

How-To



Madame Vastra: Making Latex Prosthetics in Your Kitchen *Sahrye Cohen*

For those who think that creating killer prosthetic makeup requires expensive equipment and elaborate techniques, this article is a real eye-opener!

Doctor Who's 50 year history has provided fans with many fabulous characters to cosplay. I began watching *Doctor Who* in 2006 with the new series and the Ninth Doctor. One of my recent favorite characters is Madame Vastra, a Silurian currently living in late Victorian England. Last season's episode, "The Crimson Horror," showcasing Madame Vastra and the rest of the Paternoster Gang, inspired me to make the costume. The cosplay



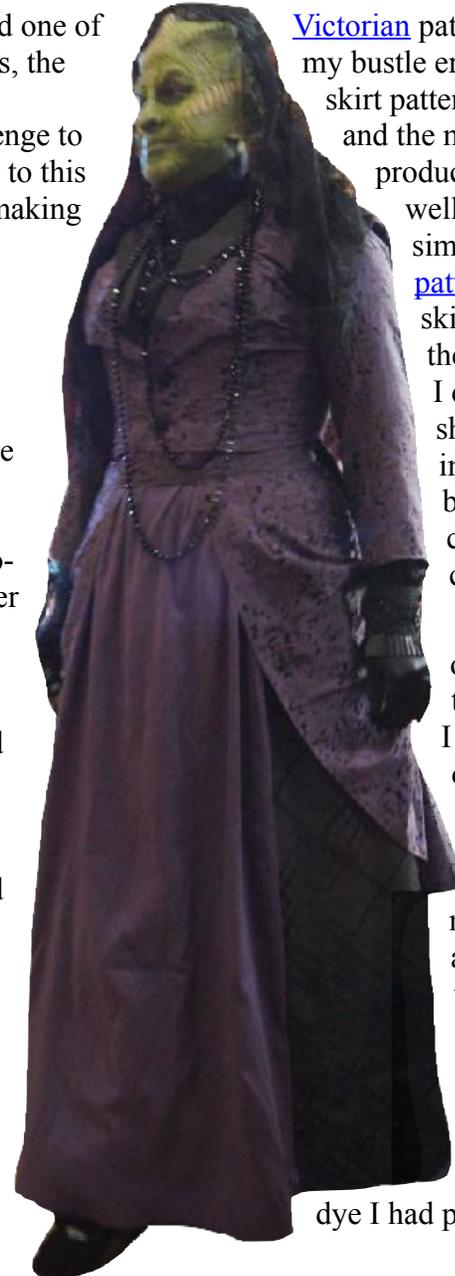
Right: Sahrye Cohen as Madame Vastra. Photo: GP Mckenzie, Unimedia. *Above:* Neve McIntosh as Madame Vastra. Photo: BBC.

was appealing because it combined one of my favorite historical costume eras, the Bustle period, with a non-human character, which would be a challenge to make. There were two major parts to this project, making the costume and making the prosthetics.

The Costume

In "The Crimson Horror" Madame Vastra mostly wears a purple and black bustle dress. Observant costumers will note that the episode supposedly takes place 1893, a year in which the fashionable and well-to-do Madame Vastra would no longer be wearing an unfashionable bustle. However, since I am fond of this style, and the show uses an earlier style dress, I decided to make a 1880s style bustle dress. I already own the necessary Victorian undergarments, a corset and lobster tail style bustle, and only needed to make the dress and accessorize fabulously.

The dress appears to be in two parts; a bodice with a fake front, lapels, and skirt drapes, and a full length skirt. I often use [Truly](#)



[Victorian](#) patterns as a base for many of my bustle era dresses. The bodice and skirt patterns mix and match nicely and the measurement system always produces garments that fit me well. In this case I altered the simple [1871 day bodice pattern](#) to add lapels and a skirt drape, and paired it with the 4-gore underskirt pattern. I decided to use a separate shirt under the bodice instead of the false front because I already had a costume shirt with a similar collar.

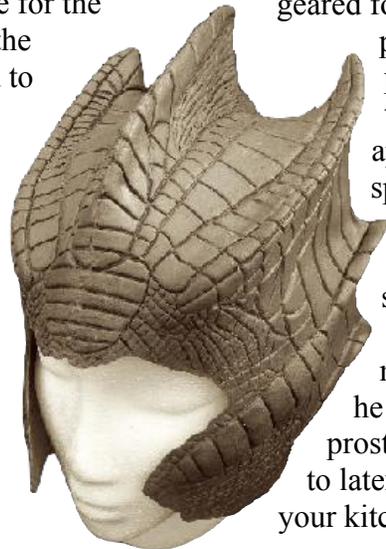
The most difficult part of the costume was finding the correct fabric. Although I would guess that the original costume uses a synthetic material, I prefer to make my historical costumes from natural materials and wanted either a silk or cotton fabric. On a trip to the Fashion District in Los Angeles, I finally found a cream silk with black flocking in a paisley pattern. After dyeing this with purple Jacquard acid dye I had purple silk with a quite a bit

less flocking. Lesson learned; silk with flocking is not machine washable. The dress was constructed using a combination of historical and modern techniques. The bodice was flat-lined and boned along the seams, which is typical of Victorian construction. But all seams were finished with a serger for speed!

To complete the look I wore several vintage black glass bead necklaces, black gloves (fashionable and I didn't have to paint my hands), and a long black lace veil.

The Latex Prosthetics

My decision to cosplay Madame Vastra was the impetus for learning how to make latex prosthetics in my kitchen. The special effects makeup on actress Neve McIntosh is the collaboration of several industry professionals. Barbara Southcott was the makeup designer; Pam Mullins was the makeup supervisor; Neill Gorton's MillenniumFX was responsible for the prosthetics. From research on the application process it appeared to me as though the makeup was accomplished using two prosthetics, a large cowl and a facial mask. After researching prosthetic and mask production I decided to purchase an unfinished latex cowl (right) from Kyle Pasciutti at [Decimated Designs](#) because of the complexity of making a large mold, for the cowl, possibly a

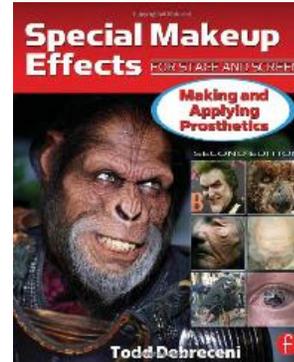


two-part mold. Based on my research I was confident that I could sculpt, cast and finish the facial latex applications. The process is inexpensive, requires very few specialized materials, a relatively small amount of time, and can be accomplished with the guidance of easily accessible references.

References and Materials

Several excellent references provided guidance for my first foray into latex prosthetics.

Special Makeup Effects for Stage and Screen: Making and Applying Prosthetics by Todd Debrececi (ISBN 978-0240816968) is an excellent text geared for serious



prop and prosthetic makers. While many of the materials and methods are more appropriate for those with specialized shop space, the chapters on sculpting are valuable for beginning prosthetic makers. It should be noted that Debrececi does not cover the latex prosthetic method that I used in this article but he does describe making glycerin prosthetics, which are a great alternative to latex and can also be easily made in your kitchen.

[The Monster Makers](#) provides mask making kits and an instruction manual for making both latex prosthetics and more complex latex masks. The website provides a good overview of the materials and methods. If you would like to make multiple latex prosthetics from your mold I would recommend the sturdier materials used in the Monster Makers kits.

The most invaluable reference was the tutorial "[Prosthetics on a Budget](#)" by Mistress of Disguise. I used many of the same materials and methods she describes.

The reality TV show "[Face Off](#)" on the Syfy channel is excellent for watching professional prosthetic makers complete the entire process from initial design through sculpting, casting and application.

I ordered my latex and prosthetics application materials from [The Engineer Guy](#) who specializes in moldmaking, casting and special effects (Special FX) supplies.

Materials

- Head or face base
- Sculpting clay
- Petroleum jelly
- Plaster of Paris
- Casting Latex
- Powder (setting powder, translucent makeup powder, baby powder)
- Acrylic paint

Selecting a base and sculpting

Professional prosthetics makers, such as those on “Face Off” or in the movie industry, often use a precise copy of their actor, called a life cast, as a base for sculpting a prosthetic. In my quick version I used a beauty school hair dressing model, which had the advantage of being a hard, impermeable plastic. Mistress of Disguise recommends using a male sized Styrofoam head, which would also be an excellent choice. A full sized sealed plaster or plastic mask could also be used as a base if you are sculpting small latex prosthetics.

The most important factor is to be sure the face size is comparable to your face. The hairdressing model turned out to have a smaller face than mine even though the measurement around the head was the right size. I recommend covering the form with either plastic wrap or aluminum to make the cleanup easier after sculpting and casting.

Either water-based or oil-based clays can be used for sculpting. The main difference between the clays is drying time. Water-based clays dry out quickly unless they are tightly covered while oil-based clays never completely harden. I used an oil based clay modeling clay that was purchased at my local craft store. You can sculpt your

clay just using your fingers and a Popsicle stick but some specific sculpting tools available online or at your local craft store can make this easier.



Left: Beginning sculpt on foil covered head base. Right: Finished sculpt with deeply carved details.



Before beginning your sculpt find some good reference images of your character from several different angles. Very fine lines and shallow details will be hard to produce on your final prosthetics, so be sure to exaggerate details and incise lines a bit deeper than they appear in your image.

Making your mold

I used Plaster of Paris to make my mold because it is inexpensive and easily available in small amounts. However, it is

not very sturdy and I was only able to make two copies of my latex prosthetics before the fine details started crumbling. Before casting your mold, use your fingers to lightly spread a thin layer of petroleum jelly over your clay sculpt. This acts as a mold release so the clay doesn't get stuck to the plaster.

To make your mold, you can build a clay dam around your sculpt and cover it in thick plaster or place it into a contained pool of thinner plaster. I formed a clay dam around my sculpt, but because my plaster was a bit too thin I found it easier to place the whole piece into a pool of plaster with the dam helping to hold it in place.

To do this I lined a small cardboard box with a plastic bag and began to pour the plaster of Paris into the box. I placed my sculpt facedown into the box and continued to pour in the plaster until it reached the level of my clay dam. Plaster of Paris dries fairly quickly so be sure to have enough to complete your mold in one pour; you don't want to run off to the store to get more halfway through. Pour slowly and carefully so the the plaster gets into all the details and doesn't form air bubbles. A tarp on the floor and plastic gloves are good safety pre-cautions.



Above: In my kitchen, preparing to pour the plaster.
Below: Sculpt surrounded by clay dam. This will go into the box face down. *Below center:* Plaster of Paris mold in plastic lined box. *Below right:* Trimmed and unpainted latex prosthetic appliances

Casting your latex prosthetics

Allow your mold to set according to the plaster of Paris package instructions. Once you remove your sculpt allow the mold to completely dry before you begin adding your latex. Do not rush this step! Once your mold is dry you can begin the layers of latex that will make your prosthetic. I used casting latex rather than liquid latex because it is a thicker material that requires fewer layers, however liquid latex, sometimes available at costume or Halloween stores, can also be used.

Pour in a small amount of latex into the mold and spread around with your fingers or a brush. You want this initial layer to form nice thin edges around your whole prosthetic appliance that will be better to blend when they are worn. Allow this layer to dry and repeat the process continuing to build

several layers. Depending on the thickness of your latex you will probably need between 5 and 10 layers of latex. Allow the latex to dry overnight just to be sure.

Once the latex has dried completely you may need to powder it to prevent it from sticking to itself as you carefully pull it from the mold. Setting powder is made for this purpose but you can also use translucent makeup powder or baby powder.

Finishing and painting

My Vastra pull had some ragged edges and was too small to function as a complete piece. This is because the face base I used was smaller than my actual face, and latex may shrink as much as 5-15% smaller than the original sculpt. I pulled out my scissors and cut the facial mask into several different latex appliances before painting.





Cowl before and after painting.



I painted my purchased latex cowl and the facial appliances at the same time to ensure color consistency. Grease paint or other face paints can be used to paint latex prosthetics, but I recommend regular acrylic paint mixed with latex. I used one part latex to 3-4 parts acrylic paint for my Vastra cowl and appliances. This mixture can be thinned with a little water if necessary.

At this point it is tempting to jump right into combining your prosthetics and costume and rushing to a Con or event. If you are new to special effects makeup, I highly recommend testing the makeup in the comfort of your home. I spent an evening applying the cowl, prosthetics and makeup to be sure that I could get everything in place before the mad dash at the beginning of an event. I covered my hair with a latex bald cap before applying the cowl, and applied the bald cap, cowl and latex prosthetic appliances with Pros-aide, a prosthetic adhesive. I used Kryolan aquacolor face paint to paint any bare skin and to blend the edges of the appliances. The first application required 2 hours and I refined subsequent applications to 1 hour.

Summary

The entire process of cosplaying Madame Vastra was a fantastic learning experience and required learning a couple new costuming skills. Before beginning I had never made latex prosthetics, nor had I applied any sort of special effects make-up. Producing a recognizable character costume was challenging but extremely satisfying.



Makeup application test.

Acknowledgements

Many thanks to Hal Rodriguez for help with painting, mold-making photography, and makeup application. Thanks to Kyle Pasciutti for painting advice.

Sahrye Cohen is a costumer and crafter from San Francisco, California who loves any opportunity to costume or cosplay. Last year she ran a marathon costumed as Wonder Woman. Sahrye is interested in fashion design using electronic components and responsive materials, she collects hand fans and Lucite purses. Sahrye is currently the Workshop Coordinator for the Greater Bay Area Costumers Guild.