Archeologists have classified as many as 30 different “types” of prehistoric pottery made in Minnesota. The eight major types include Brainerd, Malmo, Fox Lake, Laurel, St. Croix, Blackduck, Oneota, and Silvernale.

Pottery shards are important evidence that archeologists use to learn about the past as it is one of the few materials that doesn't decompose. Scientists have dated the oldest pottery shards in Minnesota as over 3,000 years old! That long ago the technology of building and firing clay pots spread into Minnesota and persisted until 1700 AD. Almost no whole pots have been found, but the broken pieces seem to be from primarily one type of shape, like that pictured above, with only a few bowl shapes found as well.

The following is a breakdown of when and where each of the major types was made:
Archaeologists believe these jars were an adaptation to be able to eat starchy seeds by cooking them. Microscopic food residue of cooked wild rice and maize (corn) has been found on the inside surface of Malmo jars. Scientists believe the bottoms were rounded or pointed because when the clay pot was used it was nestled down into a pile of the hot coals of a cooking fire. Filled with water and seeds, the heat from the coals would boil the water and cook the food. Indigenous pottery making vanished in Minnesota when metal cook-pots became available through trade with white settlers.

The pots were fired with a method called pit-firing, where pots were heated by burning wood right alongside the dried pots often in a hole dug in the ground. It is hard to control the rise of temperature in this method and various techniques were developed by native people to prevent their pots from bursting during the firing when they heated up too fast. The combustible fuel was arranged carefully, rocks were used as a heat shield or diffuser, and importantly, temper was mixed into the clay the pots were formed from. The maximum temperatures reached by this method were around 1500 degrees Fahrenheit, thus the pots were relatively easily broken and this is why only pieces are found.

Temper is grit of crushed granite, ground bits of shell, or sand that was deliberately added to the clay to reduce rapid shrinkage or expansion during the firing process. It also helped the pots withstand the heat of a cooking fire without breaking from thermal shock during their use.

Different types are distinguished by their shape, decoration, wall thickness, clay types and temper types. Here's is a simplified description of each of the major types of prehistoric pottery:

**Brainerd:** Jars with conoidal bases and vertical rim shape, temper is sand or grit, decoration includes net-impressed and horizontally cordmarked exterior surfaces

**Malmo:** Conoidal-shaped jars with grit or limestone temper. Undecorated or decorated on the upper exterior surface with dentate stamping, slashes, punctuates, and bosses.

**Fox Lake:** jars with conoidal bases and fine grit (sand) temper. Bold exterior cordmarking and decoration including trailing, bossing, punctuating, and dentate or cord stamping.

**Laurel:** grit-tempered jars that have a conoidal base, decoration include dentate stamping, trailing, push-pull bands, shell stamps, bosses, and punctates.

**St Croix:** Grit-tempered jars with a constricted neck and pronounced shoulder, rounded base, carved stamp decoration and exterior surface is cordwrapped paddled.

**Blackduck:** Grit-tempered and cordwrapped paddled jars with a globular shape and constricted neck. Decoration includes cordwrapped-stick stamping, “comb” stamping, punctuations of various kinds, and vertical brushing on the exterior rim surface.

**Silvernale:** Shell-tempered, rolled-rim jars with angular shoulders, rounded bases, and scroll motifs. Some with strap or loop handles, and a few bowl shapes.

**Oneota:** Shell-tempered, round bottomed, globular jars with rounded lips. Strap and loop handles are common. Vessel surfaces are smooth with decoration on the shoulder of trailed
lines, tool impressions, and/or punctates.

Glossary of Terms

*We use anatomical references to talk about the different parts of the shape of a piece of pottery, as shown in the diagram at right.*

**Archaeologist:** A scientist who studies prehistoric peoples and their cultures by analysis of their artifacts, inscriptions, monuments, etc.

**Boss:** A small decorative bump out on the exterior vessel wall caused by a deep interior surface punctuation. Bosses on Minnesota jars are usually on the rim.

**Conoidal:** Cone-shaped or pointed at the base.

**Cordmarking:** A characteristic exterior surface texture of many prehistoric pottery wares that results from hitting the surface with a cordwrapped paddle during the manufacturing process.

**Cordwrapped Paddled:** The majority of prehistoric pottery jars in Minnesota were produced by coiling or molding, and then shaped by paddling the surface against an interiorly held anvil (rounded piece of wood) with a cordwrapped paddle. Paddling compacted the clay wall of the pot, thinning and strengthening it. The cord wrapped around the paddle kept it from sticking to the wet clay surface of the vessel.

**Decompose:** to rot away, disintegrate, or separate into constituent parts or elements.

**Indigenous:** originating in and characteristic of a particular region or country, native to.

**Dentate Stamping:** Decorative stamping from a tool resembling a comb with rows of teeth.

**Globular:** a roughly round shape, as opposed to cone-shaped.

**Net-Impressed:** Surface in which the cordage on the shaping paddle was in the form of a net, as opposed to wound cord (cordmarking).

**Pit-firing:** A method of firing pottery by layering the pots in a hole dug in the ground with burnable materials and

**Prehistoric:** of or relating to the time prior to recorded history.

**Punctates:** A decorative depression in the surface of a vessel caused by pushing a tool straight down into a still moist clay surface.

**Push-Pull Bands:** Decorative technique were a tool is pushed into the wet clay surface, partially pulled out and dragged a short distance and pushed in again in a repetitive pattern. The result is a line of push-pull impressions.

**Shard or Sherd:** a fragment, especially of broken pottery.

**Trailing:** Decorative technique of parallel lines on the surface of a vessel made by drawing a tool across the wet clay.

**Temper:** Inclusions, such as grit (crushed granite), shell, or sand, that are deliberately added to clay to reduce rapid shrinkage or expansion during the firing process.

Source:

“Prehistoric Pottery of Minnesota”, online publication of the Wilford Laboratory of North American Archaeology of the University of Minnesota, Minneapolis campus.

http://anthropology.umn.edu/labs/wlnaa/pottery