

Wrist and Neck Ruffs

For an Englishwoman in 1600's London



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These items are...

A set of starched linen wrist and neck ruffs, based on those worn by the women in *Three London Citizens and a Farmer* and other images by Lucas de Heere. They are constructed from handkerchief weight linen and fully hand-sewn with waxed linen and silk thread. After construction, they were starched using historically accurate methods - wheat starch cooked into a paste on the stovetop - and set with a wand-style curling iron as a substitute for period-accurate poking sticks.



Neck ruff after starching and setting



Sewn ruffs prepared for starching



Starched and dried ruffs prepared for setting

Core Inspiration for this Ensemble



Figure 1: *Three London Citizens and a Farmer*, from 'Description of England, Scotland, and Ireland' by Lucas de Heere, c 1570

Garment Inspiration & Historical Exemplars

The primary inspiration for these ruffs is from the drawing by Lucas de Heere, *Three London Citizens and a Farmer*, from his manuscript 'Descriptions of England, Scotland, and Ireland'. Of course, the drawing is only one example among many of ruffs in illustrations and images from the period.

The ruff is defined in *Fashion: The Definitive History of Costume and Style* as simply, "A detachable pleated collar in linen and/or lace starched into shape and sometimes supported underneath"¹. They began as small pleated frills on the necklines of shirts and smocks, but by the mid sixteenth century were worn as an independent garment by both men and women, but "It was the with the production of English starch in the 1560's ... that the ruff really came into its own."²

Exemplars in period images abound, in multiple shapes and sizes. *Patterns of Fashion*, Volume 4 focuses on a number of dramatically large, complicated structures with 700 or more pleats, each individually stitched to the ruff band on each side.³ They were worn on the continent, from Amsterdam and Sweden to Florence, Venice, and Rome.



Details from *A Fête at Bermondsey*. C. 1571. Private Collection, UK.

¹ *Fashion: The Definitive History of Costume and Style*

² *The Anatomy of Fashion: Dressing the Body from the Renaissance to Today*

³ *Patterns of Fashion 4: The cut and construction of linen shirts, smocks, neckwear; headware and accessories for men and women c 1540-1660*

The style and size of ruff varied. Large, complex ruffs required starching and care and were a fantastic way to show wealth and privilege, but ruffs (or something like them) could be worn by even the less fancy sorts.

For more pictorial evidence, we need look no farther than another of De Heere's works. In his *Théâtre De Tous Les Peuples Et Nations De La Terre Avec Leurs Habits Et Ornemens Divers, Tant Anciens Que Modernes, Diligemment Depeints Au Naturel Par Luc Dheere Peintre Et Sculpteur Gantois*, we see four different women of England, all wearing ruffs of different shapes and styles.

I chose to starch the neckband of the ruff, as I felt this would give me an affect closest to that of the main inspiration: a high, flat collar with a small ruffle surrounding the face.



De Here, Lucas. "Dame et Damoiselle Angloses" (detail). Used with permission from Ghent University Library

De Here, Lucas. "Un bourgeoise et une merchant Angl" (details). Used with permission from Ghent University Library

Design Decisions, Patterns, & Historical Accuracy

As best I can determine, my ruffs are quite close to period accurate, especially allowing for differences in the relative weight of modern fabric as compared to renaissance linen. They are fully hand-sewn, starched with historically accurate wheat starch, and set using a modern substitute for goffering irons.

I based the relatively simple design of my patterns on the ruffs found in *POF 4*⁴, with additional detail and specifics from Noel Gielegem's excellent instructions⁵ and those provided by the Tudor Tailor team in *The Typical Tudor*.⁶

The basic pattern is of course quite simple: One or more bands of linen, cut selvedge to selvedge and lapped together, finely pleated to a wrist or neckband of appropriate length for the wearer. This basic pattern was followed for all the ruffs detailed in *Patterns of Fashion* as well as the patterns and instructions from Noel and The Tudor Tailor.

As the ruffs in my inspiration image are smaller and less dramatic than some in the portraiture and documentation, I chose to make both my wrist and neck ruffs in a relatively compact size. The wrist ruffs started as one length of selvedge-to-selvedge linen 60 inches wide, while the neck ruff was two strips joined so roughly 3 yards in length. Due to the height and stiffness of the collar in the inspiration image, I chose to double fold the neckband while keeping the wristbands doubled with a small seam allowance turned in.

The fabric used throughout was Gray Lines Linen's Handkerchief weight linen in white, which is a reasonable stand-in for the finer linens that were used in-period to construct ruffs. The thread is a similarly appropriate choice, a combination of linen and silk thread in hand sewing weights.

To starch the ruffs, I used wheat paste from *The Tudor Tailor's* ruff kit⁷ and followed their suggested ratio of 1 heaping tbsp starch to ~2 cups of water. Wheat paste is readily available as it is still used in bookbinding, and is accurate to what was used in-period to achieve

⁴ *Patterns of Fashion 4*

⁵ Gielegem, Noel. *How to Create A Stand-Alone 1570s-Style Linen Ruff*

⁶ Malcom-Davies, Jane. *The Typical Tudor: Reconstructing Everyday 16th Century Dress*

⁷ *Plain Ruff Kit*. The Tudor Tailor.

starched collars.⁸ The method I used to cook the starch and apply it was derived from the descriptions in *The Tudor Tailor*, in Gielegem's documentation, and in Samantha Bullat's excellent video on the topic, all of whom draw on detailed research on period methods of laundering and setting ruffs.⁹

As the weather was a bit damp on starching day, I will admit I took advantage of the dehydrator function in my oven to speed the drying process along. While not period given that the oven uses electricity and modern fans, it is reasonable to think that starched linens would be hung in a relatively warm and breezy location to dry and my oven simulated that affect.

My largest departure from a pure period practice was using an electric curling iron to iron my setts. This is in place of the historically accurate poking sticks, aka 'goffering irons' of the era - 5 of which were found in excavations at Jamestown and are dated 1607 - 1612¹⁰. While the convenience of an electric iron is unquestionably a modern luxury, the irons I used were small in diameter, with rounded and heated tips, and those used for the neck ruff had a taper - in other words, they were as close to an accurate goffering iron as I could manage without learning to cast iron and heating it on an open flame or brazier as I worked.

All of this is to say - these ruffs are as accurate as I can make them in our modern day and age using the tools available to me at this time.

⁸ Typical Tudor and Gielegem

⁹ Bullat, Samantha. *Myth Busting Elizabethan Ruff Collars: How They Actually Were Made and Worn*.

¹⁰ Goffering Iron found at James Fort in Virginia

Materials

For the Ruffs:

- ~1 yard white handkerchief-weight (3.7 oz) linen, 60" wide¹¹
- Mid-weight white linen thread¹²
- Mid-weight silk thread¹³
- Beeswax¹⁴
- Cotton cordage for wrist ties¹⁵
- 1 tbsp Wheat Starch¹⁶
- 2 cups water

Additional Tools:

- Sewing needles & thimble
- Sewing pins
- Modern oven w/ dehydrator setting (optional)
- Bottle w/ water & pitcher, covered in a towel and used as a stand
- Rubber gloves
- Spray bottle with water
- Curling wand with interchangeable heads
- Rubber dishwashing gloves to protect hands from hot starch & simplify cleanup

¹¹ Source: Gray Lines Linen, NY and online

¹² Source: Stash

¹³ Source: Stash

¹⁴ Source: Stash

¹⁵ Source: Burnley & Trowbridge, online

¹⁶ Sources: The Tudor Tailor, Talas, Hollanders, or Blick Art Materials

Construction Process

These are the steps I followed to create my ruffs, and are a combination of those found in *The Typical Tudor*, Gielegem's *How to Construct an Authentic Ruff...*, and Bullat's *Myth Busting Elizabethan Ruff Collars*.

Building the Ruff

1. Cut strips of linen, selvedge to selvedge, to form the ruff, adding seam allowance to the inner area. Use the drawn thread technique to ensure cuts are on-grain, this is an application where it matters.
2. Cut out neck and wrist collar pieces from remaining linen.
3. Fold collar pieces and press. Each should be folded in half on the long side and the seam allowances on the short and remaining long edges pressed in.
4. Join ruff strips together as appropriate, whipping the selvedges together if they are stable or cutting them off and using a felling stitch if they are not.
5. Fell the short sides of the ruff and one long edge using a very narrow felled hem. Historically this would be 1/8 inch or smaller, depending on the fineness of the linen. Rolled hems do not appear to have been used for this purpose¹⁷



Wrong side of ruffle strip with outer edges turned and felled in place



Right side of ruffle strip with outer edges turned and felled into place

¹⁷ Bullat, Samantha and The Tudor Tailor

6. Gather the ruffle to the band. My most successful technique for this was to pin the ruffle to the band in sections, dividing each section by half it as I worked. Once the sections were workably small, I stitched the end of the ruffle to one end of the band, then worked section by section with strong silk thread to gather the fabric with running stitches, drew the gathering thread tight to form pleats between each section, fastened them down with tiny whip stitches, one per pleat, and finally drawing the end of the thread through the lower part of the ruffled fabric (which will remain inside the band) for added stability. This technique ensured my pleats would be fairly even around the entire band, while also allowing me to set aside and return to the gathering and attaching without losing any of my hard work.

7. Once the ruffle was fully gathered to the band, I folded the second side up and stitch it to the first, closing the short sides as well as the long side. The short sides can be whipped or felled, while the long side should be stitched with individual stitches per pleat just as on the first side.

8. I finished by adding simple whip-stitched eyelets to the wrist ruffs. No eyelets were added to the neck ruff as they do not appear in the inspiration image.



Whipstitching the second side of pleats to the neckband



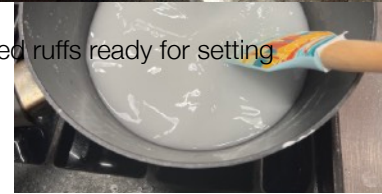
Completed ruffs prepared for starching

Starching the Ruff

1. In a stove-safe pot, mix one tablespoon of wheat starch with a splash of water - enough to form a paste. Stir to dissolve the wheat starch into the water, then put the mixture on medium to medium-high heat.
2. Stirring constantly, add 2 cups of water to your wheat starch slurry. Heat until boiling, continuing to stir. You are aiming for what the Tudor Tailor calls the consistency of wallpaper paste or pouring custard.¹⁸ Note that Gielegem suggests a higher concentration of starch in the recipe, 2 tablespoons of raw starch to 1 cup of water. I had success with the 1 tbsp/2 cup combination.
3. Once the starch is boiling and appropriately thick, take it off of the heat and allow it to cool slightly until safe to handle.
4. Dampen your ruff (this allows the starch to fully penetrate the fibers), then blot it dry before



Starched ruffs ready for setting



Midway through preparing the wheat paste mixture



Wrist and neck ruffs hanging to dry in the oven

coating the ruffle in the starch paste, working it into all of your fingers. Gently squeeze the

¹⁸ Tudor Tailor, Ruff Kit booklet

excess starch from the ruff, but leave a relatively thick coating. I found this a much more enjoyable process wearing dishwashing gloves. See video for detail of this process.

5. Let the ruff dry completely. This can be done outside on a sunny and warm day. In less salubrious weather, a warm (not hot) oven can do the job. If your oven has a dehydrator function, this is a great way to put it to use - safety pins work well to hang the ruff from the rack inside your oven. As it is drying, take a moment to separate the folds of your ruff, opening the pleats so they do not stick together. Setts glued together with starch can tear the fabric when you try to pry them apart, according to Gielegem.

Setting the Ruff

1. Wrap a hand towel around a sturdy item with a diameter a shade larger than your ruff collar. This does not need to be precise, but it does want to be roughly the same size as the ruff will take on the curve of whatever item it is wrapped around. If you happen to have a ruff stand, this is its intended purpose.
2. Pin the ruff to the stand with the wrong side of the pleats up, the ruff hanging downwards from the band - upside down, if you consider how a neck ruff is worn.
3. With an appropriately sized iron or poking stick, begin to form setts in the ruffle. Starting at one end, curl the top of the ruffle in one direction, then in a sort of figure-8 movement curl the underside. Alternate this top-and-bottom pattern to form the distinctive ruffles in the ruff. Lightly spray the ruff as you go to re-activate the starch. Take care not to burn your fingers with the hot iron - the heat protectant glove that comes with curling wands is essential for this step.



First attempt at setting a wrist ruff, mid-process.

4. After your first shaping pass, go back through each of the bottom setts to get it an additional bit of care.
5. Remove the pins and flip the ruff, then re-pin it to the stand. It should now be right-side up, as it will be worn.
6. Take another pass through the setts, this time focusing on cleaning up the iron of the top setts. These are the ones that really show, so take your time to do these right. Continue to *very lightly* spray the ruff as needed.
7. Once you are satisfied with your setts, the ruff is ready to be worn. Depending on the style of ruff, it can be worn on its own or whipstitched to a smock, partlet, or other garment and layered for the quintessential Renaissance look.



Test of my first-ever completed and set wrist ruff, holding the ties because it's hard to secure them on yourself with only two hands



Starched & set neck ruff, ready to be sewn into a partlet or other garment.

Conclusion & Next Steps

These three ruffs are my first attempts at constructing this quintessential Elizabethan accessory. While I've seen ruffs all over period portraits and illustrations, I've never attempted to construct one myself. The few times I tried to make ruffled collars or wrist cuffs never turned out well, and if I'm being honest, I was intimidated by the starching and setting process. I was also concerned about all of the gathering required to get the cuff on the band, and in the past have avoided projects that required that level of tight and regular gathers.

All of that nervousness? It's gone out the window.

Although the sewing portion of making a ruff was a bit tedious, it was certainly manageable especially by separating the work into sections. Starching and setting is fun and kind of magical, and I expect would be more enjoyable and simpler with a deeper ruff with larger setts. Even drying the starched ruff turned out to be simpler than I expected - I thought I'd need to leave it in my oven for hours but with the dehydrate setting it was dry and ready in the time it took me to eat my dinner.

Lessons Learned & Thoughts for Next Time

Due to the portrait's upraised collar, I chose to starch my neckband. Time will tell if that was a wise choice - I expect at some point I will wash and re-set the ruff and will see if it can give a reasonable stiffness without being fully stiff as it is now.

I started with the wrist ruffs and did not start drawing a guide line for my gathering threads until midway through sewing the neck ruff. This was a mistake, and next time I'll add a light guide line in pencil while the fabric is laid out for cutting. The gathering thread ends up inside the collar so it is not likely the marks will show through on the final piece.

Given the smaller size of these ruffs and my lack of experience in deciding the size of my setts, I opted not to sew a guide thread onto my ruffs before setting. As Gielegem noted, these were present on at least one of the ruffs noted in *Patterns of Fashion 4*, so in some cases may have been left in place while others were removed or may have been set without them. Other ruffs had their intersection points held together with melted beeswax.¹⁹ In any case, I'd be curious

¹⁹ Patterns of Fashion 4

to see if I could get neater setts using a guide thread. I may experiment with it the next time I wash and re-set these ruffs.

Future plans

I've not generally been a big ruff person, but this project may have brought me into the ruff fold. It's certainly demystified the process, and I expect there may be some ruffs in my future - specifically I may draw on ruffs or ruffles when building my oft-mentioned Captain Marvel x Alessandro Allori crossover ensemble (which keeps being postponed because other projects like building a set of five items for Pentathlon come up... the life of a SCAdian).

This was also an exercise in gathering masses of fabric to a band. Up until now I've only built English/Tudor style smocks, because the simple square neckline did not require gathering large amounts of fabric to a band. I think I can safely say the prospect of an Italian camisa no longer makes me hesitate and I have some linen voile that is destined to be made into something beautiful and gathered.

I'm also highly intrigued by wheat paste as a stiffener. The collar of my neck piece - four layers of handkerchief weight linen pad stitched together - is quite stiff especially given that it started life as handkerchief weight linen. How might a heavier weight linen, or even several layers of it pad stitched together, function? Could it be used as an interlining in the same way we hypothesize buckram was used to stiffen Italian garments? What is the dividing line between wheat paste stiffened fabric and buckram? Clearly these products existed and were being used in the clothing industry already - what are the chances that these were used in garment construction as well as ruff setting?

If nothing else, cooking wheat starch for this project has made me far more confident about experimenting with similar techniques to produce my own buckram with hide glues for garments, or using similar glues and cooked wheat starch in my bookbinding.

So... while there aren't additional ruffs in my immediate future, I wouldn't rule them out in the longer term. And I'll certainly be bringing the techniques I've learned in this project to bear in upcoming experiments and explorations. Onward!

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