







Garments

Tunic:

· Black and hunter green flannel with machine and hand embroidery

Trousers:

· Olive polyester microsuede

Gloves:

· Store-bought unlined chestnut-colored leather gloves

Armor

Scale Maille Skirt:

- · Black cotton
- · EVA foam scales

Chain Maille Hauberk:

- Bright Aluminum 14g 14ga 7/16" ID rings
- · Heavyweight cotton mid-section panel
- · Metal eyelets

Cuirass, vambraces, tassets, spaulders, and greaves:

- · 0.016" Brass Sheet 260-H02
- · Cast pewter
- · Various weights of veg-tan leather

Buckles:

- Cast pewter
- · Brass rod

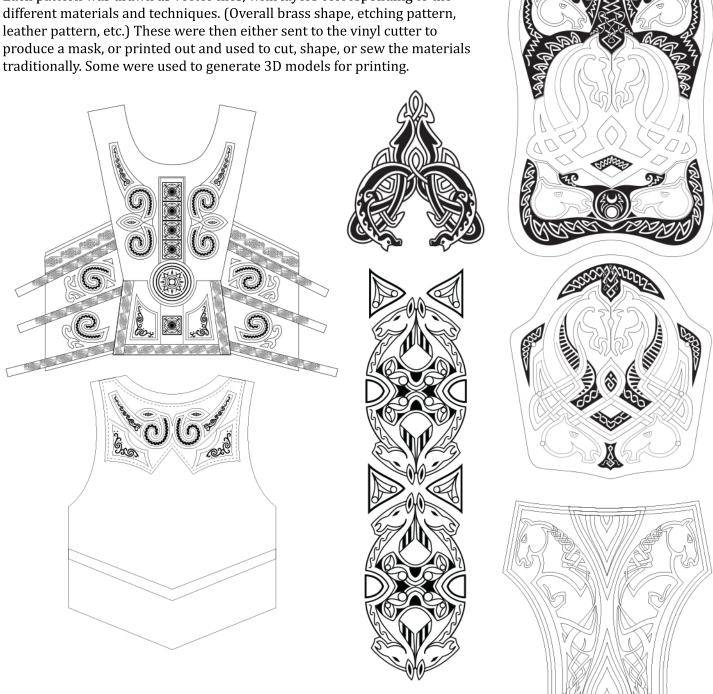
Boots

- · EVA foam
- · Polyester microsuede
- · Rubber welcome mat



For this armor and embroidery, I drew all the patterns myself, using the best reference available. I even reached out to one of the original designers, Daniel Falconer, on Facebook, and he generously shared behind-the-scenes costume reference photos with me, which proved invaluable.

Each pattern was drawn as vector files, with layers corresponding to the different materials and techniques. (Overall brass shape, etching pattern, leather pattern, etc.) These were then either sent to the vinyl cutter to traditionally. Some were used to generate 3D models for printing.





I made the tunic using Simplicity 1552 as a starting point, and modifying it for my needs. Specifically, I:

- · Extended the standing collar
- · Narrowed and lengthened the sleeves
- · Added cuffs
- · Split the skirt in the back
- · Rounded the corners of the skirt

I added embroidery to the collar, cuffs, and skirt. The knotwork along the edges of the skirt was done using a sewing machine with a zig-zag stitch, while the rest was done by hand using chain and satin stitches. To prepare for the embroidery, I printed the patterns on water-soluble transfer paper.

I also changed the front closure from eyelets to straps and buckles, mimicking the original.















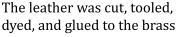
Each brass piece for this armor has been electro-etched. To accomplish this, I first drew all the patterns as vectors. Then I used these files to cut adhesive vinyl masks with a die-cutting machine. I applied the masks to the brass, connected an electrode, and submerged them in a salt-bath. After 2 hours, the exposed brass had been sufficiently etched and I could remove them from the bath, remove the masks, and clean up the corrosion. The pieces were then selectively darkened with chemicals to enhance the patterns.

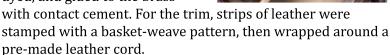






To achieve the beveled and/or raised details of the brass armor pieces, I created a tool from an old flat-head screwdriver. I used monster clay to hold the pieces while I worked, and using a wooden mallet and the screwdriver tool, slowly worked the lines into the brass.

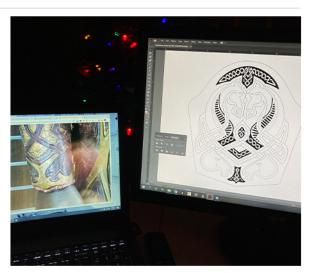


















Since there are so many repeated patterns on the various leather pieces, I designed and 3Dprinted several stamps. I designed the stamps to include guide rails and a presser plate to ensure consistent alignment. To emboss the design into the leather, I pressed the stamps into cased veg-tan leather using a bench vise.





I couldn't find buckles that were a close match to the originals, so I decided to create them myself. I had never cast pewter before, but that seemed like the best option. I designed the buckles in Fusion 360, 3D-printed a master, molded that using Smooth-On MoldMax 60, and cast copies in pewter. To achieve the weathered brassy/bronzy look of the originals, I researched patinas, then mixed a solution of cream of tartar and root killer (copper sulfate). Rubbing this on the pewter produced a finish that I liked. Each buckle was then fitted with a hand-shaped weathered brass tongue.











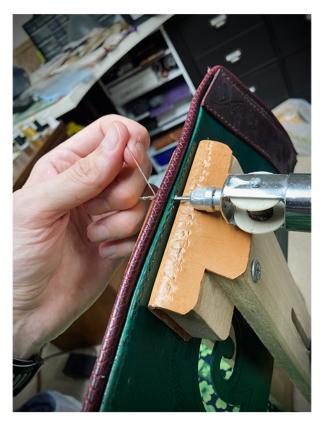


In addition to the brass and leather techniques described on previous pages, the cuirass is also constructed using leather stitching. I did this using a leather-stitching awl, some waxed thread, and a stitching pony.

All of the main leather pieces have an edge trim consisting of thin leather that has been stamped with a basket weave pattern, folded in half, and stitched together.

For many pieces such as the center-front red leather strip, I had to create new custom 3D printed stamps.

For the front metal details, I built them as 3D models in Blender, 3D-printed them, molded them, and cast them in pewter. The pewter was then given a patina similar to the buckles, and riveted to the cuirass.













REPURPOSED COMPONENTS

In 2013 and 2014, I made an Éomer costume. I decided to reuse several components originally built for that costume for Théodred, including:

- · Chainmaille Hauberk
- · Scale Maille Skirt
- Trousers

The hauberk is made from aluminum rings, woven in a european 4-in-1 pattern by hand. I added a heavy cotton panel in the mid-torso to save weight and effort. I then painted the rings with bronze spraypaint.

The skirt is made of hand-cut foam scales sewn to a black cotton base, and painted with black acrylic paint and Rub-N-Buff.

The trousers were originally constructed with no front closure, so I seam-ripped them apart and added a fly and eyelets.









Real boots in my size are expensive, and I wasn't satisfied with any of the commercial "cosplay" options, so I made my own. I found a pattern for doll shoes on the internet, and scaled it up for my size.

I made the inner sole, vamp, and side sections from 3, 4 and 6mm craft foam, shaped them with a heat gun over wooden forms (found at a thrift store) and my Converse, and cemented them together to form the structure of the boot. I then cut the vamp and sides from polyester microsuede, sewed them together, and used them to cover the foam.

I cut the outer soles from a rubber welcome mat from Big Lots, and cemented them to the foam.

After assembly, I weathered them with acrylic paint and fuller's earth.







