St. Agnes's Cotehardie

Paris, France – 1391

Figure 1 - Marriage Proposal of St. Agnes – Royal Gold Cup given to Charles VI of France by Jean Duc de Berry in 1391 (British Museum)

Materials Used

Hand woven Wool
Linen
Linen Thread
Hand Cast Pewter Buttons
Silk Fingerloop Braiding
(w/ brass aglet) for Lacing

Summary

This women's cotehardie is an overdress based on a dress worn by St. Agnes on the Royal Cup in Figure 1. The style of my cotehardie is short-sleeved with some buttons (note that, in the picture, her sleeves are turned up.) It is a four-panel, self-supportive dress, as the dress in the picture shows no indication of being a "princess" six-panel dress style that later manuscripts show. Gores have been inserted into the skirt in the front, back and side seams to give the skirt the fullness seen in the image. I chose to lace the dress in the front, as there are no buttons shown on the dress in the image (though such details are shown on the man's cotehardie.) The pattern of the dress is based on the Uppsala gown. The gores were inserted for fullness as seen in the Herjolfsnes 41 kirtle.

I used wool material with a broken lozenge twill pattern that I hand wove. The wool is fairly lightweight so I chose to line it with gray linen, both to stabilize the wool and to provide the contrasting color seen in the picture. I used linen (rather than another wool or silk) to keep the dress from being too darn hot!

For construction, the shell and lining were both constructed entirely with hand sewing with matching linen thread using period stitches. The shell and lining were put together and tacked to each other at the seams to provide support to the dress. The buttonholes and eyelets were also hand stitched.

I carved the mold and cast the pewter buttons for the arms. I also did silk fingerloop braiding for the front lacing.

Women's Cotehardies

Style History

The cotehardie (which, in this case, we'll use to describe the fitted dress of the 14th-15th centuries) is a style that began evolving in the first half of the 1300s from the fairly simple tunic style to a more fitted and supportive style. Sleeves became tighter all along the arm. The chest became shapelier and more supported (and revealed). The garment was fitted enough that buttons and lacings were needed to get into the garment (and on occasion there are illustrations of people being sewn into their garment!) Armholes were done in a new style ("grand assiette") to allow for a larger range of motion. Skirts showed increased fullness. The appeal of this type of garment was that the tight fit conveyed wealth through its careful tailoring. This style continued to be worn through the 1400s, until new versions of the houppelande ousted the cotehardie altogether in women's fashion.

The cotehardie was often seen worn in layers. A chemise, or under dress, was worn under the cotehardie. There are many instances of a short-sleeved cotehardie (at times with tippets) worn over a longer sleeved dress. There are also many examples of a short sleeved dress with sleeves pinned on to convey the illusion of an under dress of a rich and/or contrasting fabric.

The many examples of cotehardie show a range of fitting and tightness in the waist, chest, neckline and arms. A looser fit is seen earlier in the age of the cotehardie but can be seen throughout the period as less tailored (and therefore less expensive) dresses.

Figure 2 - Laced cotehardie on Catherine Beauchamp, Countess of Warwick, c 1370-1375. St Marv's Church

Dress Design

This dress is meant as an overdress with short sleeves that include some buttons. In designing this dress, I tried to achieve the silhouette and skirt fullness in the Golden Cup image in Figure 1. However I picked a more modest neckline, like the effigy in Figure 2, as something that low/wide gives me the heebie-jeebies. While the St. Agnes picture in Figure 1 does not specify front lacing, there are clearly no buttons and I found no examples of back lacing on a dress of this type. So I chose to do the front spiral lacing from Figure 2. I also chose to have my gown to be completely fitted (i.e. supportive) and used many of the technique researched by Robin Netherton in order to fit it to my silhouette.

There are no extant examples of this four-panel fitted cotehardie style. The closest can be found is the Uppsala gown from Denmark, 1363 (see Appendix A). This gown, however, was for a child so some changes were needed. Since the fullness of the skirt requires much more fabric for an adult than for a child, I added gores for added skirt fullness as my fabric was only 30" wide (not unusual for medieval fabric). These gores were similar to the Herjolfsnes 41 kirtle (see Appendix B).

Construction

Materials

The main material that I used is broken lozenge twill patterned wool that I wove (see Appendix C). It is woven from worsted wool in a maroon/wine color. This color is deeper than what is in the St. Agnes picture, but is one of my favorite colors so I went with it. Most of the finds in this period were woven with a 2/2 twill weave, which this is. In all honesty, the broken diamond pattern is pretty much an earlier period pattern than the cotehardie. The more interesting, complex patterns fell into disuse with the introduction of the floor loom and the abandonment of the warp-weighted loom. However, if I am going to weave something, then by golly it is going to be an interesting, cool pattern that I can't just buy in the store! This fabric was based most specifically on one of the wool textiles found at Coppergate in York from the 10th century.

In addition, I used lightweight gray linen for the lining. This was to help add stability and drape to the dress. The Uppsala dress, for instance, was lined with several colors of linen. For construction, I used 30/3 linen thread. The thread that I used is dyed to match the fabric. This is probably pandering to my modern sense of ascetics, as linen is difficult to dye. However there are plenty of examples of the same material/color wool being used to sew an item (as well as examples of undyed linen thread being used). I wanted to use linen thread for the added strength, compared to wool thread.

Construction Process

I entirely hand sewed this dress using methods discussed in Museum of London Textiles and Clothing as common practices in this period. See Appendix D for more details.

For the main panels and gores, I used running stitches, with backstitching interspersed for strength, especially in the bodice area. I attached the arms with backstitching for added strength. I finished all inner seams with flat felling.

I created a shell and lining from the same pattern and assembled each individually. I attached the shell and lining first at the neckline and front by sewing the right sides of the shell and lining together with running and backstitches with a strip of linen facing in the front for added stability under the eyelets.

I completed the arms by folding the right sides of the shell and lining under and using a hidden running and backstitch combination for an effect just like the neck and front. I added a strip of linen facing in for added stability under the buttonholes and buttons. I hemmed the two dresses together in a similar fashion. I chose to do the lining this way because it was reasonable in period that the lining on an expensive dress might have been replaced when worn or swapped out for the weather (linen for the summer and wool or fur for the winter). The seams were also tacked together to provide additional strength to the garment.

I used a buttonhole stitch for the eyelets and buttonholes (the eyelets have two rounds of buttonhole stitch around them).

Accessories

Buttons

The buttons for this project are a pewter design found in London from the 13th-14th centuries. I created the three-piece registered mold from soapstone. It is a full dome button with a curved front and back. The material is lead-free pewter, similar to what was found in this period but without all the brain dissolving side effects. See Appendix E for more details about the construction.

Figure 3 – Pewter Button from London, 13th-14th century

Lacing

For the lacing for this gown I made an 8-strand silk fingerloop braid. This style of braiding was in high use in Europe from the 13th through the 17th centuries. The pattern used is called a Lace Bend Round of 8 Bowes from c. 1475 (See Appendix F for the pattern). For dress lacing, a bulky knot on one end keeps it from going through the eyelets and a brass aglet on the other end helps to lace up the dress. Fingerloop braiding is shown in "Museum of London Textiles and Clothing" to be used in dress lacing as well as in other clothing fastenings, purses and trimming for other household items.

Other Notes

Though I did a number of key elements in this project, from the weaving and fulling to the sewing as well as making the lacing and buttons, in this time period of the middle ages, the various different facets of this project would not likely have been done by one person. A craftsman would have specialized in one aspect of this and different guilds controlled weaving, fulling, tailoring and casting (pewtering). Some aspects of this might have been done at home (as a "cottage" industry) but still probably not all of them. I did enjoy doing the different steps, regardless!

Throughout this project I have been constantly reminded that it is, of course, better to research before re-creating than after. Only slightly better than researching after re-creating is doing it DURING the project. Originally I intended to lace up the back of the dress, as "everyone knows" that cotehardies can be done this way. After researching, I found no examples at all.. meaning that I got to pick out the hand done seam and do it again. I also chose to add gores in this way, picking out four (long) seams to add in the gores. Picking out hand-sewn seams is pretty much heartbreaking so research first!

Also, make sure that no one has thoughtfully altered the height of your dress dummy before pinning the hem!

Final Product

There may have been a bit of photoshopping in the picture above, but I won't tell you where!

Bibliography

Carlson, I. Marc. "Some Clothing of the Middle Ages -- Kyrtles/Cotes/Tunics/Gowns -- Herjolfsnes 41." 2003. 31 Mar. 2009 <http://www.personal.utulsa.edu/~marc-carlson/cloth/herjol41.html>.

Carlson, I. Marc. "Some Clothing of the Middle Ages - Tunics - Uppsala gown." 1998. 31 Mar. 2009 <http://www.personal.utulsa.edu/~marc-carlson/cloth/uppsala.html>.

Crowfoot, Elisabeth, Frances Pritchard, and Kay Staniland. The Museum of London: Textiles and Clothing c 1150 – c 1450. London. The Boydell Press, 2001.

Egan, Geoff. Dress Accessories: c.1150 - c.1450. Stationery Office Books. London. 1996.

Jones, Heather Rose. "Archaeological Sewing." 2003. 29 April 2009. <http://heatherrosejones.com/archaeologicalsewing/index.html>.

Netherton, Robin. "Gothic Fitted Dress Workshop." 2001. 28 April 2009. < <http://www.netherton.net/robin/>.

Read, Brian. Metal Buttons c.900 BC - c. AD 1700. Huish Episcopi, Portcullis Publishing, 2005.

"The Royal Gold Cup." British Museum. 31 Mar. 2009 <http://www.britishmuseum.org/explore/highlights/highlight_objects/pe_mla/t/the_royal_gold_cup.aspx>.

Scott, Margaret. A Visual History of Costume: The Fourteenth & Fifteenth Centuries. London. B.T. Batsford Ltd. 1986.

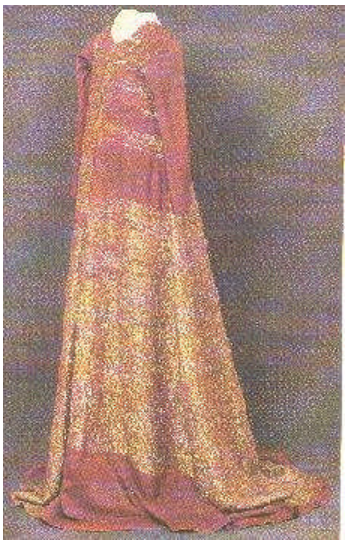
Swales, Lois and Williams, Zoe Kuhn. "Fingerloop Braids" 31 Mar. 2009 <http://fingerloop.org/>.

Swales, Lois and Williams, Zoe Kuhn. "Barley Corn and Spiral Fingerloop Braids." 2004. 31 Mar. 2009 <http://www.lightlink.com/rhiannon/Fingerloop/combine%20barley%20spiral.pdf>

Walton, Penelope. Textiles, Cordage and Raw Fibre from 16-22 Coppergate. London, 1989.

Appendix A - Uppsala Gown

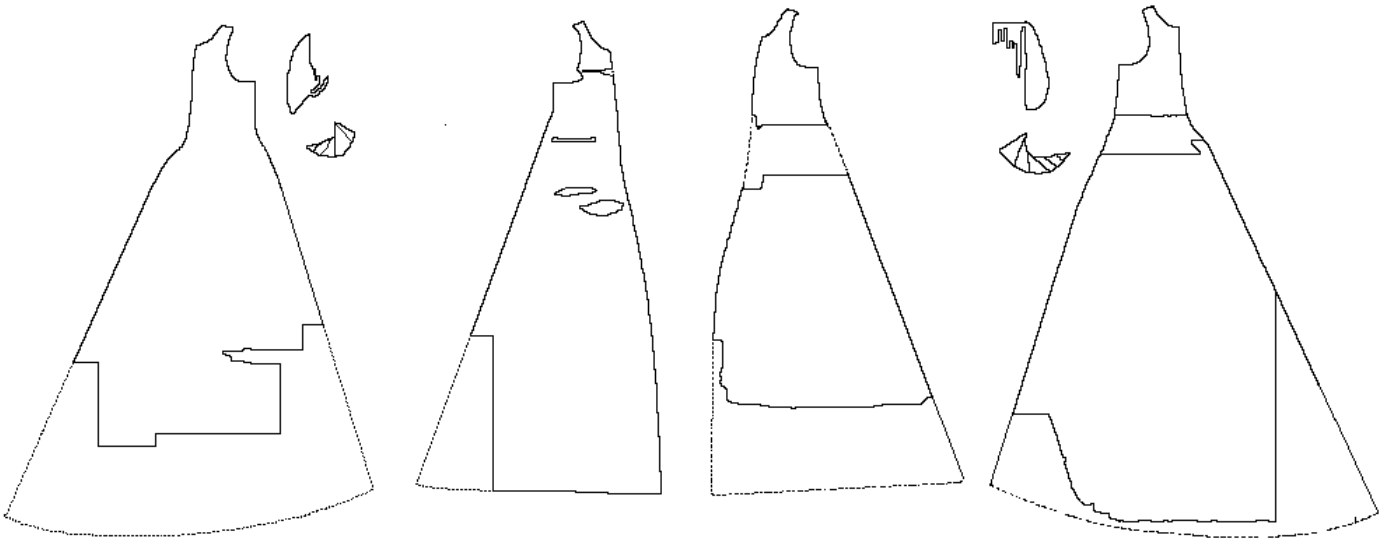
Also known as **Queen Margareta's Golden Gown**
From “Some Clothing of the Middle Ages - Tunics - Uppsala gown”



The Golden Gown of Queen Margareta is the gown that was reputedly worn by the 10 year old future Queen of the Kalmar Union at her wedding in 1363. The tradition linking the dress to Margareta Valdemarsdotter (1353-1412) is a long one, extending back at least to 1593 when it seems to have been referred to by an Englishman visiting Roskilde Cathedral, where Margarete is buried. In the 1620s the dress was described as Margarete's wedding dress, and in another source, as the dress she wore during her funeral procession. In 1659, Margarete's relics were moved to Uppsala, where they have remained. While there is little doubt that the dress is probably the one referred to as having been at Roskilde, there is a small question as to whose dress it actually was.

Based on the cut of the sleeves, and general cut of the gown, the dress probably dates from the latter half of the 14th Century, perhaps after the 1360s. Based on the length and bust of the gown, the wearer was a slender young woman or girl, probably with some slight deformity (based on the shaping of the sleeves). Radio-carbon dating, however, places the age of the fabric to about 1403-1439.

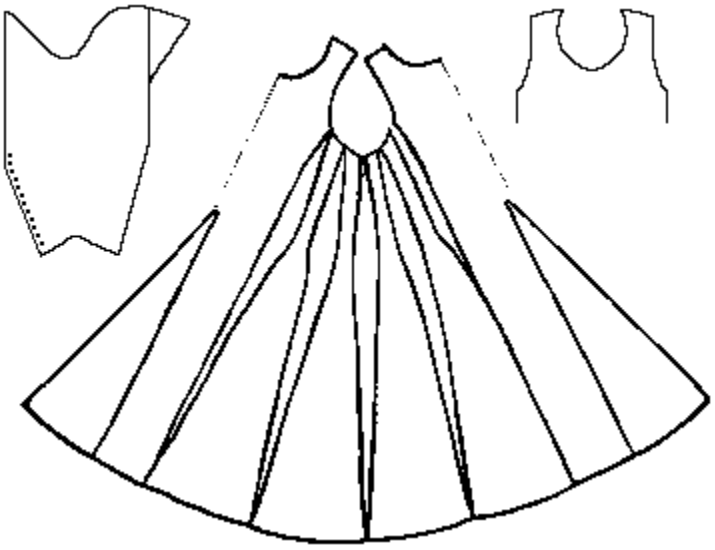
This dress is made from gold fabric, a blend of gold and silk. It is made from four quarters, with no gores, and attached sleeves. From the waist up, it is lined in heavy linen. From the waist down, it is unlined.



Appendix B – Herjolfsnes no.41

From “Some Clothing of the Middle Ages -- Kyrtles/Cotes/Tunics/Gowns -- Herjolfsnes 41”

A long sleeved man's garment. It has waist-high gores in front and back, and four shaped gores on each side running from the arm holes to the hem. The side gores are only 4 cm (1.6") at the waist and along the torso. They begin to increase abruptly in width about the hip level.



The sleeves are full. There are 15 closely set buttons running on each sleeve from the elbow to the wrist. These buttons are each made from a glued wad of cloth, that is then covered in cloth. In the neck, the material is turned under and the raw edge set with an overcast stitch.

Where the seams of the gores come close together at the waist they are ornamented with a row of backstitches making them very noticeable. The long opening of the sleeve is decorated with a row of backstitching. The bottom hem is decorated with two rows of backstitching. The material is a thin "fourshaft twill"; dark brown, although the weft is slightly more pale than the warp.

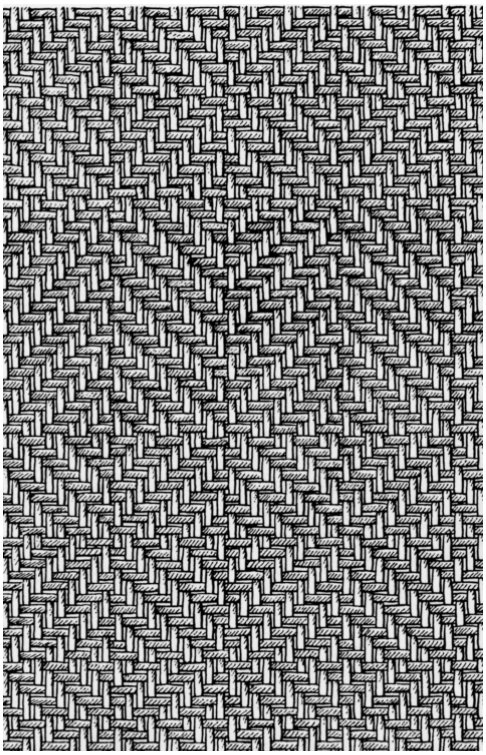
Based on the measurements above and observations made by Robin Netherton, and work done with mock-ups, this item is clearly not a "cote-hardi" of any kind, it is not closely fitted. Based on the proportions of the garment, and the correlation to the skeleton it was found with, we can strongly suggest that it was a man's garment, and specifically a small and wiry man about 5' 5" (165 cm or 65") tall. suggested by the remains found with this garment. Netherton also stipulates that Norlund's drawings are not consistent with his written measurements and are most likely inaccurate, and so should be used cautiously. She adds that later authors' re-interpretations of those drawings appear to be increasingly removed in accuracy from the original. (That observation, I should note, also applies to the drawing above.)

Appendix C – Broken Lozenge Twill Weaving

The weave for this project was based off of a tenth century textile find from Coppergate, York. I searched for a fine-spun strong wool yarn and chose a worsted 20/2 Jaggerspun Maineline yarn (Claret and Raspberry colored). The yarn was fine enough that I decided on a sett of 27 EPI (ends per inch) and PPI (picks per inch).

The weaving pattern that I based this off is a broken lozenge twill pattern. The pattern created is diamond (or lozenge) shaped but the "broken" refers to the fact that the various lines of the pattern are disconnected.

The weaving was done on my four-harness jack floor loom, which can produce fabric up to 3' wide (before fulling).



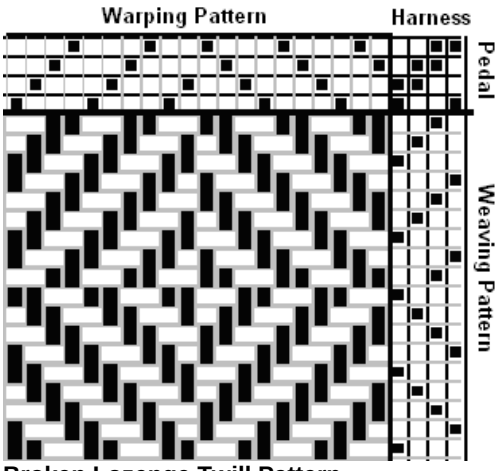
Example of Broken Lozenge Twill from Sutton Hoo Burial

Broken Lozenge Twill Pattern

The pattern used here has been found as early as an Iron Age burial in Karlby Mose, Denmark. Several examples have been found at Roman sites in Britain such as Hadrian's Wall and Corbridge. Four examples were found in the Sutton Hoo Ship Burial (early Saxon England, East Anglia, ca. 625 AD). Dozens of examples have been found in wool and linen from Viking sites. Examples of this type of weave were found into the twelfth century. This project was based most specifically on one of the wool textiles found at Coppergate in York from the 10th century (#1307 - Walton, Penelope). The sett of this project matches the same range of sett found on this Coppergate wool textile.

Fabric of this sort would have been used in clothing such as cloaks, gowns, tunics and hose as well as items such as furnishings, wall hangings, beds and curtains.

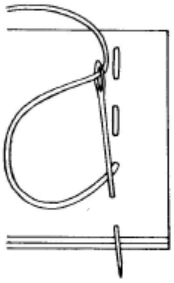
For a more thorough, detailed documentation on the fabric, please see the "Broken Lozenge Twill Weaving" documentation.



Broken Lozenge Twill Pattern

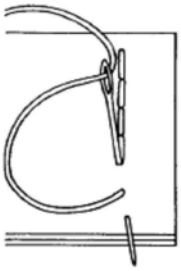
Appendix D – Hand Stitching Techniques

From The Museum of London: Textiles and Clothing c 1150 – c 1450 and Archaeological Sewing by Heather Rose Jones



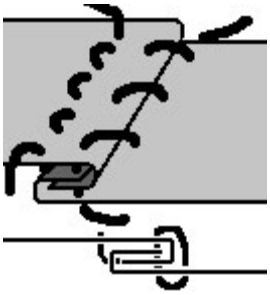
Running-Stitch

Running-Stitch: "From the evidence of the seams of many extant garments, where the stitching threads have almost completely disappeared, leaving well defined stitching holds, it is possible to show that in the majority of cases a fairly fine running-stitch was usual for holding the two edges together. The size of the stitch varies somewhat, as is to be expected, but it is usually related to the fineness and flexibility of the cloth; 2-3mm being usual." – Museum of London: Textiles and Clothing



Backstitch

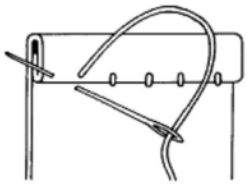
Backstitch: "Where seams came under pressure, particularly those employed in shaping garments to fit closely to the human form, or in forming crucial joints (armholes, for example), one of the variants of backstitch would have been more appropriate." – Museum of London: Textiles and Clothing



Flat Felled Seam

Flat Felled Seam: Joining two single cut edges (flat felled seam) place right sides together with one edge extending slightly and sew with a running stitch. Fold the extended edge over the other cut edge, flatten, and sew to the main fabric with an overcast stitch. (Fentz 1998, Seam V) – Archaeological Sewing

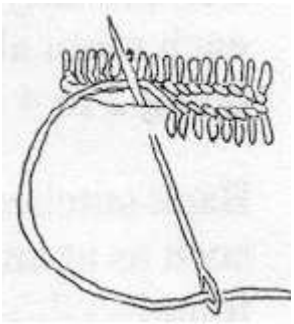
Hem-Stitch: "Because the cut edges of woven fabrics usually fray quite quickly as the result of friction, a number of stitching techniques have been developed to control this process; they can involve various methods of over sewing where friction is not considerable, or more particularly, at the edges of the garment, single or double folds (hems) of material which greatly strengthen the edge. Whereas today exposed raw edges are invariably strengthened in some way, certainly at garment edges, it is likely that in past centuries raw edges sufficed much more, since cloth-finishing processes rendered many wool fabrics less likely to fray. The evidence of the textiles from London suggests that on a woolen cloth a single hem was usually considered adequate during the 14th century. This could be hem-stitched, held with a running-stitch or top-stitched from the right side. The first method offers a protection to a ray edge and is appropriate to the hem of a garment." – Museum of London: Textiles and Clothing



Hem-Stitch

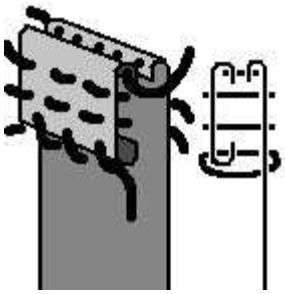
Buttonhole-Stitch: "Holes, in the form of slits at right angles to the opening edge, were cut before they were worked; it is usual today to cut the holes after they have been worked with buttonhole stitches. There is no visible circuit of running-stitches round the hole to hold the two layers together an to strengthen the vulnerable cut slits." – Museum of London: Textiles and Clothing

"The size of the buttonholes varies considerably. Size variants have been seen between 7-14mm long. The depth of the buttonhole-stitching is usually not great, about 1-2mm. The stitches are mostly set apart about .5mm, and are not packed closely together to form a solid band as is normal today."



Buttonhole-Stitch

Wool with Applied Facing: "A narrow straight-grain band of silk is used to face a neckline on a woolen fabric. The band has been sewn to the wool right sides together with an unknown stitch (but probably running stitch), then turned, with the edged turned under and overcast to the main fabric along the edge. After this, two rows of running stitch (in the wool color) have been added." – Archaeological Sewing (from Museum of London Dress Accessories)



Wool with Applied Facing

Appendix E – Pewter Buttons

The buttons that I created for this dress were created from a three-piece registered soapstone mold, like the diagram below. Soapstone is used for casting throughout the middle ages, but pewter production ramped up significantly in the 13th century when large deposits of tin were found.

"Cast buttons of medieval date are usually solid, either of lead/tin with integral shanks, or of bronze with separate embedded wire shanks and a tin coating. They were produced in Moulds." - Museum of London: Dress Accessories

"Biconvex; d 12.5mm; pewter; front apparently plain except for a series of dots of zigzags around the edge; back plain; shank now bent over." Dress Accessories

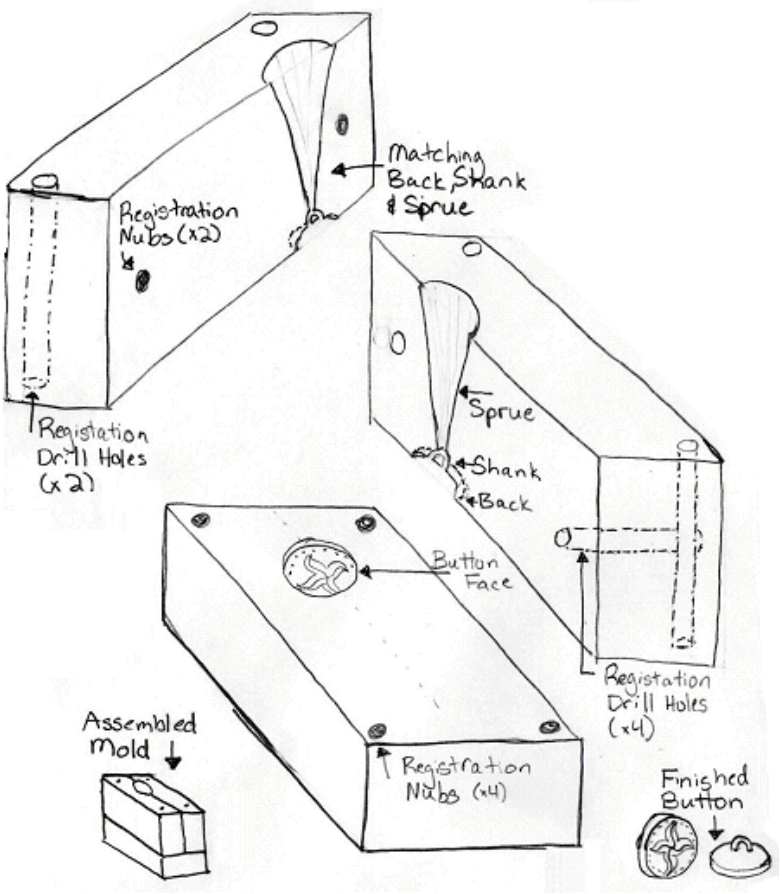


Diagram of a Three-Part Button Mold – Giliana Attewatyr

Appendix F – Fingerloop Braiding

From “Barley Corn and Spiral Fingerloop Braids”