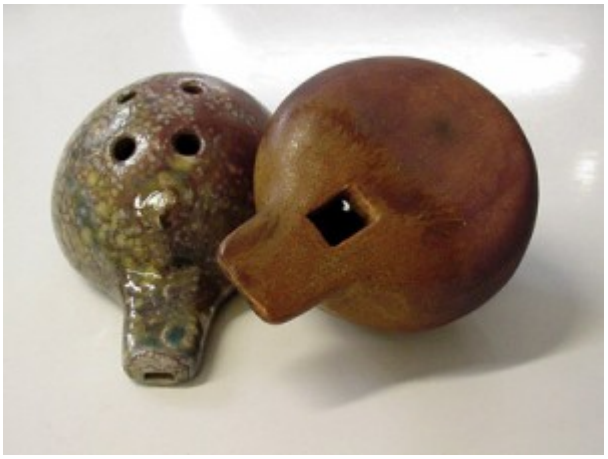
Making Music with Clay: How to Make a Ceramic Ocarina

Posted By Barry Hall On March 6, 2013 @ 8:02 am In Daily,Features,Handbuilding Techniques | 3 Comments



Start with simple ocarinas like these, and then try to create more imaginative shapes such as animals.

All kinds of musical instruments can be fashioned from clay, with one of the simplest being the ocarina. Flutes, whistles and ocarinas are known as airduct flutes and they come in many shapes and sizes. Their common characteristic is an airduct assembly, which makes it easier for a novice to play, since it removes the requirement that a player carefully position their mouth and lips in the precise way necessary to get a proper tone.

The ocarina project we are presenting today makes an ideal ceramics lesson plan for teachers incorporating basic handbuilding skills. Or it can be a fun project for those who need a break from their regular studio work. Check it out and start making music with clay! – Jennifer Harnetty, editor.

Gather Your Pottery Tools

- Metal rib with a serrated edge
- Sponge and cup of water Countersink – found at hardware stores; used to make nice beveled edges on the finger holes
- Tool with a nice flat blade – for smoothing the clay and shaping the sound hole
- Popsicle sticks Drill bits or a hole-cutting tool to make the finger holes

Make Music with Clay

Before you get started, bevel the tips of your popsicle sticks to make them effective cutting tools. If you have access to an electric bench sander, you can easily put beveled edges on the ends of your sticks. But you can get similar results by rubbing the edge of the stick over a sheet of medium grade sandpaper held on a flat surface.

Shape a piece of fresh clay into a smooth ball. A pound of clay will make an ocarina about the size of a medium orange. Cut the ball in half through its middle. Pinch the two halves into bowl shapes. Cradle the clay in one hand and shape it with the thumb and index finger of the other. Turn the clay in your hand frequently and keep the thickness of the wall as even as possible. If the clay begins to dry and crack, use your sponge and water to remoisten it.

When you have finished the first half, open the other half in the same fashion. Compare the diameters of the two pieces as you go.

When the two halves match up perfectly, fuse them together into one hollow shape. Use the serrated rib to rough up the rim of each half and paint on an even coat of water. Allow the clay to soften a bit before joining the halves.

Press the halves together. A slight twisting motion will strengthen the bond. Meld the seam with your fingers followed by a small, flat spatula-like tool, as shown. Use the fingers of both hands to remove surface imperfections. Use a dampened sponge to keep the clay moist and free of cracks.

Create a flattened bottom by pressing the hollow form onto the table surface. Set aside the body of the ocarina to create the mouthpiece.

The mouthpiece shown below is approximately 1 inch wide, 1 1/2 inches long and 3/4 of an inch thick. Notice that the mouthpiece shape has squared sides with a slight taper from back to front. The mouthpiece is thick enough to allow for the later insertion of the beveled popsicle stick to create

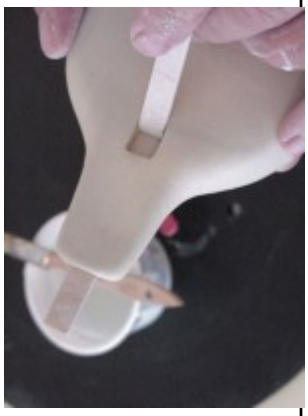
the windway. The shape of the mouthpiece can be smoothed after it has been attached to the body. Lay the mouthpiece next to the body to determine the best place for attachment.

Use the needle tool to thoroughly score the end of the mouthpiece and the area where the mouthpiece will be attached. Brush on a liberal coating of water. Allow the clay in this area to soften. Set the mouthpiece and body on the table and press them together. The mouthpiece must be aligned with the flat side of the body.

This article is one of the many ceramic musical instrument projects in *From Mud to Music*, available in the Ceramic Arts Daily Bookstore.

After the mouthpiece is attached, pick up the body and smooth away the seam. Complete this step thoroughly to minimize the risk of cracking later.

Carefully insert the popsicle stick into the mouthpiece to create the windway. Care must be taken to ensure that the stick passes through the mouthpiece parallel to the top and bottom surfaces and squarely with the sides. Slow even pressure is best.



With the stick used to create the windway still in place, use another beveled-edge stick to cut the aperture, or window, on the underside of the ocarina. The aperture should be located so that the side closest to the mouthpiece is just inside the interior of the wall of the body. If the hole is cut too close to the mouthpiece, the aperture will be blocked by the wall. Make a squared opening and remove the small piece of clay. Cut all the way down to the stick underneath. Make clean, squared cuts on all four sides.

Next, with the beveled edge of the stick facing down, make a square cut at a 45° angle, moving toward the mouthpiece, as shown in the illustration. Press the stick in until it reaches the other stick. Follow through, removing the small piece of clay. Your objective is to create a sharp beveled edge on the side of the aperture farthest from the mouthpiece. This sharp edge splits the air from the windway and creates the sound. Carefully withdraw the stick from the windway. Bring the ocarina to your lips and give it a test blow. If it

whistles, you can move on to the next step. If there is no whistle, reinsert the stick in the airway and check the sharpness of the bevel.

Withdraw the windway stick, being careful to keep the stick flat. Do not raise or lower it, as this will misalign the bevel. Use a drill bit or a hole cutter to create the finger holes on the top of the ocarina. Use the countersink tool to smooth the edges of the holes. It is most common to create 4-6 holes, but you may do as you like. Depending on the precision of your mouthpiece assembly, at some point as you add more holes, your ocarina may stop sounding. If this happens, either adjust your windway and bevel until it works again, or fill in your last finger hole and declare success! If you want to tune your ocarina to a specific scale, cut and tune one hole at a time. Enlarging a hole raises its pitch, so start small and enlarge each hole until you achieve the pitch you want.

You can fire and finish your ocarina in almost any way imaginable. If you elect to glaze it, be careful not to get any glaze in the windway, which will clog it. It is also advisable not to glaze the beveled edge of the aperture. Very slight changes to your mouthpiece assembly can alter the ocarina's sound, or make it stop working altogether.

This project makes a great lesson plan for K-12 teachers as it combines not only visual art and music, but also history. Ancient examples of these instruments have been found in China, India and throughout the Americas, and the pre-Columbian inhabitants of America created some of the most complex and acoustically advanced instruments known to this day. In addition to the how-to instruction it presents, *From Mud to Music* is also loaded with information on the history of these instruments.

For more great handbuilding projects, be sure to download your free copy of *Five Great Handbuilding Techniques: Variations on Classic Techniques for Making Contemporary Handbuilt Pottery*.
