

Materials List

Kiln & Tongs: by ClayPuzzling.com

Paragon Home Artist
Raku Tongs
Digital Pyrometer
Raku Gloves



Raku Bisque: by ClayPuzzling.com

Variety of Shapes Available

Colors: by ClayPuzzling.com

RG600 Copper Matte
RG700 Raku Crackle

Brushes & Tools: by Royal & Langnickel Brush

Hake Brushes

Miscellaneous:

Newspaper
Metal Trash Can
Scrap Glass
Greenware Plate (for Raffia Raku)
Raffia
Slip
Sponge
Glass Rake

Contact the Artist

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Include scrap glass with Raku in this fun technique. Combine other materials and Raku finishing methods included within this lesson plan to make unique creations. When working with bowls, add the glass and rake it when it's hot for stunning results.

Glazing Raku Items

Step 1) Begin with Raku bisque (available from www.ClayPuzzling.com) or low-fire ceramic cast ware fired to cone 07. Hand-built items or thrown ware can be created with Raku clay.

Step 2) When working with RG600 Copper Matte Glaze, you have options to create glossy areas.

A) Use stamps, stencils, sponges, squeeze bottles or brushes to apply gloss glazes to the bisque. Wherever you apply gloss glazes, you will have a glossy, Raku finish on top when RG600 is applied over. It does not matter what color the gloss glaze is. As long as you place three coats of RG600 over the top, it will have Raku colors.

B) Create dimension by applying products like French Dimensions or other dimensional products to the bisque. Wherever you apply French Dimensions, you will have a glossy, Raku finish on top when RG600 is applied over. It does not matter what color the French Dimension glaze is. As long as you place three coats of RG600 over the top, it will have Raku colors.



C) You can also use the same products listed in A and B on top of three coats of Raku glaze. The difference is, you will generally not have as many of the Raku colors in the gloss product areas. Colors like black Stroke and Coat will usually be black, and may pick up some silver tones. Experiment with colors. Some will fire close to their true color, and other will pick up metallic tones.

Step 3) "Blackout" areas with Raku by using wax and latex products like Wax Resist and Mask n' Peel to repel glaze. Wax will burn away and masking products will need to be peeled away prior to firing. Wax products can also be sponged on for an all over open effect.

Step 4) Try using stickers on areas of the bisque and peel away or burn away to expose bisque.

Raku Firing Process

Digital kilns are the best option for this firing process. However, manual kilns can also be used. Here are some important points to remember regardless of the kiln used.

- Always place the kiln away from flammable objects as close to the exit where your trash cans will be placed. The kiln will be opened when it's close to 1,700 degrees and a considerable amount of heat will leave.
- Make sure pets like cats and dogs are secured away from the kiln. You don't want them catching fire as you try to remove items from the kiln.
- Use protective gear. Protect every part of your body from heat. Wear long pants, heavy shoes and clothing covering your arms. Heavy, heat-resistant gloves should also be worn. Don't wear loose clothing that could easily catch fire. A welding-type mask and hood can also be worn.
- Wear a mask to prevent too much smoke from being inhaled.
- Have a fire extinguisher handy. It's not likely you will need it, but it's always good to have it nearby, just in case.
- Always pull long hair back.
- Let your pieces totally cool in the can, especially if they are thick and heavy. Don't remove items while they are hot and dunk them in cold water. This will often crack items cast with regular slip. Clean objects as they come out of the can with a wire brush to remove carbon and ash.
- 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 you go 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 you get the flames out when you put the lid on the can. No two firings or pieces will turn out exactly the same. The application of the glaze and the entire firing process play rolls in the final result.
- Commercial glazes under and in combina-

tion with RG600 Copper Matte Raku glaze also work great. You may find some nice reactions you don't expect.

- Due to the technique and firing process, Raku is not designed to hold water and is for decorative purposes only.

Raku Process with Digital Kiln

Step 1 Place glazed items into the kiln. It's best to dryfoot (not glaze) the bottom of ware and avoid using stilts. Stilts can stick to the bottom of items when they are removed from the kiln and pop loose before the object is placed in the trash can. These stilts will be very hot and can burn the floor or hit other things like your feet.

Step 2 Program the kiln to do the following, and press start.

- Heat to 1,730 degrees Fahrenheit as quickly as possible.
- Hold for 10 minutes.
- Cool to 1,690 degrees and hold for 3 hours. (Hold time can vary, dependent upon how many items are being fired. It's usually best to do a few hours hold so the kiln does not shut off and cool before all items are removed.)



Step 3 While the kiln fires, prepare the trash can(s) by placing several layers of newspaper around the interior of the can. Cover all sides and bottom.

Step 4 Wearing all protective gear, disconnect power to the kiln and lift the lid. Try to turn your body and face away from the kiln as you lift the lid to avoid the rush of heat from hitting your face.

Step 5 Reach into the kiln with the metal tongs and remove one item, immediately placing it into the paper-lined trash can. As you lower the item into the can, gently touch the paper-lined sides to ignite them.

Step 6 As the paper begins to flame, tip and turn the Raku item in the flames with the use of the tongs. Don't just drop it in the can. The flames will help with the colors.

Raku Process with Manual Kiln

If using a manual kiln for Raku firing, it's almost imperative to have a digital pyrometer to monitor the temperature in the kiln. An analog (needle) pyrometer will work, but a digital pyrometer will give the most accurate reading. You will not be relying on the cones turning off the kiln. You need to keep an eye on the temperature readout.

Step 1 Place an 06 cone in the kiln sitter and insert the pyrometer probe through an opening in kiln somewhere near the center.

Step 2 Turn the kiln on and flip all switches to high.

Step 3 Watch for the pyrometer to reach 1,730 degrees Fahrenheit.



Step 4 While the kiln fires, prepare the trash can(s) by placing several layers of newspaper around the interior of the can. Cover all sides and bottom.

Step 5 Once the kiln reaches 1,730, a hold for 10 minutes needs to be achieved. You need to turn some of the switches down or off to create the hold. Every kiln will be different so you'll need to play around turning switches so the temperature holds around 1,730. It can go a few degrees above and a few degrees below.

Step 6 After holding 10 minutes, turn the kiln completely off.

Step 7 Wearing all protective gear, disconnect power to the kiln and lift the lid. Try to turn your body and face away from the kiln as you lift the lid to avoid the rush of heat from hitting your face.

Glass-Raked Raku

Step 1 Start with a Raku bisque bowl. Apply one coat of RG700 Raku Crackle to the interior. Apply three coats of RG600 Copper Matte to the exterior.

Step 2 Place scraps of glass in various colors in the bottom. Dab Raku Crackle around the top edge of bowl and place scraps of colorful glass into the wet glaze. (These will melt and run when fired.)

Step 3 Fire according to the Raku firing process outlined in this document, but when the kiln reaches the 1,730 degree mark, disconnect power, open the lid slightly and reach inside with a glass rake to move and swirl the glass. Close the lid on the kiln, reconnect power and continue the balance of the Raku process.



Hook up a metal cable with pulley for larger kilns so you can open the lid without reaching over the kiln.





Raffia Raku with Michael Harbridge

Step 1 Begin with leather-hard greenware. If you have dry greenware, dampen with water from a spray bottle or damp sponge.

Step 2 Place raffia in water to soak for a few minutes to soften.

Step 3 Use a large brush to apply a layer of slip over an area on the plate. Immediately place wet raffia into the wet slip and brush over to embed. Continue this process over the entire plate.

Step 4 Continue to brush layers of slip over the raffia-covered plate to build up the thickness.

Step 5 Drizzle slip over the plate randomly but do not brush out.

Step 5 Once the shiny wetness has gone away on the plate, begin removing the raffia. Chunks of clay will fall onto the plate as the raffia is removed, but don't remove it at this time. Wait for the plate to dry completely otherwise the chunks may become embedded in the damp plate.

Step 6 Once completely dry, brush away any loose chunks of clay.

Step 7 Use a damp sponge to remove any sharp edges of points.

Step 8 After allowing sufficient drying time, fire to cone 07.

Step 9 Apply one heavy coat of any gloss glaze. Allow to dry. Wipe back with a damp sponge, leaving color mainly in the details and crevices.

Step 10 Apply three coats of RG600 Copper Matte over the entire plate.

Step 11 Fire following the traditional Raku technique outlined in this lesson plan.



Check out other great recordings for Raku techniques by Michael Harbridge at www.ifiredarts.com.