Socks&Stockings

English translation of the text boards that go with the Socks&Stockings exhibition at the TRC, from 5th September 2019. Text is by Lies van de Wege and Chrystel Brandenburgh.

Knitted socks. Everyone has them, although they are hardly visible when you put them on. You usually wear them under trousers. When you wear sneakers, the cuff and legless socks are almost invisible. In fact, a sock is a stocking with a very short leg that reaches approximately halfway up the lower part of the leg. Nowadays, socks are the result of mass production, they are knitted with computer-controlled machines, plain or with intricate and colourful motifs, or even printed with your own photographs or texts. Socks are often so cheap that they are thrown away if there is a single hole in them. And yet socks are still also being knitted by hand, plain or with intricate patterns. Why do people take the time to do this?

The background of this exhibition is the discovery of a pair of 17th century silk stockings in a shipwreck found just off the coast of the island of Texel, in the northern part of The Netherlands. They were rolled up in a ball, just like most socks nowadays are stored in a drawer. Knitted about 380 years ago, these stockings prompted scientific research by Chrystel Brandenburgh of *Brandenburgh Textile Archaeology* and the *Huis van Hilde*, an archaeology centre in Castricum, Noord-Holland. In collaboration with the Textile Research Centre (TRC Leiden), a group of experienced knitters used their skills to study and remake these stockings.

Homemade socks are generally stronger and warmer than commercial ones and can be knitted entirely to your own taste and insight. For a knitter, a sock is a relatively small and well-defined project with many options. Moreover, on the internet and especially in the special online knitting community *Ravelry*, you can find almost one and a half million patterns. *Ravelry* also organises stimulating sock-knitting competitions, such as ‘Sock Madness’, whereby the contestants receive a new knitting pattern every fourteen days.

In short, all of this invites you to take a closer look at the collection of socks and stockings at the TRC. Can you identify unknown knitting techniques? Inspiration can be gained from the colourful socks with complex, knitted motifs from the Middle East and the Balkans. Almost all of them are knitted up from the toe, unlike the traditional Dutch socks, which are knitted from the cuff. The warm, long stockings from Afghanistan, which were taken by adventurous travellers in the 1960s and 1970s, were worn at home as comfortable home socks. The Turkish knitted socks are ideal slippers for wearing at home. And why should you not embroider socks like the traditional examples from Germany? The colourful knitted borders from Estonia and Latvia are also inspiring.

Where socks are now discarded after becoming worn, they used to be darned to make them last longer. So there are also many worn and darned socks in the exhibition. In addition, there are socks that were knitted at school, holes were deliberately cut out of them, which then had to be mended!

On loan, especially for this exhibition, there is a group of Norwegian socks from knitting expert, Annemor Sundbø, and a group of ‘Sock Madness’ competition socks from Karin Koopman, with some socks from the *Haastjerepje* forum on the *Ravelry* site. In short, enjoy and be surprised by a low-level, yet an essential part of our wardrobe, the Sock.

A short history of hand-knitted socks and stockings

The oldest extant pieces of knitwear are cushion covers from Spain, from around 1250. The oldest preserved knitted stockings come from Egypt, and were made sometime between 1250 and 1500 from white cotton with blue edges and motifs.

Knitting quickly gained popularity. On a panel painted by the Spanish artists, Nicolás and Martín Zahortiga, from around 1465, Saint Quiteria knits a child's sock with coloured stripes. She knits with five pins and has started knitting from the toe. A child's woollen stocking (c. 1580-1600), which was discovered during archaeological research in the Groningen "Alva moat", was also knitted from the toe upwards. The maker only knew the garter or knit stitch, not yet the purl stitch with creates the opposite effect. However, in the tomb of Eleanora of Toledo (1519-1562), the wife of Cosimo I de' Medici, duke of Florence, in Italy, red silk stockings were found with patterns in both garter and purl stitches. These stockings are a challenge for today's knitters; the pattern is included in the international knitting website of *Ravelry*.

By the mid-sixteenth century, the knitting of socks and stockings was widespread. Richer ladies and gentlemen wore stockings and socks made of silk, while poorer people had to settle for woollen specimens.

In 1589 William Lee in England invented the first knitting machine. This looked like a loom and was therefore also called a "stocking weaving loom" or a "stocking frame". However, it could only produce a flat piece of material and as a result until the 19th century, machine-knitted stockings always had a seam down the centre back. But because everyone could afford knitting needles, hand knitting continued to exist alongside machine knitting, even after the Industrial Revolution had greatly accelerated mechanisation. Around 1870 the first simple circular knitting machines came on the market, which meant that socks and stockings could also be machine knitted at home.

Hand knitting became a pastime for richer ladies, but remained a necessity for poorer people. Until 1974, knitting was still a compulsory school subject for girls in The Netherlands, as part of training of domestic skills. Nowadays, knitting of socks is a hobby that is practised worldwide.

Old and new stockings and socks

Between 1520 and 1550, there was a huge increase of the popularity of knitting. According to Richard Rutt, in his book *A History of Hand Knitting* (1989), this can be explained by the metal knitting pins that came on the market around that time. From 1550, knitting was a fully established craft. We know this from various sources, such as archaeological finds, written documents (bills, inventories), and paintings depicting knitted textiles. The knitwear was sometimes warm and made of wool, for daily use by working people, but also sometimes very fine and made of silk, for the richer bourgeoisie. Knitting was done in different colours, sometimes further embellished with precious metal thread or with lace and relief patterns. By the mid-16th century, knitted stockings had become commonplace. Everyone had them and wore them.

There are differences between sixteenth-century stockings and the modern hand-knitted stocking. Specific features of stockings from the past are:

- The knitting was compact: 60-80 stitches at 10 cm was very normal. The yarn (wool, silk, linen) was spun thinly, strongly plied and it was knitted so tightly that there was no stretch in the knitting.
- The woollen stockings were knitted from the toe, the silk stockings from the cuff.
- There were different heel constructions, often with a seam under the foot.
- The stockings often reached just above the knee.
- The stockings had no cuff pattern (such as one straight, one reverse). Garter and purl stitches were alternately used to create relief patterns.
- Due to the lack of a board pattern, the stockings tended to curl and stretch at the cuff. A tied garter or ribbon just below the knee had to be worn to hold the stocking in place.
- The stockings were knitted in ridges (alternating one row garter and purl stitch in one row) or in a relief pattern (alternating garter and purl stitches)
- A sham seam was made that ran vertically over the calf.
- There was no difference between women's and men's stockings, just as with shoes.

The construction of a sock

Everyone knows what a sock is. You often put on that insignificant item of clothing in the morning without really thinking about it. But how could you describe a sock? Perhaps as a kind of tube with one side closed, which is made of a stretchy material and that you pull on your foot to protect it against the environment? But let's look a little closer. Which parts of the sock can be distinguished? From top to bottom we see: cuff, leg, heel, gusset, instep/foot, sole and toe. Not every sock has all these parts. The heel and instep are sometimes missing, as in the case of so-called spiral sock.

Cuffs: Cuffs are usually elastic and must hold the sock in place and protect it from slipping. Ribs can be knitted in many (elastic) ways. For example, cuff stitches consist of alternating garter and purl stitches.

Leg: The leg section can vary in length, from knee height to ankle height, and is usually knitted in stockinette stitch (combined garter and purl stitch), with or without lace patterns, cables and fantasy stitches.

Large heel, small heel and gusset: The large heel is the heel-flap between the ankle and the beginning of the foot and can be strengthened. There are many different, so-called reinforced heel stitches. The small heel is the extension of the heel flap; shortened revolutions and decreases ensure that the sock "goes around the corner". The gusset ensures that the sock takes shape and fits nicely on the foot by means of decreases.

Foot: The foot is the part between the leg (and heel/gusset) and the toe.

Sole: The underpart of the sock that covers the sole of the foot.

Toe: The toe shapes the sock through reductions and closes the sock.

All these parts can be knitted in an incredible number of ways. Also, socks are not always knitted down from the cuff, as is common in Europe, but sometimes also from the toe, as is done in Turkey, for example.

Karin Koopman and Sock Madness

Sock Madness is a sock knitting competition dedicated to speed and skill for avid sock knitters from all over the world. It is organised by the digital *Ravelry* community.

In 2019, the 13th Sock Madness competition was officially started. It consists of seven rounds and the pattern becomes more and more complicated with each round. The time given in a single round to knit a pair of socks is two weeks. After the first qualifying round, knitters are divided into teams based on skill and speed. In 2019 1,800 knitters started the competition! How many will finish it is unknown. An ever-smaller number of the fastest knitters from each team will continue to the next round. In the final laps only the fastest are left, and then less and less time is given.

Only the winner in the final round will receive a prize, which in 2013 went to the Dutch knitter Karin Koopman. She worked on the last assignment for almost thirty hours. This year (2019) she is one of the moderators of the competition. That means collecting patterns in advance from designers from all over the world, and knitting test socks to see if the patterns are legible and correct. After the start, she will help ensure that a new pattern is sent to the participants by e-mail for each subsequent round. When the competition is over, many of these patterns can be found on *Ravelry*, so that others can also make the special socks.

Another competition in which Karin participated is *Tour de Sock*, a quick knitting competition that takes place during the more well-known *Tour de France* cycling competition. Registration costs go to charity (*Doctors without Borders*).

In addition to competition socks, more socks come from Karin's skilled hands, with patterns that she finds in books, such as *Op-art Socks* as well as online. Some examples of her work are given on the table.

Naldbinding

The objects on this panel appear to be knitted or crocheted, but they have been produced using a technique called *naldbinding* or 'needle binding'. This technique is actually 'embroidery in the air' and made using a buttonhole stitch that is partially worked into the previous stitches. Every stitch is immediately 'tied' and can no longer come loose. The resulting textile is identical on the front and the back and it feels like woven textile. It can be made into materials that are extremely dense and compact or light and lacy.

Old, but not primitive

Naldbinding is an ancient technique that was and is used worldwide. Hunter-gatherers in Polynesia, Australia and Papua New Guinea, Indians from Canada to South America and many groups in Africa know the same *naldbinding* stitch. Impressively coloured *naldbinding* is known from Peru (the pre-Inca Paracas), from Australia (the Aboriginal dilly bags), from Papua New Guinea (the *billums*) and from Mexico (the *maguey* bags of the Mayans).

Complex needle-stitches have long been popular in folk art in Finland, but also in the Balkans, the Middle East and beyond, such as in Iran, Yemen, Kurdistan and Oman. *Naldbinding* is also called "Viking knitting" because of a number of textile finds in Scandinavia that date back to the early Middle Ages (800-1000 AD). In it, thick woollen yarns were looped around the thumb. The result resembled the thick brown work gloves and clog socks shown on the exhibition panel. *Naldbinding*, however, can also be done with fine yarns, and then begins to look somewhat like 3D needle lace, such as *Oya*, *Point Valsesiana* and *Hollie Point*. The example with diamond patterns in lace-like structure (*ajour*) is a replica of a pattern from a 13th century (reliquary of St. Louis, in Brignoles, France). The original was made with thin silk yarn.

Ancestor of knitting?

From a technical point of view, *naldbinding* is not related to knitting, but the way in which socks, mittens and gloves were knitted later can already be seen in needle binding. Knitted socks and mittens started with toe or fingers, with an 'afterthought' heel and thumb, as with hand-knitted socks. Luxury gloves often started in a modern way at the edge. It would appear that well-used *naldbinding* patterns were simply translated into the relatively new knitting technique.

Darning and mending - once a bitter necessity, now in fashion again

Who can still mend socks? Craftsmanship and knitting education disappeared from elementary schools in The Netherlands in the 1970's, after more than 100 years (compulsory craftsmanship in the 1878 Primary Education Act). As a result the art of darning socks has also been lost. The need to repair socks and stockings is no longer there either. If there is now a hole in your sock, you throw it out and just buy new ones.

It used to be different. In addition to learning how to knit a sock or stocking, being able to repair worn areas and holes in socks and stockings was also a compulsory skill, of which many older women still have troubled memories. Once you had finally knitted a nice stretch of cloth, then the teacher would cut a hole in it and you could start mending.

Repairing a damaged sock

Repairing a sock can be done in various ways: by darning, Swiss darning and patching. In the case of Swiss darning the basic construction of the knitted material remains the same, while this is not the case with darning, in which a woven ground is constructed. If the hole is too large to stop or mesh, a new piece will be added as a patch.

Modern darning?

Although there is no longer any need, nowadays darning is again in the spotlight. An old but beloved sweater full of holes is darned in a flashy and playful way with contrasting yarn. The patches can be seen and contribute to the appearance of a unique piece of knitwear. This technique was introduced by, among others, *Tomofholland.com*. Workshops in artistic darning are becoming popular!

Stockings from the remarkable collection of Annemor Sundbø

Interest in manual spinning and weaving started to decline in the 1980s, so Norwegian handicraft teacher Annemor Sundbø (1949) started to look for a new career. In 1983, she started to work in a factory for recycled wool situated in the neighbourhood of Kristiansand, Norway. It came with a catch, she must first buy the factory, which she did! The *Torridal Tweed and Ulldyne Factory* recovers yarns from old knitwear for making into new (tweed) fabrics and blankets (shoddy). Any leftover yarn and cloth is then used to fill duvets, sleeping bags and mattresses.

Reuse and preservation of cultural heritage

While Sundbø feed the unravelling machine in the factory with old knitwear, she suddenly realised how much knitting and hence knitting history were being lost. She looked around and saw enormous piles of knitting waste that had yet to be recycled. Her machine could hardly cope with the continuous supply of knitwear. Which meant that the oldest remains were at the bottom of the pile, while on top were the more modern, often unfinished examples of knitwear.

Sundbø decided to collect interesting old knitting work and to investigate knitting traditions, now officially recognised as cultural heritage in Norway. The reuse of woollen fabrics has been common in Norway for a long time. Old knitwear raised a lot of money due to a shortage of woollen yarns, among others following import bans during the First World War (1914-1918). Sundbø continued to browse through the heap and found, for example, a pair of identical knitted insoles with a pattern of an eight-pointed star. She decided to collect this type of star and find out where the pattern came from. She then found a similar pattern on a so-called rose sweater from Nordfjord. The star or rose pattern and many different variations were subsequently found on a wide range of knitted garments from the mountain of waste in the factory, such as the stockings that can be seen here in the exhibition. The ‘Sock Fall’ represents a minute number of stockings that have been saved from the waste mountain of the *Torridal Tweed and Ulldyne Factory* by Annemor Sundbø.

The reuse of fabrics and yarns is now again popular due to climate and environmental issues. Recent research (Rijkswaterstaat, MilieuCentraal) shows that clothing made from recycled wool has the least environmental impact.

Socks from Europe and the Middle East: Some remarkable differences

Socks can be knitted in various ways. In Europe, the ‘right leg’ of the loop is usually on the needle, while in the Middle East it is the left leg. This requires a different approach and method of knitting, but the end results remain exactly the same.

Construction

In the East, the sock is knitted from the toe upwards, and the heel is added later. In English it is called the ‘afterthought’ or ‘peasant’ heel. In Europe, the sock is usually knitted from the cuff downwards and the heel is knitted within the same process.

Patterns

If we look at the design of multi-coloured patterns, it is noticeable that in Europe the motifs are usually knitted horizontally and run front and back (as with the knitwear from Shetland). In the Middle East the patterns are usually vertical and are therefore often different on the front and back of the finished material. In addition, patterns in the Middle East are usually curlier and twisted, while in Europe they are mostly geometric.

Turkish socks

Characteristic of the Turkish socks is that they are knitted from the toe with a stockinette stitch. The toe and the heel have the same construction. The colours are sometimes soft, but usually clear. Often three, four or even eight colours are used in one row. The names of the patterns come from close by (‘apple’, ‘walnut’, ‘earring’, ‘beetle’, ‘moth’). The knitters use straight sock needles, and wrap the work thread around their neck to keep the thread tension.

Until the 1990s, Turkish girls learned to knit at a young age. For their dowry they were expected to produce special socks for their groom and future in-laws. During the wedding, which could last many days, the bride wore a different pair of brightly coloured socks every day. Each region had its own patterns. When a bride left her village, she took her patterns with her, so spreading designs, sometimes over long distances.

Stockings from Tajikistan - a pair apart

A striking feature of the socks from Tajikistan are their enormous size! These stockings can be around 90 cm long and 38 cm wide from cuff to toe. The stockings are knitted in two parts, with different motifs below and above. They have no heel, and the foot part is pointed. The stockings have deep bright colours and intricate motifs.

Lita Rosing-Schow

The Danish knitter and historian, Lita Rosing-Schow, carried out research into the unique Tajik stockings. Her book *Strik fra Verdens Tag - Knitting in the Pamirs* (Danish / English) was published in 2018 and is dedicated to Henriëtte Hauser, granddaughter of botanist Ove Paulsen, who was part of a Danish expedition to Tajikistan in 1898-1899. Henriëtte inherited the three pairs of stockings that Grandfather Paulsen brought back from Tajikistan and they were the inspiration for Rosing-Schow's investigations.

What makes these stockings unique?

What makes the stockings, apart from the size, so special? Rosing-Schow mentions the deep, bright, vegetable-dyed colours, the unique multi-coloured patterns, including variations on the *mir-i-bota* (*butah*, paisley motif) known for the famous Kashmir scarves, and the swastika.

The patterns were knitted in two or three colours per row, with the patterns in the upper part having horizontal or carpet-like motifs, on a dark background. The motifs on the lower part are vertical, in black or brown, on a light background. The cuff is special, with a bundle of knitted woollen threads that, if put on, hold the stocking in place. Nowhere else in the world is a stocking knitted in this manner!

How were they knitted?

The stockings' local name is *jirab* or *jurab* (Persian) and they were knitted by women, in the round, using four wooden knitting needles, with the good side of the knit facing out. The stocking was knitted from the cuff with a special design that Rosing-Schow calls the drawstring design. They were knitted without a heel. By decreasing the number of stitches in the foot section, a clean line was formed that helped to give the stocking its pointed shape.

How were they worn?

The stockings, which sometimes reached halfway up the thigh, were worn in low, soft leather boots that were tightened at ankle height with a loose, coloured woollen band. The stockings were held in place by tying them at knee height with a woollen cord or belt, or by pulling on the knitted threads at the top. Both men and women wore these stockings.

This type of knitted stockings has always been valuable and expensive. The vegetable paint pigments were expensive, as was the quality of sheep wool used. Knitting required great skill. Today, this type of stockings is no longer knitted or worn. Crocheted stockings, often made from acrylic yarns, have replaced them. The need to wear stockings and socks is, nevertheless, great, due to the low temperatures during the winter months in the high mountains.

The online knitting community of *Ravelry*

The TRC exhibition includes a panel with some variations of the pattern known as the ‘Philosopher’s Walk’, designed by PleximoPatterns. The pattern and name are based on the Philosopher’s Walk footpath in the Toronto University complex, which is also the home city of the designer, Lesley Melliship. The Philosopher’s Walk is a winding footpath and the designer recommends putting on these walking socks and to follow the winding footpath while thinking deep philosophical thoughts. This beautiful pattern comes directly from the *Ravelry* website.

What is *Ravelry* exactly?

Ravelry is a knitting community, started in 2007 by Jessica and Casey Forbes. As an avid blogger, Jessica found it increasingly difficult to keep an overview of what was happening in the knitting world. Casey, Jessica's husband, worked in IT and was able to build a website especially for her, on which Jessica could keep track of all kinds of things about her hobby: photographs, project notes, stocks of yarns, interesting patterns ... Jessica invited some knitting friends, who invited their friends and twelve years later, in 2019, there are nearly 8.5 million members of *Ravelry*.

What does *Ravelry* offer all those millions of users?

Ravelry offers a digital notebook in which you can keep track of everything, such as your knitting projects with photographs, thread selection, size, used needles, etc. All that information is available to everyone. Many publishers also feed this database with titles from their publications. In addition to a notebook, it has become an immense library of information and inspiration.

Ravelry is also a marketplace. Designers offer digital patterns, with prices ranging from free to just over ten euros, depending on how popular a designer is and the complexity of the pattern. You can also join forums or start a forum yourself, such as `Historical Knitting, Norwegian Knitting, *Tour-de-Sock*, etc. Currently there are almost 20,000 forums and new ones are added daily.

A selection from the figures

There are currently 365,000 knitting patterns available on the *Ravelry* site, of which 126,000 are free and 253,000 are for sale. Most of the patterns are in English, but around 900 are in Dutch. In addition, there are patterns in Russian, Arabic, Welsh, etc. The *Ravelry* site also offers around 30,000 sock patterns, 19,000 of which are for sale and more than 9,000 for free.

Finally

Membership in the *Ravelry* community is free. Users' data is not used to make a profit. The website managers make a profit by asking a small commission from designers who sell patterns. This commission depends on the turnover of the designer. In this way they want to support starting or smaller designers.

The Silk Stockings from Texel: A Reconstruction Project

The most spectacular textile finds of recent years in The Netherlands were discovered in 2014 in a shipwreck. The ship sank between 1645 and 1660 near the island of Texel. Many will remember the colourful silk dress that was on display for several months at the local museum *Kaap Skil*, the caftan garment, a pair of finely knitted silk stockings and the remains of a red cape.

The name and owner of the ship has not been recovered, but judging from the build, its canon and the tools and pottery of the crew it is considered to be a large Dutch merchant ship (ca. 40 m long), armed with canon and transporting luxurious objects and personal belongings of wealthy people and a cargo consisting of palm wood (*buxus sempervirens*) and mastic (resin) from the Mediterranean.

In 2018 the Textile Research Centre initialised a project focussing on the silk stockings that were found in the wreck. These stockings were in a very good condition when they were brought up from the water. We do not know exactly where these items of clothing were found in the wreck and it is not certain that they belong to the same wardrobe as the silk dress. The project involved an analysis of the original stockings as well as an attempt to make several reconstructions of these garments with the help of a 100 voluntary knitting experts.

The history of the silk stocking

During the Middle Ages and also before, men and women wore sewn pants or stockings. These stockings - or hoses - were made of woven fabric that was cut diagonally which created a bit of stretch. At the beginning of the 16th century, fashion changed under the influence of the noble courts in southern Europe. Here the knitted silk stockings became popular. They were worn by both men and women, fitted the leg more closely and this fashion was soon adopted by the nobility in the northern European countries. The men's trousers became shorter and shorter and the leg was dressed in tight silk stockings that made the leg stand out nicely.

Initially, silk stockings were so expensive that they were reserved for kings, but in the second half of the 16th century, the supply of silk stockings increased and the price dropped considerably. At the same time, the production of woollen knitted stockings increased enormously and these were made in all sorts of qualities. In a short time, knitting turned into a craft in which many people - particularly the poor and children - found work. These knitters made stockings for all levels of the population: ranging from coarse wool to very fine wool and silk stockings.

The owner of the stockings

Some of the most important questions that have been asked from the start are about the owner or wearer of the stockings. Were they for a man or a woman? Were they new or used? And did they belong to the same wardrobe as the silk dress from the wreck? Both men and women wore stockings in the 17th century. In the case of women, the stockings usually weren’t visible under their long skirts, but that did not prevent them – judging from the testimony of a contemporary - from wearing richly decorated stockings. On paintings from this period we see that women wore stockings that reached just below the knee. Men, on the other hand, more often wore stockings that reached above the knee. The stockings of Texel have a length of more than 60 cm and can be pulled up above the knee on a modern leg. Such a stocking length fits better with a men's stocking than with a women's stocking. The foot length of the stockings is 24 cm, which corresponds to the current shoe size 37. At the end of the Middle Ages this was the most common adult shoe size and will therefore have fitted both a man's and woman's foot.

How were the silk stockings made?

Silk stockings were initially knitted by hand on metal knitting pins. They were made from reeled silk. The silk is therefore not spun, but drawn from a large number of cocoons to one thread of 0.4-0.55 mm thickness. The stockings were knitted in the round and from cuff to toe. The gauge is very fine with 83 loops per 10 cm in width and 100 courses per 10 cm in height. In this period there were already knitting frames, but these were not developed far enough for knitting in the round. They could also not yet produce such a fine gauge and they could not alternate knit and purl stitches. The stockings must therefore have been knitted by hand.

It is striking that the knitted stockings have a number of "decorative seams" that are knitted with purl stitches. For example, the stockings have a line of garter stitches on the centre-back seam and under the foot. These decorative seams are not real seams, but are located in exactly the same place where the sewn hose had their seams. Apparently the fit of the sewn hose was used as an example for the pattern of the knitted stocking.

Smooth versus gummed silk

When reeled from a cocoon, a silk fibre consists of approximately 30% of natural gum, or sericin. This gum is removed by immersing the silk in soapy water, but it is not quite clear in which phase of the production process of the silk stockings this took place. Removing the gum makes the fibres soft and shiny but also very vulnerable to hooks and snitches. It is for this reason that silk was often degummed after the mechanical process of spinning, weaving or knitting was completed.

Historical recipes indicate that it was customary for the dyer to degum silk prior to dying and there are many recipes that give instructions how to dye (silk) stockings in the piece. If it was indeed the case that degumming and dying was part of the same process, conducted by one craftsman (the dyer), it is most likely that stockings were knitted out of fibres with the sericin still on it, and then were sent to the dyer for degumming and dying.

During the reconstruction project the volunteers tried out knitting with smooth, degummed silk as well as silk with the sericin still on it. They found out that knitting with gummed silk was easier and quicker. After degumming, the stockings were stretched onto a wooden board until they had the exact right size.