The completion of this project has been difficult. Not technically difficult but difficult because of all the choices I had to make. But for better or worse I made them, here are the results and the steps and choices I had to make along the way.

I’m a Pisces on the cusp of Aries and have trouble making choices even when given just a couple when giving many it’s really difficult. In the first half of the this project overcoming the structural aspect was a breeze but choosing how to finish off the covering of the hat has be the most difficult part by far. Primarily because in every picture I see of this hat it looks different. It looks gold when on the ground and on the Cheshire cat in the movie trailers and it looks almost olive to black in some of the other shots and somewhere between Kelly and dark Hunter green in the early publicity stills.

I seem to attract these types of projects I’m also working on a reproduction a de’ Medici gown. The gown worn by Laudomia de’ Medici was painted three times by three different painters all of the paintings are included in one of the volumes of *The Portraits of the Medici*. So, I seem to spend a lot of time deciding if I’m going to follow one or the other. In the end I chose to do some things as shown in one of the paintings and some like the other and some like the third. In this project I have taken a similar route.

I began to think that the hats differing appearance might be on purpose, after all this is Wonderland and of course it is a highly digitally altered movie. The most difficult “get” was the fabric. I tossed out my first choice because in the HD trailer you can really see it is a paisley, not just with black dots in a paisley patterns but also, with other shapes in another color. I found several paisley fabrics that might have worked maybe with some over-dying. This *Proust Paisley* if it was over-dyed a Olive or Hunter green or this *Green Tea* fabric if over-dyed darker as well. But none of those was shinny and the hat seems shiny in most photos. I could have made the hat up and brushed on a gloss based sealer like *Modpodge*. But I’m unwilling to settle as a rule so I decided to print my own fabric. The technology exist I have the computer skills and I have access to a large format printer (HP 5500cp) all these things being necessary I set out on that course.

The artwork
I used a vector drawing program (Canvas) for the beginnings of the project. I drew small a single black dot for the black and duplicated and move it as many times as necessary for the black. I used a polygon tool to trace the green leaf and center of the paisley then, filled that with a sort of brick fill for the green. At this point I ignored the random gold metallic areas.

Once I had drawn a single paisley and the leaf pattern, I duplicated and rotated them over and over again until I had about a foot square of the design. I then transferred the dots and the polygon shapes separately to a Photoshop file. In Photoshop I created a background and applied a layer style with a pattern overlay that had somewhat of a fabric
texture to it. I duplicated that square foot and fit it in place until I had a file that was 45”X45”. I would have been a little easier if it was a regular design with a repeat but this one is not all that regular so there are empty areas that you would not expect in a normal fabric.

It is a good idea to keep the elements in separate layers as shown with the green version above; the dots, the leaves and paisley curls and the background. If you keep them separate you can change little things about them without too much trouble. On the bottom right all the layers.

Printing

In order to print fabric on a large format printer you need fabric that has been attached to a paper backing. Several on-line companies sell this product. I chose to order from Color Textiles Inc. and I originally ordered Cotton sateen with 7 % lycra. That way I would get sheen and the bias stretch I needed to cover the hat. But they where out of that and not sure when they would have more. When I called the person said that she had a silk that would have enough stretch and it also had a texture. It was more expensive so I could only get a yard and a half at 44” wide. This meant that I only had one try. If the printer barfs on the fabric it’s wasted (it happens more times than you would think). I worked it
out with the pattern pieces on my computer, I would be able to do one 12” long test so I chose to print half of that in gold and half in green at half scale so I could make some mini hats and be able to chose between the two colors.

My half scale test just about printed. The test was very important as it let me see that the light green on the green background did not show up. It needed to have the saturation increased.

The full size fabric about one third done printing The leaf and paisley pattern much more visible maybe I went too far but it is my favorite part on the design.
The fabric all printed and drying.

Once the paper is pulled off the back of the fabric it seems very much like regular fabric. Here are the gold half scale and the full size green shown with a half scale and full scale mulled buckram form.

Crown tip
Another thing I tossed from the first half of this project was the idea of covering the crown tip separately in order to create a ridge like in the publicity shots. From the trailer you can really tell, when you stop the picture, that the crown tip fabric and the crown sides fabric are sewn together with a black thread and a very irregular stitch. There is also some visible hand stitching on the brim edge and some patches sewn down with a similar stitch.

New wired buckram crown tip.

Stretched and glued mull over crown tip.
I added a line of glue along the top edge and carefully laid a piece of mull over it. Going around the edge I stretched the mull a little until it was quite smooth.
Trimming away extra mull.

Looking from the underside cut away the extra mull.

Finished mulled crown.

The third change was to add a line of stitching just inside the wire on the brim I figured this would help keep the brim looking thin as it does in the photos.
Cutting the fabric

Just a quick note, below I describe what I did but I would have been wise for me to just mark the cut lines for my fabric pieces and to cut them after I did the gold stitching. That way I would not have had so much trouble getting the pieces into an embroidery hoop.

Fold the fabric along a bias line use the pieces of the hat to determine if you will have enough fabric either side of the fold to get all the pieces cut out where you want them to be cut, following the design, etc. Cut the fold line.

Fabric cut along bias fold.
Use one of the triangles of fabric for the crown sides and the crown tip and the other for the two brim pieces. Use the mulled brim to cut two fabric pieces on a 45° angle. Cut about a ¼ inch seam allowance.
Cutting a fabric piece for brim.
Repeat.

Cutting the second brim fabric.
Stretch one of the brim pieces and clip it along the edge as below and use a marker to mark a line just inside the wire that runs along the edge.
Brim edge pinned.
With a disappearing pen mark the edge and the areas where you need to add gold stitching. After studying the trailer I chose to add the gold metallic areas with sewing machine stitching. (Side note: I very disappointed that I can’t do that stitching right now as the power is out. I can’t even do any ironing. I’m running on battery power and now it’s already down to 50%).

Areas for the gold stitching marked.

Take the under brim fabric off the brim and mark for a ¼” seam allowance.
I’m using a ¼ inch transparent square rod to mark the seam allowance on the under brim. Trim the seam allowance. Mark the places you want gold stitching on the upper brim fabric but it is not necessary to trim the seam allowance on that fabric at this point.

Seam allowance trimmed on the under brim fabric.
On the other half of the fabric make a cut at a 90° angle from the bias that is the height of the crown plus 2”. This cut will form the center back and the bias cut will be the upper edge of the crown side.

First two cuts for the crown sides fabric.
Stretch the fabric around the crown inside out. Use pins to close it at the center back or as it seems in the movie trailer the seam is on the right side.

Fabric stretched and pinned.
Trim the center back seam allowance and the bottom. Leave a little more than ½”.
Trimmed seam allowances.
Mark the seam and the bottom edge with a pencil.

Marking the seams between pins.
Unpin the fabric and lay it flat. Mark a ½ “ seam allowance for cut line. I used a fine point Sharpie as I knew it would not show thru the fabric. You chose to use a disappearing pen.
Marking seam allowance and cut line from pencil line made in last step. I then trimmed the fabric with straight scissors along the bottom and pinking shears alone the top and side edges.

Crown sides fabric with edges trimmed.

You can set the crown on the fabric and mark around it with a \( \frac{3}{4} \) inch seam allowance to get the cut line for the crown tip fabric. Also mark the areas for the gold metallic stitching.

At this point I wanted to test the gold stitching. Here is the test. I realized that it was a pain to use the hoop as most of the stitching is very close to the edge so I need to get some heavy weight melt away interfacing to use with this fabric.
Test of gold stitching.
After the test with the sewing machine I decided to do the stitching by hand. I used a mix of satin stitch or laid work to save thread. See next figure.

**Crown tip**
Smooth the crown tip fabric over the crown tip and pin in place. Sew the seam allowance down using a backstitch just over the edge. Smooth and stretch the fabric as you sew. Clip any tucks in the seam allowance as you go.

Crown tip fabric sewn down with the seam allowances clip and gold stitching.
Crown Sides
I usually drape and pin before cutting the fabric for the crown sides. With the right sides in I pin the center back. Slip the fabric off the crown and sew the center back without even removing the pins. I trim the seam allowance and press an even seam allowance along the top edge of the fabric. But in this case I want to put it back on the hat with the right sides out so I can mark the areas for gold thread. In the end I figured adding the gold work after I got the piece of fabric stretched and on the hat would be best. So I press the top seam allowance down and sew the center back seem. Slipped the fabric back on the crown with the fabric right sides out and stretched into place. Sew the edge of the crown tip to the crown sides, “like a drunken’ sailor”. I think I will go back and redo this with a double thickness of heavy thread. It doesn’t show up as much as it should.

Brim
I did one thing before adding the fabric to the brim and that was to add a line of machine stitching just to the inside of the wire this will help later. Then I stretched the upper brim fabric and from the opposite side I sewed a line of stitches over the head opening stitches on the mull.
Brim from the both side showing the stitching around the head opening line.

I folded this fabric and added a layer of stitchwitchery between the fabric and mull, this will help hold down the fabric when the side edges of the brim are curled up. I did not use an iron to fuse the fabric to the brim at this point.
Stitch witchery over mull with fabric folded back.
I re-stretched the fabric and used the iron to fuse the fabric to the topside of the brim.

Fabric fused with an iron.

I sewed a line of stitches along the outside edge of the brim just inside the wire.
Brim from underside with the two lines of stitching.
I trimmed the extra seam allowance. Now is a good time to check the brim for fit, if it seems a little small you might want to trim away some of the seam allowance in the tab area.
Brim from both sides with a trimmed outside edge and the mull in the tab area carefully cut away. And a fused upper brim fabric.
I Clipped the under brim fabric on the bottom as shown.
Photos from upper brim showing the under brim fabric wrapped around the edge and clipped ready for sewing.

From the upper brim side I sewed another line of stitching for head opening 1/8” in from the others but this time I used a stretch stitch. When the clips are cut in the head opening seam allowance when the tabs are folded in this allows the seam to be inside the hat and not right on the edge which can show on some people. If you are going to add a
sweatband it will also be inside the hat and not on the edge.

I trimmed the outside edge.

In this picture from the from you can see the two rows of stitching the outside one is a regular stitch and the inside one a stretch stitch.
I made some double fold 5/16” inch bias tape from the fabric. I stretch it over the edge and sewed it together where it met in the back.
Bias tape clipped to the brim edge.

With the clips still on but taking them off one by one, I sewed a wide Zig-Zag stitch around the edge of the hat. The stitch was 7.5mm wide. I varied the stitch length every few stitches or so to make it look more irregular.
Bias tape clipped to the brim edge.

I sewed the brim to the crown by hand with a heavy thread making sure to catch the tabs on the inside of the hat.

Right side decorations
I chose to do the patch in four colors and the fabric much like the Publicity shot. I had a Peacock hatpin made by my friend Laura that was similar to the one in that same photo so I used that. I made the patch with short lengths of 4 colors of 5” ribbon and some 5/8” bias tape of the fabric. I cut a 3.5”X2” piece of the fabric ironed a piece of Wonderunder of the same size on the backside of this. Then ironed, affixed first one piece of the bias
then one piece of the ribbon at a time and then the last piece of the ribbon. I made sure that there was at least $\frac{1}{2}”$ of the bias and ribbon hanging over each end of the backing. I trimmed and frayed one end and pressed one over. There is a second patch of plain fabric. I added a piece of flannel inside the patch to pad it out a little. I did the same on the left side patch.

I sewed the patch in place “like a drunken sailor” with black thread.

Left side decorations
I printed the hat size paper tag on a Epson photo printer and used Edwardian Script font and a heavy paper. With a little playing with leading and the size of the capitols it is a very close match. I chose to add the phrase “in this style” from the original book illustrations just to be different.
Original Mad Hatter Illustration, the 10/6 is the cost of the hat. An amount such as 10/6 would be pronounced "ten and six" as a more casual form of "ten shillings and sixpence or half a guinea.

**Hatpins**

The first thing that caught my eye on this hat where the hatpins I think I said out loud “What fun!” As many of the hatpin blanks one can buy are two flexible for such a long hatpin, I made the hatpins on brass welding rod that Stephanie ground to sharpen. You need to use a glue like E6000 to glue the beads in place. The Peacock hatpin was made on a stainless steal rod that we grind in a similar way if we want silver hatpins. Stephanie ground the points I took the pictures. Really it’s not a grinder it’s a 1” belt sander, a grinder would work but just not as well. You have twirl the rod in your fingers as the sandpaper grinds the point. Keep a container of cold water next the sander to dip the pin
into to keep it cool. If the brass gets too hot it will turn dark.

Picture of the brass rod being shaped on a belt sander because of the direction of the strip of sandpaper you need to hold the rod with the point down.

After grinding you need to use some 400 grit aluminum oxide sandpaper to sand out the fine ridges that the shaping has left in your point.
Picture of the brass rod being smoothed.

Picture of the hatpins and my glue of choice.
Hatband
In the trailer you can see that it looks like a scarf with fringe and a white embroidered flower motif that it was cut up on bias to make the band. It is somewhat ragged and some parts of the tails seem not on bias but that is difficult to tell.
I found a silk/cotton sateen at my local fabric store that was spot on for color so I used that. I haven’t done the white floral embroidery. I cut a strip 11” wide, as there are lots of tucks, across the fabric. I trimmed that so it would end in the knot and I added two shorter pieces to each end one on straight of grain and one on bias. Because the fabric was some what see thru I sewed it to a narrower strip as wide as tall as the band is high plus two seam allowance that way there are no folds on the inside layer of the band and all the tucks are on the outside.
I would like to thank Laura and Richard who were a great help in finding images of the hat for this study and Stephanie for being “grinder girl” while I took pictures of the hatpin making process.