Pleatwork and Drawnwork Apron

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Division II: Costume Single Component or Costume: 1451-1600

Documentation Overview

This is a reproduction of a pleated linen *schurz* (apron) similar to those worn by German women in the early-to-middle 16th century. The apron is made of linen with hand-gathered pleats that are secured with a variety of period stitches (stem stitch, honeycomb surface stitch, and chain stitch) in silk thread, along with a casing strip similar to the textile finds at Castle Lengberg[1]. The hems are finished with a drawnwork hemstitch. Such an apron is more apt to be worn by a wealthy and/or high-born woman in Germany, but may also be seen on women in Landsknecht *tross*.

Detail of apron in *Melencolia I* (1514) by Albrecht Dürer

My pleatwork apron detail

My reproduction pleatwork apron

A Closer Study of 1500-1580 German Aprons

Aprons are commonly depicted on German imagery from 1500-1580, and are shown being worn by all classes of women. Aprons are also mentioned in the household accounts[2] from this period. Unfortunately, no aprons from this time period and place have survived to my knowledge, but there are some extant aprons from Italy and England. Most aprons in these three primary sources (imagery, text, and artifact) are or appear to be made from white linen, linen/wool blends, or linen/cotton blends, and there is evidence for aprons of other colors to a lesser extant in imagery and text, such as red, yellow, green, and black. Many, though not all, German aprons are depicted and described as being pleated at the top to gather the fabric into a smaller area. Imagery and text also tells us that these pleats may have been secured in a variety of stitches. For example, sumptuary laws of 1512[3] mention, "none with gold or silver smocking or needlework aprons shall wear," as well as, "no rich pleating shall be on an honor-worthy-apron, that there also should be less pleating and small smocking so that the apron would not be so gathered." And, indeed, deeply-pleated and/or gilt-thread aprons are not depicted in imagery. Thus, I have attempted to recreate an honor-worthy apron with small smocking that is not overly gathered. It's important to note that as no extant German aprons are available to study, I have had to pull together what I think a woman might have created and worn based on my research into these primary sources. My design is drawn from many sources, but primarily from Melencolia I by Durer (pictured on previous page), but is not intended to be an exact representation. I made my pleats and embroidery quite small so as to boast at my persona's skill with the needle and her wealth. In reality, this is a teaching garment that I will wear at my pleating classes to show students a variety of stitches.

*Frau mit Weiberspeck* (1564) by Tobias Stimmer

Portrait of a Woman (1566) by Lucas Cranach the Younger

Frau (1515) by Urs Graf

Apron Materials

I used natural and, as much as my budget allowed, period-appropriate materials in the creation of this gown. The thread count on the linen is 45 threads per inch, which was the highest woven linen I could find at the time (I believe it would have been higher in period). I should note that I opted for a medium weight linen, as I feel an apron made of linen that is too lightweight just tends to float and flyaway, which is impractical and visually unappealing. In imagery, aprons always appear to hang down with some substance.
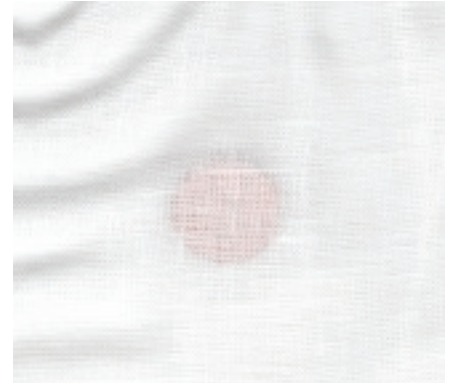
Fine linen used in the garment

I used white silk thread, rather than linen, because it is stronger, and that is very important in creating sturdy pleatwork.

I should note that the apron's belt appears whiter than the apron, but you can see this type of color variation in period imagery as well. While the material for the belt and the apron itself are cut from the same cloth, the apron was in progress for nearly a year while the belt was kept separate (both have since been washed). The color variation is more likely due to the shadows produced by the pleats and the natural beeswax used to strengthen and lubricate the thread.

Materials Used

What They Used	What I Used
Linen, linen-woolsey, linen-cotton	100% medium-weight linen
Linen or silk thread	Silk thread (Guttermann's silk thread) and silk floss (Soie d'Alger)

Detail from *Fountain of Youth* (1546) by Lucas Cranach the Elder

Detail of apron from *Soldier and Woman* (1569) by Jacob Vinck

Apron Construction

The apron is a rectangle of cloth, selvedge to selvedge. It is hand-gathered at the top with running stitches of silk thread every 3 mm. Once the running stitches are in place, the linen is made lightly wet and the threads are pulled to create the pleats (about 6 pleats per centimeter, which corresponds to my research on how closely spaced they tended to be in period imagery). The pleats will not stay in place for long without support, so four different, period-appropriate stitches[4] were employed to secure the pleats: whip stitch (to a casing strip at the top edge), honeycomb stitch, stem stitch, and chain stitch. After the pleats are secured, the selvedges and bottom edge are finished with a drawnwork hemstitch, with the help of a bone smoothing tool (to crease the edges). Finally, a linen strip of appropriate length is folded over and whip stitched to the apron so it may be worn around the waist. After construction, the apron was hand washed with Madame Crespine's soap and left to dry in the sun for natural bleaching.
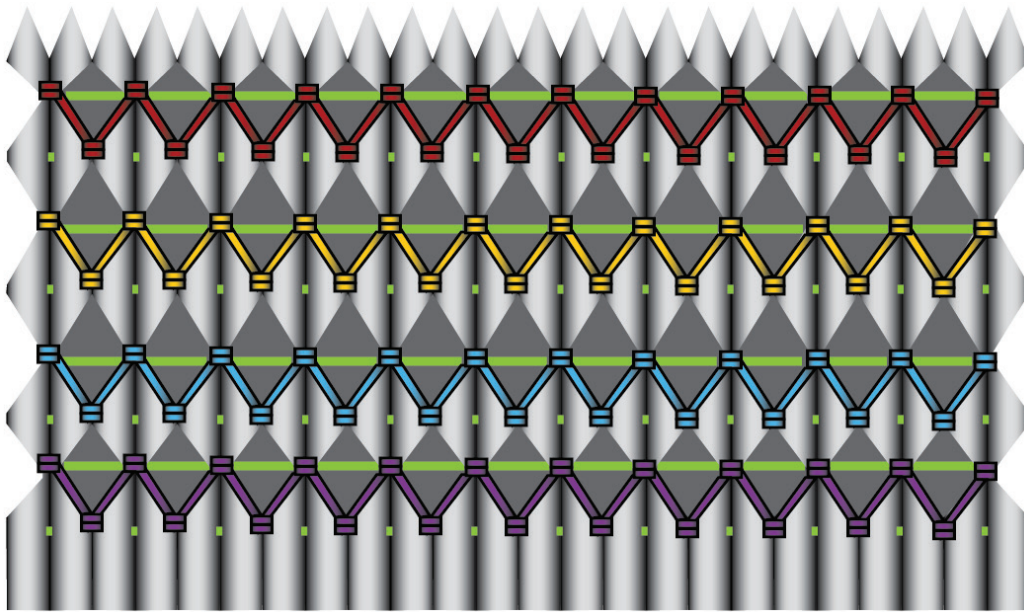
Apron Stitches

Details and primary sources for these stitches can be found in my research paper, *Techniques of 15th and 16th Century Pleated Undergarments.*
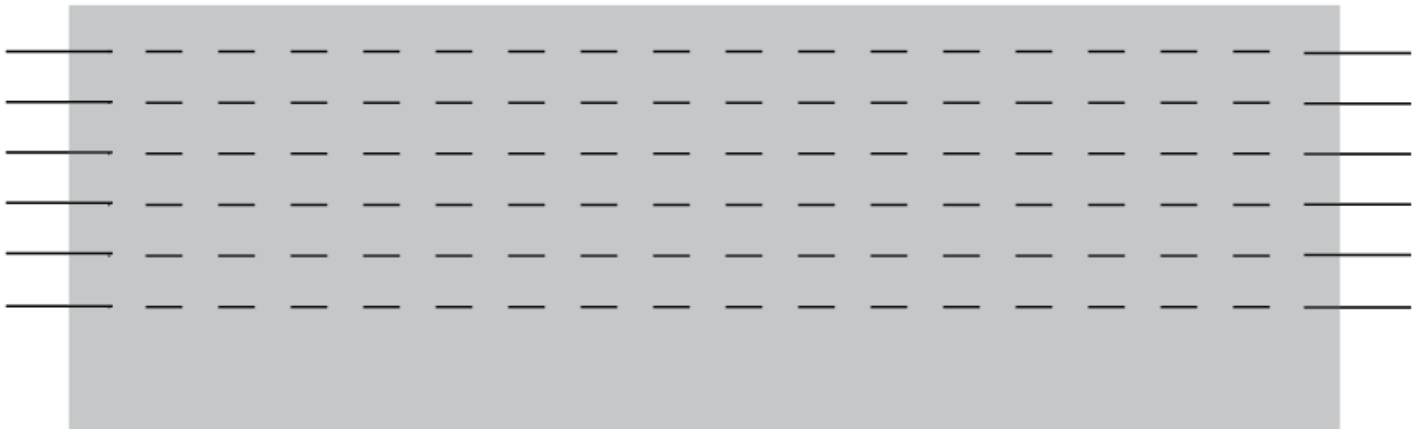

**Running Stitch:** Parallel and even, each line is a separate thread.
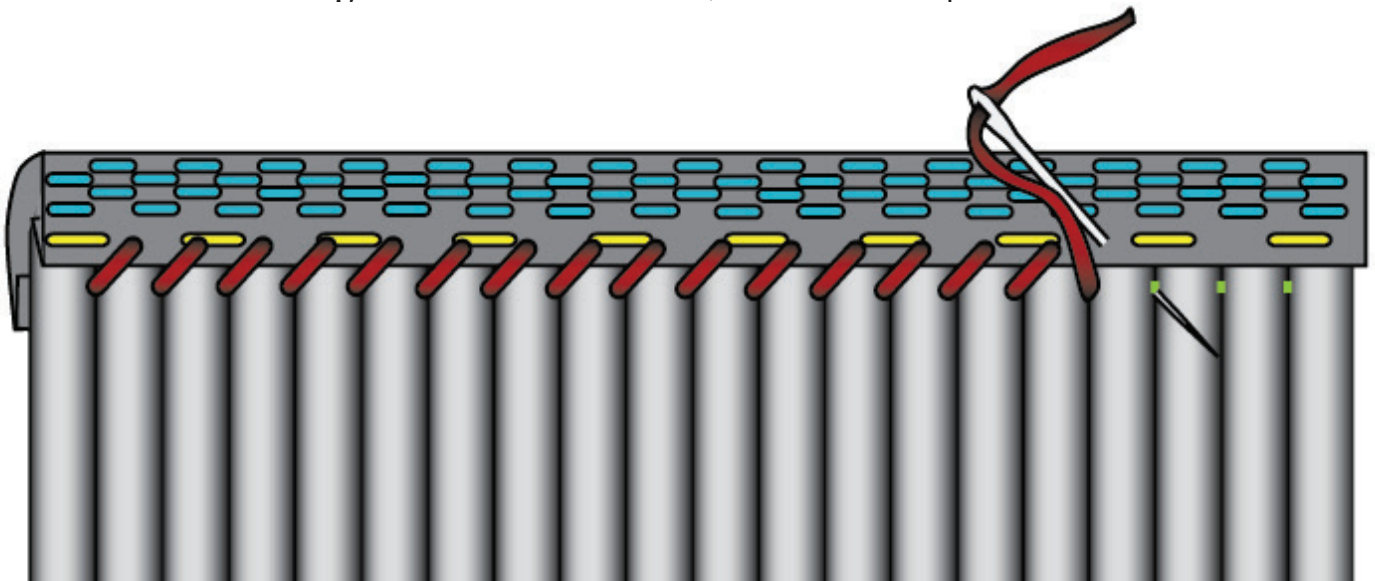
Whip stitch on casing strip: The red stitch indicates the whip stitch.

Honeycomb Stitch: Each thread color indicates one continuous stitch, alternating between two rows, as this allows for elasticity. It should be noted that the thread that is carried between the alternating rows is actually on the back-side of the fabric.
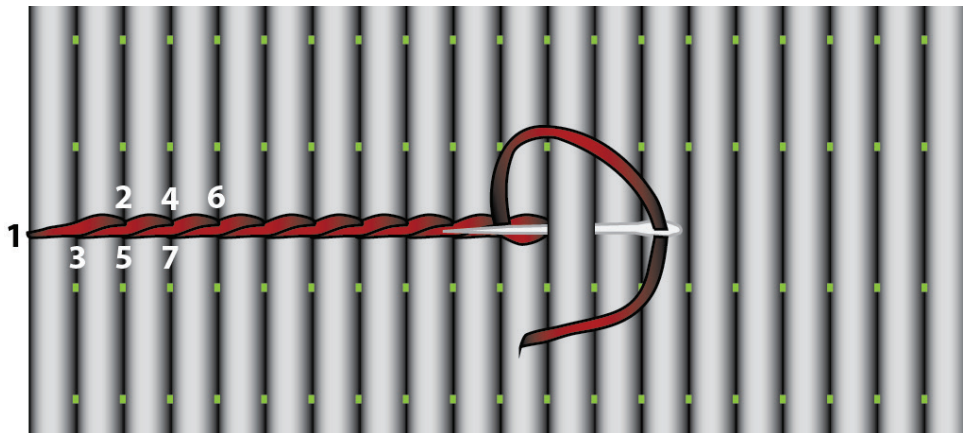

Stem stitch: Start at 1, go in at 2, pass back through the center of the fold, then come up at 3. Repeat across the width of the fabric. For reference, the gathering stitches are shown here as the green between the folds.
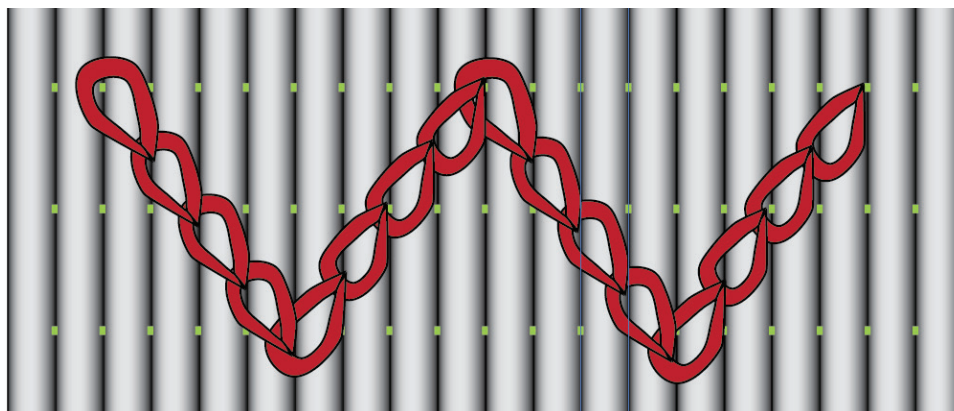
Chain stitch

Drawnwork

The edges of the apron were finished with a drawnwork hemstitch, which is a finished edge technique seen on aprons and cuffs in 16th century German, Italian, and English imagery. Drawnwork involves removing the warp or weft thread(s) from the fabric and then using those drawn threads (or thread the same size) to secure the remaining threads in patterns. For my hems, I pulled out six threads along the two sides and bottom, allowing enough room for the edge to be folded twice. I then pulled the threads together in groups of three, placing a whip stitch in the folded hem as I secured them. This resulted in a simple, decorate edge that also produced a clean hem.

Folded edge (hem)
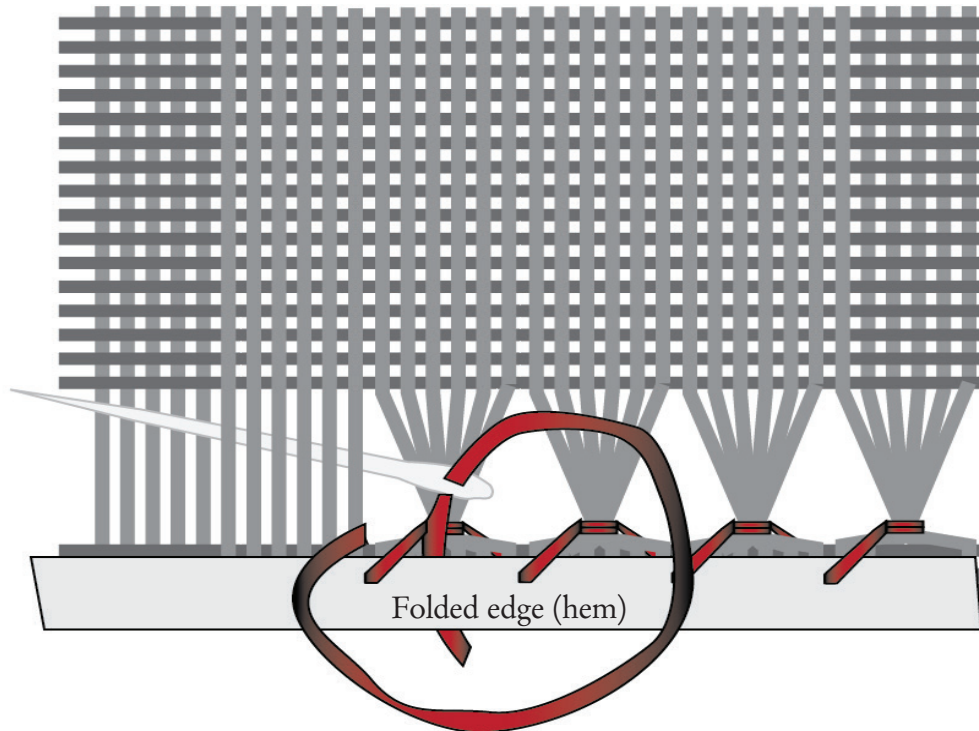
Detail of apron hem with what appears to be drawnwork in *Pyramus und Thisbe* (1531) by Hans Baldung Grien

Detail of drawnwork on cuffs in *Christ Blessing, Surrounded by a Donor and His Family* (1575) by Ludger tom Ring the Younger

Tools

I spent a considerable amount of time designing and making a wood pleating tool that I hoped would help me create pleats faster, but it did NOT work and I used the tried-and-true method (running stitches). I also used a pleating frame, which was an idea that I got in the midst of my Dorothea Meyer smock project and is based on a woodcut of a woman pleating. Gregor made it for me. It was useful for stabilizing the fabric while working on it, because if you pull stitches too tightly while pleating, you can end up with a distorted pattern. I also used a polished bone smoother to crease the edges of hems as needed.
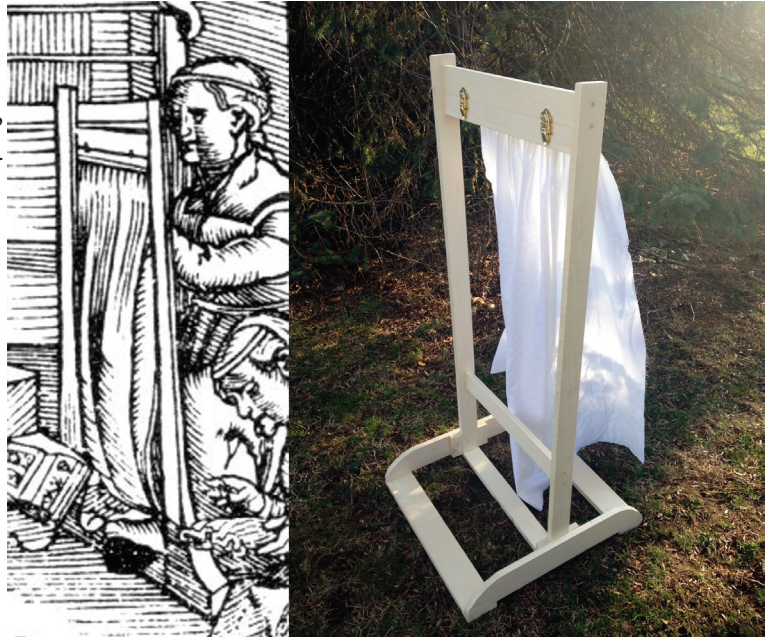
Persona

This gown was constructed for a burgomaster's wife or daughter in early 16th century Germany. This would be a wealthy woman who could and would display her status and wealth on her person through the use of a finely pleated apron. This matches the persona of my Genoveva von Lübeck personality in the SCA, who is a burgomaster's daughter.

References

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3. Belozerskaya, Marina. Luxury Arts of the Renaissance (Getty Publications, 2005), page 85.
4. Fingerlin, Ilse. "Leder und TextilFund," Alpirsbach Zur Geschichte von Kloster und Stadt. Herausgegeben vom Landesdenkmalamt Baden-Württemberg. 2 Textbändeund 1 Bildband. Stuttgart: Konrad Theiss Verlag, 2001. Stuttgart: Theiss. Print.

Additional Reading and Reference Works Related to Pleatwork
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Artifact Summary

Time: First half of the 16th century
Place: Germany
Style: Pleatwork and Drawnwork Embroidery

Material: Linen and silk thread
Method: Hand sewing, period tool use (pleating frame, bone smoother)

Complexity: Four different pleat securing stitches plus drawnwork embroidery
Amount of Fitting Required: Moderate. The pleats were calculated precisely so they covered the wearer's generously-proportioned front sufficiently with the available width of material. (A previous attempt at a similiar apron resulted in one that was much too narrow after pleating.)
Variety of Construction Techniques: Moderate
Difficulty of techniques attempted: Difficult
Extent of original work (including patterns): Elaborate (numerous attempts and tools created)
Extent gone to ensure appropriateness: High

Additional Photos