MEDIEVAL CLOTHING AND TEXTILES



·11·

Edited by Robin Netherton and Gale R. Owen-Crocker

Medieval Clothing and Textiles

Volume 11

Medieval Clothing and Textiles

ISSN 1744-5787

General Editors

Robin Netherton Gale R. Owen-Crocker St. Louis, Missouri, USA University of Manchester, England

Editorial Board

John Hines Christine Meek Lisa Monnas M. A. Nordtorp-Madson Frances Pritchard Lucia Sinisi

Eva Andersson Strand Monica L. Wright

Cardiff University, Wales Trinity College, Dublin, Ireland

London, England

University of St. Thomas, Minnesota, USA

The Whitworth, University of Manchester, England

University of Bari, Italy

Centre for Textile Research, Copenhagen, Denmark

University of Louisiana at Lafayette, USA

Medieval Clothing and Textiles

Volume 11

edited by

ROBIN NETHERTON

GALE R. OWEN-CROCKER

with the assistance of

MONICA L. WRIGHT

© Contributors 2015

All Rights Reserved. Except as permitted under current legislation no part of this work may be photocopied, stored in a retrieval system, published, performed in public, adapted, broadcast, transmitted, recorded or reproduced in any form or by any means, without the prior permission of the copyright owner.

First published 2015 The Boydell Press, Woodbridge

ISBN 978-1-78327-002-6

The Boydell Press is an imprint of Boydell & Brewer Ltd PO Box 9, Woodbridge, Suffolk IP12 3DF, UK and of Boydell & Brewer Inc. 668 Mt Hope Avenue, Rochester, NY 14620-2731, USA website: www.boydellandbrewer.com

A CIP catalogue record for this book is available from the British Library

The publisher has no responsibility for the continued existence or accuracy of URLs for external or third-party Internet websites referred to in this book, and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

This publication is printed on acid-free paper.

Typeset by Frances Hackeson Freelance Publishing Services, Brinscall, Lancs

Contents

Illustrat	ions	page vi
Tables		ix
Contrib	utors	X
Preface		xiii
1	Production, Quality, and Social Status in Viking Age Dress: Three Cases from Western Norway Ingvild Øye	1
2	The Effect of Spindle Whorl Design on Wool Thread Production: A Practical Experiment Based on Examples from Eighth-Century Denmark Karen Nicholson	29
3	The Shirt Attributed to St. Louis Tina Anderlini	49
4	Angevin-Sicilian Sumptuary Statutes of the 1290s: Fashion in the Thirteenth-Century Mediterranean Sarah-Grace Heller	79
5	The Devil on My Tail: Clothing and Visual Culture in the Camposanto <i>Last Judgment</i> Cordelia Warr	99
6	"Transposing be shapus bat God first mad them of": Manipulated Masculinity in the Galaunt Tradition <i>Emily J. Rozier</i>	119
7	Textiles and Dress in the Household Papers of Lady Margaret Beaufort (1443–1509), Mother of King Henry VII Susan Powell	139
8	"Like two artificial gods": Needlework and Female Bonding in A Midsummer Night's Dream Anna Riehl Bertolet	159
Recent I	Books of Interest	179
Content	s of Previous Volumes	185

Illustrations

The editors, contributors and publishers are grateful to all the institutions and persons listed for permission to reproduce the materials in which they hold copyright. Every effort has been made to trace the copyright holders; apologies are offered for any omission, and the publishers will be pleased to add any necessary acknowledgement in subsequent editions.

Viking Ago	e Dress	
Fig. 1.1	Graves with textile tools in Hordaland and Sogn og Fjordane, Norway	3
Fig. 1.2	Brooches found at Hyrt	8
Fig. 1.3	Status groups in female graves in different regions of Norway	8
Fig. 1.4	Types of weaves found in Viking Age graves in Norway	10
Fig. 1.5	Map of Hordaland showing the graves in Trå, Hyrt, and Veka	12
Fig. 1.6	Smoother of glass and soapstone spindle-whorl from Trå	14
Fig. 1.7	Textile fragment on the front of one of the brooches from Hyrt	16
Fig. 1.8	Textile remains on the back of the brooch	17
Fig. 1.9	Close-up of the textile fragment	18
Fig. 1.10	Cross-section of the layers above and below the brooch	20
Fig. 1.11	Wool combs from Hyrt	22
Fig. 1.12	Loom weights per weight group in the graves from Trå, Hyrt, and Veka	25
Spindle W	horl Design	
Fig. 2.1	Drawing of spindle whorls from Ribe, Denmark	30
Fig. 2.2	Ceramic reproductions of Ribe whorls	31
Fig. 2.3	Ceramic reproductions of Ribe whorls	31
Fig. 2.4	Range of thread production from Ribe-style reproduction whorls	34
Fig. 2.5	Ceramic reproduction whorls in Neolithic and Bronze Age styles	35
Fig. 2.6	Range of thread production for all ceramic reproduction whorls	40
Fig. 2.7	Graph of the range of threads produced by the reproduction whorls	42

Illustrations

Fig. 2.8	Spindle shafts carved of maple wood	44		
Fig. 2.9	Cloth fragments from Ribe			
Fig. 2.10	Tabby-weave reproduction sample	46		
Fig. 2.11	Twill-weave reproduction sample			
The St. Lou	is Shirt			
Fig. 3.1	The St. Louis shirt, front			
Fig. 3.2	The St. Louis shirt, back			
Fig. 3.3	Measurements of the body of the shirt, from the front			
Fig. 3.4	Additional measurements of the body of the shirt, from the back	57		
Fig. 3.5	The narrow lower opening of the sleeve	59		
Fig. 3.6	The sleeve, with measurements	60		
Fig. 3.7	Seams and stitches	63		
Fig. 3.8	The top of the remaining front gore piece	64		
Fig. 3.9	The top of the back gore insert	65		
Fig. 3.10	The neck opening, with measurements	66		
Fig. 3.11	Inside of the front gore	68		
Fig. 3.12	The right shoulder	68		
Fig. 3.13	Proposed cutting diagram for the St. Louis shirt	70		
Fig. 3.14	The auqueton of Isabelle of France	71		
Fig. 3.15	Drawing of Rodrigo Ximenez de Rada's short shirt	73		
Fig. 3.16	Construction of a pleated gore with binding	75		
Fig. 3.17	Detail of St. Francis' shirt showing the top of the gore	76		
Clothing in	the Camposanto Last Judgment			
Fig. 5.1	Last Judgment fresco, ca. 1330-40, Camposanto, Pisa	100		
Fig. 5.2	Carlo Lasinio's 1812 engraving of the <i>Last Judgment</i> fresco	101		
Fig. 5.3	Detail of doomed woman from the <i>Last Judgment</i> fresco	102		
Fig. 5.4	Detail of doomed woman from Lasinio's engraving			
Dress of Ma	argaret Beaufort			
Fig. 7.1	Lady Margaret Beaufort, painted by Roland Lockey	156		
11g. 7.1	(ca.1597, St. John's College, Cambridge)	130		
Needlework	k in A Midsummer Night's Dream			
Fig. 8.1	Calendar illustration by Marcus Ward (1923)	165		
Fig. 8.2	Detail from engraving by Elias Porzel in <i>Curioser Spiegel</i>	166		
0	(1689)	_ 50		
Fig. 8.3	Cushion cover (1603–25, Victoria and Albert Museum, London)	169		

Illustrations

Fig. 8.4	Cushion cover (ca. 1600, Victoria and Albert Museum,	172
	London)	
Fig. 8.5	Detail of spot sampler (mid-1600s, Victoria and Albert	174
	Museum, London)	

Tables

Viking Ag	e Dress	
Table 1.1	Textile tools in three graves with remains of textile tools and textiles	12
Spindle W	horl Design	
Table 2.1	Spindle whorls and thread produced	36
Sumptuar	y Statutes of the 1290s	
Table 4.1	Status categories and fines in thirteenth-century French and Angevin-Sicilian sumptuary laws	92

Contributors

ROBIN NETHERTON (Editor) is a costume historian specializing in Western European clothing of the Middle Ages and its interpretation by artists and historians. Since 1982, she has given lectures and workshops on practical aspects of medieval dress and on costume as an approach to social history, art history, and literature. A journalist by training, she also works as a professional editor.

GALE R. OWEN-CROCKER (Editor) is Professor Emerita of the University of Manchester. Her recent publications include articles for "Dress" and "Textiles" in Oxford Bibliographies Online: Medieval Studies, both with Elizabeth Coatsworth; The Lexis of Cloth and Clothing in Britain ca. 700–1450, a database available at http://lexisproject.arts.manchester.ac.uk; *Encyclopedia of Dress and Textiles in the British Isles* c. 450–1450, with Elizabeth Coatsworth and Maria Hayward (2012); and *Medieval Dress and Textiles in Britain: A Multilingual Sourcebook*, with Louise Sylvester and Mark Chambers (2014).

TINA ANDERLINI is a researcher, lecturer, costumer, and author in Russange (Lorraine), France, and author of *Le Costume Médiéval au XIIIe Siècle* (2014). She has been an editor since 2010 for the magazine *Moyen-Âge* in the subjects of costume, jewelry, and art and iconography, and has written on costume for the magazines *Historia* and *Histoire et Images Médiévales*. In addition to Pre-Raphaelite art (the subject of her Ph.D. dissertation) and medieval costume, art, and iconography, her interests include Quattrocento art, Egyptology, and re-enactment.

ANNA RIEHL BERTOLET is Associate Professor of English at Auburn University. She is author of *The Face of Queenship: Early Modern Representations of Elizabeth I* (2010) and co-editor (with Thomas Betteridge) of *Tudor Court Culture* (2010). She is currently working on a monograph on gender and needlework in early modern England.

SARAH-GRACE HELLER is Associate Professor in the Department of French and Italian at Ohio State University and the author of *Fashion in Medieval France* (2007). She is currently working on editing *A Cultural History of Fashion, vol. 2: The Medieval Age* (800–1450) for Berg Publishers and a long-term project on *An Illustrated History of Fashion* 500–1300.

Contributors

KAREN NICHOLSON is an independent researcher in Albany, New York, with a focus on medieval textile tools and hand spinning. She is currently working on reproducing a medieval nalbound mitten from Ribe, Denmark. She holds a degree in architecture.

INGVILD ØYE is Professor of Medieval Archaeology at the University of Bergen, Norway. Her scholarly fields cover medieval urban and rural archaeology, including textile production. She is author of *Textile Equipment and Its Working Environment, Bryggen in Bergen, c. 1150–1500* and also published findings on the textile tools from the Viking Age town Kaupang. Her current research project relates to textiles and textile production in West Norse societies from 800 to 1300.

SUSAN POWELL is Emeritus Professor of Medieval Texts and Culture at the University of Salford. She is a Research Associate at the Centre for Medieval Studies, University of York, and a Visiting Research Fellow at the Institute of English Studies, University of London. Her most recent publication is *A Companion to the Early Printed Book in Britain 1476–1558* (2014), co-edited with Vincent Gillespie. She is currently editing selected household papers of Lady Margaret Beaufort for the British Academy series Records of Social and Economic History.

EMILY J. ROZIER is a doctoral researcher in English at the University of Birmingham, where she is working on a Ph.D. thesis titled "The Galaunt Tradition in England, c. 1380–c. 1550: The Form and Function of a Satirical Youth Figure." Her current research interests include late-medieval representations of youth and the use of sartorial symbolism in political satire and didactic art.

CORDELIA WARR is Senior Lecturer in Art History and Visual Studies at the University of Manchester. She is author of *Dressing for Heaven: Religious Clothing in Italy, 1215–1545* (2010) and co-editor (with Janis Elliot) of two books on art in Naples: *The Church of Santa Maria Donna Regina* (2004) and *Art and Architecture in Naples 1266–1714* (2010). Her current project focuses on miraculous wounds between the thirteenth and seventeenth centuries, and she recently co-edited (with Anne Kirkham) *Wounds in the Middle Ages* (2014).

Preface

Medieval Clothing and Textiles begins its second decade with a volume exhibiting its desired eclecticism, ranging from early medieval to early modern, from northern to southern Europe, though archaeology and artifact study, literary and documentary text, art and experimental reconstruction. Two papers focus on cloth manufacture in the early medieval period: Ingvild Øye examines the graves of prosperous Viking Age women from Western Norway that contained both textile-making tools and the remains of cloth, considering the relationship between tools and cloth. Karen Nicholson complements this with practical experiments in spinning, using tools of different weights and shapes. Tina Anderlini analyzes a surviving thirteenth-century shirt famously attributed to King Louis IX of France (St. Louis). Examination of the garment, out of its shrine for the first time since 1970, newly reveals details of cut and construction, contributing to the debate of whether it could indeed have belonged to the king. Three papers address fashionable clothing and morality: Sarah-Grace Heller discusses sumptuary legislation from Angevin Sicily in the 1290s, which sought to restrict men's dress at a time when preparation for war was more important than showy clothes; Cordelia Warr presents the dire consequences of a woman dressing extravagantly as portrayed in a fourteenth-century Italian fresco; and Emily Rozier recounts the extremes of dress attributed by moral and satirical writers to the fourteenth- and fifteenth-century men known as "galaunts." Two textual studies show the importance of textiles in daily life: Susan Powell describes the austere but magnificent purchases made on behalf of Lady Margaret Beaufort, mother of King Henry VII, in the ten years before her death in 1509, from the evidence of her household papers. Anna Riehl Bertolet explores in detail the passage in Shakespeare's A Midsummer Night's Dream in which Helena passionately recalls sewing a sampler with Hermia when they were young and still bosom friends.

We welcome Lisa Monnas to our editorial board, an international team of experts who have provided us with great wisdom since the inception of our journal. As always, we express gratitude to the scholars in related disciplines who have generously lent their knowledge and guidance as anonymous peer reviewers for article submissions to this series, often helping to improve contributions substantially.

We continue to consider for publication in this journal both independent submissions and papers read at sessions sponsored by DISTAFF (Discussion, Interpretation, and Study of Textile Arts, Fabrics, and Fashion) at the international congresses held annually in Kalamazoo, Michigan, and Leeds, England. Proposals from potential conference speakers should be sent to robin@netherton.net (for

Preface

Kalamazoo) or gale.owencrocker@ntlworld.com (for Leeds). Potential authors for *Medieval Clothing and Textiles* should read our author guidelines at http://www.distaff.org/MCTguidelines.pdf, and send a 300-word synopsis to Professor Gale R. Owen-Crocker, 181 Chester Road, Hazel Grove, Stockport SK7 6EN, UK; or by email to gale.owencrocker@ntlworld.com. (Professor Owen-Crocker retired from the University of Manchester in January 2015 with the title Professor Emerita; note that she is no longer using her university address.)

We are delighted to announce the publication of the second title in our subsidia series Medieval and Renaissance Clothing and Textiles: *Medieval Dress and Textiles in Britain: A Multilingual Sourcebook*, edited by Louise M. Sylvester, Mark C. Chambers, and Gale R. Owen-Crocker (Boydell, 2014). Authors interested in contributing a volume to this series should apply using the publication proposal form on the website of our publisher, Boydell & Brewer, at http://www.boydellandbrewer.com/authors_submit_proposal.asp.We encourage potential authors of monographs or collaborative books for this series to discuss their ideas with the General Editors, Robin Netherton and Gale Owen-Crocker, before making a formal proposal.

Production, Quality, and Social Status in Viking Age Dress: Three Cases from Western Norway

Ingvild Øye

Textiles have been, and continue to be, indispensable necessities, but they are also able to signify status. In Norway, traces of textiles and textile production become especially apparent in the Viking Age (ca. 800–1050) through the burial custom of inhumation graves, where the deceased were buried according to their rank, and in women's graves, in their dress, with dress accessories and often with textile tools among the grave goods. In some cases there are still traces of clothes—representing one of the few find contexts with preserved textiles from this period in Norway. As concrete remains of products and means of production in different work processes, these finds throw light upon both clothing and textile production in the different physical and socioeconomic environments in which they were found. Differences among regions and districts can prove to be significant indicators of underlying social and economic trends. The evidence for special-quality textiles in relatively limited geographical zones and within a period of major transformations, politically, economically, and socially—such as Christianization, state formation, and early urbanization—makes this an interesting issue to investigate. This article discusses how and to what degree textile fragments and textile tools from female burials can illuminate quality, status, and level of textile production. The environments in which finds from Western Norway appear and the degree to which they reflect local textile

An earlier version of this paper was given in May 2013 at the International Congress on Medieval Studies at Kalamazoo, Michigan. I would like to thank the organizers, and especially Professor Gale Owen-Crocker, for this stimulating opportunity and also for her constructive and useful comments to the written version. Comments from an anonymous reviewer have also benefited the article. I also thank Hana Lukešová, textile conservator at the University Museum of Bergen, who has generously given me access to her analyses of the textiles referred to in the article.

production will be assessed. The study relates to an ongoing research project on textile production in this region in the Viking Age and the Middle Ages.¹

The primary research area is the central part of Western Norway, consisting of the three medieval fylki (counties) of Hordaland to the south, with the only town in the region, Bergen, from the late eleventh century; Sogn, further north along the 200-kilometer-long Sognefjord; and north of that, Fjordane (the fjords).² The area stretches from the North Sea coast to the inner fjord districts and mountainous areas (see fig. 1.1). This was the core area of the Gulathing law province, dating back to at least the beginning of the tenth century.³ The region was rich in outlying resources for summer as well as winter grazing and consequently able to supply wool for textile production—an expanding industry in the Viking Age and the Middle Ages, not least because of the maritime technology based on sailing. Production was organized within rural economies and settings and a mainly hierarchical social and political structure. It was a society in which elements of material culture, including garments, played an important distinguishing role as markers of social status. About 130 of the Viking Age graves in the region have yielded textile tools—wool combs, spindle whorls, loom weights, weaving beaters, shears, and others, in some cases more or less complete tool kits. The finds bear witness to the important role and level of textile production in these rural contexts.

Fragments of dress or garment textiles have also been identified in thirty-five of the Viking Age graves in this region, of which thirty are identified as female, two as male, and three as uncertain with respect to gender. Most of these graves are of fairly high status. Jewelry, dress accessories, and other typical items appear in the adult female burials and include a wide variety of artifacts, which occur in regionally distinct, gender-differentiated kits.⁴ Altogether, twenty-one of the female graves (70 percent) also contained textile tools, generally representing a wide range of different tools. This article focuses on three female graves from the inner part of Hordaland that

- 1 The working title of the project is "Tools and Textile Production in West Norse Societies, c. 800–1300 AD." It is supported by the Department of Archaeology, History, Cultural Studies and Religion, University of Bergen, and runs from 2012 to 2015. The project concerns textile production in Western Norway (with a side glance to the North Atlantic region) in a long-term perspective, focusing on textile production equipment from different archaeological contexts (graves and deserted settlements, including seasonal occupations, such as shielings). As far as possible the tools are seen in connection with textiles when found in the same archaeological contexts. The project will, like the present article, draw upon textiles already analyzed. The project continues the author's earlier work on textile tools and textile production in urban Viking Age and medieval contexts: Ingvild Øye, Textile Equipment and its Working Environment: Bryggen in Bergen c 1150–1500, Bryggen Papers 2 (Bergen: Norwegian University Press, 1988); Øye, "Textile-production Equipment," in Things from the Town: Artefacts and Inhabitants in Viking-age Kaupang, ed. Dagfinn Skre, Kaupang Excavation Project Publication Series 3, Norske Oldfunn 24 (Aarhus, Denmark: Aarhus University Press, 2011), 339–72. The aim is to assess and explore the development from rural to urban textile production.
- 2 Today, the latter two areas are combined in the single modern county Sogn og Fjordane.
- 3 Knut Helle, Gulatinget og Gulatingslova (Leikanger, Norway: Skald, 2001), 25–27.
- 4 This kind of gender-based burial custom is also demonstrated in other parts of Northern Europe. Heinrich Härke, "Grave Goods in Early Medieval Burials: Messages and Meanings," *Mortality* 19, no. 1 (2014): 41–60.

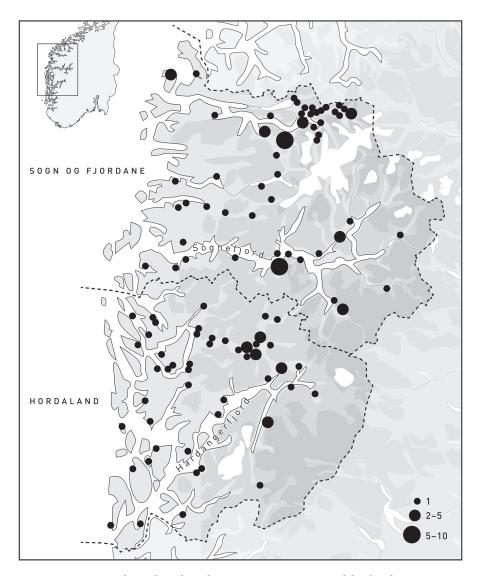


Figure 1.1: Graves with textile tools in the Norwegian counties Hordaland and Sogn og Fjordane (n=135). Drawing: Per Bækken, based on Anders Rabben, "Med vevsverd og stekepanne: Tekstilredskaper og kjøkkenredskaper i vestnorske mannsgraver fra yngre jernalder" (master's thesis, University of Bergen, 2002).

contained textiles of different qualities, including special high-quality dress textiles, as well as differentiated textile tools. The finds in these closed contexts will be used to discuss and illuminate questions related to textile-production environments in the Viking Age, including quality of textiles and social status.

Ingvild Øye

Although the equipment is rather simple, fine differences and the variety of textile-production implements found in graves can be significant and reflect production of different types of quality and fabric. Production of standard cloth requires not only a homogenous wool type but also standardized tools. A more varied tool kit is needed for producing different types and qualities of textiles.

TEXTILE TOOLS FOUND IN GRAVES

Recent studies of textile tools have shown their potential to shed light on both the quality of fabric produced and the extent of textile production. Threads were spun for different purposes and for various types of fabric, requiring different qualities of yarn. Quality was dependent not only on the quality of the fiber and the skill of the worker, but also on the tools. The spinner or weaver selected the tools for the task at hand. Thus, specific features of the tools found in the graves are important for comparing and assessing the relation between the tools and textiles in order to substantiate whether the tools actually could have been used to produce the textiles found.

Experimental research in spinning with a drop spindle and weaving on a warp-weighted loom has demonstrated that the size, the shape, and not least the weight of the spindle whorl, even differences as little as 5 to 10 grams, affect the thickness and quality of the thread, and subsequently also the fabric. To spin the finest threads, the lightest whorls were needed: Light, compact spindle whorls rotate markedly faster than heavy ones and give a tighter twist. Historically, whorls of about 25 to 35 grams were commonly used to spin the wool from the Norwegian short-tailed sheep, and whorls of 50 grams for plying the yarn. Whorls of 25 to 35 grams can be used to produce a variety of thread gauges, dependent on the dexterity of the spinner. Lightweight whorls of about 7 to 16 grams cannot, however, readily be used to produce thick threads. The size and shape of the spindle whorl also affects how tightly it can spin; a large whorl does not spin as tight a thread as a small and relatively heavy one, and a conical spindle whorl turns more quickly than a disc-shaped one, and so on. Different spindle whorls also govern the number of fibers the thread may contain. Compared with heavier whorls, the lightest whorls need wool that is softer and more

- 5 Eva Andersson, The Common Thread: Textile Production During the Late Iron Age-Viking Age, Report series 67 (Lund: University of Lund, Institute of Archaeology, 1999); Linda Mårtensson et al., Technical Report, Experimental Archaeology, Part 1, 2005–2006: Tools and Textiles—Texts and Contexts Research Program (Danish National Research Foundation's Centre for Textile Research, University of Copenhagen [CTR], 2006); Linda Mårtensson et al., Technical Report, Experimental Archaeology, Part 2:2, Whorl or bead? Tools and Textiles—Texts and Contexts Research Program (CTR, 2006); Linda Mårtensson et al., Technical Report, Experimental Archaeology, Part 3, Loom weights: Tools and Textiles—Texts and Contexts Research Program (CTR, 2007). The observed results correspond with the results of the experiments described in the article by Karen Nicholson in this volume.
- 6 Sunniva Lønning, Spinne ull på rokk og håndtein (Oslo: Landbruksforlaget, 1976), 20.
- 7 Andersson, *The Common Thread*, 24, with references.
- 8 Lise Warburg, Spindebog (Valby, Denmark: Borgen, 1976), 89.

Viking Age Dress

homogenous.⁹ These differences would have had important consequences for the preparation of fibers and the spinning—how much of the wool had to be sorted out and discarded, and the time spent in the whole process. Experiments have shown that the greatest significance for the product lies in the whorl's weight and its relation to the diameter. This defines whether the thread can be thick or thin, tightly or loosely spun. Clusters of certain weight groups in graves should thus give a good indication of the type of thread that was spun.

Finds of loom weights, used for warp-weighted looms, in many of the female graves may also throw light on whether the tools present in a grave might have been used to create the associated textiles. In Western Norway, the warp-weighted loom was used for longer than in most parts of Northern Europe, and until the middle of the twentieth century in some rural areas, especially for weaving tapestries. 10 The weights affected both the weaving and the product. On historically known looms, the number of loom weights varied considerably, from about thirteen to forty-eight, mostly between twenty and forty. They were attached to the warp by means of a cord looped through the hole in the weight and never tied directly in the hole.¹¹ Pairs of stones of about the same weight were used to maintain the balance between the front threads and the back threads, and sometimes two stones were needed to balance one group of warp threads. To some extent it was also possible to regulate the tension on the warp threads by adjusting the number of ends to which one weight was attached. Experiments have shown that lighter loom weights are generally suitable for weaving fabrics with thin and tight warp threads, while heavier weights are more useful for fabrics with a thick warp, giving the needed weight tension on the threads. 12 Thinner, softer threads would generally have functioned better as weft threads for an open tabby weave. The loom weights in the grave finds vary in number from two to three to more than forty, but only seldom represent the whole loom and mainly symbolize a work domain.

Weaving beaters, most often of iron or bone, appear among the grave goods, though less frequently than loom weights. They were used between the two planes of warp threads for pushing on the weft, to compact the weave. Beaters of iron made it possible to weave fabrics of coarse threads tighter and faster than when using beaters of softer material, and were considerably more efficient than wooden beaters when weaving tight fabrics, such as sailcloth. Wool combs, shears, needles/needlecases, linen smoothers of glass, and other textile-related implements are all found in graves from the Viking Age.

- 9 Mårtensson et al. Technical Report, Part 2.2, 7.
- 10 Marta Hoffmann, The Warp-Weighted Loom: Studies in the History and Technology of an Ancient Implement (Oslo: Norwegian University Press, 1964).
- 11 Ibid., 37.
- 12 Mårtensson et al., Technical Report, Part 2.2, 11.
- 13 Eva Andersson, *Tools for Textile Production from Birka and Hedeby*, Birka Studies 8 (Stockholm: Riksantikvarieämbetet, 2003), 28.

Ingvild Øye

GENDER, STATUS, AND DRESS

As osteological material is seldom preserved in graves from Western Norway, sexual and cultural identification is based on dress accessories and other gender-specific equipment. Grave goods made of perishable materials, such as textiles or wooden objects, are preserved only in rare cases. Traces of burial dress in the graves are generally restricted to small fragments of cloth, normally found in direct contact with objects of copper alloy or iron, jewelry, belt buckles, or sometimes weaponry. It is the metal salts of such artifacts that preserve the remains of the finds. In Western Norway, most of the graves with textile remains are found in association with brooches worn as part of the typical Norse female dress. In some cases layers of different cloth have been preserved on the pins of brooches and reflect different garments and their parts, made of different fabric. Since it is female graves that contain the brooches, female burials are heavily overrepresented with regard to textiles.

At the same time, female graves from the period constitute only about one-fifth of the total of the graves that can be identified with regard to gender. This gendered imbalance has been explained by the graves' assumed symbolic, commemorative, and physical roles as markers of inheritance, reflecting property rights and control of land, and thus dominated by male landowners and also heirs, but not exclusively. Only a small segment of the population in the Viking Age was buried in monumental graves, such as burial mounds or cairns, and furnished with grave goods, and relatively few of these burials were female.

Spatial analyses of the distribution of graves indicate a correlation between monumental and richly furnished graves and rights to landed property. ¹⁵ According to the Gulathing law for Western Norway, women could inherit such property as single daughters without brothers, or as widows. Otherwise, only chattels, including textiles, constituted the female inheritance. ¹⁶ Female graves, then, seem generally to reflect the upper strata of Viking Age society, and although clearly fewer, still fall within a hierarchical structure, judging by the graves and grave goods.

The burials do, to a large extent, allude to the social identity of the deceased and seem to follow conventions and norms related to their status, roles, and responsibilities, as the living, and especially heirs, wanted to display them in the funerary rites.

- 14 Bergljot Solberg, "Social Status in the Merovingian and Viking Periods in Norway from Archaeological and Historical Sources," Norwegian Archaeological Review 18, no. 1 (1985): 61–76. The study is based on the distribution of identified graves from the Late Iron Age with gendered artifacts, weaponry, and dress accessories.
- Dagfinn Skre, Herredømmet: Bosetning og besittelse på Romerike 200–1350 e. Kr, Acta Humaniora 32 (Oslo: University of Oslo, 1998); Frode Iversen, Var middelalderens lendmannsgårder kjerner i eldre godssamlinger? En analyse av romlig organisering av graver og eiendomsstruktur i Hordaland og Sogn og Fjordane, Arkeologiske avhandlinger og rapporter fra Universitetet i Bergen 4 (Bergen: University of Bergen, 1999); Iversen, Eiendom, makt og statsdannelse: Kongsgårder og gods i Hordaland i yngre jernalder og middelalder, UBAS, Nordisk 6 (Bergen: University of Bergen, 2008).
- 16 Ingvild Øye, "Kvinner, kjønn og samfunn fra vikingtiden til reformasjonen," in Med kjønnsperspektiv på norsk historie: Fra vikingtid til 2000-årsskiftet, ed. Ida Blom and Sølvi Sogner (Oslo: Cappelen Akademisk, 2005), 82, 84, 87.