Nº 64

ARCHAEOLOGICAL TEXTILES REVIEW



2022 issue

Archaeological Textiles Review

ATR is published by the Friends of ATN, and hosted by the Centre for Textile Research in Copenhagen.

Editors: Karina Grömer Mary Harlow Jane Malcolm-Davies Ulla Mannering Kayleigh Saunderson Elsa Yvanez

Scientific committee:
Eva Andersson Strand, Denmark
John Peter Wild, UK
Lise Bender Jørgensen, Norway
Elisabeth Wincott Heckett, Ireland
Johanna Banck-Burgess, Germany
Tereza Štolcová, Slovakia
Heidi Sherman, US
Claudia Merthen, Germany
Christina Margariti, Greece

Cover: Charlotte Rimstad Fibula 352 from grave 101, Potzneusiedl (Image: Stefan Schwarz, Austrian Academy of Sciences)

Layout: Karina Grömer and Kayleigh Saunderson, Natural History Museum Vienna

Print: Grafisk, University of Copenhagen

To purchase a printed copy of the latest *Archaeological Textiles Review*, please visit: https://www.webshophum-en.ku.dk/shop/archaeological-textiles-664s1.html Information about institutional subscriptions is also available here.

Visit www.atnfriends.com to learn more about the organisation.

ISSN 2245-7135

Contents

Editorial	2
Articles	
Threads and reused textiles as decorative items in Deir el-Medina, Egypt Chiara Spinazzi-Lucchesi	4
Textile from the Crannog: analyses and weave experiment of a 2/1 twill weave from Oakbank, Scotland, 400 BCE Susanna Harris, Frances Houston and Jason Oliver	16
Missing Link: Early Roman textiles and Norican- Pannonian female dress from Potzneusiedl, Austria Kayleigh Saunderson, Karina Grömer and Lucia C. Formato	28
A chieftain's colourful garments: microinvasive analysis of Norwegian Snartemo V textiles Krista Wright, Maarten R. van Bommel, Tuija Kirkinen, Jenni Suomela, Jani Seitsonen and Janne Ruokolainen	39
Three objects catalogued as vantsöm in the collections of the Museum der Kulturen in Basel, Switzerland Cary Karp and Anne Marie Decker	55
Fulled red hose: a grave find from Ravattula Ristimäki in south west Finland dated to the early 13th century Jaana Riikonen and Juha Ruohonen	64
Shirts for life and eternity in the grave of Bishop Peder Winstrup (1605–1676) Pernilla Rasmussen	76
Norwegian double-cloth: warp-weighted loom experi- ments in a complicated technique Katherine L. Larson and Marta Kløve Juuhl	92
Projects	
Fashioning Sudan: Archaeology of Dress along the Middle Nile Elsa Yvanez	110
Textile production in the Western Mediterranean: Phoenician and Punic contexts between the 9th and 2nd centuries BCE Nina Ferrante	114
Deciphering the pattern of the tablet-woven band on the tunic from Thorsberg Sylvie Odstrčilová	122



Projects

Textile Resources in Viking Age Landscapes (TRiVal) Eva Andersson Strand	127
Unpicking the Bacton Altar Cloth: innovative methodologies for interpreting embroidered textile artefacts Challe Hudson, Cynthia Jackson, Natalie Bramwell-Booth, Christine Carnie and Jennifer Worrall	132
The Ghastly Garment: a knitted waistcoat associated with King Charles I Jane Malcolm-Davies and Beatrice Behlen	138
TEX-KR project: from textile remains to lost practices, investigating the textile material culture of conflict of the Khmer Rouge regime Magali An Berthon	142
EuroWeb COST Action CA 19131: Europe through Textiles. Network for an integrated and interdisciplinary Humanities Agata Ulanowska, Francisco B. Gomes, Alina Iancu, Christina Margariti, Paula Nabais, Marie-Louise Nosch, Louise Quillien, Francesco Meo, Hana Lukesova and Magdalena Woźniak	147
Conferences	
Reconstructing Textiles and their History	156
Margrethe Hald and the Nordic History of Textile Research	157
Smart Textiles from Antiquity to Modern Times	158
DRESSED: The Widespread Role of Clothes, Textile Production and Clothing Concepts in Society	164
28th European Association of Archaeologists (EAA) Annual Meeting	166
VIII Purpureae Vestes International Symposium	168
Missing Persons: who were the typical Tudors?	
Current Research in Textile Archaeology along the Nile	171
Obituaries	
Audrey Henshall 1927–2021	173
Annelies Goldmann, née Peters 1936–2022	174
Anne Reichert 1935–2022	176
Resources: Recent publications and News	178



Dear Reader,

The year 2022 became the one in which the pandemic finally lost its tight grip on our academic world and the world in general. Conferences could take place in person again and the previous good experiences with online participation made it possible for those still unable to travel to link up with old and new scientific communities. In this issue, we have news from some of these conferences. There are still fewer than usual but the number is increasing. Please remember that you are all welcome to report on all events relevant to our Archaeological Textiles Review readers in the future. Despite the pandemic, ATR has received a constant flow of contributions this year and we already have many exciting articles and project reports in the pipeline for the next issue (ATR 65) – but we are always ready for more. We do our best to process material for the next issue as promptly as possible and continue to be a route to relatively quick publication. However, the editors and peer reviewers are all volunteers and we are grateful for your patience, if the process is delayed or postponed. We, just like everybody else at the moment, struggle with difficult work conditions for international collaborative work.

Our cover for this issue pays tribute to Ukrainian refugees who are volunteering with our colleagues in Estonia in an extensive textile project. Jaana Ratas, textile conservator at the University of Tartu and Anu Lensment, a fashion designer working for Estonian TV, are part of a network of local coordinators all over Estonia who are recycling textiles into camouflage nets on university campuses, in museums, and at social centres. There are 3,500 members in the project, both locals and refugees, with more members joining each day. A Facebook group, Aitan Kaitsta (I help to defend), helps to coordinate the work.

Information about net making, including up-to-date colour schemes for them, is shared there. The Estonian specialists have all studied textiles, fashion, design, traditional crafts, or conservation to university level. They receive advice from engineers and military experts about the best techniques for making camouflage nets and use their own craft skills to develop step-by-step instructions, which are published as free downloads in Estonian, Ukrainian and English and in tutorial videos.

The handmade camouflage nets are considered better than the mass-produced ones because they blend into the environment more naturally and are more effective at disguising vehicles and people. Since March this year, nearly 1,000 m² of camouflage netting has been made in Estonia and sent to Ukraine making use of

three tons of secondhand clothes, household textiles and sacks donated by clothing and coffee shops. They are made from old fishing nets, strips of the upcycled fabric, and unravelled jute. Sorting these materials, which must be categorised by colour for different kinds of camouflage, is a regular part of volunteers' work. Needles made for single needle looping are used for sewing fishing nets together and people with dyeing skills tint the textiles, if necessary. Despite 14-hour days at the beginning of the project and now three days a week away from their regular jobs for the Estonian coordinators, there are never enough nets. Other textile academics volunteer to work on the nets during their free time, including their lunch breaks, and some have started researching the history of camouflage to inform the project.

The Ukrainian volunteers add their own "magic" to the camouflage nets: prayers, rhymes, and greetings are written on the labels, and little dolls filled with herbs or cloth angels in blue and yellow are tied to them. Children's drawings, chocolate, and knitted woollen socks are also hidden inside the rolled-up nets. Many project participants also now knit socks for the soldiers, adding labels with their thanks and good wishes. There are benefits too for those making the nets. They make new friends, share stories, learn new languages, and experience the therapeutic effects of doing something useful with their hands which distracts them from their anxieties. Sometimes, the Ukrainian women sing while they work. Often, there is positive feedback from Ukraine which is very motivating for them. Some refugees have returned to Ukraine and continue to make nets there using the skills, knowledge and instructions they gained in Estonia. Despite the success of the project, Jaana says that she hopes "the war will be over some day and I could do textile research again."

This project is a timely reminder that textiles are key to human survival sometimes in ways we do not always appreciate. Whose current knowledge will prove crucial in the future? Our growing awareness of sustainable textile production makes its ancient and historical context ever more relevant – we can learn a lot from the past. We should all work on bringing our knowledge of the past to the fore in discussions about the future. Learning from the past also includes respecting the knowledge of those who have led our discipline down new paths. ATR 64 features the obituaries of three colleagues who have passed away this year. Even though this is sad, we must be glad that their legacies continue. Each in their own way brought



skill and passion to textile research and we honour their memories.

This year's issue also includes eight articles which range geographically from north Africa to Norway, and from the 16th century BCE to the 17th century CE. Some are about specific new textile discoveries and others document continuing analysis of old finds. The reports section has interesting news about recently started projects and updates on projects coming to an end. They all illustrate the fascinating breadth of textile research underway in European academia today. We congratulate you all on attracting the necessary funding and managing these complicated collaborations. A tremendous amount of work goes into managing research in this field, we hope that these experiences will benefit all who are working in textile research in the long run.

We hope you all enjoy reading this open-source journal, which is free to download and share. This is only possible through the dedication of many enthusiastic hearts, minds and hands. Please do consider offering your services if you would like to help keep this journal alive and kicking or consider sending us a contribution for publication. The deadline for articles for every issue is 1 May each year but project and conference reports may be submitted by 1 June and 1 October, respectively. The deadline for news including doctorates awarded, new publications or awards is 1 November.

Please note that it is still possible to order a printed copy of ATR from the webshop at the University of Copenhagen in Denmark (www.webshophum-en. ku.dk/shop/archaeological-textiles-664s1.html).

The Editors















Fig. 1: Ukrainian refugees sort second hand clothing and household textiles for camouflage nets (Images: Jaana Ratas and Mark Raidpere)



Pernilla Rasmussen

Shirts for life and eternity in the grave of Bishop Peder Winstrup (1605–1676)

Abstract

This article presents the investigation of two linen shirts which form part of the funerary dress of Bishop Peder Pedersen Winstrup (1605–1679), buried 1680 in Lund Cathedral, southern Sweden. When the grave was opened in 2013, it was discovered that the body had been naturally mummified, and that the funerary dress, including the linen, was well-preserved. Extant Early Modern linen garments are rare and the Winstrup shirts are an important contribution to a small corpus. The two shirts are compared to other, similar, examples. The study focuses on the materiality of the shirts and the manufacturing techniques in the context of northern European fashionable clothing culture, as well as their function and meaning as funerary garments.

Keywords: Shirts, linen, sewing, funerary dress, Bishop Peder Winstrup, 17th century fashion

Introduction and background

During the 16th and 17th centuries, the use of linen garments and fashionable linen accessories grew in importance and became prominent in fashionable dress and in funerary attire. However, extant linen garments from this period are rare. This article presents the investigation of two shirts, part of the funerary dress of bishop Peder Pedersen Winstrup (1605–1679) buried 1680 in Lund Cathedral, southern Sweden. The aim is to analyse the construction and sewing techniques of the two shirts in comparison with other extant examples, so as to enhance the knowledge of Early Modern manufacturing and use of shirts. The aim is, however, not only to identify and describe, but also to trace the function and meaning of the Winstrup shirts as funerary garments, and to exemplify how the shirts can be understood and interpreted in a wider context regarding textile and clothing culture, funeral practices, politics, health, and belief in late 17th century Scania. The study brings earlier research on men's shirts in the Nordic countries and burial customs to

the fore and deepens the textile and dress historical context from a fashion studies perspective.

The life of Peder Winstrup

Peder Pederson Winstrup was born on 30 April 1605 into the elite of the Danish Evangelical Lutheran clergy as the eldest son of the Bishop of Zealand. After an international education, his career took off as a professor of physics at the University of Copenhagen and doctor in theology, the highest academic degree. In 1635, he was appointed Royal Chaplain in the household of King Christian IV of Denmark, and in 1638, he was installed as Bishop of Lund, one of the most attractive positions in the Danish church (fig. 1) (Rørdam 1905, 53–56; Skansjö 2012, 34–37; Karsten and Manhag 2017, 29–30).

The diocese of Lund encompassed Scania, Blekinge, Halland and Bornholm, with 500 parishes in total. After the Danish-Swedish peace treaty was signed in Roskilde in 1658, Winstrup's diocese became newly subject to the Swedish crown. Winstrup stayed in Lund and became





Fig. 1: Bishop Peder Pedersen Winstrup after an engraving published in his work *Pandectæ sacorum*, 1666. Unknown artist, oil on canvas, Lund University art collection (Image: Gunnar Menander)

the last Danish bishop of the diocese, but also its first Swedish bishop (Skansjö 2012, 33, 114-115, 133-134; Sanders 2012, 149). Winstup is renowned for being a skilled political navigator and one of the strongest and most influential people during a time marked by turmoil, dedicated to defending the special position of his diocese. Years abroad made him a true renaissance man: scholar, theologian, author and collector of books and art with a lifelong commitment to science and education. He was ennobled by the Swedish king and took the initiative to found Lund University, which was inaugurated in 1668 (Hansson 1950, 396; Engelhardt 2007, 84, 195, 201; Sanders 2012, 150). Winstrup became a wealthy landowner with a lifestyle appropriate to his position. Like the Scanian nobility, the bishop and his wife held on to the Danish language and customs, and had close contacts across Öresund, even after 1658. After a turbulent life in the service of four kings and a prolonged illness, Peder Winstrup died in Lund, aged 74, on 7 December 1679. The funeral took place on 27 January 1680 and his coffin was placed in Lund Cathedral (Engelhardt 2007, 232; Skansjö 2012, 138, 142;

Karsten and Manhag 2017, 67-70).

In 2012, the cathedral parish obtained official permission to bury the bishop in the ground. A scientific team supervised by the Historical Museum at Lund University (LUHM) discovered that Winstrup's body had been naturally mummified, and that the funerary textiles were in exceptionally good condition. From September 2014 to December 2015, the body and grave were examined in an interdisciplinary research project (Lagerås 2016; Karsten and Manhag 2017; Karsten and Manhag 2018; Fägerström et al. 2020; Krzewińska et al. 2021). In December 2015, Peder Winstrup was reburied in Lund Cathedral.

The Winstrup dress

Winstrup's funerary dress was dominated by white linen, black silk velvet, and black silk ribbon bows. The textiles in the grave comprised all the original parts of the funerary attire: undershirt and overshirt, sewn hose, arm wrappings and a winding sheet of waxed coarse linen held in place by knotted linen ribbons and a collar of fine linen, parts of a robe, and headgear of silk velvet and leather gloves. The coffin contained a mattress, two pillows, and a coffin lining of white silk taffeta. A large linen cloth with borders of silver passementerie that originally covered the face, documented in 1833, was missing in 2013 (Karsten and Manhag 2017, 81). The texture and the contrast between the materials gave a discrete, exclusive impression of an apparent simplicity, and spoke a clear symbolic language. The properties of the textiles, spoke further about their value (fig. 2).

Linen was represented by ten different qualities of tabby weave, from the coarsest with 10 x 14 threads per cm to the finest - in a separate collar - with 34 x 37 threads per cm. The high number of different qualities was not a result of haphazardly reused fabrics but mirrored the diversity of textiles in daily use in the bishop's household (Lipkin et al. 2021, 52). Two different linens were found in the shirts. The investigation revealed the remains of a foetus carefully wrapped in three pieces of different linen fabrics and placed in the coffin. DNA analysis proved it to be the grandson of Winstrup (Krzewińska et al. 2021). The high position of the parents was reflected in the exceptionally fine linen fabric used for the inner layer. The funerary textiles give a unique insight into the use of textiles and clothing for life and death in late 17th century Scania.

Investigation of the burial garments

Natural mumification is a frequent characteristic of Scandinavian graves. However, well preserved textiles







Fig. 2: a – Winstrup as he was found in the coffin; b – Winstrup dressed in the undershirt and arm wrapping. View from the left side (Images: Gunnar Menander)

can be found on mummified as well as skeletonised remains. Burial during the winter under cold, dry, and well-ventilated conditions is an explanation for both mummification and good textile preservation (Gravjord 2005, 58; Nuñéz et al. 2008; Nyberg 2010, 25;

Lipkin et al. 2021, 52, 62; Väre et al. 2021, 14–15). The herbs placed in the coffin and the fact that Winstrup was weakened and dehydrated after a period of illness could also be contributing factors (Löwengren 1962, 86–88, 92–93, 112; Lagerås 2016).



	Warp threads/cm	Weft threads/cm
Undershirt	27	25
Overshirt	13	11
Swathe	17	14
Arm wrapping, right arm	18	20
Hose	26	19
Collar	34	37
Collar, neckband	22	22
Swathe 1 foetus	41	36
Swathe 2 foetus	10	14
Swathe 3 foetus	18	19

Table 1: Qualities of the linen fabrics found in the grave

Plant fibres normally perish in acidic environments. Only under special circumstances have larger quantities of linen been preserved in graves (Aneer 2013, 315; Lipkin et al. 2014, 42; Lipkin et al. 2021). Winstrup's grave offered a rare opportunity to study a complete funerary dress, and how the garments interacted with each other and the body. In comparison to the drawing made in 1833, no significant disturbances of the dress were noted.

The reburying of Winstrup's remains in 2015 concerned only the body. LUHM undertook an in-depth study of the coffin – first as an entity, and then of the textiles separately from the body, for preservation in the LUHM. The grave was thus dismantled during the process (Karsten and Manhag 2017, 106–109). Winstrup was reburied in the undershirt, the arm wrappings and the winding sheet. After reburial, only parts of the material are still accessible for further research. This decision can be criticised from an ethical perspective, but should be seen in the light of the original plans to bury the whole coffin in the ground (Peacock 2007; Aneer 2008, 100; Tarlow 2011, 9; Aneer 2013, 315).

The coffin, with contents, was scanned with computer-tomography (CT). The scans added few clues as to the garments and the arrangements of the dress (Lipkin et al. 2015, 217). The documentation reported here was made continuously during the undressing process. Due to preservation conditions, the undershirt could only be studied on the body. Despite direct bodily contact, the undershirt was partly intact. Additional clues about the decayed parts of the undershirt were provided by deductions made from the overshirt.

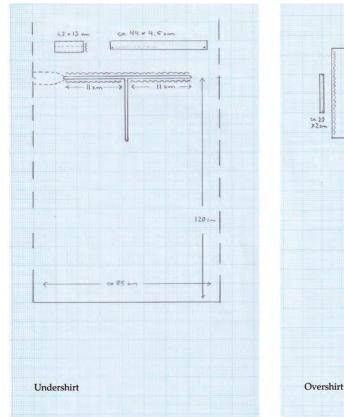
The overshirt, also fragmentary, was preserved as a front part and a back part, partly decomposed in the shoulder area and along the sides and sleeves (inventory



Fig. 3: The back of the overshirt as found when the body was raised (Image: Gunnar Menander)

number DM 352:11, the reburied undershirt was not given a number). When the body was raised, the back of the shirt was found to be preserved, although the body had rested on it. Bodily fluids may have had a beneficial effect on the preservation (fig. 3) (Lipkin et al. 2021, 56). Following historical dress research methods for studies of surviving garments from the Renaissance and Baroque periods, this investigation was undertaken as an object-based case study (Aneer 2008, 99). First, the funerary dress was thoroughly documented and, secondly, it was compared with other material, both visual and written sources and earlier interpretations of primary evidence.





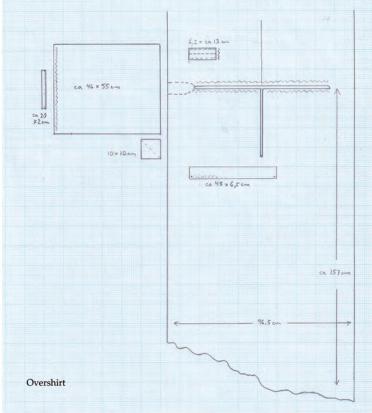


Fig. 4: Patterns of the shirts (Image: Pernilla Rasmussen)

Other extant shirts from the period

Men's shirts from the 16th and 17th centuries have been preserved in the Nordic countries as memories of prominent persons and dramatic events, or found in graves, often with precise provenance and dating. The shirt worn by King Christian IV, when he was wounded at the sea battle of Kolberger Heide on 1 July 1644, now in the royal collections at Rosenborg Castle in Copenhagen, is the only man's shirt preserved in Denmark from this period (Johansen 1984; Johansen 2020, 59). In Sweden, shirts worn by kings and noblemen are more numerous. The oldest are four shirts worn by Count Svante Stensson Sture and his sons Nils and Erik when they were murdered at Uppsala Castle on 24 May 1567, now in the Cathedral Museum in Uppsala; and two shirts worn by King Gustav II Adolph when he was wounded at Kleinwerder on 24 May 1624 and at Dirschau on 8 August 1627, both in the Royal Armoury in Stockholm (Nylén 1948; Arnold 2008; Royal Armoury database). As these latter two shirts were almost identical, Arnold assumes this to have been a style favoured by the king (Arnold 2008, 73). The possibility of studying two shirts worn on the

same occasion is unique, as those are restricted to the two shirts of Svante Sture, and the three shirts worn by Gustav II Adolph when he was killed in the battle of Lützen on 6 November 1632. In Swedish collections, the shirt of Admiral Claes Hansson Bielkenstierna worn at the sea battle of Fehmarn Bält in 1659, and the shirt of King Karl XII worn on 30 November 1718, when he was killed at Fredrikshald, are rare examples of plain, everyday shirts. Another useful comparison is provided by a smock associated with the future Queen Christina at two years of age in 1628, all in the Royal Armoury in Stockholm (Royal Armory database). No shirts from the priestly or burgher estates from this period have been preserved above ground. Given this restricted corpus, the Winstrup shirts are highly valuable historical dress evidence.

The shirts in the grave

Next to the body, Winstrup wore a calf-length, longsleeved shirt with a neckband and wristbands. The shirt was made of tabby woven linen (*L. usitatissimum*) of medium weight. No major irregularities in the weave were observed. The linen was originally white



but had turned cream or brownish in colour.

Over the undershirt, winding sheet, and arm wrappings, Winstrup wore a full-length overshirt. The back piece revealed that the shirt was a real garment, and not a fake shirt arranged in the coffin. All the parts of the overshirt were made of the same quality linen, coarser than the undershirt. The visible parts appeared rather white after vacuum-cleaning, although partly brittle. The other parts, mainly the back piece, were dry, decayed, and of a brownish colour (fig. 3).

Overall construction and sewing

The external dimensions and the fabric width of the undershirt were not possible to determine. The length was estimated at 120 cm, with a 2 mm wide slip-stitched hem, 6 stitches per cm. This was a common length. Nils Sture's shirt was 125 cm and Bielkenstierna's shirt 118 cm (Nylén 1948, 218; Arnold 2008, 74; Royal Armory database). The whole width of the fabric was probably used for the body. In comparison, the undershirt seemed narrower than the overshirt with relatively narrow sleeves. For the overshirt the whole width of the linen, approximately 96.5 cm, was used, giving the garment a total width of 193 cm. The overshirt measured 157 cm from the shoulder to the lowest part, revealing that it originally reached the bishop's feet. However, no extant hem was found, and the exact length could not be determined.

The construction and sewing were in many respects similar in the two shirts, although minor differences were observed (fig. 4). The fullness of the front was gathered at the neckline. The shoulders were reinforced by a separate piece. The sleeves were smoothly joined to the body. The neckband and wristbands were fastened with black silk ribbon bows. The tabbywoven ribbons of the undershirt were 2 cm wide and somewhat coarse. The overshirt had 3 cm wide taffeta ribbons. The black bows with long loops on the white linen were a prominent decorative feature in the grave. The bow at the overshirt neckline had 12.5 cm long loops and 13 cm long ends. The entire ribbon was approximately 80 cm in length. The bow on the right sleeve had 9 cm long loops, with 11.5 cm and 13.5 cm long ends and was approximately 63 cm in its entirety. All seams were neat with close stitches in narrow, smooth seams suitable for hardwearing linen. The typical linen sewing techniques were worked with fine, white linen single thread in running stitch, backstitch in a continuous line, whipstitch, slip-stitch, and blanket stitch. Linen thread seems a natural choice. However, Arnold's investigations show silk to be common in finer linen from higher social strata, both in embroidery and functional sewing.

For example, the Kleinwerder shirt was worked with both linen and silk, while the shirt of Bielkenstierna and the Sture shirts were worked with linen thread only, except for the embroidery on Nils Sture's shirt which was worked with silk (Nylén 1948; Arnold 2008, 69, 74). The seams, approximately 6 stitches per cm, were placed 2 mm or four threads from the edges as a standard, but the stitches did not always follow the thread count with regularity. Neckbands and wristbands were embroidered with white, s-spun single linen thread with backstitching and raised knots in a symmetrical pattern.

Neckline

On both shirts, the front and back were cut in one continuous piece without a shoulder seam. The neckline and front slit were cut in a T-shape. The threads of the fabric indicate that nothing was removed to form the neckline, as in the shirt of Bielkenstierna, but was cut like the Kleinwerder shirt (Arnold 2008, 72-74). The neckline was closely gathered, 10 gathers per cm, to 11 cm from the front opening to the backstitching on the shoulder, with an estimated width of 44 cm in total. The neckline had no gussets, but the shoulders were reinforced with shoulder pieces. This precaution seems to have worked as no tear was observed in this area. An alternative explanation could be that the shirt was relatively new. The shoulder piece was slightly gathered at the neckline, making the piece look narrower (fig. 5).

Front opening

The front opening, 34 cm deep on the undershirt, and 35 cm on the overshirt, was cut along the threads. The slits were hemmed with a 1 mm hem worked with tiny slip stitches, about 11 stitches per cm. The bottom of the slit was reinforced by a spider and a bar. The bar was



Fig. 5: Left shoulder of the undershirt (Image: Pernilla Rasmussen)





Fig. 6: The front slit of the undershirt reinforced by a spider and bar (Image: Gunnar Menander)

covered with nine blanket stitches. The spiders, 7 mm wide, 5 mm high, had five legs of twisted threads on the undershirt, and eight legs on the overshirt. Around the hub, the stitches formed a small lump. Without this reinforcement, the front opening could easily be torn (Arnold 2008, 71). The slit in Queen Christina's smock was torn and mended. The front openings of the Sture shirts were reinforced by close stitches, while the technique with a spider and bar was found in the shirts of Christian IV and Bielkenstierna. This solution seems common in the 17th century but has not been observed in the 18th century (fig. 6) (Garsault 1771; Nylén 1948, 248; Johansen 1984; Arnold 2008, 26, 74, 75; Johansen 2020, 59; Royal Armory database). On the overshirt a slit at the back, 70 cm deep, was left unhemmed. The slit probably originated when the body was dressed: somebody took scissors, cut the neckband, and then tore a slit on the straight grain down the back of the shirt.

Neckband

The neckband, 4.5 cm high on the undershirt, and 6.5 cm on the overshirt, was laid straight up the neck and reached to under the chin (fig. 7). It was cut from a straight, rectangular piece, folded lengthwise with an edge-to-edge fold. The edges were turned back and whipstitched to the gathers from each side, 6 stitches per cm. All the neckline gathers were encased in the neckband. As with other shirts from the 17th century, the neckband had no lining. However, the shirts of Nils and Erik Sture had linings of linen in the high neckbands and wristbands (Nylén 1948, 231, 238). Silk ribbons were drawn through eyelet-holes on each

Silk ribbons were drawn through eyelet-holes on each side of the neckband, about 7 mm from the bottom and in the middle of the embroidery, revealing that the eyelets were made after the embroidery. The

bow of the undershirt, 5 cm long, was small, flat, and tightly knotted. The eyelet-holes were left unfinished. The awl parted the fabric threads without breaking them, making it possible to economise on the sewing labour. In contrast, the eyelets in the neckband of the overshirt were whipstitched. This resembles the whipstitched neckband eyelets in the outer Lützen shirt (Royal Armory database). However, Sten Sture's shirt had eyelets reinforced with blanket stitches lying outwards (Nylén 1948, 242).

Sleeve

The overshirt sleeves were constructed from half the width of the linen, with an underarm gusset, 10 x 10 cm. The undershirt sleeves were probably similar. The raw edge of the sleeve-head met the selvedge of the body smoothly in a felled seam worked in two steps. On the undershirt, the right sides were first worked together with running stitches or separated backstitches. On the overshirt, the pieces were instead whipstitched from the right side with 3 stitches per cm. Secondly, on both shirts, the seam allowances were felled to the sleeve from the wrong side and slip-stitched with the selvedge protecting the raw edge. The first run and fell technique resulted in two visible seams on the wrong side: one row of straight stitches parallel to the seamline; and one row with the stitches at an angle. The technique was common in shirts: for example, in the side seam of Nils Sture's shirt (Arnold 2008, 5, 69, 71). The second technique resulted in two parallel



Fig. 7: Inside of the undershirt when lifted from the body, showing the front slit and the gathers to the neckband. On the right side, the eyelet had loosened and remained stuck to the ribbon (Image: Gunnar Menander)





Fig. 8: The sleeve insert and the shoulder piece of the overshirt (Image: Gunnar Menander)

stitch rows visible on the right side. It was also used for the sleeve seams and underarm gusset of the overshirt. This type of fell seam had a long tradition and was also found in the Sture shirts (Nylén 1948, 230–231, 238, 242; Arnold 2008, 5, 69; North and Tiramani 2011, 17). The choice of working the first step with running stitches from the wrong side or with whipstitch from the right side could differ between seamstresses. The sleeve inserts of Bielkenstierna's shirt showed a third technique, a false French seam, made by oversewing the selvedge to the hemmed edge of the sleeves and gusset (Arnold 2008, 74).

Side seam

The side seams, which were only studied on the overshirt, had their selvedges whipped together from the wrong side, over only one or two threads of the fabric at 9 stitches per cm. In contrast, the side seams of Nils Sture's shirt were run and fell seams which joined two selvedges (Arnold 2008, 69). The side seams left no indication that the shirt or gores had slits in the sides, as in Bielkenstierna's shirt or gores for extra fullness (Arnold 2008, 26).

Shoulder piece

On both shirts, the shoulder areas were reinforced with rectangular shoulder pieces cut according to the threads, on the undershirt 6.2 cm wide and 13 cm long. On the overshirt, the exact shoulder measurement from neckline to sleeve-head was impossible to establish. The shoulder piece was attached to the right side of the shirt. The edges were turned back, and backstitched from the right side, 2 mm, that is 4 threads, from the edge, at 7 stitches per cm. A backstitched row along the shoulder line kept the fabric layers together.

The remaining fragments at the shoulders of the

undershirt revealed the construction which applied to both shirts. The end of the shoulder piece was turned in and whipstitched from the right side to the seamline of the sleeve insert. The sewing was less accurate towards the back of the undershirt, where the short side was finished a millimetre short of the body. On the overshirt, the short side reached a millimetre into the sleeve. These details allowed the workflow to be established: 1) joining the sleeve to the body; 2) attaching the shoulder piece; and 3) attaching the neckband. This order differed from the recommendations given by Garsault (1771, 45) in which the finished sleeve was attached at the end of the process (fig. 8).

Sleeve end and wristband

Both sleeve seams of the overshirt had a 9 cm long wrist opening with the selvedge left unfinished, and the raw edge neatly hemmed with slipstitches at 6 stitches per cm. This supports the assumption that the sleeves consisted of half the width of the linen at approximately 48 cm. Bielkenstierna's shirt had a worked bar at the bottom sleeve slit (Arnold 2008, 74). This was not observed in the Winstrup shirts. It was not possible to study the sleeve seam of the undershirt but we can assume this to have included an underarm gusset and a slit, as on the overshirt.

The sleeve-ends were gathered at 5 gathers per cm on the undershirt and about 3 to 4 pleats per cm on the overshirt – not as close as the neckline. This difference was also noted for Nils Sture's shirt (Nylén 1948, 232–233). A loose fragment revealed the technique. The gathers were drawn with one linen thread 10 threads from the raw edge with uneven stitches – over 8 threads and under 4 threads. The shallow gathers turned to the right side of the garment and the deeper gathers were turned to the wrong side. It is plausible that the gathering of the neckline was worked in a similar way. This technique was not observed by Arnold (2008, 76, 79, 83, 123) but is described by Catharina Helena Dörrien in 1755 (Krünitz 1781, 5).

The sleeve-end was completed with a wristband made from a straight, rectangular piece, folded lengthwise with an edge-to-edge fold. The cuffs of the overshirt, 2 cm wide, were narrower than those of the undershirt, 3.7 cm wide, although the neckband was higher. The exact length measurement could not be determined. The right wristband of the undershirt was pieced about 1.5 cm from the short edge. This could be due to the cutting method, resulting from a shortage of fabric. The fourth Sture shirt showed the same kind of piecing (Nylén 1948, 267, fig. 43). The outer edge of the wristband was turned in by 2 mm, the inner edge turned by 4 mm. Both sides were slip stitched to the





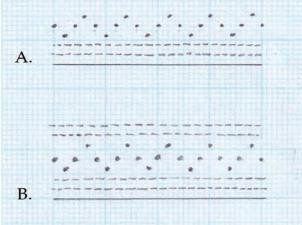


Fig. 9: The embroidered wristband on the left arm of the undershirt. Mark after pin in the middle of the cuff; A – Pattern neckband. B – Pattern wristband (Image: Gunnar Menander and Pernilla Rasmussen)

gathers, approximately one stitch for each gather. The short ends were turned in and oversewn from the right side with 8 stitches per cm – even finer than on the neckband. Whipstitch was also used for the neckband and wristbands on Nils and Erik Sture's high-necked shirts. However, the wristbands on Nils Sture's shirt were whipstitched on the right side and backstitched on the wrong side. During the 17th century, there seems to have been a choice of techniques. The neckbands and wristbands of the Kleinwerder shirt and Bielkensierna's shirts were worked only with backstitch (Nylén 1948, 231–232, 238; Arnold 2008, 21, fig. 8F, 74–75).

The wristbands were closed by ribbons through eyelet holes. The small eyelet-holes, placed on each side of the wristband were made with an awl at the end of the sewing process. Unlike the neckline eyelets, they were whipped on both shirts. In contrast, the wristbands of Sten Sture's shirt had double eyelet holes worked with blanket stitches lying outwards (Nylén 1948, 267, fig. 43; Arnold 2008, 7, 20, fig. 7/8B). The Kleinwerder shirt lacked fastenings, and Arnold assumes that the neckband and wristbands were closed with pins. The shirts of Christian IV and Bielkenstierna had simple linen ribbons stitched to the neckline, while the wristbands of the latter were provided with oval, whipped eyelet holes, intended for separate ribbons, as with the Winstrup shirt (Flamand Christensen 1940, 31; Arnold 2008, 26, 74-75).

Embroidery

Whitework and silk embroidery were common embellishments on men's shirts. An embroidered geometric pattern, 1.3 cm wide, worked with white

linen thread decorated both Winstrup shirts on the outside at the base of the neckband (fig. 9). Two backstitched rows, 1 mm from the bottom edge and 2 mm, at 7 stitches per cm, were followed by three rows of raised knots in a zig-zag pattern. The embroidery followed the threads of the fabric, but the neckband was not sewn evenly to the neckline, and the embroidery was placed closer to the neckline on the left side than on the right. This revealed that the neckband was embroidered before it was joined to the neckline.

The embroidery of the undershirt had a finer finish, in keeping with the finer linen quality. The backstitching was worked over different numbers of threads, giving an even, and more vivid seam. Keeping to the threads and accurate thread counting were emphasised as an important feature for linen sewing, and for instance said to be characteristic of a well-sewn neckband by Catharina Helena Dörrien (Krünitz 1781, 7). However, the Winstrup shirt proves that this was not always the case.

The pattern on the wristbands was placed close to the gathers. Two rows of backstitch at 7 stitches per cm were worked 2 mm from the edge of the wristband, four threads apart, followed by a zig-zag pattern of knots, and finished by two more backstitched rows. The wristbands of the undershirt were also embroidered, although they were turned up in the grave, which concealed the embroidery.

Part of the undershirt's left wristband was undone, revealing that the stitched rows were worked with backstitch and not double-running stitch, also known as Holbein stitch. The knots resembled French knots, sewn with the thread three times around the



needle and the down-stitch placed 4 threads from the up-stitch, giving each knot a prominent rise. The knots were worked in a zig-zag with the thread lying between them on the wrong side.

With the first backstitched row placed only 2 threads from the edge, it might be assumed that this row was used for sewing the wristband to the sleeve and to keep the gathers in place, as described on Erik Sture's shirt, or as Arnold has repeatedly concluded (Nylén 1948, 238; Arnold 2008, 21, 30). However, the entire embroidery was carried out before the wristband was attached to the sleeve, and the backstitched row lacked practical function. This method resembles the description given by Garsault (1771, 45).

Similar combinations of backstitching and knots in whitework are occasionally found on items of dress in different geographical areas and contexts in Europe during the second half of 16th and the 17th centuries (Nylén 1948, 238, 251; Arnold 2008, 20, 31, 52, 68, 82–83, 107–108). Zig-zag patterns and triangular groupings of knots are also found much later in folk linen from Schleswig, Germany (Andresen 1975, 54). No monogram or traces of any personal marks were found on the shirts.

A special construction technique

A comparison of the cut of Early Modern men's shirts shows the shoulder area to be particularly variable, although variations in the construction without shoulder seams, with or without shoulder reinforcement, and with a T-shaped neck opening with the fullness gathered into a neckband, were common (Arnold 2008). The shirt of Christian IV had gussets to relieve the strain on the neckline, giving an oval shape to gather. On Karl XII's shirt, the shoulders were reinforced by a narrow strip on the wrong side (Nylén 1948, 271; Johansen 1984). Bielkenstierna's shirt was cut without a shoulder seam but with an oval-shaped neckline - maybe a measure taken to avoid strain without the use of gussets. The shoulders were reinforced with a strip sewn on the wrong side (Arnold 2008, 74). The two shirts of Svante Sture had slightly sloped shoulder seams also reinforced by a wider shoulder piece on the wrong side (Nylén 1948). The shirts from Kleinwerder and Dirschau had straight-cut shoulder seams which did not add to the construction. Despite a special sewing technique for reinforcement, this was a weak point (Arnold 2008, 74). The shoulder seams on the three Lützen shirts were also specially worked with a felled seam (Royal Armory database).

Not one of the shirts available for comparison had the same construction or sewing technique for the shoulder reinforcement as the Winstrup shirts, with the shoulder piece sewn on the right side late in the process.

Dressed in shirts for life and eternity

The Winstrup shirts belong to a history of linen garments with continuity through the centuries over large parts of northern and western Europe, while at the same time adjusting to local conditions, personal skills, and wishes, as well as national legislation. Compared to shirts of royal and noble origin, the Winstrup shirts can be identified as everyday shirts of fashionable dress and not as special clerical or liturgical vestments. The similarities between the Winstrup shirts and the example of linen sewing from the Danish court could be explained by the fact that the Winstrup family had been part of the royal household and later kept to Danish traditions.

Pylkkänen and Arnold argue that changes in fashion did not affect garments that were worn less visibly and that explains why shirts remained almost unchanged for centuries. The basic construction without a shoulder seam has been found in Early Medieval shirts, such as the shirt of Thomas Beckett, and was still present in publications such as Garsault (1771), Krünitz (1781) and *The Workwoman's Guide* (1838) (Burnham 1979, 44; Kania 2010, 68–69). However, fashionable outer garments did influence the visibility and construction of all garments, and placed linens in an area of tension between continuity and change. The interplay between lavish dark coloured silks and velvets and white linen shirts gave 17th century fashionable dress much of its character, as seen in the ruffs of the Sture



Fig. 10: Image taken from the fingers towards the right wrist showing how the shirts were arranged. The sleeve-ends were originally concealed by the high leather gloves. They were later removed (Image: Pernilla Rasmussen)



shirts or in Bielkenstierna's voluminous shirt sleeves, worn visible under the open sleeves of the doublet. Richly decorated linen garments became a target of sumptuary legislation in Sweden. The general dress regulation of 30 August 1664, for all estates, enforced the prohibition against "the excess of linnen", such as embroidery and bobbin lace (Pylkkänen 1998, 36). Winstrup's plain shirts corresponded to the law and statutory dress code of the time. In contrast to the Baroque dandies, Winstrup kept to narrower sleeves and his shirts probably gave an impression of restraint and a fashionable moderation suitable for his position and age (Pylkkänen 1998, 395; Ullgren 2004, 217, 245).

17th century funerary splendour

The Winstrup shirts bring Early Modern practices and attitudes in relation to clothing for both life and death to the fore. In Denmark and Sweden, the Lutheran reformation brought new beliefs about death, which were expressed in altered funerary practices. Funerals became the most splendid feasts arranged by the 17th century elite. The funerary magnificence, pompa funebris, peaked in the middle of the century, when the nobility was at the height of its power (Troels-Lund 1984, 77–80; Ullgren 2004, 245, 247, 268; Candreus 2008, 169; Nyberg 2013, 260–261, 268; Engström 2019, 56, 79–87). During the post-Reformation period, preaching about Purgatory was banned. With the correct faith and by the grace of God, the soul was already blessed. The body was not perceived as an impure, empty vessel left behind by the soul, in fact, Luther declared death to be an eternal sleep pending resurrection (Troels-Lund 1984, 77–80, 118–119; Tarlow 1999, 80–81; Jonsson 2009, 141, 149; Gonzalez 2015, 112, 120). For the farewell on earth and the future festive entry into heaven, an elaborate and fashionable dress was regarded as suitable. Metaphors of sleep were materialised by arranging the coffin as a bed, with a mattress and pillows of silk, and displaying and portraying the deceased on a lit de parade. As the deceased was considered a still present, public person, the body had to be properly dressed (Jonsson 2009, 143, 148; Engström 2019, 53, 56; Nyberg 2010, 20; Vedeler 2010, 255). Funeral splendour was the target of sumptuary legislation in 1664 and 1668, aiming at the ostentatious consumption and manifestations of power that were important to the nobility (Nyberg 2013, 257; Ullgren 2004, 24, 217, 245). In 1663, Winstrup himself eexhorted restraint among the priests in his diocese including abstinence from candles, decorated coffins, and grand funeral feasts. These new rules seemed later to have influenced his own funerary dress (Wallin 1951, 83–84).

Funerary dress

Gravjord (2005) presents a chronology of the burial dress in the post-Reformation period with three alternatives; a) undress for sleep, b) full formal fashionable attire, in both cases using garments worn in life, or later c) fake funerary clothes worn over a shirt or shift of one's own – funeral gowns, *gravkåpor*, or textiles draped in the coffin to resemble real clothes. These possibilities existed in parallel and with regional variations during the 17th century, although the last grew most common in the 18th century and personal, everyday outer garments became scarce. (Pylkkänen 1955; Aagard 2002; Gravjord 2005, 64, 94–95; Jonsson 2009, 140; Lipkin 2015). In this period of transition, Winstrup's funerary dress belonged to the older tradition.

The conception of death as sleep allowed old and new traditions to blend. During the 16th century, the linen nightshirt became a more common garment to wear in bed and as undress. Count Svante Sture was, for instance, still in his nightclothes when the Swedish King Erik XIV visited him in prison one morning in 1567 (Nylén 1948, 253). Nightclothes were regarded as distinguished in contrast to the medieval habit of sleeping naked and this had an impact on burial clothing. Dressing the body in the fashionable and festive nightshirt and nightgown, made it possible to combine the notions of both feast and sleep (Troels-Lund 1984, 120–121; Johannsen 1988, 42; Gonzalez 2015, 119).

At the Danish and Swedish post-Reformation courts, it was customary to bury the monarch not in his official dress as king or in everyday attire, but in his informal undress for home and sleep (Johannsen 1988; Rangström 2015). For example, the funerary dress of the Swedish King Karl X Gustav included a fine linen shirt and a long shirt (likskjorta) under a silver brocade nightrobe – garments from the king's wardrobe (Löwengren 1962, 87–88, 91, 94; Rangström 2015, 55, 84). The Danish kings Christian IV and Frederik III were also dressed in rich silk nightgowns, but with a linen garment of extra length tied below the feet (Johannsen 1988, 44–47; Johansen 2020, 108–109). Unlike, for example, the Polish catholic bishop Jan Trach Gniński buried 1736 in the monastery church in Lubiń in full liturgical attire (Grupa 1998), protestant priests were, like royalty, noblemen and burghers primarily clothed in forms of undress (Johannsen 1988; Gravjord 2005, 50; Aagaard 2002; Nyberg 2010, 20). The Winstrup funerary dress did not deviate from this custom.

Commonly, one's wedding shirt was kept for the last rest or a fine shirt was singled out. Alternatively,



the shirt or shift in which they died was kept for the purpose. Sometimes a new shirt was made (Troels-Lund 1904, 107, 109; Pylkkänen 1998, 398; Gravjord 2005, 94–95; Nyberg 2010, 20; Hagberg 2015, 18, 188–189, 192).

The Winstrup shirts presumably came from his everyday wardrobe. The shirts were probably not specially made or decorated nor saved from a special occasion in his life. The undershirt provided a unique insight into the bishop's everyday attire or possibly his Sunday best, probably not only as an old man, but also in his days of power. This was the kind of shirt he had worn next to his skin throughout his life. The overshirt was most likely one of the bishop's nightshirts, like those he wore at night and during times of illness. There would not have been any major reason to provide the bedridden elderly bishop with new sets of shirts. On the other hand, the shirts showed little trace of long-time wear or tear, reflecting a household of means even during the harsh period after the Scanian war in the 1670s.

The dead were believed to enter heaven in their funerary attire and were unable to find peace if not properly clothed. To scrimp and neglect to dress the dead according to rank and legislation was considered shameful (Hagberg 2015, 187; Engström 2019, 94). However, other factors were also considered. Elderly people, like Winstrup, were often dressed more simply than children or younger persons who died in their middle years (Nyberg 2013, 265). The relatively short time between death and the funeral for a man in Winstrup's position indicates less elaborate arrangements. The domestically produced linen and plain garments without lace followed Danish and Swedish sumptuary law for funerals (Ullgren 2004, 245; Gravjord 2005, 67-68). Candreus has noticed a trend during the 17th century for some individuals to express a desire for a simple funeral. As Winstrup had preached against costly funerals, this could have been his own wish (Candreus 2008, 178, 199-200).

Manufacture and use of fashionable linen

Another factor was the enhanced status of linen garments in general, as shirts became more visible and prestigious in fashionable dress. At the French court, it became a special honour to pass the royal shirt to the king at the ceremonial *levée*, and a new style of portrait, showing men dressed only in their shirts, became more frequent in the last decades of the century (Pylkkänen 1998, 395; Andersson 2008, 40). The prestige of a clean linen shirt could be added to the cultural significance of the role of the nightshirt as a funerary garment, besides the notion of death as

sleep.

Fashion continued into the grave. As seen in portraits, puffed linen sleeves and neckbands with lavish black ribbons were the height of fashion in the 1660s and 1670s. The bishop's black bows should not be interpreted as reflecting his high ecclesiastical position or a sign of grief, but as a sign of fashion in life and death (Pylkkänen 1970; Pylkkänen 1998, 396, 398, 439). As the ribbons were a little frayed at the shirt's ends, they had probably been worn during his lifetime.

Vincent stresses the importance of linen for health and bodily hygiene. Clothing and linen worked in two ways as they protected the body from a dangerous outer world, but also cleaned the body from unhealthy excretions from the inside (Vincent 2003, 8, 52–53). This created a close bond between well-being and proper clothing. The material considerations in graves show how the relatives ccreated an impression of how the dead had been cared for when in a vulnerable and life-threatening situation (Hagberg 1937, 181; Tarlow 2011, 173; Engström 2019, 77). Linen was, however, also used for the benefit of the living as a method of purifying the air from the pathogenic miasma deriving from the corpse (Drakman 2018, 77, 79).

White, laundered, bleached, and starched linen was a sign of purity, civility, good manners, and a refined, disciplined body, which could be translated into the moral and social superiority of the higher classes or the humility of a priest (Vincent 2003, 8, 52–53). Dressed in fashionable linen, Winstrup was still present in a respectable way reflecting his elevated position as both bishop and nobleman.

The two Winstrup shirts are in many respects similar in their construction and making. It is likely that they were both made in the Winstrup household. The linen quality of the undershirt was much finer than the quality of the overshirt. To a modern eye, both give a fine impression, but in comparison, they were only of medium quality. For the Sture shirts, different linens were used in the same shirt and these are similar in quality to the Winstrup undershirt. Royal shirts were considerably finer, for example, in the Lützen shirts where the linen has 43 x 44 threads per cm, and in Christian IV's shirt where the linen of the shirt's body is 45 x 35 threads per cm, and the sleeves 33 x 26 threads per cm. The smock of Queen Christina as a child was still finer, with 66 x 49 threads per cm (Nylén 1948; Royal Armory database). The width of the Winstrup overshirt, 96.5 cm, was a common choice, compared with other extant shirts ranging from 80-100 cm wide. Different widths and qualities could be woven for the body, sleeves, and neckband (Nylén 1948; Arnold 2008, 74; Johansen 2020, 59). However, this was not the case for the Winstrup



shirts. The finest shirts were made of Dutch or north German linen (Pylkkänen 1998, 396). Linens woven in rural Scanian homes were normally 60–70 cm wide (Burnham 1979, 7). Larger estates with broader looms produced wider fabrics for shirts (Kania 2010, 58). For many Scanian estates, linen production and trade were important sources of income (Fischer 1959, 9, 51–53, 315). As the Winstrup shirts were not among the finest, it is likely that the fabrics were woven within the household. Linen of different qualities was manufactured at several of the bishop's estates. The probate mentioned a weaving house at Werpinge estate and spinning wheels and yarn winders were listed from Sankt Peders Kloster (Fridh and Fridh 1977, 38, 41–42).

As the probate of Winstrup written in July 1680 is incomplete, the content of the bishop's wardrobe remains unknown (Fridh and Fridh 1977). According to other probate accounts, rich burghers in Finland could own a dozen shirts. Jacob Forbus' inventory noted six fine outer shirts of Dutch linen, six undershirts of Warendorf linen, and five old undershirts (Pylkkänen 1998, 397). Danish inventories testify to far richer wardrobes in the higher echelons: King Frederik II had more than 20 shirts in 1560, and the nobleman Peder Oxe left 60 shirts in 1579 (Fischer 1959, 24). Presumably Winstrup's personal linen contained several shirts in sets of at least six of different qualities and for different functions.

Wearing more than one linen shirt at the same time was part of 17th century clothing practice. An undershirt was commonly worn under a finer shirt. In comparison to shorter undershirts of cheaper fabric, mentioned in written sources, the shirt Winstrup wore closest to his body could hardly be described as a specially made undershirt, but was likely a finer shirt previously worn when formally dressed (Junker and Stille 1988, 22; Pylkkänen 1998, 398). This layering of shirts was thus more similar to the clothing practice of Gustav II Adolph, wearing three similar shirts for the battle of Lützen in 1632, or reflects a habit of wearing a shirt under the long nightshirt for undress (Royal Armory database).

Unlike tailored garments, shirts were normally cut with the same construction a dozen or half dozen at a time, to optimise the use of fabric (Garsault 1771, 44). The different linen qualities reveal that the Winstrup shirts did not belong to the same set and were probably not made during the same time span. The shirts showed many similarities, but also differences. The shirts were made for different functions and could not have been switched. The reinforcements on the shoulders were, for example, a special technical solution, not observed

in other extant shirts, but similarly preformed in these two. This was probably the preferred style in the Winstrup household. The slight variations in the sewing technique were of limited importance for the visual impression, but perhaps demonstrates a personal touch, even in standardised linen sewing. The fact that the same type of embroidery was chosen for both shirts further points to the taste and preferences of the household. The similarities in these durable shirts, which were prefect on the inside as well as the outside, suggest the technical skills of people in the bishop's household.

The shirt on the body

A shirt of closely woven linen was a loose-fitting garment but had a close relationship with its wearer. The fabric had a soft, but crisp and heavy hand. It had some weight and authority, but the linen also adjusted to the body beneath. Clues to the relationship between body and dress are especially valuable when a garment without inherent shape like the shirt, is studied. When not on the body, the shirt looks shapeless. When observed on the body, it becomes evident that the construction was intended to enhance a certain shape of the wearer. The width and gathered folds were concentrated at the centre-back and chest, giving a soft volume and a rich impression. The collar and wristband emphasised neck, head and hands. The sleeve-head rested high on the shoulder. However, other shirts from the period and later on, commonly had a dropped seam, as is visible on the shirts of Svante Sture, Christian IV, Bielkenstierna, and the shirt worn by the Sewdish King Gustav III when he was shot in 1792 (Nylén 1948; Johansen 1984; Arnold 2008, 74; Royal Armory database). The reinforced shoulders on the Winstup shirts marked a defined, broad, and strong, masculine stature.

The shirts in the coffin

The Winstrup shirts also allowed the original funerary dress arrangements to be studied. The high visibility and attractiveness of the shirts meant they played a key role in the funerary dress. At the same time, the shirts were used to conceal practical funerary arrangements, such as the arm wrappings and the winding sheet with pins and numerous knots. When the overshirt was removed, it become clear that the arm wrappings, covering the sleeves of the undershirt, began at the wrists and continued in a spiral around the arms. The wristband was turned back over the lower edge of the wrapping, so that neither the bands nor the embroidery were visible. The loops of the black bows were tucked in between the undershirt and wrappings. These were



not intended to be seen under the sleeve and wristband of the overshirt which was wider and reached further down the wrist. The wristband of the overshirt was kept in place by a large, black silk ribbon bow. On the right side, a pin, stuck through the wristband of the overshirt and the turned wristband of the undershirt, kept the shirt layers together in the desired position. On the left side, a missing pin had left marks of metal oxide on the overshirt and holes on the undershirt, showing an original position like that on the right. The use of pins for the beautifying arrangements of funerary dress was common in graves from the period (Lipkin et al. 2014, 42). However, pins were extensively used in Early Modern clothing for the living and not only reserved for the dead (fig. 9–10).

Conclusion

The two shirts of bishop Peder Winstrup were crucial parts of his funerary dress. As the investigation proved them to be real garments, an everyday shirt and a night shirt from his everyday wardrobe, they add to the knowledge of manufacturing and use of linen garments for both everyday life and eternal rest. The comparison with other extant shirts showed farreaching similarities with shirts of royal and noble origin from the Nordic countries. The Winstrup shirts were thus part of a fashion culture, rather than special priestly, liturgical, or funerary garments. This shows that the fashion and dress practices of life continued unbroken in death.

The Protestant beliefs of death and afterlife, which entailed a new focus on funerary attire materialising the notion of death as sleep, were clearly present in the Winstrup dress, as were views on health, textiles and fashion. Simplicity in funerals, prescribed by sumptuary law during the second half of the 17th century, in reaction to the Pompa funebris of the nobility was reflected in the plain execution and locally produced fabrics of the Winstrup shirts. The comparison with other shirts highlights the long line of continuity that characterises the construction and linen sewing techniques, but also shows elements of change and variation. All the shirts showed similar as well as different construction and sewing techniques. In comparison to the standardisation indicated by 18th century sources, this was an expression of a personal touch, rather than general changes in construction and sewing techniques or fashion. The two Winstrup shirts were made for different functions but with some similar and some unique technical solutions, showing the preferences in linen sewing of the Winstrup household. However, as with Protestant Danish and Swedish kings, Winstrup's official ecclesiastical position was not emphasised by his shirts or in his funerary attire. His future entrance into heaven would not be primarily as a bishop, but as a fashionable scholar and nobleman.

Acknowledgements

This work was undertaken with support from the grant project by Crafoordska stiftelsen, Agnes Geijers fond för nordisk textilforskning and Helsingborgs handelsförening. Warm thanks are due to Lovisa Dal, LUHM, Britta Hammar, Olle-Petter Melin and the seminar participants at the Centre for Textile Research at the University of Copenhagen and the Textile Studies department at Uppsala University.

Bibliography

- Aagard, K. (2002) Det havde de på. Restaureringen af Helsingørs Domkirke 2000-2001 og undersøgelserne af de borgerlige begravelser. Helsingør: Helsingør Kommunes Museer.
- Andersson, E. I. (2008) Hur modemedveten var Bockstensmannen? In P. Wiking-Faria (ed), Bockstensmannen och hans tid. Varberg: Länsmuseet i Varberg.
- Andresen, G. (1975) *Særke. Danske bondekvinders særke og oplod fra ca 1770 til ca 1870.* Copenhagen: Borgen.
- Aneer, C. (2008) Tailored Criticism. The Use of Renaissance and Baroque Garments as Sources of Information. In M. Gleba, C. Munkholt and M-L. Nosch (eds), *Dressing the past*. Ancient Textiles Series 3. Oxford: Oxbow Books, 98–114.
- Aneer, C. (2013) Elsa Beata Brahes begravningsdräkt. In R. Gullbrandsson (ed), *Grevars och bönders tempel. En bok om Brahekyrkan på Visingsö*. Jönköping: Jönköpings läns museum, 310–326.
- Arnold, J. (2008) Patterns of Fashion 4. The cut and construction of linen shirts, smocks, neckwear, headwear and accessories för men and women c. 1540–1660. London: Macmillan.
- Burnham, D. (1979) *Skjortor, särkar och blusar*. Stockholm: Wahlström and Widstrand. With Swedish preface by Eva Nordlinder
- Candreus, C. (2008) *De hädangångnas heraldik: en studie av broderade begravningsfanor ca 1670–1720*. Hedemora: Gidlund.
- Drakman, A. (2018) När kroppen slöt sig och blev fast. Varför åderlåtning, miasmateorin och klimatmedicin övergavs vid 1800-talets mitt. Uppsala: Uppsala University.
- Engelhardt, P. E. (2007) Skåne mellom dansk og svensk: en undersøgelse af de nationale brydninger i Skåne stift i årene 1658 til 1679: holdningen hos biskoppen og i præsterskabet. Copenhagen: Museum Tusculanum Forlag.



- Engström, A. (2019) *Olikhetens praktiker. Adlig* begravningskultur i Sverige ca 1630–1680. Uppsala: Studia Historica Upsaliensia.
- Fischer, E. (1959) *Linvävarämbetet i Malmö och det skånska linneväveriet*. Malmö: Nordiska Museet.
- Flamand Christenssen, S. (1940) *De danske kongers kronologiske samling paa Rosenborg. Kongedragterne fra 17. og 18. Aarhundede.* Copenhagen: Munksgaard.
- Fridh, B. and Fridh, H. (1977) *Möllesving och andra ting i Skåne* 1650–1750. Malmö: Staffanstorps tryckeri.
- Fägerström, C., Buckland, P. I., Lemdahl, G., Karsten, P., Lagerås, P. and Manhag, A. (2020) Insects and other invertebrate remains from the coffin of a 17th century bishop in Lund Minster, S Sweden. *Journal of Archaeological Science: Reports* 31, 102299, 1–10.
- Garsault, F. A. de. (1771) *L'art de la lingère*. Paris: De l'imprimerie de L. F. Delatour.
- Gonzalez, J. M. (2015) Fashioning Death: Clothing, Memory and Identity in 16th Century Swedish Funerary Practice. In S. Tarlow (ed), *The Archaeology of Death in Post-medieval Europe*. Warsaw/Berlin: De Gruyter.
- Gravjord, I. (2005) "de sal: folches kistekläder" i bö gamle kjyrke. *Graver frå 1600- og 1700-åra.* Skien: Telemark museum.
- Grupa, M. (1998) Textiles from the 16th–18th Century from the Benedictine Monastery in Lubiń, Leszno Voivodeship. In L. Bender Jørgensen and C. Rinaldo (eds), NESAT Textiles in European Archaeology. Report from the 6th NESAT Symposium, Borås, 7–11 May 1996. GOTARC Series A, vol 1. Gothenburg: Gothenburg University, 287–291.
- Hagberg, L. (2015 [1937]) När döden gästar. Svenska folkseder och svensk folktro i samband med död och begravning. Stockholm: Wahlström and Widstrand.
- Hansson, K. F. (1950) Lundabiskopen Peder Winstrup före 1658. Tillägg: Peder Winstrup som svensk biskop 1658–1679. En utblick. Lund: Gleerup.
- Johannsen, B. (1988) Om kongelige begravelsesskikke på Christian IV's tid. In A. Kruse (ed), *Fru Kirstens Børn. To kongebørns begravelser i Roskilde Domkirke*. Copenhagen: Nationalmuseet, 35–64.
- Johansen, K. (1984) *Pattern drawing, C4s skjorte* 2.36, opubl. 6.2.1984. De danske kongers kronologiske samling, Rosenborg.
- Johansen, K. (2020) *Ti kongers tøj. Tre århundreders kongsdragter på Rosenborg Slott, 1596–1863*. Aarhus: Aarhus Universitetsforlag.
- Jonsson, K. (2009) Practices for the Living and the Dead. Medieval and Post-Reformation Burials in Scandinavia. Stockholm: Department of Archaeology and Classical Studies.
- Junker, A. and Stille, E. (1988) *Zur Geschichte der Unterwäsche 1700–1960*. Frankfurt am Main: Historisches Museum Frankfurt.

- Kania, K. (2010) Kleidung im Mittelalter. Materialen, Konstruktion, Nähteknik. Ein Handbuch. Köln: Böhlau Verlag.
- Karsten, P. and Manhag, A. (2017) *Peder Winstrup historier kring en 1600-talsmumie*. Lund: Historiska Museet vid Lunds Universitet.
- Karsten, P. and Manhag, A. (2018) Antikvarisk rapport gällande undersökningen av biskop Peder Winstrups kista och mumifierade kvarlevor. Lund: Historiska Museet vid Lunds Universitet.
- Krünitz, J. G. (1781) Oeconomische Encyclopädie, oder, Allgemeines System der Staats-Stadt- Haus- u. Landwirthschaft, in alphabetischer Ordnung, Teil 23. Berlin: J. Pauli.
- Krzewińska, M., Rodriguez-Valela, R., Ahlström Arcini, C., Ahlström, T., Hertzman, N., Storå, J. and Götherström, A. (2021) Related in death? A curious case of a Foetus hidden in bishop Peder Winstrup's coffin in Lund, Sweden. *Journal of Archaeological Science: Reports* 37, 102939, 1–8.
- Lagerås, P. (2016) Från trädgård till grav. Växterna i biskop Peder Winstrups kista. *Ale* 4, 15–28.
- Lipkin, S. and Kuokkanen, T. (2014) Man buried in his everyday clothes attire and social status in early modern Oulo. *MASF* 3, 40–53.
- Lipkin, S., Vajanto, K., Kallio-Seppä, T., Kuokkanen, T., Niinimäki, S., Väre, T. and van Bommel, M. (2015) Funeral dress and textiles in 17th and 19th century burials in Ostrobotnia, Finland. In K. Grömer and F. Pritchard (eds), NESAT XII. Aspects of the Design, Production and Use or Textiles and Clothing from the Bronze Age to the Early Modern Era. Budapest: Archaeolingua, 209–221.
- Lipkin, S., Ruhl, E., Vajanto, K., Tranberg, A. and Suomela, J. (2021) Textiles: Decay and Preservation in Seventeenth- to Nineteenth-Century Burials in Finland. *Hist Arch* 55, 49–64.
- Löwengren, Y. (1962) *Balsameringsbruket genom tiderna*. Stockholm: Nordstedt.
- North, S. and Tiramani, J. (2011) Seventeenth-century Women's Dress Patterns. Book One. London: V&A Publishing.
- Nuñéz, M., Paavola, K. and García-Guixe, E. (2008)
 Mummies in Northen Finland. In P. Atoche Peña,
 C. Rodríguez Martin, Á. Ramírez Rodríguez and A.
 C. Aufderheide (eds), Mummies and Science, World Mummies Research, Proceedings of the VI World Congeress in Mummy Studies. Teguise, Lanzarote, February 20th to 24th, 2007. Santa Criz de Tenerife: Academia Canaria de la Historia.
- Nyberg, J. (2010) A peaceful sleep and heavenly celebration for the pure and innocent. The sensory experience of death during the long eighteenth century. In F.



- Fahlander and A. Kjellström (eds), *Making Sense of Things: Archaeologies of Sensory Perception*. Stockholm: Stockholm University.
- Nyberg, J. (2013) 'O himmels gyllne pracht'. Familjen Brahe och stormaktstidens adliga begravningar. In R. Gullbrandsson (ed), *Grevars och bönders tempel. En bok om Brahekyrkan på Visingsö*. Jönköping: Jönköpings Läns Museum, 257–274.
- Nylén, A-M. (1948) Stureskjortorna. *Livrustkammaren* IV (8–9), 217–276.
- Peacock, E. E. (2007) Study of Archaeological Textiles Intimately Associated with Human Remains Where Is the Ethical Dilemma? In A. Rast-Eicher and R. Windler (eds), Nesat IX Archäologische Textilfunde Archaeological Textiles. Ennenda: Ragotti and Arioli Print, 12–16.
- Pylkkänen, R. (1955) *Gravdräkter från 1600-talet I Åbo* domkyrkomuseum. Åbo stads historiska museums årsskrift, 17–18.
- Pylkkänen, R. (1998 [1970]) Barockmodet i Finland 1620–1720, Stockholm. Unpublished translation of Barokin pukumuoti Soumessa 1620–1720. Helsinki: Suomen muinaismuistoyhdistys.
- Rangström, L. (2015) Dödens teater. Kungliga svenska begravningar genom fem århundraden. Stockholm: Atlantis och Livrustkammaren.
- Rørdam, H. F. (1905) Dansk biografisk lexikon XIX. Copenhagen: Gyldendalske Boghandels forlag.
- Sanders, H. (2012) Peder Winstrup och Knut Hahn: två kyrkomän och deras tid. In S. Skansjö (ed), *Lunds historia staden och omlandet. 2. Tidig modern tid. I en bördig bygd* (1536–1862). Lund: Lunds kommun.
- Skansjö, S. (2012) Lunds historia staden och omlandet. 2. Tidig modern tid. I en bördig bygd (1536–1862). Lund: Lunds kommun.
- Tarlow S. (1999) Bereavement and Commemoration. An Archaeology of Mortality. Oxford: Blackwell Publishers.
- Tarlow S. (2011) *Ritual, belief and the dead in Early Modern Britain and Ireland*. Cambridge: Cambridge University Press.
- The Workwoman's Guide (1838) by A Lady, London: Simpkin, Marshall and Co.

- Troels-Lund, T. F. (1984) *Att dö i Norden. Föreställningar om livet slut på 1500-talet*. Stockholm: Författarförlaget.
- Ullgren, P. (2004) Lantadel: adliga godsägare i Östergötland och Skåne vid 1600-talets slut. Lund: Sisyfos.
- Wallin, C. (1951) *Gravskick och gravtraditioner i sydöstra Skåne*. Stockholm: Svenska kyrkans Diakonistyrelses Bokförlag.
- Vedeler, M. (2010) Dressing the Dead: Traditions of Burial Costume in Rural Norway. In E. Andersson Strand, M. Gelba, U. Mannering, C. Munkholt and M. Ringgaard (eds), North European Symposium for Archaeological Textiles X. Ancient Textiles Series 5. Oxford: Oxbow Books, 254–258.
- Vincent, S. (2003) *Dressing the elite. Clothes in Early Modern England*. Oxford: Berg.
- Väre, T., Lipkin, S., Suomela, J. A. and Vajanto, K. (2021) Nikolaus Rungius: Lifestyle and Status of an Early Seventeenth-Century Northern Finnish Vicar. *Hist Arch* 55, 11–29.

Internet sources

- The Royal Armoury, Statens Historiska Museer database, available at https://emuseumplus.lsh.se (accessed 17 May 2022)
- Shirt probably worn by Queen Christina as child, 1628, inv. 9379 (4323)
- Shirt worn by Karl XII, 1718, inv. 20875 (3466)
- Shirt worn by Gustav II Adolph at Kleinwerder, 1624, inv. 31196 (3380)
- Shirt worn by Gustav II Adolph at Dirschau, 1627, inv. 31197 (3382)
- Three shirts worn by Gustav II Adolph at Lützen, 1632 inv. 31120 (3383:a), 31121 (3383), 31122 (3383)
- Shirt worn by Amiral Claes Hansson Bielkenstierna, 1659, inv. 21454 (5793:1)
- Shirt worn by Gustav III, 1792, inv. 31187

Author: pernilla.rasmussen@kultur.lu.se