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Weaving Pictures

15th Century Tapestry Production at Lengberg Castle

Abstract
This article, based on finds made during an archaeological investigation carried out at Lengberg Castle, East-Tyrol, explores the possibility of small scale tapestry production at castles of the minor nobility in the medieval period. Seven finds could be identified as textile tools, two of which were used for weaving. A tapestry bobbin and a pin beater suggest tapestry production. This article introduces the technique of tapestry and the use of a tapestry bobbin. It describes the tapestry bobbin and pin beater from Lengberg in detail, together with the results of the botanical analyses. Comparable finds from Great Britain and Denmark are considered and the proper function of a bobbin is examined. The extent to which tapestry production took place at Lengberg is discussed, who could have been employed in it, and what the results of this study signify with respect to possible tapestry production at other small castles in Europe.

Key words: *tapestry bobbin, pin beater, tapestry production, 15th century, Lengberg Castle*

Weaving Pictures

> „…Arachne was the first person to create the arts of dyeing wool in different colours and of producing what we would call fine tapestries from weaving pictures on cloth to make them look like paintings." Christine de Pizan, The Book of the City of Ladies, 1405, Chapter 39 (Pizan and Brown-Grant 1999, 73).

During research at Lengberg Castle in 2008, a filled vault was detected below floorboards in a room on the second floor of the south wing of the castle. The filling included dry material in various layers. The building history, according to notes in the itinerary of Paolo Santonino 1485 CE (Egger 1947, 34-35), as well as investigations on construction techniques and the archaeological feature, suggested a dating of the finds to the 15th century. This date has now been confirmed by five radiocarbon-dates from fibre samples done by the ETH-Zürich. It may be assumed that the cache was filled with waste during the addition of the second storey, as insulation or to level the floor.

Besides more than 2700 textile fragments, such as pieces of linen underwear, shirts, dress linings with remnants of the outer woollen layer, fragments of woollen trousers and various silk fabrics (Nutz and Stadler 2012, 79), several tools for textile production were discovered among the discarded goods. The tools consist of five wooden spindle shafts together with two lead spindle whorls and an object that turned out to be a tapestry bobbin (in German *Fliete*). Together with a possible wooden pin beater it provides evidence of 15th century tapestry production at Lengberg and offers the rare opportunity to study medieval weaving tools of organic matter, as wood is seldom preserved.

How to use a tapestry bobbin

Although the term tapestry has been used to describe any pictorial weaving and even needlework such as the Bayeux Tapestry, it is, strictly speaking, a weft-faced plain weave with discontinuous wefts. It can be woven on both a horizontal or low-warp loom and a vertical or high-warp loom. In European tapestry manufacture of these are known as *basse lisse* and *haute lisse* (Harris 2010, 24-26). Tapestry bobbins used on a

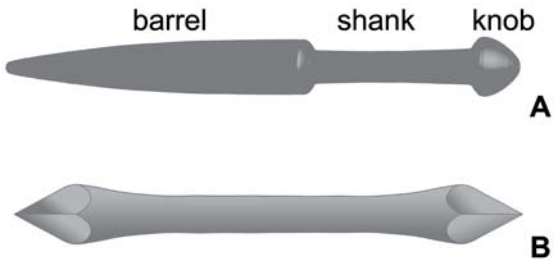

Fig. 1.
A: Outline of a tapestry bobbin (broche) with tapered barrel, shank and knob.
B: Outline of a flûte with diamond shaped ends.
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vertical loom are also called *broche* (French = brooch, pin, spindle), whereas bobbins for a horizontal loom are called *flûtes* (Müntz 1885, 358 and 363; Göbel 1923, 6 and 11). Tapestry bobbins or *broche* have a tapered barrel, a knob shaped end sometimes also slightly tapered, and a rebated section (shank) in between (Fig. 1, A) onto which the weft threads are wound. *Flûtes* are spindles with two diamond shaped ends (Fig. 1, B), the flattened ends preventing them from rolling away when laid down (Todd-Hooker 2011, 17).
In tapestry weaving, many wefts are used at the same time to weave the design and bobbins are used like shuttles holding the differently coloured weft yarns (Fig. 2). A weft yarn of a particular colour only crosses the warp where it is needed for the design.

Fig. 2. Modern tapestry with multiple tapestry bobbins in progress (Photo: Kathe Todd-Hooker, Albany / Oregon).

When winding thread onto the shank it should not be overfilled (exceed the width of the barrel or ends) as this may cause rounds of weft to be dragged off due to friction when passing through the shed. When working on a vertical loom the tapestry bobbin is passed knob first through the open shed in order to prevent the longer tapered end becoming tangled in the warp threads (Fig. 3) and the side and tip of the pointed end are then used to pack or scrape down the weft (Fig. 4) before it is beaten down with the beater (Göbel 1923, 7). The tip should not be used for beating since it might get caught in the weft or break, as it might also do when used to adjust weft and warp. This is where pin beaters come into use. If the tip of a bobbin does break or splinter a small knife may be used to sharpen the point again (Todd-Hooker 2011, 30-31 and 37-38).

The tapestry bobbin and pin beater from Lengberg

The tapestry bobbin from Lengberg Castle (Fig. 5) with a length of 14.2 cm, a maximum diameter of 1.1 cm and a weight of 2.32 g has been carved from beech wood. The width at the tip of the barrel measures 0.2 cm. The pin beater (Fig. 6), with a length of 16.6 cm, a maximum width of 2.2 cm at the handle and a weight of 13.08 g, has been carved from birch wood. With a diameter of 0.5 cm its tip is much sturdier than the tip of the tapestry bobbin and therefore less likely to break when used to beat down the weft. On both tapestry bobbin and pin beater distinct tool marks can still be seen.

The tapestry bobbin from Lengberg can be compared to modern turned bobbins. Its shape is very similar and offers no difficulties in identifying this object as soon as one knows what to look out for (Fig. 8).

Based on finds of pin beaters from other sites and from medieval pictorial sources, pin beaters are considered to have been used on vertical looms from the late 9th century. These pin beaters look slightly different from the one from Lengberg as they are made from bone or antler, cigar-shaped with two working ends or a flatter form with only one working end (Rogers 1997, 1755). They do not have a handle like the wooden pin beater from Tyrol. The reason why bone and antler pin beaters have more often been found can be explained by the small number of finds of organic material such as wood. The lack of a handle can be explained by bone and antler being harder to work.

Fig. 3. Bobbin passed knob first through open shed (Photo: Kathe Todd-Hooker, Albany / Oregon).

Fig. 4. Using the edge and tip of the pointed end to pack down the weft (Photo: Kathe Tod-Hooker, Albany / Oregon).

Fig. 5. Wooden tapestry bobbin from Lengberg Castle, East Tyrol (© Institute of Archaeologies, University of Innsbruck).

Fig. 6. Wooden pin beater from Lengberg Castle, East Tyrol (© Institute of Archaeologies, University of Innsbruck).

Fig. 7. Tapestry bobbin from Coppergate / York, 6651 (© Penelope Walton Rogers).

It is unlikely that the pin beater from Lengberg would have been used on a regular vertical loom for the production of plain cloth, as by the 15th century CE the vertical loom had been replaced by the treadle loom throughout most of Europe. Using a pin beater while working on a treadle loom seems impractical, thus making this tool redundant. Only on a vertical tapestry loom would it still be of use.

Botanical analysis

In order to determine the kind of wood used for the textile production tools from Lengberg Castle, seven objects were chosen for botanical analysis. Five of these were identified as spindle shafts (Find nos. 605, 628, 405, 697 and 622), one as pin beater (Find no. 150, Fig. 6) and one as tapestry bobbin (Find no. 629, Fig. 5).

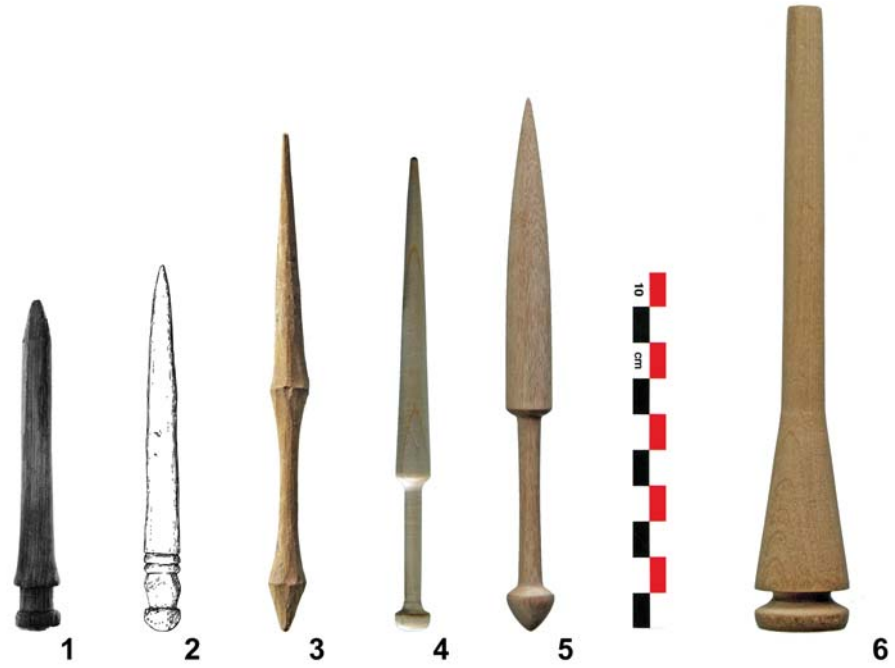
Due to the centuries of storage in a permanently dry environment, the preservation of the wood was very good, apart from small cell contusions and disruptions. This provided perfect conditions for wood sampling and identification of the species.

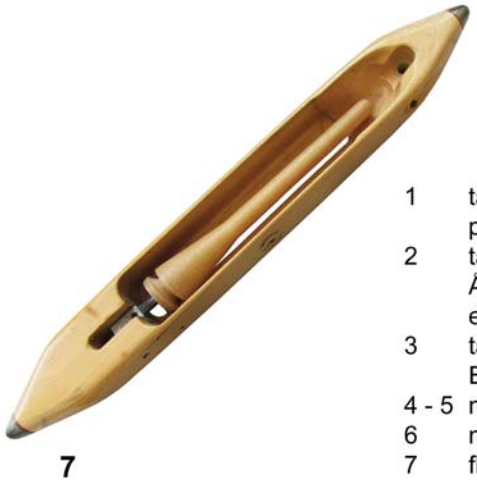
Botanical samples were taken from six of the seven objects at already existing fractures. To identify the anatomical patterns, thin cell layers of tangential, radial and cross-sections were extracted with a razor blade. The analysis of the anatomy was carried out using an optical microscope (Olympus BH2) and referring to standard literature (Grosser 1977; Schweingruber 1990; Schoch et al. 2004).

Because of its rarity, a non-invasive method was chosen for the tapestry bobbin. To analyse the superficial visible microscopic characteristics, a reflected-light microscope (Zeiss Axioskop) was used. Together with the macroscopic appearance, e.g. colour, wood anatomy visible to the naked eye, texture, etc., the most likely species was determined with some uncertainty. Deciduous wood characteristics were made visible by staining the samples with phloroglucinol and hydrochloric acid following the method of Biebl and Germ (Biebl and Germ 1950).

Find no.	Artefact	Wood species
150	pin beater	*Betula sp.*
		Birch
629	tapestry bobbin	*Fagus* sp. cf.
		Beech

Table 1. Results of the botanical analyses from Lengberg Castle, East Tirol. Analyses by Claudia Ottino.





1 tapestry bobbin from Coppergate / York
period 5B, c. 975 - early/mid 11th century
2 tapestry bobbin? made of antler
Århus Søndervold
early 13th - early 14th century
3 tapestry bobbin from Lengberg Castle,
East-Tyrol, 15th century
4 - 5 modern tapestry bobbins
6 modern pirn for flying shuttle
7 flying shuttle with inserted pirn

Fig. 8. Medieval and modern tapestry bobbins and pirns (No. 1 © Penelope Walton Rogers, No. 2 redrawn after Hellmuth Andersen 1971, p. 111. No. 3 © Institute for Archaeologies, University of Innsbruck).

Four of the five spindles were carved, or turned, out of softwood such as larch (*Larix*/*Picea*-Type) and spruce (*Picea*/*Larix*-Type) and one from a hardwood identified as lime (*Tilia* sp.). The two weaving tools were carved out of the hardwoods birch and beech (Table 1). As the pin beater and the tapestry bobbin would be under greater strain when used than a spindle shaft it seems prudent to fashion them from sturdier woods.

Medieval tapestry bobbins from York and Århus

Only two comparable examples of (possible) tapestry bobbins from the Middle Ages have been identified to date. At Coppergate, York, a wooden peg-like object, 9.4 cm long, dated to c. 975 – early-/mid-11th century CE was identified by Carole A. Morris as a tapestry bobbin (Fig. 7). The rebated part here is much smaller than on the one from Lengberg, therefore it was thought that the weft yarn also might have been wrapped around the barrel (Rogers 1997, 1761). If this was the case it would cause the same problems as an overfilled shank and the work would have to proceed very carefully to prevent the weft yarn getting tangled in the warp. A textile tool of very similar shape as the bobbin from York is a pirn onto which the weft thread is wound for use in weaving, too. Modern pirns are made of wood or plastic, slightly tapered for most of their length and the thread is delivered off the end of the pirn rather than from the centre (Fig. 8, No. 6). In contrast to a bobbin it is fixed over a pin inside an end delivery or flying shuttle (Fig. 8, No. 7) and the

surrounding shuttle protects the weft from friction. Although the tapestry bobbin from Coppergate was certainly not used inside a shuttle, the consistency of this tool shape throughout the centuries is remarkable. An object made from antler found during an excavation in Århus, Denmark, in 1963/1964 and described as needle without needle eye with a length of 11.2 cm (Hellmuth Andersen et al. 1971, 111) might also have been used as tapestry bobbin (Rogers 1997, 1761) although the rebated section is very slight (Fig. 8, No. 2). The needle has been found in a layer dating from the beginning of the 13th to the early 14th century CE. Other possible applications for this needle would be as pin beater or as parchment pricker, although the required metal tip for a pricker is missing. Parchment prickers were used by medieval scribes to pierce small holes on either side of a parchment in order to control the spacing of the horizontal lines drawn on the pages to guide the hand of the scribe (MacGregor 1985, 123-125).

The dawn of European tapestry

Even though written documents mention decorative pictorial wall hangings, little is known of early medieval tapestries. From the 9th century CE inventories from minsters and episcopal churches list *tapetia*, (Zentralinstitut für Kunstgeschichte 1967) and monasteries employed *tapetarii* or *tapeziarii* (Heinz 1963, 29), but the terms may also be applied to embroidered or brocaded pictorial textiles like the above mentioned Bayeux Tapestry and the `tapestry´ from the Oseberg ship. There is a written record dating to c. 985 CE stating that Abbot Robert of the monastery of Saint-Florent de Saumur[1] "acquired or gave commissions for a quantity of dossers[2], cushions, curtains, carpets, and wall hangings, all of wool. He had two grand pieces of tapestry executed, in the manufacture of which silk was introduced. … That these various fabrics were woven, not embroidered, the word *texere* [= weave] places beyond doubt" as Eugène Müntz wrote in his "Short History of Tapestry" (Müntz 1885, 68-69). But woven can also mean brocaded.

The use of the vague word *tapetia* in written records can be found throughout the centuries and is not limited to earlier times. Some sources are more nondescript than others. In a charter (c. 888 CE) of the Holy Roman Empress Richardis items from a donation of her husband Charles III to the Benedictine nunnery in Andlau, Germany, are listed, amongst them *tapetiis*. An inventory of donated manuscripts and implements from the parish church St. Pauls in Eppan near Bozen in South Tyrol lists one *tepetum* in 1241 CE. Both records do not offer any further descriptions (Zentralinstitut für Kunstgeschichte 1967, 13 and 119).

More information is provided by the instructions for various liturgical ceremonies dating to about 1105-1246 CE from the cathedral in Metz, France: *"A sancto Michaele infra debet pendere illud tapetum magnum, quod dependet infimum ante chorum in quadragesima. Supra sanctum Michaelem vero debet esse tria tapeta de sancto Arnulfo, in medio quorum est depicta ymago Sapiencie"* (The large *tapetum*, which hangs in front of the lowest chancel during the fasting period, should be hung under St. Michael. Three *tapeta* of St. Arnulf should be hung above St. Michael, the one depicting the image of Sapientia [the personification of wisdom] in the middle) (Zentralinstitut für Kunstgeschichte 1967, 139). Another more detailed source is a report the former Archbishop of Mainz, Christian II (1249-1251), wrote in 1253 CE on the furnishings and treasures of the cathedral in Mainz: *"Erant tapecia et dorsalia mira picture varietate distincta, que operis sublimate et pulchritudine animos intuencium admiracione mirabili delectabant"* (There were *tapetia* and *dorsalia* decorated with a wonderful variety of pictures, that amazed the souls of the onlookers because of the grandeur and beauty of the work) (Zentralinstitut für Kunstgeschichte 1967, 52). *Dorsalia* (or *pallia dorsalia*) may be freely translated to "back sheets". They served as covers on the walls of the choir and especially behind the stalls of the clergy (Bock 1871, 192-197). Both descriptions, the one from Andlau and the one from Mainz, make it evident that those hangings were pictorial, but again do not provide us with information as to the applied textile technique.

These records suggest that the earliest and main client may have been the clergy, although the *tapetiis* donated to Andlau by Charles III might have been used for secular purposes by the Emperor prior to their endowment. Monasteries and bishops used the tapestries as wall hangings in collegiate churches and cathedrals, where they served both as decoration and instructive elements for worshippers. Workshops were based in both monasteries and nunneries (Egg 1964, 1).

The earliest surviving example of genuine tapestry (= weft-faced plain weave with discontinuous wefts) in western Europe, dating to the 11th century, is the Cloth of Saint Gereon, Cologne, which has a repeating pattern of a bull being attacked by a griffin. Fragments of the tapestry are now at the Germanisches Nationalmuseum, Nuremberg, the Victoria and Albert Museum in London and the Musée des Tissus, Lyon (Wilckens 1991, 260 and 262). The earliest preserved large-scale pictorial tapestry of West-European origin is the Abraham and the Archangel Michael tapestry in the cathedral of Halberstadt, Germany. It has a length of 1026 cm and is dated to c. 1150 CE. An indication of

Fig. 9. Two Dominican nuns working on a tapestry loom. Detail from the lower border of a Passion tapestry, c. 1490/1500 (© Diocesan Museum Bamberg).

Fig. 10. Nun at a tapestry loom. Detail from the tapestry "The Adoration of the Magi", c. 1490/1500 (© Bavarian National Museum, Inv. No. T 3803).

Fig. 11. Noble lady in a castle weaving on a tapestry loom. Book illustration from "De Lof der Vrouwen", a Dutch version of the Cité des Dames of Christine de Pisan, written in 1475 at the desire of Jan de Baenst Riddere Heere van Sint Joris (© The British Library Board, Add. 20698, f. 90).

earlier tapestry production is provided by the tapestry bobbin found in York but to what extent it flourished cannot be determined.

For the following century little is known of European tapestry production. There are some knotted carpets, for example the section of the Marriage of Mercury and Philology in Quedlinburg (Wilckens 1991, 266-267), made c. 1200 CE, suggesting contemporary tapestry, but with the exception of a fragment from Norway[3], no examples from the 11th to 13th century appear to have survived.

From the beginning of the 14th century urban craftsmen adopted tapestry production and archival records provide evidence that tapestries were woven in Arras and Paris on a small industrial scale that extended rapidly after 1350. From then on large scale tapestry production spread across Europe and account records show that members of the French and Burgundian nobility sometimes spent huge sums on this art (Campbell 2010, 188). However, the production of tapestries in monasteries and nunneries did not cease. There is evidence for some tapestries woven by Dominican nuns in Bamberg in the late 15th century. The nuns marked their products by weaving small depictions of themselves working at vertical looms into the tapestries (Figs 9-10).

Simple, small-scale figurative tapestries were produced by workshops throughout the middle ages and well into the 16th century along the Rhine and in the Swiss cantons (Campbell 2002). Clients, owners and donors, also of large tapestries, were not only members of the nobility but also wealthy citizens. In 1453 Margarete Brand, daughter of the shoemaker Thomas Brand from Basel and widow of the merchant Peter Geisler called Lostorf, employed the *Heidnischwerkerin*[4] Berbelin Langenstein, who mainly worked for home and personal requirements of her mistress but also produced tapestries that were sold to the nunnery Klingental in Basel. Shortly before her death in January 1474 Margarete Brand commissioned the rather large (97 x 219 cm) wall hanging "*Verkündigung, Kreuzigung und noli mi tangere*" (annunciation, crucifixion and *noli mi tangere*) (Rapp Buri and Stucky-Schürer 1993, 88-89).

Even the elite circle of monarchs, princes, dukes, and the highest ecclesiastic echelons prized not only monumental but also small tapestries with devotional subject matter. These tapestries, often less than two meters square in size and of refined workmanship, were used as lectern covers or as frontals or dossals suspended from altars. Less than a meter in height or width these pieces could be executed at small looms by only one weaver (Cleland 2009).

Tapestry production at Lengberg Castle

Given the widespread growth in European tapestry production, it is surprising that no significant manufacture is known to have taken place in Tyrol or other Austrian counties. Surviving 15th century tapestries from Tyrolean castles and monasteries originate mainly from Switzerland or Germany. For example, six tapestries now in the monastery of Muri-Gries in Bolzano, South-Tyrol, come from the monastery Muri in Canton Aargau (Rapp Buri and Stucky-Schürer 1993, 11). From c. 1500 German tapestry production was absorbed by manufacturers in Belgium and the Netherlands and their costly tapestries also were bought by the Austrian nobility, first and foremost by Emperor Maximilian I (Egg 1964, 3). A letter from the Raitkammer (account chamber) in Innsbruck to Jörg and Leo von Niedertor, issued March 8, 1503, instructs the two noblemen to make inquiries as to the cost of some golden and other precious tapestry bought in Brussels by Sigmund von Niedertor and to report to the chamber (*Regesta Imperii*, RI XIV, 4, 2 n. 20297). Even as late as 1671 there is no mention of valuable Austrian tapestry in the sumptuary law of Emperor Leopold I, Archduke of Austria, but only "*Niderländisch- oder andere Außländische theure Teppich*"[5] which are prohibited and the *"geringeren Tappetzereyen, der gemeinen Türkischen und andern dergleichen Teppich"*[6] which are permitted for members of the lower classes (Guarient und Raall 1704, 155).

What does this lack of evidence of tapestry production on a large scale and of superior quality in Austria signify for Lengberg? Primarily that tapestry production at the castle only would have been undertaken on small scale, probably for home requirements. Christine de Pizan, in her 1405 book "*Le Trésor de la Cité des Dames*", gave advice for proper tasks and behaviour for women of various social classes:

> "Which explains how ladies and demoiselles who live on their lands should conduct themselves with respect to their households.
> She, her daughters, and attendants will make cloth, separating the wool, sorting it out, and putting the fine strands aside to make cloth for her husband and herself or to sell. The thick strands will be used for the small children, her servingwomen, and the workmen. She will stuff bedcovers with the large balls of wool. And she will have hemp grown by the farmers. During the long winter evenings, her maids will work and spin it into coarse linen. Many more such tasks as these would take too long to describe here." (Pizan et al. 1989, 170–173).

Although Christine Pizan does not explicitly mention tapestry in these lines it is clear that she thought that textile production in general befitted the rank of women of the minor nobility.

That textiles were produced on some level at Lengberg is evident from the spindles found in the cache and it may be assumed that the spun yarn was consequently woven into cloth. Was tapestry weaving done as a mere pastime by the lady of the castle , or extended to serve the needs for decorative wall hangings, cushions and the like not only for the castle but for the surrounding area as well? Maybe it was not even the female members of the household who worked on the tapestries or any permanent residents but a hired foreign, male *tapessier* who left some of his tools behind as he went to seek employment elsewhere after the termination of his contract. At least at the royal court the employment of foreign craftsmen was common practice in Tyrol by the end of the 15th and beginning of the 16th century. For example, Lienhart Straßpurger was appointed *tapessier* by the Royal Chamber in 1500 in order to look after the tapestries stored in Innsbruck (*Regesta Imperii*, RI XIV,3,1 n. 10413). Jean Feron was *tapessier* from 1498 to 1523 and Mahu (or Mahus) from Antwerp is mentioned as royal *tapessier* from 1500 to 1517 (Egg 1964, 3). But this was the royal court in Innsbruck. What about tapestries in Tyrolean castles of the minor nobility like Lengberg or even in houses of wealthy commoners?

To the possible use of lower quality tapestries for members of the minor nobility or wealthy citizens: In household inventories and estate accounts from 15th century Tyrol listings of *tebich* (modern German: *Teppich* = carpet) or *gewurkt* or *geworcht tuch* (modern German: *gewirktes Tuch* = tapestry woven cloth[7]) can be found.

In the estate account of Hans von Werberg (also: Wehrburg, a castle in South Tyrol) from the year 1420 it lists: "34: *ain seydein kúzz vnd ain ander kúzz, ain gewurkt tuch vber ain kúzz*" (34: a silk cushion and another cushion, a [tapestry?] woven cloth over a cushion (Zingerle 1909, 173). The silk cushion mentioned together with the cloth to cover another cushion could mean that this cloth was of a more expensive nature, too, and therefore a piece of tapestry. On the other hand the word *geworcht* appears several times in the inventory of Antoni Hertl, an *Amtmann* (bailiff) of Bozen in South Tyrol. "*132: ain geworcht pancktuch. 133: vier gross, geworcht, neu vnterzogen decken.149: ain geworchte, gute decken. 185: ain geworcht pancktüch für áin pett. 216: zwo geworcht gvlterdecken*"[8] (= 132: a woven cloth for a bench. 133: four big, woven, new lined blankets. 149: a woven, good blanket. 185: a woven bench-cloth for a bed. 216: two woven quilts). It seems unlikely that, although being a bailiff and therefore either a member of the nobility, a cleric or a member of the wealthy classes amongst the citizenship, Antoni Hertl would have owned that many tapestries even if they were of the poorest quality or that they would have been used as blankets. In addition here the word *geworcht* is also applied to quilts which would most certainly not be made from tapestries. This means that here the word was used in a different sense and probably just meant "woven" without any further connotations to a distinct technique. Unfortunately it might apply to all the records where the word *"gewurkt"* is used.

The word *tebich*, in other German sources also called *tappe* or *dappet*, is just as problematic, as it can be applied to any fabric hanging on a wall or spread on floors, tables, over chests, benches or beds (Zander-Seidel 1990, 369). To complicate matters the word *Teppich* (carpet) does not refer to any specific textile technique but can be applied to embroidered or brocaded cloth, tapestry or knotted pile fabrics. However, it is noteworthy that in Tyrolean inventories and estate accounts from the 15th century *tebich* only seem to be listed as furnishings belonging to members of the nobility or clergy. In the estate account of Count Johann Meinhard von Görz (* 1378/1380; † 22 Mai 1430) *"i kisten dar inn tebich sind"* (one chest in which are carpets) is listed as item number 24 of his possessions, unfortunately without any further explanation or description (Zingerle 1909, 205). As part of the inventory of Segonzano Castle in the Trentino in the year 1459 only *"ain tebich"* (one carpet) is mentioned laconically as item number 18 by Heinrich Anich (Zingerle 1909, 39-40).

The estate account of Georg Hak, the Bishop of Trent, from 1465 CE at least reveals a little bit more about the use of *tebich*: *"84: ii tebich oben in dem gemach. 85: darnach ain grossen tebich, den man praucht vor dem altar. 86. Item ain franzosys, groß tuech"* (84: two carpets in the upper chamber. 85: then a large carpet that is needed for the altar. 86: and a big French cloth) (Zingerle 1909, 197). Considering the extensive tapestry production in France maybe the French cloth is rather meant to be a tapestry? The carpet however seems to have been spread out over the altar - in this case the medieval German *"vor dem"* is probably to be translated with "for the" - and not hung in front of the altar as it would be if the *"vor dem"* was taken literally (= in front of) in the modern sense. Another carpet used in the chapel of Thaur Castle near Innsbruck in North Tyrol listed in a 1488 inventory supports the notion of the carpet spread over (*über ain*) the altar: *"147: Ain tebich über ain altar vnd sunst leuchter vnd glogken, was zu ainer cappellen gehort"* (147: a carpet over an altar and else

candleholders and bells, what belongs to a chapel) (Zingerle 1909, 140). Pictorial weavings for those carpets therefore seem unlikely as no one would see the image unless they stood right in front of the altar.
In-depth descriptions that help identify the exact nature of a fabric are almost non-existent as listings were mostly kept to the absolute minimum of information and the meanings of some old common names elude us today. The prices of those *tebich* are rarely indicated and origin or manufacturer for the most part never mentioned.
Even the more descriptive entry *"schoner grosser teppich mit pildern"* (beautiful, big carpet with pictures) worth 12 gulden from the estate account of Matthias Löffelholz († 1547) from Nuremberg does not mention the type of fabric in regard to the applied technique (Zander-Seidel 1990, 355). We can assume that it is a tapestry but pictures can also be achieved otherwise, again providing the possibility of embroidery, brocading, knotted pile or even painting. Records from late 15th and 16th century Italy like the guide to the city of Venice by Francesco Sansovino in 1581 show that at least the homes of wealthy citizens were decorated with tapestries, mostly imported from the Low Countries. With these imports we can be certain these were indeed tapestries with weft-faced plain weave and discontinuous weft. In the *portego* (reception room) the walls were hung with tapestries and hangings of brocade and damask for special occasions `according to the season´ (Fortini Brown 2006, 52-55). For warmth, tapestries also were hung in bedrooms and the 1496 inventory of Francesco di Angelo Gaddi, a Florentine politician, lists three tapestries worth 12 florins for this room (Currie 2006, 346).
However, according to Venetian archives, carpets from the Middle East were imported from the 13th century constituting one of the Republic´s biggest yearly expenses (Contadini 2006, 315). Carpets can be of the knotted variety (pile fabrics) or kilim (tapestry woven). Renaissance paintings depict them being used as chest covers, hung from windowsills and even as tablecloths and surviving pieces are mostly knotted. This suggests that at least some of the *tebich* mentioned in German sources could have been of oriental origin and woollen knotted pile carpets rather than tapestry.
To date there seem to be no surviving medieval household accounts or inventories of Lengberg Castle to provide us with information on the furnishing of this estate but based on the find of the bobbin there must have been at least some tapestry. So far the only known record is the travel diary of Paolo Santonino who briefly describes the construction of the castle after its remodelling in the late 15th century but has even fewer words for its interior: "The internal layout is exquisite, and on the lower and upper floor there are beautiful living rooms, prepared for summer and winter" (translation from: Egger 1947, 37). Considering Paolo Santonino went to great lengths in describing the two meals served at Lengberg during his visit, listing each course and how it tasted, one can only wish he would have been as meticulous with the interior of the castle.
The reconstruction was commissioned when Virgil von Graben became Burggraf (burggrave)[9] at Lengberg in the name of the Archbishop of Salzburg in 1480. He had the old castle "Veste Lengenberch" remodelled into a new representative *palais* by adding another storey. The Burggraf might have initiated the production of tapestries in order to decorate the newly established rooms. But as both the tapestry bobbin and the pin beater were found below the floor of the new top level of the castle, where they are believed to have been dumped during reconstruction, they probably predate the remodelling and were discarded before the newly constructed rooms needed furnishing.
Ultimately the problem of who made the tapestries and when at Lengberg can only be solved if further evidence is found, such as written records (e.g. a book of household accounts) that tell us if wages were paid for tapestry weaving or profits earned by the sale of the product. We cannot even guess the amount of money spent or earned at Lengberg because prices for tapestry vary depending on region of origin, period and quality as records show. The prelate of the Bishop of Basel Johann von Venningen (1418- 1478) paid *"7 gulden für drü heidesch tappeten koufft zu Regensburg"* (seven gulden for three pagan carpets bought in Regensburg) in 1471 (Göbel 1934, 17), whereas the gold-beater Georg Palm, who died 1547 in Nuremberg, left two "*Debich an der Wand*" (carpets on the wall) with the modest appraisal value of one-quarter to one and a half gulden compared to the prize of 12 gulden for the "*teppich mit pildern*" of Matthias Löffelholz who died the same year (Zander-Seidel 1990, 355). Wages were paid either per finished piece for contract work done by autonomous weavers, or depending on the period of employment. In an account from 1563 "Allexannder Tapeciermaister" receives a yearly payment of 180 gulden and his apprentice 25 gulden from the *Hofzahlamt* (royal account office) in Munich, while the independent weaver Hans Gräfinger is paid eight gulden and four kreutzer ("*Gräfinger tebichmacher vmh arbeit 8 fl. 4 kr*") probably for one tapestry (Göbel 1933, 200).
So until further notice for Lengberg, let us cling to the, admittedly, romantic image of the lady sitting at her loom, working leisurely on the tapestry as befits one

of her noble status. There is even no need for much imagination. A book illustration from "De Lof der Vrouwen", a Dutch version of the Cité des Dames of Christine de Pisan, written in 1475, depicts a lady sitting in front of a vertical loom in what is clearly a room in a castle (Fig. 11). At her feet are placed two baskets containing balls of coloured yarns. In her left hand she holds what might be either a tapestry bobbin or a pin beater made of wood, as suggested by the brown colour. Looking at the loom one can see that the artist even painted the discontinuous weft of tapestry correctly, as the last worked row does not run in a straight line.

Conclusion

Despite the great number of textile fragments found in the cache at Lengberg, even pieces of brocaded silk, unfortunately none of them are pieces of tapestry. Yet because a bobbin and a pin beater were recovered, there must have been some tapestry weaving taking place in the castle. Maybe there were no big wall hangings but rather smaller pieces such as decorative covers for pillows, chairs and other furniture. That no fragments were stored in the vault could be mere chance or they were considered too valuable to be thrown away, although there were no such qualms regarding the silk. Whatever the reasons and whoever worked on the tapestries at Lengberg, the one crucial fact that can be gained from the finds is the appearance of tapestry bobbins in Central Europe in the late Middle Ages as well as their construction and the material from which they were made. This provides us with the information needed to make replicas and study the serviceability of the tool.

The evidence from this study suggests that tapestry production was more widespread than previously believed and not necessarily carried out only in cities or monasteries by skilled craftsmen, but also on a small, local scale. As it is hard to believe that Lengberg would be the exception to the rule, one can assume that tapestries were produced in many small- to middle-sized castles in this region and across Europe. A future study investigating written records on the topic of tapestry production at castles would be worthwhile and provide further insight into medieval household manufacture of tapestries.

Notes

1. Former St-Florent-le-Vieil or Mont Glonne (founded c. 390 CE by St. Florent, a disciple of St. Martin), plundered by the Normans. The Benedictines of Saint-Florent Mont Glonne took refuge in the castle of Thibault, Count of Blois and founded in c. 940 CE a new abbey dedicated on 2 May 950 CE. After the storming of the castle in 1025 they settled near the church of Saint-Hilaire-des Grottes. A new abbey was built, dedicated on 15th October 1040 CE, which took the name of Saint-Florent-de-Saumur (Cottineau 1939, 2675-2678; Retrieved on 11th March 2013 from World Wide Web: Bibliothèque nationale de France).
2. Also: doser, dorser. An ornamental cloth used as a wall hanging or as a cover for a seat or altar, a piece of tapestry (Kurath 1959, 1243).
3. The Baldishol Tapestry depicting the 12 months of the year, although only the panels of April and May have survived, has been radiocarbon dated to between 1040 and 1190 CE (Nockert and Possert 2002, 90-92).
4. Since the second half of the 14th century tapestries are called "Heidnischwerk" (pagan work) in Basel and Strasbourg. This has nothing to do with the pictures depicted on them, as this name was also applied to religious motifs, but with the applied technique (Rapp Buri and Stucky-Schürer 1993, 21).
5. Dutch and other foreign expensive carpets (translation: B. Nutz).
6. Tapestries of little value, common Turkish and other such carpets (translation: B. Nutz).
7. Centre International d'Étude des Textiles Anciens <Lyon> (1971) *Vokabular der Textiltechniken Deutsch : Englisch - Französisch - Italienisch - Spanisch - Schwedisch*. Lyon. But although Oswald von Zingerle (Zingerle 1909, 315) translates *gewurkt* into *gewirkt*, *gewurkt* could also mean *gewebt* (= woven) in modern German.
8. kolt-, golt-, gollt-, gólt-, gölter-, golt-, göltar, gult-, güllter-, gultar-, masc., fem. neutr. s. pl. (s. culcitra), *gefütterte Steppdecke* (Zingerle 1909, 279). *Steppdecke* = quilt.
9. One appointed to the command of a burg (a fortress or castle).

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