

# Dirty Laundry: Caring for Clothing in Early Modern Italy

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By MICHELE NICOLE ROBINSON 

*Personal linens were key components of early modern health regimens. When they were visibly clean and bright white, linen shirtsleeves, collars and cuffs communicated the cleanliness of the wearer's body, as well as the state of their mind, morals and spirit. These functional garments and accessories could also be fashionable, especially when decorated with ruffles, lace and embroidery. Linens thus communicated hygienic, social, moral and financial information, which was generated by and reliant upon processes of laundry. This article explores some of these processes, especially as they pertain to linen shirts, cuffs and ruffs owned by non-elite people living in northern Italian cities. It brings archival, visual and material sources together with evidence generated through the re-creation of early modern processes of caring for clothing to show how 'doing the laundry' imparted linens with social and financial meanings and values.*

**Keywords:** early modern Italy, linen, laundry, shirts, collars, fashion, reconstruction

## INTRODUCTION

When Oratio Franceschini, a Florentine innkeeper, died in 1617 he left behind his wife, children and a considerable amount of dirty laundry. The inventory drawn up after his death details the contents of the inn where he lived and

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worked near the city's Prato gate and itemizes 'dirty linens' and 'other dirty linens'. These lists include a total of twenty-four shirts for men and women, six tablecloths, two handkerchiefs, eight aprons, three sheets, five kitchen cloths, two towels, five linings, a bedcurtain and even 'nine rags of different sorts' all waiting to be laundered.<sup>1</sup> These would perhaps be attended to once the load of four sheets, 'three shirts belonging to Oratio', one kitchen towel and two tablecloths described as 'in the wash' was complete.<sup>2</sup>

Laundry was crucial in an establishment that provided food and lodging to guests, where bed- and table-linens would be quickly dirtied. Tommaso Garzoni (1549–1589) describes decrepit inns with wine-stained tablecloths and bedbug-infested sheets 'stinking worse than rotten urine', in his *Piazza universale* (1585); this was not the situation at the Franceschini inn.<sup>3</sup> Washing sheets, napkins and towels was a means of upholding the reputation of the inn and its proprietors, and maintaining cleanliness and good health. Scholars such as Georges Vigarello, Sandra Cavallo and Tessa Storey have noted the use of linens for the table and bed but also for the body as part of regimens of good health in the early modern period.<sup>4</sup> Over the sixteenth and seventeenth centuries many cities on the Italian peninsula and elsewhere in Europe saw a decline in the frequency of bathing, and in particular the full immersion of the body in water and wetting of the head and hair. It was believed that shifts between hot and cold temperatures put bathers at risk of illness and even death.<sup>5</sup> Instead of bathing, jugs and basins were used for washing parts of the body, combs removed debris from the scalp and towels rubbed grime away from the skin.<sup>6</sup> Some garments also supported good health and hygiene: shirts, smocks, coifs and hose typically made from linen of flax or hemp were worn next to the skin and hair to draw oil, sweat, dirt and other substances considered unhealthy and dangerous away from the body. These were eventually changed and washed to rid them of vermin and filth.<sup>7</sup>

As personal linens took on an increasingly functional role in the maintenance of health and hygiene, they also became symbolic of cleanliness. In particular, the whiteness of collars, cuffs, shirtsleeves and handkerchiefs took on greater cultural significance over the sixteenth century, announcing the cleanliness of the wearer in terms of personal hygiene and their moral and spiritual state.<sup>8</sup> In *Trattato dei colori nelle arme, nelle livree et nelle divise* (1565) Sicillo Araldo emphasized the necessity of a clean white shirt.<sup>9</sup> He explained that a man 'must have a shirt, beautiful and white, which covers the whole body to demonstrate that he is chaste, pure and of clean conscience, since [the colour] white is clean and pure and without stain'.<sup>10</sup> Similarly, 'the shirt of a woman then must be the purest white and fine, that signifies her honour, which must be white without any stain of vice'.<sup>11</sup>

The very white shirts prescribed by Araldo became increasingly visible components of dress over the late fifteenth and sixteenth centuries.<sup>12</sup> Into the seventeenth century, the shots of white at necklines and peeking through slashes in sleeves grew into expansive collars and cuffs that could be detached and coupled with partlets and shawls. As linen shirts spilled beyond the confines of outer garments they provided new surfaces to be ornamented with embroidery,

lace and ruffles. This decoration helped to further signal cleanliness, along with civility, wealth and status; elaborate trims and ornament were not only costly, but also restricted movement and impeded participation in manual labour.<sup>13</sup> Fashionable white shirts, ruffled collars and lace-trimmed cuffs, and the cleanliness and expenditure they signalled, have therefore long been considered the preserve of the elite. As Raffaella Sarti explains, ‘cleanliness was for a long time a primarily social question, a matter of good upbringing and decency. For this reason it was barred to the lower classes.’<sup>14</sup> She continues: ‘There were those who could afford clean and perfumed underwear and there were those who were condemned to filth and stench.’<sup>15</sup> There were certainly great economic gaps between the rich and the poor in this period; however, there is ample evidence to show that those from the lower social orders were interested in and capable of keeping their bodies and households clean. In fact, innkeepers such as Oratio Franceschini as well as butchers, bakers and sausage-makers owned a startling number and variety of linen garments and accessories as well as tubs, jugs and ladles for laundry. Although many of their shirts, aprons, collars and cuffs would have been worn and dirtied through work, some were decorated with lace, ruffles and embroidery, making them more appropriate for formal and festive occasions. These were expensive items, but not one-time investments; it cost money to have linens bleached, collars starched and ruffles set because these tasks required time, skill and knowledge. The laundering of linens was therefore integral to their economic and social value, and transformed them from functional to fashionable garments and accessories.

Visual and literary representations of linen shirts, ruffs and cuffs as white, crisp and spotless obscure the dirty work that made them so.<sup>16</sup> Additionally, because women were tasked with caring for clothing, the processes involved can be difficult to recover; most were not taught to read or write, so laundresses did not keep account books, nor were they members of guilds, and there are no manuals detailing processes or techniques they used.<sup>17</sup> This was embodied knowledge shared verbally and through experience. Consequently, we must look to a wide range of sources to better understand how clothing was cleaned and cared for in the early modern period, especially at lower social levels. Household inventories offer a view of the wardrobes of non-elite people, with linens sometimes ‘in the wash’, and the tools that were present within domestic spaces for doing laundry. Extant garments offer evidence of practices around the laundering of clothing, as do contemporary images, manuscripts and printed texts. These sources also support the physical re-creation of contemporary processes that were part of caring for clothing. As scholars engaged in reconstruction, re-creation and other modes of knowing through making have shown, this emerging method of research is especially valuable in recovering — however incompletely — the knowledge and skills of artisans and craftspeople not recorded in texts, images and extant objects.<sup>18</sup> Quite literally doing the laundry through re-creation and experimentation alongside the consideration of archival and literary sources shows why and how the processes of caring for clothing imbued linens with meaning and value.

The first section of this article considers the washing of linen shirts, aprons, handkerchiefs, caps and underwear to make them clean and, ideally, bright white; this, in turn, marked out the wearer as clean, respectable and even fashionable. This section shows that when linens featured minimal or no ornamentation they could be treated with harsh chemicals and rough handling during washing. This is in contrast to finer items with ruffles, lace and silk embroidery, which are considered in the second section. Ornate and delicate garments and accessories needed to be cared for with greater attention and skill, not only to get them clean and pristine white, but because they needed to be shaped into ruffles of different styles, set in particular ways or washed without coloured embroidery bleeding into bleached linen. The final section explores stains that needed to be specially treated to preserve the look and physical integrity of linen clothing. Together, these sections reveal the dizzying array of linen garments and accessories that regular people owned: both plain, functional items for work and elaborate, costly pieces as well. These items required the knowledge, skill and labour of laundresses, whether housewives or paid professionals, for cleaning and so they sat correctly on the body and appeared as intended; these women and their work were key to helping the elite and non-elite alike present themselves as clean, morally upright and fashionable.

## DIRTY LAUNDRY

Although bright white linen shirts and accessories are generally associated with the elite, the washing and care of these items is not. As with the making of linen garments, laundry was seen to be women's work.<sup>19</sup> Because it required the handling of soiled items it was considered low status and inappropriate for those of high social rank.<sup>20</sup> Therefore, it was often necessary or desirable to hire a laundress to carry out this task, which might be overseen by wives or other female members of the household. Elenora of Toledo (1519–1562), the wife of Cosimo I de' Medici (1519–1574), for instance, employed at least one woman to care for her clothing, one Mona Catarina, who is recorded in the Florentine census of 1561 as '*lavandaia* to the duchess'.<sup>21</sup> Additionally, male students, travellers, bachelors, widowers and others without a wife, daughter, sister or other woman available to do this work would have had to hire someone to wash their shirts, sheets and hose. The English traveller, Fynes Moryson (1566–1630), for example, noted in his *Itinerary* (1617) that he paid a laundress, 'for making a shirt a lire, that is, twenty sols; for washing it two sols; and for washing foure handkerchers one sol', when he visited Padua in the late sixteenth century.<sup>22</sup>

Evidence also shows that some lower-status households used professional laundresses. The 1632 census records eighteen laundresses serving customers in Florence; perhaps one was the *lavandaia* for Domenico Bonini, an innkeeper.<sup>23</sup> The inventory drawn up after his death states that the household's unnamed laundress had pawned a string of gold beads through her employer.<sup>24</sup> Additionally, when the Sienese silk-weaver Matteo Giordi died in 1640, his

widow Caterina was interrogated by officials from the Curia del Placito about some linens that seemed to be missing from the household. She first explained that an unknown number of linens were 'with the laundress for bleaching' and only in a second interview gave a detailed list of thirty-one linens for the table and bed, plus seven shirts for men, women and children that had been sent from the household.<sup>25</sup>

In this period good personal hygiene involved both having a number of linens to change into and the ability to wash these as needed. The lists of dirty laundry found within the Franceschini inn include twenty-seven shirts for men and women, two handkerchiefs and eight aprons. The inventory also reveals that there were another eighteen shirts, presumably clean, for men, women and children in the household. Oratio had a wife, Silvia, as well as at least one child, though it is unknown how many people lived at the inn at the time of his death and forty-five shirts seems like a lot for a small family of fairly humble means.<sup>26</sup> However, inventories of other non-elite wardrobes suggest such a high number was not uncommon. Francesco Lasembrant, a Venetian baker, was in possession of thirty-six different linen shirts for men and thirty-two for women when he died in 1630.<sup>27</sup> In 1586 the Sienese candle-maker Sebastiano de Pepi had in his home thirty shirts for men and women, 'large and small, good and used'.<sup>28</sup> It is unclear how many members these households had, but when Caterina Orlandi married a Bolognese saddle-maker in 1596, she had a dozen shirts that were all for her use. At a total value of 17 *lire*, they made up a considerable portion of her trousseau, worth 200 *lire* or nineteen months' wages for a Bolognese artisan.<sup>29</sup>

Shirts supported good hygiene and appear in great numbers in early modern inventories, but people also owned other items related to keeping their bodies and outer garments clean. For instance, there were eight aprons waiting to be washed at the Franceschini inn, six of which were described as for use in the kitchen (*grembiuli da cucina*). A Venetian sausage-maker, Antonio de Ganassis, had eleven caps of white canvas in 1555, and Celso Perini, a Sienese shop-keeper had 'nine pairs of linen underwear (*mutande*) of different sorts' in his household when he died in 1608.<sup>30</sup> Linen items like these helped keep the body and exterior garments clean by absorbing sweat, oil, blood and other bodily fluids, pulling them away from the skin and creating a barrier between grease, ink, dust and costly fabrics such as wool and silk. Everyday linens were dirtied easily and quickly, and so needed to be changed and washed regularly, though how often this happened cannot be determined with certainty.<sup>31</sup>

Household inventories often describe linens in ways that suggest they were plain and without notable decoration; for example, shirts are frequently noted as 'nasty', 'sad', 'broken' and 'ragged'. If ruffles, lace and embroidery were absent there was less risk of damage to the garment when it was worn and when it was washed. Additionally, plain clothes could be washed alongside household linens, such as those for the bed and table, as in the case of the Franceschini inn, where three shirts belonging to Oratio were in the wash with sheets, tablecloths and kitchen towels.<sup>32</sup> The absence of fragile and coloured ornament also meant

these linens could be washed with a serious cleansing solution essential to early modern laundry: lye.

A caustic, alkaline agent, lye was produced by soaking ashes of hardwood or marine plants in water and then drawing off or filtering out the remaining solution to be used for cleaning and laundry.<sup>33</sup> A basic way of making lye is briefly described in *La Filippa da Calcara*, a bawdy song about laundry by Giulio Cesare Croce (1550–1609) and first printed in 1628. The laundress-narrator Filippa describes how she uses ‘two bushels of ashes’ and seven pans full of water, which, when poured onto the linens, apparently made them instantly clean.<sup>34</sup> More detailed instructions for this process can be found in texts from outside of Italy. For instance, Drea Leed has discussed recipes for cleaning textiles found in the Nuremberg *Kunstbuch*, a manuscript dated to at least the mid-fifteenth century and kept by the nuns in the convent of Saint Catherine’s in Nuremberg until it closed in 1596. The text includes a recipe for lye specifically for washing linens:

If you want to wash an undergown, take three measures of ashes and put them in a great open vessel and pour first hot boiling water thereon and then cold water so that the vessel is full and let it become strong, and sieve it then through a cloth and dunk the gown therein and wash it when cool, otherwise it will be yellow, and rub it well with soap on the collar and the sleeves, and where it is sweaty. If you think that the lye solution is too strong, mix it well with water or pour more water on the ashes and mix it with the first.<sup>35</sup>

Although this is a German recipe, the type of cloth it describes for separating ashes from water can also be found in household inventories from Italian cities, usually called *ceneraccioli* or *cenerandoli*. Oratio Franceschini, the innkeeper, had in his home ‘two and a half *braccia* [1.5 metres] of coarse linen for making a *ceneracciolo*’.<sup>36</sup> Similarly, the Bolognese architect, painter and engraver, Domenico Tibaldi (1541–1583) had a *cenerandolo* in a large painted chest in his home when he died in 1583.<sup>37</sup> Inventories also note the presence of other kinds of equipment related to the production and use of lye. The Bolognese shoemaker Domenico Fieravanti owned two large jugs, one for lye and one for laundry in 1573.<sup>38</sup> The Venetian barrel-maker, Zuan Giacomo, had two strainers for lye, though not made of cloth, when he died in 1562.<sup>39</sup> The frequency with which these kinds of items appear in early modern homes suggests that the preparation of lye was a common domestic task.

As the Bolognese song and the German recipe suggest, it was in lye that linens would be ‘dunked’ and scrubbed, with soap employed for stubborn stains and points in frequent contact with the body such as underarms, collars and cuffs. Alongside lye and soap, women used wooden boards to scrub the filth out of linens.<sup>40</sup> An etching by Giuseppe Maria Mitelli (1634–1718), *Game of Women and Their Chores* (c. 1650) (Figure 1), for instance, shows a housewife washing linens on a board laid across a large tub. Similarly, the title page for the 1628 edition of Croce’s *La Filippa da Calcara* shows two women scrubbing and perhaps wringing out textiles on a board set across a wide cauldron.



**Figure 1.** Detail from Giuseppe Maria Mitelli, *Gioco delle donne e sue facende* (*Game of Women and Their Chores*), c. 1654–1718. Etching, 26.7 × 44 cm. New York, Metropolitan Museum of Art, 52.546.16.

*Courtesy of the Metropolitan Museum of Art, New York, Public Domain CC0 0.1*

Scrubbing and wringing could also be done on large, flat rocks found on riverbanks, but more importantly these sites offered access to running water, necessary for rinsing the grime, soap and lye from laundry. The need for clean running water also sent women to local wells, fountains and, in some cities, public laundry facilities, occasionally causing tension with residents due to the polluting nature of their work and the noise of their chatter.<sup>41</sup> As an absorbent fibre, linen soaks up cleaning agents as well as sweat and oil; therefore, especially thick or coarser qualities of linen require a considerable amount of water to be rinsed clean. This is often represented in contemporary images of women doing laundry at riversides and would have been an essential part of this work; when linen is not completely rinsed of lye, it becomes stiff and wrinkled. An experiment to re-create contemporary laundry materials and processes was done at Aalto University, Espoo, Finland, in 2019, where bleached linen was soaked overnight in solution of hot potash (potassium carbonate) lye. After being rinsed, wrung out and left to dry, the linen felt rough and itchy against the skin and it became clear further rinsing was necessary.<sup>42</sup> There was a skill to knowing and feeling when linen was properly rinsed, and failure to perform this correctly resulted in itchy, wrinkled garments.

Along with rinsing, spreading linens out to dry would help to reduce wrinkling and speed up the drying process.<sup>43</sup> Whether on grass or, more likely for urban laundresses, hanging on a line, drying in the sun helped keep clothing, sheets and tablecloths made from bleached linen white.<sup>44</sup> Alessandro Allori's fresco at Palazzo Pitti (1587–1590) (Figure 2) shows young women performing different household tasks on an outdoor balcony surrounded by linen accessories, some edged with lace and drying on the line. Additionally, Mitelli's Bolognese game shows two women hanging shirts, towels and other items on a line to dry (Figure 1). Drying was necessary for brightening linens and making them wearable, but also so that they could be stored in chests without becoming mouldy and contaminating other items. And pressing and folding, though not often depicted or described in contemporary sources, would have been critical to avoiding undesirable creases and helping some garments to keep their shape, as is discussed in the next section.<sup>45</sup> Although it cannot be considered here, the proper storage of linens in chests and cases was part of their care, as attended

to by women as part of the larger household duties assigned to them by male writers and moralists of the period.<sup>46</sup> The final square in Figure 1 shows Mitelli's housewife placing folded laundry into a chest for storage.

Washing linens rid them of sweat, grease and other body fluids as well as external contaminants, and kept the body clean and healthy. Additionally, proper and thorough laundering made linens look and feel good. Laundresses with experience and skill knew when lye was too strong or water was too hot, which helped avoid discoloration; they could feel when linens had been completely rinsed and would dry smoothly for comfortable wearing and fewer creases. A good laundress improved her clients' health and enabled them to appear morally and fashionably 'clean and pure'.

## FROM THE BAND TO THE RUFFLE

From around the 1560s, collars and cuffs became detachable, separate items from shirts that could be washed with greater ease and frequency.<sup>47</sup> They also became increasingly decorative, featuring ruffles, lace and other trims, which required more careful attention and treatment during laundering. The woman in the bottom left corner of Allori's fresco, for instance, gently shapes the ruffles of a collar or cuff using her fingers (Figure 2).<sup>48</sup> And the laundress Filippa explains how she is 'very rare' in that she spreads the lace of the seventy collars that she washes '[f]rom the band to the ruffle'.<sup>49</sup> If left to dry bunched up, pleats would be harder to make and delicate trims would be damaged and difficult to set in desired shapes or forms. More complex items such as linen ruffs had to be washed, starched, carefully dried, dampened again, ironed and set with heated rods to help them take and keep their shape.<sup>50</sup> A moralizing engraving by the Flemish draughtsman Pieter van der Borcht (c. 1530–1608) dated to c. 1562 shows some of the details of this specialized task as performed by and for apes. Well-to-do clients deliver their collars, which the laundresses wash in tubs, hang to dry, dampen and to which they apply starch, dry again before the fire and, finally, shape with special tools.<sup>51</sup> There is little information available on how, where and by whom this kind of work was carried out in central and northern Italian cities; although many household inventories include equipment for doing laundry, few if any note the presence of tools for shaping ruffled collars, even when residents owned these accessories. This, along with the special skills and time needed for this work, suggests ruffled collars and cuffs were given to professionals for cleaning and styling.<sup>52</sup>

Decorated shirts, ruffled collars and lace-trimmed cuffs are often assumed to have been limited to the wealthy as indicators of their status; however, men and women from the lower social orders also owned and wore ornate collars, cuffs and ruffs.<sup>53</sup> For instance, the Franceschini inventory describes a little box containing a cap trimmed with gold, a pair of cuffs with lily-shaped gold lace (*giglietti d'oro*), two pairs of simple cuffs (*manichini semplici*), a woman's collar and three ruffled collars of *bisso*, a fine linen. Additionally, the document





**Figure 2.** Alessandro Allori, *Women at work around a balcony*, 1587–90. Fresco. Florence: Palazzo Pitti.  
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lists numerous women's collars, some with gold embroidery and others with ruffles.<sup>54</sup> In 1595 Pellegrino Peruzzi, a Sieneese candle-maker, had three men's collars, one collar with ruffles and eight different women's collars that were embroidered or featured various trims.<sup>55</sup> In 1638 a butcher named Nicolò had his collar confiscated because it featured lace wider than was allowed by Florentine sumptuary laws.<sup>56</sup> Finally, in 1646 Giovanni Suster, a Venetian innkeeper, had a number of decorated, detachable collars and cuffs, including one high collar with Flemish lace and four more collars that featured Flemish lace with matching cuffs, 'all fashionable' (*il tutto alla moda*).<sup>57</sup>

Alongside collars with various types of lace, ruffles and embroidery, artisans, innkeepers and their families owned other kinds of decorative linen accessories. In Florence, for instance, *gorgiere* (ruffs) appear occasionally in inventories of non-elite homes dated to the third quarter of the sixteenth century.<sup>58</sup> Domenico di Dardiano, a carpenter, owned seven white embroidered *gorgiere* in 1557.<sup>59</sup> A grocer named Battista di Domenico Zanobi and an innkeeper, coincidentally also called Zanobi, each owned one ruff of *bambagino*, a lightweight cloth usually made of cotton, in 1572.<sup>60</sup> Soon after this date, *gorgiere* disappear from inventories of non-elite Florentine wardrobes. From around 1620, though, another type of accessory appears in inventories from Florence and more commonly Siena: the *grandiglia*, a large collar of Spanish origin, which could feature different kinds of ruffles or embroidery.<sup>61</sup> Cesare Carli, a Sieneese butcher, had two *grandiglie* for girls when he died in 1638.<sup>62</sup> Tommaso di Salvatore Mariti, a Florentine fishmonger, was likewise in possession of two *grandiglie*; both for women, one was 'a *lattughe*' and the other 'a *maccheroni*'.<sup>63</sup> The former term likens the ruffles to the leaves of lettuce (*lattuga*), and was used frequently to describe collars and cuffs.<sup>64</sup> The butcher's collar 'a *maccheroni*', though, is singular in the documents considered here. It perhaps indicates a look similar to the edges of pasta cut with a tool such as the *sperone da pasta* pictured in Bartolomeo Scappi's *Opera* of 1570, or the loose ruffles on the collar worn by the boy carrying a bird in Vincenzo Campi's *The Poultry Seller*, c. 1578–1581 (Figure 3).<sup>65</sup> Nevertheless, these examples demonstrate that people of the lower social orders owned a vast array of collars, cuffs and ruffs, which could take diverse and fashionable forms. They are unlikely to have been for everyday wear, but rather for special occasions and to communicate social and economic status within community or professional groups.<sup>66</sup>

In order to hold lettuce or pasta-shaped ruffles, ruffs, collars and cuffs had to be washed, starched, styled, set and pinned by someone with special knowledge, tools and skills, which added to the accessories' economic and social value. This treatment probably required sending the items outside of the household, risking their loss. To ensure linens were returned to the correct household some were embroidered with initials or an identifying mark. A linen collar trimmed with Italian needle lace c. 1625, in the Rijksmuseum, Amsterdam, Netherlands (Figure 4), has a gothic letter H and the number two embroidered in brown thread on the centre of the band; the 'H' is just visible in Figure 5, the 'two' is hidden in the fold. This part of the collar would have been concealed as it faces the wearer's



**Figure 3.** Vincenzo Campi, *The Poultry Seller*, c. 1578–1581. Oil on canvas, 147 × 215 cm. Milan, Pinacoteca di Brera, 297.  
*Courtesy of the Pinacoteca di Brera, Milan*

neck, but helped to ensure that the object found its way back to its owner after laundering.<sup>67</sup> The embroidery on collars, shirts and other items listed in early modern inventories is rarely described in detail and was likely decorative rather than intended for identification; however, Lorenzo, an apprentice in a Venetian dyer's workshop, had left in his employer's care 'various kerchiefs and collars with letters' in 1614.<sup>68</sup> The letters may have been decorative but could also have been intended to ensure that Lorenzo got his possessions back from his employer or the laundress.

If stitched letters aided owners in having their kerchiefs and collars returned, embroidered decoration could hinder or make more difficult the washing process. Although the majority of linen undergarments that working people owned are described in inventories in a way that suggests they were unornamented, they also owned linen aprons, shirts and collars embroidered in silk and metal threads. As discussed above, Oratio Franceschini's inventory includes a number of embroidered collars, some with gold thread. Additionally, Baldissera, a German baker working in Venice, was in possession of a child's linen shirt embroidered with red silk in 1601.<sup>69</sup> Also, a candle-maker from Siena, Bartolomeo Macchia, had in his household a woman's linen collar embroidered with black silk in 1603, the decoration of which perhaps looked similar to the white linen shawl with black embroidery worn by the woman selling poultry in Campi's painting (Figure 3).<sup>70</sup>

These items, as well as those represented in portraits and present in museum collections, combine bleached linen and coloured silk, and could not have been



**Figure 4.** Collar of linen and needle lace, possibly Italian or northern Netherlandish, c. 1625–1640. Linen, 66 × 6 × 10 cm. Amsterdam, Rijksmuseum, BK-1978-462.  
*Courtesy of the Rijksmuseum, Amsterdam*



**Figure 5.** Detail of collar of linen and needle lace, possibly Italian or northern Netherlandish, c. 1625–1640. Linen, 66 × 6 × 10 cm. Amsterdam, Rijksmuseum, BK-1978-462.  
*Courtesy of the Rijksmuseum, Amsterdam*

washed with the same techniques as un-embroidered linen shirts; early modern dyes were not colour-fast and would run into lighter-coloured fabrics if not cleaned carefully and with attention. This is not apparent in contemporary images or texts, but was established through experimentation using bleached linen embroidered with silk thread dyed with colorants used in the sixteenth



**Figure 6.** On the top: linen embroidered with silk dyed black with oak galls and iron (II) sulphate, showing how the colour has run and turned brown after treatment with lye. Bottom: unwashed linen embroidered with silk dyed black with oak galls and iron (II) sulphate.

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and seventeenth centuries. The samples were treated with the same lye solution described above, which caused all of the colours to run into the linen. Black silk thread dyed with oak galls and iron (II) sulphate turned brown when it came into contact with lye and completely discoloured the linen (Figure 6).<sup>71</sup> The silk thread dyed red with madder and brazilwood likewise bled into the white linen and changed to a fuchsia colour when washed in the lye solution (Figure 7). The silk dyed with cochineal dimmed in colour, too, though to a lesser extent.<sup>72</sup>

These experiments do not and cannot exactly replicate the materials and processes used in the past, but indicate the potential risks involved in washing embroidered linens in lye and even in hot water; this was a task to be done with care in order to preserve the colours of both the linen and the silk. Washing linens embroidered with coloured silk using the same methods with which simple linens were laundered would cause colours to change and run, ruining the look of the garment in places it was intended to be seen. It could even cause discoloration of other items in the same basin of water or lye. Just as embroidered linens needed to be washed with care, so did those with ruffles or lace. It took a skilled and



**Figure 7.** On the top: linen embroidered with silk dyed red with madder and brazilwood, showing how the colour has run and turned pink after treatment with lye. Bottom: unwashed linen embroidered with silk dyed red with madder and brazilwood.

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knowledgeable laundress to transform layers of linen into rippled pasta ruffs and soft lettuce-leaf cuffs; moreover, she was essential to keeping embroidered linen shirts and trimmed accessories clean and fashionable.

#### TO LIFT A STAIN OF INK OR WINE

Washing embroidered linen with lye could damage silk fibres and cause colours to run; treating stained linens with lye could also cause harm. For example, ink made from oak gall and copperas was commonly used in the early modern period and was a source of stubborn stains. But when ink spots on linen are washed with lye, a chemical reaction occurs that burns holes in the fabric.<sup>73</sup> Moreover, lye is ineffective on wine stains on bleached linen, turning them from red to green.<sup>74</sup> For persistent or sensitive stains laundresses could turn to other methods of spot cleaning, which were also appropriate for linens that featured coloured embroidery, lace and other decorative elements.

The German recipe discussed above recommends the use of soap on collars, underarms and anywhere the garment was ‘sweaty’. Filippa, the fictional

laundress, also explains that she goes about ‘whitening clothes / using soap and clear water’.<sup>75</sup> Additionally, contemporary printed recipe books advise the use of soap on spots, and sometimes offer instructions for attending to particular types of textiles and stains.<sup>76</sup> The best-selling *Secreti del reverendo donno Alessio Piemontese* (Venice, 1555), attributed to Girolamo Ruscelli (c. 1504–1566), provides a lengthy and detailed recipe for preparing black soap to be used on linens.<sup>77</sup> Although it calls for simple ingredients that some households would already have on hand, such as ashes and olive oil or tallow, the process was lengthy and difficult to perfect.<sup>78</sup> Indeed, soap-making was a respected trade and varieties of soap could be purchased from the apothecary, as well as dedicated soap-sellers.<sup>79</sup> Peddlers also sold soap alongside ribbons, printed recipes and other novelties, suggesting this laundry aid was fairly accessible.<sup>80</sup>

There were other means of removing stains in addition to or instead of soap. For example, instructions for removing ink and wine from white wool and linen appear in several different recipe books, involving simple techniques and common ingredients. From *Opera nova chiamata Secreti secretorum*, first circulated before 1550:

[Take] some raw lemons or citrus fruit or rather the tartness inside of citrus fruits and press them and make juice and from that juice rub well where the stain is and then let it dry. And have some water that is not too hot and wash away the spot and let it dry. And if it seems to you the spot has not really gone away, do it similarly another time, it will remain clean and cleansed and no colours will stray if it was a coloured cloth.<sup>81</sup>

This recipe is simple despite its wordiness: rub lemon juice on the stain and let it dry, rinse with water, dry and repeat if necessary. When applied to oak-gall ink and organic red wine stains in a test, lemon juice helped to reduce the discoloration of white linen. Although the recipe suggests ‘no colours will stray’, the acidity is too strong for textiles dyed with materials like cochineal and results in discoloration.<sup>82</sup> Removing stains from coloured wool and silk required alternative methods and most early modern recipes demonstrate that there was a clear understanding that some processes were safe for some stains, fibres and colours and not others.<sup>83</sup>

Women and girls from the lower social orders who cleaned clothing and textiles as part of their household duties or as paid professionals are unlikely to have been users of recipe books; however, authors sometimes explain that they had obtained recipes from diverse sources, including monks, artisans and peasant women.<sup>84</sup> Many of the recipes captured in print had probably long been known, used and shared orally, and offer insight into some of the ingredients and processes used to care for clothing in the early modern period. They also demonstrate a concern for keeping personal linens not only clean, but ‘without stains’, which was possible and desirable even for those at lower social levels. An investment of time or money for the removal of stains helped to maintain the appearance and integrity of linen shirts, collars, aprons and other items. The garment thus enabled the wearer to be seen as ‘spotless’ in both appearance and morals.

## CONCLUSION

The work of the laundress was dirty, physical and even dangerous; it was ignored or disparaged, but it was also central to the social and economic value of linen clothing and accessories. By doing the wash, these women offered their family members or clients access to good health and hygiene as well as fashionably white linens. Without their careful laundering and setting of more elaborate and delicate items, embroidered shirts would have their colours run, the *lattughe* on collars wilted and cuffs wrinkled and unkempt. Finally, the removal of stains and spot cleaning helped to preserve the physical integrity and appearance of linens, both plain and ornate. It also gave laundresses' clients the appearance of physical, moral and spiritual spotlessness. These were indicators of good hygiene, as well as wealth and status, which allowed innkeepers, butchers and candle-makers to dress up and set themselves apart from their peers.

The centrality of laundry to keeping clean and fashionable also becomes clear through doing the wash ourselves. Recreating the effects of lye on embroidered linen and attempting to remove stains based on early modern recipes highlights the knowledge, attention and experience that went into caring for clothing. Bringing experimental research together with more traditional historical sources highlights the power of laundry and the women who performed this work to grant good health, status and stylishness to a wide segment of the population.

## APPENDIX

The lye-based experiments discussed in this article were conducted on 19–20 October 2019 at Aalto University in Espoo, Finland.

A solution of lye with a pH of 11 was prepared by dissolving potash (potassium carbonate) in distilled water at 30°C, with a ratio of 8 g of potash to 100 ml of water. This solution was used to treat pieces of bleached linen (8 × 10 cm) stained with organic red wine, oak-gall ink and blood. Lye was also used on linen pieces embroidered with silk thread dyed with cochineal; madder and brazilwood; and oak gall and iron (II) sulphate.<sup>85</sup>

Group A included pieces of linen and silk dyed with the same recipes as the silk thread; these were soaked in the lye solution for twenty-four hours in individual beakers and then rinsed with tap water. None of the stains were removed with this method, which also caused the silk embroidery to change colour and run into the bleached linen: the black silk turned brown, the cochineal-dyed red silk turned a dusty pink and the madder and brazilwood-dyed red silk turned orange. The pieces of silk fabric also changed colour and became stiff and wrinkled once dry, even with excessive rinsing.

Group B included pieces of stained and embroidered linen. These were soaked in the lye solution for ten minutes at 30°C, scrubbed on a wooden board and then rinsed with tap water. None of the stains were removed and the dyed silk threads changed colour and ran into the linen, like Group A but to a lesser extent (Figures 6 and 7).



The pieces of linen from groups A and B retained a scratchy, stiff feeling from the lye, even after rinsing with tap water. Although it was not measured, a great deal of water was needed to completely rinse away the lye solution, considering the small size of the linen samples.


Group C included embroidered and stained pieces of linen as well as pieces of dyed silk. These were soaked for ten minutes in distilled water at 30° C and then rubbed with Marseille soap with a pH of 10, in which sodium hydroxide is the alkali. This proved safe on the black and cochineal-dyed silk, though silk dyed with madder and brazilwood lost colour into the water and the linen ground. This method was more effective on the stains than the potash lye solution; the red wine and blood stains nearly came out of the linen.

Group D was the control, with stained and embroidered linen and naturally dyed silk left untreated for comparison.

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## ORCID

Michele Robinson  <https://orcid.org/0000-0003-2462-3598>

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  64. *Vocabolario degli Accademici della Crusca*, p. 569. In his costume book, *Habiti antichi, et moderni di tutto il mondo* (Venice, 1598), Cesare Vecellio uses *lattughe* for ruffles on collars and cuffs, including those of low-ranking people. See, for example, fols 24r, 154r, 174r, 195r.
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