

A head piece made with a hand cut sodalite gemstone in a cast Sterling silver setting with fresh water pearls.



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The Project I chose to work on is a reproduction of a head piece pictured in a portrait of Lucrezia Borgia (1480-1519), daughter of Pope Alexander the sixth. The portrait was painted by Bartolomeo Veneto.



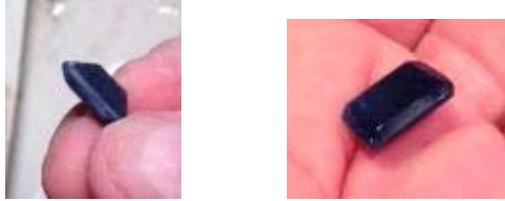
The material used in the painting appears to be gold. For cost reasons I chose to go with Sterling silver. The center stone appears to be black or dark blue. Not knowing for sure what the stone was, I decided to use a sodalite.

Before I could begin to make the piece I had to cut the stone. So I began with a slab of sodalite.



In the painting the stone appears to be an emerald cut so that is what I went with. The next step would be to cut my shape then

polish the stone. This was my first time faceting a stone so I was pretty pleased.



Now I can start on my jewelry.

Normally I would use wax to make the piece then cast it using the lost wax method. As my spin caster is not available I decided to use clay to make my model then sand-cast the piece. Sand casting involves the use of a frame to hold specially treated sand. The oils used to treat the sand help hold the sand particles together so that when the model is removed the sand keeps its shape enabling you to make a replica of your model.

First I made the model. The reason I had to start with the stone first is because when I made my model I pressed the stone into the clay to create the setting for the stone. In the picture you can see where the stone fits.



To sand-cast the piece, I filled one half of my frame with sand and tamped it down to compress the sand into a cohesive block. Next I placed the model in the sand and attached the upper half of the frame. I filled that with sand and tamped it down to make sure every depression of the model was filled with sand.. Very carefully I removed the two halves, removed my model that ended up

leaving a void in the sand. The void gets filled with molten silver create or setting. I cut a sprue (an opening to pour melted silver) and some air vents so gasses could escape. I then closed the two halves, melted my silver, poured it in and let it cool.

I am sure that pictures of the process would have helped but I forgot to take them.

I don't really like sand casting as it leaves the surface of the piece rather grainy due to the sand particles or there are voids in the metal.

Below is the resulting Silver cast with the original model.



The next steps are cleaning up the casting, adding prongs to the piece to hold the stone in. add a tube to the back to hold the cord, pre polish, polish, add the center stone, and lastly attach the pearls.



## Bibliography

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