

# Intensive Ancient Pottery Workshop

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## Class Schedule

Class begins at 9:00 each morning except the last day when we will meet at 7:00 to avoid any potential breezes.

Day 1. Mix clay, Explore Chihuichi ruins, work on forming a pot.

Day 2. Finish first pot and possibly start on second, field trip to dig clay, slip and polish pot.

Day 3. Field trip to Amerind Museum to see ancient pottery examples, lunch at local cafe, then dig clay on the Willcox Playa.

Day 4. Paint designs on pot, field trip to collect pigment minerals.

Day 5. Start early firing pottery, we should be done before noon.

## Mixing Clay

The clay you will get in this class has already been dried, ground and tempered, so we will be starting on step 4 below. But here is the full process in case you want to do this at home.

1. Dry clay out thoroughly before processing.
2. Grind dry clay into a powder, you can use a mano and metate, a brick on a driveway, a mortar and pestle, a mechanical grain mill or any number of other ways.
3. Add 20% temper (this is merely a good starting point, some clays need more and some need less). Temper can be any non-plastic material such as sand, diatomaceous earth, ground stone, grog (ground ceramics), volcanic ash, ground seashells or whatever.
4. Moisten and knead into a damp, cohesive mass, then wrap in plastic.
5. Wait for it to become more plastic, this can take anywhere from an hour or two up to many days.

# Coil Pottery Building

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## Create Foundation

1. Create a slab and press into puki
2. Trim rim even, ideally leaving about a half inch above the edge of the puki

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## Coil Building Steps

1. **Coil:** Roll a coil of clay
2. **Bond:** Attach coil to the top of the pot using a bonding pinch (press down and into the body)
3. **Pinch:** Use a “flat pinch” to thin the walls of the pot
4. **Scrape:** Use a gourd scraper to scrape the inside and outside smooth, eliminate all coil seams.
5. **Repeat** as necessary

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## Tips

- Keep your clay wrapped up so it does not dry out
- Do not leave your pot sitting out when not working so it does not dry out too quickly
- Avoid working in direct sun or wind
- Always leave pots to dry upside down so rims don't dry too quickly and crack

## Controlled Drying Steps

Clay is “expansive”, which means that it expands when wet and contracts or shrinks when dry. This property of clay can cause it to crack your pottery as it dries. Many of the steps of making pottery take place at specific stages of dryness. As a potter one of your most important jobs is to control the drying so that the pot dries evenly and therefore prevent cracking caused by uneven drying. Here are the steps performed at various stages of dryness.

1. Build pot
2. Let dry (just barely leather hard)
3. Scrape
4. Let dry (drier leather hard)
5. Stone smooth
6. Let dry (not sticky to the touch)
7. Slip
8. Let dry (test with a stone)
9. Burnish
10. Let dry (bone dry)
11. Paint
12. Fire

# Painting Pottery

Finely ground minerals will generally not stick to the pot surface by themselves. They need at least 1/3 clay added to them to make the paint harden in the firing. Organic binders are also often added to make the paint stickier and to encourage it to dry hard and not easily wipe off before firing.

**Black:** manganese dioxide powder

**Red:** Iron oxide

**White:** white clay

**Paint recipe:** 2 parts pigment, one part clay and a very small amount of organic binder. Mix well on a stone palette.

As you paint be aware that your paint will dry quickly as the water evaporates into the dry Arizona air, is absorbed by the stone palette and is applied to the pot. Rehydrate and remix often. Keep the paint relatively thin, too thick paint can easily chip off of the pot.

# Firing Pottery

## Step 1: Preheat

The pots to be fired will need to be heated gently before the firing to drive off any remaining moisture.

## Step 2: Stacking

Pots are carefully stacked on rocks above hot coals. Then fuel is stacked, teepee style over the pottery. Cover sherds may be used to isolate the pottery from the fuel if fire clouds are not desired.

## Step 3: Fire

Light it off and let it burn down to coals. Nothing to do now but worry.

## Step 4: Cooling

Let the pots cool slowly, cooling too fast can cause them to break.

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## Troubleshooting Fired Pots

**Dark blemishes**, this can mean that you didn't get hot enough or long enough or didn't allow proper air circulation. These pots can be re-fired to burn away the carbon.

**Spalls**, usually results from moisture in the clay, preheat better and/or use more temper next time.

**Cracks**, most often are caused by thermal shock from either heating too fast or cooling too fast. Be careful to avoid these situations, use cover sherds to protect the pots from radiant heating, add more temper to your clay body.