

A Beginner's Guide to Turnshoes.

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Introduction.

Turn shoes were one the most common types of footwear in Europe from the iron-age through to the beginning of the renaissance and are an essential for re-enactment if you want to do it properly. This guide is intended to help new members of re-enactment groups (particularly Regia Angolorum) to make a pair relatively quickly and easily and to give a selection of a few basic styles to choose from.

It is not intended to teach you how to draft your own patterns fitted perfectly for your foot, Aiden Campbell has already covered this subject in great detail, if you wish to learn to draft your own patterns I suggest you access his article here: <http://www.aidan-campbell.co.uk/PDFs/Guide%20to%20Viking%20turnshoes.pdf>

The patterns are instead designed to be sized roughly to the wearer's foot in order to give a quick fit so that a new member can get a first pair of shoes quickly with as little difficulty as possible and can get to go to shows properly kitted out. If they want to make a nicer pair later they will be able to without worrying about not having a pair of shoes at all for the next show.

So what is a turn shoe?

A turn shoe is a simple leather shoe that has been sewn together inside out, or with the seams visible on the outside and is then 'turned' from inside out to right side. Or to put it another way, with the seams now hidden on the inside, the purpose of this is to protect the seams from wear and prolong the life of the shoe. Because of the way they are made turn shoes are very flexible and this has a few interesting implications for the way you walk and move in them, particularly in where the weight is placed through the foot. Turn shoes encourage you to walk on the balls of your feet rather than the heels as most (male) modern footwear does.

What styles of shoe are there?

There are lots of different styles of turn shoe in the archaeological record, however these are some of the more common/popular ones that cover a good sample of Regia Angolorum's core time period and all of these have had examples of them found at the York dig.

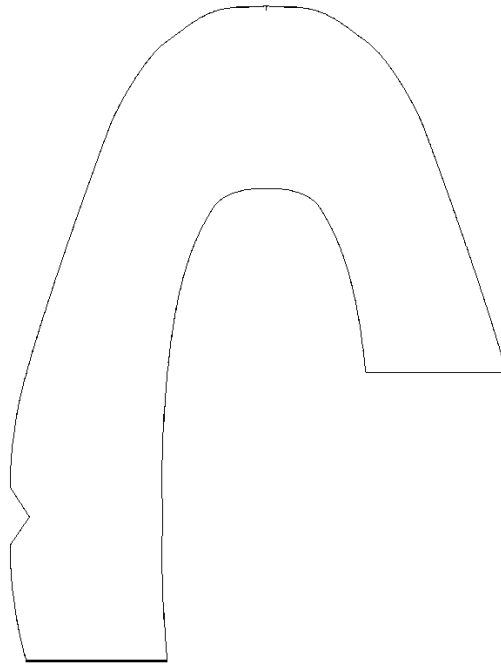
The three basic styles are:

Low slipper

This is the most simple and while suitable for men or women is usually thought of as a women's shoe.



The finished shoe



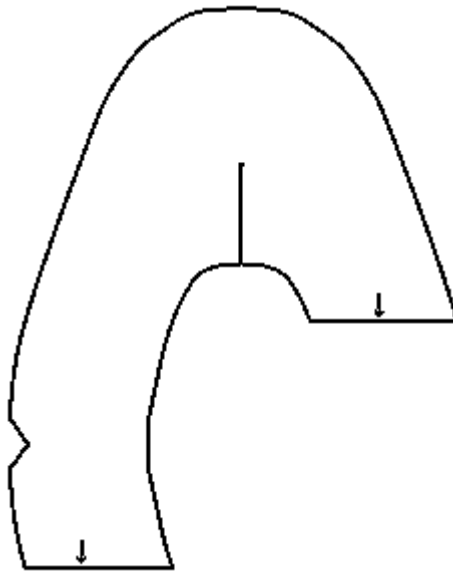
The pattern for the upper of the shoe

High slipper/lace-up slipper

Generally thought of as more of a men's style this comes a little further up the foot and has a single lace to hold it closed and on the foot



The finished shoe



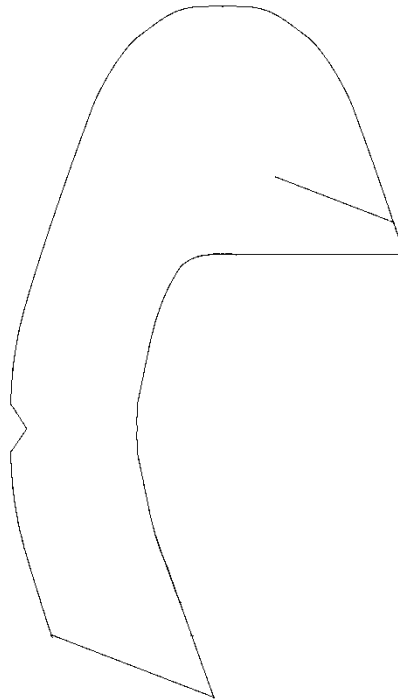
The pattern for the upper of the shoe

Single toggle shoe

Again usually thought of as a men's shoe but also the most difficult to make of the three styles shown here.

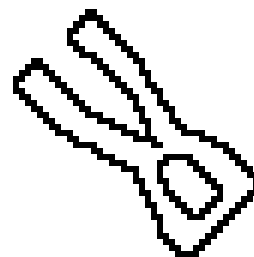
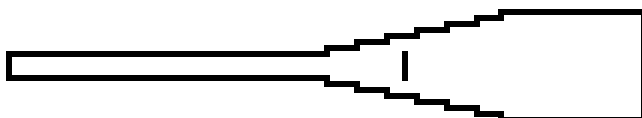


The finished shoe

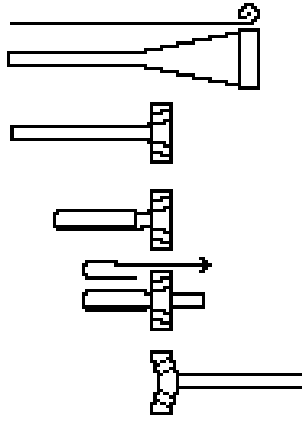


The pattern for the upper of the shoe

The other part that will be needed for toggle shoes is of course the toggles. These are made of leather not horn/bone/antler, there are no finds in the archaeological record of anything but leather at the time of writing. Here's the pattern for it in actual size:



Here's how to roll the left part of the above pattern:



To put the toggle onto your shoe simply sew the left section to the closure flap and then the right section to the main body of the shoe where it's needed to hold it shut. See the first picture if you're not sure where.

Sole

All of the patterns above use the same shoe sole which is pictured in the next section on the right.

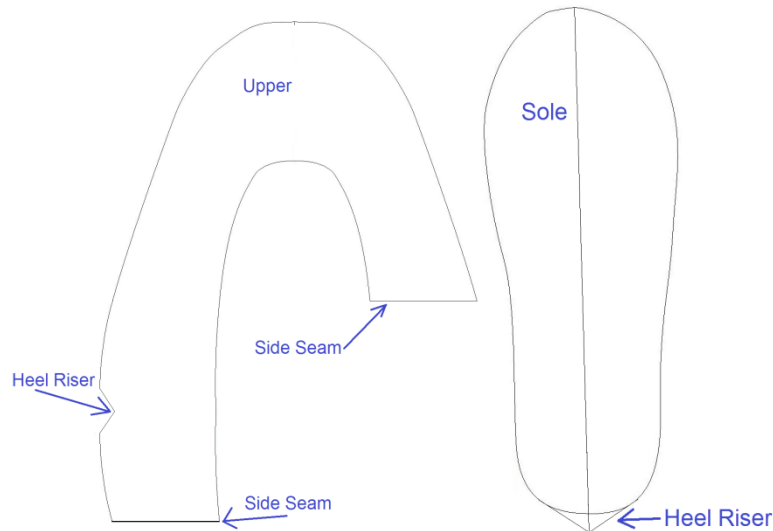
(Pictures of styles of shoes and instructions for the toggles are from: <http://www.personal.utulsa.edu/~marc-carlson/shoe/SLIST2.HTM>)

How do I make my shoes?

The instructions for using the patterns to make these shoes are listed below. However, before we look at that there are a few basic principles that need looking at first.

Names of the parts of the shoe:

This will help you to understand what is going on in the instructions.



Upper; This is the part that covers the sides and tops of your feet

Sole; This is what you walk on

Heel Riser; This is a little triangle of sole that comes a short way up the back of the foot. This reduces the wear in the heel of your shoes and drastically increases their life span

Side Seam; This is where the two ends of the upper join and should be on the inside of your foot. I.E. if the shoes are side by side then the seams are on the sides facing one another.

What sort of leather do I need?

Veg tan leather is the most widely available leather that is close to what was available in period. Oak tan is even better but is usually quite expensive. The Sole and upper are usually different thicknesses. The sole is usually cow hide of 3mm or more, I usually use around 5mm.

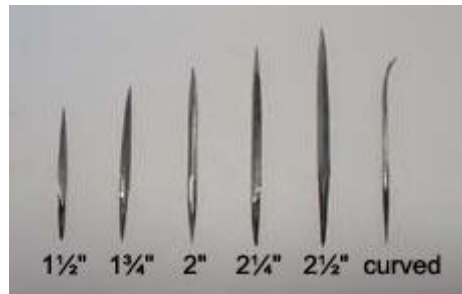
The uppers can be a variety of different leathers from different animals, eg cow, sheep, goat, horse ect. Just don't buy something exotic like kangaroo or alligator! The thickness I tend to use is around the 1-2mm mark and I would recommend cowhide for beginners as it's more forgiving to work with than sheep or goat as its much less stretchy.

Important!

no matter what kind of leather you decide on, it **MUST** be brown NOT black. If you stick with brown vegtan leather you won't go far wrong

What tools do I need?

Awls; To sew leather you cannot just force the needle through by hand it's too tough. Therefore you have to punch a hole first with a tool called an awl which is a very sharp spike on a handle. Be careful using this as slipping and stabbing yourself is extraordinarily painful. There are two basic types of awl, a straight awl and a curved awl. Personally I prefer a curved awl for shoe making but a straight one will work just as well.



A selection of awl blades

Stitch-pricker/ Overstitch wheel: Another tool that is useful but not essential is a stitch pricker. This tool is a little wheel of spikes that marks your leather to show you where to put the stitch holes in order to keep your stitching even. Not an essential but very helpful for making your shoes look that little bit tidier and more hardwearing. If you can't get your hands on a proper stitch-pricker then a good substitute is a metal eating fork, it'll do much the same job.



Needles: These are nothing unusual except that you will want a reasonably large eye on them as the thread is a little thicker.

Thread: this should either be leather worker's linen thread which can come waxed or unwaxed (if unwaxed you need to run it through a block of bees wax to wax it) or you can use artificial sinew. This looks like real sinew thread, but is in fact waxed nylon. Artificial Sinew is stronger than linen but a bit more expensive. Real sinew thread is even better for shoe making but is very hard to get hold of.

Whatever the thread is made of it should be waxed. This strengthens it and prevents wear while you are sewing. It also helps to waterproof the shoe and in the case of linen thread stops it rotting when damp.

How do I sew leather?

Once you have your pattern and pieces of leather ready you must first use the awl to make the holes to put the needle through. If you have a stitch-pricker, run this around the edges of your leather about 2-3mm from the edge. If not just make it as even with the Awl as you can.

When punching the holes in the sole we do NOT want to go straight through the leather, you go in the top and out of the side. In the diagram below the black is the sole, the brown the upper and green is the sewing thread. The reason for sewing in this manner is that it reduced the amount of thin upper leather in contact with the ground, thereby reducing wear.



The stitch that is used is called saddle stitch. Cut your thread to a good working length (I use the width of my outstretched arms), and then put one needle into each end. Take one and put it through the first hole in the two parts of leather and then the next. Now take your second needle and put it through the hole the previous one has just exited in the opposite direction. The end effect will look something like the pic below which is a cross section through the leather (black) and the stitching (red).



This is the only stitch you should need for your shoes.

Sizing guide

Apologies in advance that this method of sizing is slightly awkward, one day I will manage to persuade someone to turn all of this into a computer program that does it for you. Until then this is the best way I've got.

1. Measure your foot along the longest length (heel to big toe) and across the widest point (the ball of the foot).
2. Enter these +1 centimeter (this extra centimetre is for seam allowance and can be increased or decreased as you want/need) into the shoe sole at the top of the word document that accompanies this PDF. This is done by right clicking and selecting "size and position" you then need to uncheck "lock aspect ratio" and enter the values.
3. Take note of the percentages that this has changed the size of the picture by and enter them into all the other pictures in the document.
4. You have now sized the patterns to your feet. The patterns have been split into several parts to make them fit on an A4 page so you will need to put them back together using sticky tape to use them. Using the grey lines on the pattern to help you. As with the sizing guide above, one should perfectly cover the other and the pattern will line up.

How do these patterns work?

1. pick the size you want using the sizing tool included below in this guide (remember to wear your socks/footed hose when you do to make your shoes the right size)
1. choose the style of shoe you want from the three above and then print off the size above your shoe size allowing for the seam in the leather as mentioned in the sizing guide and put them together as instructed above.
2. Use this pattern to make a rough cloth mock-up of your shoe. This may seem silly but it's at this point that you will find any problems such as the shoe being too narrow/small. And be able to adjust for it. Put the finalised pattern on your leather and draw around it, flip the pattern over and do the same again to make both shoes. Make sure you do this on the inside of the leather to avoid leaving marks on the outside of your shoe (that's the rougher side that's the inside) it's also a good idea to mark the left and right parts on the inner side of the leather or you might sew a left sole to a right upper.
3. Cut your leather out with a sharp knife or shears if you have them a pair of kitchen scissors isn't up to this job.
4. Make certain that when you start sewing the shoe together the inner and outer sides of the leather are in the right place you want the outer sides facing one another so they will be on the outside when the shoe is turned.
5. Sew the uppers to the soles following the instructions above. NB the best place to start is in the point of the heel riser to make certain that the sole and upper line up properly.
6. Turn shoes the right way around. Some people like to soften them by putting them in a bucket of water over night before this step. I don't usually bother as they will turn without doing this, it's just a bit harder
7. Rub some veg oil into your shoes. This helps to waterproof them, makes the leather softer and more flexible, it also the shoe to last longer. Finally it also prevents the leather cracking.
8. Wear them!

Looking after your shoes.

Turn shoes don't need much care in general but there are a few things you can do to take care of them.

- Oil them from time to time. If you're wearing them on a regular basis rub some veg oil into them every so often to keep them supple and to waterproof them
- Don't leave them in a damp kit bag for ages. If you do then they will grow a spectacular green mould covering. The best way to deal with this is to wipe them with a damp cloth, gently dry them and then oil them
- Eventually you are likely to wear them at a show or training event where they get soaked through. **DO NOT PUT THEM ON A RADIATOR OR IN FRONT OF A HEATER TO DRY!** This dries the leather very fast and is likely to cause cracking. Just pop them somewhere at room temperature with newspaper in them and they will dry out just fine overnight.