

Calligraphy transformation

from inspiration to presentation

Part I



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Creative chefs are always looking for new designs to incorporate into their culinary artwork. While studying sculpture in art school, I learned that new ideas can often be found by looking into the past. When discussing showpiece design with chefs, I recommend they turn to calligraphy for inspiration. In fact, it doesn't take long to find a Chinese or Japanese character whose composition has both exciting motion and appealing balance. With some slight modification, a calligraphy character can be transformed from a two-dimensional shape into a three-dimensional form. In this article, Pastry Chef Susan Notter and I have teamed up to show how quickly a calligraphy character can be used to make a casting mat that has unlimited creative potential for sculptural expression in pastry.



1. Primary materials needed:
Perfectly flat half sheet pan (new), GeoPress™ firm silicone, Elmer's® glue, razor knife, French curves and one sheet of 1/4" thick foam core.



2. Modify the calligraphy image:
Download and print a calligraphy image from the internet. Use a French curve to accentuate the sweeping lines to your liking. The image should look sharp and clean. Simple symbols work best.



3. Reinforce the thin areas:
Use the marker to widen any areas that are too thin. If an area is thin, it will be weak when made of sugar. Remember, everything you draw in black, is going to become a sugar shape.



4. Enlarge the image:

Once you have modified and adjusted the image to your liking, enlarge it on a copy machine. Be mindful not to enlarge it beyond the size of your half sheet pan. Make a few extra copies.



5. Cut out the image:

Cut out several copies of the shape. Keep the extra shapes near by. If there is extra room, they can be included into the casting mat.



6. Transfer patterns onto foam core:

Trace the shapes onto the foam core. Be creative, use the French curves to draw a few small free hand shapes onto the board. They will make excellent construction elements for your centerpieces.



7. Cut out the shapes:

To make clean cuts in foam core, always use a new blade. Also, if you cut with a hot blade, it will melt the foam and create a clean edge. Keep an alcohol lamp nearby for frequent reheating.



8. Seal the edges with glue:

Because foam is porous, it should be sealed with Elmer's® glue to prevent silicone from sticking to it. Allow the glue to dry. If your cuts are really rough, apply a second layer. (Glue was pigmented for clarity.)



9. Glue the shapes into the sheet pan:

Pre-arrange your shapes without glue to decide a sensible arrangement. Next, apply a thin bead of glue around the bottom perimeter of your shape. Smooth the glue to the very edge of the shape. Be mindful your shapes are 'right side up'.



10. Arrange the shapes efficiently:

Put as many shapes as possible onto your sheet pan. The only guidelines; leave a $\frac{3}{8}$ " space around the outside edge of the sheet pan and don't crowd shapes closer than $\frac{1}{4}$ " apart from each other.



11. Weigh the shapes down:

Fill bags with sugar to make weights. Shapes must be held down while the glue dries. *Note:* For perfect circle shapes, fix metal cutters on the pan. (Use oil clay to hold them in place.)



12. Weigh out the silicone base:

GeoPress silicone comes in two liquid parts. Part A, is white 'base'. For this mold, 350 grams of base are weighed out. Always wear gloves and safety glasses when using liquid silicone.



13. Add the silicone catalyst:

GeoPress requires a catalyst (part B) to change it from liquid to rubber. Correct ratio for GeoPress is 10:1 by weight. Formula = 350 grams of base (white) to 35 grams of catalyst (blue).



14. Mix the silicone:

Use a rubber tipped spatula for mixing. Mix until all white liquid has changed to an even light blue color. Be sure to scrape down the sides of the mixing bucket.



15. Pour the silicone:

Once catalyzed, GeoPress is liquid for 30 minutes. Pour in a thin stream (needling) to reduce air bubbles. Be patient. Pour slowly and only between the shapes. Do not pour over the top of them.



16. Remove any excess silicone:

While still liquid, carefully remove any silicone that has flowed over the shapes. The silicone should be level with the top of the shapes. Clean the spatula with a paper towel, but leave the mixing bucket as is. The silicone can be easily peeled out of it the next day.



17. Allow to cure for 24 hours:

Level the sheet pan and place it in a safe area undisturbed for 24 hours. Immediately clean up your work area. Silicone oils can be cleaned up with Goop™ hand cleaner. (Soap and water will not work.)



18. Unmold the casting:

After the mold has cured for a minimum of 24 hours, carefully peel it out of the sheet pan. If you want to make a duplicate casting mat, be sure to hold the shapes down as you remove the silicone.



19. Duplicate the casting mat:

If the shapes are still in good condition, re-glue any loose shapes and pour a second mold. Since the prep work is already finished, a second mold can be poured quickly.



20. Cut away extra silicone:

Use curved tip manicure scissors to trim off excess silicone that leaked above or below the shapes. Fiskar® brand scissors seem to work the best.



21. Post cure the silicone mold:

Heat is required to complete the cure. Bake the mold in an oven at 300° F. for one to two hours, then wash with soap and water. Your mold is ready to use!