrics were generally found on the front of the buckles and different fabric types and varying qualities were observed ranging from rather coarse twills (7x7 threads/cm) to a very fine tabby (25x22 threads/cm). Rhenen yielded many textiles associated with belt parts as well (fig. 8.18a-b). When comparing the textiles worn under and over the belt there are no distinct trends to be observed. The textiles found under the belt are a mixture of different fabric types and qualities. The fabrics found on the front of the belt parts show a slightly larger range of qualities.

Knives and other utensils, which were attached to or hanging from the belt, give us an additional view on the type of textile worn near the hip area. Textile remnants have been documented on finds from graves of men and women in nearly all cemeteries. The fabrics attached to these objects may be the remains of garments or a shroud, but it is also possible that the objects were encased in a pouch (hanging from the belt). The textiles associated with these objects are in general similar to those found on the back and front of belt parts.

Several examples will be briefly discussed here, starting with a foldable knife, found in Sint-Servaas church, which was covered on both sides with a medium fine tabby. This object may have been worn in a pouch hanging from the belt, in which case the remains of the pouch have been documented.[469] However it is also possible that the foldable knife was hanging from the belt on its own suspension cord and the remaining fabric is a fold of a garment worn under or over the belt.

A needle case found in this same cemetery was completely wrapped in a regularly woven tabby, of 16x12 threads/cm. Covering the first textile

468. Woman's grave 81 (570-610 AD); grave 180 (sex unknown, 610- >640) and woman's grave 235 ((450)500-555).

469. Findnumber 30-03-06.2, sex unknown, dated in the period 580/90-725 AD.

was another, finer and more open tabby which was wrapped around the entire object as well. Different interpretations are possible here: the first fabric may have been part of a pouch and the second (outer) fabric would then belong to the folds of a garment worn under or over the belt. It is however also possible that the needle case was firstly wrapped in a piece of cloth and afterwards put into a pouch, in which case the second fabric is not a garment but part of the pouch.

The fire steel found in child's grave 14 from the cemetery of Lent-Lentseveld was recovered in association with a small buckle, and both objects were covered by a coarse tabby (z/s of 10x10 threads/cm). It is likely that the small buckle was part of a pouch hanging from the belt and that the fire steel was in this pouch. Since the same fabric covered both fire steel and buckle it is possible that the pouch was made of this coarse tabby.

8.4.2.3 Textiles associated with brooches

Textile remnants have also been found attached to the back (or spring) of brooches. Since brooches are generally considered gender-related dress accessories that fit the picture of female dress, these graves have often been identified as women's graves, although in many cases no human remains were present to confirm this.[470] Brooches are generally found in the area of the chest or just below the pelvis. As described above, it is assumed that brooches in the area of the hip were used to fasten or close an open outer garment or cloak (see fig. 8.14). Brooches worn on the chest may have had the same function or may have been used to close the head aperture of a garment or fasten a veil or shawl onto another garment. Using several examples from the cemeteries it is argued that it is difficult to reconstruct women's dress in such detail.

In Lent-Lentseveld textiles associated with brooches have been found in six woman's graves.[471] From this we can gather that the brooches in the area of the hip were used to fasten a different garment than those found in the area of the upper chest. The bow brooches in the area of the pelvis are without exception associated with fabrics made out of thin (0.2mm) threads indicating a fine garment. Due to the fact that only single threads have been preserved we can only guess whether these fabrics were densely woven or open. The disc brooches found in the area of the upper chest were associated with thicker threads (up to 0.75mm), indicating that it was attached to a coarser fabric. The S-shaped brooch from woman's grave 2 is an exception to this trend. This brooch was attached to a fabric made out of 0.2mm thin threads. If used as described in the model of the *Vierfibeltracht* the gown or undergarment to which the disc brooches were attached was generally made out of a coarser fabric while the outer garment worn over the gown was made out of a much finer fabric. Noteworthy here is the fact that this fabric was made out of thinner threads than the fabrics found on the front of the belt parts (that were all made out of thicker threads). This situation is not easily explained. Were there two garments present, covering the belt? Or was the garment that was made out of the coarser fabric not worn over the belt but under it, pouching over it and thus explaining the presence on the front of the buckles? As will be further elaborated below, both options are possible and we need to keep in mind that there was probably room for variation in how garments were worn over each other and secured by brooches and belts.

Also in Wijchen several brooches with textile remains were found in sixth and seventh century women's graves. Two graves contained only a single disc brooch in the centre of the chest. These were attached to (several layers of) a rather coarse woollen tabby or twill. Because of the folds the thread count

470. The identification of 'women's graves' in the following footnotes has only in the case of Lent-Lentseveld been based on human remains. In all other cases we are dealing with a 'female' gender-related configuration of grave goods and dress accessories. In a small amount of burials the type and configuration of grave goods did not fit this pattern resulting in the definition 'sex unknown'.

471. For a detailed description of the textiles associated with the brooches from Lent-Lentseveld and Wijchen see chapter 5 (section 5.5.3.3).

could not be ascertained (10x? threads/cm). One grave contained a single bow brooch, which was found in the area of the hip, with two types of fabric attached. The brooch was attached to several folds of a dense woollen tabby (14x16 threads/cm). This garment was worn over another garment made out of a more open woollen tabby (13x10 threads/cm). In woman's grave 235 a pair of bow brooches was found more or less above each other in the area of the hip. The lower brooch was fastened to a garment made out of tabby (14x12 threads/cm, 0.3-0.5mm thick threads), which was worn over a garment made out of a coarser tabby (6x8 threads/cm, ca. 1mm thick threads). Noteworthy again is the difference in textile quality between the brooches found in the area of the pelvis (attached to dense and fine fabrics) and those found on the chest that were attached to rather coarse fabrics. This situation is similar to what we've seen in Lent-Lentseveld. Again we may ask ourselves whether we are merely looking at a reflection of the variation of fabrics present within the cemetery or whether the brooches were attached to different types of garments. Was the single brooch at the chest used to close the head aperture of a gown? This would fit the pattern seen in Lent-Lentseveld nicely because there the gown was made out of a coarser fabric as well. Using this model the bow brooches at the hip would then again have been used to close an open garment, which was worn over the gown and was made out of a finer fabric than the gown. However, considering the many folds of fabric observed in the single round brooches on the chest another option would seem more likely. The disc brooch at the chest may have been used to close or fasten an open garment, cloak or shawl.

Several of the brooches found in Maastricht-Pandhof and Maastricht-Vrijthof contained textile remnants. In the Maastricht-Pandhof cemetery three brooches from the sixth century were found with textile remains attached to the back of the objects.[472] The use of these brooches however may differ since they were found on different places on the body.[473] However, contrary to what we've seen in Wijchen and Lent-Lentseveld, these fabrics were made out of very thin threads (0.2 mm), of similar quality and rather open. It seems unlikely that these fabrics were part of outer garments, gowns or tunics because remains of these have been documented on belt parts and these were without exception made out of coarser and denser fabrics. This raises the question what the function of the fabrics on the brooches was. Can they be considered as veils of varying length that were attached to the outer garment by a brooch? The open character and thin threads of these fabrics would certainly fit this function, although they are not as fine and delicate as the so-called *Schleiergewebe* from the seventh-nineth century found in the terpen area in the north of the country.[474] Another explanation for the occurrence of this delicate fabric is possible as well. Inga Hägg suggested that the *Schleiergewebe* found in graves in Haithabu could have belonged to special death-shirts in which the dead were dressed up upon burial, or to shrouds, which covered the dead and the objects in the graves.[475] Since in the Dutch graves the Schleiergewebe was found under the brooches, it is unlikely that they belonged to shrouds here. However, it is possible that the buried women wore some sort of fine death-shirt, which was held in place by one or more brooches. In the cemetery of Maastricht-Vrijthof another fine and - unlike the Maastricht-Pandhof examples - densely woven tabby was found on the back of a brooch.[476] This brooch was found in a women's grave on the left shoulder, which is an unusual place for a brooch in this period. Again, the function of the fabric is not clear: it may have been a cloak or a veil, fastened onto another garment.

472. Findnumber 466.7 from grave 11342 (woman, 510/25-610/20 AD); findnumber 375 from grave 11220 (woman, 510/20-580/90 AD) and findnumber 418 from grave 11321 (indet sexe, 510/20-580/90 AD).

473. The brooch from grave 11220 is one of a pair of bow-brooches, found in the area of the hip. The brooch from grave 11321 is one of a pair of small round brooches worn on the chest. Brooch 466 is a single brooch in grave 11342 whose location in the grave is not clear.

474. Schleiergewebe is found in the terp-settlement of Leens, dating in the period 600-900 AD. These are woven with equally thin threads but even fewer threads/cm (Brandenburgh 2010a, 63).

475. Hägg 1991, 272.

476. Findnumber 1419-1 from grave 85;, woman 510/20-640/50. This fabric is woven out of 0.2mm thick threads with 25x13 threads/cm.

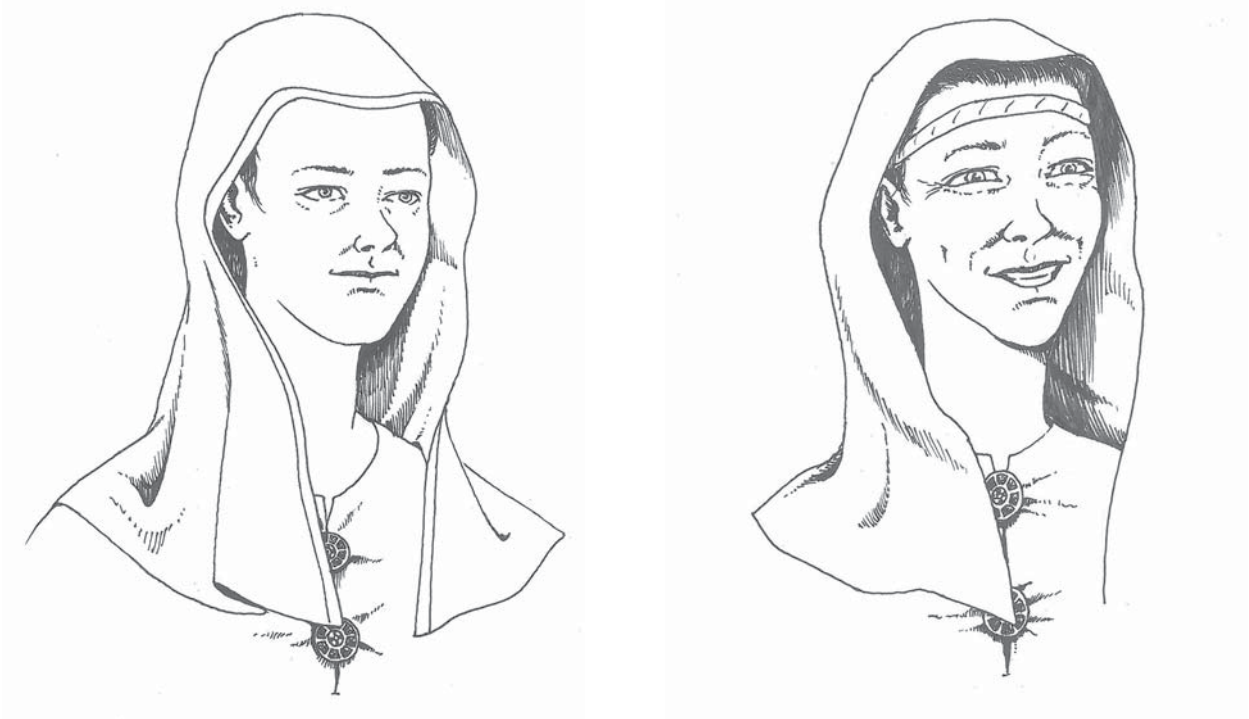


Fig. 8.19 Reconstructions of veils decorated with a golden band (left) or in combination with a gold-braided *vitta* (right). Drawings: C. van Hees.

8.4.2.4 Textiles associated with women's headwear

Several graves have yielded textiles that are associated with headwear. The most striking example is a sixth century woman's grave from Maastricht where a fragment of gold thread was found in the area of the skull. It is assumed that the gold thread was part of a golden *vitta* or a decorative band on a veil (fig. 8.19).[477]

Other textiles *may* have been used as shawls or veils but this assumption is merely based on the thin and open character of the fabrics (see the above discussion of the fabrics associated with brooches). In Wijchen woman's grave 65 (570-610) yielded one disc brooch on the centre of the chest area, with textile remains on the back and front. The brooch was attached to three layers (or folds) of a woollen tabby. On the front side of the brooch was a fragile and open tabby made out of thin threads (0.2mm). This fabric may also be considered to be a fragment of a veil or shawl.

8.4.3 Conclusions regarding dress in the Merovingian graves

Having summarised the current reconstruction methods and ideas regarding dress in the early medieval period and having assessed the textile finds associated with different dress accessories it is tempting to try to reconstruct the way people were dressed in early medieval cemeteries in the Netherlands. A possible reconstruction is however hampered because the most obvious conclusion the data allows is that there is room for variability (see also discussion) between the sites and any attempt to generalize this information will lead to a sketchy image that would not resemble the way people saw themselves in early medieval times. Although the data are obviously bound to the limitations mentioned in

477. Findnumber 418-6 in grave 11321, sex unknown, 510/20-580/90, documented in Magoula 2008, appendix 1, 12.

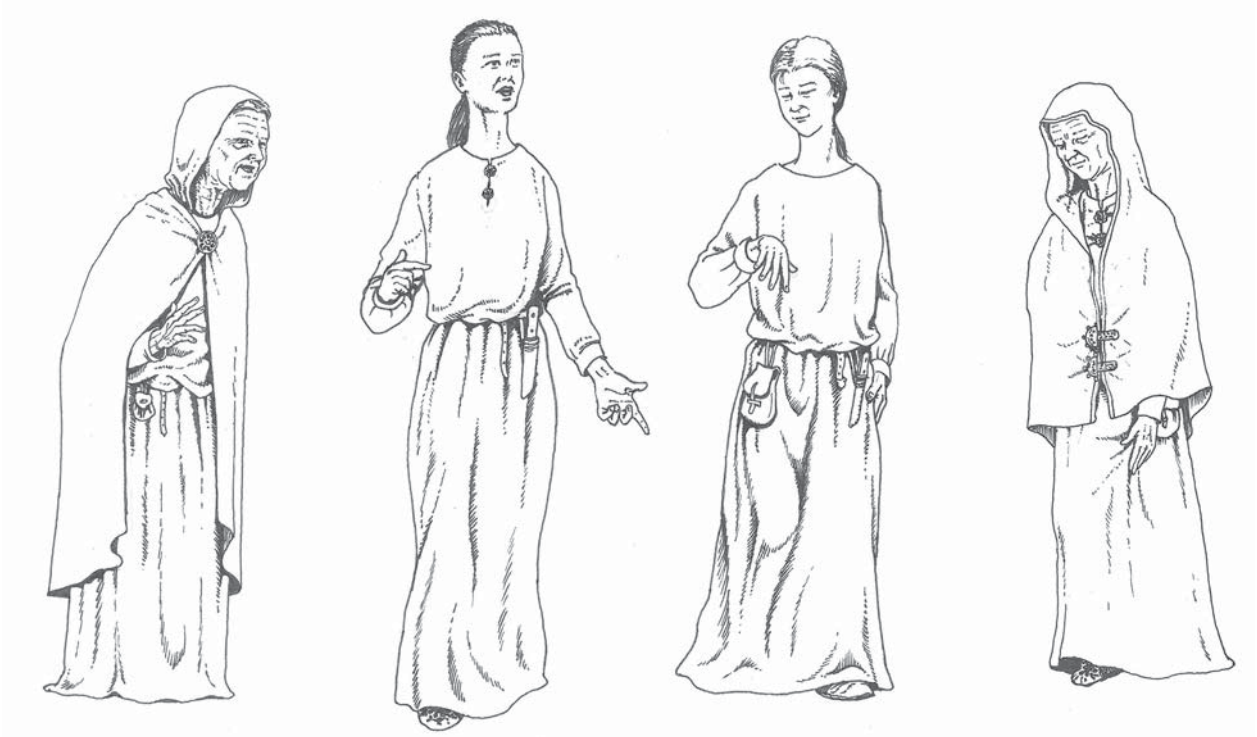


Fig. 8.20 Women's dress with or without neck aperture (middle) alternative reconstruction of women's dress with four brooches (right); reconstruction of women's dress with single brooch at the chest (left). Drawings: C. van Hees.

section 1.4.3, the following paragraph will summarize the general trends observed in the Dutch cemeteries. The focus will be particularly on the distinction between male and female cloths and clothing. Due to the limited data on chronology, differences occurring over time will not be incorporated in the discussion.
It may be stated that in general men as well as women wore an undergarment covered with another garment such as a tunic or dress. These garments could be long, covering the legs, or shorter, reaching to the knee or higher. The undergarment was generally a thin and fine woollen fabric and was either densely woven or slightly open. The garment worn above was often coarser, made out of thicker threads and generally of a more open fabric. It is possible that women used one or more disc brooches to close the head aperture of this outer garment (fig. 8.20), but these brooches may also have been used for another purpose. The outer garment was held in place by a belt. Utensils and knives were hanging from the belt or – according to several objects from Maastricht and Wijchen – may have been stored in a belt pouch made out of coarse fabric. The results further demonstrate that the legs were either covered in roughly woven hoses or leg windings, which were tightened by a strap or garter with small buckles.

Over the belt both men and women wore another garment or cloak. It is assumed that the brooches found in women's graves in the area of the hip were used to close this outer garment (see fig. 8.14). However, as has been described above, the fabrics associated with these brooches were often made out of thinner threads than the fabrics found on the front of the buckles and this poses some problems in our interpretation of these garments. There may be several explanations for this: 1. the belt is covered by two garments, 2. the 'coarser' fabrics present on the front of the belt parts were in fact worn under but pouched over the belt, or 3. the observed differences are the result of the variation within the sites. If the first option is true, then we are looking

at a densely woven outer garment or cloak that covered the belt. The fine fabric attached to the bow brooches in women's graves may have belonged to another garment, long shawl or veil that was closed or fastened by the brooches in the area of the hip (fig. 8.20 right). The second option is plausible as well. It is evident that the thickness of the threads associated with the round brooches on the chest resembles that of the garment found on the belts, so it is possible that this garment was worn under the belt, pouched over it and closed at the chest with these small round brooches. This garment was then covered by an open outer garment or cloak, which was made out of a finer fabric and fastened at the hip by the bow brooches. Other variations are possible as well. Some graves contain only single round brooches at the chest, which could have been used to fasten a cloak or shawl that covered the shoulders (fig. 8.20 left). Evidence for decorated tablet woven borders along the edges of the outer garments is very sparse.[478] Indications for veils or shawls made out of thin and open tabbies (0.2mm thick threads) are present on the front of several brooches. Veils or head coverings were in rare occasions decorated with gold-brocaded bands (fig. 8.19). These gold-brocaded bands were also used as *vittae* but are very rare in the Netherlands.

8.5 COVERING OBJECTS IN THE GRAVES

There is ample evidence from the Iron Age onwards that grave objects such as weapons were wrapped in or covered by pieces of textile. An often-quoted example of the way textiles were used to cover the body and objects in graves is the princely burial of Hochdorf (540-520 BC). In her publication of these textiles Banck-Burgess gives an overview of the burials from the Late Hallstatt and early La-Tène-period that provided evidence for the use of shrouds and the custom of covering objects in the grave. This even included the covering of entire wagons and bronze cauldrons.[479] In her description of a sword scabbard that was lined with cloth[480] one can however read a warning that not every piece of textile 'wrapped' around a sword or knife has a ceremonial nature. There is similar evidence for a textile-lined knife sheath in the Dutch cemetery of Wijchen[481] and consequently some of the textiles found on these objects may simply be the remains of such linings. From a somewhat different find context are the third to fourth century AD weapon deposits found in bogs in northern Germany and Denmark. Here weapons were ceremonially interred (or sacrificed) after battle and textile evidence shows us that the objects were wrapped individually in rather fine fabrics.[482] The custom of covering grave objects continued in the early Middle Ages. The rich Sutton Hoo ship burial for example shows us how different weapons were separately wrapped in pieces of textile.[483] Furthermore, evidence from south-German burials from this period shows how the dead received objects in their graves that were sometimes either wrapped in textiles or encased in specially made covers composed of leather or cloth.[484] It is not clear whether these wrapped objects were visible at all during the burial ritual, but Banck-Burgess and Wells have argued that the act of wrapping weapons and other objects may very well have been a ceremonial act conducted during the burial process.[485] By doing so these objects were removed from the sight of the mourners at a certain stage of the funeral. This ensured that the objects and the funeral had a long-lasting impression on the spectators.[486] Williams goes even further by stating that the real importance of these objects in the graves is not so much the fact that they are there and visible, but from the fact that they are viewed for only a short time before being taken out of sight.[487]

478. Only the cemetery of Rhenen yielded two pieces of tablet woven band. One of these was attached to a leather strap while the other was attached to chain links that were probably hanging from the belt. The tablet woven border may represent a reinforced hem of a cloak.

479. Banck-Burgess 1999, 18-23.
480. Banck-Burgess 1999, 24-25.
481. Wijchen findnumber 13.017, a fine woollen diamond twill z/z (12-14x10-12 threads/cm).
482. Möller-Wiering 2011, 127-128.
483. Crowfoot 1983, 411; Evans 1994, 39.
484. Bartel 2003.
485. Banck-Burgess 2012, 142; Wells 2008, 92.
486. Wells 2008, 92 & 97.
487. Williams 2005, 209.

Site	Tabby z/s or other	Tabby z/z	2/2 twill z/s	2/2 twill z/z	2/2 twill spinpattern	Diamond twill	2/1 twill z/s	2/1 twill z/z	3/1 twil z/z	indet
Bergeijk	-	-	1	-	-	-	-	-	-	1
Lent	1	-	1	-	-	-	1	-	-	1
Leusden	-	-	1	-	-	-	-	-	-	-
Maastricht	-	2	-	-	-	-	-	-	-	3
Posterholt	-	-	1	-	-	-	-	-	-	-
Rhenen	10	7	10	15	2	1	1	1	2	2
Wijchen	-	1	2	2	-	1	-	-	-	1
Total	11	10	16	17	2	2	2	1	2	8

Table 8.1 Textiles types associated with weapons.

In the cemetery of Dunum (north Germany) Siegmüller found evidence for the use of shrouds in burials from the period around 800 AD. These shrouds have been used to cover the fully clothed bodies of the deceased and the other objects placed in the graves. She poses the possibility that the occurrence of shrouds in these furnished graves is part of the process of Christianisation.[488] The question however is whether a similar explanation may apply for the textile remains found in the burials from the Merovingian period. Since the tradition of covering objects (and probably also the body) during the burial ritual goes back to al least the Iron Age, as has been pointed out by Möller-Wiering and Banck-Burgess,[489] this is not naturally a sign or result of Christianisation.

In the Dutch cemeteries 70 textiles were documented attached to weapons and (in one grave from Rhenen) a bucket. Weapons were either positioned on the body or placed separately in the grave. Textile remnants attached to these objects may therefore be the remains of outer garments, coffin linings, shrouds or wrappings. The bucket was obviously placed beside the body and fabric adhered to the outside of this object will not have been part of a garment. Most of the textile fragments were found on one side of the object, only seven cases showed the same textile on both sides indicating that these objects were either wrapped in or lying in the folds of a piece of fabric. Table 8.1 shows the types of fabrics associated with weapons whereas figures 8.21a-c show the quality of these textiles in terms of thread count. In most graves the fabrics associated with weapons were tabbies or twills, following the same distribution as the other textiles in these cemeteries. Among these textiles there is no preference regarding the spin of the yarns: z/z & z/s are present in equal amounts and even spin-patterned textiles are present.

When looking at the quality of the fabrics several topics are noteworthy. The quality of the textiles associated with weapons from the cemeteries of Bergeijk, Lent-Lentseveld, Maastricht, Posterholt and Wijchen is generally coarse (10 threads/cm or less, fig. 8.21b). The textiles found in Rhenen are on average finer and range up to 15 threads/cm (fig. 8.21c). A few exceptions of very fine fabrics are observed in the cemeteries of Maastricht and Rhenen. When looking at the seven textiles that were obviously wrapped around the objects (fig. 8.21a) we can see that most of these textiles have thread counts of approximately 10 threads/cm and again a few were wrapped in very fine textiles. From this we can gather that most textiles used to cover or wrap objects were coarse fabrics but that fine fabrics were occasionally used for this purpose as well.

488. Siegmüller 2011, 244.
489. Möller-Wiering 2011; Banck-Burgess 2012.

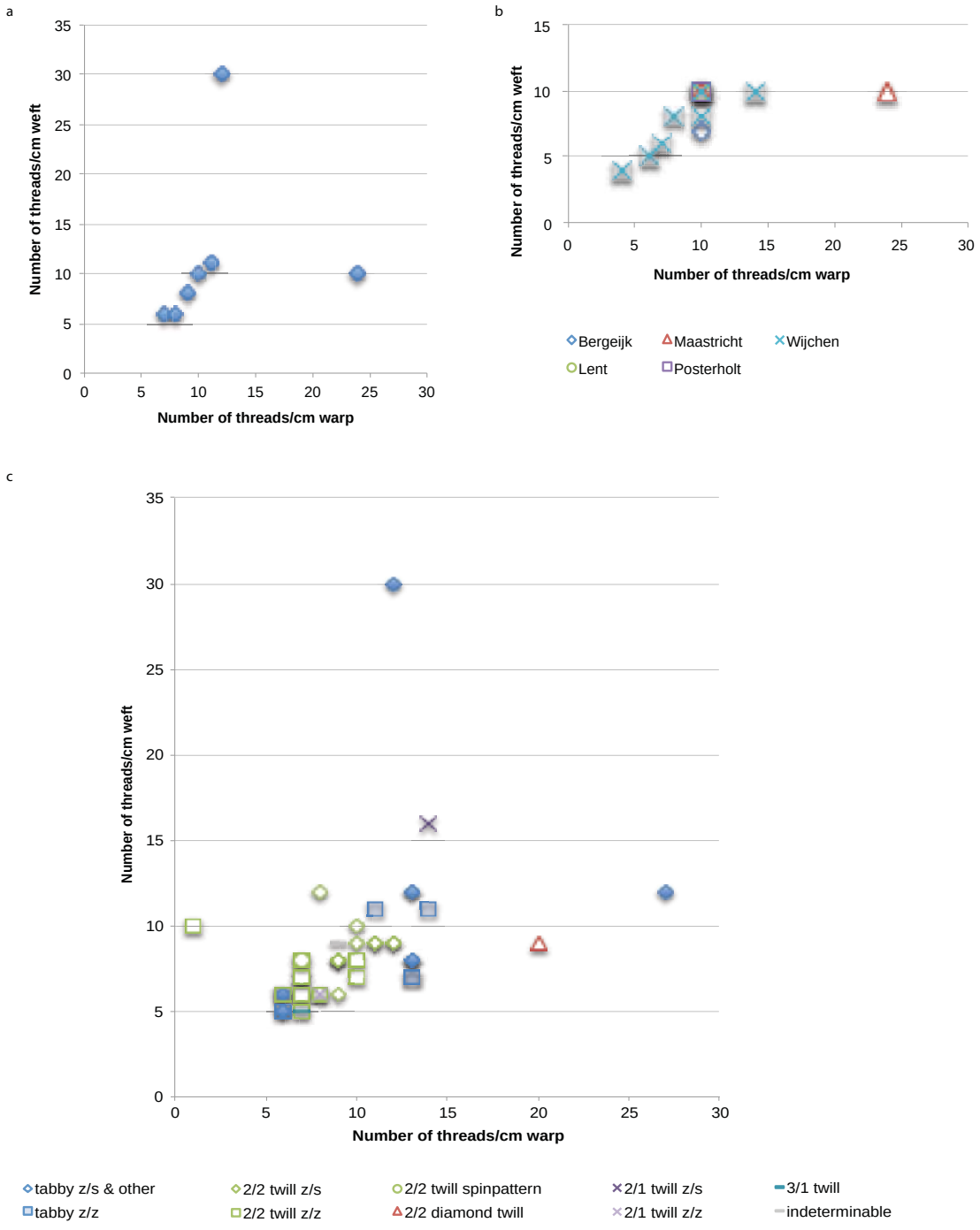


Fig. 8.21a. The quality of the seven textiles that were evidently wrapped around objects, measured in threads/cm.
Fig. 8.21b. The quality of the fabrics associated with weapons found in Bergeijk, Lent-Lentseveld, Maastricht, Posterholt and Wijchen, measured in threads/cm. Since the variation of quality is small, no discrimination has been made regarding fabric type.
Fig. 8.21c. The quality of the different fabric types associated with weapons from the cemetery of Rhenen, measured in threads/cm.

8.6 MATTRESSES, PILLOWS AND OTHER MATERIALS ON THE BOTTOM OF THE GRAVE

The occurrence of feathers (and to a lesser degree) straw provides us with information about the presence of mattresses or pillows in the graves. There are remarkable differences regarding the occurrence of feathers in grave assemblages in the countries surrounding the Netherlands. Siegmüller has pointed out that several graves in Scandinavia have held mattresses or pillows filled with feathers, such as the Oseberg ship burial,[490] Mammen[491] and Birka.[492] In Haithabu evidence has been found for feather-filled pillows made out of textile or leather in several graves and many graves contained feathers at the bottom.[493] In the south of Germany however no evidence for pillows or mattresses has been found but, but instead it was found in both graves with and without rich objects, that a layer of feathers covered the body.[494] In England two examples of feather-filled mattresses have been found.[495] These mattresses were made out of coarse fabrics made out of plant fibres. Several pillows filled with feathers were found in graves as well.

In Dutch cemeteries no remains of feathers have been documented yet. In several cases however pieces of straw were observed on textile fragments.[496] These were found in two graves in Bergeijk, a grave in Posterholt and two disturbed contexts in Maastricht - Sint-Servaas church.[497] The textiles vary in fabric type and quality, which is understandable since the function of these textiles is probably not the same everywhere. Straw may have been used as filling for mattresses or may have covered the bottom of the coffin or grave chamber. In most cases however it is not possible to discern whether the textiles to which the straw is attached are part of garments, mattresses or blankets lying on the bottom of the grave. An exception is the case of grave 58 from Posterholt. The belt in this men's grave was probably not worn on the body but originally placed beside the deceased. The remnants of a coarse fabric (tabby z/?; 7x5 threads/cm) were attached to the belt plate, and on top of that were some remains of straw.[498] This suggests that the belt was wrapped in a piece of tabby and deposited in a layer of straw at the bottom of the grave. It is also possible that the grave was covered with a straw-filled mattress or a layer of straw and a sheet or blanket woven in tabby. The occurrence of straw on the front of buckles poses some interpretative problems. Was the body covered with straw? Or were the belts not positioned on the body but lying beside the body in a layer of straw? Due to the poor documentation of several sites we will probably never find out, but all these finds indicate that in some cases straw was present in the graves: either in the form of mattresses or covering the bottom of the coffin. A reanalysis of all the grave objects regarding the presence of straw and feathers (also on objects where no textiles are present) will however improve our knowledge on this subject.

The textiles from the Dutch settlements provide us with some information on the use of pillows or mattresses as well. In the site of Leens two textile fragments have been found in association with feathers.[499] These textiles were probably used for mattresses or cushions. They were made in a plain 2/2 twill with 5-7 threads/cm. One fragment was woven with z-spun threads in both warp and weft, the other in spin pattern.[500]

490. Ingstad 2006, 208.
491. Østergård 1991; Hald 1980, 102.
492. Geijer 1938, 133.
493. Hägg 1991, 191-195, 271.
494. Siegmüller 2011, 247.
495. Walton Rogers 2007, 225-226.
496. The presence of straw (and feathers) on objects has only been documented where textiles were present. The author did not methodically analyse all cemetery finds in order to document straw. The results presented here are therefore to be considered anecdotal.
497. Bergeijk grave 24 findnumber 24.q3 & 24.gg1; Bergeijk grave 89 find number 89.k2; Posterholt grave 58, find number 58-III-7, 58-III-9 & 58-III-16; Maastricht – Sint-Servaas church disturbed features find numbers 01-04-03 & 23-04-00.
498. Brandenburgh 2013, 136.
499. Leens 1939-IV.37/2 & 1939-IV.27/9.
500. Brandenburgh 2010a, 72.

8.7 GENDER AND AGE DIFFERENTIATION IN BURIAL TEXTILES[501]

In most sites textiles have been assigned to gender groups using the gender-associated objects in the graves as a reference point, because skeletal remains have survived sparsely. Only in the cemeteries of Lent-Lentseveld and Maastricht skeletal remains have survived enabling a positive identification of men and women in the graves. The textiles from Leusden have not been assigned to gender because this information was not available yet.

There are differences between the cemeteries regarding the fabric types used by men and women. This has been observed in other regions as well. Hägg has previously called attention to the fact that in Scandinavian and German cemeteries in the North Sea region women's graves tend to contain equal amounts of plain twills and diamond twills, whereas diamond twills are practically absent in men's graves.[502] The distribution of gender related textiles in Dutch cemeteries does however not follow the same pattern described by Hägg. In Rhenen for example the roles have been reversed. Here women preferably were buried in tabbies, with only very small amounts of twills. The men in Rhenen show more variability in textiles with a preference for twills but also a large share of tabbies (fig. 8.22). A similar distribution pattern is visible in the cemetery of Wijchen. Here women are buried mostly in tabbies, and men in twills with small amounts of tabbies (fig. 5.11). Maastricht-Vrijthof may have a similar preference, but since textiles have been recovered solely in women's graves we can merely say that women in this cemetery were generally buried in tabbies as well.

In other cemeteries we see a different picture. In Maastricht-Sint-Servaas church tabby is the predominant fabric type in graves of both men and women. In Lent-Lentseveld the tabby is completely lacking in women's graves and it only occurs in graves of men and children. Women in Lent-Lentseveld seem to have been buried solely in twills (fig. 5.10).

Only in Bergeijk and Maastricht-Pandhof do the women's graves show more variability in textiles than the graves of men: here men were buried in twills and women in equal amounts of tabbies and twills.

When we compare the quality of the textiles from graves of men and women another interesting pattern emerges. In several cemeteries women's graves have yielded considerably finer textiles than men's graves. Again, this becomes most obvious when we look at the textiles from Rhenen (fig. 8.23a-b). Here many of the textiles from women's graves are coarser than 15 threads/cm but an almost equal amount is finer as well. The textiles from men's graves on the other hand are seldom finer than 15 threads/cm. We can therefore safely conclude that the textiles applied in women's burials in Rhenen were of a different quality than those in men's graves. This situation is however not unique: in Birka for instance women's graves showed more variability in textile quality than men's graves as well.[503] The textiles in women's graves from Lent-Lentseveld are also finer than those in graves of men and children (fig. 5.12). This trend is – although less pronounced – also visible in the cemetery of Wijchen (fig. 5.13). In Posterholt the textiles from women's graves are only slightly finer than those from men's graves. In the cemeteries from Maastricht and Bergeijk there seems to be no difference in textile quality between men and women.

501. This paragraph is based on the different sections discussed in several articles: Brandenburgh 2012a, 131-134; Brandenburgh in press; Brandenburgh 2013, 135-136; Brandenburgh 2015. See also the different case-studies in this volume. Differentiation within cemeteries based on quality could not be discerned within this dataset. Because of the fact that only a small percentage of the textiles has survived and most graves contained only one or two fragments of textiles it proved futile to attempt to search for high status burials within the cemetery by looking for graves that stand out by the high quality of their textiles. In the cemetery of Wijchen such an attempt has been made and here one can only conclude that graves with rich grave goods do not always have rich textiles, and vice versa: there are many graves with rich textiles that do not have rich grave goods (Brandenburgh 2010b, 127).

502. Hägg 1993, 86-89.

503. Hägg 1993, 86-89.

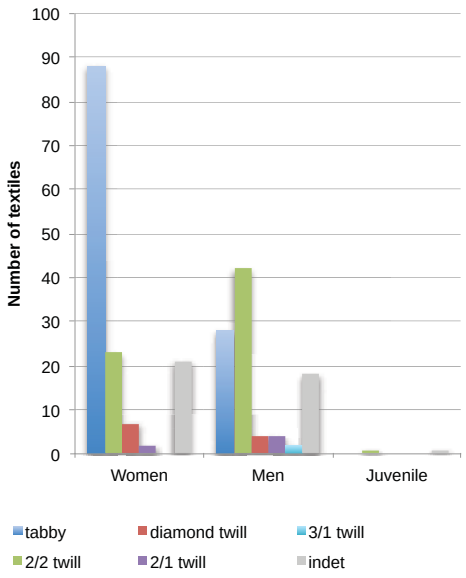


Fig. 8.22 Distribution of the fabric types among graves of women, men and children in Rhenen.

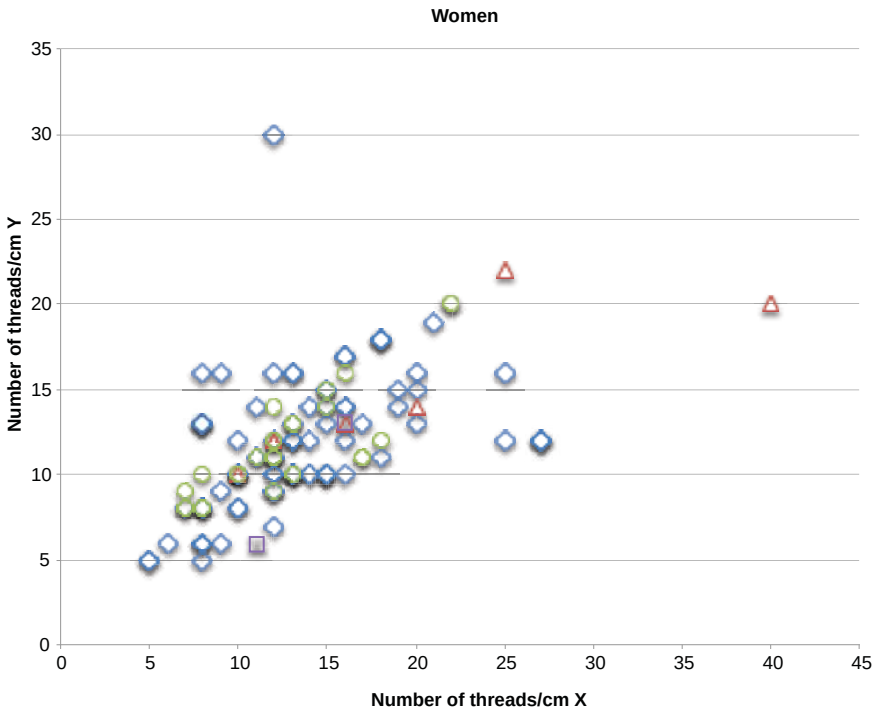
But how to explain these differences? Certainly the observed variability in textile quality is not caused by the occurrence of specific fabrics, since the fabric types are evenly distributed over the textile qualities in graves of both men and women. Is it the result of differences in chronology? That is hard to say for the chronology of the graves is not very detailed yet. Were women's garments in certain regions made out of finer fabrics than men's clothes? Or do we merely see regional differences in dress in the burials? This is a possibility we can explore because the cemeteries where we observe differences in textile quality (Rhenen, Lent-Lentseveld and Wijchen) are all situated in the middle of the Netherlands. The further we go south, the differentiation in textile quality between men and women disappears. We can also partly explain this phenomenon by the fact that men's graves contain weapons and these objects were wrapped in or covered by coarser fabrics. This does however not explain the preferences for certain fabric types among men and women.

Again we could be merely looking at different regional preferences regarding the use of specific fabric types for specific gender-related garments, but then there is much more local variability than previously assumed. Another line of approach is to look for explanations in the social, symbolic or ideological meaning of the textiles. Is the preference for tabbies in Maastricht – Sint-Servaas church a first sign of Christianisation reflected in the burial rite? That seems plausible considering the early Christian predecessor of this church. The use of tabbies as death-clothes in combination with the dress accessories of every-day life in graves of both men and women can then perhaps be considered a transition towards the later modest use of death shirts and shrouds. This early use of sober death clothes was not uncommon, judged by the accounts of the death of Saint Gertrudis from the abbey of Nijvel, who died in 659 AD and was buried on her specific request in a sober death shirt.

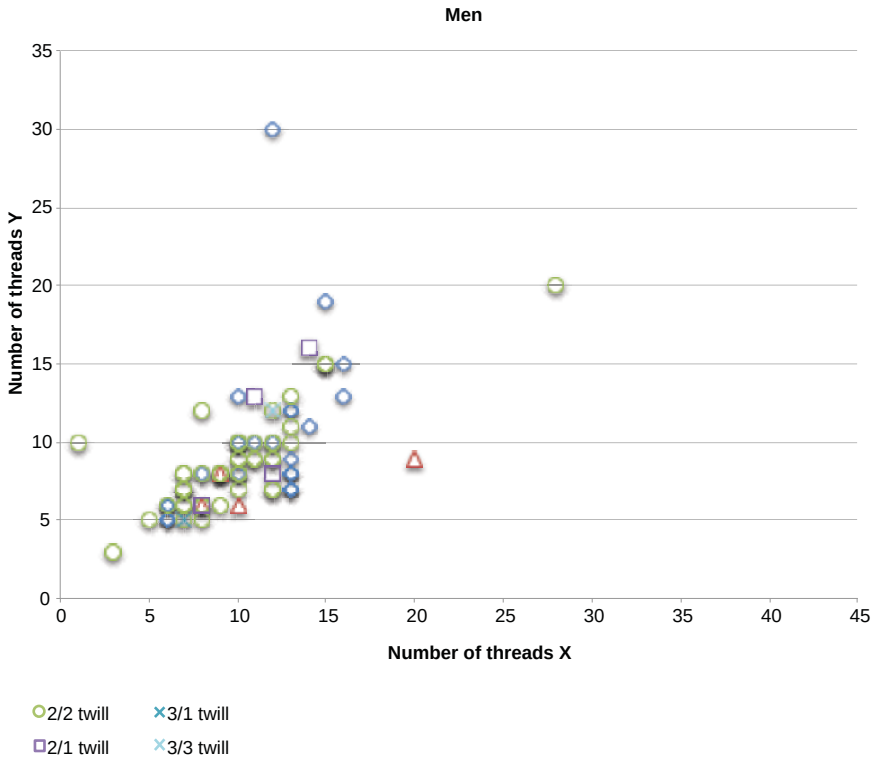
Previous research has pointed out that there are considerable differences in grave goods when comparing different age groups.[504] This might imply that infants and juveniles, but also older people were dressed differently upon burial. In Dutch cemeteries analysing the use of textiles among different age groups is however complicated due to the lack of skeletal remains. Even a distinction between adults and juvenile/children is problematic. Juvenile graves are not often recognised as such or contain only few metal objects, which diminishes the chance of recovering textile remains from these burials. In Rhenen only two textile fragments can be assigned to children, one of these was a coarse 2/2 twilll, the other an indeterminate fragment. The cemetery of Lent-Lentseveld seemed a promising site to analyse the differences between adults and children: here 17 of the 50 burials were identified as young child's graves, but unfortunately many of the textiles from these graves proved indeterminable fragments. The textiles that have been assigned to children's burials are generally rather coarse (fig. 5.12 & 5.13: five are coarser than 10 threads/cm, two are approximately 15 threads/cm) but a single example from Posterholt

504. Gutsmiedl-Schümann 2014.

a



b



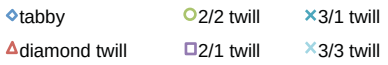


Fig. 8.23a. Quality of the textiles associated with women in the cemetery of Rhenen, measured in threads/cm.
Fig. 8.23b. Quality of the textiles associated with men in the cemetery of Rhenen, measured in threads/cm.

shows us that more data is needed to allow any conclusions regarding textiles in children's burials. Grave 23 from Posterholt yielded a tabby, which was by far the finest textile in the entire cemetery. This shows that there were circumstances where a child could be buried in fine textiles.[505]

8.8 TEXTILES FROM THE SETTLEMENTS

Settlement textiles have proven a valuable source for information concerning the way fabrics were processed into garments. Where cemetery finds lack information regarding the cut and shape of a garment, settlement finds survived in larger pieces and contained remains of seams, hems and decorative needlework.[506]

The textiles found in the cemeteries are different from those excavated in the settlements. Figure 8.1 and 8.2 show completely different distribution patterns of the fabric types present in both types of contexts. Problematic in this comparison is the fact that the settlement finds are very poorly dated - at best we can allocate them to a period of several centuries - and most textiles from the settlements are younger than those from the cemeteries. Nevertheless, the differences are remarkable. In cemeteries tabbies are by far the most popular fabric type and at best tabbies and twills are equally divided. In the settlements however we see a very small amount of tabbies and a predominance of plain twills and diamond twills.
Moreover, the textiles from the cemeteries are finer than those found in the settlements.[507] Bender Jørgensen earlier noticed the difference in quality of the textiles in Dutch cemeteries and settlements. She explains these differences by stating that cemetery textiles were practically all remains of clothing (mainly from the upper class), whereas settlement textiles derive from rags, household textiles and worn down clothes.[508] A similar difference in textile quality and textile types has been noticed in Haithabu. Hägg stresses that Haithabu had a mixed population and that the textiles from the graves are not representative for this population because textiles were in general found attached to oval brooches, the dress type of the Scandinavian part of Haithabu's population. These objects occur in only a small percentage of the graves. Moreover she states that the burial ritual must have influenced the difference in textiles between settlement/harbour and the graves. She notices that the delicate fabric-type described as *Schleiergewebe* occurs regularly in graves and suggests that these belonged to death-shirts that were worn for the occasion of the burial or to shrouds, which covered the dead and the objects in the grave.[509]

Bender Jørgensen's model may partly explain the situation in the Dutch graves but there are drawbacks to this model as well. Firstly, it was not only the upper class of society that was buried in the Dutch cemeteries: rural cemeteries such as Bergeijk, Posterholt and Lent-Lentseveld must have been the burial ground for a local non-elite population. And secondly: the graves do not only contain clothes but a considerable amount of textiles that were used to cover the bottom of the grave or for covering or wrapping objects such as weapons. Sure enough, the differences between the settlements and cemeteries may partly have been caused by the fact that settlements have yielded not only pieces of clothing but also remains of bedding, soft furnishings and other household textiles, sacking, tarpaulins, sails and animal trappings such as saddlecloth that didn't require the same quality of weaving as clothes, but this is not an altogether satisfying explanation. This becomes clear when we compare the textile remains that have positively been identified as garments from both the cemeteries and the settlements. Settlement sites have yielded a total of six hats, two mittens and three pieces of sleeves. These garments were made out of varying qualities of fabrics, ranging from 8x5 threads/cm to 21x5 threads/cm, but most are coarser than 12 threads/cm, while the cemetery-finds are generally finer.[510] Another explanation can be sought

505. Brandenburgh 2013, 136.
506. Brandenburgh 2010a, 72-74.
507. In settlements textiles are generally coarser than 12 threads/cm. Brandenburgh 2010a, 62-63.
508. Bender Jørgensen 1992, 49.
509. Hägg 1991, 272.
510. Brandenburgh 2010a, 66-72.

in the chronology and distribution of the finds: settlements are generally younger than the cemetery-finds and have mostly been excavated in the north of the country whereas the cemeteries are located in the middle or south of the country. It may be possible that we are comparing textile assemblages from altogether different periods or textile traditions. It is however most likely that the higher quality textiles in the cemeteries were a part of the burial ritual and had a symbolic function. Was it customary to dress up the dead in their finest clothes? And if so, what message about the social position of the dead or their relatives did this transmit to those that were present at the burial?

8.9 DISCUSSION

The textiles discussed have been found in different types of sites. Among the cemeteries we can discern three urban cemeteries of which the high status of the buried population has been confirmed, several rural cemeteries of which the role and status of the population is unknown[511] and a large number of settlements. Based on the textile remains we may group these sites into several clusters. The cemeteries of Leusden, Maastricht-Sint-Servaas church and Maastricht-Vrijthof show a similar distribution of textile types with a preference for tabbies and with twills occurring in smaller quantities. Posterholt also shows this preference but here the differences between the numbers of tabbies and twills are smaller. In other cemeteries such as Lent-Lentseveld, Wijchen, Rhenen and Maastricht-Pandhof tabbies and twills are present in approximately equal numbers. Bergeijk is the only cemetery where twills seem to have been more popular than tabbies and this distribution pattern corresponds with the majority of settlements excavated in the north of the country.

Some of the cemeteries contain remnants of textiles that are generally of a higher quality than those found in other sites. The textiles from the three cemeteries from Maastricht and Leusden are made in higher thread counts than those from the other sites. Moreover, the cemeteries of Maastricht contain gold thread and several types of special fabrics, making these sites stand out from the others in terms of textile quality. Rhenen also contains several special fabric types and the textiles from this site are of a relative high quality as well. The other cemeteries are rather homogeneous in terms of textile quality. Some, such as Posterholt and Wijchen do contain special fabrics: here examples of veil-like fabrics have been found, but the number of special finds is relatively limited. Based on this evidence we may conclude that the urban cemeteries of Maastricht-Sint Servaas church and Maastricht-Vrijthof and the cemetery of Leusden can be grouped together in both textile types and qualities. Here it must be clear that the occurrence of gold thread in Maastricht makes this site more luxurious in terms of textile quality than Leusden. Posterholt fits into the same textile 'tradition' in terms of textiles types but is clearly a more sober site with textiles of lower quality. Rhenen shows rather fine textiles as well, but this cemetery seems to have a different focus in textile tradition than observed in Maastricht and Leusden, showing a preference for different fabric types. Rhenen and Wijchen are quite similar in terms of textile types and the distribution of fabrics among men and women, whereas Lent-Lentseveld may at first glance seem similar but has a different distribution pattern among men and women. So how do we explain these differences? In order to do so we may first need to look at the distribution pattern observed in the regions surrounding the Netherlands. Having ascertained the variability between the sites makes it more difficult to simply compare the Dutch sites with those from the surrounding countries. Moreover, the chronology of the textile finds is still in need of refinement, as the following example will clarify. Bender Jørgensen has pointed out that throughout the Merovingian period Britain and the northern parts of Germany are reasonably comparable regarding the use of cloth types with an equal distribution of tabbies and twills and small percentages of special weaves such as Rippenköper.[512] Walton Rogers however refined the

511. In general we can consider the people buried in these cemeteries as the members of a rural population whose social and cultural horizon may have extended beyond the region. Theuws 2014, 6.

512. Bender Jørgensen 1991, fig 2, 3 & 5; 1992, fig.16-29 for different parts of Britain, fig. 82 for north Germany.

chronology for the textiles from Britain considerably, resulting in a detailed and deviating distribution pattern with a predominance of tabbies only in the seventh century onwards.[513] This shows us that without knowing the exact chronology of the sites and the distribution of the textiles in the site it is not easy to compare regions or explain the similarities or differences observed.[514]

Bender Jørgensen previously distinguished several regional groups of textiles. These are Scandinavia/ northern Germany, a group she defines as the English Channel group (consisting of Kent, Normandy, Belgium and the lower Rhine area and lastly the group of textiles from south/central Germany.[515] When we compare the distribution of the textile types among the cemeteries (fig. 8.2 & 8.3) with those published by Bender Jørgensen (1991), the sites of Rhenen, Wijchen and Lent-Lentseveld fit the pattern observed in the northern parts of Germany.[516] Maastricht and Leusden (and to a lesser degree Posterholt) are more comparable to Central Germany, Belgium and Normandy, which dominate in tabbies and also eastern Austrasia (Rhine valley and Westphalia) shows considerably more tabbies than other cloth types.[517] The southern parts of Germany yielded a more even distribution of cloth types, again with a larger share of special weaves than the northern areas, although recent analysis of the textiles from Lauchheim shows us that here the predominant fabric type is tabby as well.[518] The sites from the settlements in the north of the Netherlands resemble the distribution observed in the settlements in Northern Germany.[519] From this we can gather that the differences observed between the Dutch sites fit in regional textile traditions that extend far beyond the borders of the research area. Does this mean that the people buried in these cemeteries actually had ties to these regions, either in terms of trade networks or in terms of relationships? Both possibilities can be further explored when provenance studies are more incorporated into the research of this period.

Another approach towards the variability in textiles is possible as well. Variability is not only present in textiles but has been observed in many other aspects of the burial ritual, such as grave construction and the types of pottery interred in the graves. From this we can gather that there probably was no simple set of rules that applied to every grave within a cemetery, but that there was room for variation depending on the needs of those involved in the burial ritual. Here again we touch upon the idea that the grave probably played a role in the construction of the image or position of the people involved, leaving ample room to choose the layout of the grave and it's inventory. Considering the differences between textiles found in settlements and cemeteries it seems plausible that people were dressed up in special clothes for the burial. This implies that these clothes and the use of specific fabrics and fabric qualities propagate a message about the position of the dead or his/her relatives to those witnessing the burial. If so, how do we decode that message? The high quality of fabrics may be a statement of wealth and perhaps we have to view the wealthy fabric from the juvenile burial in Posterholt in this light. The occurrence of specific fabric types in different sites and in graves of men and women are not so easily explained. It is therefore specifically remarkable that the differences between men and women disappear in Maastricht. Here the striking dominance of tabbies – which may be considered a transition towards more sober fabrics or clothes in the burial ritual - can be an early reflection of Christianity in this city, where heathen burial

513. Walton Rogers pointed out that in Britain there is a development from the fifth to the seventh century, starting with a predominance of 2/2 twills z/z in the fifth century and ending with an increase of tabbies (linen, z/z) in the seventh century. Tabby became the most popular fabric type in this later phase (50%) whereas twills (z/s in this phase) constituted only 37%. Walton Rogers 2007, 104-105.
514.Walton Rogers explains the detailed chronology in Britain as a result of three separate phenomena: a disappearance of twill z/s at the end of the Roman period and a reintroduction of this fabric at the end of the sixth century, an increase in the use of linen fabrics (that tend to have been made in tabby z/z) and a trend towards using wool predominantly in z/s twills. These are all aspects of textile production that are not easily explained in terms of one textile tradition.
515. Bender Jørgensen 1991, 23.
516. Bender Jørgensen 1991, fig 2d.
517. Bender Jørgensen 1992, fig. 83-84.
518. Gauβ, Peek & Scheschkewitz, 2013, 141.
519. Bender Jørgensen 1992, fig. 101; Tidow 1995, Siegmüller, A., 2010, 188.

customs, incorporating dress accessories and grave goods, may have been mixed with the use of special death-clothes woven in tabby. Is the preference of tabbies in other cemeteries an equal expression of Christianisation? That is hard to say, for it is equally plausible that men's clothes were made out of different fabrics than women's clothes.

When comparing the quality of textiles found in the Netherlands and the surrounding countries, it becomes clear that although Maastricht has by far the finest textiles found in the Netherlands it is quite average compared to sites in Merovingian Germany.[520] For instance, silks are lacking and gold thread occurs only sparsely in Maastricht whereas these are present in far larger quantities in other high status burial sites in the surrounding countries. This implicates that the people buried in Maastricht did generally not have access to these high status textiles. Moreover, the fact that the finds in Maastricht are more luxurious than in the rest of the Netherlands implies that the people living in the rural settlements did not have access to the same quality of fabrics observed in Maastricht.

Although this thesis has resulted in a considerable dataset it has raised more questions than it has provided answers. Ascertaining trends in the distribution and use of specific types of textile does not automatically lead to an understanding of the social processes behind these trends and differences. Achieving such understanding will demand further research. Moreover, the trends that have been observed might become more (or less) pronounced when more data is added to the current data set. This will improve the chronological framework of textile remnants and enable a better understanding of the development of textiles throughout the early middle ages. Additionally, it will make the information regarding Dutch textiles more comparable to those from the surrounding countries. Furthermore, systematic and detailed fibre analyses will provide insight in the way fibres were selected, processed and applied in specific situations.

Another interesting topic to further explore is the relation between (type and qualities of the) textiles and other objects in the grave. This relation could not be taken into account in this study since the contextual information of the grave objects has not been fully published yet. Relevant questions would be: do 'rich' grave assemblages correlate with luxurious textiles or are there apparent 'mismatches'? Can we establish the role that textiles played in the burial ritual?

Textile production and textile trade have been touched upon in chapter 6. The textiles found in the settlements were generally made on a household level, but several examples have been observed that were probably made by textile specialists. Some of these, such as the hats with standardised decorative sewing or the *Schleiergewebes* and piled weaves are even likely to have been products of trade. This is most likely also the case with the textiles from the cemeteries, which were in general of a higher quality than those from the settlements. There is however much ground to cover for future research. The wide area in which specific textiles and production techniques occur opens up a whole range of questions relating to textile trade, which has only been dealt with superficially in chapter 6. Where were textiles made and by whom? Which textiles were traded and which were made locally? And what is the role of specific groups of people in early medieval society in this process? Questions such as these ask for an interdisciplinary approach incorporating the analyses of textiles, textile production tools, provenance studies and zoological studies of the distribution of sheep bones.

Lastly, the differences between men and women observed in the textiles pose an interesting topic to explore further. Women were buried in different textiles than men and it is equally likely that people wore different clothes in different phases of their lives. When assuming that 'image' is used to construct and reflect the role of a person, a further analysis of clothing (a fundamental part of image) may contribute to our understanding of the roles people fulfilled in different stages of their lives.

520. Bender Jørgensen 1992, fig. 87, 90, 92, 94 for Merovingian Germany.