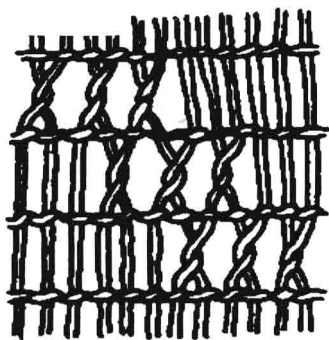


Penelope Ballard Drooker

Mississippian Village

Textiles

AT WICKLIFFE



TEXTILES AT WICKLIFFE

PENELOPE BALLARD DROOKER

The University of Alabama Press
Tuscaloosa and London

Copyright © 1992 by
The University of Alabama Press
Tuscaloosa, Alabama 35487-0380
All rights reserved
Manufactured in the United States of America
designed by Paula C. Dennis

∞

The paper on which this book is printed meets the minimum
requirements of American National Standard for Information
Science-Permanence of Paper for Printed Library Materials,
ANSI Z39.48-1984.

Library of Congress Cataloging-in-Publication Data

Drooker, Penelope B.

Mississippian village textiles at Wickliffe / Penelope Ballard

Drooker

p. cm.

Includes bibliographical references and index.

ISBN 0-8173-0592-0

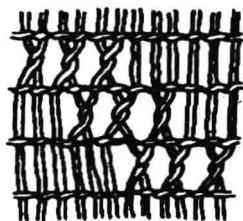
1. Wickliffe Mounds (Ky.) 2. Mississippian culture—Kentucky—
Textile industry and fabrics. 3. Mississippian culture—Kentucky—
Pottery. 4. Mississippian culture—Kentucky—Social life and
customs. I. Title.

E99.M6815D76 1992

976.9'96—dc20

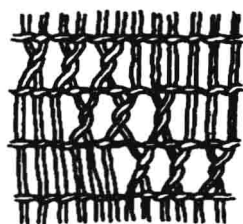
92-4722

British Library Cataloguing-in-Publication Data available



MISSISSIPPIAN VILLAGE TEXTILES
AT WICKLIFFE

To Mike



PREFACE

As a long-time weaver myself, when I first began to become familiar with the archaeology and ethnography of southeastern North America, I tried to find out as much as I could about the textiles that were made and used in this region. Although people have been living in this area for well over ten millennia, direct evidence was discouragingly sparse. Unlike the dry deserts of the Southwest, the humid forests of the Southeast were not particularly conducive to the preservation of actual textile artifacts, although some fabric fragments and artifacts did survive in bogs, dry caves, and burials. In spite of the fact that a few spectacular finds such as the textiles looted from elite mortuary contexts at Spiro, Oklahoma, did attract the attention of archaeologists, for the most part the archaeological reconstruction of southeastern prehistory necessarily has focused upon the "hard evidence" of ceramic, stone, metal, and other less perishable artifacts, together with increasingly sophisticated procedures to elicit the maximum amount of information from subsistence, settlement, and burial patterns.

Because Precolumbian southeastern textiles are relatively rare and often fragmentary, they have been almost entirely ignored as a potential source of cultural information. As a result, until recently we have known little, not only of the fabrics themselves, but also of their place within the socio-economic systems of the Southeast. Not surprisingly, archaeologists, textile historians, and nonspecialists alike are for the most part ignorant of the nature and importance of yarns and textiles made and used within this region.

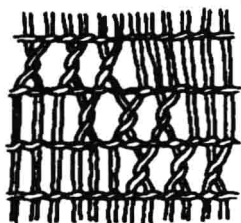
Ian Brown is the person who suggested to me that a study of textile impressions on Mississippian pottery might prove fruitful. In his research on prehistoric salt-making, he had become very familiar with the large "salt-pan" vessels which often had fabric-impressed outer surfaces. I soon found that a plethora of textile-impressed sherds have been excavated during the past century, but although they have been employed widely as ceramic markers typical of the Early to Middle Mississippian, very little use has been made of them as sources of information about the Mississippian textiles industry. By analyzing in detail the fabrics impressed on pottery at a particular settlement, I hoped to be able to deduce not only some of the functions for which they originally were made but also the technology of their production and their importance in the economy and social structure of the community.

Wickliffe Mounds (15Ba4), Kentucky, proved to be a lucky site choice for me. It is a well-researched location with an ongoing program of archaeological investigation, and the working conditions for visiting researchers are excellent. Not only was there an abundance of fabric-impressed sherds to analyze, but the impressions generally were sharp and clear, and there was an amazingly wide range of yarn sizes, textile structures, and fabric types represented. The information that I have been able to glean from them is indicative of rich possibilities for future research along similar lines at other Mississippian sites. Someday soon I hope that textiles will take their deserved place as a significant component of southeastern and Mississippian culture.

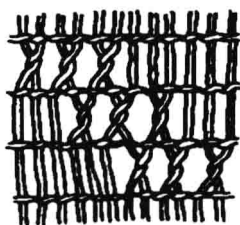
This project never could have been initiated or even contemplated without the generous assistance of many individuals. Both Ian Brown and Kit Wesler, director of the Wickliffe Mounds Research Center, have been supportive and helpful in numerous ways throughout the entire time I have wrestled with the Wickliffe textile data and comparative information from other sites. During my visits to examine collections at Wickliffe, the Harvard University Peabody Museum, the University of Michigan Museum of Anthropology, the Center for Archaeological Investigations at Southern Illinois University at Carbondale, the Frank H. McClung Museum of the University of Knoxville, the Robert S. Peabody Foundation, the Ohio Historical Society, and the Program for Cultural Resource Assessment at the University of Kentucky, Kelly Lawson, Michael Geselowitz and Kathy Skelly, John Speth and David Kennedy, Francis Smiley and Brian Butler, Jefferson Chapman, Betty Steiner and Gene Winter, Martha Otto, and Gwynn Henderson and David Pollack all were extremely accommodating. Marvin and Julie Smith shared access to Milner site textiles, as did Richard Polhemus to Loy site textiles, Ian Brown to Salt Creek and Bottle Creek sherds, Ruth Truett to a large

collection of relevant research materials, and Jenna Tedrick Kuttruff to the Wickliffe textile fragments and to her own research on Mississippian textiles from several different sites. Ella Baker gave valuable aid in experimental replication studies. Michael Drooker's skilled computer support was essential to the successful completion of the project. Others who answered inquiries and followed through with additional helpful information included but were by no means limited to Charles Bareis, Jeffrey Brain, James A. Brown, R. Berle Clay, Charles Cobb, Betsy Davis, Frederica Dimmick, Julie Droke, Linda Eisenhart, Richard Faust, Elizabeth Garland, James Griffin, David Hally, Michael Hoffman, Debbie Hopkins, William Johnson, B. Calvin Jones, R. Barry Lewis, Joan Miller, Jon Muller, Dolores Newton, Michael O'Brien, Christopher Peebles, Gregory Perino, Elisa Phelps, J. Daniel Rogers, Lucy Sibley, James Smith, Antoinette Wallace, Stephen Williams (to whom I owe particular thanks for furthering this project), and Virginia Schreffler Wimberly. I very much appreciate their help.

My thanks go also to Judith Knight and the staff at the University of Alabama Press, whose support and assistance during the prepublication process has been essential. In addition, the manuscript benefited immensely from expert, comprehensive, and painstaking review by Mary Elizabeth King, Jenna Tedrick Kuttruff, and a third anonymous person. Although I have clung stubbornly to my own opinion in a few matters, most of their suggestions have been incorporated into the manuscript, to its great improvement. I am extremely grateful for their help.



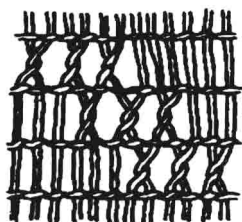
MISSISSIPPIAN VILLAGE TEXTILES
AT WICKLIFFE



CONTENTS

Tables and Figures	ix
Preface	xiii
1. Introduction	1
2. Setting the Scene	5
Mississippian Lifeways	5
Mississippian Textiles	8
Mississippian "Salt pans"	12
3. Wickliffe Village	21
Site Description	21
Excavation History	23
Chronology	26
Recap: The Shape of Wickliffe	27
Regional Affiliations	28
Textiles	29
"Salt pan" Pottery	33
4. Gleaning Information from Fabric Impressions:	
Methodology and Comparative Data	37
Textile Attributes Studied	39
"Salt pan" Attributes Studied	52
Functional Characteristics of Fabric Types	54
Diagnostic Characteristics of Mississippian Textile Artifacts	58

5. Characteristics of Wickliffe Textiles Impressed on “Saltpan” Pottery	96
Definition of Sherd Sample	96
Attributes of Wickliffe Textiles Impressed on Pottery	98
Relevant Attributes of Wickliffe Textile-Impressed Pottery	139
Spatial and Temporal Variation of Wickliffe Textiles and Pottery	143
6. Textile Production and Use at Wickliffe	146
Original Functions of Wickliffe Textiles Impressed on Pottery	146
Spinning and Fabric Production Technology	158
Labor Investment and Specialization in Textile Production	164
Social “Messages” from Wickliffe Fabrics	172
Temporal Change	175
7. Regional Comparisons	176
Textile Evidence from Other Mississippian Sites	176
Geographic and Temporal Variation in Mississippian Textile Attributes	206
Textile Production and Use in the Mississippian	222
Appendix A. Definitions of Textile Terms	243
Appendix B. General Methodology for Making Casts and Taking Measurements	251
References	255
Index	277



TABLES AND FIGURES

TABLES

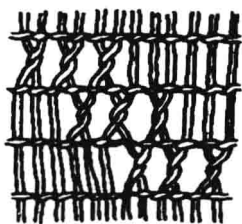
1. Summary of textile attributes for organic fabrics from Wickliffe	31
2. Modern burlap textile attributes	53
3. Summary of measured textile attributes for specific artifact types	64
4. Fabric structures associated with types of southeastern artifacts	95
5. Numbers of Wickliffe textile-impressed sherds analyzed	98
6. Summary of attributes for all Wickliffe impressed textiles	99
7. Textile structure frequencies of occurrence at Wickliffe	101
8. Summary of Wickliffe fabric attributes by textile structure category	116
9. Numbers of textiles analyzed per time period	143
10. Textile structures in Early Wickliffe and Late Wickliffe contexts	144
11. Estimates of production times for typical Wickliffe textiles	168
12. Published data for textiles impressed on Mississippian pottery	180
13. Textile structures impressed on Mississippian pottery at various sites	198
14. Structures of textiles from mortuary contexts	205
15. Frequencies of occurrence of textile structures at selected Mississippian sites	211
16. Edge finishes present at Mississippian sites	219

FIGURES

1. Major Mississippian culture areas and archaeological sites	6
2. Drawings by William H. Holmes of textiles impressed on pottery	10
3. Mississippian "saltpan" forms	14
4. The Wickliffe site in the 1880s	22
5. The Wickliffe site in the 1980s	24
6. Decorated weft-faced textile from Wickliffe	30
7. Rim sherd profiles from Wickliffe fabric-impressed pottery	35
8. Textile-impressed sherds and casts made from them	39
9. Twining structures	41
10. Interlacing and knotting structures	42
11. Twist angle chart	45
12. Sites yielding published information on Mississippian and related textile artifacts	59
13. Examples of twined bag construction on free-hanging warps	61
14. Plain-twined bag from Clifty Creek Rock-shelter	62
15. Edge finishes from prehistoric textiles	63
16. Winnebago twined bag	70
17. Ojibway double-faced twined bag	71
18. Depiction of garments on "Thruston Tablet"	78
19. "Effigy pot" female figure	79
20. Alternate-pair-twined garment from Clifty Creek Rock-shelter	81
21. Interlaced cane mat from Clifty Creek Rock-shelter	87
22. Wickliffe plain-twined textiles	102
23. Wickliffe alternate-pair-twined textiles	103
24. Wickliffe "striped" textiles	105
25. Wickliffe twined textiles with diverted and crossed warps	107
26. Wickliffe alternate-pair-twined textile with crossed warps	108
27. Wickliffe plain-twined textiles with transposed, interlinked warps	109
28. Wickliffe textile with transposed, interlinked warps plus extra weft twists	110
29. Wickliffe textiles combining plain twining and oblique interlacing	111
30. Wickliffe weft-faced textiles	112
31. Wickliffe knotted textiles	114
32. Wickliffe 3/3 twill-interlaced basketry fabric	115
33. Comparison of fabric attributes among textile structure categories	120
34. Yarn diameter and final twist angle frequency distributions	121
35. Well-processed and less well-processed yarns	122
36. Unusual yarns	124
37. Frequency distributions of fabric scale parameters	126

38. Frequency distributions of density parameters	127
39. Frequency distributions of Modified Textile Production Complexity Indices	130
40. Comparisons of attributes within cluster group categories	132
41. Diagrams of edge structures from Wickliffe textiles	134
42. Starting edge and join on Wickliffe textiles	135
43. Terminal edges on Wickliffe textiles	136
44. Side edges on Wickliffe textiles	137
45. Orientation of textiles relative to "saltpan" rims	140
46. Overlaid fabrics impressed on pottery at Wickliffe	141
47. Fabric structure variation in "Early" and "Late" Wickliffe contexts	144
48. Overlap edge and number of sherds containing impressions of edge	149
49. Mississippian sites yielding published information about impressed textiles	177
50. Kimmswick fabric edge structures	182
51. Slack Farm decorated textiles	186
52. Stone site complex openwork	191
53. Diagrams of Stone site complex openwork	192
54. Comparison of yarn sizes for selected sites	209
55. Comparison of fabric scale for selected sites	210
56. Locations of textiles in balanced interlacing	213
57. Locations of textiles with grouped-weft-row bands	215
58. Textiles with plain twining plus transposed interlinked warps	217

CHAPTER 1



INTRODUCTION

Seven hundred years ago on a hot, lazy summer afternoon, a woman stood working under a tree on a bluff high above the Mississippi River. Her project was one she had planned for many months, in fact for almost an entire year. She was making a mantle for herself, decorated with lacy openwork designs of tiny holes contrasted against a more opaque background. Earlier that day she had worked awhile in the village gardens. Later, when the sun approached the horizon in the sky across the water, it would be cool enough again for her to return to more active tasks. For now, though, the baby was asleep, the children were playing quietly beside her in the shade, and for a few hours she could twist the yarns around each other and watch another row of the garment slowly emerge under her skillful fingers.

In the waning days of the previous year, she and her oldest daughter had gathered plant stems, setting them to decompose in a backwater pool down in the flats of the river floodplain. When the stems had begun to come apart, they had beaten them to complete the process, separating the bleached, white fibers into long, thin hanks ready to be made into yarn. During the winter, she and the grandmother, a spinner noted for the fineness and uniformity of her yarns in spite of her now-failing sight, had spun the fiber, first twisting fibers into single strands and then plying two strands together to make the finished yarn, hundreds of meters in all. She had insisted on fine yarn, not much more than the thickness of a fingernail in diameter, because she wanted to challenge her fabric-making ability, developed over many

years of producing skirts, blankets, mats, and storage bags, by creating a garment that would be the culmination of her textile art. Her aim was a fabric in which more than ten warp yarns would lie together within the width of her smallest finger. The design she planned was one traditionally worn within her clan. Her female relatives all had garments with similar motifs, but hers would be subtly different, marking it to her kinspeople as the product of her own hands.

She had only recently begun, first stringing a cord between two poles set almost as far apart as the span of her arms, then doubling the warp yarns and hanging them over the cord so that their free ends moved back and forth in the breeze. The top of the garment took shape with several close rows of twining—paired weft yarns twisting around each other and enclosing one warp yarn at a time with each twist. At either end of these twining rows, she braided the wefts together into long ties, which would secure the mantle over her left shoulder when it finally was ready to wear. Now she could start the design. Wherever she wanted a motif to show up against her sun-browned skin, she formed it by twisting the warp yarns together between each row of weft, opening up holes in the texture of the fabric. Row by row, the design would come to life under her hands. If she could find time to work like this every day over the next three passages of the moon, she could finish the mantle in time to wear it for the first time at the Corn Ceremony.

This she did, and continued to wear the garment proudly until it became shabby and torn, and it was time to plan a replacement. The fabric would not be wasted, though. She could use it, along with other available large pieces of cloth, to line the molds cut into the ground in which she formed her largest pottery vessels, the broad, rounded basins that could be used, among other things, to evaporate saline water in the salt-making process. So until it ultimately acquired so many holes that it fell apart, the mantle continued to give service, first in the production of ceramics, then as a rag. When finally it was discarded into the trash heap and gradually covered with bones, broken pottery, and other unwanted items, it slowly disintegrated until nothing of it was left to recognize.

Its maker lived out the span of her years and was buried in the village cemetery. Her funeral garments, too, deteriorated and disappeared over the years. Her village was abandoned, lying deserted for centuries. Who would ever know that she had been renowned for her fine and intricate textiles? After her village and her clan were gone, how could future generations ever piece together the techniques and designs that she and her sisters had used to make mantles, skirts, blankets, and bags, or that their men had used to knot fishing nets? Who would even remember that they had been made at all?

Today, what *do* we know of this woman, her village, her culture—and her textiles? Did she and her family have to spend most of their time in subsistence activities, scrambling to obtain enough to eat and to keep themselves warm in winter, or did they have sufficient leeway to devote time to “non-essential” arts and interactions? How might their economic situation be reflected in the village textiles industry? What sorts of textile items were produced there, and how diverse were they? Were they carefully fabricated or sloppily put together? Were they decorated or strictly utilitarian? If decorative designs were incorporated into the fabrics, what might they have signified to village inhabitants or to visitors from other settlements? Could anyone have produced the range of textiles used in the village, or must some of them have been the products of specialist craftspeople? Were they used only by the families of their creators, or were they produced for or exchanged with others? What raw materials, tools, and techniques were used to make them? How much time was devoted to their creation? How did they compare with fabrics produced and used at other southeastern settlements, including both ceremonial centers and smaller habitation sites?

These are questions whose answers are necessary for anyone seeking to build a full-dimensional portrait of prehistoric southeastern ways of life. But how can we ever gather enough data to begin to answer them, given that probably well over 99% of the textiles produced in the Precolumbian Southeast have vanished from the archaeological record?

For the centuries during which agricultural villages flourished along major segments of the Mississippi River and its tributaries in southeastern North America—that is, for some 700 years or more, up to the time of European encroachment—we do have additional evidence. Because many textiles were pressed into pottery during the construction of large “saltpan” vessels, their images have been preserved and can be analyzed in some detail, even though most of the original fabrics have not survived. At some sites, thousands of fabric-impressed sherds have been recovered, numbers that are an order of magnitude greater than the largest number of organic fabric fragments ever recovered from any one southeastern site.

This is the evidence that was used to reconstruct the textile industry at Wickliffe Mounds, Kentucky, the location of a village active between about A.D. 1000 and 1350. The fabric impressions were studied by making modeling-clay casts from them to simulate the original yarns and textile structures. Their attributes were measured and statistically analyzed, then compared with the attributes of different types of textile artifacts in order to determine what the original functions of the Wickliffe textiles might have been. Detailed analyses of yarn construction, fabric scale, decorative de-