## CREATIVE CERAMICS

*Main Objectives:*

* *Identify and apply the elements of art and principles of design in ceramic ware.*
* *Demonstrate skill development in construction (pinch, coil, slabs) and design technique (bisque, glaze, underglaze, sgraffito).*
* *Practice safe and appropriate use of tools, materials and equipment.*
* *Demonstrate an understanding of the characteristics of clay and glazes.*
* *Understand the historical, social and cultural influences on function and design in ceramic ware.*
* *Use appropriate vocabulary in discussing and analyzing ceramic artwork.*

**Ceramic Construction Methods:**

* The **slab** method will primarily be used **pinch** and **coil** techniques can be used to add to your main form.

**Firing and Decoration Techniques:**

* **Bisque** fire you piece and then paint on **glazes.** The piece will then be refired. This will leave you with a colorful glossy finish.
* If you apply **underglaze** to the entire form before the bisque fire, you can use the **sgraffito** technique to remove the color to reveal your design. You will then have the option after the initial fire to add a final gloss coat and refire it if desired.
* If bisque firing without glazing you can use a combination of acrylic paint or oil pastels to add color and detail to the surface.

**Design Requirements:**

* Your ceramic piece must be designed to meet at least two of the following functions. These should be identified before you begin planning your design. Mark them here.
  + Personal/Expressive
  + Social/Political
  + Spiritual/Religious
  + Educational
  + Practical/Physical
  + Descriptive
  + Conceptual
  + Historical/Narrative
  + Symbolic
  + Commemorative/Memorial
  + Decorative
  + Ritual
  + Shock
* This piece must connect to the themes or ideas you have previously explored in your studio pieces, but it should give you the opportunity to extend your research into these topics in a new way.

**Possible Connections: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Possible Investigations:**

* Where does clay come from?
* How did primitive humans discover the use of clay?
* Where in the world do they use clay?
* How is clay used for industry?
* In what ways do artists use clay?
* Compare historic and contemporary ceramic artists.
* Explore local ceramic studios and galleries for inspiration.
* Reflect on your entire creative process starting with the initial planning stages, moving into working with the clay, and then evaluating your final results.

**CERAMICS VOCABULARY**

* **BAT** - A slab or platform on which clay is handled; a circular device attached to the wheel-head.
* **BISQUE** - Unglazed clay, fired once at a low temperature.
* **BISQUE FIRING** - The process of firing unglazed clay to a low temperature to harden the clay and drive the physical water from it. The approximate temperature of this firing is 1815 F.
* **BONE DRY** - Refers to clay which is ready to be fired. All the moisture is gone from the clay. Clay is VERY FRAGILE at this stage.
* **BURNISH** - To make smooth or glossy by rubbing or polishing
* **CENTERING** - The act of aligning the clay on the potter's wheel in order to proceed with forming and shaping.
* **CERAMICS -** The art of making things of clay.  Clay is an ancient tradition.  
  **CLAY** – A decomposed granite-type rock. To be classified as clay the decomposed rock must have fine particles so that it will be plastic (see definition below). Clays contain impurities which affect color and firing temperatures.
* **COILS** - Rope like pieces of clay.
* **COIL CONSTRUCTION** – Rope like pieces of clay that are stacked to form a wall and build the object.  This technique is one of the most commonly used hand-building methods.
* **FIRE** -  To bake in a kiln.  Firing is a term used for “cooking” the clay.
* **FORM** -  Three-dimensional shape and structure of an object.
* **GLAZE** - A glassy coating that has been melted onto a ceramic surface.  It is used to decorate the piece and to seal the clay surfaces.
* **GLAZE FIRE** -  Much hotter than a bisque fire. Firing to temperature at which glaze melts to form a glasslike surface.
* **GLAZE FIRING** - Typically the second firing of a piece pottery which has been coated with glass forming materials. The approximate temperature of this firing 2300.
* **GLOSS** -  A shiny surface.
* **GREENWARE** - Unfired pottery that is bone-dry, a state in which clay forms are the most fragile.
* **HANDBUILDING** -  One of the oldest craft techniques in which objects are constructed entirely by hand.
* **INCISING** -  Indenting a line into a flat surface.
* **KILN** - Enclosed containers of various sizes- built of refractor brick and heated by electricity, gas, oil, or wood to temperatures from 1500 F. to 2340 F. in which ceramic ware is fired.  Also called the “oven” for firing the clay.
* **LEATHER HARD** -  Refers to clay that is dry enough  but still damp enough to be joined to other pieces or carved without distortion. Clay at this state resembles leather.  Hard to bend and soft enough to be carved.
* **MATTE** -  Not shiny.
* **PLASTICITY** -  Quality of clay that allows it to be manipulated and still maintain its shape without cracking or sagging.
* **POTS** - Have a function (use) like a pot or a bowl.
* **POTTERY** -  Pottery was one of the first art forms explored by mankind. There are many extinct cultures throughout the world who did not leave behind any written record of their existence. For some of these civilizations the only evidence of their daily lives comes in the form of pottery. Some pots were for daily use and some were for ceremonial purposes. Some cultures buried their pots with their dead, and some had huge garbage dumps where broken pots ended up. Pottery and other forms of ceramics have left behind an important archeological record
* **PRESS MOLD** - A form which clay is compressed into, resulting in a repeatable shape or texture.  These are usually made of plaster. We used plastic bowls lined with cheesecloth as press molds.
* **RAWWARE** – Unfired clay.
* **SCORING** – Roughing up of the surface of clay for joining.
* **SLAB** - Clay which has been made flat by rolling.
* **SLAB CONSTRUCTION** -  Handbuilding technique in which flat pieces of clay are joined (clay is flattened and thinned with rolling pin or slab roller)
* **SLIP** – A liquid form of clay used as a glue or as decoration.
* **SLUMP MOLD** - A form which is used to support wet clay in the early stages of construction.  They are typically made of plaster.  Plastic bowls covered with plastic or newspaper can also be used.
* **STONEWARE** – A type of clay which is usually brownish or grey in color.  It is good for handbuilding and throwing because of its high plasticity. Our clay fires to cone 6.
* **THROWING** – Forming clay on a potter’s wheel.
* **UNDERGLAZE** - Colored decoration applied to bisqued clay, then coated with a clear glaze. Typically made of clay slip and raw pigment.
* **WEDGING** - Method of kneading clay to make it homogenous; ridding the clay of all air pockets.

**You should also be familiar with the following….**

**CLAY TOOLS:** fettling knife, rib (metal and wood), large and small loop, needle, wire, wooden modeling tool.

**10 GOLDEN RULES OF CERAMICS:**

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| Clay must be thoroughly covered up with a plastic bag to keep it from drying out.  This applies to works in progress and moist clay.    Clay dust can be harmful if you are exposed to it for long periods of time, so keep your area clean, clay scraps off the floor and clean with water and a sponge.    Clay can be no thicker than your thumb.    In order for clay to stick together it MUST be scored and slipped together while the clay is moist or leather hard.    Wedge clay to remove air bubbles, achieve uniform consistency, and to line up the particles of clay.    Trapped air can cause clay to explode.  So hollow out sculptural forms and put needle holes from the bottom so air can escape.    Don't glaze the bottom of a piece.    Always wash the piece before glazing.    Always handle your project with two hands at all times.  In other words BE CAREFUL it’s your hard work.    **NEVER HANDLE ANOTHER PERSONS WORK!** |

**Important Safety Concerns: Clean Up After Yourself – Keep the Ceramics Lab Healthy and Safe!**

All students are expected to clean when they are finished working and return all tools to their proper place. Dust and chemicals from clay, slips and glazes are hazardous to your health!! Do not contaminate glazes. Cover glazes after using and do not stir glazes with same mixer without washing it in between. If your piece has drips of glaze on the bottom, you must wear safety glasses and scrape it off before it can be fired.

**SAMPLE HISTOIC CERAMIC INVESTIGATION**

**Outline the main ideas**

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| http://artsmia.org/world-ceramics/images/g/mia_3305g.jpg | Pacific Coast region (Mexico), Nayarit Standing Figure 200 B.C.-A.D. 300 Ceramic and pigment 28 inches high, 5-1/2 inches wide The John R. Van Derlip Fund 47.2.30 |

* This sculpture of a standing figure comes from a shaft-chamber tomb in what is now the modern state of Nayarit [N(eye)-a-REET], on the west coast of Mexico.
* The artist formed the torso by hand from a large slab of clay and then modeled and added arms, legs, clothing and ornamentation.
* This figure of a woman was probably part of a male and female pair. She is a human caricature, with enormous and exaggerated facial and body features.
* Such [CERAMIC](http://artsmia.org/world-ceramics/nayarit_figure/key_ideas.html) figures may have been placed in tombs to honor or protect the dead or to serve as reminders of the deceased's family members in the passage from this world to the next.

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| **Describe where it came from**  Large, hollow statuettes like this standing figure come from the west coast of Mexico, an area composed of the modern states of Nayarit, Jalisco, and Colima. Two thousand years ago, at the base of the mountain range called the Sierra Madre, early Indian people lived and farmed here in small, scattered villages governed by local chiefs. | [http://artsmia.org/world-ceramics/nayarit_figure/images/s_map.jpg](http://artsmia.org/world-ceramics/nayarit_figure/where.html) |

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| The ceramic figures were buried in a distinctive type of shaft- chamber tomb found only in this part of Mexico. A vertical shaft, 3 to 52 feet deep, opened into one or more chambers, each of which could contain multiple burials. These tombs were places of honor, reserved for local rulers or aristocrats and their families. They were furnished with offerings of clay figures, musical instruments, jewelry, slate mirrors, and shells-familiar objects included to accompany the dead on their journey into the afterlife. Figures and sculptural groups, both large and small, provided lively depictions of people going about their daily activities: playing music, wearing armor, grinding corn, tending children, and eating meals. | http://artsmia.org/world-ceramics/nayarit_figure/images/shaft.jpg |

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| The mountains formed a natural barrier that isolated this region from the rest of the country. The West Coast people led simple lives, developing none of the sophisticated writing, grand temple complexes, and large-scale stone sculptures that archaeologists found in the ancient urban cultures. For this reason, systematic excavations and study of these smaller, simpler objects only began within the last hundred years. |

**Explore the visual qualities**

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| This ceramic statuette was probably part of a pair depicting a man and a woman. Joining couples in a single work is a common feature of West Mexican art. We know this figure is female by the vessel she holds in her right hand and by her attire. She wears a plain headband and a long wraparound skirt. Male figures usually carry weapons or musical instruments, such as drums or rattles. They often wear a pointed, cone-shaped headdress, and short trousers with a loincloth in front. | http://artsmia.org/world-ceramics/nayarit_figure/images/male.jpg |

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| The simple female form evokes a mood of humor and merriment. She is a caricature with exaggerated features. The artist did not attempt to model realistic details such as bone, muscles, or flesh. Instead, skinny arms contrast with thick, short legs, and large feet projecting at the rear enable her to stand independently. Other identifying features include an enormous nose and ears, long neck, pointed chin, and small, carefully modeled teeth bared in a half-grin. | [http://artsmia.org/world-ceramics/nayarit_figure/images/s_head.jpg](http://artsmia.org/world-ceramics/nayarit_figure/look.html) |

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| Most Nayarit figures wear at least one piece of jewelry. This one wears a nose ring, elaborate earrings, an armband and a necklace. | [http://artsmia.org/world-ceramics/nayarit_figure/images/s_shoulder.jpg](http://artsmia.org/world-ceramics/nayarit_figure/look.html) |

**Describe the function**

Without texts, oral traditions, or archaeological evidence, no one can be exactly sure what purpose the clay figures served. They may have been placed in the tomb to honor or protect the dead, or to serve as reminders of family members as the dead passed on to the next life. Before burial, they may have functioned as architectural or religious sculptures, displayed in front of buildings or inside homes and shrines. Ritual practices associated with the figures may have centered on a cult of the dead or a type of ancestor worship. Many cultures believe that the welfare of individuals and the community is dependent on maintaining friendly relationships with those who went before them.

**Explain how it was built**

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| This standing figure was assembled from hand-built, separately modeled sections. The elaborate methods of decoration, large scale, and expressiveness suggest that such pieces were made by trained craftspeople. To make this female figure, the artist first rolled out a large slab of clay and draped it over a convex mold to form a large, hollow torso. Then two long, thin ropes of clay were rolled between the hands and attached to her body. Massive elephant-like legs were modeled and huge toes carved out on each foot. A thick, plain headband was shaped and placed around her forehead, while a flattened sheet of clay provided a long wraparound skirt. | http://artsmia.org/world-ceramics/nayarit_figure/images/toes.jpg |

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| Another noteworthy aspect of the figure is her carefully detailed jewelry. The artist formed and applied numerous small half-circles of clay by hand to represent the polished stones of her fanlike earrings. | [http://artsmia.org/world-ceramics/nayarit_figure/images/s_head2.jpg](http://artsmia.org/world-ceramics/nayarit_figure/made.html) |

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| West Mexican pottery figures are all low-fired, porous earthenware. They were dried and then baked on or near an open flame, or in simply constructed open kilns, to make the clay harder and stronger. (A closed kiln is required to produce the high temperatures necessary for creating harder, nonporous stoneware.) After firing, the artist painted on patterned fabrics, facial decoration, and jewelry in white, red, yellow, and black mineral and vegetable pigments. Remnants of paint are seen on this figure's face, headband, and skirt. Her fingernails, toenails, and teeth were painted white. The colors have worn off or faded over time because they were not baked on in the firing process. | http://artsmia.org/world-ceramics/nayarit_figure/images/openfire.jpg |