**A Medieval Kruiswerk Weave**  
© Carolyn Priest-Dorman, 2002

The ordinances of the London Guild of Weavers name several different linen products in their price list of 1456: linen cloth, plain towel, napery and towels of Paris work, “crosse werk,” cross diamond, small knots, chains in work, “catrylettes,” “damask knots with the chapelettes,” and “all manner work made in draught work” (Consitt, pp. 205-207). Many of these apparently were figured weaves. While researching pavy weaves, I encountered a class of Renaissance linen patterning called in Dutch *kruiswerk*, or cross work. Since cross work is listed as a 15th century weave in the London list, it drew my eye immediately.

J. Six’s article mentions or shows photos of several *kruiswerk* examples, although none of them are dated to earlier than around 1600. *Kruiswerk* is a subset of the *gebrochene* class of weaves, an elaboration of pavy in which certain design elements are stretched out by adding stairsteps to the typical Ms andWs threading. Unlike the pavy *liseré* weaves from the...
“Kruiswerk” Sint-Truiden Tx 60 drafted by Carolyn Priest-Dorman.

Trompe as writ; this draft does not show the entire treadling repeat.

Last article, they have twill floats of varying length in both systems on both faces of the textile. The historic examples all require more than four shafts to weave.

None of the 17th and 18th century gebrochene variants in Zeigler or Lumscher look quite like kruiswerk; most of them are closer to pavy in style. Marjie Thompson published the draft of an early 17th century kruiswerk, the “Earl of Mar canvas,” in 1997. However, late last spring I encountered an even earlier example, a textile dating to around the 15th century, Tx 60, documented among the holdings of the Abbey of St. Truiden in Belgium. It is in the same pattern family as Six’s kruiswerk examples and the Earl of Mar piece.

Here is a draft of Tx 60 from St. Truiden. Daniël de Jonghe analyzed the weave and produced a draft which I have simply redrafted into a more standardized American notation. This particular kruiswerk is woven on 12 shafts. Unlike the Earl of Mar piece, its twill floats are balanced by an expanse of tabby ground. The original textile remnant is a complete loomwidth of between 64 and 65.8 cm in width and 21.5 cm in length. It is woven of linen, possibly bleached, at 23 warps and 17 wefts per centimeter. Each selvedge is reinforced with a single S-plied thread (Stof uit de Kist, pp. 268-270).

It is not clear to me yet where Six got the term kruiswerk, but his article suggests there’s an early manuscript with drafts of this type of weave structure. I am looking into this more deeply, as it would be so nice to be able to identify kruiswerk as the “cross work” of the London regulations.

Sources:


But the festivities this summer season no doubt took you out the door - and to see some wonderful and amazing things. Don’t let your knowledge languish! Share it.

Oh, and you’re doing great! Keep going...

**Some News:**

**Shroud of Turin:**

According to news appearing in various outlets this summer, Mechthild Fleury-Lemburg of Bern, Switzerland is doing restoration of the Shroud of Turin. Cardinal Severino Poletto, the archbishop of Turin and the shroud’s custodian, said in an interview with the Italian Catholic newspaper L’Avvenire that the Vatican approved the tests. Although many have suggested this newsletter cover this important cloth, I have not done so because:

Firstly, testing seems to indicate the cloth is from the first century AD, but not everyone agrees. This is based upon conflicting carbon dating of the linen fibers & the fact that they are handspun, while after 1200 linen in Europe was most often wheel-spun (Meacham, 1983). Although some carbon dating shows it to be of first century origins, others have put the date much later. Samples used for dating have been shown to contain gum arabic and starch from repairs to the cloth done in the last 600 years. So it comes as no surprise that the dating is variable. Pollen analysis shows that of 58 types of pollen found in the cloth, 41 are indigenous to only the Dead Sea. The statistics are: cloth is 3-1/2’ x 14-1/2’ (1.1m x 4.3m; 2 x 8 cubits) woven of linen in a 3/1 herringbone twill (Raes, 1976) and it has been suggested that the cloth is of Syrian origins. So, the date-testing so far is contradictory and problematic and as of yet there is no real consensus on the results with 2 major opinions emerging: one for the 1st century and the other for a medieval date. Images of the shroud appear in manuscripts as early as 1192 (Pray Manuscript)

Secondly, & possibly more importantly, the suggestions have been along the lines of, “why don’t you...” rather than “I’ve been researching and...”.

So, if any of you are researching this topic and care to share your findings in an article, it can be printed here. In the meantime, more news on the findings by Fleury-Lemburg will be shared as they are released and/or the receipt of an article about this cloth.

**Genghis Kahn:**

The expedition did not find his tomb, and despite permission from the Mongolian government to excavate the possible burial sites, there is some opposition to the archeological investigation which has halted the expedition for this current season.

Previously, local people had petitioned the expedition to build permanent structures that could be used later for tourism - which the expedition declined in order to ensure the site remained suitably protected so that historical data would not be damaged and also because the Mongolian culture holds that gravesites are sacred - not tourist destinations. The expedition, which is primarily comprised of Mongolian scientists and follows Mongolian laws, has permission to seek the tomb of Ghengis Kahn and anything they find would belong to the Mongolian People alone.

Digging this summer has uncovered 11-foot trenches that had been topped by flagstone. Horse teeth, animal bones and one human skull was found, but no gravesites.

This August, former Prime Minister Dashiin Byambasuren wrote to President Natsagiin Bagabandi in a letter printed in the Daily News, a Mongolian newspaper, calling for an investigation of the expedition and the expulsion of the archeological team.

“We hope we can go back next year, but for now the future of the expedition is unknown,” said historian John Woods, the expedition’s leader.

Regarding the treatment of graves, Woods said, “We handle them according to standard international procedures. And I don’t think we have anything to apologize for.”
Complex Weavers’ Medieval Textile Study Group

News from the Coordinator, Cont’d

Digital Gutenbergs:
Until recently, if you wished to view a Gutenburg Bible, you would travel to Austin, Texas where you had to brave the security. Only 48 copies still exist, and few are available to scholars. Only three perfect copies exist, and they are in the Library of Congress, the British Museum and the Bibliothèque Nationale in France. Although the University of Texas copy will not be the only digitized copy (others are in Japan and at the Library of Congress) it is the version with the best resolution to date. The Harry Ransom Humanities Center has finished digitizing the 1,300 pages of their Gutenburg and has posted portions on the internet at:

www.hrc.utexas.edu/exhibitions/permanent/gutenberg/10.html

They also intend to release the complete manuscript on CD-ROM.

Digital Vatican Library:
Due to the high cost of traveling to the Vatican to use the library, there is a project underway to digitize a large portion of the Vatican library so it may be accessed over the internet.

This initiative was advocated by Pontifical Catholic University of Rio de Janeiro (PUC-Rio). Because the Vatican Library views its mission as providing access to its collections to the worldwide scholarly community, the library has enthusiastically embraced this initiative. The goals of the project are:

- Provide access to “cataloging information” describing Vatican Library materials.
- Provide access to high-quality images of Vatican Library materials.
- Provide scholars with access to this information through the Internet.
- Provide scholars with timely response.
- Provide the information in the most widely used data formats, so that scholars with diverse hardware and software would be able to utilize this information.
- Enable humanities scholars with modest computer literacy to find and use desired materials.

For security and other considerations, all images accessed through this remote system will have a visible watermark. About 20,000 images have been captured to date, and some samples are at:

http://www.3.ibm.com/software/is/dig-lib/vatican/manuscript.html

Other manuscripts are already digitized and available at: http://www.byu.edu/~hurlbut/dcriptorium/

The State Hermitage Museum is working on a similar project, and the results so far can be accessed at: http://www.hermitagemuseum.org/

Martyrs Epictet and Anstion found:
Earthwatch teams excavating at the site of Halmyris, an ancient Roman fort in what is now Romania have substantiated the hopes of Dr. Mihail Zahariade (Romanian Institute of Thracology) when the tombs of Epictet and Anstion were unearthed near the altar of the basilica in Halmyris. The age of the persons, the frescos and inscriptions, and the physical evidence of torture and beheading leave no doubt that these are the long sought martyrs who died in the late third century.

When asked about textile finds to date, Dr. Zahariade replied, “The remains of the two martyrs (bones) were found in 2001. Unfortunately the moisture in the crypt did not preserve any trace of textile. The tomb seems very likely to have been robbed by the end of Antiquity. The two mortuary rooms contained much rubble from the collapse of the vault. The bones were not found in an anatomical position, but scattered within the mortuary room by the robbers hoping to find gold. Afterwards came the collapse of the vault. Except pottery, some small parts of the candelabrum and of course bones nothing else was found although the cleaning of the place was extremely careful. There is a splendid painted fresco instead. If in the meantime some traces of textile will come up in the fort, be sure I will immediately inform you.”

(image (c) Dr. Mihail Zahariade)
A Weavers’ Compendium part III

An occasional and ongoing series of woven samples which represent 83 weave structures. This month’s installment completes the tapestry weaves. The samples will be part of the didactic collection of the Art Institute of Chicago. These were woven by Nancy M. McKenna.

Vertical margin closed and outlined by a lacing, dovetailing, weft (above)

Eccentric weft or non-horizontal weft. (left)

Wrapped outline weft, front (below, right) & back (below, left)

Dunbarton Oaks announces 2003-2004 project grants.

Dunbarton Oaks makes a limited number of grants to assist scholarly projects in Byzantine Studies, Pre-Columbian Studies, and Studies in Landscape Architecture. The normal range of awards is $3,000-$10,000. Support is generally for archeological research, as well as for the recovery, recording, and analysis of materials that would otherwise be lost. Funding is typically awarded for transportation, meals, housing, vehicle rental, workmen’s wages, cost of technical analysis, etc.; grants are not normally made for the purchase of computers nor the salary of the principal investigator. Applications are due by November 1. For qualifications and conditions, application procedure and other information, please contact Office of the Director, Dunbarton Oaks, 1703 32nd Street, NW, Washington, DC 20007
Becky Day and her “cloth of ray” sideless surcoat as seen at Pennsic this summer. The cloth is based on MoL #309 (late 14th century), tabby with weft-faced twill bands. Twill direction of the weft-faced bands changes as in Textiles and Clothing 1150-1450 (Crowfoot, Pritchard, & Staniland) #308 and #310. Material is 2/20 Jagerspun Maine Line (black, yellow, and hand-dyed blue) and silk (purple) at 11 ends and 12 picks per cm in the tabby areas, 33 picks per weft-faced band. Left, one can see the fabric with Carolyn Priest-Dorman’s diptych for size comparison, and (right) a close-up view of the band. In Textiles & Clothing the information can be found on page 68 and the color plates of the original cloth can be found between pages 116 & 117 (plate 11 & 12).

Carolyn Priest-Dorman’s pouches: “After sorting through all the different yarns I dyed in preparation for my presentation at the Colour Congress 2002, I noticed that I had four particular one-ounce skeins of Icelandic singles wool dyed in rich medieval colors that really wanted to become something. Together. Since I didn’t have much more than a scarf’s worth, and since the yarn’s really toggy, I decided to make yardage for small pouches so I could spread the wealth by giving them to family and friends.

Even though it’s a 2/2 twill, this textile has no particular historical antecedent. I really wanted the pattern to be small repeating squares, like the Iron Age plaids in north Europe. But the yellow element dominated the other three colors until I decreased it by half. The name “Celtic Plaid” presented itself more or less as a joke because the dyestuffs I used (woad, madder, weld) were known to and used by the various Celtic tribes; it also hints at the wicked riot these colors produce when all four are used together.

The base yarn is Eingirmi, a commercial Icelandic wool singles formerly imported from Iceland by Louise Heite. The yellow is alum and weld from my garden. The blue is woad from Bleus de Pastel de Lectoure. The red is alum and madder from The Weaving Works. The green is the weld overdyed with woad. The piece was sett at 20 epi and woven at about 18 ppi; shrinkage was minimal at around 2-3% in both systems, possibly due to the yarn having been dyed already and possibly because I didn’t finish it aggressively for fear I’d lose the clarity of the colors.”
Book Review:


Al Fustat is a section of Cairo that has been populated for millennia. Known earlier as Babylon, Fustat was settled in 641 AD by Muslim Arab leader ‘Amr ibn al-‘. Threatened by housing developments and the mining of natural fertilizer, excavations of Fustat have resulted in collections of goods without stratigraphic information since the 1920’s. Later finds are mostly unknown to the public - a situation that this book aims to rectify.

From the 1950’s Dr. Henri Amin Awad accepted from the poor of Cairo objects that had no obvious market value in exchange for medical services rendered. None of the items had any accompanying scientific data or provenance. Because Fustat was losing ground to new developments, Dr. Henri decided to accept these goods in order that they not be lost.

For some time, these items were merely accumulated, due to lack of time for examination or study. However, eventually priorities were set and Dr. Henri went back to school to complete a diploma in Islamic archeology. While attending the Cairo University’s Institute of Archeology, Dr. Henri realized most students did not have access to historical artifacts to study. Thus began his practice of donating large portions of his collections to universities and museums. All the while, he continued to collect objects from his patients.

Although portions of the Awad collections have been examined and have published findings, this volume is the only one to date dedicated to offering an in-depth overview of the collection.

Nancy Arthur Hoskins, author of such as *Weft Faced Pattern Weaves*, is the author of the chapter on textiles. Of the thirty items examined, twelve are tapestries, one is a pile weave, four are compound drawloom woven items, one is resist dyed, and twelve are plain weave linen or cotton pieces embellished with embroidery.

A lively and informative discussion of the body of work is followed by a complete catalog of the items. Each item is described in a couple paragraphs, followed by the full record of data, including a listing of related textiles. However, what makes this chapter, and indeed this entire book, stand out are the color plates. Every textile fragment discussed in this chapter is shown in color. This is true for many of the other chapters as well.

One particularly interesting occurrence is needlework sample pieces. A full five items appear to be such – demonstrating seam construction, hems, and practice of embroidered motifs on small pieces of cloth. Running and overcast stitches are used for seams and hems. “Running, stem, satin, cross, buttonhole, and chain stitches” are used to create design motifs. The list of stitches along with the clear illustrations would make the recreation of the embroidered textiles within reach of most needle workers.

Similarly, the clear photographs would allow textile artists to make reasonable facsimiles of the cloth examples through the utilization of both the images and the accompanying data. In the cases where the probable warp direction is not top down in the photograph, the direction is noted with an arrow. The variety of techniques along with a broad selection of motifs from the simple to the complex would offer anyone interested in this time and place a range of possibilities to fit almost any level of weaving competence.

One other interesting aspect of this volume is that more than one author calls for standardization of vocabulary across specialties. Ms. Hoskins writes, “The technical analysis of embroidery is an important aspect of accurately describing fabrics from the Islamic period. However, there is a plethora of redundant names and a paucity of logic in the way stitches are grouped...” This line of thought is mirrored elsewhere in this volume. Although no one terminology is perfect, having one primary vocabulary regarding types of finds would greatly facilitate the comparison and study of collections and reduce misunderstandings.

In a sea of books regarding the ever-popular Egypt, this tome is one that is not re-hashing finds discussed elsewhere. It is opening the door to the serious and

*Cont’d on pg. 11*
accessibility of finds considered ‘lesser’ in comparison to the treasure troves one links to the name ‘Egypt’. It is precisely these finds, however, that offer a picture of how the non-royal populace lived over the centuries and demonstrate the far flung trade routes of the times. Superb photography combined with excellent narrative make this a fascinating book that presents a cohesive picture of Fustat.

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**Upcoming events:**

**Art Institute of Chicago:**

*Fukusa and Furoshiki: A Gift of Splendid Japanese Gift Covers and Wrapping Cloths*

July 17–November 17, 2002  
http://www.artic.edu/aic/exhibitions/fukusa.html

**Indianapolis Art Museum:**

*Flowers from the Silk Road: Central Asian Textiles and Jewelry*

7/2/2002 through 9/1/2002  
http://www.ima-art.org/

**The Textile Museum:**

*The Classical Tradition in Anatolian Carpets*

September 13, 2002 - February 16, 2003  
http://www.textilemuseum.org/exhib.htm

**Royal Ontario Museum**

Toronto, Canada  
*Unveiling the Textile and Costume Collection*

May 18, 2002 - September 8, 2002  
Samuel European Gallery, Third Level

*Across Borders: Beadwork in Iroquois Life*

June 21, 2002 - October 14, 2002  
Rollof Beny Gallery, Level 1B  
http://www.rom.on.ca/

If your weaving is being featured somewhere, or if a museum near you has an exhibit of interest, let me know and I’ll add it to this column.

**Samples:**

As you may know, the December issue is a sample exchange in addition to the newsletter. Remember, unlike most other study groups, everyone shares in the bounty of each other’s weaving in this Study Group. Please share your weaving with the rest of the members in this annual event.

Please weave enough for 26 samples. Samples & draft are due November 15th, 2002. This is a piece of cloth as small as 12 inches x 21 inches (30cm x 52.5 cm) This could be fabric “left over” from another project. It need not be handspun, nor of painstakingly accurate grist yarn, either. Everyone is invited to contribute since everyone receives samples.

**Sample weavers to date:**

Gayle Bingham: Beiderwand from an altar cloth  
Nancy McKenna: medieval huckaback, finishing techniques inspired by Clothworkers’ Window, Semur-en-Auxois, France, c. 1460  
Alexis Abarria: Shaggy Pile Weave  
Cynthia Williams: Before & after samples of waulked wool cloth.

**For sale/swap:**

Added by popular demand. Ads free to members, $5/issue for non-members. Contact coordinator through e-mail or the US Postal Service with your advertisement information. Educational opportunities & conference announcements always listed without charge.