## Lesson 3D—Narrative: What Ancient Technology Assisted in Food Preparation?

***Pottery and containers made of animal hides assisted in food preparation.***

Imagine the difficulty of preparing a family meal without dishes and silverware. Think of the dangers in cooking food over a hot stove or fire without kitchen pots and pans. Euro-Americans brought metal pots and pans and china to Montana only two hundred years ago. Before that, ancient people created their cooking and eating containers from raw materials found in nature.

For thousands of years, people roasted animal meat of all kinds over an open campfire. They also used animal hides as cooking pots, boiling. meats and vegetables in **hide containers**. But if they placed a hide container directly over a fire, it would burn. Instead, they heated rocks in a fire pit and dropped them inside the hide container. Water, meat, and vegetables, previously placed in the container, began to boil when the hot rocks were added. The boiling water then cooked the food, creating a nourishing stew or soup (once the rocks were removed!). This method of cooking is called **stone-boiling**. Because they were light and easy to carry, cooking containers made of animal hide were very useful for ancient people who traveled many miles during the year.

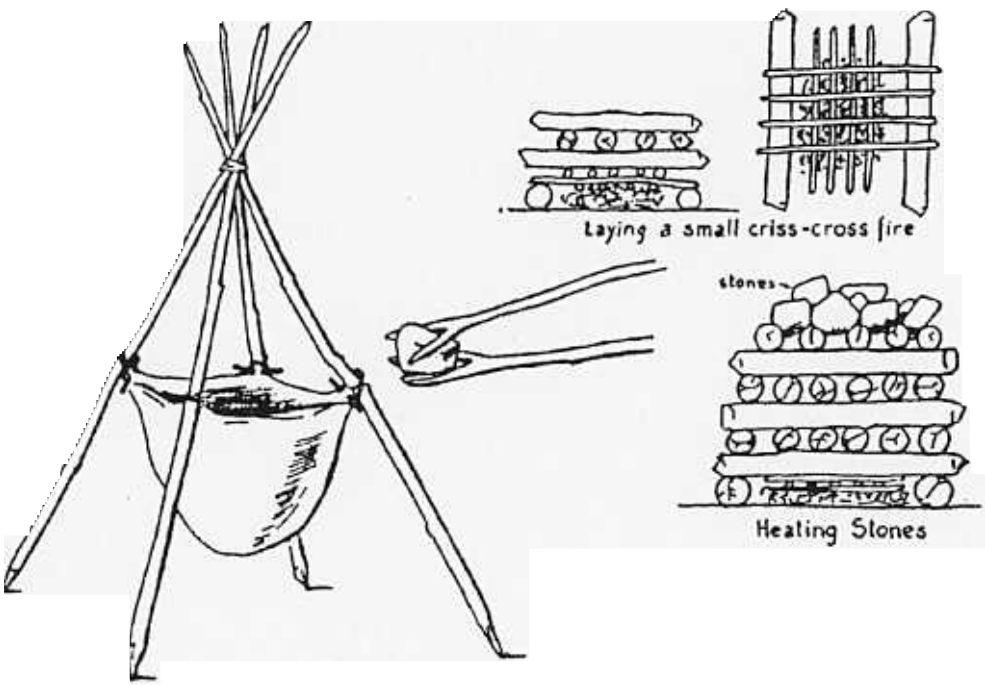
A few prehistoric Indian groups in Montana also made **pottery** out of clay. These people used pottery for food storage and for cooking. Archaeologists believe that ancient people from areas east, north, and south of the Montana plains brought pottery technology with them. These pottery makers may be the ancestors of the Crow, Blackfeet, and Shoshone Indians. They made pots by **coiling** strings of clay together. Other pots were simply **lump-modeled** by hand-shaping a ball of clay. Ancient potters smoothed the walls, or sides, of a pot by a **paddle and anvil technique,** where the exterior wall was paddled with a wooden paddle while using a hand inside as an anvil. The pots were then covered with dirt and campfire ash, and the potters built a fire over the top of them. This heated, or fired, the pots to make them hard and improve their durability.

Prehistoric potters in Montana made a variety of pottery shapes. They often decorated their pots with simple impressions and designs, but they did not paint them. Archaeologists rarely find whole pots in Montana. Broken pieces of pottery, called **sherds**, are usually all that remain at sites such as Ulm Pishkun State Park near Great Falls. Pottery, like the bow and arrow, is a relatively recent technology among Montana's ancient people. Some of the oldest pot sherds found in Montana come from the Myers-Hindman site in southwestern Montana. These remains are dated to 740 years ago. The Montana Historical Society Museum and many local county museums exhibit pottery made by prehistoric Montana Indians.

Vessels made from carved **steatite**

are also found in Montana. Steatite is "soapstone" (talc) found in certain locations in southwestern Montana. Steatite vessels are the same size and shape as fired clay pots and are believed to have been used for similar purposes. Ancient people also made basket containers from coiled or woven pieces of plant materials. These were used as bowls and for seed **parching trays** and are similar to those found in the **Great Basin** (Idaho, Utah, Nevada) region. The Kootenai and Salish Indians—and probably other prehistoric groups in western Montana—made containers of cedar bark, which they used for storing food and other items.

When excavating sites in Montana, archaeologists find the remains of cooking fires and sometimes the bones and charred plant scraps of ancient meals. Ancient people ate their meals around a fire hearth, while seated on hides and plant fiber mats. They had no tables or chairs. Except for pottery, archaeologists rarely find "kitchen gear." Because so few artifacts relating to food survive, archaeologists must infer what ancient Indian meals were like from the records written by and about historic Indians. Prehistoric people probably ate their food with their fingers or with horn or wooden utensils and bowls. Their principal fare was roasted or boiled meat in the good times. Baked or boiled roots, fresh greens such as wild onions, berries, and other fruit balanced many meals. In lean times, they consumed a gruel of root flour mixed with available game. For many groups, late winter through early spring was the "starving time." Then they had to rely on stored foods until spring brought new plants and game was once again plentiful.




Cooking in hide containers could not be done directly over a fire. Instead, the cooking was done "inside-out" by placing rocks heated in the fire into the hide container filled with water, meat, and vegetables. The water then boiled, making a flavorful stew or soup. *Courtesy Kootenai National Forest.*

## Lesson 3D—Vocabulary: What Ancient Technology Assisted in Food Preparation?

coiling _____

_____

Great Basin _____

_____

hide containers _____

_____

lump-modeled _____

_____

paddle and anvil technique _____

_____

parching tray _____

_____

pottery _____

_____

sherds _____

_____

steatite _____

_____

stone-boiling _____

_____

## Lesson 3D—Arch Activity: Ancient Pottery

**Grades: 3–8**
**Time: 60 minutes+**
**Content Area: science, history, and art**
**Who: whole class and individual**

**Materials:**
**clay, moist plastic tubs, small containers for water and slip, plastic bags, popsicle sticks, sandpaper, wrapped "paddle," plastic utensils, comb, heavy cardboard pieces or container lids to make pots on, sponges for cleaning up.**

**Optional:**
**acrylic gesso for sealing finished pot.**

---

### Objective and Outcome

•Students will learn the materials and process of a form of prehistoric technology.
•Students will make coiled pots similar to those found in archaeological sites in Montana.

### Activity

1. Inform students they will be making pottery by hand, an ancient form of technology.

2. Cover desk areas with plastic. Make sure students have access to water. Begin by giving each student a ball of clay (about the size of a tennis ball).

3. Have students break clay into five smaller balls. Then have them gently mold the clay into round strips or coils. Have them start with both hands together—and then gradually move their hands apart. Roll clay on a coarse cloth or plywood to prevent it from sticking. Be sure to make the coils long enough so that they don't have too many to piece together.

4. After making four coils, take the fifth ball of clay and make it into a flat patty. This becomes the base or platform for the pot. Place the base on a surface you can move, such as heavy cardboard, a plastic container lid, etc. Using a fork or comb, scratch a series of marks onto the base and put on a little very moist clay. This will help the first coil to stick to the base.

5. Gradually add coils to create height. The students may smooth the interior surface with their fingers or a paddle, or they can leave evidence of the coils to show the method of construction. Allow some time for one coil to set or dry partially before placing another coil on top, or the pot will collapse.

6. Once the pot is built, it is up to the student how he or she wants to treat the pot's outside surface. It can be smoothed, carved, or incised using utensils. When the pot is about as hard as leather, it can be smoothed with a pebble, marble, or fingernail. It can also be incised with shallow lines or otherwise decorated. When the pot is bone dry, the student can smooth it with sandpaper.

7. Once the pot is bone dry, it can be covered with acrylic gesso to seal the surface. If you have a kiln avail-

able, you may also fire it. Do not apply acrylic gesso if you fire the pot.

**EXTENSIONS**

3–5:

• Research Vocabulary.

*See:* Lesson 3D—Vocabulary.

3–8:

• Separate students into groups of four, and give them fragments from four pottery vessels. Ask them if they can fit them together. Give them 15 minutes to put the pots together. Ask them the shape of the vessel based on the fragments they could put together. Have them draw what they suspect is the shape of the entire vessel.

6–8:

• Challenge students to read about ancient pottery and where and how long ago it was first used in parts of the world. Ask them to find out when the first pottery was made.

• Challenge students to research dating methods for pottery.