Materials of the Artist

Utah Museum of Fine Arts • www.umfa.utah.edu

Lesson Plans for Educators • March 1997

Table of Contents

Evening for Educators is funded in part by the StateWide Art Partnership

Image List

1. Robert Carston Arneson, American (1930-1992)
   Breathless (Self-Portrait in Blue)
   Ceramic
   Purchase with funds from the National Endowment for the Arts and Mrs. Paul L. Wattis
   Museum # 1976.060_A,B
   Art © Estate of Robert Arneson/Licensed by VAGA, New York, NY

2. Elizabeth Catlett, American (1919-)
   I Have Special Reservations, 1946, 1989 printing,
   Linoleum cut and paper
   Purchased with funds from the M. Belle Rice Fund
   Museum # 1997.039.011
   © Elizabeth Catlett/Licensed by Vaga, New York, NY

3. Childe Hassam, American (1859-1935)
   Old Lyme, c. 1905-06
   Pastel on Colored Paper
   Permanent Collection of the Utah Museum of Fine Arts
   Museum # 1981.076.001

4. Wayne Thiebaud, American (1920-)
   Bacon and Eggs
   Oil on canvas
   Utah Museum of Fine Arts, Permanent Collection
   Museum # 1973.036

5. George Dibble, American (1904-1992)
   Wailele
   Watercolor
   Utah Museum of Fine Arts, Permanent Collection
   Museum # 1991.017

6. Unknown, French, 15th century
   St. Catherine
   Limestone with polychrome pigments
   Purchased with Funds from the Friends of the Art Museum
   Museum # 1974.035

Materials of Art

There are a variety of methods used to convey the message of artwork. Each method has benefits and drawbacks that the creator must take into account as he/she chooses the specific medium. In order to help you become more familiar with the words artists use, the following is a list of common terms:

acrylic paint - pigment or color mixed with liquid plastic, can be thinned with water
art print - original art in which the artist creates a new image on a matrix with the intention of printing it many times. This is not a reproduction of an already existing image.
brayer - a small hand roller used to spread ink thinly in printmaking
charcoal - a black material produced by burning wood, which can be seen at a campfire or in the fireplace. Artists use charcoal for drawing.
collage - three dimensional everyday objects (cloth, string, wood, etc.) that are glued onto heavy paper or canvas. Also referred to as mixed-media.
docent - teacher or guide
gallery - a room in a museum
gesso - a white plaster-like material, mixed with animal glue, for use as a preparatory layer in early Italian panel painting
hard-edge painting - a painting technique in which shapes are clearly and sharply defined, often in a simple, austere design
matrix - from the word mater, Latin for mother; the plate or block from which prints come
medium(plural mediums or media) - materials used by artists to create art
oil paint - pigment or color mixed with oil
opaque - unable to transmit light: not transparent
original - a genuine work of art, not a reproduction
palette - a board or surface upon which an artist mixes colors
pigment - the color matter (usually in the form of a powder) used in painting
press - a machine used for printing
reproduction - a copy or photograph of an original art work
technique - the process used by the artist to create a work of art
tempera paint - ground pigment mixed with egg yolk
turpentine - a light oil used in thinning oil paint
watercolor - ground pigment mixed with water

Sculpture:

Sculpture is the art of creating forms in three dimensions, either in the round or in relief. Basically, there are two opposed conceptions of sculptural form: glyptic, which means carved, and consisted essentially in removing waste material until the form is freed from the matter in which is was imprisoned (this NeoPlatonic conception was Michelangelo's) and its opposite, in which form is created from nothing.

Carving and modeling are thus two separate and complementary aspects of sculpture, the present tendency being to exalt direct carving and the feel of the material at the expense of modeling, which involves using clay or way as a preliminary material for translation into plaster, bronze, lead or even stone.

Printmaking:

A series of techniques by which prints are produced, generally entailing etching or engraving an image on a plate, inking it, and then running it through a press for the purpose of producing a certain number of identical pieces called an "edition."

One kind of printmaking produced no more than one work, called a "monotype"; however, after the print is pulled from the surface, a residual image, called a "ghost," remains. The ghost may be re-inked or re-worked to produce a variation of the previous image or a further development of it. The full development of monotype as a medium culminated in the work of Degas (1834-1917).

There are four ways of printing: relief (woodcut), intaglio (etching), stencil (screen print) and planographic (lithograph). To make a print, the artist draws on metal, wood or another material to create an image. This plate or block with the image on it is called the matrix. The matrix is then inked and the imaged is transferred to paper.
Lithograph
Most printed things in our daily lives- books, magazines, newspapers- are printed planographically, by lithography. The areas that print are chemically differentiated from the areas that are to remain ink free. The basis of lithography is the fact that water and oil repel each other. To make a lithograph, the artist marks on a plate (originally stone, now mostly metal) with oil-based crayon or with an oil based ink. The nonmarked areas, which have been made receptive to water by chemical treatment, are sponged before each inking so when the oily ink is rolled on, it sticks only to the areas marked to print.

Etching
An intaglio print is made when ink is spread into incised grooves on a metal matrix. The plate's surface is then wiped almost clean, leaving the ink in the grooves. The plate is laid on a flat etching press bed and dampened paper is placed on top. The damp paper allows the ink to be pulled out of the plate's recessions. Then the plate and the paper are put under a press which applies many tons of pressure to transfer the ink from the plate to the paper. When ink is pressed into the dampened paper the pressure spreads it into the paper fibers. This results in slightly softened lines and edges, and produces a look unlike that of other forms of printing where ink sits on top of the paper and yields crisp, sharp edges. In an etching, the grooves in the plate are made by acid; in a engraving, the grooves are made by hand with a tool.

Screen Print
In stencil printing, the ink is pressed through a part of the surface that has been cut away. Almost everyone has done stencil printing, putting a number on a curb or a name on a locker. To print with a stencil, cuts are made in sturdy paper and ink is sprayed, painted or rubbed through the opening. Since loose parts cannot be fixed in place, each piece of the design must be connected to the stencil sheet. Usually this is done with a strip of stencil sheet itself, but can be a thin mesh with the cut image fastened to it like silk-screen printing. A silk-screen matrix is a woven screen, originally silk but no more often made of synthetic or fine wire-mesh fabric. The fabric is stretched over a frame to make the screen and what isn't supposed to print is blocked out with paint or other blocking material. Then the ink is pressed through the open areas onto paper.

Woodblock
In relief printing, the matrix is made by carving away whatever is not supposed to be printed. Wood, linoleum,

rubber (as in rubber stamps), metal (as in letterpress type) and a variety of other materials may be used in relief printing. To transfer the image from the matrix, the ink is pulled off the top surface by the paper. Since the ink is easily pulled off the surface in relief printing, not much pressure is needed to transfer it to paper. Pressure can be applied with the back of a spoon or a firm pad, though a press is often used for faster and more even printing.

Drawing:

As an essential part of artistic activity, its techniques are varied. Three major approaches:
Delineative drawing (all lines)
Form drawing (light and shadow effects)
Color value drawing (tonal value, as in painting)

Its various mediums include chalk, charcoal, crayon, ink, metal point, and pencil. Sketching is done spontaneously in a short period of time, representing a more casual approach, in contrast to the studied approach of a subject used in drawing.

Carving:

A medium in which the artists uses an instrument (usually metal) to make designs on a wide variety of materials, including metal, wood, and others.

Painting:

The use by artists of different mediums, usually on a flat surface, to create an image according to the artist's conception or perception. Prior to medieval years, painting was an everyday task or a necessary vocation. Until the 1400s, walls, pottery, books, and furniture were the main objects of painting. Leonardo de Vinci expressed the view that "painting is poetry that can be seen."

Some painting techniques include:
Acrylic - a clear plastic used as a medium or vehicle for pigments that can be used on almost any painting surface in any thickness and in a variety of finishes. It combines the plasticity of oils with the precision and quick-drying capabilities of tempera and gouache.

Encaustic Wax - colors are mixed with molten beeswax and resin before application to the painting surface. It was one of the principal techniques of painting in Egypt, Greece and Rome, but the exact formula has been lost.

Fresco - an ancient technique for the painting of walls or ceilings to make a lasting picture. Pigments are crushed in water and applied to wet plaster on the wall. This art form calls for precision, rapidity of execution, and supreme confidence. The medium of fresco reached full height during the 1300s and 1400s in Italy when walls and ceilings of churches, palaces and public buildings were covered with vast murals. (Giotto of the Florentine School was the first great master of fresco and others such as Michelangelo and Diego Rivera followed).

Gouache - a watercolor mixed with white to obtain an opaque effect. Its chief advantage is the ease with which it can be handled, making it comparable to oil paint in rendering meticulous detail. It is also known for the beauty of its mat finish and bright color effects. The medium was used especially by illuminators of medieval manuscripts and was common in Indian, Persian, and Turkish miniature painting: portraiture and narrative with religious, historical, and romantic themes.

Oil-painting - a pigment is mixed with a drying agent and an oil. Although its history is not definite, it was known of in ancient times for tinting and varnishing and was used primarily for practical items. Medieval painters used it as a preservative and for painting on metal and stone surfaces. Italian painters in the 1300s restricted its use to detailing sculptures and glazing over tempera paintings. Perfected by Flemish artists, it enabled painters to capture detail more realistically and to obtain unheard-of effects of light and color. The Venetians were the first to use layer after layer of oil paint on stretched canvas, rather than on wooden panels.

Pastel - the ingredients of this soft, dry crayon consist of powdered pigment, chalk, and water mixed with gum. Pastel is regarded as a painting medium because its substance can be spread; it is especially suited for sketching and for rendering Impressionist works.

Secco - a method of wall-painting sometimes used as a substitute for fresco and sometimes to retouch parts of a fresco. The wall is soaked with lime-water, but the plaster has already set, so the pigments are applied with some binding medium. It is easier than true fresco, since there is no need to work fast, but it is far less permanent.

Size Color - a method of painting in which the powdered pigment is mixed with hot glue. It is quick and simple but easily damaged and is now used almost exclusively for scene-painting. Ordinary distemper is a form of size color.

Tempera - the application of pigment, mixed with egg yolk, egg white, and/or other substance, to panels coated with gesso (a fine plaster often used to prime a canvas so that the surface is ready to be painted). Fine detail and brilliant colors give tempera painting a jewel-like quality.

Watercolor - any paint that is water based; essential ingredients are pigments, binding agent, and water. Its most distinct quality is transparency, making it possible to achieve delicate, luminous effects. It is a medium particularly suited to painting outside because it requires only a minimum of equipment and little preparation of materials. Watercolor was the medium of classical Chinese painting and was used as early as the 3rd century B.C. for painting on silk. Durer of the German School began the history of watercolor in the Western world. It was used, especially during centuries past, for illuminated manuscripts, for making accurate plant and animal studies, for miniature paintings, for illustration of written reports by explorers, and by tourists who wanted to record their travels.

Sources used:
Catherall, Virginia. "Teacher's Manual Art: Putting it Together." Educational Services Department at the utah Museum of Fine Arts, Salt Lake City, 1996.

Lahti, N.E. "The Language of Art from A to Z." York Books: Oregon, 1997.

Murray, Peter and Linda. "The Dictionary of Art and Artists." Penguin: England, 1991.

Breathless — *Robert Arneson*

Robert Carston Arneson, American (1930-1992)
Breathless (Self-Portrait in Blue)
Ceramic
Purchase with funds from the National Endowment for the Arts and Mrs. Paul L. Wattis
Museum # 1976.060_A,B

Robert Arneson was born in 1930 in Benicia, California, a suburb of San Francisco. He received his BA in Art Education from the California College of Arts and Crafts in 1954 and his MFA from Mills College in 1958. His early ceramic pieces, influenced by the Abstract Expressionist movement, were "rugged vessels full of accident and agony." While teaching at Mills College in 1960 he outraged his department head, Antonio Pietro, by making a beer bottle that had no opening, transforming ceramics from craft to art. Alfred Frankenstein says, "Arneson is almost single-handedly responsible for the fact that ceramic is now a major sculptor's medium." Arneson's most celebrated pieces are his self-portraits which all began when he created his buffet table, done in trick perspective, with chef Arneson at its head. These self-portraits are masterpieces of thoughtful self-examination. Through them we become aware of Arneson's thoughts on his materials, ideas and processes, his states of mind and his perennial sense of humor. Dennis Adrian says, "If Arneson has a basic premise, it is t and tools used to create a particular piece of sculpture are determined to a large extent by the nature of the materials. The most commonly sculpted substances include clay, ivory, stone, wood, and metal. In modern times plastics, steel, and found objects have offered new possibilities for sculptors. The most important sculpture techniques are carving, modeling, construction, and casting.

Modeling

Breathless (Self-Portrait in Blue) is a larger than lifesize ceramic bust of the artist holding his breath. The entire head, glazed a bright turquoise blue sits on a pink glazed base with the word "Breathless" deeply incised on the front and the words "Bust of Bob" on the side in shallow letters.

Breathless has been created by modeling. Modeling is a direct additive process in which a flexible material -- such as clay, papier-mache, plaster, or wax -- is built up around an armature or skeletal framework. The elasticity of these mediums allows the sculptor to create complex forms by adding or subtracting material. At the same time, modeling often requires an armature, or inner framework, to hold the work together. Because of the plastic nature of the materials, in order to become permanent, the final work must be dried, cast in a more durable substance (usually metal), or fired (as clay figures are fired to become terra-cotta).

Clay Sculpture Lesson Plan

written by Maryann Webster

Objectives:
Students will create a three-dimensional relief sculpture of a face.
Students will be able to learn facial proportions
Students will be able to experience the tactile qualities of ceramic clay
Students will be able to experiment with creating emotional expressions on a face

Materials:
50 lbs. of terra cotta clay. The clay can be bought for $9.25 at Capitol Ceramics, 2174 S. Main Salt Lake City, Utah 84115; (801) 466-6471. This provides 1 1/2 pounds of clay for each student in a class of 30.
1 full sheet of newspaper per student
1 pencil per student to be used as a sculpting tool
1 large paper clip per student to be used as a trimming tool
1 heavy round toothpick or bamboo skewer for each student to be used as a cutting and texturing tool
1 paint brush per student
1 paper cup for water for each student
Assortment of butter knives as cutting and sculpting tools
1 large bucket for rinsing hands. When students have finished, have them rinse their hands once to prevent large amounts of clay going down the drains. Then, empty this bucket outside instead of down the drains.
Clay wire for cutting (optional)

Procedure:
1. Divide clay with a large knife or wire. Give each student a piece about the size of two adult fists.

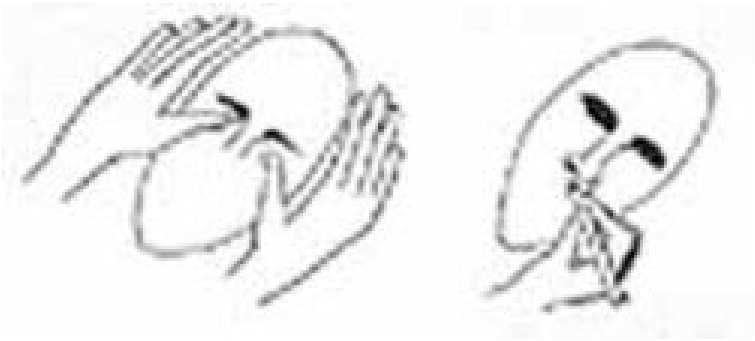
2. Have students smooth clay into a large oval ball, reserving a small ball of clay for the facial features.

3. Flatten clay to 3/4" to 1/2" thick oval slab.

4. Wet sheet of newspaper and wad into flat egg shape.

5. Drape oval clay slab over rounded newspaper form to create a face or mask form.

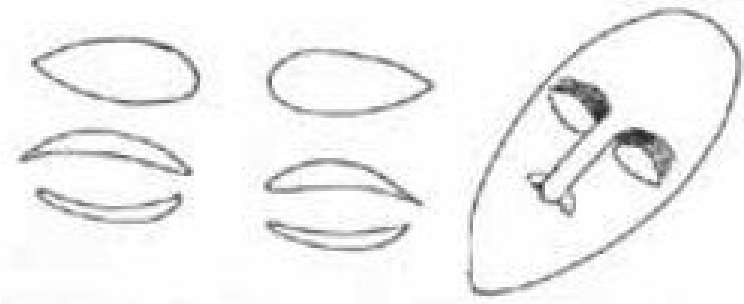
6. Press thumbs on the clay oval, as shown, to make two almond-shaped indentations on either side of face for the hollows of the eyes and the bridge of the nose.



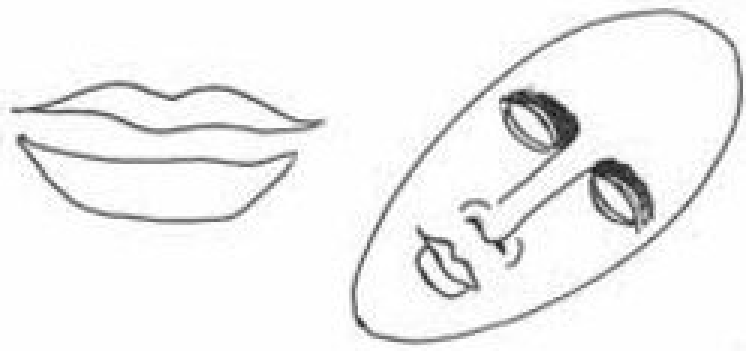
7. For the nose, add a piece of clay about the size of your thumb. Whenever adding a piece of clay stick it on with water or slip (slip is clay thinned with water to the consistency of tempera paint). This will help the small pieces to not crack off later. Poke nostril holes with the pencil tool, or carve them with the loop of the paper clip.

8. For eyes -- make two almond-shaped balls of clay. Stick on with water or slip to the hollows on either side of the nose.

9. Make two clay worms per eye for upper and lower lids. Ends are pinched to a point. Stick in place with pencil and slip. Use wet paintbrush to smooth areas where fingers cannot reach.



10. Lips are formed by making one "m" -shaped worm for the upper lip and one "u"-shaped worm for the bottom lip. Put in place as shown. You may want to discuss face proportions.



11. Use a pencil to make holes to represent pupils on eyes. Use a butter knife to open the mouth, if desired.

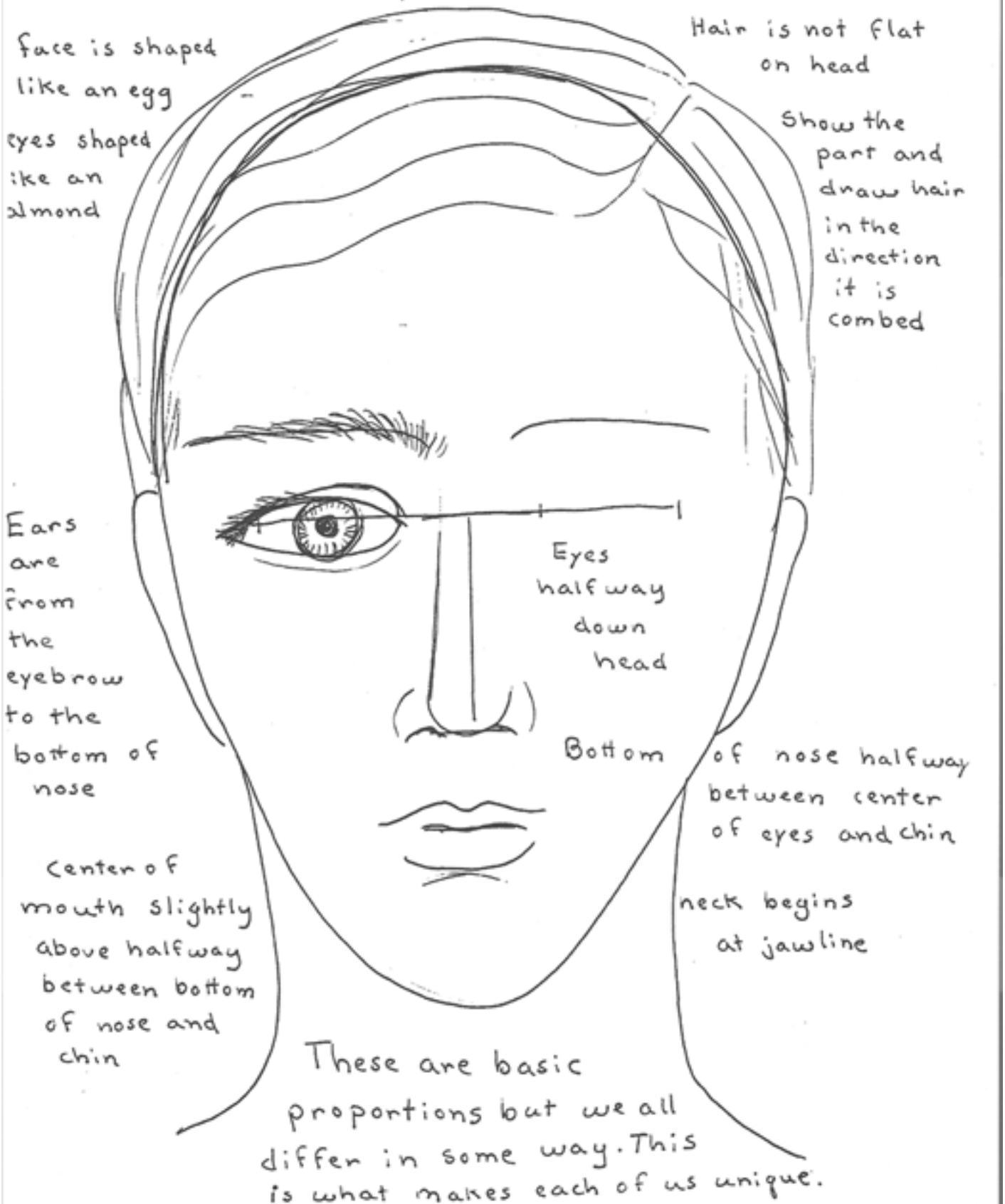
12. Add eyebrow shapes, use a toothpick to create the eyebrow texture.

13. Teeth and tongue can be added. If cracks form while sculpting, smooth with a brush and water.

14. Hair is more difficult as it is prone to break and crack off. Beginners can add worms of clay with a slip but must be sure that they are firmly attached to face. Make a hole near the top for a nail if you wish to hang it.

15. Leave newspaper form under clay face; it can be fired this way. Dry out under plastic for a few days, then, for two weeks completely uncovered. Fire in a ceramic kiln to cones 04-06.

Face Proportions



These are basic proportions but we all differ in some way. This is what makes each of us unique.

I Have Special Reservations — *Elizabeth Catlett*

Elizabeth Catlett, American (1919-)
I Have Special Reservations, 1946, 1989 printing,
Linoleum cut and paper
Purchased with funds from the M. Belle Rice Fund
Museum # 1997.039.011

Elizabeth Catlett, an accomplished sculptor, graphics artist, and teacher, was born in 1919 in Washington DC. Both her maternal and paternal grandparents had been slaves, who when freed, managed to provide excellent education for their children. Catlett probably inherited her creative talents from her father who was a professor of mathematics, a musician, composer, and sculptor. After receiving a Master of Fine Arts at the University of Iowa, Catlett taught school in Durham, North Carolina where she worked for equal salaries for white and black teachers. She taught in New Orleans, New York City and was Director of the School of Fine Arts Sculpture Department of the National University of Mexico before her retirement in 1976.

Elizabeth Catlett has received numerous degrees and awards in the visual arts, and is recognized especially as a woman who has dedicated her life and her art to the betterment of all people and to the fight against injustice and oppression.

Printmaking

This print is one of a suite of 14 woodcut prints created by Elizabeth Catlett to tell the story of the black woman in America.

From among the many printmaking processes Elizabeth Catlett selected woodcut as the method of producing *I Have Special Reservations*. Woodcut prints are examples of the relief process. In the relief process only the raise areas are printed. Those areas not to be printed are cut away below the original surface of the plate or block. Ink is applied to the raised surface areas with a hard roller or brayer and transferred to the paper by rubbing. In woodcut prints, knives, gouges, and chisels are used to cut the areas not to be printed out of the plank grain wood block. In looking at a woodcut print you usually can see the texture of the wood imprinted onto the paper. Another relief process is that of linoleum cut that utilizes linoleum blocks. Linocuts can be distinguished from woodblocks in that they have no grain or texture and leave a smooth impression. In woodcut prints you can often seen the texture of the wood block imprinted on the paper.

Printmaking Lesson Plan

written by Trish Clay

Theme:
To understand the need for printing in our society, to understand the printmaking process and to explore how prints often reflect the views and actions of society.

Art and Societal Activity:
Discuss what "to print" means and why it is important. Use samples of common printed materials (books, newspaper, magazines, postal stamps, comic books) to help explain why more than one copy of some things are important. They can lead into political cartoon using samples, of how prints make statements. Emphasize that prints and printing share information and opinions with the masses.

Criticism and Aesthetics:
Show students the slide. Ask questions for looking and understanding.
What do you see?
Who are these people?
Where are these people pictured?
Why do they look this way- serious and sad?
What does "Colored Only" mean?
What period of time would this be?
What does this say about society then? And now?
What do you think the artist thinks about this situation?
How do you feel looking at this picture?
Why do you think the artist chose this picture to be in only black and white?
How do you think this picture was made?

This picture can be compared to other prints if desired and are appropriate.

Art Production Activities:

Inner tube:
Have students draw 3-4 designs on paper.
Transfer design onto pieces of rubber inner tube.
Students cut out designs and glue (rubber cement) onto wood or cardboard pieces.
Using tempera paints, print design.
Have each student collect a sample of each students' print.

Linoleum Block Printing:
1. As a class, list on blackboard all areas of modern day societal concerns, such as environment, overcrowding, drugs, gangs, famine, students dropping out of school, wars, families breaking up, animal rights etc....
Have each student draw a simple picture to depict a particular concern they relate to and want to say something related.

2. Explain process and demonstrate the process of linoleum block printing, showing materials used at each stage from blank block to use of tools and cutting to inking and finished product.

3. Have students create their own block print from transferring design with carbon to block, to cutting, printing and matting.

4. Have a class print show, having students "figure out" the societal statements expressed by each student.

Art History Activity:
Discuss the ancient method of Japanese fish printing, show samples and have students produce their own prints.

Literature and Print Activity:
Check out one or more of the displays of prints from the Teacher Resource Center at the Utah Museum of Fine Arts (581-3580) and display in room. (Once Upon a Time is a excellent display for this activity). Have the students write a story or poem using one of the prints. Stories can be shared and read to class as a whole, displayed next to each print or put together in a class book.

Old Lyme

Childe Hassam

Childe Hassam, American (1859-1935)
Old Lyme, c. 1905-06
Pastel on Colored Paper
Permanent Collection of the Utah Museum of Fine Arts
Museum # 1981.076.001

The American impressionist painter and printmaker, Frederick Childe Hassam (chyld has'-uhm), born Dorchester, MA, October 17, 1859, died August 27, 1935, began his career as a wood engraver and free-lance illustrator in Boston before becoming a full-time painter. In 1886, he studied briefly at the Acadmie Julien in Paris but was most influenced by the work of the Impressionists. Like them, Hassam portrayed the leisure life of the middle and upper classes and used rapid brushwork, diagonal perspectives, large expanses of open space, and cut forms. Returning to the United States in 1889, he settled in New York City, where he painted people scurrying along snowy streets or strolling under flowering trees along broad avenues. Hassam was sensitive to the play of light and the subtlety of color patterns in landscapes and seascapes. In 1898 he joined a group of American impressionists called "The Ten," which also included John Twachtman and Alden Weir. Hassam exhibited at the 1913 Armory Show.

Material for this biographical sketch has been complied from the Grolier Encyclopedia.

The Museum's picture was probably painted near Old Lyme, Connecticut, where Hassam did a number of moonlit scenes around 1905-06. The pastel is finely executed in Hassam's unique, vigorous interpretation of the Impressionistic style of Monet, with its insistence on laying down pure color. Yet Hassam was never a rigorous Impressionist. As the romantic mood of this work shows. there was a lingering tonalist quality that speaks of Hassam's Americanization of Impressionism.

Basic Drawing Lesson Plan - Nature Objects

written by Maryann Webster

Objectives:
To learn basic design concepts and steps in drawing.
To experiment with powdered graphite shading techniques.
To learn to really see and appreciate the beauty of small nature objects

Background Materials:
Show students the botanical drawings of Leonardo Da Vinci and the drawing examples of line and outline, shape, shapes in front of shapes, and for ages 10 and up, form.
Have leaves, shells, flowers, seed pods, or other small nature objects from trees to observe and draw. Leaves and flowers can be pressed, dried, and laminated over a background of index card-weight paper.

Materials:
Heavy pencils, such as kindergarten pencils or carpenter's pencils, and regular pencils.
Small sand-paper squares
Art gum erasers and/or Pink Pearl erasers
1 Kleenex per student
Smooth paper - I use exact index white 11" by 17" heavy paper from Arvey's (approx. $12 per pkg. of 200)
Less expensive paper will work, however.

Show students how most drawings begin with line and outline. Show that outlines, when filled in, create shapes - show M.C. Escher"s drawings on shapes, an example would be Fish and Boats; Symmetry 72. Shapes can be light or dark shapes. Most good drawing have variations in light and dark from the palest gray to the darker grays and black, show light and dark shapes.

Demonstrate how powdered graphite can create gray shades as follows:
Outline a leaf shape. Students can trace the shape of a real maple leaf, for example, tracing a flat shape is an excellent way to learn that shape. Point out that the veins of the leaf also show line and that these veins are the circulatory system of the plant, much like the veins in our own body which can be seen on the backs of our hands.

Apply sand paper to the tip of the heavy pencil and grate the pencil dust onto the page over the leaf shape outline.

Rub the pencil dust into the leaf shape with a Kleenex wrapped over the finger tip.

Blow off excess dust around the leaf shape outline.

Erase around edges to clean up the edge of shape, if needed.

This process can be repeated to create darker shades, all the way to black.

Show the veins of the leaves and cover the page with more leaves.

Highlights or light areas can be created by erasing out shapes inside the gray areas with a pencil eraser tip or the edge of a large eraser. These white areas can have detail drawn on them with pencil lines.

An entire shaded background can be created with powdered graphite dust very quickly and many rich shades of gray can be added to a line drawing. Point out to students how much smoother and faster this method is than by shading with a pencil point.

If students are 10 or older, they are probably ready to learn about form. They are already perceptually mature enough to be observing that their work is not "real" enough. Giving them added knowledge about how to show form can help alleviate a lot of frustration for students at this age, because they can learn to show shade and shadow and obtain a more realistic effect.

For students 10 and older, point out that objects on the table create a shadow around them when the light comes from above. Shapes in front of shapes can create shadows on the shape which is behind the light source. Objects cast shadows.

Also point out that rounded objects get darker around the edges as they curve away from the Light Source.

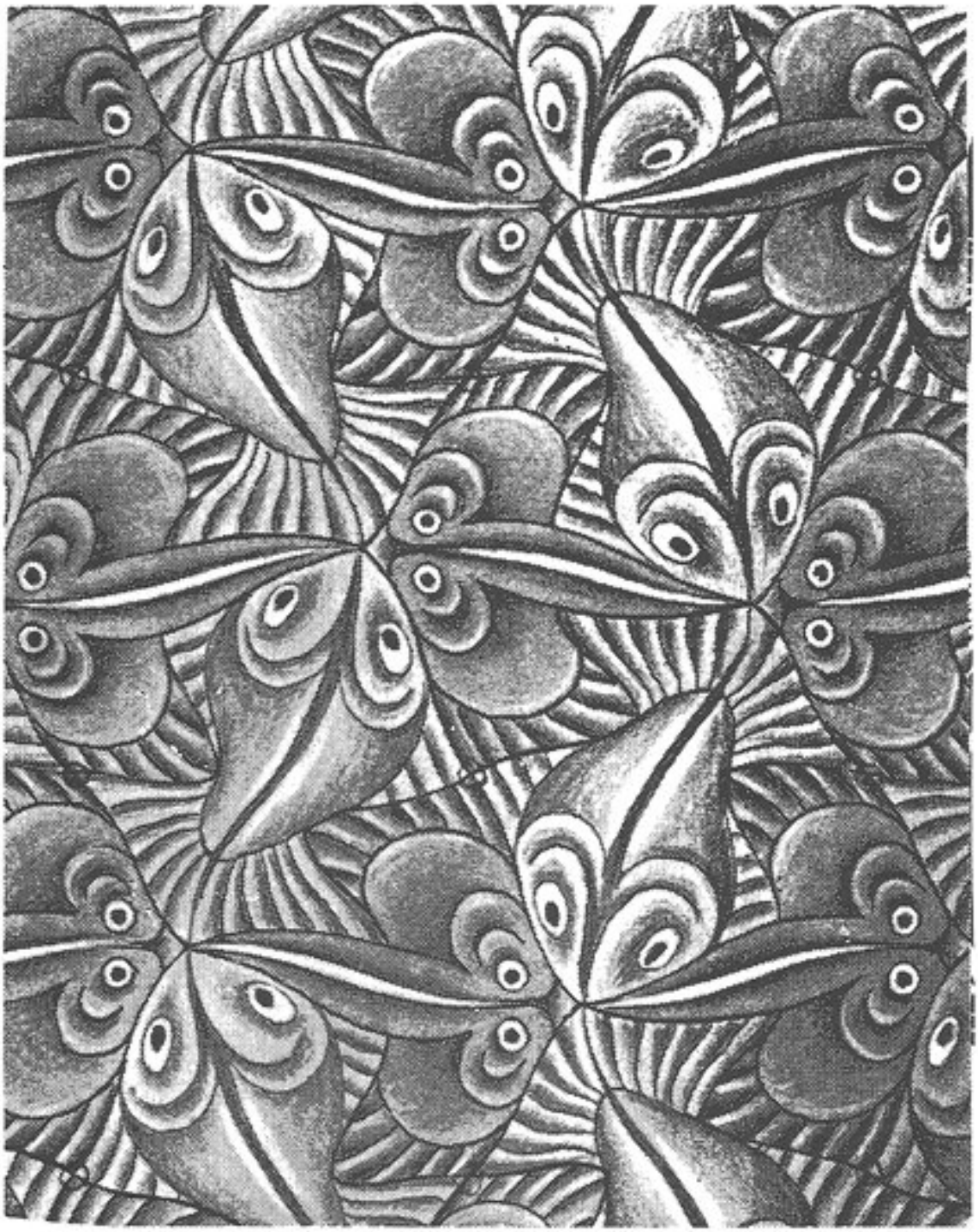
Have students show shading and shadows to create the illusion of form by using powdered graphite and pencil shading.

Students will need to wash hands and tables after these projects.

Background Information on Leonardo da Vinci

Leonardo, born 1452, was a great genius from the Renaissance who was an artist, inventor, scientist, architect, and a mathematician. He designed war machines for the Duke of Milan. He was the painter of the Mona Lisa. He believed artists should study objects from nature. He created some of the most beautiful drawings ever made.

(1.) Line-outline



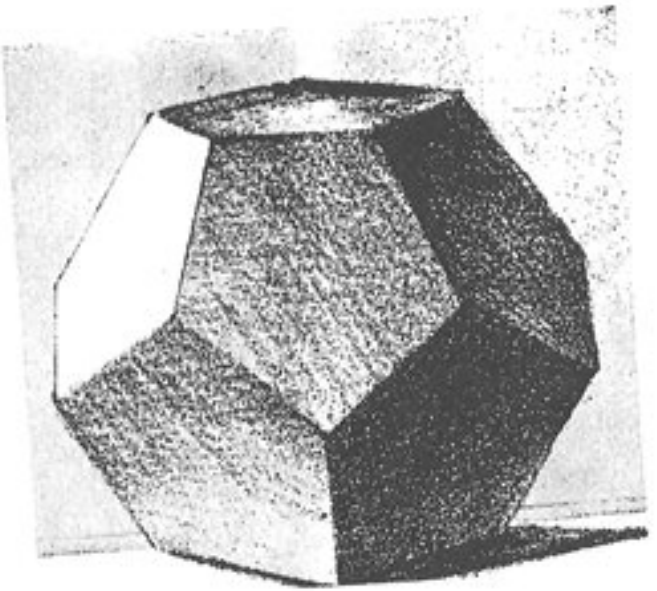
(2.) Shapes

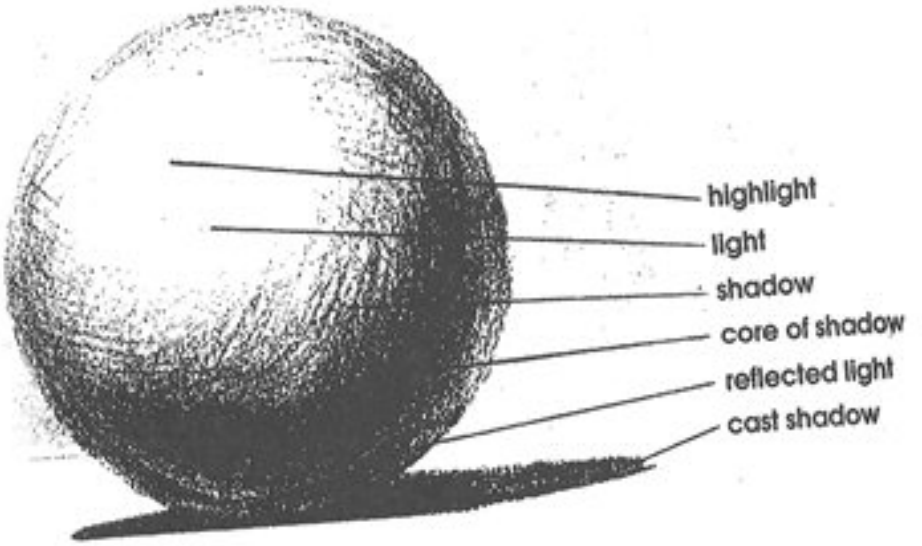
Group I Award Winner
James Madison Jr. High School

ROY QUAN

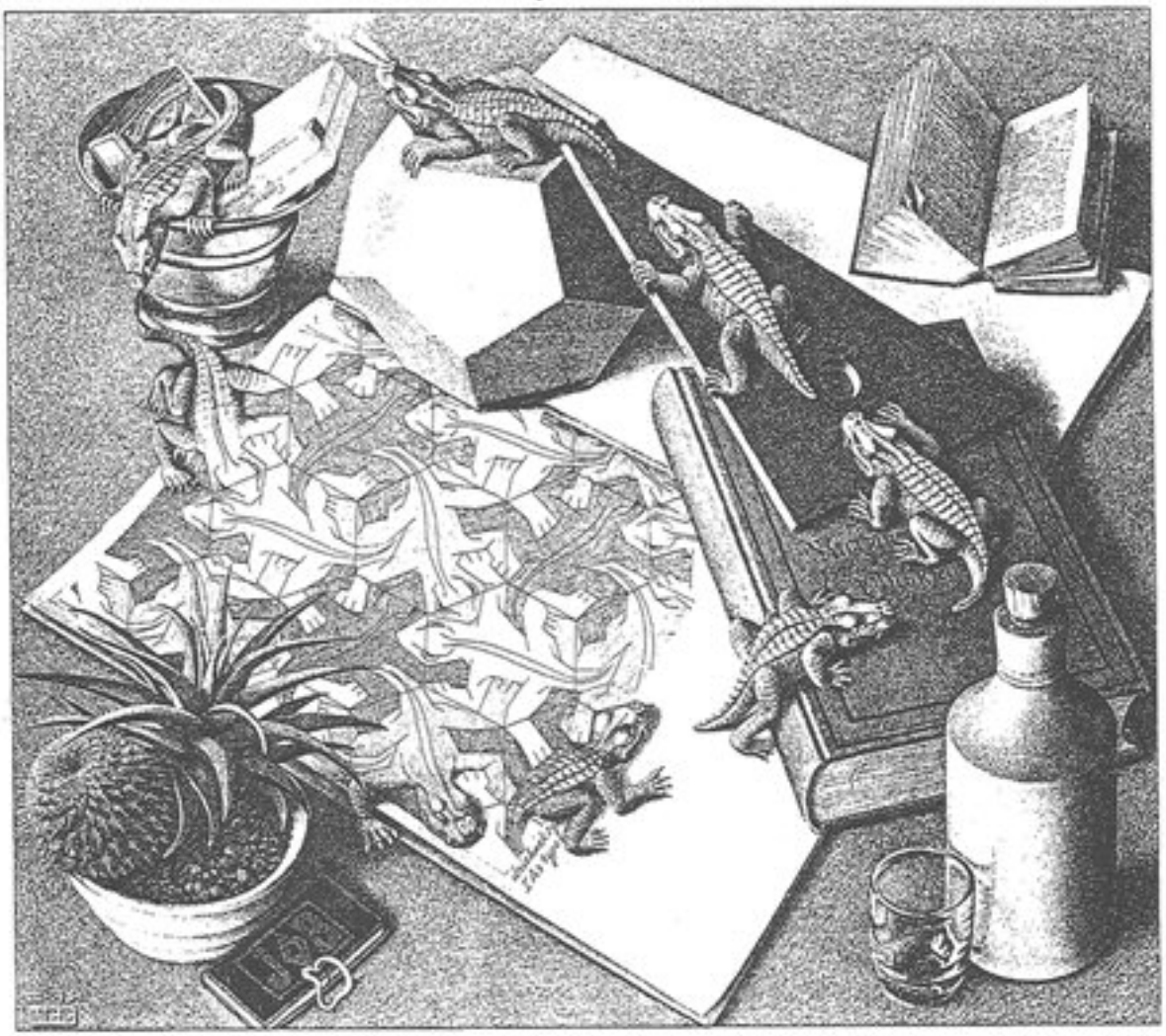
Age 13
Seattle, Washington

(3.) light and dark shapes





(4.) Form - shading



Drawings THAT COME TO Life

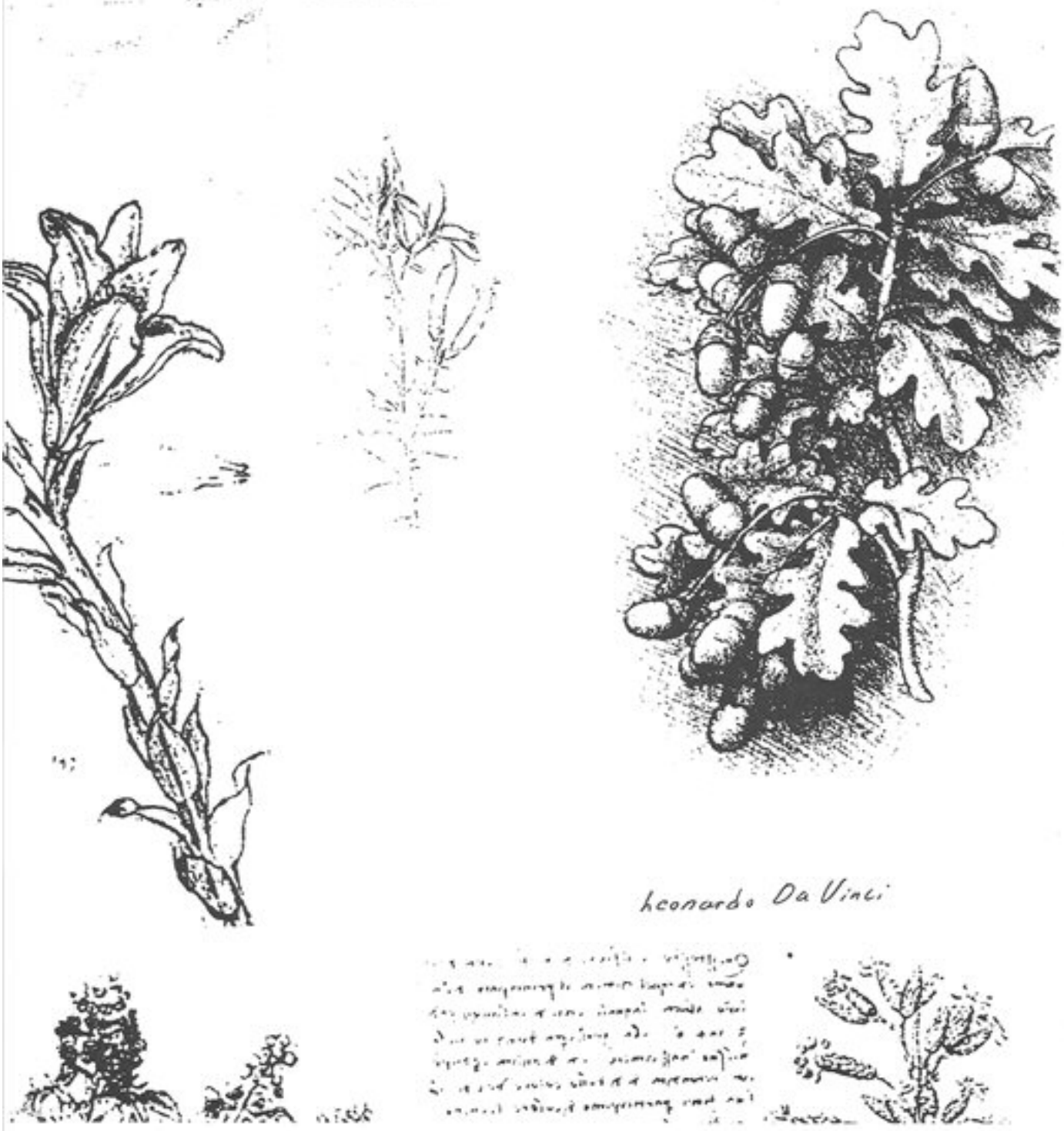
(5.)

Before artist M.C. Escher's work became well-known, only mathematicians and physicists took much of an interest in his prints because of the precise, mathematical methods he used in order to construct them.

Group II Award Winner • Mark Polack • Age 16
Washington High School • South Bend, Indiana

(6.)

17 Peggy Bacon. *Blessed Damozel*, 1925


leonardo Da Vinci

Leonardo Da Vinci

121
Leonardo Da Vinci

Leonardo Da Vinci

Above: Ornithogalum umbellatum. — Below: *Euphorbia* – Windsor, Royal Collection, no. 12424

Bacon and Eggs — *Wayne Thiebaud*

Wayne Thiebaud, American (1920-)
Bacon and Eggs
Oil on canvas
Utah Museum of Fine Arts, Permanent Collection
Museum # 1973.036

Wayne Morton Thiebaud (tee'-boh), born Mesa, AZ, November 15, 1920, is a figurative painter who became prominent during the mid-1950s for his thick, impasto paintings of subjects such as mass-produced food and ordinary household objects. Thiebaud has been identified as a pop artist, but his naturalistic images are more personal than is usual in true pop. In the late 1970s, Thiebaud began painting his "urban landscapes," using impasto and simplified forms to create city views that seem, at first glance, abstract but have all the factual detail and immediacy of reality.

Material for this biographical sketch has been complied from the Grolier Encyclopedia.

Painting

In creating a painting three elements are used: pigments, a medium and the ground. The pigment is the coloring substance. There are organic and inorganic pigments. Organic pigments include the madders, carmine, crimson lake and indigo. Inorganic pigments include red and yellow ochre, ultramarine blue (made from lapis lazuli), terra verte (green earth), vermilion and viridian green. Light, air and moisture may change the the pigments in a painting. It is for this reason that all museums practice conservation and take great care in storing, protecting, and exhibiting their paintings (as well as other objects) as well as controlling humidity and light levels in the areas where art works are displayed.

The medium is a substance that is mixed with the pigment before it is applied to the ground or support of the painting. The main purpose of the medium is to hold the pigment in suspension so that it can be applied over the ground. The medium influences the appearance of the painting since some pigments become more transparent in one medium than in others.

The ground is the material onto which the pigment is put; canvas, wood panel, cardboard, etc. Throughout history artists have selected various materials on which to paint. Walls, leather, papyrus, paper, wood, canvas, and cardboard have all been used to support paint.

Watercolor

One of the oldest processes, watercolor has been used from classical times into the present. Manuscript illumination, Chinese and Japanese painting, and small-scale sized paintings have all used watercolor. In watercolor, the pigment is mixed with gum arabic so that it is soluble in water. When brushed onto the ground, the water evaporates. The principal ground is paper, although silk has been used in the orient. There are two types of watercolor; transparent and opaque. Pigment is mixed with white to form the opaque, loosely called tempera.

Oil Painting

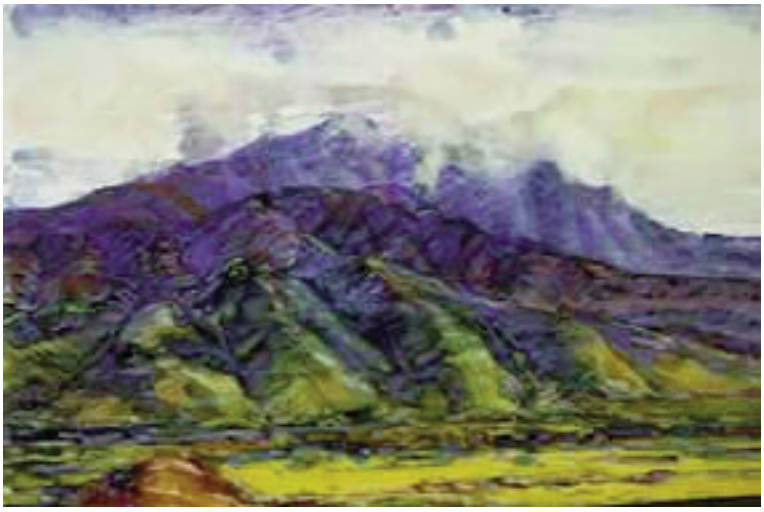
The use of oil as a medium for pigment revolutionized painting. The oils used are called "drying oils;" that is they harden when exposed to air, unlike "non-drying oils" such as castor or olive oils. The oil generally used is linseed oil. Linseed oil is too thick to flow easily so it is mixed with a volatile fluid such as benzene or turpentine. This allows the oil to be fluid enough to be applied onto the canvas but evaporates away. Varnish may be used as a protective covering for the finished painting. Before the sixteenth century, varnishes with an oil base were often used and they sometimes yellowed and darkened with age.

Materials of the Artist

Utah Museum of Fine Arts • www.umfa.utah.edu
Lesson Plans for Educators • March 1997

Wailele

George Dibble



George Dibble, American (1904-1992)
Wailele
Watercolor
Utah Museum of Fine Arts, Permanent Collection
Museum # 1991.017

George Smith Dibble was born in Laie, Oahu, Hawaii on March 29, 1904. He was three when his parents brought him to Utah. As a child, Dibble received his painting lessons from his mother. Reared on a Layton ranch, he developed a love of landscape and and aversion for fences. Dibble later supplemented his mother's watercolor lessons with a correspondence course on cartooning that helped him land his first job at The Salt Lake Tribune in 1924. Selling cartoons to the newspaper financed his education at the University of Utah where he earned a teaching certificate in 1926. After teaching school in Davis County for two years he returned to the University to study art with such Utah artists as Jack Sears, Mabel Frazer, and James T. Harwood. From 1929-1930 he satisfied a long standing desire to study art at the Art Students League in New York. Taking a class with Howard Giles he was introduced to cubism and acquired the urge towards abstraction.

Returning to Utah he began teaching in the Murray School District where he was to remain for seven years (1930-1937). Receiving a prestigious scholarship made it possible for him to return to New York to earn his bachelor's degree in 1938 and his master's degree in 1940 from Columbia University. After completing his master's degree, Dibble returned to Utah where he briefly taught at Utah State Agricultural College (now Utah State University) in Logan. In 1941 he began teaching at the University of Utah where he was to remain for fifty years. During his tenure it can be said that he taught every major Utah watercolorist

Dibble worked from his palette to his paper, rarely pre-mixing his colors. Nor did he pencil in a sketch before painting. He would load three or four colors on the brush at once, with the darker colors at the tip. He sometimes laid pastel over watercolor for "textural richness," creating a sense of oil. George Dibble continued to be an active artist and teacher. Appointed Professor Emeritus in 1972, he continued to teach at the University of Utah until 1989. Dibble dies on June 1, 1992 at the age of 88.

Material for this biographical sketch has been taken from the exhibition catalogues, In Memoriam George Dibble, 1904-1992, Nora Eccles Harrison Museum of Art and George Dibble, Drawings by Will South.

Painting Lesson Plan

written by Virginia Catherall and Marge Powis

Oil paint is powdered pigment mixed with slow-drying oil, such as linseed or walnut. The oil absorbs oxygen from the air, forming a transparent skin that locks in the color. This means that oil paint can be built up in many layers, and applied opaquely, semi-transparently, or in transparent glazes. Because oil dries slowly it can also be blended better than egg tempera. With oil paint, artists can create rich textures through color and layering. Oil paint is usually applied to canvas because wood has a tendency to warp or split.

Oil painting was not an invention or sudden discovery, but was gradually developed over a period of 100 years during the fifteenth and sixteenth century. Jan van Eyck (1385-1441) is usually credited with the invention of oil paint but that has been disproved, although van Eyck was one of the earliest users of oil paint. Van Eyck applied oil and varnish glazes over tempera underpaintings. By using oil, Van Eyck and other Renaissance artists were able to achieve fine detail and realism in their works.

Art History and Criticism Activity:

Materials:
An original or reproduction of an oil painting
An original or reproduction acrylic or watercolor painting
Note: The Utah Museum of Fine Arts has original art and reproductions available for loan to teachers free of charge. Call 581-3580 to reserve the art or to receive a list. The TRC list can also be found here Teacher Resource Center/ List of Objects for Loan

Show the class a reproduction of an oil painting by Van Eyck or another Renaissance artist with a variety of texture; for example, *The Virgin with Chancellor Rolin*, 1435. Have the students point out all the different textures in the painting; i.e. soft velvet, glassy jewels, smooth marble, cold glass. Emphasize how oil paint can create textures that look real. Compare these visual textures with the visual textures in an acrylic or watercolor work of art.

Art Production, Art History Activity:

Oil paints are usually too toxic to be used in elementary school classrooms. A good alternative would be to use oil sticks. They are oil paints that are formed into sticks so there is no cleanup and fumes are kept to a minimum. Oil sticks can be found at most art supply stores.

Materials:
Oil sticks
Primed canvas or heavy paper
Egg Tempera paint (powdered pigment mixed with egg yolk and water)
Watercolor brush (for the egg tempera)

Have the students create a work of art with the oil sticks and another with the egg tempera. Compare the differences between the colors, layering, and application. Discuss why artists would use one type over the other. Combine this activity with the first activity and discuss the art historical aspects of oil paint and why it is used in various works of art.

Art Production/Science Activity:

Materials:
paper or canvas
oil sticks
watercolors
egg tempera paint
acrylic paint
various brushes
Slides from this packet

Look at the slide of the oil painting *Bacon and Eggs* by Wayne Thiebaud. Point out the layering of oil paint in the bacon and cake. Compare the layering of the oil paint to the layering of watercolor in the slide Wailele by George Dibble.

Have the students experiment with the layering of a variety of paints to see how they look, how they dry, and how they react when layered. Conduct the activity like a scientific experiment. Use the oil sticks, egg tempera, watercolors, and acrylics. Try layering different colors to see how the colors mix when applied on the paper or canvas.

Egg Tempera
By Margorie Powis

Tempera paints are emulsions of dry pigments with water and fatty, waxy or resinous substance. The early tempera (13-15th century) paintings were usually made with egg yolk. The gummy substance of the yolk (albumin and egg oil) provides a medium that dries at a slower rate than when the whole egg is used. The qualities are immediate drying, suitable for smooth and detailed technique with a translucent surface.

Ground (surface or support):

Tempera painting is best done on rigid panels coated with gesso, such as untempered hardboard (masonite). Corrugated paper with smooth surface form cardboard boxes can be gessoes and used as an economical support but will not hold up for many years.

Egg Yolk Medium:

Some painters are careful to keep egg white for yolk as the white (albumin) increases speed of drying. After separating yolk from white by usual method of pouring back and forth in half shell, transfer yolk to paper towel and roll to dry yolk or I prefer to transfer yolk to flatly held (not cupped) palm of dry hand. To further dry yolk roll from one hand to other, alternately wiping hand on towel or apron until skin of yolk is dry. With thumb and forefinger gently pick up yolk so as not to break its skin and puncture bottom of egg sac while holding over jar. Some painters add a little distilled water to yolk (1/6 -1/8 volume)

Pigments:

Mix dried pigments with distilled water to consistency of tube colors. Crayola or equivalent powder pigments were found economical and safe for children to use. I have also used tube watercolors with egg yolk.

Technique:

Use the best watercolor brushes budget will allow. Mix yolk medium with pigments at time of use as paints do not store well after yolk is added and begin to dry if jar is left uncovered long. Equal amounts of medium and pigment paste is a ratio to start and will vary with pigments and water. Experiment - too much egg will make a high gloss and too much pigment will be dry and flaky. Plenty of water should be used with egg mixture while painting and brush dipped into water frequently. Use single strokes in one direction, not back and forth. Wait a few seconds before going over the previous strokes. Light hatching strokes are traditional handling. Try to keep a translucent effect.

Artists:

Giotto - developed early perfection

Botticelli - later development. In later development oils were used with egg medium until it gave way to oil painting as principle medium. Older tempera methods became dead in late 15th century, until revival in recent years by artists like Andrew Wyeth.

St. Catherine — *Unknown French Artist*

Unkown, French, 15th century
St. Catherine
Limestone with polychrome pigments
Purchased with Funds from the Friends of the Art Museum
Museum # 1974.035

This sculpture of Saint Catherine expresses the idealism of the Gothic period. It is calm and majestic in expression. The block-like form indicates that it could have been part of architectural unit.

Saint Catherine was born in the fourth century A.D. She was of royal birth and, according to legends, displayed great learning from an early age. The Roman Emperor Maxentius, wishing to marry her, tried to undermine her faith by sending fifty philosophers to debate with Catherine. When they were unable to shake her faith, he had them put to death. After all his efforts to win her failed the emperor had Catherine bound to four wheels studded with iron spikes. Before she could be hurt a thunderbolt from heaven destroyed the wheels. The emperor, then, had Catherine beheaded and her body was taken for burial to a monastery on Mount Sinai.

Saint Catherine was venerated as a virgin martyr and saint until she was dropped from the church calendar in 1969 as a result of Vatican II. Prior to that she was second only to Mary Magdalene in popularity among female saints. Saint Catherine is considered the patron saint of young women, attorneys, philosophers, teachers and students. The iconography of the Roman Catholic Church decreed that she be shown wearing a crown to signify her royalty and bearing a palm frond as a symbol of her martyrdom and a token of her victory in defending her faith. The book she holds a book is a reference to her great learning. Such full length statues of saints were often commissioned by a guild who regarded the saint as a holy patron and protector.

Material for this biographical sketch has been complied from the records of the Utah Museum of Fine Arts.

Carving

The unknown French artist who created the statute of St. Catherine chose to carve his figure out of limestone. As the process of shaping material by reducing its mass, carving is the most direct of all sculpture techniques. The carver removes excess material from stone, ivory, or wood to create the form and surface texture desired. The basic tools of a stone carver include various sizes and types of chisels, files, drills, gouges, and hammers. Rasps and abrasives are used to produce various surface textures and degrees of polish. After making drawings and small-scale models of the statue, the artist may work directly on the block of material.

Carving Lesson Plan

written by Anne Vinsel

In subtractive sculpture (carving), the sculptor starts with a chunk of material and cuts away until the final form emerges. Stones like marble, granite, limestone or alabaster are the best known carving materials; wood is also commonly used. However, any reasonably fine-grained material without too many interior lumps which will cut without fracturing or crumbling can be used.

If you bite a Reese's cup into the shape of a turtle you are carving. It doesn't require expensive tools or materials or great strength. Michelangelo is probably the most famous Western practitioner of subtractive sculpture; others include Auguste Rodin, Isamu Noguchi, and Louise Bourgeois. In addition, many tribal societies use subtractive methods to make statues, masks, etc. The unknown late Gothic sculptor who carved St. Catherine was doing architectural carving, which is not only decorative but helps support ceiling or wall elements.

Materials:

The traditional material for a beginning carver is cake of soap, since it is commonly available, doesn't require sharp tools, and doesn't produce dust. However, the size and shape of a cake of soap seriously limits what can be carved. Also, a bigger block is necessary to get the experience of defining a form with line, which is one of the best things about carving. When carving goes well, it?s like drawing in the stone, using your entire body instead of just hands, arms and shoulders. A bigger but still inexpensive block of carving material can be created by making grits, cream of wheat, or polenta (polenta has the best texture).

Procedure:
Use about 5-6 cups of water brought to a boil with each 24 oz. package of cooked cereal. Don't use oatmeal, it's too large grained and gluey.
Spoon the mixture into a half gallon milk carton with the top cut off to make a rough block shape with a vent where the handle was cut off. An exacto knife works best, but sharp scissors will do.
Pack it firmly to leave no air pockets, then put something small and heavy on the top. Poke a few holes in the bottom to let excess water drain.
Let dry overnight, then carefully slit each corner of the milk jug from top to bottom. Leave the block in until dry. Don't try to hurry the drying process too much, or the block will crack.
When dry, cereal blocks can be carved with spoons, paint scrapers, nail files, screw drivers, or anything else that will slice without being too sharp.

Hints:
Molded chunks of plaster (use casting plaster, with green soap as a mold release) can also be carving material; it will cut with inexpensive chisels ($3-5 at hardware stores) and ordinary hammers. Sureform files can be used to refine shapes. In a pinch, any solid block of chocolate can be used; chocolate has the advantage of being usable without tools, but it can be difficult to prevent students from swallowing their rubble.

Choosing a Subject:

Carving works best if the subject is fairly compact, with no thin projections. Notice that St. Catherine is not standing with one arm in the air; her robe is treated as a chunk. For most beginning projects, the thing that

should stick out furthest is the nose of a person or the tail, ears or claws of an animal. Flowers are not a great choice. Particularly with cereal blocks, it is best to keep shapes "blocky". Four-legged animals with short legs (dachshunds,sheep, bears, seated frogs, etc.) are good choices because students can use their own bodies to figure out which bits stick out the most. Those are the bits you leave in the original rock, and cut down from there.

If you are cutting on a block, you can draw side, top, bottom, back and front views directly on the block with a waterproof marker (Sharpies are good). It is a good exercise for older students to really look at a simple object from all sides and try to draw only what they see. A complete drawing is not necessary, especially small details; just get the big general shapes down. If the form is symmetrical, a median line may help. Concentrate on the outline of the object, making a clear distinction between between, for example, the frog's legs and the space between the frog's legs. To avoid confusion about where to cut, color in the negative shapes (the part where the frog isn't). Then, cut away the blacked in parts and the frog will start emerging.

Carving:

Depending on the material used, screwdrivers, paint scrapers, chisels, files, rasps or Sureform scrapers can be used in roughing out. For finishing and smoothing, sandpaper ranging from as coarse as 120 grit to as fine as 400 grit (wet-dry) is best. A spray plastic sealer such as Krylon can be used to close the pores of the carving and prevent insect invasion in cereal blocks. Spray lightly, let dry, then spray again.

Older students who can use sharper tools could try using a real stone. American Stone in Salt Lake (262-4300) carries some alabaster. A thirty pound chunk makes good starter size -- stones much smaller tend to wiggle around and are actually harder to cut than larger ones are. Picking through alabaster chunks is important; avoid those with big cracks and dirt pockets even if the color is beautiful. Once you buy a stone, drop it from about knee height on a piece of carpet over a concrete floor (watch your feet!). It is better to have it break before you start to work on it than after. Utah also abounds in roadkill stone. (See "Stone hunting and gathering in Utah" handout). Alabaster will cut with only files or rasps, or you can use chisels and an ordinary hammer.

Stonecutters have a saying about beginners' before you can become an intermediate, you have to make two hundred ashtrays. You can cut way down on the number of ashtrays if you remember this about holes and bumps' start at the edges of the hole and cut toward the middle. A bump is what's left after you cut a hole all around it. You can never add to a carving unless you're ready to peg and epoxy.

The hard part is to cut the big shapes first and leave the details like eyes or hair or scales to the end. It takes self-discipline but saves a lot of reworking.
Finishing:

Count on losing about 1/4" in the finishing process. That means the cutting needs to be kind or exaggerated and cartoony--think of Liam Neeson's face as being how you want your piece to look before you do the final smoothing. Start with the roughest files, then go to rough, then finer sandpaper. At each step, file or sand until the previous grit's scratch marks are removed. A helpful hint--filing only goes in one direction, the push stroke. Lift up when you pull the file back. When you reach the finer grits of sandpaper, (300+) sand wet in a dishpan.

Waxing the sanded sculpture with Johnson's paste wax will give a nice satin finish; the very high gloss finishes require diamond grits and mild acids.

Suggestions:

You can't have dinner with a bunch of stone cutters without having somebody start roughing out a gargoyle face in their mashed potatoes. An ideal, if un-nutritious, meal for a budding carver would be something like a chunk of meatloaf (Spam carves better, but I can't in good conscience suggest eating it), sweet or mashed potatoes, a firm whole wheat roll, and a chunk of cheese, an apple and a chunk of marzipan or chocolate for desert. Teeth are the only permitted tools. Put successful creations in a zip-lock bag and bring to school for show and tell. Surprisingly, teenagers do this best, if they can stand to get their faces messy.