

## Portrait Busts -- an original technique

by [Thinkenstein](#) on March 8, 2010

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## **Intro: Portrait Busts -- an original technique**

This is an original technique I use for making portrait busts out of grout. Grout is like cement, except it is stickier and doesn't shrink. When cement dries it shrinks and tends to crack, which the grout does not do.

To make the finished bust lighter I use a mold to make crumpled aluminum foil cores. The cores can be bent some to give position variations.

The grout I use, "Keraset", comes in a light gray color. The grout can be given a variety of colors, depending on the addition of powdered pigments. The pigments are available in hardware stores for coloring cement. Right now, I am mostly making clay-colored grout using a combination of red and yellow pigments.



## **step 1: The Mold**

The 2-piece mold was made out of cement many years ago, and I don't have photos of its construction.

The core shape was originally sculpted in clay. Using mold-making techniques, I made a 2-piece mold of the shape.

The left and right halves of the core are molded out of crumpled aluminum foil. The halves are then taped together. The neck can be bent to provide position variations.



## step 2: Packing the Mold Halves with Aluminum Foil

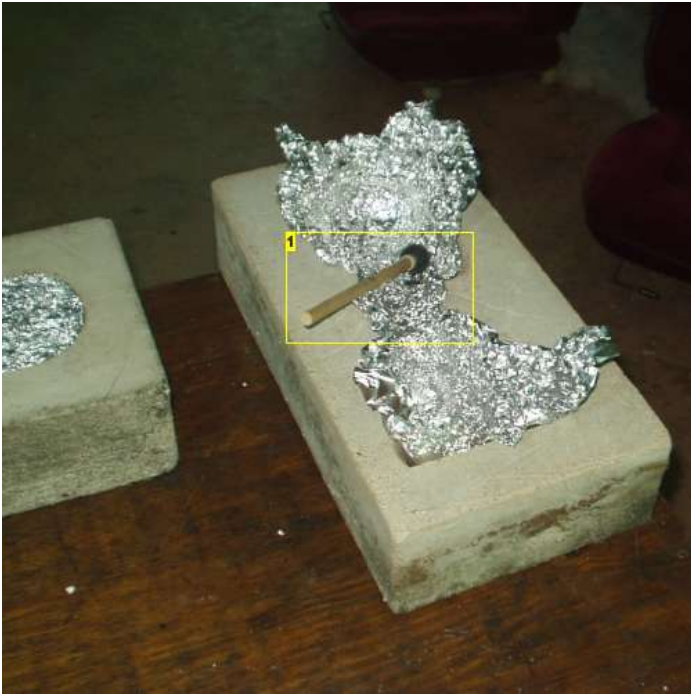
I like to line the mold with one or two layers of aluminum foil, like a skin, before packing it with more randomly crumpled aluminum foil. That gives a fairly smooth surface for the first layer of grout to stick to, and gives the core more structural integrity than it would have without the skin.

Since aluminum foil doesn't stretch, it will tear if you force it into the recesses of the mold. Tearing of the skin layer is avoided by first crumpling the aluminum foil to create a quilted pattern of wrinkles. That shrinks the area covered by the foil, but allows the foil to stretch out again without tearing as it is pushed into the mold.

I use a ball on a stick as a tool to help push the foil into the mold. Leave some excess skin hanging over the edge of the mold. It will be folded back over the crumpled foil in the middle to help hold it in place.

I usually fold up a pleated strip of foil and put it through the neck area to give the neck more strength when it is bent later.

Fill the skin with crumpled foil, fold over the skirt around the edge onto it and remove the core half from the mold.



### Image Notes

1. Ball on a stick -- a useful tool for pushing foil in place for the skin layer.





### step 3: Join the Halves

The left and right aluminum halves of the core are taped together. Three bands of tape around the eyes, neck, and chest do the job.



#### step 4: Coloring the Grout

I mix the grout and pigment powders in a 5-gallon plastic bucket with a lid. I shake it about 50 times in a circular motion. Let it sit for a while so any cloud of dust inside the bucket has a chance to settle. Try not to breathe any grout dust.



#### Image Notes

1. Psychedelic colors. My camera appears to be getting psychotic.

#### step 5: Mixing the Grout

I made a boat-shaped mixing bowl out of silicone rubber. It can be flexed and scraped to remove even hardened grout since nothing much sticks well to silicone rubber. The boat shape is for ease in pouring when it is used with plaster of Paris to make molds.

I usually add the water first and then the dried powder. Stir with an old spoon, or other tool, or by hand, but you have to wear plastic or rubber gloves. I use "disposable" gloves, reusing them until they tear. The thin material almost lets you feel like you are working bare handed.

The grout can be mixed with varying amounts of water to give it thicker or thinner consistency. It all has its uses.





#### Image Notes

1. Silicone rubber mixing bowl. Hardly anything, except more silicone, sticks well to silicone rubber. Even hardened grout scrapes off easily.
2. Brushes are useful tools for smoothing.

#### Image Notes

1. Sculpture tools made out of PVC pipe.

### step 6: The First Layer of Grout

Wet grout is fairly heavy and sags, so you can't do too much at first without a rigid core. These prepared cores let me sit down with the model and start in on the facial features right away, saving the model's time in the initial stages. Since the core is already hard, it supports the weight of any added grout during the sculpting process.

Rub the first layer on with your gloved hand, or mini-trowel, such as a palette knife. It's quick and easy. I do a layer on the bottom of the core first and then set it down on a flat, non-stick plastic sheet to finish coating it. That way the bottom is plastered and out of the way. It has a flat and smooth surface when hard.

The plastic I work on is moisture barrier material used underneath cement slab floors in house construction.



### step 7: Sculpt the bust

Using hands, or sculpture tools, sculpt the material as you would clay. These busts take me about 7 or 8 hours to make, which includes about 4 hours of the model's time.

Unlike clay, which can be kept moist and pliable by preventing evaporation, the grout is in a continual process of hardening up once it receives water. It's always easier to add more fresh grout to the bust later than it is to carve away hardened grout, so try not to over-shoot your mark if you can avoid it.

Please excuse the unnatural colors of the photos. I don't know what causes my camera to go wacky on the colors at times. It's time for a new camera, I guess.







### step 8: Other busts I have made

These are some other busts I have made over the years.



#### Image Notes

1. This was a cement bust of "Osho", Bagwan Rajneesh, commissioned by some of his followers. It was done from photos.





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## Comments

28 comments

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**elgorgo** says:

Great work.

You obviously know a bit about sculpting.

Could you make a figurine and show me/us how to make a mould for the figurine. Im totally lost when it comes to moulding, however I am good at the 'pour', if ya know what I mean.

thnx

Mar 30, 2010. 12:53 PM [REPLY](#)



**Thinkenstein** says:

<http://www.instructables.com/id/An-Easy-Sculpture-Armature-human-figure/>

Making a figurine is one thing. Making a mold of it is another. The kind of mold you make depends on the position of the figure, for one thing. A complex position calls for a more advanced mold making technique -- using more than two mold parts, or a flexible inner mold with a rigid outer mold shell.

Try to avoid undercut areas that would hang up a rigid mold. For that you need a flexible mold.

I suggest you start with simple shapes with two-part molds. I used to make figurines out of clay. Cut pieces of acetate and stick them into the clay to represent the part line. You can use acetate to fuse the pieces together. Plaster one side, remove the acetate, apply mold release, and plaster the remaining side. It helps to put registration dimples in the acetate with heat and a round object, and wedge holes in the part line for sticking a wedge in to help pry the mold halves apart.

Mar 30, 2010. 5:04 PM [REPLY](#)



**Ninzerbean** says:

Where I live grout comes two ways - sanded and unsanded - which are you using?

Mar 28, 2010. 4:57 AM [REPLY](#)



**Thinkenstein** says:

I'm not sure, but I think it must be sanded. It has some gritty feel to it and it doesn't shrink and crack when it hardens and dries.

Mar 28, 2010. 7:18 AM [REPLY](#)



**Ninzerbean** says:

On the package it will say if it is for joints that are 1/2 or larger - that is sanded grout, for smaller joints unsanded grout can be used. If it is gritty I am sure it is sanded, thank you. Unsanded grout will crack if the expanse is too large. Is it possible if you mixed the grout thinly and used it as a slurry you could then dip the piece just to get the first few layers on?

Mar 28, 2010. 10:22 AM [REPLY](#)



**Thinkenstein** says:

The slurry idea sounds interesting, kind of like dipping candles. One would probably waste a lot of slurry in the dip tank, though. I'll stick with just slathering on a thicker coat. It doesn't take all that long, and there is no need to repeat the process.

Dipping would be a good way to make mini-caves with stalactites and maybe stalagmites. The stalagmites could always be made separately and inverted when finished.

Mar 28, 2010. 4:32 PM [REPLY](#)



**diyhopeful** says:

Innovative methods and excellent final results.

Mar 25, 2010. 9:38 PM [REPLY](#)



**Thinkenstein** says:  
Thanks.

Mar 26, 2010. 5:09 PM [REPLY](#)



**baker1b** says:  
I work for a grout manufacturer and love to see alternative uses for this product!! Keep up the good work. I would be happy to help out with future projects.

Mar 26, 2010. 3:24 PM [REPLY](#)



**Thinkenstein** says:  
Thanks. How about telling us what all goes into grout? Cement, sand and plasticizers?

Mar 26, 2010. 5:09 PM [REPLY](#)



**osiris sr** says:  
*my older sister had art class they made busts out of wax starting with a gallon jug and welded pedestal . the pedestal was heavy half in thick metal with a heave rod about a foot long in the middle and tree like branches to hold the wax . the hot wax was melted and poured into the gallon jug the wax was carved into an indian bust and feathers added as head dress . when my sister moved she gave me the sculpture i should of took photos alwats document everything with photos wish i had them to share here. happy mol;ding casting carving no matter the medium its fun way to craft that great bust reminds me of zz tops frank beard*

Mar 21, 2010. 12:33 PM [REPLY](#)



**mikeasaurus** says:  
looks good.  
An interesting choice with grout, an artist at sculpting and timing.  
Bust sculpting is due for a revival.

Mar 17, 2010. 6:04 PM [REPLY](#)



**Thinkenstein** says:  
Thanks.  
Bust sculpting also has some social benefits -- a model to talk with while you work.

Mar 18, 2010. 4:46 AM [REPLY](#)



**mikeasaurus** says:  
agreed, you should work on having a female muse.

Mar 19, 2010. 8:30 PM [REPLY](#)



**Thinkenstein** says:  
Would be nice. I take what I can get. The jungle is a great place to live and a tough place to go model shopping.

Mar 20, 2010. 3:34 AM [REPLY](#)



**pjstewart** says:  
How do you make a bowl out of silicone rubber? I cut in half a large plastic ball.

Mar 19, 2010. 4:50 AM [REPLY](#)



**Thinkenstein** says:  
On a non-stick plastic surface (a stretched out trash bag works) I made an overturned boat shape out of clay, and covered it with silicone rubber. When the silicone was hardened, I lifted it off the plastic surface and removed the clay.

Mar 19, 2010. 9:07 AM [REPLY](#)



**underkill** says:  
Thumbs up man. This kind is also a similar armature that I use for plaster sculptures (just cause they look limestoney). Will definitely have to try out the grout though. Isn't it kind of sand textured? It would definitely be good not to have to deal with plaster.

Mar 18, 2010. 1:21 PM [REPLY](#)



**Thinkenstein** says:  
The grout I use is sand textured. I have heard of sanded grout, so that must be it. It is stickier than cement. I don't know what the grout ingredients are, but it feels like it has cement and some plasticizers in it.

Mar 18, 2010. 6:30 PM [REPLY](#)



**SinAmos** says:  
Quality.

Mar 18, 2010. 2:06 PM [REPLY](#)



**Jayefuu** says:  
Wow. Looks good!

Mar 18, 2010. 12:59 PM [REPLY](#)





**Thinkenstein** says:  
Thanks.

Mar 18, 2010. 1:10 PM [REPLY](#)



**valhallas\_end** says:

Mar 17, 2010. 8:28 PM [REPLY](#)

Very impressive. I wonder - would grout stick to resin, plasticine, or the like? If so, could you use such materials to make the solid from directly from the mold without a weight penalty?  
I occasionally model my projects in clay and use newspaper, foil, or wire mesh as structures, but for larger models your method might work very well - I have no means to bake clay to a carve-able state, so I either use air-dry or low-heat dry base. Maybe grout would work better...



**Thinkenstein** says:

Mar 18, 2010. 4:53 AM [REPLY](#)

A problem with casting a hollow form in the mold using grout would be the time it takes for the grout to harden up for removal from the mold, and the need for a mold release agent. The aluminum foil parts can be popped out of the mold as soon as they are finished.

A big advantage to grout sculpture is that you don't have to fire it, so you save energy and can make things larger than the kiln needed to fire clay pieces.



**valhallas\_end** says:

Mar 18, 2010. 9:54 AM [REPLY](#)

Hmm, I see what you mean. Out of curiosity, how did you strike upon grout as the ideal for your work? Did you just happen to have some on hand for your first attempt and try it, or are there other sculptors that steered you to this medium? One of my cousins is going to college for art (some sort of graphic design - he is an incredible pencil artist and painter), but sculpting is one of his hobbies, also lacking a kiln like me though...



**Thinkenstein** says:

Mar 18, 2010. 12:51 PM [REPLY](#)

I have done a lot of construction with cement, and have done some cement sculptures. In the course of construction, I learned about grout and gave it a try for sculpture. I would be surprised if other artists weren't already using it for sculpture, but nobody told me.

Since cement shrinks, you can't put unshrinking things, like glass bottles, in it or the cement will crack. Unshrinking grout gets around that problem. Mostly, I use light-weight core materials, like plastic bottles, Styrofoam, or aluminum foil.



**rimar2000** says:

Mar 17, 2010. 6:37 PM [REPLY](#)

You are an artist. If I try to do a Donald Duck, sure I get a Mickey Mouse!!!



**Thinkenstein** says:

Mar 18, 2010. 4:47 AM [REPLY](#)

Thanks. Try holding Mickey's nose down while giving him an upper cut to the jaw.