

Fulbright-Hays Seminar in India & Sri Lanka Curriculum Project Write-Up

by Diane Lansing

LESSON TITLE: Repoussé: the art of metal tooling

GRADE LEVEL: 5th grade and up

MEDIA: rolls of aluminum, copper or brass (36 gauge)

STATEMENT OF INTENT: Students will learn about Sri Lankan art in the Temple of the Tooth and how that art influenced the repoussé created in the craft village in Naththarampotha, Sri Lanka. Students will then design and create a repoussé bas-relief sculpture that incorporates texture and/or pattern/repeating motifs.

MOTIVATION:

1. Students will view photographs of art from the Temple of the Tooth in Kandy, Sri Lanka, and see how that art inspired the repoussé pieces created by the metal craftsmen in the craft village in Naththarampotha, Sri Lanka.
2. Students will view a 3 minute video of the Sri Lankan metal craftsmen creating repoussé.
3. Students will view photographs of various metal pieces created by these metal craftsmen, some of them bas-relief repoussé and some fully 3-D functional pieces.
4. Students will pay attention to the design and craftsmanship as they handle the artifacts purchased from and made by the metal craftsmen in the video. These artifacts are repoussé pieces inspired by the art of ancient Sri Lanka: a moonstone, 4 suns, 2 Rabbits-in-the-Moon, 2 geese, and a Bodhi Tree leaf.
5. To understand the paintings & bas-relief sculpture of the Rabbit-in-the-Moon in the Temple of the Tooth in Kandy, students will listen to the Buddhist story explaining how the Rabbit came to be in the Moon.
- 6.. Viewing photos of previous students' repoussé artwork, students will see what kind of artwork is possible at their skill and interest level.

OBJECTIVES:

1. To see, through the photos of the Temple of the Tooth art that inspired the making of the repoussé artifacts, how artists' work is influenced by the visual history and culture around them.

2. To understand a few tenets of Buddhism in order to better understand the image of & story about the Rabbit-in-the-Moon images that decorate the Temple of the Tooth in Kandy.
3. To learn that some artwork is more than decorative or functional; it can also have meaning that reflects the cultural and historical context in which it was made (i.e. imbuing symbols with meaning and power, as in the goose amulet and the sun talisman).
4. To create an awareness of the cross-cultural influence of Buddhism (i.e. Japanese & Sri Lankan depictions of the Rabbit-in-the-Moon).
5. To inspire appreciation of the skill and craftsmanship that the metal craftsmen bring to their work by:
 - viewing the video clip of the metal craftsmen at work
 - viewing photos of the intricacies of their metalwork, and
 - examining up close and handling the repoussé artifacts brought back from Sri Lanka
6. Thus inspired, to create their own repoussé, focusing on texture, and/or pattern /repeating motif.

ESSENTIAL (KEY) QUESTIONS:

1. What is the function of the artwork you are about to create: decorative, functional (i.e. picture or mirror frame) or symbolic (to be used as an amulet or talisman)? This will influence the subject matter, size and shape of the form you design, and the surface texture/pattern of the artwork.
2. What is influencing your choice to make a decorative, functional or symbolic repoussé?
3. What textures and/or patterns are you going to use to break up the space into smaller pieces? Where will you put them in your artwork? How will they make your repoussé even better?
4. What specific things do you need to do when working on your repoussé and mounting it afterwards to insure good design and craftsmanship?

ART VOCABULARY (described in terms relevant to this repoussé project):

1. **Background** - the part of the repoussé that is not the positive shape/area or subject matter. As the background is pushed back, what you want the viewer to see (the subject matter in the foreground) will stick out more.

2. **Bas-relief sculpture** - a sculpture that is viewed from only one side, like you would view a painting, but it protrudes from the background, so that is why it is considered a low-relief sculpture (it doesn't stick out a lot).
3. **Craftsmanship** - a quality that shows that a piece of artwork was created by a skilled artist who took great care in both the creation & presentation of the artwork
4. **Decorative** - to make something look more attractive. In the case of the repoussé, something you would hang on your wall to make the room more attractive.
5. **Foreground** - the positive shape/area or subject matter that you push forward so that it sticks out from the background and is thus more easily seen.
6. **Functional** - designed to be practical and useful (like a picture or mirror frame, in this case), as well as attractive
7. **Motif** - a decorative design (e.g. a triangle)
8. **Negative shape/space** - the empty space around the subject of the artwork (e.g. the space around the butterfly)
9. **Pattern** - a repeated motif (e.g. a whole row of the same triangle repeated over and over again)
10. **Patina** - an artistic technique whereby the artist darkens the metal of the repoussé then rubs it off the part that is sticking out so that the dark areas stay in the recessed areas, making the subject matter easier for the viewer to see.
11. **Positive shape/space** - the subject of the artwork (e.g. a butterfly)
12. **Repeating motif** - a pattern created by using the same motif over & over again.
13. **Repoussé** - bas-relief, metal-tooled sculpture; it can be decorative, functional or symbolic
14. **Symbolic** - something that stands for something else (e.g. a cross is a symbol of Christianity).
15. **Texture** - how the surface of something feels or looks like it feels (e.g. prickly, soft, bumpy, etc.)
16. **Values** - the lightness and darkness in a picture: the blacks, whites and the many grays.

Additional Vocabulary (to help understand the cultural information):

1. **Amulet** - an ornament thought to give protection against evil, danger, or disease.
2. **Buddha** - the founder of Buddhism who achieved enlightenment.
3. **Buddhism** - a widespread Asian religion founded approximately 500 years before Christ was born. Buddhism gives a central role to the doctrine of **karma**, which is based on the idea of “what goes around, comes around”. In Buddhism, that means that a person's actions in this and previous lifetimes decide their fate in future lifetimes. Buddhism believes that when people die, their soul is born again into another body (this is called **reincarnation**.)
4. **Enlightenment** - having learned enough spiritual knowledge and wisdom in all the lifetimes a soul had to go through, that soul has now achieved enlightenment and doesn't have to be reborn any more.
5. Talisman- an object that is thought to have magical powers and to bring good luck.

NEW YORK STATE ART STANDARDS MET:

1. Creating, Performing & Participating in the Arts
2. Knowing & Using Arts Materials & Resources
3. Responding to & Analyzing Works of Art
4. Understanding the Cultural Dimensions & Contributions of the Arts

MATERIALS NEEDED:

paper
 pencils
 erasers
 masking tape
 roll of aluminum - 36 gauge
 thin pointed sticks with dulled (sanded) points
 thick pointed sticks with dulled (sanded) points
 half inch stack of newspapers or magazines
 India ink
 paintbrushes
 steel wool
 colored railroad board
 paper hangers to affix to the back of all repoussés for display
 rulers
 stapler
 staples

*if making mirror frames: mirrors, glass cutter, kerosene (or other lubricant for glass cutter) & Duco cement

*if making picture frames: photographs for framing

*a variety of colors of permanent fine Sharpie markers (if making mirror or picture frames)

PROCEDURE:

1. Teacher demonstrates the technique of metal tooling on a scrap of metal.
2. Students are given a half inch stack of newspapers, small scraps of 36 gauge aluminum metal, and thin, dull-pointed sticks so that they can experiment with the technique and get a feel for the medium they will be working in.
3. Teacher goes over vocabulary words with students to increase their understanding of the lesson of the Powerpoint presentation.
4. Students view the Powerpoint presentation. This presentation is divided into 5 modules:
 - A. Art from the Temple of the Tooth (slides 1- 32)
 - B. A visit to the Craft Village in Naththarampotha, Sri Lanka (slides 33-47, which includes a 3 minute video (38) of the metal craftsmen at work)
 - C. Artifacts (slides 48-61)
 - D. Things to consider when planning your repoussé piece (slides 62-64)
 - E. Student work examples:
 1. Decorative work (slides 65-96)
 2. Functional work (slides 97-109)
 3. Symbolic work (slides 110-118)
5. Students decide if their repoussé project is going to be decorative, functional or symbolic.
6. On paper, students design exact replicas of what they want their repoussé to look like, including subject matter, details, textures and patterns. There is lots of room for experimentation and revision while they are working on paper, since they will only transfer their design to the metal when they are satisfied with how it looks.
7. When the design is complete, tape the design onto the metal.
8. Place a half inch stack of newspapers or magazines under the metal, and, using the thin, (dulled) pointed stick, trace over everything on the paper design. This will transfer the design to the metal.
9. When finished, remove the paper from the metal, and affix masking tape squares of “A” and “B” in the corner of the metal. Side 1 (“A”) is the side that just had the paper design on top of it, and Side 2 (“B”) is the side that was touching the newspapers (the “back”). This will help the students to differentiate between which side of the metal they need to push out when.

10. To get the subject matter to protrude from the background, the student will need to flip the metal over, back and forth, depending on whether s/he wants to push the foreground forward or the background back.

11. After another teacher demonstration of how to gently press and work both sides of the metal, the students can refer to the illustrated poster (see electronic version) to remind themselves:

On Side A: Transfer (trace) drawing onto the metal. Remove paper. (flip metal over)

Side B: Outline the positive area (the drawing) on the metal with the thin stick.

Side B: Push back the negative background area with the fat stick. (flip metal over)

Side A: Push out (puff out) the positive area (drawing).

Side A: Go over the lines of details & textures in the positive areas of the drawings (only after you have finished pushing out the positive area).

13. The best way to puff out an area is to rub over it using a little bit of pressure many times, rather than pushing hard just a few times. This concept is probably the hardest one for the students to understand. Warn students not to push too hard because they might either stretch the metal by pushing it too quickly (which will give it wrinkles), or you could pierce through the metal completely. (If they make a hole or slit in the metal, it can easily be repaired by taping thin aluminum foil on the back of the hole or slit. After the patina is applied to the front, no one will ever see the tear.)

14. When the repoussé is completed, (unless they are coloring in the patterns of a patterned mirror frame) they should paint India ink onto their finished repoussé.

15. When it is dried (a hairdryer can speed up the drying process), they rub the India ink off of the raised areas using steel wool. Remind them to rub side to side, lightly, with the steel wool; caution them not to push down or else they will collapse their bas-relief sculpture. If they rub off too much of the India ink (the patina) they can just do it (#15) over again until they are pleased with the outcome.

16. Mount repoussé on colored railroad board of their choice, measuring 2 inch wide borders on two sides (joined to look like an "L"). Wrap repoussé in Saran wrap or a plastic bag so that they can measure the other 2 sides around the repoussé without getting the black from the now-powdery India ink all over their hands and from there all over the railroad board backing.

17. When the 2" border has been measured all around and the railroad board cut, the repoussé should be taken out of its "protective wrap" and stapled to the railroad board.

18. It often is nice, if it is a decorative piece with a subject, for the student to write the name on the left side (under the repoussé) and sign their name on the right side (under the repoussé). Glue a paper hanger to the back of the railroad board, and the repoussé is ready to be hung up.

*19. If making a mirror or picture frame, the inside edge and outside shape (if not a rectangle) can be cut with regular scissors because it is only 36 gauge metal (unlike the repoussé made at the Sri Lankan crafts village, which was much heavier). The mirror is cut with a glass cutter dipped in kerosene or other lubricant), and lots of Duco cement is put along the back of the inside edge of the mirror frame - with the mirror thus on the back of the repoussé. In this way, the metal can be cut in an ornate way that would be too difficult a shape to cut the mirror into. Affix the paper hanger to the mirror, also with Duco cement.

*20. If making the “half self-portrait” inside the picture frame, take a digital photo of the student, xerox it to make it into black, white & grays. Creatively cut the xeroxed photo in half (perhaps as an arc or squiggly line) and have the student match the values so that at quick glance, it is not apparent that the photo is half drawn in. Tape photo to the back of the picture frame, peeking through the cut opening in the frame. This is a wonderful lesson for teaching values (really seeing blacks, whites & a wide variety of grays).

*21. If the student chooses to create his/her own symbolic repoussé, have the student write a little bit about what symbol the student choses, whether the repoussé is an amulet (keeping something bad out) or a talisman (inviting something good in), and what meaning or purpose the student chose to give to her/his symbolic repoussé.

EVALUATION/ASSESSMENT:

Student participation and work will be the criteria for student and lesson evaluation, as well as the response to the following questions:

1. Is the student’s repoussé a bas-relief sculpture, with a part coming forward (protruding) and the background recessed back?
2. Did the student incorporate pattern and/or texture into the finished repoussé?
3. Can the student tell if the repoussé is decorative, functional or symbolic?
4. If the repoussé is symbolic, did the student assign a meaning or purpose to the repoussé, and can s/he explain what that meaning or purpose is?

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