

## NATURAL DYES

Some evidence shows that textile dyeing dates back to the Neolithic Period or New Stone Age, around 10,200 BCE. Dyeing was done more than 4,000 years ago in the fabrics found in Egyptian tombs. The use of black, white, yellow, and reddish pigments made from ochre in cave painting were traced back as early as 15,000 BCE. Dyes were originally derived from sources found in nature such as vegetables, plants, trees, lichens, and insects. Dependence on natural dyes went on until the 1850s when synthetic dyes surfaced.

### HERE ARE SOME OF THE NATURAL DYES USED IN ANCIENT TIMES:



#### INDIGO

Indigo was probably the oldest known natural dye. It was derived from the leaves of dyer's woad herb, and from the indigo plant.



#### ALIZARIN

Alizarin was a red dye extracted from the madder plant. Other red shades were derived from scale insects such as kermes and cochineal.



#### TYRIAN PURPLE

Tyrian purple was extracted from the glands of snails. This type of dye was quite elusive because experiments in 1909 found that only 1.4 grams of dye was generated from 12,000 snails, which may be the reason why only people in power, high office, or royalty such as kings and emperors had exclusive rights to wearing garments dyed with this pigment.



#### YELLOW

Yellow came from the leaves of weld, and the bark of the North American oak tree. Carotenoids, which are compounds present in green plants, also produced yellow to red dyes.



#### LOGWOOD

Logwood is the only natural dye that is still being used today. Initially, it is red but the color will transform to charcoal, gray, and black once combined with chromium. Logwood is used to dye silk and leather.

## MANDALA

In Sanskrit, Mandala means both circle and center, implying that this symbol represents both the visible world around us and the invisible one deep inside us. Mandalas generally have one identifiable center point, from which radiates an array of symbols, including geometric and organic shapes.

From Native American and Tibetan sand paintings to Gothic Rose Windows and Hindu Yantras, mandalas are used as symbols for meditation, protection and healing. These can be drawn or painted with a variety of art media.

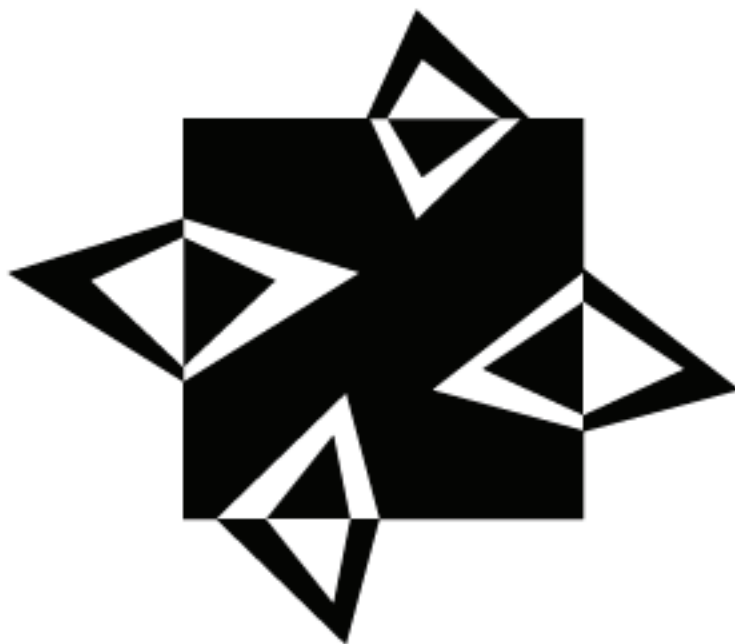


## NOTAN

Notan is a Japanese term which literally means "light dark harmony". Artists use "notan studies" to explore different arrangements of light and dark elements in art, without having the distraction of other elements like color, texture and value.

This is an excellent way to teach art concepts like positive and negative shape, contrast, and mirror imaging with a math or science connection.

Black paper, scissors and glue are needed. Designs can be made as simple or complex as appropriate for your learners.





## Cast-Tissue Tiles

A simple way to create embossed paper designs — with the color built right in!

### (art + history)

The term papier mâché refers to a wide variety of processes, but just two main ingredients: paper and glue. Originating in ancient China, papier mâché is truly a global craft and has been used to make just about anything one could imagine and also things that defy the imagination — like papier mâché boats, airplanes, and buildings.

In the 18th century, English craftsmen John Baskerville and Henry Clay created a process that later became known as "japanning." It imitated lacquerware from Japan and used heat to create a papier mâché that was as durable as wood. It launched an industry that dominated the decorative and home market until plastics took over in the 20th century.

This technique provides a relatively quick and tidy way to create cast papier mâché designs using a texture rubbing plate as a mold and colorful tissue paper. Use it to create tiles, ornaments, valentines, frames — all sorts of great projects that make great gifts, too!

**GRADES 2-8** Note: Instructions and materials are based upon a class size of 24 students. Adjust as needed.

### Preparation

1. Squeeze glue into a cup or, if larger quantities are needed, place glue in a plastic container with a tight-fitting lid. Add 50% water to the glue, and stir.

### Process

1. Look at both sides of the rubbing plate to determine which side to use. The papier mâché casting will be flat on the back side and take its texture from the side of the plate it is pressed against.
2. Tear tissue paper into approximately 1" pieces. Brush glue onto the rubbing plate and place the tissue piece over the glue. Brush the back side with more glue and use the bristles of the brush to push it down as much as possible against the texture. It is best to use old brushes. Repeat, overlapping tissue paper pieces.
3. The design on the plate can serve as a guideline and colors of tissue can be filled according to it. Or, simply use the plate for texture and create your own shapes and designs.



### Materials (required)

Elmer's® Washable Clear School Glue, 5 oz (23810-1600); share three bottles across class

Blick® Colored Tissue Assortment, 12" x 18", Package of 50 sheets (11308-1006); share one across class

Richeson® Rubbing Plates, Set of 6, size 7" x 7" (62108-); one per student

### Optional Materials

Hygloss® Animal Skin Tissue Assortment of 20 sheets, 20" x 30" (11300-1003)

KolorFast® Luster Tissue Paper, 14-sheet package, 20" x 30" (11306-9106)

Roylco® Rubbing Plate Sets, assorted (61112-)

Shade-Tex™ Rubbing Plates, Set of 6, 8-1/2" x 11" (22809-)

Blickrylic® Student Acrylics, assorted colors (00711-)

Sargent Glitter Glaze, 16 oz (00704-1006)





#### Process - continued

4. Every part of the paper casting should have at least three layers of tissue. Create a final layer of a single, complementary color on the back side. Allow edges to create deckles, or trim with scissors.

Start in the center and use fingers to gently smooth tissue toward the edges. This will push excess water out of the mold and help it to dry faster. It will also push the wet tissue layers together for the best casting.

5. Set aside to dry overnight, then gently remove from the rubbing plate. The plate can be washed and reused.
6. If desired, add paint to the tissue to enhance the design. Brown or black acrylic paint can be used to fill the recessed areas and wiped away from the raised areas to create an "antiqued" look. White acrylic paint can be touched on the raised areas to accent or highlight. Watercolor spreads into the tissue and provides soft color. Oil pastels, pen and ink, glitter paint, colored pencils— the media that can be incorporated into the casting are limited only by your imagination!



**Step 1:** Create a 50/50 mixture of glue and water. Brush glue onto a piece of tissue paper and arrange in the texture plate.



**Step 2:** Add layers of tissue to complete the design.



**Step 3:** After the tile is dry, pull it gently from the plate.



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