

Pleatwork Hemd

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Pleatwork Embroidered Hemd

Circa 1490

In general the underclothing up to the late 15th century tended to be functional garments. This was especially true for women. Due most likely to a combination of social and economic restrictions more emphasis was placed on the outer garments as opposed to the undergarments. By about 1490 however a trend in parts of Europe began to take place. In many of the Germanic and Italian influenced regions undergarments for both men and women were now being seen as part of fashionable dress. Artists such as Durer, Holbein, Amberger and Schoen immortalized these fashion trends in their paintings, woodcuts and etchings.

Materials: Linen Batiste, Pearsall's Fillosele Filament Silk, 120/2 linen thread

Inspiration for the Project

It was my plan when I began this project to embroider using later period whitework techniques like that developed in the Schwalm region of Germany in the 17th century. While out of period for the purposes of this research, it was closest technique which would potentially create the freeform and raised effect in the embroidery as seen in this *Portrait of Felicitas Tucher* by Durer from 1499.



Durer, Albrecht. Portrait of Felicitas Tucher 1499
Hessisches Landesmuseum, Kassel

The problem began when, regardless of how tight the pleats were, they did not provide the same stability that a flat piece of fabric would. Nor did the vertical pleats allow for easy curvature in the design.

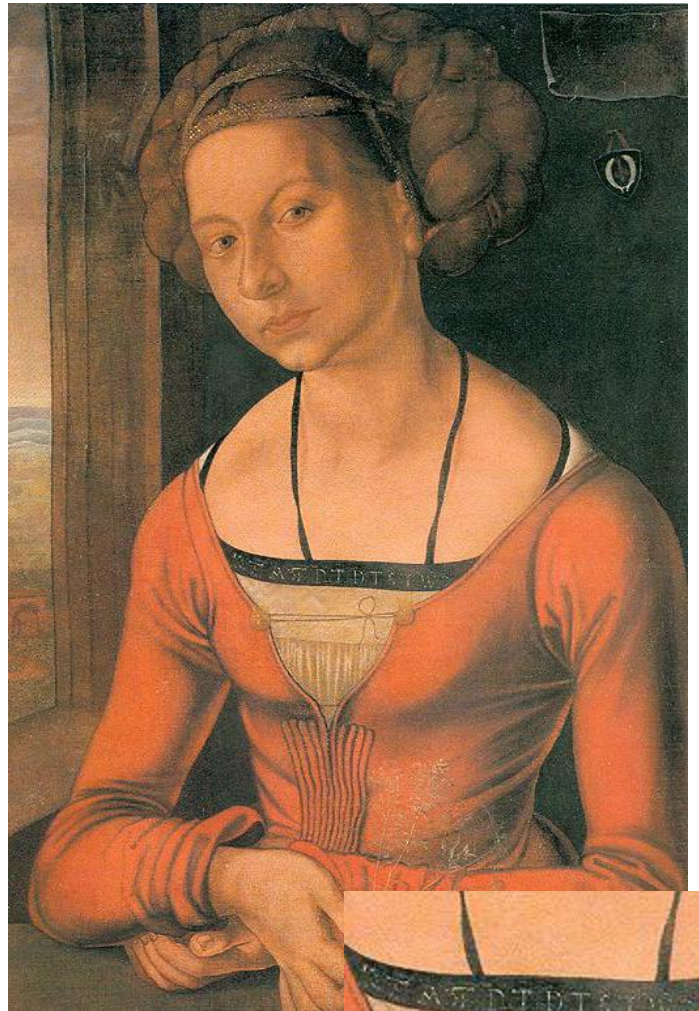
Midway through researching the techniques I was asked to look at some pictures of a 17th century shirt at the Whitworth Gallery in Manchester, UK to assist with identifying possible embroidery techniques. It was easily identified as a pattern darned based, with couched threads over the pleats. The embroidery design was geometric, very similar to that seen in the 15th and 16th century German embroideries.

A second garment at the Los Angeles County Museum of Art, also early 17th century featured pattern darning on the top of the sleeves. Originally I had categorized this as what is modernly called “Italian Shirring” but upon second review of the garments, it more appropriately could be classed as pattern darning. It was this garment that made me go back to take a second look at the portraiture to see if I could determine similarities.

The hemd was to be part of a late 15th century German outfit based on this *Portrait of a Young Girl* by Albrecht Durer from 1497. Two versions of this painting exist and while similar, the hemd's do have different patterns to the embroidery.



Man's Shirt, Italian LCMA



After numerous failed attempts to recreate the zig-zag effect using satin stitch vertically on the pleating I recognized that a surface embroidery would not provide me with the desired results.



A second look at the detail in the *Portrait of Felicitas Tucher* shows tiny stitches along the edge of the raised designs. It also shows an uneven pleat surface, much like that in the embroidery on the extant shirt.

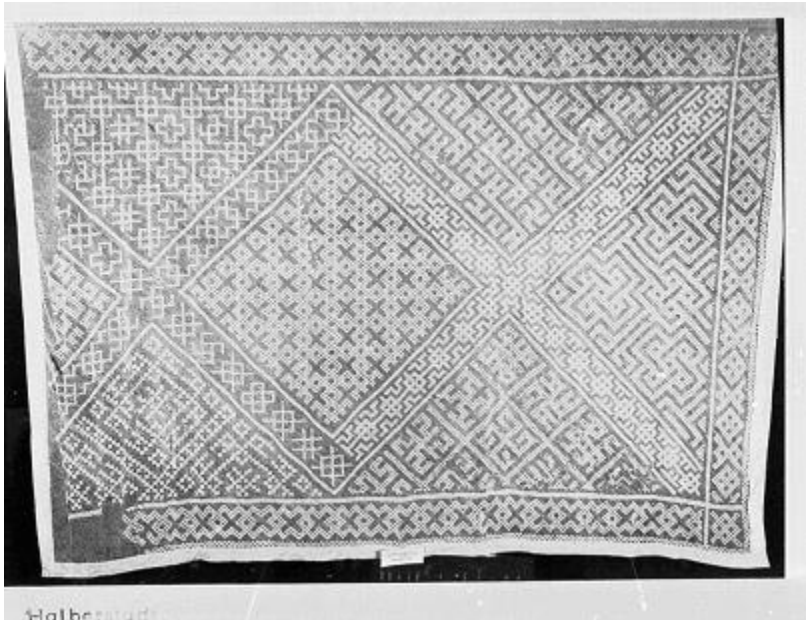
A painting by Anton Woensam von Worms from the first half of the 16th century clearly shows geometric patterning as part of the embroidery on the neckline. This supported my conclusions that the raised geometric designs seen in these women's garments could only be done by a form of pattern darning.



Woensam, Anton : close up

Embroidery

The design was chosen from a 13th/14th century linen cloth which featured elaborate the geometric patterns in white work which were so commonly seen in other embroideries from the 14-15th century.



I wanted more than one pattern to fill the wide band of embroidery that is needed for this style of hemd. I chose the pattern from the outside bands and with minor changes to the pattern created the design.



The center panel was created by sewing together two lengths of linen batiste. The full width of both panels was needed to provide enough pleats for the design. I the project was first attempted by using a very fine cotton batiste, most commonly used for modern heirloom smocking projects. The cotton batiste was fine enough to allow very tiny pleats but it did not have enough stiffness to support the pleats adequately. A linen batiste was located and after a test sample it was determined that it was fine enough to pleat up without excessive bulk and stiff enough to hold the pleats in place.

Twenty-five rows of gathering stitches, stitch length about 2mm and the row spacing about 4 mm were ran across the entire width of the two panels. The pattern darning technique naturally pulls the pleats somewhat tighter so ensure that the garment would not be too small when completed the gathering threads were drawn up to a sized slightly larger than the needed finished measurement. These gathering threads were tied off.

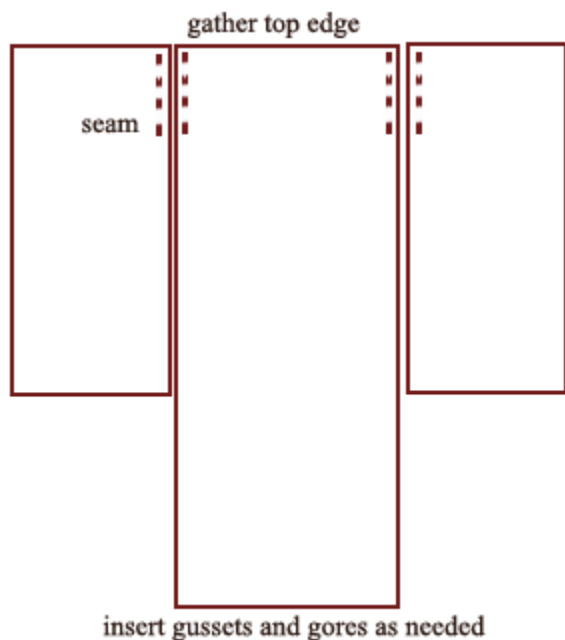
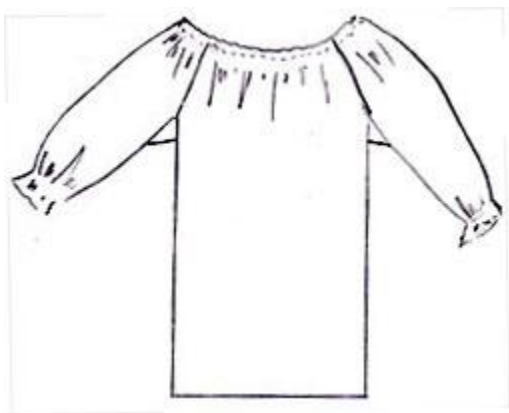
Using the pleats instead of thread count, parallel rows of embroidery were stitched following the charted pattern. Silk was used for the embroidery for strength. Linen thread may have been a more appropriate thread type, but with the shorter fiber lengths in modern linen thread, I experienced too much breakage and shredding of the thread to effectively complete the embroidery. The silk used was a filament silk which gives the embroidery sheen. Eighty five rows of embroidery were needed to complete the pattern.

Initially it was not apparent that the technique was providing me with the desired outcome, but within 20 rows a slightly raised design could be seen. This reinforced my belief that my assumptions were correct and the embroideries seen in the portraiture were done with a form of pattern darning.

Once the embroidery was completed the top of the pleated portion of the garment was drawn a bit tighter to allow a slight curve. The silk used in the embroidery allowed the threads to be pulled tighter as needed, similar to drawing up gathering threads.

Garment Construction

Once the embroidery was completed the sleeves and back panels were whip stitched along the selvage edge. The top edge of the garment was gathered, with two rows of gathering threads and drawn up to the correct size. A small band was placed around the top edge of the neck and fine trim was tacked over the band to cover it. In period this trim or binding would have been woven or finger looped. Seams were whip stitched following documented period techniques.



Conclusions

When my research began a number of years ago, positioned the theory that any embroidery technique that was used during the short time span that the pleated and embroidered garments were fashionable could be done on a pleated surface. My position has not changed. I still concur that multiple embroidery techniques were used regionally and to duplicate various embellishments.

However, having used the technique of pattern darning with different mediums, I would like to propose that for over a century, it was the standard for embroidery for the garments worn throughout areas of central Europe during the mid 16th century. It allows for complicated embroidery designs at the same time deals with a large amount of fabric while providing strength and structure to the garment. With no extant garments in existence of this exact style it is the challenge to look at portraiture and fragments and theorize techniques, stitches and designs.

The embroidery, while a fairly simple technique, was very tedious to do. The white on white embroidery made it difficult to see and utilize the previous row and pattern to build on due to the pleats. It was often difficult to see the stitches. In addition, the depth of the stitches through the pleats and over surface had to be maintained uniformly or it would cause distortion of the pattern.

The project was however, very rewarding. It provided me with additional insights and brought me closer to what I feel is a true replication of a period garment.

Images

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