

A Burgundian Court Shoe

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Abstract

The cordwainer's art takes its name from the supple and brightly coloured leathers produced in Cordovan factories throughout the middle ages. The finest Cordovan leather was prized for its bright red colour. Unsurprisingly, elegant shoes of this material were in demand during the height of the Burgundian dominance over Northern European fashion in the fifteenth century.

The slippers presented here are based on a number of finds from England and France as well as iconographic and textual information dating from the period. They are of a style commonly called a turn-shoe, being made inside-out and turned to provide a tidier and more durable shoe.

This document presents the design decisions made, as well as the evidence to support them. An appendix gives further information on the leather used.

Burgundian Footwear

In 1396 King of France had in his ownership 131 pairs of *chausses semellees* (Socks or hose with soles) with long whalebone-stiffened poulaines; 189 pairs of slippers in white, black, and red; 109 *bottines* (ankle boots); two pairs of high boots; and six pair of soft high boots to wear at night [Gay 1887, 'Chaussure'].

The selection of appropriate footwear was, as it is today, predicated on comfort, fashion, and weather. In the warm summer months a pair of chausses would have been sufficient, possibly with the addition of pattens to keep the feet out reach of damp ground. This is supported by images taken from the *Tres Riches Heures de Jean, duc de Berry* and from a painting done for Jean Sans Peur. In the winter months more footwear becomes evident, in the form of ankle books and slippers. A painting of Charles VI dated around 1410 show the king in his chambers clearly wearing a pair of slippers with long poulaines, while his courtiers wear ankle boots. A similar slipper is found in a miniature from Chritine de Pisan's *Epitres*, also early 15th century.

Choice of Materials

One difficult aspect of historical shoe construction is the selection of the leather to use. Although shoes have been excavated from archeological sites, few of the dig reports identify (or even attempt to ascertain) the kind of leather used, except in a few cases where kind of animal is identified. To establish what kind of leather to use we must examine the processes used to turn skins into leather, as well as textual evidence from period sources.

Methods of Preparing Leather

There are four different processes that produce leather from skins [Waterer 1946, p. 140] These are:

- Vegetable tanning;
- Mineral tanning;
- Oil tanning; and
- Aldehyde tanning.

All but the last were used during the medieval period, and in particular during the early part of the fifteenth century [Waterer 1946, pp. 140--146]. Of the aldehyde tanning we shall say no more as it is not of interest to the period. Of the others, we restrict the discussion to a very brief overview sufficient to establish the differences between the processes. An interested reader is referred to [Waterer 1946] for practical details.

Vegetable Tanning

By soaking skins in a solution of tannic acid (present in high concentrations in oak-bark, and to a lesser extent in most vegetable matter) a chemical conversion occurs that produces vegetable tanning. Vegetable tanned leather varies in natural colour from a pale cream to a dark reddish-brown. They tend to be solid leathers, easy to tool, and relatively stable with respect to stretch. The bulk of leathers used for utilitarian purposes (bottles, riding harness, belts, etc.) would have been vegetable leathers [Ibid, p. 146].

Oil Tanning

Oil tanning refers to preparing a skin by rubbing oily substances into the skin. The oil causes the fibres of the skin to become dehydrated, thus preserving them, and provides a water-resisting film. Modern oil tannage involves using oils that oxidize and so cause a chemical change in the fibres themselves that renders them insoluble, but this is not the case with the period process [Ibid, p. 145].

Mineral Tanning

The first mineral process used, dating back to ancient Egypt and Babylonia, is the alum process. Skins are soaked in a solution of alum and salt and the resulting leather is a pure white colour. The alum and salt will, however, wash out in water, and the leather must be further processed, according to the application, to avoid this kind of damage [Waterer 1971, pp. 23-24]. The process of preparing leather using the alum process is called *tawing*. Alum tawed leather is also very easy to dye in bright colours, alum being a mordant.

Choosing a Leather

I have found record of shoes made in vegetable tanned leather and of alum tawed leathers. In my reading I have yet to find a reference to shoes made from oil tanned leather, also commonly called chamois.

From Roman times articles such as shoes and gloves were made from tawed skins (in latin *aluta*). Tawed leather is delicate and easily dyed, and was used when the shoes and gloves were more for show than hard wear [Ibid, p. 20]. This tradition continued through much of the middle ages.

As early as the 9th century the Spanish city of Cordoba was renowned for the bright red tawed skins produced there. The French word for shoe-maker, *cordonier* is derived from the old French form *cordouanier*, referring to the cordovan leather.

Availability

Alum tawed leather is not widely available in the 20th century. It has been largely supplanted by chrome tanned leather which is more water stable than alum taw. One of the last industries where alum taw is used is in fine bookbinding, where alum taw has been in use since the middle ages. As such all the alum taw produced commercially today is very thin -- suitable for bookbinding, but not particularly so for shoes.

Fortunately there is a source of alum tawed leather. Rick Cvasin, also known as Master Balderik, of the Barony of Skrealing Althing (Ottawa, Ontario) produces hand-made vellum and alum taw. After consultation he agreed to provide me with one goat skin, tawed, and dyed red.

The Shoe

The shoe presented is a low-cut slipper with a rand at the lasting-margin and a short poulaine. It is decorated with a geometric design scrapped from the grain-side of the leather.

The rand serves to reinforce the lasting-margin (the part of the shoe where the uppers meet the sole). By providing more bulk at that seam the stitches can be made tighter without puckering the leather. The rand also serves to stiffen the lasting-margin, which is important since this is the seam that gives the shoe most of its shape. In shoes made for outdoor wear the rand also increases the water-tightness of the lasting margin since a tighter stitch can be made.

The short poulaine is in accordance with the fashion in the early part of the 15th century. The shortening of the poulaine at that time was a reaction to the excessive poulaines of the late 14th century. To help retain the poulaine's shape it has been stuffed with dried moss.

Construction Technique

Much of the construction technique of period shoes can be inferred from archeological and iconographic evidence. Until the advent of the so-called Tudor shoe, whose construction is in many ways similar to modern shoes, most shoes were constructed inside-out and then turned. They are most often referred to as turn-shoes. Turning the shoes inside out has two advantages. First is that the finished appearance is tidier since the seam allowances are all neatly tucked inside. Second is that since the stitches are moved inside the shoe the thread used to bind the sole to the uppers is not exposed to wear while walking.

Construction starts by laying out the shoes on the skin using a pattern, with an eye to making the best use of the available leather. The marked parts are then cut slightly oversize with a knife or shears. The parts are then fitted tightly over the last, tacking the leather lightly at a few points along the lasting margin. The positioning of the various seams can then be determined with some accuracy, and marked. The leather is then removed from the last and an awl is used to pierce the leather to make way for the stitching thread. The shoe can at this time be tacked together at a few points, returned to the last, which serves both as a form and as a way of holding the work, and the final stitches made, although only loosely. The shoe is then removed from the last, the stitches tightened, over-sized seam allowances trimmed back, and the shoe turned inside out. An important detail of the turning is that the poulaine cannot be completely stitched if the shoe is to be turned inside out - the fine point is

too bulky. The poulaine then needs to be stitched from the outside as can be seen in surviving artifacts. Laces and other fittings can then be added, after which the shoe can be finished by applying some dressing to the leather, such as wax or oil.

Lasts

If a shoe is to be made to the correct shape without being subject to vagaries in cutting, then the shoe must be made to fit a last. A last is wooden form not so much in the shape of a foot, but rather in the shape of the shoe. A match between the shape of the last and the intended wearer's foot is, however, important.

As the first part of this project I made two lasts, one right and one left, with an eye to fitting my own foot. Lasts would have been made out of some durable, available hardwood, such as beech. The wood could easily be formed to rough shape when green and then finished after a period of drying, as would be done with a bowl [Abbott 1989, McGrail 1982].

In the absence of fresh-cut beech, I made my lasts out of pine. I cut three contours approximating the shape of my foot, plus a poulaine, and stacked them to make an appropriate height. After glueup I attacked them with a rasp, a file, and some carving chisels. These lasts will not be as durable as lasts made of hardwood, but should easily outlive me nevertheless.

Patterns and Cutting

The most challenging part of making a new shoe is to make a suitable pattern. In a medieval shop working at shoes full time for generations this is less of a problem - the growth is largely evolutionary, making patterns easy to come by. When starting from scratch though, it is necessary to work through a few patterns to get the desired effect.

My first pattern was a cloth mock-up of the shoe, fit to my foot. I then cut this pattern in some scrap leather and fit it to the last, and assembled a quick mock-up of the shoe to give me another chance to adjust the fit and the last. I then made a pair of shoes out of some camel skin leather that I had on hand. I wore these to a few events to work out some more fitting problems, and then committed myself to the nice red alum taw I had made, using a cardboard pattern made from the last shoes before assembling them. I cut all my leather with a small chip-carving knife that I use for general work. In a period shop it is likely that a half-moon knife would have been used, as is frequently depicted in illustrations.

Stitching

There is considerable evidence available about the stitches used in shoemaking, most of it from shoes found in archeological digs. In particular the London waterfront digs [Grew 1988] and the Svendborg digs [Groenman 1988] provide ample evidence of the stitches used in the late medieval period. What is more lacking is an analysis of the fibres used, the thread not having been well preserved. This makes it like that the thread was linen, as vegetable fibres do not survive well in environments when animal protein might, which is the case with finds where large quantities of leather is found.

Decoration and Finishing

Only three different varieties of moss have been identified in any quantity in the shoes excavated in London [Grew 1988]. The particular mosses are all profusely branched with densely arranged small leaves, giving a very firm stuffing.

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