

for the classroom



Materials

Tools & Colors by ClayPuzzling.com

EXTRUDE2 short hand extruder
RT1 raku tongs
PT-2 press tool with light
RSET-POT1 basic tool set
RG600 Copper Matte
RG650 Jade Gloss
RG750 Kaleidoscope
RG850 Duck Feathers

By Mayco

Designer stamps of choice
AC302 wax resist

By Continental Clay

Low-fire raku moist clay
Low-fire white moist clay
Large project board

Brushes & Tools by Royal & Langnickel

R2845-6 Aqualon Ultimate glaze
RD 60 sponge stippler

Additional Materials

Assorted glass frit
Slip
Clear glaze of choice

Miscellaneous

Spoon
Metal trash cans with lids
Newspaper
Wire brush
Comet cleanser
Old toothbrush
Assorted stencils

Raku + Glass

Unconventional mix yields unique results

By Michael Harbridge

Objectives

- Create unique shapes using a variety of methods
- Experiment with textures and patterns
- Combine glass and clay
- Learn unconventional firing methods





“You can’t do that!” I heard these words from so many people standing in front of a booth full of samples of “that” while they kept saying it’s not possible.

Can’t, can’t, can’t! That’s a word *I* don’t believe in until I’ve tried something every way I can think of and proved to myself it can’t be done. Tell me I can’t do something, and I will do everything I can to prove you wrong. I don’t like can’t.

I had a 20-foot booth full of clay and glass combinations at the Las Vegas Glass Craft & Bead Expo, and tons of people who came by and argued with me regarding these combinations. Don’t get me wrong — there were also tons of people who were amazed and thrilled, saying things like, “I always wondered if this could be done, and now I know! This is amazing!” It was a great show, and I, along with several other industry suppliers, shared a special pavilion area showcasing other forms of fired arts. But many people refused to believe you could combine clay and glass in a kiln.



The lip and the band around this vase are stamped extruded ribbons attached to the base shape; the glass chamber was formed with an extruded square coil. After glazing and adding frit to the chamber, raku firing gave the vase its unique appearance.



And nearly every one of them said, “My teacher told me you can’t do that.” Some went so far as to say, “My teacher told me you can’t fire clay and glass in the same kiln.” When I asked why not, I heard things like, “When you fire clay in a kiln, the dust floats around, gets into the elements, and then when you fire glass in the same kiln later, the dust jumps off the elements and contaminates the glass.”

Mind you, several kiln companies make kilns specifically designed to fire both glass and ceramics. My point here is, don’t always believe everything you’re told. I hear artists and teachers make statements that may have been true at one time, but with changes and new product development, results have changed over the years. The only way to discover new methods is to experiment and try new things, even if you’ve been told (or you think yourself) that they won’t work. Sometimes they won’t, but you may discover something else that will. I have loads of disastrous samples from my experiments.

This month we will explore some unconventional ways of firing and combinations you may have never tried before. We’ll once again push the limits! All of the shapes used here can be created in multiple ways. The items can be cast with molds, thrown on a wheel, coil built, hand built, puzzled, made with slabs, or using any other method you desire. For detailed instructions on the actual construction of the shapes, refer to my For the Classroom column on combining clay and glass in the April 2013 edition of *Fired Arts & Crafts* (available in our online archive at www.firedartsandcrafts.com).

Taking a plain shape from ordinary to extraordinary can be a simple task. The projects in the April column used simple coils to create reservoirs for glass. This month, we’ll create unique moldings to hold the glass, try some different dies, and combine it all for something more out of the ordinary.

Custom clay moldings

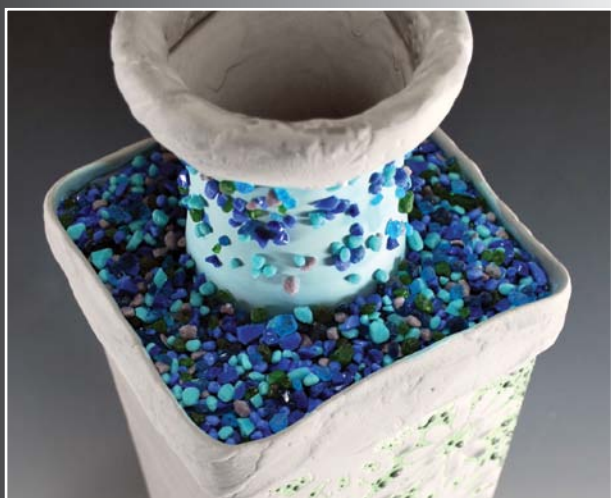
Use these clay moldings to accent the design or to create holding areas for glass.

Step 1: Load the hand extruder with a clay body compatible with the clay shape. It’s important the clay bodies are compatible so that as they dry and fire, they shrink at the same rate. Incompatible clay may come apart. Attach the rectangular opening die to create long flat strips of clay.

Step 2: Extrude strips of clay long enough to cover each area where you want to attach the molding to the shape. Place the strips on a project board and stretch them out straight. Part of the clay may go off the board, that’s fine.

Step 3: Place a designer stamp of choice over the clay strip and press down to make an impression in the clay while rounding the edges. Lift the stamp and repeat along the entire strip of clay.

Step 4: Score the back of the molding and the area on the shape where it will be attached, add compatible slip, and attach. When you get to the spot where the ends of the strip meet, press them together to fill in any gap, and if the pattern is damaged, press the stamp back into that spot.



A large extruded ribbon stamped with Mayco's leaf-pattern stamp forms the top edge of the glass chamber. I sponged on wax resist over Bisque Imports' flower stencil on two sides, then applied three coats of Jade Gloss raku glaze over the stencil areas and trim. Two coats of Duck Feathers raku glaze went on the other two sides of the shape. Some form of glaze needs to be applied under any added glass, so I applied clear glaze to the top and glass chamber area, and while the final coat was still wet, applied blue, purple, and green frit, which stuck to the wet glaze. Additional frit went into the glass chamber. Don't go right up to the edge unless you want the glass to potentially overflow the chamber.

Raku Firing

This time around, I raku fired the ware. Some people are intimidated by the thought of taking glowing-hot items from a kiln and sticking them in a flaming trash can. I agree, it does sound intimidating! But honestly, it's addictive! The first couple of items you take from the kiln can be scary. But once you've done it, you won't want to stop — or perhaps I should say you can't (I take back not liking the word can't).

Step 1: Bisque fire each piece to cone 06 or 07 (1789 degrees Fahrenheit), rather than the traditional 03 or 04. Glaze the shapes with your choice of raku glaze, depending on the look you want to achieve. Add glass frit to any chambers. Many times the glass will pick up the attributes of the raku glaze, so the colors you select may come out looking different.

Step 2: The glaze firing process is an important factor. A digital kiln works best when fired to 1,730 F with a hold for 10 minutes. After that hold, allow the kiln to drop to 1,680 degrees and hold at that temperature while you're pulling items from the chamber using raku tongs and wearing protective gloves. Program a long hold at the end if you have several items to take out.

Step 3: Holding the piece well away from your body in the tongs, gently lower it into a metal can lined with several layers of newspaper, allowing the paper to ignite. Hold the object in the flames, tipping and turning it without touching the sides of the can, and then gently set the piece in the can. Close the lid on the can and try not to open it until the item has completely cooled. Keep the protective gloves on throughout the process. While allowing the shapes to cool completely is best, they can be taken out sooner. Allow them to stay in the can at least 15 minutes to a half hour. They may still be hot when removed, so be sure to protect your hands with gloves. Also make certain you place the lid back on the trash can so the paper inside does not ignite and flare up again.

Step 4: Clean objects as they come out of the can with a stiff brush to remove ash. Use Comet cleanser or a similar product with a toothbrush to clean off any stubborn marks.

Raku firing is one of the most exciting and rewarding ceramic processes. The more you fire, the more you learn. There are so many factors that go into how your piece will turn out — the temperature you pull at, the temperature outside that day, how fast the piece goes into the can, how fast the paper ignites, how long you hold the piece in the flames before you set it down, and how quickly the flames go out once you put the lid on the can. No two firings or pieces will turn out exactly the same. The glaze application and the entire firing process also affect the final result.

Due to the technique and firing process, raku ware is not designed to hold water and is for decorative purposes only. Art collectors around the world will pay top dollar for intriguing and unique raku shapes.



I formed the glass chamber on this vase by dipping cotton fabric in slip and arranging it around the top while the clay form was still wet. After the initial firing, I applied two coats of Duck Feathers to the entire vase, then spooned frit into the glass chamber.



Can I teach these methods in schools?

Many people think schools would forbid raku firing out of safety concerns. But it's surprising how many have kiln set ups and operations ideal for other unconventional methods. Even if they don't allow it or have a suitable setup, you can do what I did — work with the art teacher to have kids create shapes and prepare them for firing. I recently did this, and the children and some of their parents came to my home studio to do the firing. This is a wonderful way to expose children to the magical world of fired arts.

Advanced Methods

Experiment with adding different designs and color combinations with the raku and glass combinations.

About the Artist: Michael Harbridge has been teaching fired-arts workshops for more than 35 years and is the educational arts manager for Royal & Langnickel Brush and the creator of clay puzzling. He can be contacted by mail at P.O. Box 108, Iola, WI 54945, by phone at (715) 281-6450, or by e-mail at info@claypuzzling.com. Visit his website at www.claypuzzling.com.

Sources

Clay Puzzling www.claypuzzling.com

Mayco www.maycocolors.com

Royal Brush www.royalbrush.com

Continental Clay www.continentalclay.com

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