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## **Clothes make the man : early medieval textiles from the Netherlands**

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## **4. The textiles from the early medieval cemeteries of the Sint Servaas church in Maastricht**

### **A comparative study of the cemeteries of the church, Pandhof and Vrijthof**

Previously published as:

Brandenburgh, C.R., 2015: The textiles from the early medieval cemeteries of the Sint Servaas church in Maastricht. A comparative study of the cemeteries of the church, Pandhof and Vrijthof, in: *Zeitschrift für archäologie des Mittelalters*, 33-75.

In this article the textiles from three cemeteries in Maastricht were discussed. These are all urban cemeteries and as such represent a different social group of people than those from the rural cemeteries of Bergeijk and Posterholt, which had hitherto been published. The high status burials from Maastricht proved to contain different types of textiles of a higher quality than those from the rural sites. Moreover, the large amount of textile remains created a possibility to further investigate the way textiles were used in the grave, as clothing, but also as a mean for furnishing the grave and wrapping objects before or during the burial ritual.

This case study also uses information from an article that has not been included in this thesis:

Brandenburgh, C.R., in press: The textiles from the cemetery of Maastricht-Vrijthof, in: F. Theuws, & M. Kars (ed.), *The Saint-Servatius complex in Maastricht. The Vrijthof excavations (1969-1970). Roman infrastructure – Merovingian cemetery – Early town development*, Bonn (Merovingian Archaeology in the Low Countries 3).

## 4.1 INTRODUCTION

The early medieval burial tradition, with its richly furnished graves, is known from numerous burial sites in the south of the Netherlands.<sup>156</sup> Maastricht takes a somewhat separate position in the late Roman and early medieval landscape: it is the ‘urban’ centre in the area, with at least one early stone church.<sup>157</sup> The people buried in the Sint-Servaas church and in the cemeteries around the church will have had varied social positions. Some of them are considered to be representatives of the higher social circles of society. Evidence for this can be found in the many stone sarcophagi, the luxurious grave goods and the physical anthropological data of the human remains.<sup>158</sup> Other graves might contain ‘ordinary’ members of the Maastricht population. The graves in these cemeteries often include fragments of (mineralized) textiles. These are the remains of the garments in which the dead were buried and of other textiles in the graves such as the covers of mattresses or pillows, shrouds or pieces of cloth wrapped around objects deposited in the graves. The presence and quality of fabrics in the graves indicate that a significant amount of attention was spent on the clothes, grave textiles and dress accessories of the deceased. Textiles have probably also been used to indicate the role, position or status of the deceased. Although some research has been done regarding the objects deposited in these graves before the analyses in the context of the Saint Servatius-Project

156. Recently several early medieval cemeteries have been published. The Saint Servatius-project and thereafter the Anastasis-project of Leiden University catalogues and analyses several cemeteries in the south of the country, including those from Maastricht (Theuws & Kars & in press), Bergeijk (Theuws & Van Haperen 2012), Posterholt (De Haas & Theuws 2013), Oud-Leusden, Sittard, Obbicht and Stein and the farmyard burials of several settlements. This project incorporates the spatial analysis of the graves, the human remains and the analysis of all the grave inventories. The cemeteries of Wijchen (Heeren & Hazenberg 2010) and Rhenen (Wagner & Ypey 2012) were also catalogued recently.

157. The transition from the late Roman period to the early medieval period takes place around 450 AD (in Dutch archaeology). The mentioned stone church is the Saint-Servaas church, other stone churches might be present at the location of Saint Mary's Church and Saint Martins church in Wyck.

158. Kars 2011, 10; Panhuysen 2005, 37, 230 & 235 (regarding the Late Roman period), 241-242 & 249 (regarding the sixth & seventh century).

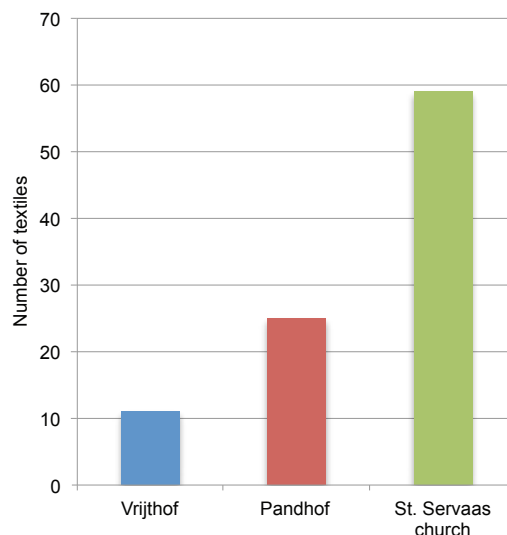


Fig. 4.1 The number of individual textiles per cemetery.

and the Anastasis-Project began, including the dress accessories, less attention was paid to the textile finds themselves. The study of these remains can become an important aspect of cemetery-research, providing information about how textiles were used in the burial context and the social message they propagated.<sup>159</sup> Furthermore it enables a comparison of the use of grave textiles by different people within the cemeteries and between the cemeteries of Maastricht and those of the rural areas around Maastricht. For this reason the textile remains from three cemeteries in and around the Sint-Servaas church have been analysed: the burials inside the church itself, the Pandhof cemetery and the Vrijthof cemetery. These three cemeteries have yielded a total amount of 122 fragments of 96 individual textiles (appendix III & fig. 4.1).<sup>160</sup> Not included in this analysis are the reliquary textiles from the Sint-Servaas church<sup>161</sup> because these more often than not come from other locations and their origin cannot be traced back to specific burials.

159. For recent examples of cemetery-research that incorporate textiles see Wamers & Perin 2012, Reifarth 2013, Nowak-Böck & Von Looz, 2013.

160. Appendix III is a summary of the database, which was kindly made available by English Heritage.

161. Stauffer 1991.



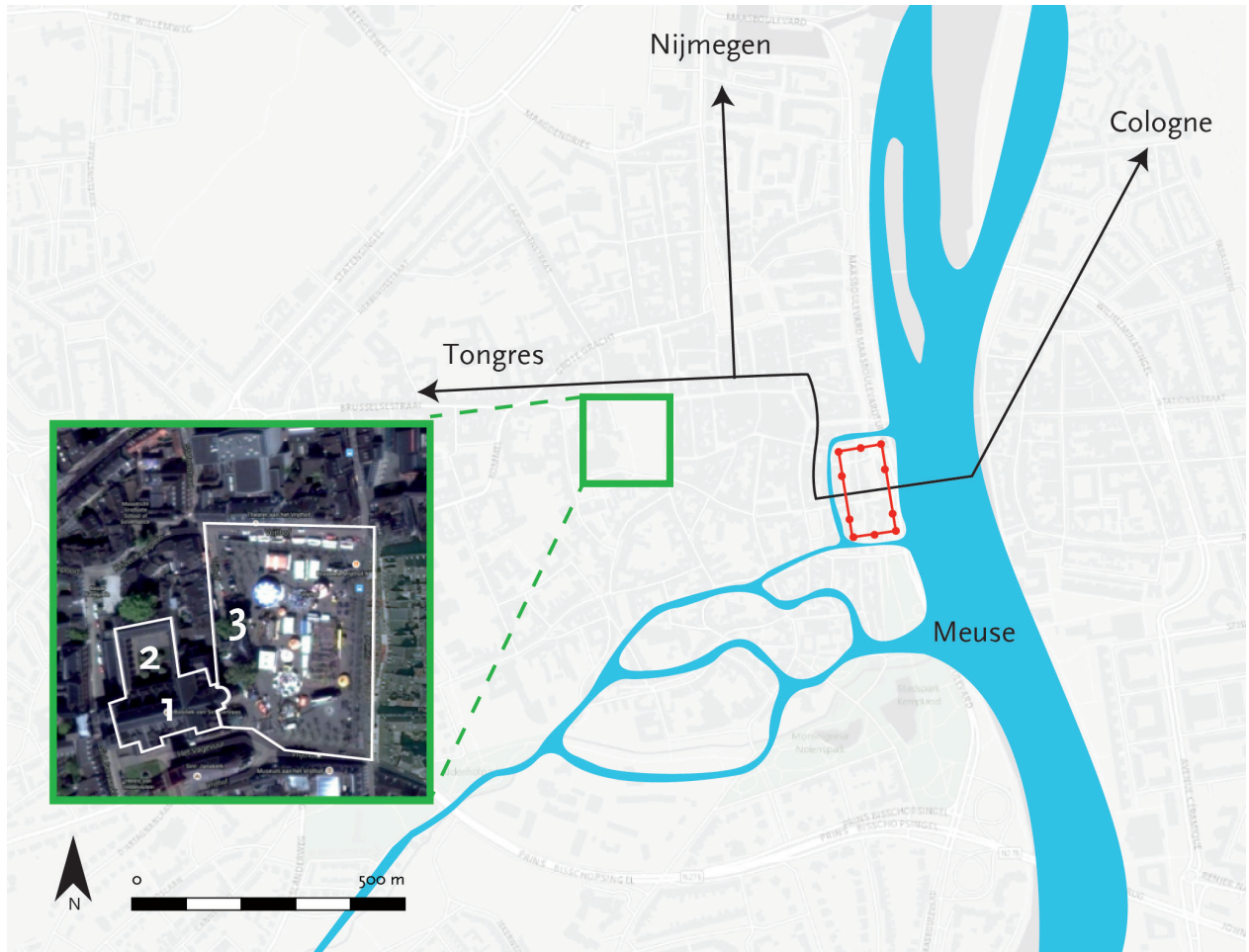


Fig. 4.2 Detailed map of Maastricht showing the location of the three cemeteries Sint-Servaas church, Pandhof and Vrijthof. Map: E. Gehring.

The cemeteries in and around the Sint-Servaas church represent a burial tradition that starts in the Late Roman period and ends around 1800. The graves discussed in this chapter are those of the earlier phases: the Late Roman until the Carolingian period. In order to understand the discussion and research issues in this article the following paragraph briefly summarizes the historical background of early medieval Maastricht, and the development of the population and the burials sites. Sections 4.3 – 4.4 give an overview of the research hypotheses and

questions, the quantity and quality of the textiles and the research methods. In section 4.5 and 4.6 the results are presented, which include various aspects of the excavated textiles, the use of textiles in the burial context and the significance of the distribution of the textiles over the cemeteries, over time and also over different groups of inhumed persons. Lastly, section 4.7 provides a discussion of the research hypotheses and questions.

	Sint-Servaas church	Vrijthof	Pandhof	Total
Number of graves	321	320	498	1139
Number of possible graves	64	126	332	532
Graves with grave goods	125	146	152	423
Datable graves	70	90	104	264

Table 4.1 Basic information on the graves, grave goods and skeletal remains from the Sint-Servaas church, Vrijthof and Pandhof cemeteries. (After Kars 2011, table 8).

## 4.2 A SHORT HISTORY OF MAASTRICHT AND THE CEMETERIES OF THE SINT-SERVAAS CHURCH<sup>162</sup>

During the Roman period Maastricht was a central place (*vicus*) and a wealthy centre of trade for the surrounding area. In the fourth century Maastricht experienced an increase and in the post-Roman period it became a religious, administrative and commercial centre of the area.

Raphael Panhuysen divided the graves in and around the Sint-Servaas church into three phases.<sup>163</sup> The first burial phase is the ‘Cella Memoria phase’ spanning the fourth and fifth centuries. This phase is named after a construction of stone that was excavated inside the church and for some time was thought to be the grave chapel of Saint Servatius. During this period inhumations took place in the Pandhof-cemetery and the area that was later occupied by the Sint-Servaas church. Recent analysis of the graves in the Vrijthof cemetery has indicated that there was also burial activity in this area in the fifth century, although the number of inhumations is very small.<sup>164</sup>

The following phase is the ‘Templum phase’ (sixth-seventh century), named after the construction of the Templum Magnum by bishop Monulphus.

During this phase burial took place in all three cemeteries: within the Sint-Servaas church and outside in the Pandhof and Vrijthof cemeteries.

The third and last phase is the ‘Basilica phase’ (eighth-tenth century), named after the large new church with a ground plan of a basilica on the location of the Templum Magnum of the previous phase. This period marks the transition from the Merovingian to the Carolingian phase, during which the burial tradition changed from richly furnished graves to graves lacking grave goods.<sup>165</sup>

## 4.3 RESEARCH AIMS AND QUESTIONS

During the Merovingian period the burial ritual was probably used in the confirmation, adjustment or creation of an identity or social position of the deceased and his/her descendants.<sup>166</sup> Grave textiles and clothing were prominently in sight during the burial ritual and therefore must have played an important role in propagating this identity or social position. Following these assumptions this chapter attempts to assess the character, quality and use of textiles and clothing in the burials in and around the Sint-Servaas church in order to determine the role fabrics played in the burial ritual.<sup>167</sup> The following hypotheses and research questions will be discussed:

162. Based on the summary of the habitation of Maastricht in Panhuysen 2005, 20-50. See also section 1.4.1.3.

163. This phasing may change when subsequent cemeteries are published in the context of the Saint Servatius project.

164. Only four graves have been attributed to his phase. Kars 2011, p. 129 table 14 (context 66, 264, 294 & 309).

165. Kars 2011, 8-9.

166. Halsall 1995, 245-248; Effros 2003, 124-128.

167. For a more detailed discussion on the role and use of textiles and clothing in the burial ritual see Brandenburg 2012a, 128-129.

1. Historical sources show the presence of nobility in Maastricht and the luxurious graves and human remains found in and around the church indicate they, or other rich people, have adopted the custom of being buried near the grave of Saint Servatius.<sup>168</sup> Did these people use textiles to indicate their wealth or status?<sup>169</sup> Are there textiles of a high quality, fabrics woven in intricate patterns, colourfully died fabrics and shiny precious materials such as silk and gold thread present in the burials of Maastricht? Is there a significantly higher amount of these textiles present in Maastricht as opposed to rural cemeteries? Which graves contain these precious materials and what is the meaning of this distribution? Is there a difference in grave textiles between men, women and children?
2. Do the textile remains show differences between the burials *intra* and *extra muros*? If so, how and when do these differences occur? In most churches the place near the altar or the grave of the saint is the most desired burial location. The presence of the grave of Saint Servatius within the Sint-Servaas church may have had a similar effect, resulting in richer *ad sanctum* burials within the church than in the cemeteries outside the church. This difference would have been most clearly from the sixth century onward, when the Sint-Servaas church was built - centred around the grave of Saint Servatius - and the Pandhof cemetery became the *extra muros* burial ground.
3. Can the textiles from the cemeteries in Maastricht be placed in a local or regional textile tradition? Are there for instance Germanic or Roman characteristics in the textiles and to which degree do the fabrics from Maastricht differ or resemble the contemporary finds from the surrounding countries?
4. There is a difference between the dress accessories of the sixth century and the seventh century, with a clear transition period between 580/90-610/20, which is characterised by the introduction of the use of iron buckles with silver inlay. Is this difference also visible in the textiles associated to these objects? Although the textiles can generally not be assigned to short periods of time it is possible to investigate whether there is a difference between the sixth and seventh century.
5. During the transition from the Merovingian to the Carolingian period the burial ritual changed significantly. More attention was given to the construction of burial monuments whereas the content of the grave, which was previously rich in grave goods, became more sober. At the end of the seventh century hardly any objects were deposited in the graves any more. One might assume that the grave textiles became sparser and less luxurious over time as well but the question is if such a trend exists and, if so, if it followed the same rhythm as the decrease in the number of grave objects. Both in the Pandhof and Servaas church graves from the Carolingian period were recovered making it possible to compare the textiles from this period to those of earlier centuries.

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168. Panhuysen 2005, 39.

169. One would expect graves of nobility to contain dress accessories and textiles of equally high quality. This is however not always the case as for instance is shown in the grave of queen Arnegunde (buried in the church of St.-Denis). Here the textiles are of extraordinary quality but the dress accessories themselves have been used and undergone reparation (Périn et.al. 2013, 117). Here we touch upon the fact that objects can have value for different reasons. Not only the monetary price of an object decides whether it has value, the biography of an object and the fact that it may have been passed on for generations can also influence the way people value them. Therefore it is interesting to investigate to which extent wealth or status was expressed in the use of textiles.

#### 4.4 DATASET

The cemeteries have yielded a varying number of textiles. Sint-Servaas church contained most textiles: 75 fragments. In some cases, several fragments of the same fabric were present within one grave. These identical fabrics have been grouped together, resulting in a total of 59 individual textiles. In the Pandhof cemetery 35 fragments of 26 individual textiles were found whereas Vrijthof yielded 12 fragments of 11 individual textiles (fig. 4.1).

Most of the textiles were preserved in the corrosion layer of the metal objects. The textiles not in contact with metal decayed in the months or years after burial.<sup>170</sup> Because of this, the fragments of textile remaining are often very small, measuring between 0.5x0.5 and 3x1.5 cm.

170. The process and speed in which mineralisation occurs depends on the amount of moisture, acidity, soil type, temperature and geochemical environment of the burial (Chen e.a. 1998, 1016; Janaway 1987,133). This process has been simulated several times under laboratory conditions. According to (Gillard e.a.,1994) mineralisation happens in the first few months after burial. Janaway (1987) tested the process of decomposition of a buried body, in relation to the process of corrosion of metal objects and the mineralization of organic materials. For this purpose, he buried rats, either in a wooden coffin or directly in the soil. Metal objects and textiles were placed on top and underneath the bodies. The burials were opened after 34 days or 226 days. He concluded that after a month no visible changes had occurred regarding the decomposition of the bodies and the state of both metals and textiles. After 226 days however, considerable changes were visible: corrosion had taken place and the first textiles had begun to decay (Janaway 1987, 143). He also concluded that corrosion occurs later in burials where the coffin is filled with the liquid of a decomposing body. This causes different conditions within a burial: the metal objects lying on top of the body will start corroding earlier, while the metals underneath the body remain more or less the same until the body fluids have disappeared from the coffin (Janaway 1987, 133-134). Several studies have dealt with the process of decay and mineralisation of textiles under different conditions in a range of sediments, leading to rather varied results. These studies have been described by Peacock (1996a, 36-37) and will be briefly summarized here. Simulations in wet burial conditions (both sand and turf) made it clear that linen could be completely degraded after a period of 9 years whereas wool was at that point still intact. In a simulation of an inhumation linen was completely degraded in a period of only 32 weeks. When buried in a simulated archaeological refuse pit for a period of 45 weeks, wool would still be intact while linen – again – was completely decayed. In a similar study linen and wool were both completely degraded after burial in a refuse pit for 45 weeks. Peacock herself investigated the decay of textiles as well under wet conditions in sandy loam and peat (Peacock 1996b). She concluded that burial in sandy loam for a period of 1-32 weeks led to serious deterioration of the fabrics with linen being less resistant to biodegradation than wool or silk. All these experiments show that there is no fixed time in which textiles will have decayed in a burial or when the process of mineralization has occurred. Many factors such as moisture, temperature, acidity, presence or absence of a coffin and different soil processes play a role in this process and will have influenced the timeline in which this occurred.

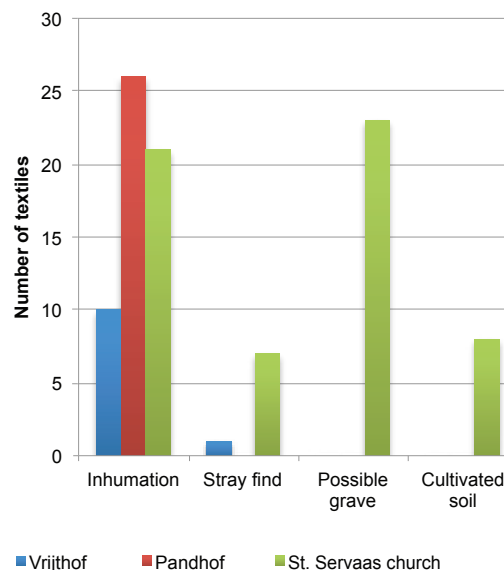


Fig. 4.3 Number of textiles related to the type of context in which they were found.

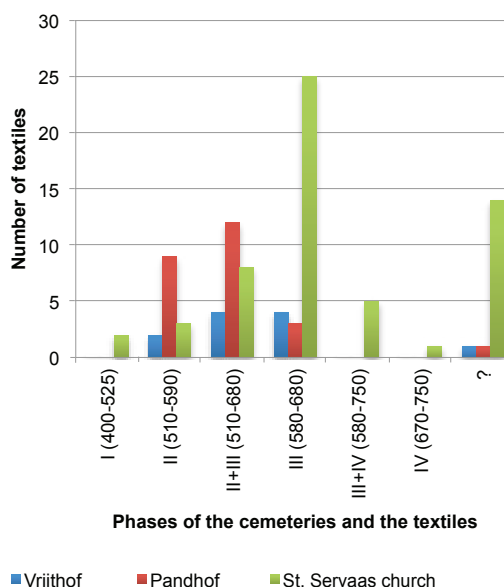


Fig. 4.4 The number of textiles per phase of each cemetery. The textiles have been analysed according to the Maastricht/Vrijthof burial phases (table 1, right column). Transition phase F (580/90-610/20) could generally not be isolated and is therefore incorporated in II-III or III.

Franken AG 2003		Bergelijk 2012		Posterholt 2013		Maastricht			
						Maastricht graves*		Vrijthof burial phrases 2014*	
Phase	Dates	Phase	Dates	Phase	Dates	Phase	Dates	Phase	Dates
						A	200-400		
1-2	400-460/80					B	400-460/80	I	400-510/25
3	460/80-510/20					C	460/80-510/25		
4	510/20-565			PH I	510//20-580/90	D	510/25-565	II	
5	565-580/90	BE I	565-640/50			E	565-580/90		
6	580/90-610/20			PH II	580/90-640/50	F	580/90-610/20	IIIa	580/90-640/50
7	610/20-640/50					G	610/20-640/50		
8	640/50-670/80	BE II	640/50-670/80	PH III	640/50-670/80	H	640/50-670/80	IIIb	610/20-670/80
9	670/80-710	BE III	670/80-c. 750	PH IV	670/80- c. 750	I	670/80-725	IV	670/80-c. 750
10	710-<750					J	>725		

Table 4.2. The chronological burial phases of the cemeteries Bergeijk, Posterholt and Vrijthof Maastricht in comparison to the chronological scheme of the Franken AG (after Theuws, F. & M. Kars, in press.).

\* Maastricht: The Maastricht cemeteries Vrijthof (cemetery 4) and Servatius cemetery (the graves excavated in the church (1981-1989) and the Pandhof (1953-1954) are analysed according to the same methodology and dating scheme (Maastricht graves).

The state of preservation of the textiles was generally not good. After excavation many objects have undergone restoration, which included the removal of all organic remains. The condition of the remaining textiles was often very bad, with deteriorated fabrics and badly damaged fibres. Consequently fibre analysis of the textiles from Vrijthof and Sint-Servaas church was not possible. Only in the Pandhof cemetery the textiles were sufficiently intact to make positive fiber identification. This was possible in approximately 50% of the textiles.

Due to the different circumstances of excavation, the fact that many textiles have been removed during conservation and the fact that objects have gone missing or have been removed from the graves prior to excavation, we must accept that the textile dataset is flawed and not suitable for statistical analyses.

The textiles from the Pandhof and Vrijthof cemeteries have practically all been found in inhumation graves. This is not the case in the Sint-Servaas church where only 21 textiles were found in inhumation graves and 38 textiles were found in disturbed contexts (fig. 4.3). This last category seems less suitable for reconstructing the use of textiles in a burial context since the primary position of the objects is not known. However, since the mineralization process occurred in the first months after burial one can assume that the objects, which the textiles adhere to, were originally also in contact with the textiles at the moment of burial. Therefore, where the objects could be assigned to a specific period the textiles on these objects have been included in the general analysis. Most graves contained remains of one or two different textiles; only grave 164 from the Sint-Servaas church provided four different textiles. This means that the excavated textiles are only a very



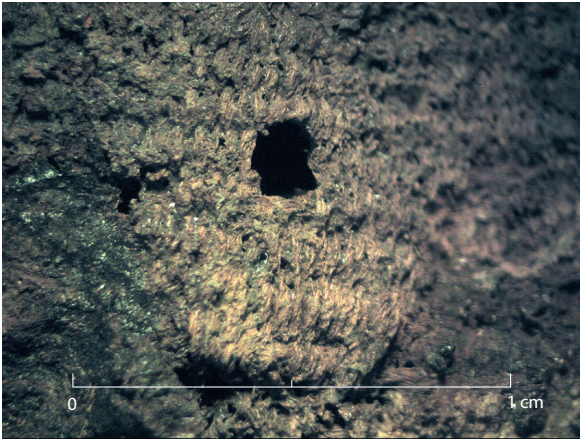


Fig. 4.5 Repp weave from grave 10128, Maastricht Pandhof (find number 40.1.TX1).

small representation of the textiles present when the deceased were buried, since they were probably fully dressed and the graves may well have been furnished with additional textiles.

Skeletal remains have been rather well preserved in all three cemeteries. The analysis of these human remains has resulted in information about the sex and (in some cases) age of the deceased.<sup>171</sup> This makes it possible to assign a number of textiles to graves of men or women and analyse the differences in use of textiles between the sex and age groups in these cemeteries.

The textiles have been assigned to the burial phases that have been used for the Vrijthof cemetery (table 4.2, right column).<sup>172</sup> Many objects have been dated to smaller periods in time, defined by the Maastricht burial phases shown in table 4.2 but the dataset of textiles is too small to discern any developments over time when the textiles are divided according to these fine subgroups. Figure 4.4 shows the distribution of the textiles according to the Vrijthof phases. The transition phase between the sixth and seventh century (580/90-610/20) could not be isolated easily in this dataset and is therefore incorporated in either

phase II+III or III. Phase II+III generally ends at the end of the tradition phase, while phase III starts at the beginning of this transition phase. The textiles from the Sint-Servaas church cover the largest period with a peak in phase III and – unfortunately – many stray finds that could not be assigned to a specific period. Although the Pandhof cemetery was in use throughout the sixth and seventh century, mostly sixth century graves have yielded textiles. This narrows the possibilities to compare the use of textiles over time of the different cemeteries.

## 4.5 RESULTS

### 4.5.1 The types of textiles from the Sint-Servaas church, Pandhof and Vrijthof cemeteries.

In the cemetery of Maastricht fabrics woven in tabby, 2/2 plain twill, 2/2 broken diamond twill and rippenköper were observed. Some textiles were decayed to such an extent that identification of weave was not possible. Nevertheless it is clear that the textiles from these cemeteries show limited variation in fabric types. Grave 164 for example contained four different textiles of which three fabrics were woven in tabby (one of these in ribbed weave) and one consisted of remains of a gold brocaded band.

#### 5.4.1.1 Tabby weaves

In a tabby weave, the weft threads regularly pass over and under each warp thread. In Maastricht, the majority of fabrics were woven in this manner. Most tabbies (41) were woven out of z-spun yarns in both warp and weft. Three were woven out of s-spun yarns in both systems whereas six were made out of z-spun yarns in one system and s-spun yarns in the other system. All these fabrics were evenly distributed over the three cemeteries under investigation.

Most tabbies were rather balanced with approximately the same number of threads in both thread systems. Three fabrics however show a large difference between warp and weft with more than thrice as

171. Osteological analyses have been conducted by R. Panhuysen and will be published in Theuvs & Kars (ed.), in press and future publications.

172. Theuvs, F. & M. Kars (ed.), in press.

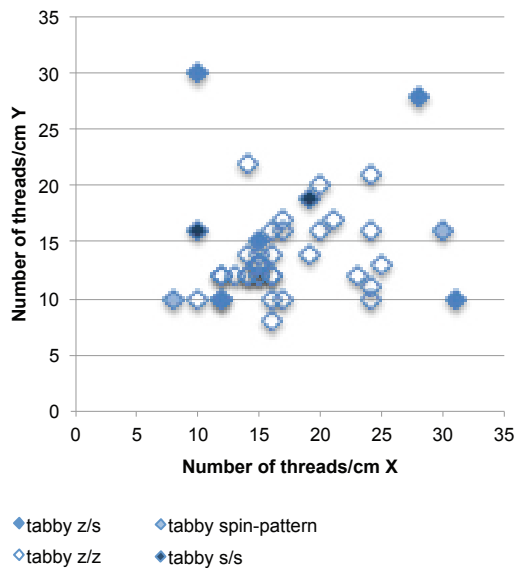


Fig. 4.6 The quality of the different types of tabby, measured in threads/cm.

many threads in one system than in the other (30x10 to 45x6).<sup>173</sup> This creates a very dense fabric called a repp weave (fig. 4.5). 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.<sup>174</sup> When applying this to the textiles of Maastricht another four textiles from Sint-Servaas church and one from Vrijthof qualify as repp, among which the spin patterned tabby discussed below.<sup>175</sup>

Two of the tabbies were woven in a spin-pattern.<sup>176</sup> 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 striped pattern to the fabric. In a fabric from Vrijthof the spin pattern is only present in one system alternating as follows: ... 2s - 6z - 2s... This is a rather open weave with 8x10 threads/cm. A fabric from Sint-Servaas church shows a spin-pattern in both systems. This fabric was

partly wrapped around a crucifix pendant and was much finer (30x16 threads/cm) than the one from Vrijthof. The pattern in the system with the highest thread count (presumably the warp) is ...2z-2s-4z... while the other system (weft) shows the pattern ...2s-3z-3s...

Figure 4.6 shows the quality of the different types of tabby, measured in number of threads/cm. The common tabby z/z occurs in many qualities ranging between 10-25 threads/cm. Remarkably, the spin-patterned tabbies and tabby z/s are either among the coarsest or finest fabrics.

#### 4.5.1.2 2/2 twills

In 2/2 plain twills, the weft thread passes over two and under two warp threads, creating a diagonal woven pattern. 2/2 broken diamond twills are 2/2 twills in which the weave is reversed in both systems, resulting in a diamond shaped pattern. The size of the diamond (or the pattern repeat) may vary, depending on the amount of warp and weft threads used during each reversal. 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 (3 times). Consequently, most of the smaller fragments (< 0.5 cm) are assigned to the group of 2/2 plain twill, making this group probably overrepresented. Twenty fragments of the textiles from Maastricht were woven in a variety of 2/2 twill. The majority of these textiles were woven out of z-spun threads in one system and s-spun weft in the other system. Five were made out of z-spun threads in both systems. In some cases it was not possible to ascertain the type of twill, either because the weave was very decayed or because the fabric was distorted. These fabrics are indicated as '2/? twill'.

173. Pandhof: find number 40.1.TX1; Sint-Servaas church: find numbers 17-02-07.1 (stray find) and 21-02-03.1 .

174. Bender Jørgensen 1992, 13.

175. Sint-Servaas church find numbers 03-06-01.1, 16-DD-01, 16-DD-03 & 23-03-01.1. Vrijthof find number 1419.1

176. Find numbers Vrijthof 1614 & Sint-Servaas church 16-DD-03.



Fig. 4.7 Rippenköper found on back plate (find number 01-04-03) from Sint-Servaas church.

#### 4.5.1.3 *Rippenköper*

Rippenköper is a kind of 2/1 twill where the pattern is reversed to 1/2 twill after three weft threads.<sup>177</sup> One fabric from Sint-Servaas church could be identified as a rippenköper pattern (fig. 4.7).<sup>178</sup> This fabric was of fine quality (17x12 threads/cm, woven in z-twisted yarn) and present on a back plate of a belt, which has been documented as a stray find. Rippenköper is not common in this area; it is considered a typical fabric type for burials in the fifth to eighth century in southern Germany and Switzerland.<sup>179</sup> Therefore the presence of rippenköper in other areas might be interpreted as a sign of trade, but since the distribution of this fabric type has not been analysed

systematically yet, conclusions such as these are rather premature. In burials in southern Germany and Switzerland rippenköper was used for clothes of men, women and children alike. In women's burials the fabric is often associated with long garments, whereas in men's graves the fabric was used in wide cloaks.<sup>180</sup>

#### 4.5.2 Gold thread

Gold thread was used to embellish certain areas of the clothes. There are several ways gold thread was produced during the early Middle Ages. It could either be drawn by pulling small rods of gold through diminishing holes in a so-called drawing plate, or it could be cut from a thin sheet of hammered gold foil into flat thin strips (so-called lahn). Lahn could be further processed by wrapping (or spinning) it around a core of silk, wool or linen.<sup>181</sup> Gold thread was applied in various ways. It could have been embroidered onto a ground fabric (gold appliqué) or woven into the fabric. Often observed are tablet woven bands where gold thread was brocaded into the surface of the band (gold-brocading).<sup>182</sup> The latter technique generally resulted in narrow bands up to a cm wide but gold thread could also have been brocaded into wider bands of several centimetres.

The place where gold thread was applied on clothes would normally 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.<sup>183</sup> Many examples of gold-brocading and gold appliqué are known from sixth to eighth century graves of men, women and children, with decorative motifs such as bands, crosses and even insects on the outer garment and around the head.<sup>184</sup>

180. Banck-Burgess 2003.

181. Reifahrt 2013, 60-61, 75.

182. For an overview of the way gold thread has been used in embroideries see Coatsworth 2005, 4-5, Owen Crocker 2004, 311-315. The use of gold thread in woven bands (gold-brocading) is discussed by Crowfoot & Hawkes 1967, 43, Walton Rogers 2007, 96-97.

183. Wells 2008, 68.

184. Coatsworth 2005, 4-5; Magoula 2008, appendix I.

177. Bender Jørgensen 1992, 13-14.

178. Sint-Servaas church find number 01-04-03.

179. Banck-Burgess 2003, 126.



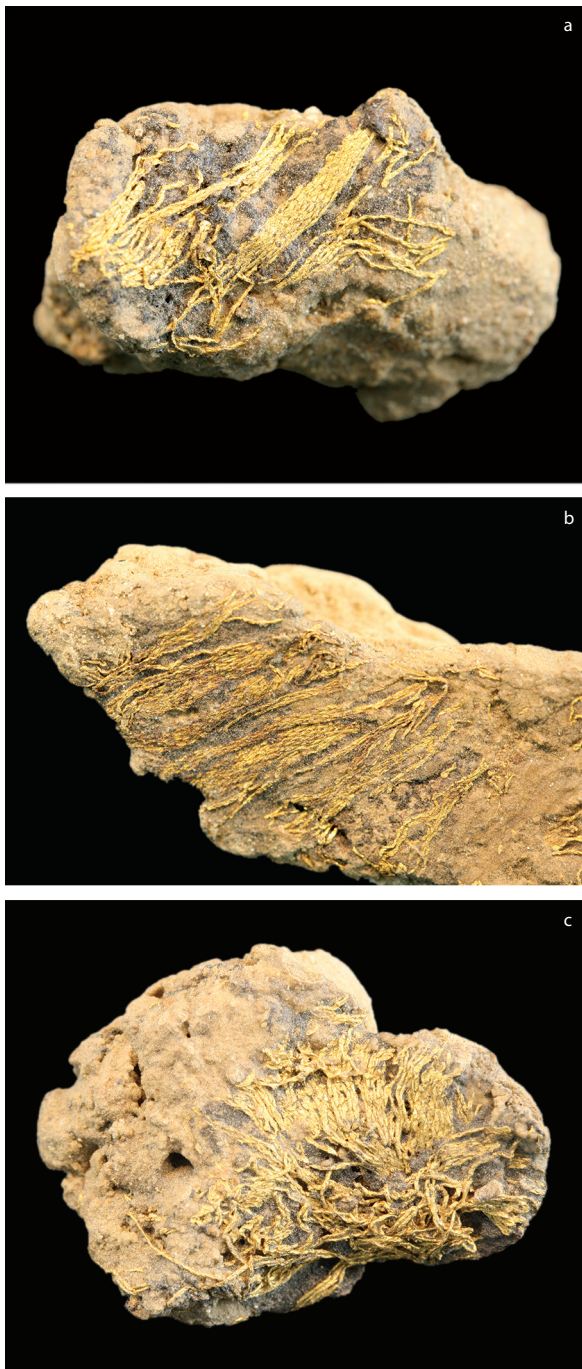


Fig. 4.8a-c. Gold thread found on blocks of sediment in woman's grave 164 in Sint-Servaas church (find number 21-02-01.TX1). These are probably the remains of gold braids (a-b) or an embroidered decoration (c). Photo's by Sjoerd Aarts.

Most of the gold-brocaded bands are associated with headwear in graves of women in the sixth and early seventh century and with decorated men's clothing in the seventh century.<sup>185</sup> A well-known example of the use of goldthread on clothing is the grave of queen Arnegunde (grave 49 in St. Denis cathedral).<sup>186</sup> A reconstruction of the garments of this person indicates that she was buried in a long half-silk garment or cloak with gold embroideries on the cuffs of the sleeves. A tablet woven band with gold thread worked onto the surface was found on the veil on and around her head. Archaeological finds give ample evidence for the use of gold-brocaded bands in headbands/veils in women's graves.<sup>187</sup> In men's graves headbands with gold decoration are not present,<sup>188</sup> but tablet woven bands with gold thread are often found as decorative strips on tunics, mantles, wrist, hoods, scabbards or belts in these graves.<sup>189</sup> Archaeological evidence from the late eighth century onwards is lacking due to the fact that burials from that period include fewer and fewer textiles.

185. Walton Rogers 2007, 96.

186. Desrosiers & Rast-Eicher 2012, 6. Rast-Eicher 2010; Périn et.al. 2012, 100.

187. Often observed in early medieval burials are remains of gold-brocaded headbands (also called fillet or vitta). These bands were worn over the hair and were originally used by unmarried young women. Judging by the quite large amount of vittae found in cemeteries we may assume that women often continued to wear the vitta after marriage. The vittae could have been decorated with gold-brocading on the area of the forehead (most examples of gold-brocaded bands are too short to have encircled the entire head) but there are also examples where the entire vitta was brocaded with gold and the ends would have hung down at the back or bosom of the wearer. Headdresses or veils have also been observed in Merovingian burials and these could have been decorated with gold-brocaded bands as well. (Crowfoot & Chadwick Hawkes 1967, 61-64).

188. There is one possible exception to this rule. In the grave of king Childeric II, his wife and child Dagobert in the church of St. Germain-des Pres, a gold foil braid was found on a piece of gold-woven cloth which was draped over the face of one of the buried persons in the grave. It is not clear whether this person was actually king Childeric himself or the queen (Magoula 2008, 91).

189. Crowfoot & Chadwick Hawkes 1967, 48, 59-60, Magoula 2008, 91.

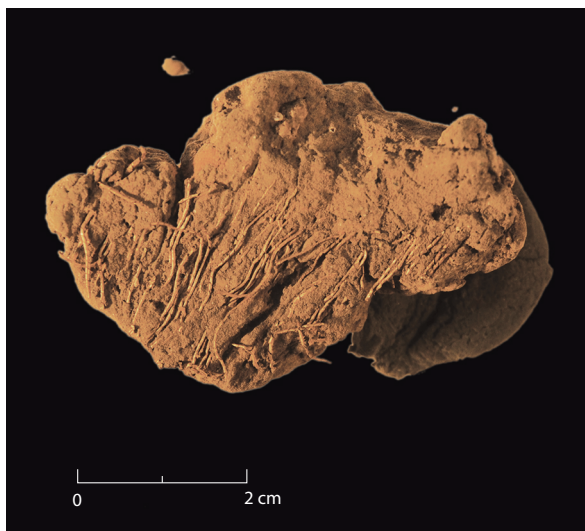


Fig. 4.9 Gold thread found on a block of sediment in woman's grave 10525 in Maastricht-Pandhof (find number 333). Photo's by Sjoerd Aarts.

One characteristic of gold-decoration has not been mentioned yet and that concerns the value of this material and the associated status it conveys. There is ample written evidence for the fact that gold-brocaded bands were very expensive and therefore must have been a sign of extreme wealth. In the Roman period the use of gold-decoration on garments was even restricted by law to the imperial family and the aristocracy. We may therefore assume that in the Merovingian period this material was a sign of high status.<sup>190</sup>

In Sint-Servaas church one grave (grave 164, female, 510/25-610/20) contained gold thread.<sup>191</sup> In this grave three blocks of sediment were recovered in which the gold thread was still more or less in its original configuration although the ground cloth to which it was originally attached had decayed over time (fig. 4.8a-c). In this case the gold thread was made out of 0.2mm wide strips (lahn) of gold leaf wrapped around a core, which was not present any more. On one of the blocks the gold thread forms a round pattern and may have been sewn onto the cloth. The other blocks show the same type of gold thread (lahn wrapped around a core) in 1-4 cm wide bands



Fig. 4.10 Remains of sewing on fabric from Sint-Servaas church. The 'wrong' or backside of the fabric is visible, showing the length of the 5 mm long running stitch.

with 5mm high strips of gold. These are probably the remains of brocaded woven bands, but the gold thread may also have been sewn onto a ground cloth.

In the Pandhof cemetery two graves have yielded some gold thread. In grave 10252 (female, 460/480 – 580/590) only a small fragment was still attached to a block of sediment.<sup>192</sup> Many stray fragments have been recovered as well. The gold thread was made out of 1 mm wide strips of gold leaf wrapped around a core, which – again – was not present any more. It was worked into a 1.3 cm wide band. The stray fragments were max. 2.5 cm long (fig. 4.9). Grave 11321 (probably female, 510/20-580/90) has yielded another fragment of gold thread.<sup>193</sup> In this case the thread consisted of a narrow strip of flat gold-foil which was found near the skull of the woman buried in the grave. It is assumed that the gold thread was part of a golden fillet used with or without a veil.<sup>194</sup>

The type of gold thread found in two graves in Maastricht, a thin strip of foil wrapped around a core, is not common. Parallels of this type are only known from Cologne, Paris, Italy, and very sporadically in Northern France in the sixth century and in Bavaria in the later seventh century.<sup>195</sup> In

190. Crowfoot & Chadwick Hawkes 1967, 65.

191. Find number 21-02-01.TX1.

192. Find number 333.

193. Find number 418-6.

194. Magoula 2008, appendix 1, 12.

195. Crowfoot & Chadwick Hawkes 1967, 56, Magoula 2008, 89.

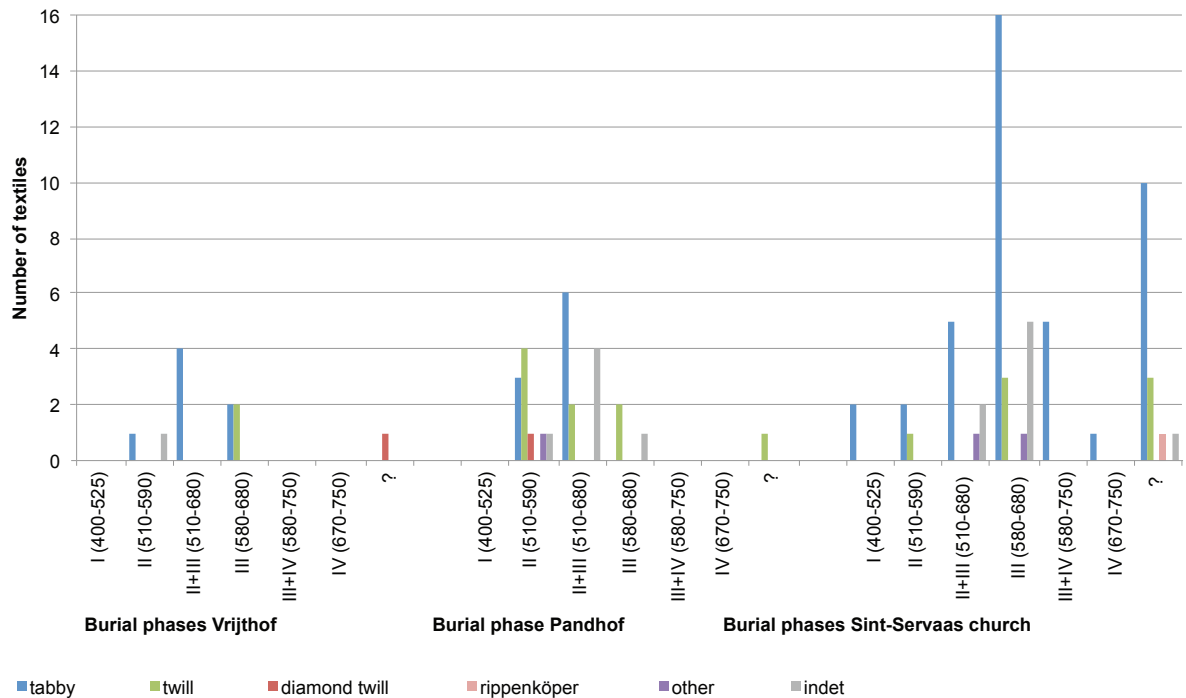


Fig. 4.11 Distribution of the textile types per period in Vrijthof, Pandhof and Sint-Servaas church.

Anglo-Saxon England and most Merovingian cemeteries only flat strips of gold foil have been found.<sup>196</sup> The bands with spun-gold however have a much earlier origin in Byzantium and the sparse examples of these found in France, Germany and the Netherlands may have been imported from this area or have been prestigious gifts from the emperors in Constantinople to the Merovingian court.<sup>197</sup> Magoula takes a somewhat different approach. She poses the possibility that the tradition of spinning gold survived from the Gallo-Roman craftsmen and was continued in or near the Frankish royal centres.<sup>198</sup>

#### 4.5.3 Remains of sewing

Remains of stitching are rare in cemetery finds because of the very small size of the fragments. However, the Sint-Servaas finds have yielded one

fragment with some sewing remains (fig. 4.10).<sup>199</sup> The stitching consisted of a running stitch of 5 mm length. This stitch was only visible on the backside of the fabric; on the front side it covered only two threads of the fabric. The sewing thread was a double z-twisted thread, 0.2mm thick.

#### 4.5.4 Distribution of the textiles among the cemeteries

There are striking differences between the three cemeteries regarding the types of textiles that have been used (fig. 4.11). To start with, there is very little variation in types of textiles in the graves of Sint-Servaas church. The most dominant textile in this cemetery is tabby (41 of the total of 59 textiles, 70%) with a small amount of twills (seven examples, 12%), one fragment of rippenköper, two examples of gold thread and eight indeterminate fabrics. Pandhof shows a more varied distribution with nine

196. Crowfoot & Chadwick Hawkes 1967, 56, Walton Rogers 2007, 96-97.

197. Crowfoot & Chadwick Hawkes 1967, 55.

198. Magoula 2008, 89.

199. Find number 23-04-00.TX6.



tabbies, ten twills (among which one diamond twill), one example of gold thread and six indeterminate fragments. Vrijthof lastly yielded only eleven fabrics: eight tabbies, two twills (of which one diamond twill) and one indeterminate fragment. Interestingly in this respect is the occurrence of rippenköper and one example of gold thread in the Sint-Servaas church. The Pandhof and Vrijthof sites yielded no special fabrics, but two examples of gold thread.

The difference between Pandhof (textiles types more evenly distributed) and Vrijthof/Sint-Servaas church (dominance of tabbies) needs some explanation. The textiles are found on the same types of dress accessories and grave objects so in terms of functionality the finds from Sint-Servaas church and Pandhof/Vrijthof seem to be more or less similar. There is also no explanation to be found in the chronology of the textiles. It has been mentioned before that the chronology of the cemeteries is not the same: Pandhof cemetery has mainly yielded textiles from the earliest periods (up until the transition from sixth to seventh century); Sint-Servaas church on the other hand has yielded far more textiles from the later phases (transition phase and later). This could lead to the conclusion that there was more variation in types of textiles used in the burial in the sixth century than in the seventh century. However, the earlier textiles from Sint-Servaas church show a very distinct domination of tabbies as well. Other angles of approach are needed to explain the differences between the two cemeteries and these may be found in either differences between the buried populations within and outside the church or different ideas on how one should be dressed upon burial within a church.

Very few textiles can be assigned to the eighth century. In Sint-Servaas church two graves with a total of five textiles are from the period 610-725 and one grave with one textile is from the period 754-784. All of these textiles are tabbies of varying qualities. Where the earlier periods show some variation in fabrics, this is completely lacking in the transition period between the Merovingian and the Carolingian period of Sint-Servaas church. The very small dataset from this period however does not allow conclusions on this subject.

As to the use of raw fibres in the textiles little can be said regarding the whole complex of cemeteries since fibre identification was only possible in 14 of the 26 textiles from Pandhof and not for Vrijthof and Sint-Servaas church. Most of the fabrics (twills and tabbies) from Pandhof have been made out of wool. Two tabbies are woven with threads from plant fibres (flax or hemp).

#### 4.5.5 The use of the textiles in the burial

The textiles 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. The textiles that have survived over the years are without doubt a very small representation of the original amount present in the graves. The simple fact that textiles are only preserved in contact with metal objects means that textiles have decayed in all places where there were no metal objects, leaving a meagre sample of what was once a very rich set of textiles. Consequently, it would be optimistic to assume that it is possible to fully reconstruct the use of textiles in the graves and the shape and fit of the actual garments on the basis of the small surviving fragments. Nonetheless, the dataset allows some conclusions regarding the use of the fabrics because the position of the textiles on the metal objects and the position of the objects on the body are often known. Using this information we can attempt 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.

##### 4.5.5.1 *Textiles associated with the belt*

There are several groups of objects associated with textiles. Belt parts such as buckles, buckle plates and belt plates are by far the largest group.<sup>200</sup> When preserved on the back of a belt part one can assume that the fabric originally was worn under the belt. Textiles are often present on the front side of the belts as well. These fabrics can be interpreted as the remains of a garment worn over the belt such as a

200. For an overview of all the belt parts found in the cemeteries of Vrijthof & Pandhof see Kars 2011, 225-260.

cloak or an outer tunic, but this may not always be the case. It is also possible that the garment was worn under but partly folded over the belt. Lastly: fabrics found on the front side of buckles and other belt parts do not necessarily represent garments. These can also be the remains of shrouds (when present on the front of the body) or mattress covers or coffin lining (when present on the back of the body).

Among the textiles from Sint-Servaas church there is practically no difference between the types of fabrics present under and over the belt. In both cases tabbies were predominantly used in qualities ranging from 14x15 up to 24x22 threads/cm. Twills were occasionally worn under and over the belt as well. One example shows a textile on the front side of a back plate. Since the back plate is situated at the back of the body we can assume that the body was lying on top of this fabric: being either a mattress cover or an outer garment or cloak. However, we are dealing with a fabric woven in *rippenköper* (see fig. 4.7), which is a fabric type that in its region of origin (southern Germany and Switzerland) has been recognized in wide cloaks. Therefore it is more likely that the fabric belonged to a similar garment than to a mattress cover.<sup>201</sup> Attached to the fabric was straw, which suggests that the body was lying directly in straw on the bottom of the coffin.

In the Pandhof cemetery there is more variation with an almost equal amount of tabbies and twills worn under and over the belt. In one sixth century grave from this cemetery there is evidence for two garments worn over the belt: this belt was covered firstly by a fine 2/2 twill (20x10 threads/cm) which was in its turn covered by a garment woven in an even finer diamond twill (28x15 threads/cm).<sup>202</sup> Another grave shows a medium tabby worn under the belt (10x10 threads/cm) and a rather thin, open tabby

worn over the belt. The open and fine character of this fabric differs greatly from the other textiles that have hitherto been identified as outer garments.<sup>203</sup> This type of fabric would also have been very suitable for veils.<sup>204</sup> Practically all the other fabrics worn under and over the belt in Pandhof cemetery can be described as dense, with no or very few open spaces between the threads. Sometimes the garment under the belt had been woven a bit more open, showing small open spaces between the threads.

It is not possible to make statements on this subject for the textiles from Sint-Servaas church because of the limitations in the documentation of these fabrics.

In the Vrijthof cemetery only three textiles have been found that can be associated with belt parts. Two buckles showed that a garment woven in twill was worn under the belt. In grave 105 the garment was thin, woven with approximately 18-20 threads/cm and made out of very thin threads.<sup>205</sup> Over this garment another fine fabric was worn. 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 clearly of high quality as well.

Knives and other utensils hanging from the belt show remains of textiles as well. This has only been documented on finds from Sint-Servaas church and Pandhof. On the objects from Vrijthof unfortunately no textiles have been preserved. It is often difficult to determine the function of these fabrics. When more than one layer is present, these could be different garments (or a garment and a shroud), but the object could also be lying in the folds of one single garment. Lastly, this type of object may also have been encased in a pouch (hanging from the belt). An example will clarify the difficulties in interpretation. Two types of textile were present on a knife from

201. Findnumber 01-04-03.TX1, an undated stray find.

Banck-Burgess summarises the use and distribution of *rippenköper* in Alamannic 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 garments were wide mantles (Banck-Burgess 2003).

202. Findnumber 556.1, grave 10332, sex unknown, 565-580/90 AD. It is also possible that the first textile was worn under the belt and partly folded over it.

203. 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.

204. Magoula 2008, 99-100.

205. Findnumber 1473, grave 105, sex unknown, 610/20-670/80 AD.

Sint-Servaas church<sup>206</sup>: the leather scabbard was covered by a rather coarse (probably woollen) 2/2 twill, which was covered by a somewhat finer tabby. Several interpretations regarding the function of these textiles are possible. The twill may have been a fold of a garment (worn under the belt) partly covering the knife and the tabby an outer garment. The twill can also be a cloak or other type of garment worn over the belt and the tabby covering this could then perhaps be a shroud.

Most knives from Sint-Servaas church are only covered with textile on one side, not surprisingly tabbies. On every object the fabric has thread counts ranging between 20-30 threads/cm. This is also the case with other utensils hanging from the belt such as (parts of) keys, a fire steel and a purse bar, which were all covered on both sides with fine tabbies. Contrastingly, the three Pandhof knives are all covered with woollen twills (one rather coarse and two fine textiles).

An interesting object from Sint-Servaas church is a foldable knife, 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.<sup>207</sup> However it is also possible that the foldable knife was hanging from the belt and the remaining fabric is a fold of a garment worn under or over the belt or was wrapped in a separate piece of textile.

A small elongated object measuring 6,2 cm long and Ø 1,5 cm proved to be a needle case (fig. 4.12).<sup>208</sup> The object (of unknown material) has been cut in halves during restoration in order to determine the function of this somewhat amorphous find. In the cross section the 1mm thick shell of the needle case is clearly visible, although it is not clear what material this shell was made of. Within the needle case one can discern the cross sections of 34 needles varying in thickness between 0.8 and 1.2mm. The object was completely wrapped in a regularly woven

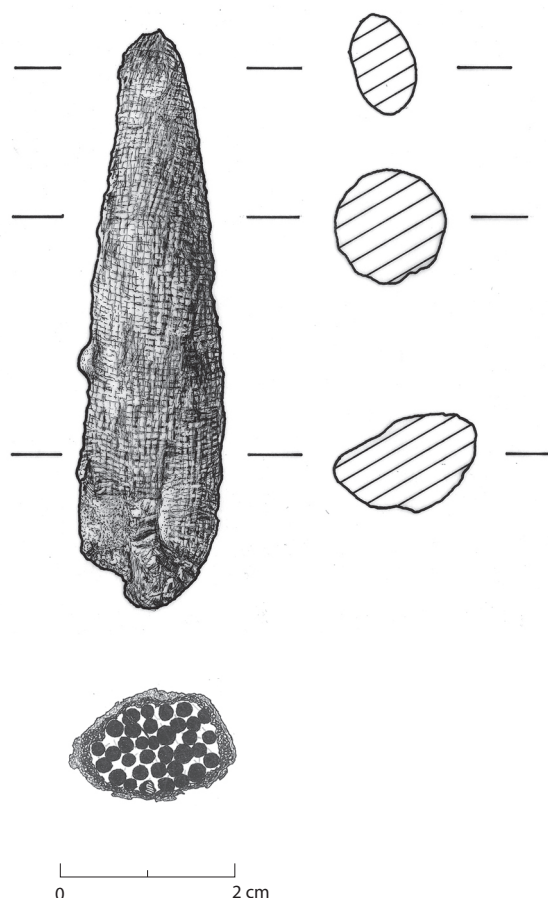


Fig. 4.12. Needle case (find number 30-01-05.3, an undated stray find). Drawing by P.Rossel.

tabby, woven in 16x12 threads/cm. The threads were regularly spun creating a dense fabric. Covering the first textile was another, more open tabby woven out of fewer and thinner threads/cm. This fabric was wrapped around the entire object as well. Since the needle case was likely hanging from the belt in a pouch, we may assume that the first fabric was part of this pouch and the second (outer) fabric belongs to the folds of a garment worn under or over the belt. It is however also possible that the needle case was hanging directly from the belt on its own suspension loop, in which case both fabrics were probably

206. Findnumber 28-02-10.3, from a disturbed context (possibly a grave) of uncertain date.

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

208. Findnumber 30-01-05.3, an undated stray find.

garments. It could also firstly have been 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.

#### 4.5.5.2 *Textiles associated with the lower body*

Strap ends and the textiles attached to these objects give information about the garments that were worn between the belt and the knee, since the strap end was hanging down from the belt. There are five examples of strap ends from Sint-Servaas church and one from Pandhof cemetery. Most information about the stratigraphy of organic materials can be derived from find number 23-04-00, dating to the period 610/20-640/50 (phase III). Unfortunately this object is found in a disturbed context; therefore no information is available about the age or sex of the deceased. During the reopening of the graves objects were often displaced. This makes it difficult, if not impossible, to reconstruct the primary position of the textiles in the graves. However, since the process of mineralization occurred in the first months after deposition in the grave, we can be fairly sure that the textiles adhered to the metal objects were there in their original position as well.<sup>209</sup> Unintentional disturbing during the process of digging another grave within a Christian church or adjacent cemetery occurred most likely long after the burial had taken place. It is therefore assumed that the graves were usually reopened after the soft tissues of the body had decayed and the mineralization process had run its course. Consequently the textiles adhered to metal objects were there in their primary position, unless they have been displaced during this short period by animals or due to the decaying process of the soft tissues of the body. Even though the objects may not be in their original place any more, in theory it is possible to reconstruct which type of fabric/garment is associated with specific dress accessories. Strap end 23-04-00 shows a stratigraphy of several organic layers. At the back of the object there are remains of human skin, covered by a fine open tabby (20x16 threads/cm, z/z). The sewing remains described above were documented on this fabric. On the front side of the strap end another fabric is present: a (probably

woollen) 2/2 twill, covered by a layer of leather. Unfortunately this twill and the leather have been removed during restoration leaving no possibilities to fully describe the fabric. The textiles show that the strap end was lying in-between two different garments: a garment made out of tabby which was worn directly on the body and held in place by a belt. This garment was covered by another garment made out of twill. Both garments reached the thigh but may have been longer. The sewing remains on the undergarment can be part of a hem - in which case the garment reached halfway the thigh - but may also be part of a seam in a longer garment. The sewing is of high quality and has been executed with care, resulting in a seam or hem that was not visible on the outside of the garment, which is for a garment that is covered by an outer gown, not self-evident. Four other strap ends were found, wrapped in the folds of garments made out of z/z tabby. The fabrics were made of varying quality ranging between 12x10 – 14x22 threads/cm. In all these cases the function of the textiles (under or outer garment) is not clear.

In Sint-Servaas church a set of garter buckles has been found on which several types of fabric were present.<sup>210</sup> These buckles were – like the strap end discussed above - unfortunately not found in a grave but in a disturbed context, but will nevertheless provide information on the garments present on the body below the knee at the moment of burial. On the back of both buckles was a rather coarse (probably woollen) plain twill made out of 10x10 threads/cm. This garment has been interpreted as a hose or leg winding. On the front of both buckles there were two layers present of the same medium fine tabby woven with 16x10 threads/cm. On top of this tabby another fabric woven in 2/2 twill was present. Unfortunately this fabric had been removed during restoration so no technical details on this fabric are available. 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. Over the lower legs a long undergarment woven in tabby was worn which was covered by another garment of approximately equal length woven in twill.

209. See discussion in note 170.

210. Findnumber 29-03-07, dated to the period 460/80-725 AD.



#### 4.5.5.3 Textiles associated with the upper body: brooches

The occurrence and configuration of brooches have often been used to reconstruct female dress in Merovingian graves, resulting in a fine chronology of female attire in the fifth and sixth century.<sup>211</sup> When remains of textiles are lacking or scarce the brooches are inevitably still an important source of information about dress in this period. For the Pandhof and Vrijthof cemeteries Kars has discussed the occurrence and configuration of brooches in the graves and this will be briefly summarized here.<sup>212</sup> In three of the graves in Pandhof cemetery (all dating to the sixth century) a pair of disc brooches was found on the chest as well as a pair of bow brooches in the area of the pelvis. This configuration of two pairs of brooches has been described as the “four-brooch fashion” or *Vierfibeltracht*: the occurrence of four brooches in a more or less vertical line on the body.<sup>213</sup> The upper two were generally a pair of small round brooches, whereas the lower two were a set of larger bow brooches. This lower set was probably used to fasten a cloak and the upper two may have had the same function or were used to close the head aperture of the gown beneath the cloak.<sup>214</sup> 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. The above-described four-brooch fashion is generally dated to the period 460/80-580/90,<sup>215</sup> whereas the single brooch fashion occurs later, in the sixth century and the seventh century.

Vrijthof cemetery has yielded several round brooches as well, but these generally are not part of a pair of brooches and are not found in combination with pairs of bow brooches. The graves in which the Vrijthof brooches were recovered are dated to the sixth century and are therefore contemporary to the finds from Pandhof. It seems that in the Vrijthof graves the transition to the newer fashion is visible in the archaeological record earlier than in Pandhof. Here however we must bear in mind that the Vrijthof excavation was not as thorough as the excavation of the Sint-Servaas church and Pandhof cemetery. In the Vrijthof cemetery, objects may have been overlooked during excavation and have gone missing in the decades afterwards. Therefore the relative absence of brooches in this cemetery may not reflect the original deposition pattern at all.

Textiles were attached to several of the brooches found in Pandhof and Vrijthof. Pandhof cemetery has yielded three brooches with textiles, all dating to the sixth century.<sup>216</sup> In all these cases the textiles were present on the back of the object and were fastened by the pin of the brooch. When we look at the position of these brooches in the graves, it is clear that they were positioned on different areas of the body. The brooch from grave 11220 is one of a pair of bow-brooches, found in the area of the hip. Theoretically this brooch would have been used to close the front of an outer garment or cloak. The brooch from grave 11321 is one of a pair of small round brooches worn on the chest. We would expect this brooch to either fasten a cloak or the head aperture of the gown or tunic worn underneath the cloak. Brooch 466 is a single brooch in grave 11342 whose location in the grave is not clear. When we compare the textiles

211. Strauß 1992; Siegmund 1998; Müsseseimer e.a. 2003, 31-32.

212. Kars 2011, 260-279.

213. Strauß 1992, 79 and Siegmund 1998, 55-56 have summarized the chronology of the configuration of brooches in Frankish burials. Siegmund states that the paired 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.

214. Ibidem; For examples of reconstructions of the Merovingian dress that would have accompanied the *Vierfibeltracht*: Walton Rogers 2007, 190 fig. 5.44c.

215. Franken AG phase 3-5 (see table 1).

216. Find number 466.7 from grave 11342 (woman, 510/25-610/20 AD); find number 375 from grave 11220 (woman, 510/20-580/90 AD) and find number 418 from grave 11321 (indet. sex, 510/20-580/90 AD).



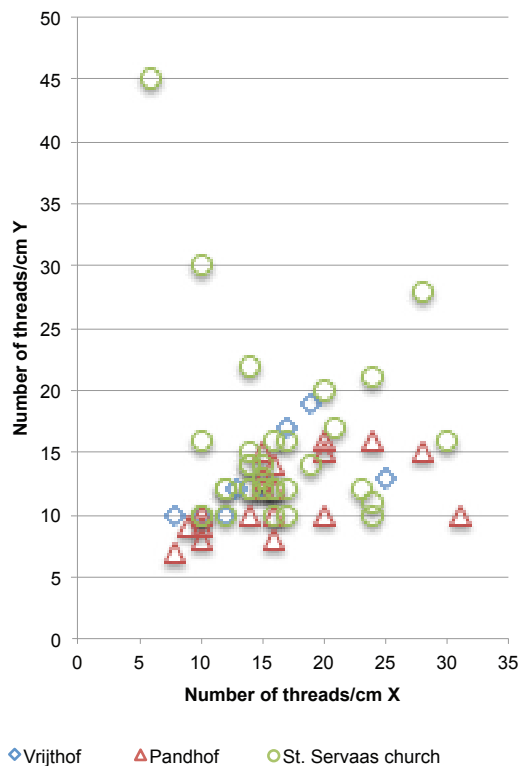


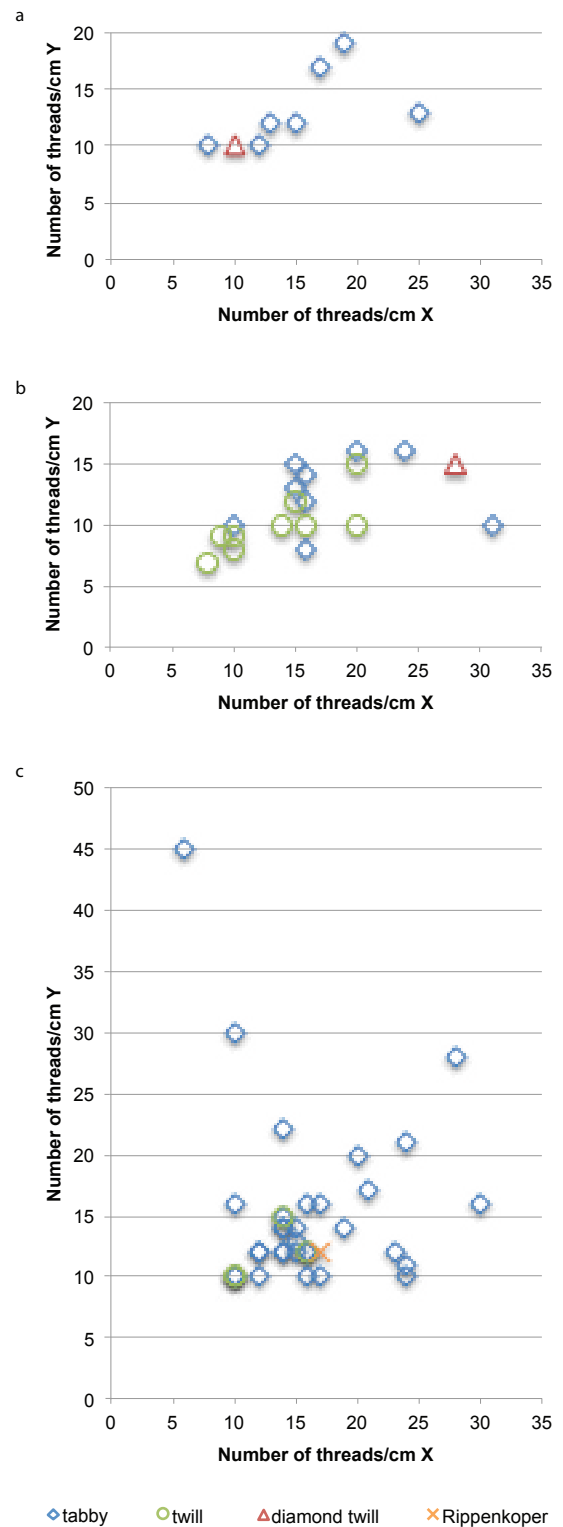
Fig. 4.13. Quality of the textiles from Sint-Servaas church, Pandhof and Vrijthof expressed in number of threads/cm. The majority of the textiles is grouped between 10-20 threads/cm. Only few textiles are coarser than 10 threads/cm. Textiles finer than 20 threads/cm are predominantly found in Sint-Servaas church.

Fig 4.14.

a. Quality of the textile types from Vrijthof. Vrijthof cemetery predominantly yielded tabbies and it is therefore difficult to compare the quality of these fabrics with other types of textile. All textiles are finer than 10 threads/cm.

b. Quality of the textile types from Pandhof. Pandhof cemetery yielded equal amounts of tabbies and twills and these fabrics are present in all quality groups, although tabbies are on average finer than twills.

c. Quality of the textile types from Sint-Servaas church. This cemetery yielded predominantly tabbies and these are represented by coarser and very fine fabrics. The few twills excavated in this cemetery are present in the group of 10-20 threads/cm.



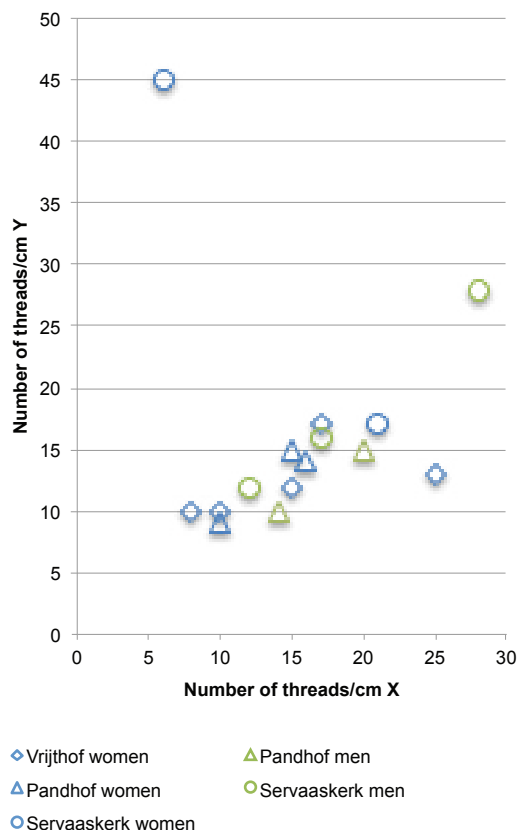


Fig. 4.15 Quality of the textiles in graves of women (blue) and men (green) in the three cemeteries of Maastricht. The small number of textiles (15) that could be assigned to men or women does not allow any conclusions regarding textile quality between men and women in Maastricht.

adhered to these brooches one would expect to see differences but this is not the case. Two of the fabrics were tabbies; the last was badly preserved making identification of the weave impossible. Interestingly these fabrics were of similar quality: rather open, woven with 16x14 threads/cm and thin threads (0.2 mm). This combination of thin threads and thread count, resulting in an open and thin fabric, occurs only four times, three out of these in association with brooches.<sup>217</sup> Since the textiles found on belt parts are assumed to be remains of cloaks, gowns and tunics (and these were invariably made out of

217. An exception is the fabric found on the front of a belt part in find number 60.1 from Pandhof grave 10042.

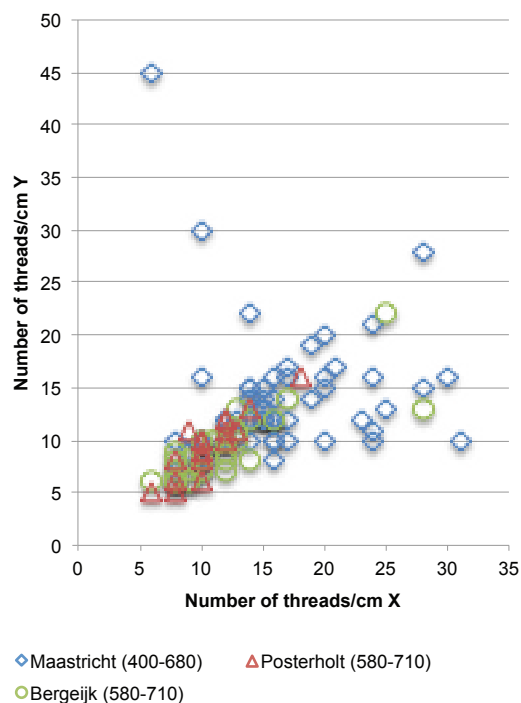


Fig. 4.16 Quality of the textiles from Maastricht (Sint-Servaas church, Pandhof and Vrijthof) and the rural cemeteries Bergeijk and Posterholt. The textiles from Maastricht are generally finer than those from Bergeijk and Posterholt.

coarser fabrics), it doesn't seem likely that the fabrics found on the brooches belonged to those garments. This raises the question whether the fabrics on the brooches can 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 fit this function, although they are not as fine and delicate as the so-called *Schleiergewebe* from the seventh-ninth centuries found in the *terpen* area in the north of the country. These are woven with equally thin threads but even fewer threads/cm.<sup>218</sup>

218. *Schleiergewebe* is found in the *terp*-settlement of Leens, dating in the period 600-900 AD (Brandenburg 2010a, 63).

Another fine tabby was found on the back of a brooch from Vrijthof.<sup>219</sup> This brooch, which is of Scandinavian origin, can be dated between 510/25 and 640/50 and was found in a women's grave on the left shoulder. The fabric on the brooch is woven out of thin threads but much more threads per cm than the Pandhof examples, resulting in a fine but dense fabric. The position on the left shoulder is not normal in this period, but the brooch could have fastened a fine and densely cloak at the shoulder or fastened a veil (made out of a similar fabric) onto an outer garment.

#### 4.5.5.4 *Textiles associated with headwear*

In one woman's grave from the sixth century a fragment of gold thread was found near the skull. It is assumed that the gold thread was part of a golden fillet or a decorative band on a veil.<sup>220</sup> As mentioned above, evidence for gold thread used in headbands and veils is abundant in the archaeological record from the sixth century and later.

#### 4.5.5.5 *Textiles associated with weapons*

Weapons were either positioned on the body or placed separately in the grave. In the cemeteries of Maastricht several weapons with remains of textile have been recovered, all dating to the decennia around 600. Unfortunately most of these objects have been cleaned completely during restoration without basic documentation of the textiles. This makes it very difficult to gain insight in the degree in which weapons were covered with or wrapped in fabrics and which role they played in the display of the burial ritual. In two cases weave identification was possible (tabby) and in only one object thread count was documented. A tabby wrapped around a lance head from Sint-Servaas church<sup>221</sup> was woven in 24x10 threads/cm. The fabric was present on both

sides of the object, which suggests that the object was not merely covered (for instance by a garment or a shroud) but wrapped separately before or during deposition in the grave.

Worth mentioning is an axe from around 600 AD, found in Sint-Servaas church.<sup>222</sup> This object was lying on the lower leg of the deceased. Between the bone and the axe two layers of a coarse fabric were found. The function of this fabric may have been trousers, hose or leg winding, but other functions are possible as well. A sax excavated in a woman's grave in Vrijthof cemetery was covered by or lying on top of a coarse and open fabric, woven with 10x10 threads/cm.<sup>223</sup>

#### 4.5.6 *Textile quality*

The quality of textiles is often measured in numbers of threads per cm. Many authors - including myself - have pointed out that the time and effort spent and the degree of specialisation needed for the production of specific craft products, including textiles, can give an idea of the value adhered to these fabrics.<sup>224</sup> Thread count is an easy way to measure these factors for textiles and will be discussed below. Textile quality can be determined by many other factors such as color and decoration, preferably with contrasting colored or shiny yarns (such as gold thread).<sup>225</sup> Furthermore the appearance of the textiles - its texture or surface - may also have been of significance because it can be just as important in signaling social status as the form or shape of a garment.<sup>226</sup>

##### 4.5.6.1 *Quality of textiles based on thread count*

When we compare the fabrics of the three cemeteries of Maastricht solely on the basis of thread count there are small differences between these sites. The textiles from Sint-Servaas church are slightly finer

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

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

221. Findnumber 23-03-01, grave 363, sex unknown, 565-610/20.

222. Findnumber 05-11-03, grave 68, man 31-37 years old, 580/90-610/20. The fabric had been removed during restoration.

223. Findnumber 1614.1, grave 115, woman, 510/20-580/90. 224. Olausson 1997, Andersson 2003 & 2007, Brandenburg 2010a, 46-48.

225. Wells 2008, 43-47.

226. Hammarlund et al. 2008, 69.

Type	Cemetery/findnumber	Gravenumber/ Gender	Date	Threads/cm
Rippenköper	Sint-Servaas church 01-04-03	0, ?	undated stray find	17-18 x 12
Spin patterned / repp tabby	Sint-Servaas church 16-DD-03	137, ?	610/20-725	30 x 6
Spin patterned tabby	Vrijthof 1614	115, Female	510/20-580/90	8 x 10
Repp (tabby) distinct example	Pandhof 40.1.TX1	10128, ?	510/25-670/80	30-32 x 10
Repp (tabby) —> distinct example	Sint-Servaas church 17-02-07.1	0, ?	undated stray find	10 x 30
Repp (tabby) distinct example	Sint-Servaas church 21-02-03.1	164, Female	510/25-610/20	6 x ±45
Repp (tabby) —> less distinct example	Sint-Servaas church 03-06-01.1	26, ?	580/90-640/50	24 x 11
Repp (tabby) —> less distinct example	Sint-Servaas church 23-03-01.1	158, ?	610/20-670/80	24 x 10
Diamond twill	Vrijthof 1687-3	0, ?	undated stray find	10 x 10
Diamond twill	Pandhof 556.1	10332, ?	565-580/90	28 x 15

Table 4.3 Special fabrics found in the cemeteries of Maastricht. The sex or gender of the deceased could in only two examples be ascertained. Therefore differences between men and women based on special fabrics cannot be discerned.

than those from Pandhof and Vrijthof and there are more fabrics that are very fine (>20 threads/cm), but the majority of all sites lie in the medium fine to fine categories (10-20 threads/cm) (fig. 4.13 & 4.14a-c). This means that in terms of thread count there is a small difference in textile quality *in* and *ex muros*.

It is remarkable that only very few textiles are coarser than 10 threads/cm. When plotting the thread count per site and per textile type it becomes obvious that several textiles from Pandhof are in this category and that all of these are twills. This does however not mean that twills are always coarser than tabbies: the Pandhof twills show much variation in terms of thread count and are among the coarsest and finer textiles from Maastricht (fig. 4.14b). The small number of textiles (15) that could be assigned to men or women does not allow any conclusions regarding differences in textile quality between men and women in Maastricht (fig 4.15).

A comparison of the textiles from urban Maastricht

with those from two rural cemeteries in the south of the Netherlands brings out the most interesting information (fig. 4.16). The textiles from Maastricht are evidently finer than those from Bergeijk and Posterholt.<sup>227</sup>

#### 4.5.6.2 *Quality of textiles based on texture*

This paragraph started with the notion that thread count is not the only factor that defines textile quality. The patterns woven into the fabric, thread thickness, regularity and degree of spin of the yarns and the density of the fabric (open spaces or not) contribute to the texture, drape and functionality of a fabric and

227. The textiles of Bergeijk (40 textiles) and Posterholt (22 textiles) have been published in Brandenburg 2012a & Brandenburg 2013. The textiles from the cemeteries of Wijchen and Rhenen have not been included into this comparison because of dating problems in both sites.

may have influenced the way textiles were valued. 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 supple fabrics or - when using only few threads/cm - become fragile like the veil-like fabrics described earlier. The naked eye often perceives these subtle differences while they are not easily measured with the standard variables documented during textile research.

Special weaves have been observed in several graves (table 4.3). These fabrics do not always stand out in terms of high thread count but they have different textures that are clearly visible with the naked eye. Examples of these are rippenköper, spin-patterned tabby and repp (tabby). Diamond twill creates a similar visual effect and has been listed in table 4.3 as well, but this fabric is in fact a very common weave in this period in the Netherlands and is known in both coarse and fine qualities.<sup>228</sup> Due to the small size of the remaining textiles in cemeteries this weave is often hard to discern from plain 2/2 twill so many more examples may be present in this cemetery that cannot be identified as such.

Another approach towards textile quality is to incorporate the thread thickness into the picture of thread count. The range of textiles documented in Maastricht is however rather narrow: most fabrics have been woven out of threads approximately 0.5 mm thick with only a few very coarse textiles and a group of finer textiles woven out of 0.2-0.4 mm thick threads. Generally the thicker threads have been woven in a low thread count and the thin threads result in a high thread count. The area where these groups overlap is an interesting mixture of textiles. These textiles woven with 10-20 threads/cm consist of both thick, dense fabrics and thinner, loosely woven and supple fabrics. These textiles are evenly distributed over all three cemeteries.

228. Brandenburg 2010a, 60, table 8, in early medieval settlements in the north of the Netherlands only 6% of all fabrics are woven in tabby with 50% of diamond twills and another 35% of other types of 2/2 twills.

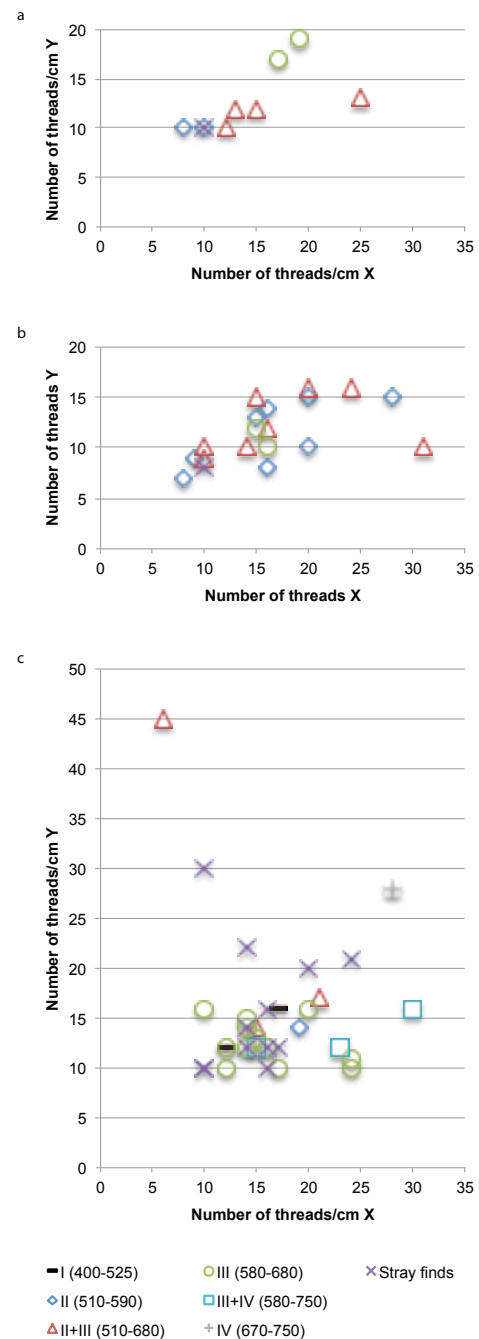


Fig. 4.17

a. Thread count of the textiles from Vrijthof according to phase.  
b. Thread count of the textiles from Pandhof according to phase.  
c. Thread count of the textiles from Sint-Servaas church according to phase. A single textile from the eighth century (phase IV) stands out from the previous period by its high thread counts.

#### 4.5.6.3 *Quality over time*

Figure 4.4 showed that the textiles from the three cemeteries are assigned to several phases. The quality of the textiles can be assessed according to these phases as well. This is shown in figure 4.17a-c. Starting with Vrijthof cemetery, there is a tendency towards finer textiles as time goes by (fig. 4.17a). However, the amount of textiles from this cemetery that could be assigned to a phase is not very large so the importance of this outcome is disputable. Contrastingly, the textiles from Pandhof and Sint-Servaas church cemetery are of varying quality throughout the entire timespan of the cemeteries (fig. 4.17b-c). The transition to the Carolingian period is visible in a single textile in phase IV from Sint-Servaas church and three textiles from phase III/IV. The textiles from phase III/IV are finer than average and the textile from phase IV stands out from those of previous periods by its high thread counts (fig. 4.17c) but again, four textiles is not enough to allow any conclusions regarding the changes in textile quality throughout these periods.

#### 4.5.7 Textiles associated with gender

It is reasonable to assume that men and women in Maastricht were dressed differently during life. Iconographical and written sources and numerous archaeological finds from cemeteries in the countries surrounding Maastricht indicate that men and women distinguished themselves during daily life and in the burial context not only by different dress accessories, but also by the use of different garments and fabrics.<sup>229</sup>

Although many textiles were found only a very small number (26) of these could be associated with graves identifiable as those of men or women. Of these 26 textiles 19 were preserved well enough to allow

documentation of weave and 15 with a recorded thread count. Consequently the textiles from Maastricht do not allow any conclusions regarding differences between men and women. In Vrijthof cemetery only textiles associated with women's graves were documented and these were all tabbies. Pandhof showed a bit more variation with twills in the men's graves and an equal share of tabbies and twills in women's graves. Sint-Servaas church only yielded tabbies in both women's and men's graves. There seems to be no difference in textile quality between men and women as is shown in figure 4.15.

### 4.6 THE TEXTILES FROM MAASTRICHT IN A BROADER GEOGRAPHICAL CONTEXT

To better understand the nature of the textile finds from Maastricht it is necessary to compare them with textile finds from other sites in the area. Cemetery textiles from the Netherlands have been published recently and are listed in table 4.4. Also available is a large dataset of textiles from settlements in the north of the Netherlands, but many of these are probably younger than the cemetery finds from Maastricht, which makes it difficult to compare them.<sup>230</sup> For the countries surrounding the Netherlands the extensive inventory made by Bender Jørgensen gives the best overview of regional differences in textiles<sup>231</sup> whereas for Britain the inventory of Walton Rogers provides a solid reference work.<sup>232</sup> The dominance of tabbies in the cemeteries from Maastricht, especially Sint-Servaas Church, makes Maastricht stand out from all other sites in the Netherlands. Gold thread and several special weaves also occur only in Maastricht. Bender Jørgensen points 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

229. For the earliest phases after the Roman period we may expect some continuation of the dress as is seen on Roman sculptures and described by Roman historians. Written sources and illuminations from the early Middle Ages include a countless amount of descriptions and images of clothes and their context in (everyday) life. Together these historical sources provide us with the general picture of early medieval dress and its social context. Archaeological finds complement this picture.

230. Brandenburgh 2010a, 44.

231. Bender Jørgensen 1992, including the analysis of textiles from Germany (Roman period: 111 textiles from 56 sites; Merovingian cemeteries: 313 textiles from 72 sites). Belgium and France were not part of this study.

232. Walton Rogers 2007, 104-110.



Location	Period	N textiles	Textile assemblage
Wijchen	400-640	95 textiles (50% from the period 400-570; 50% from the period 570-640)	33% tabby, the remaining textiles are twills (5% diamond twill)
Bergeijk	565-740	40 textiles	20 twills (incl. 4 diamond twills), 9 tabbies (remaining are indeterminate fragments).
Posterholt	510-680	22 textiles	4 twills, 8 tabbies (remaining are indeterminate fragments)
Textiles from settlements Netherlands	350-1000	226 textiles (majority from period 500-900)	6% tabby, with 50% diamond twills and another 35% of other types of 2/2 twills.

Table 4.4 The textiles from the cemeteries of Wijchen,<sup>233</sup> Bergeijk<sup>234</sup> and Posterholt<sup>235</sup> in the south of the Netherlands and the settlements from the north of the Netherlands.<sup>236</sup>

weaves such as *rippenköper*.<sup>237</sup> Walton Rogers refined this chronology for Britain considerably, resulting in a detailed and deviating distribution pattern with a predominance of tabbies only in the seventh century onwards.<sup>238</sup> Central Germany (the area of the Thüringen which was conquered by the Franks in the first half of the sixth century) dominates in tabbies in a way comparably to Maastricht and also eastern Austrasia (Rhine valley and Westphalia, the principal territory of the Franks) shows considerably more tabbies than other cloth types.<sup>239</sup> 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. Having ascertained the similarities between Maastricht and central Germany and, in slightly lesser degree, the core territory of the Franks, the question arises whether this textile tradition is the result of Frankish influences or the

remains of Roman or Germanic traditions. In order to answer this question we need to look at the cloth types used during the Roman period in the areas around Maastricht as well. Starting with the Germanic areas across the Rhine the dominance of tabbies is striking in all areas in Germany with the textiles from the area just north of the Rhine being most similar to those from Merovingian Maastricht. Contrastingly, the Roman areas of Germany show a much more even distribution of tabbies and twills.<sup>240</sup> This could point to Germanic influences regarding textile traditions in the areas that were colonised in the sixth century by the Franks. There may however have been many other processes involved that we do not fully grasp yet. Going back to the example of Britain described above, it becomes obvious that we can discern more variation in the use of textiles over time when we have enough data to divide the textiles into smaller date-groups.<sup>241</sup> For most areas these detailed overviews are not available yet and

233. Brandenburgh 2010b, 124-125 fig. 9.4, 9.5 & 9.6.

234. Brandenburgh 2012a, 132-133.

235. Brandenburgh 2013, 135.

236. Brandenburgh 2010a, 60.

237. Bender Jørgensen 1992, fig.16-29 for different parts of Britain, fig. 82 for north Germany.

238. 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.

239. Bender Jørgensen 1992, fig. 83-84.

240. Bender Jørgensen 1992, fig. 63-65 for the textiles from Germania Libera. Feddersen Wierde in the upper north of Germany and the Thorsbjerg finds from South Schleswig show a very different textile assembly with equal shares of tabbies and twills, fig. 71 for Roman Germany.

241. 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.

we must therefore be reluctant to explain the crude trends observed in terms of ethnic concepts such as Germanic and Roman.

When comparing the quality of textiles found in Maastricht to those from other sites in the Netherlands and the surrounding countries it becomes clear that Maastricht has by far the finest textiles found in the Netherlands (fig. 4.16) but that Maastricht is quite average compared to the Germanic sites during the Roman period and the cemeteries in Merovingian Germany.<sup>242</sup>

#### 4.7 DISCUSSION

This chapter set out to test several hypotheses regarding the burial tradition and the use of textiles in the cemeteries in Maastricht. These hypotheses will once again be discussed below and an attempt will be made to answer the research questions relating these topics using the results of the textile research.

1. To which degree were textiles used as a status symbol or social identifier in the context of the burial? Do the elite burials in Maastricht contain more fabrics of a high quality, textiles woven in intricate patterns, colourfully died fabrics and shiny precious materials such as silk and gold thread? Is there a significantly higher amount of these finds present in Maastricht as opposed to rural cemeteries?

Which graves contain these precious materials and what is the meaning of this distribution? Is there a difference in grave textiles between men, women and children?

The textiles from Maastricht are of considerably higher quality than those from the rural cemeteries in the direct surroundings of Maastricht analysed so far. There are more special fabrics; several examples of gold thread and the fabrics are generally of a higher quality (being woven out of thinner thread and more threads/cm). This would indicate that the people in Maastricht were buried in more luxurious textiles than the people that were buried in the rural cemeteries in the south of the Netherlands and that these textiles may have been used as an expression of a higher status. Interesting in this respect is the fact that the quality of the textiles does not fully agree with the other objects recovered from the graves in Maastricht. In Sint-Servaas church and Pandhof most grave objects were not uncommonly rich, in fact they are quite similar to those found in rural cemeteries, with only few exceptions that show more than average luxury.<sup>243</sup> Moreover, a comparison between the textiles from the sites from Maastricht and the rural sites may not be as straightforward as presented above. Many graves in rural cemeteries have been reopened and we may expect that the most precious objects (including the most luxurious textiles?) have been removed from these sites before they could be excavated. It is therefore possible that the differences observed between the Dutch cemeteries were in reality not as large as the archaeological remains show. When we compare the fabrics from Maastricht to those from the sites known in other Frankish cemeteries in for example nearby western Germany, the textile assemblage of Maastricht doesn't stand out at all in terms of quality and is actually rather average. Therefore one could conclude that Maastricht may have been a local focal point for the elite in the region but was also on the edge of the Frankish hearth land and - based on the textiles - was not exceptionally rich.

It was not possible to distinguish specific rich graves within the cemeteries of Maastricht: men, women and children were all buried in rich textiles and due to the limited number of textiles that were recovered in each grave it is not possible to get a good picture of the wealth of the individual burials.

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242. In Germanic sites in northern Germany the tabbies, that were the predominant textile type in Maastricht, had thread counts between 10-20 threads/cm. Sites from Merovingian Germany show slightly finer tabbies with thread counts between 10-25 threads/cm, whereas the twills from these sites were woven with approximately 5-15/20 threads/cm. Spinpatterned tabbies from these sites were documented in the range 15-30 threads/cm (Bender Jørgensen 1992, fig. 72-73 and 77 for Germanic sites in the Roman Period and fig. 87, 90, 92, 94 for Merovingian Germany).

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243. Personal comment F.Theuws



2. Do the textile remains show differences between the burials *intra* and *extra muros*? If so, how and when do these differences occur?

There are distinct differences regarding the textiles found in the burials inside and outside the church. Furthermore there are differences between the two cemeteries outside the church (Vrijthof and Pandhof) as well. In Pandhof cemetery the female burials show evidence of the four-brooch-fashion while this is completely lacking in the Vrijthof cemetery. Here however we must bear in mind that the Vrijthof excavation was not as thorough as the excavation of the Sint-Servaas church and Pandhof cemetery. In the Vrijthof cemetery, objects may have been overlooked during excavation and have gone missing in the decades afterwards. If however in the Vrijthof graves the transition to the newer three-brooch-fashion is visible in the archaeological record earlier than in Pandhof cemetery, this might point to different burial populations with their own burial dress code. Within the church the burials contained practically only fabrics woven in tabby, while outside the church more variation in cloth types was used. Special fabrics have been found predominantly in Sint-Servaas church while only one example of a special weave was present in Pandhof and one example in Vrijthof. Gold thread on the other hand has been found in Sint-Servaas church (1x) and Pandhof (2x). When we compare the textiles of the three cemeteries of Maastricht solely on the basis of thread count there are small differences between these sites.

The textiles from Sint-Servaas church are slightly finer than those from Pandhof and Vrijthof and there are more fabrics that are very fine (>20 thread/cm), but the majority of the textiles from all sites lies between 10-20 threads/cm. Summing up, there are differences in textile quality and characteristics *intra* and *extra muros*. The question that needs answering is however, how must we interpret these differences? Were the people buried within the church a different, richer part of the population than those buried outside or did they merely use textiles of a higher quality because the location of burial (near the altar) prescribed it? In the first case the tabbies found in the burials in the church may be attributed to the highest circle of Maastricht's society and may have

been part of their way to distinguish themselves from other groups in society. The second suggestion is equally valid: the differences observed might reflect the ideas of the population of Maastricht on how the deceased should be dressed upon being buried in the church as opposed to outside the church. In that case the differences observed in the cemetery textiles have no meaning in terms of different groups in society, the position of the people in daily life, nor for the place Maastricht fulfilled as a centre in the region, but it merely reflects the aspired status of the deceased or the way people would like to be seen during the burial ritual.

3. Can the textiles from the cemeteries in Maastricht be placed in a local or regional textile tradition? Are there for instance Germanic or Roman characteristics in the textiles and to which degree do the Maastricht textiles differ or resemble the contemporary textiles from the surrounding countries?

There are strong similarities between Merovingian Maastricht and the (Roman period) textiles from what during that period was called Germania Libera, whereas there are no similarities with the surrounding areas that were part of the Roman Empire. The dominance of tabbies is striking in all Germanic areas in Germany and the textiles from the area just north of the Rhine are most similar to those from Merovingian Maastricht.

When we compare the textiles from Maastricht with contemporary textiles, Merovingian Maastricht seems to have had the same textile tradition as central Germany and, in slightly lesser degree, eastern Austrasia (Rhine valley and Westphalia, the principal territory of the Franks. There may however have been many processes of interaction and the development of local textile tradition that we do not fully grasp yet and we must therefore be reluctant to explain the crude trends observed in terms of ethnic concepts such as Germanic and Roman. The gold thread found in several graves may be considered either as an import from Byzantium or as a remnant of a Gallo-Roman tradition.

4. Are there differences between the textiles from the fifth/sixth century and those from the seventh century?

The documented textiles from the period before 580/90 do not differ from those from the later periods. Therefore any changes in dress that might have occurred are not visible in the archaeological record in Maastricht. This is partly the result of the poor conservation of the textiles in these cemeteries making it impossible to provide a detailed chronological overview of the developments in textiles in Maastricht.

5. Did grave textiles become sparser and less luxurious from the end of the seventh century onwards?

Both the Pandhof and Sint-Servaas church contain graves from the Carolingian period but the amount of textiles recovered from those graves is very small, which is to be expected with the diminishing amount of grave goods in this period. This makes it very difficult to compare the textiles from this period to those of earlier centuries. In Sint-Servaas church two graves with a total of five textiles are from the period 610-725 (phase III-IV) and one grave with one textile is from the period 754-784 (in phase IV). All of these fabrics are tabbies of varying qualities. Tabbies woven out of s-twisted threads in both tread systems occur only in the seventh and eighth century while the other weaves (z/z and z/s) are present throughout the entire period. So where the earlier periods show some variation in fabrics, this is completely lacking in the transition period between the Merovingian and the Carolingian period of Sint-Servaas church.

When we look at the quality of the few finds from this period the textiles from phase III/IV are finer than average and the one fragment from phase IV stands out from those of previous periods by its high thread counts so there seems to be an indication that textiles may have become finer during the transition from the Merovingian to the Carolingian period. Again however, the dataset is too small to allow any firm conclusions on this subject.

