

WireTEX

RESCUING THE TRADITIONAL KNOWLEDGE OF SKILLED TEXTILE WORKERS

SUPPORTING DOCUMENTATION FOR THE 2ND PODCAST

Supplementary documentation for Outcome 2 - creation of video training material.

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Foreword

Dear readers, welcome to the knowledge base document for the 2nd podcast. Each podcast we create has a supporting document to further explain and elaborate on the topics mentioned in the podcast video.

As a reader, you are invited to listen to the podcast and search this document for important information related to the podcast's topic. In it, we will focus on some basic terminologies and better explain some procedures and skills mentioned in the 2nd podcast. You will also find some interesting links and websites in this document to help you further explore the topic.

To further explain how you can navigate this document:

The podcast video is available on the YouTube channel WiReTex and the Udemy platform. This makes it easier to follow the podcast. At the end of each chapter, external links are provided to further explore and expand interest in specific topics. Links offer interesting examples from the areas presented in the 2nd podcast.

Introduction

The 2nd podcast focuses on the presentation of embroidery at the company Modespitz Plauen GmbH. This company is located in Plauen.

The origin of Plauen lace was the refinement of plain cotton fabrics using satin stitch embroidery, which began in the early 19th century. Later, tulle was also embroidered. The effort to completely remove the embroidery base led to the invention of chemical lace (also known as air lace). The process for producing chemical lace was developed around the same time in St. Gallen (Switzerland) and Plauen. Plauen air lace was first produced in 1882 by the embroiderer Gottfried Prager at the embroidery company Anton Falke, after it was developed by Bruno and Anton Falke. However, it was not until the introduction of the shuttle embroidery machine in 1883 that the machine production of tulle and chemical lace accelerated. The various types of lace produced in the region were marketed under the name Plauen lace after 1900. The products received a Grand Prix at the 1900 World's Fair in Paris and have been known worldwide ever since.

The lace manufacturing enabled the rise of the city of Plauen to one of the major cities in Saxony. After severe crises in the 1920s and 1990s, lace production is still carried out by small companies today. The main products of the industry are home textiles (curtains, table linens), bridal gowns, and accessories for women's outer and underwear (lingerie). Increasingly, embroidery techniques are also used for the production of special textiles.



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The history of embroidery

Embroidery is a popular way of adding individuality to clothing and enhancing textiles. Basic materials such as leather or fabric are skilfully decorated by sewing on or pulling through the threads. Embroidery can be found in all cultures and religions around the world. The motifs range from simple small patterns and flowers to everyday scenes and elaborate images such as births, weddings or even death. Some embroideries are kept simple, others are very imaginative and detailed.

The beginnings of embroidery

The craft of embroidery has a long history. Finds show that embroidered clothing was already in use as early as 5000 BC in various regions such as Egypt, China and South America. It is not possible to filter out a region of origin for embroidery. In the early days of embroidery, geometric figures were embroidered first. Only later were items of clothing and objects embellished with figurative representations and entire pictures. Gold thread, ribbons and beads were also used for embellishment. Decorating clothing quickly gained popularity. Fine embroidery was found on the robes and coats of Roman consuls, tribunes and emperors. Monasteries also used embroidery in the Middle Ages to produce liturgical vestments or to embellish textiles used in church interiors. Embroidered fabrics were always seen as a sign of wealth, as embroidery took a lot of time and money. For this reason, this craft was a privilege reserved for the wealthy or used for religious purposes. Aristocratic women learnt to create the most beautiful textile decorations possible as early as childhood.

historical embroidery patterns

→ <https://www.altefaeden.at/historische-stickerei>

Learn the art of medieval embroidery! With my digital PDF instructions, even beginners can easily try out historical embroidery techniques - and all with original motifs and patterns from the period!

Development of the first embroidery machines

Embroidery became increasingly important over time. In view of the great demand, inventors tried to simplify the time-consuming process of hand embroidery by using machines. The industrial revolution in particular changed textile technologies from the ground up. This not only affected sewing, but also embroidery. In the middle of the 19th century, the Swiss Franz Rittmeyer and Anton Vogler developed the very first mechanical embroidery machine, which pulled the thread back and forth through a vertically stretched piece of fabric, thus imitating hand embroidery. The machine worked according to the same basic principle as modern embroidery machines. As the fabric is moved, the needle always stitches at the same point. The movement of the fabric was controlled by a so-called pantograph.

Around the same time, the Swiss Isaak Gröbli invented the first large-scale embroidery machine, the so-called Schiffli machine. This combined the techniques of large looms with those of sewing machines and worked with an upper and lower thread. The advantage was that both threads were unwound onto bobbins, eliminating the tedious threading as with the hand embroidery machine. Here too, the movement of the fabric was controlled by a pantograph. But these two inventions were just the beginning. Just like sewing machines, embroidery machines were constantly evolving. The more advanced embroidery machines worked with many needles simultaneously and accelerated embroidery enormously. A new branch of textile processing soon emerged: industrial embroidery.

Insight

What is Schiffli embroidery? How are vintage ribbons made using Schiffli machine embroidery?
<https://anbelladesigns.com/de/schiffli-stickerei>

Schiffli machine embroidery gets its name from the word 'Schiff' in Swiss German, which refers to the shape of the small containers in which the bobbins of the embroidery machine sit. Developed by Isaak Gröbli in 1863, the Schiffli machine began its heyday between the late 1800s and early 1900s, when St. Gallen embroidery made a name for itself in the world of embroidery. Prior to this, embroidery was mainly done by hand, which required a lot of labour to achieve large quantities. Machine embroidery gave birth to an industry that brought the production possibilities for luxury embroidery to a level that was impossible to achieve with hand embroidery. Over time, Anbella Designs evolved to produce high quality vintage ribbons and lace.



The emergence of machine embroidery in the 19th century

Swiss textile merchants from St. Gallen learnt hand embroidery from Turkish women in Lyon around 1751. Through embroidery teachers, this craft was spread in north-east Switzerland and from 1763 also in Vorarlberg. In 1828, Josua Heilmann from Mulhouse developed a hand embroidery machine that passes a double-pointed needle all the way through a fabric and back again at another point. This gave rise to St. Gallen embroidery as a globally successful export product, with Saurer as the most important embroidery machine manufacturer of the late 19th century. The chain stitch machine and the Schiffli embroidery machine were invented in 1863. From 1880, these machines were further developed in Saxony by the Vogtland machine factory in Plauen and by companies in Chemnitz.

In Great Britain, embroidery became popular again as part of the Arts and Crafts movement, with Victoria Welby founding what is now the Royal School of Needlework in 1872.

In 1898, electric motors and punch card control led to the third and final step in the development of embroidery machines, the so-called automatic embroidery machines. These were shuttle embroidery machines that were no longer controlled by pantographs but by punched cards. Today's embroidery machines still use the same principle, but computers are used instead of punched cards.

A milestone in the history of embroidery was reached in 1913, when the Saurer company in Arbon succeeded in creating an embroidery machine that could complete 100 stitches per minute and produce high-quality embroidery. A speciality at the time. Today's embroidery machines are electronically controlled and can do much more. Up to 1400 stitches per minute are possible with high-performance embroidery machines. In addition to the computer-controlled embroidery machines, punching software is often used. This enables a wide variety of motifs to be realised in great detail. From simple logos to complex embellishments, everything is possible. In this way, unique textiles and high-quality, hard-wearing advertising media are created. Companies, for example, have their clothing embroidered with their logo, but embroidery is also very popular in the private sector. Women in particular see this craft as a pleasant pastime where they can relax and create small embroidered works of art at the same time.

Selected stitches of embroidery

Name	Synonyme	Beschreibung
<u>Bayeux-Stich</u>		A form of overlock stitch that is used in particular for filling areas. Another overlock stitch is the cloister stitch.
<u>Festonstich</u>	Languettenstich, Schlingstich	Stitch from loops for edge storage
Gobelinstich	Halber Kreuzstich	The very simple embroidery technique is used to embroider the entire motif field on the backing material, with the thread crosses always running diagonally in the same direction.
<u>Hexenstich</u>		Decorative stitch for attaching open edges (hems)
Holbeinstich ^[19]		
<u>Kettenstich</u>	Kettstich	The needle pierces next to the stitch removal point and forms a loop. This is placed around the new stitching point.
<u>Kreuzstich</u>		This technique involves embroidering small crosses on a countable fabric. A diagonal stitch is made first, followed by a second stitch at an angle of 90 degrees. Tapestry stitch and weave stitch are variations of cross stitch.
<u>Petitpoint-Stich</u>		Enables very delicate, mosaic-like sculpting, executed only with silk threads
<u>Plattstich</u>		Filling stitch
<u>Steppstich</u>		A long stitch is made on the lower side of the fabric and then taken back on the upper side by half the length of the fabric, so that each stitch on the lower side is twice as long as on the upper side. The stem stitch is created in reverse..

<u>Stielstich</u>		Decorative stitch, which creates a line that looks like a stem with several stitches
<u>Vorstich</u>		A stitching seam executed in one direction looks like a dotted line

More: <https://de.wikipedia.org/wiki/Sticken>



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Embroidery techniques and variants

Embroidery techniques can be systematised in various ways. They can be categorised according to the type of base fabric, in which case they are referred to as linen, silk, tulle or embroidery. Depending on the type of embroidered material, they can be categorised as wool, cotton, gold, straw or bead embroidery.

Ajour embroidery

Embroidery in which loosely woven fabric threads are pulled together with one thread, creating openings. The edges do not need to be finished as the openings are only created by pulling the threads together. Different stitch variations are used to create different types of openings, which can then be filled with further lace stitches. Famous examples of this embroidery were Dresden lace and Ayrshire embroidery from Scotland.

Bargello

An embroidery covering the entire surface in which the stitches run parallel to the grain of the thread over two to five cross threads. Abstract zigzag or curved patterns are created by slightly offsetting the stitches. The oldest verifiable application is on 17th century chairs in the possession of the Museo nazionale del Bargello, after which the technique is named.

Coloured embroidery

Embroidery with coloured thread, it can either be applied to a dense ground such as canvas, cloth, silk or leather, or to canvas made of hemp, linen, cotton or silk. It is used in contrast to white embroidery.

Quill embroidery

Embroidery on leather with the split quills of the peacock's upper tail feathers.

Tapestry embroidery

Tapestry embroidery is an imitation of picture embroidery. In tapestry embroidery, coloured embroidery thread is stitched diagonally over the thread circles of the carrier material. The character of the picture is determined by the skilful stitch-by-stitch composition with a few colour tones. For murals, cushions and other decorative handicrafts, special canvas fabric is usually embroidered with tapestry embroidery thread made from pure new wool.

Kilim embroidery

The kilim stitch and its variation, the stem stitch, form patterns that look like knitted fabric. The kilim stitch pattern has horizontal ribs; those of the stem stitch are vertical. Both patterns are made up of rows of diagonal stitches, with the stitches running in opposite directions in every second row. In the stem stitch, back stitches are worked between the rows of seed stitch. Both stitches are suitable for large and small pattern areas.

Bead embroidery

Small beads are threaded between the stitches and thus embroidered on.

Tambour embroidery/crank embroidery

This is not done with a sewing needle but with a crochet hook.

Zmijanje embroidery

Style of embroidery designs from Bosnia and Herzegovina executed from the back

useful Links:

- <https://www.schaustickerei-plauen.de>

An example of the production of 'Plauen lace':

- <https://www.mode-spitze.de/plauener-spitze-entsteht>
- <https://www.mode-spitze.de/wie-entsteht-eine-klassische-plauener-spitzendecke>

Production of a table placemat

Images used are property of Texulting GmbH.

You can learn more on the link: <https://www.mode-spitze.de/wie-entsteht-eine-klassische-plauener-spitzendecke/>

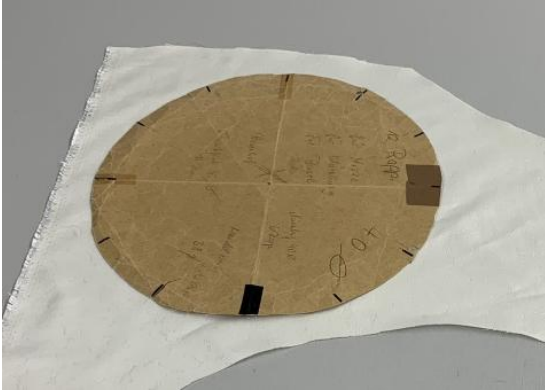


Figure 1: Recording of the report. Image is owned by the company Texulting GmbH.



Figure 2: Pinning the embroidery with needles. Image is owned by the company Texulting GmbH.

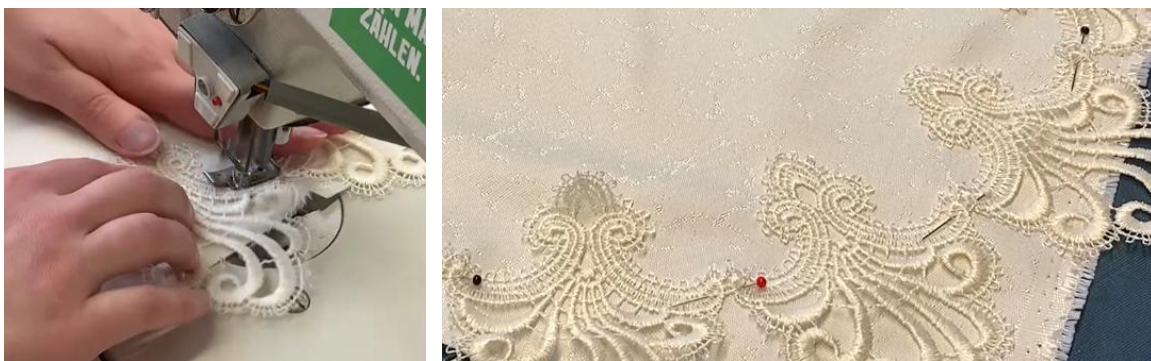


Figure 3: After the embroidery has been pinned to the fabric, the paper is removed and embroidery is ironed so that everything is smooth before sewing process. Image is owned by the company Texulting GmbH.



Figure 4: Sew the embroidery in place and trim the background. Image is owned by the company *Texulting GmbH*.



Figure 5: Cutting the sewing threads. Image is owned by the company *Texulting GmbH*.



Figure 6: Finished table placement. Image is owned by the company *Texulting GmbH*.

Other examples



Figure 7: Different materials. Image is owned by the company Textulting GmbH.



Figure 8: Knife to cut embroidery borders. Image is owned by the company Textulting GmbH.



Figure 9: Decorative examples. Image is owned by the company Textulting GmbH.



Figure 10: Table placements. Image is owned by the company Texulting GmbH.



Figure 11: Table placements. Image is owned by the company Texulting GmbH.

More information

- Embroidery Museum [Ennigerloh](#)
- [Embroidery museum Oberhundem](#) - private museum of the Steinacker family
- Embroidery museum - [show embroidery Plauen](#)
- Embroidery machine exhibition at the Saurer Museum, [Arbon](#)
- Museum of Korean Embroidery in [Seoul](#)
- <https://trc-leiden.nl/trc-needles/organisations-and-movements/educational-institutes/royal-school-of-needlework>