The Hand of the Maker: 
The Importance of Understanding Textiles from the “Inside Out”
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This is a position paper of sorts, arguing that the experience of making a textile is an important component of understanding it, and we should be encouraging textile researchers to include hands-on experiments as part of their investigation. Some TSA members will take this idea for granted because they have first-hand experience with textile making, and may find it overly obvious. The point is hardly new, and archeologist Elizabeth Barber made a strong case for the value of textile “reconstruction” in her 1994 book, Women’s Work: The First 20,000 Years. Nevertheless, this is not a universally shared assumption, and it flies in the face of some of our dominant cultural paradigms. Many who study textiles come from disciplines where the “making” component is undervalued, and it is left out of many textile history programs. The issue of technical competency is generally not part of professional dialogue—I don’t think I have ever heard it discussed at a professional conference, for example. I happily take the risk of seeming obvious by addressing it here. I document ways that the bias against hands-on investigation is embedded in our culture, and offer examples of the critical insights that emerge from trying to reproduce historic textiles or experience how they were made.

Many who are interested in textiles come from disciplines where the “making” component is undervalued. Art history departments, for example, typically position themselves as scholarly, rather than studio, programs; their students are trained to look at artworks, but not to make them. Unfortunately, this sometimes creates a great divide. The prevailing attitude was made explicit to art historian Melanie Herzog when she first started teaching at a small liberal arts institution in the Midwest. Herzog requires students in her art history classes to do an art project as part of the semester’s work. Administrators strongly objected to her hands-on assignment, stating that it did not qualify as “academic learning” or “intellectual work,” and thus had no part in the curriculum. The Bard Graduate Center, which offers advanced training in the history of the decorative arts, design, and culture, boasts that students can select from over 70 courses. None of them relate to technique or object construction. Bard doctoral candidates are required to


2Personal interview, Dr. Melanie Herzog, Professor of Art History at Edgewood College, Madison, WI, August 18, 2002. Happily, Dr. Herzog did eventually win her battle with campus authorities.
demonstrate reading knowledge of two European languages, but are not required to
demonstrate knowledge about the way the designed objects they are studying are made.
The same attitude prevails in other design history and material culture programs, and
sadly, extends to textile study. The few college-level courses that focus on textile history
don’t usually presume technical familiarity.

While in some ways a debasing of the making process may be traced to the Re-
naisance—this is when we begin to see a split between art and craft—the real separation
occurred with industrialization. Western aesthetic theory defined art and aesthetic experi-
ence in conceptual, Platonic terms, and removed it from manual processes altogether.
Theoreticians were concerned with an abstract ideal of beauty, and with the experience of
“the sublime.” In order to experience that quality, they maintained, one had to attend to
an object with a quality of “psychic distance” and “disinteredness.” In Polly Ullrich’s
words, this philosophy of art “identified the ‘inner mind’ and its ideas as the primary and
most important mode of human perception and denigrated the manual, the material, and
the bodily senses as authentic ways of perceiving the world...Enlightenment philosophers
subsumed and dematerialized the material universe under theoretical and analytical mod-
els [and] isolated art from everyday life.”

With this prevalent paradigm, manual processes were perceived as something
“lower,” or less important. So-called “fine” art was distinguished from “applied,” “deco-
rative,” “craft” or “vocational” art. This way of thinking, with its implicit bias, still per-
meates our culture. For example, it shapes one of our primary ways of categorizing in-
formation, i.e., the Library of Congress (LC) classification system. The system was de-
veloped in 1899, at a time when there was a clear distinction between technical and pro-

3 “Design history” is the rubric generally used in Britain for the study of the deco-
rative arts and the study of human-made objects. American programs more often go by
the name “material culture.” While these programs consider objects an expression of
culture, in-depth study of object construction is not central to them. The Center for Amer-
ican Material Culture Studies at the University of Delaware does list one art course enti-
tled “Common Threads: Multicultural Survey of Fiber Processing” that can count toward
a graduate degree, but this is relatively unusual. Even when the importance of the “mak-
ing” component is understood, it can be difficult to integrate into the curriculum. At the
University of Wisconsin-Madison, the cross-disciplinary faculty that has been developing
a material culture program has been confronted with many obstacles, including the fact
that departments that teach making skills (e.g., ceramics, weaving) often focus on self
expression and design more than technical process.

4 Polly Ullrich, “Beyond Touch: The Body as a Perceptual Tool,” Fiberarts 26,
No. 1 (Summer 1999): 44. See also Melvin Rader and Bertram Jessup, Art and Human
Values (Englewood Cliffs, N.J.: Prentice-Hall, 1976), esp. 54-62. A critique of the inher-
ently misogynistic components of this attitude was articulated by Naomi Schor in Read-
ing in Detail: Aesthetics and the Feminine (New York: Methuen, 1987).
fessional education, and “manual trades” were thought of as something that lower class, less fortunate individuals would be involved in. This affects us in the textile field, since relevant titles are spread through several LC categories. Some are grouped under the “G” heading, which is broadly related to anthropology. The “GT” subheading relates to “Manners and Customs,” and includes books on costume. Many of the titles focus on Western fashion, but others examine textiles that are used as dress, such as Indian saris, Guatemalan huipiles, and American bandanas. The “N” heading is the broad category for the “history of art,” and “NK” is the subheading for “Decorative Arts, Applied Arts, Decoration and Ornament.”

5 This includes titles that focus on rugs, embroideries, tapestries, quilts, and other types of textiles that would be used for ornamental purposes, but it also includes some that would seem to belong in the GT section, since they deal with costume and textile customs. While most works on Indian saris are classified in the GT section, for example, others are in the NK category.

The “TT” classification, “Handicrafts, Arts and Crafts,” is the category that was most closely associated with manual and technical training, and its titles focus on the hands-on or making component of textiles. 6 Because they are categorized under “tailoring,” books on fashion/textile designers like Issey Miyake, Emilio Pucci and Sonia Delaunay are here, although other works on fashion are usually GT titles. While books with “embroidery” in the title are typically classified in the NK section, there is a TT subsection for “Needlework and Decorative Crafts,” so works with “needlework” in the title are often put in the TT section, even if they do not take a how-to-do-it approach. None of these categories are handled consistently; where a given title is placed depends on the way its initial cataloguer interpreted the LC categories and the book’s content. Another example is that Thai Textiles is an NK title, but Handwoven Textiles of South-East Asia, which covers much of the same material, is in the TT category.

This categorization issue might seem trivial; we can look up call numbers, after all, and go to any section of a library—why make a fuss? It does matter. It is not possible to browse library shelves for all the works on a single topic. Similar titles can be on different floors of large libraries, or even, as at the University of Wisconsin-Madison, in

5 Reflecting the turn-of-the-century period in which the system was instituted, there are even separate NK sub-categories for “the Arts and Crafts Movement,” and “Arts and Crafts Industries.”


different buildings. Art librarians ordering books often pay less attention to TT titles than to those with an NK designation. Last year, a librarian assessing the Wisconsin library holdings in the decorative arts counted only NK titles, and left out literally thousands in the GT and TT sections. These categorizations perpetuate 19th century biases and divisions. They blind us to the wealth and holism of our field.

Understanding the way a textile is made is not secondary information. If we have this understanding, we know the inner logic of the textile—we understand it from the “inside out,” and realize why it looks and behaves as it does. A familiar, very glaring example of the lack of understanding is the misidentification of the Bayeaux “Tapestry.” This piece is of course actually an embroidery, but the art historians who first wrote about it must have had so little technical understanding that they categorized it this way. (The lack of understanding was perpetuated by LC cataloguers, who consistently group books on this textile in the NK subdivision devoted to woven tapestries.) Knowing the inner logic of a piece makes proper identification more likely. A colleague working with me on a collection of American Indian baskets realized that many of the attributions they had been given—even by auction houses like Sotheby’s—could not be accurate. Yokut baskets were labeled Pomo, for example, but they had a different kind of sharp-angled shoulder that came from a different way of basketmaking. Because my colleague understood technical details such as what kind of patterns would work with coiling, how the decoration was worked in, and what the respective foundation materials would dictate, she realized how the mistake had been made.

Another work on textiles made by California Indians, Lila O’Neale’s *Yurok-Karok Basket Weavers*, provides a superb model of an in-depth study incorporating the maker’s perspective. O’Neale is credited as a pioneer in what we have come to call ethnoaesthetics (the understanding of aesthetic issues from within a cultural framework). *Yurok-Karok Basket Weavers* was originally submitted as her 1931 doctoral thesis in anthropology. Well before she embarked on that fieldwork, however, she worked as a “manual training” teacher. She was a weaver who had been trained in “domestic arts” at Columbia Teachers College. She knew how to look at a basket, and what questions to ask of the artists. What enabled her to conduct such a culturally sensitive study, in other words, was that she was able to enter into not just the minds, but the hands of the makers. Gladys Reichard, another early female anthropologist who did similarly sensitive studies of the Navajo, apprenticed herself to a weaver to fully understand the traditions. She

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8 The survey was completed under the auspices of Kohler Art Library as part of an initiative to strengthen Decorative Arts holdings at the University of Wisconsin-Madison.

9 In my opinion, the Bayeaux Tapestry receives attention that is out of proportion for its artistic achievement because of its designation as a tapestry. Its age, rarity, and narrative content make it valuable, but it is often treated as if it were a technical masterpiece.

When we understand from the inside out, we recognize which designs are difficult to achieve and which aren’t. Every weaver understands why checks and plaids are easy to produce, for example, but in all the discussion of checked fabrics made in mid-19th century textile mills, I have never seen anyone offer this explanation. Understanding the complexity of a given task helps researchers think knowledgeably about diverse aspects of production. If many tools were needed or the process took more than one person’s labor, for example, one might hypothesize that the maker was a specialist.\footnote{A relevant article from the field of furniture studies is Philip Zimmerman’s “Workmanship as Evidence: A Model for Object Study,” \textit{Winterthur Portfolio} 16 no. 4 (1981): 283-307. Zimmerman was concerned with the internal logic of piece, based on the furniture makers’ skills and use of tools.}

Specifically trying to reproduce a textile can lead to many understandings, including the debunking of myths and rejection of unlikely information. Ramona Saskietewa, who was commissioned by the National Park Service to reconstruct a turkey feather blanket made by the ancestral Pueblo people, came to question the prevailing belief that they had softened the yucca fiber by chewing it. When she tried that, she found the yucca was not only exceedingly bitter, but caused intense diarrhea. Knowing that would have been untenable, she went on to seek other processing methods.\footnote{Recreating the Anasazi Turkey Feather Blanket, prod. and dir. Cindy Bellinger, 30 min., Los Alamos, N.M.: Southwest Productions, 1983, videocassette.} Anyone who has tried to reconstruct historic textiles will agree that the experience generates new—and new kinds of—research questions. I require advanced students to include a “making component” in their investigative projects. Jennifer, a student who studied the two-panel Southeast Asian bag form (Fig. 1), said,

Perhaps the most valuable aspect of the making experience is having to ask yourself questions you might not otherwise have considered; that you probably never would have thought to ask. In attempting to reason things out, and feeling the ex-
citement of making little “discoveries,” you build momentum, and in the process, whatever it is that you're trying to learn about comes alive.13

Archeologist Mark Kenoyer, who teaches a hands-on class on ancient technologies at the University of Wisconsin, adds that the making process itself often provides answers—or at least new hypotheses.14 This happened to another of my students who was studying a stenciled quilt, circa 1840 (Fig.2). Susan reproduced a quilt block by following stencil-making instructions from 19th century primary sources. The process involved brushing linseed oil on heavy paper to make it transparent. Not only was the material highly flammable, but she found the smell so strong that she had to put the stencils in her garage. This led her to ask, “where would a woman work on this kind of project, and where would she store the stencils?” She hypothesized that they were most likely worked in out-buildings, as the stench would have been untenable in a one- or two-room house.15

Previous research links stenciled quilts with rural areas where outbuildings were common, so this is corroborating information. Susan regretted she had no time to research the paint used on these quilts; if she had been able to go yet deeper into the making process, she would probably learn even more about the lives of the quilters.

It took an entire day to complete the stenciling for one square, and Susan came to appreciate the sophistication of even this supposedly “quick” quilt-decorating technique. She marveled at the determination the quilter had to have to devote so much time and energy to this form of aesthetic expression, given all the other chores she had to do. Again, the appreciation for the human being behind the textile emerges clearly through these experiments.

Karen researched the short-sleeved unisex child’s dress common in America from the 1830s through the Civil War (Fig. 3). She understood the dress from a formal perspective, and knew its skimpiness reflected contemporary attitudes about children—it made a child look like the innocent cherub she was believed to be. Karen is an experienced sewer and an expert on historic costume, and she thought she understood the dress from a maker’s perspective as well. She broadened her understanding even further, however, after recreating a dress housed in the Wisconsin Historical Society. She was faithful to the original, using the same type of fabric, pattern pieces and construction techniques—down to the same stitches and stitch lengths. The results really surprised her. “Until I got down to the stitch level,” she says, “I didn't allow myself to truly see these garments.”

13Jennifer Chester, email correspondence, September 14, 2002. Jennifer and others cited below were students in my Fall, 2000 seminar, “Researching and Interpreting Textiles.”

14Personal conversation, Madison, Wisconsin, August 28, 2002.

She was impressed by the economical use of cloth, and the relative ease and speed with which the dress could be made. She realized it was a highly practical pattern, that even a mediocre seamstress could successfully complete in less than a day. The stitches were, in her words, “remarkably sturdy, accommodating the needs of each area on the garment; I doubt a machine-stitched garment would fare better with wear. The garments were purposefully designed; there was planning behind each stitch.”16

Karen also tempered her judgement of the garment as impractical for the child.

The dress design itself, while offering little in the way of protection from cold, created no interference to my 3 year old niece as she played in my reproduction frock. The only snug part of the garment was at her waist, and that didn't inhibit her movement at all. Even the wide shoulder design which I had originally viewed as restrictive flowed freely with her movements. Maybe these frocks were so plentiful because they...adequately fill[ed] the need for everyday play clothes.17

Karen had assumed a modern machine-stitched dress would be superior in construction, and that it would be cumbersome to stitch these garments by hand. She assumed they would hinder children’s movement. None of this proved true. She now has a deeper appreciation for the integrity and intelligence of 19th century sewers, and is alerted to the unconscious assumptions we bring to historic investigation.

Archeologist Avigail Sheffer’s reproduction experience also demonstrated the efficacy of an ancient technique. Sheffer, who was studying Iron Age sites in Israel, was skeptical that the donut-shaped objects she was finding were strong enough to have been loom weights. To test this, she fashioned identical objects and tried weaving with them. She found that they functioned very well, and that the warp weighted loom was efficient and easy to work with.18 Elizabeth Barber also learned from reproduction. She was a seasoned weaver, with a practiced eye, but when she set out to reproduce a twill plaid fragment made between 1200 and 600 B.C., she realized that what she had been assuming was warp was actually weft. This opened a window of understanding that she was able to apply to a whole range of archeological material.

Most of the fragments of cloth from these Austrian salt mines are torn on all four edges.] By trying to imitate the product, I discovered not only which way this shred was woven and some criteria for analyzing other pieces, but... interesting details about how Hallstatt weavers worked... The process of recreating ancient artifacts step by step can shed light on the lives and habits of the original craft-

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16 Karen Crocker, email correspondence, August 27, 2002.

17 Ibid.

18 Barber, Women’s Work, 293.
workers that no amount of armchair theorizing can give.19

Jennifer’s bag reproduction led her to a deeper appreciation of the internal wisdom of both the weavers and the particular Asian bag form.

I found the preparation surprisingly complex. I hadn’t really understood just how much mathematical calculation was involved. I was impressed by the ability weavers must have to mentally deconstruct a finished product before physically constructing it, and evaluate a complex series of relationships. I wanted to make a bag slightly larger than the ones I was studying, that would allow me to carry a few books. I knew the stitching had to be strong enough to support the weight; that the length of the strap had to be in proportion to my torso, and so on. It wasn't until I actually started calculating and reasoning this through that I came to really appreciate the two-panel construction. This pattern makes the bags inherently sturdy. I realized the examples I was studying could have been used to carry objects of greater weight–i.e., used for different purposes–than I had thought.20

Sometimes the insights that reproduction yields are subtle, but still informative. Andrea studied 19th century hairwork, and found that the same term did not carry the same meaning in the past. Instructional literature on hairwork referred to it as a “clean” technique, but she did not find it so. Working with human hair wasn’t mess-free; bits of hair were sticking to surfaces everywhere. It was clean in the sense that it involved no liquids or chemicals, nothing that would stain or smell.21 If we think back to Susan’s quilt stencils, we gain a deeper appreciation for this. By implication, we see that many fancywork techniques actually did involve noxious substances.

Textile re-production involves and yields kinesthetic knowledge–the textile becomes something one understands with one’s body. This can relate to a particular rhythm, an ache in the shoulders or cramping of the fingers, or knowledge of the necessary dexterity for a particular task. I further maintain it yields a kind of spiritual knowledge or understanding. In the 1970s I worked at (the museum) Hancock Shaker Village, and reproduced Shaker fabrics. I had the privilege of weaving with original Shaker equipment–with hand carved shuttles that fit perfectly in my hand, on looms with remarkable balance and beautiful patina–and learned, from that alone, what the famous Shaker workmanship meant on a moment-to-moment basis. The sheer love in that equipment spilled over into my weaving, and I found it easy to heed Mother Ann’s admonition to work as if I had a thousand years to live and as if I would die tomorrow. I slowed down,


20 Chester, email correspondence, ibid.

looked more closely at detail, and came to appreciate subtle pattern variations. The most important experience came in reproducing the “poplar cloth” that the Shakers used to cover their 19th century sewing boxes and similar fancy goods (Fig. 4). Poplar was not useful for firewood or furniture, and the Shakers turned what were essentially “wasted” trees into a resource for this unique fabric. There were eighteen steps, including felling and cutting frozen logs, shaving them into thin sheets, straightening them, and cutting them into narrow strips which were individually drawn through a thin cotton warp. They had to be laid in perfectly flat, with the right side up. Once woven, the cloth was glued to paper for additional strength. I discovered a supply of unused poplar strips, and set about reproducing several yards of fabric. I was not surprised to learn what an exacting and slow task this was, but was surprised by how pleasant it was. In order to remain flexible, the strips had to be kept moist for weaving, and I found the odor of damp poplar aromatic and soothing. I liked the meditative quality of straightening each strip, beating it with just the right pressure, and cutting the ends to the perfect length so they would neither slip out nor catch on any of the other threads. I marveled at the great effort that went into making this fragile material that, in the end, would be cut and glued like paper, and was rarely appreciated for what it was. By reconstructing this fabric, I was led deeply into the Shaker reality. Time didn’t matter, nor did external recognition or understanding. What mattered was the relation with the wood and the land it was growing on. What mattered was the “be here now” process of weaving—the sight and smell and feel of every hand motion. I had heard the phrase “put your hands to work and your heart to God” thousands of times, but when I put my hands to work just as the Shakers did, I was truly led into a part of their experience. I understood the spiritual nature of their lives, not just with my mind, but with my heart.22

Understanding the way a textile is made is a kind of literacy, and we must be literate to properly “read” our artifacts. Again, I believe we should encourage all textile researchers to include hands-on experiments as part of their investigation, thereby coming to know their textiles from the inside out.