

Water Messages in Stone

Respect Rule: Look, Listen, Learn, and Leave Alone (until instructed).

Overview

This activity provides an opportunity for students to replicate rock paintings and carvings to learn about ancient cultures' relation to water and to create their own water-related expressions.

Background

For the first residents of Calaveras County, the Native Americans, the Canal Cave provided shelter from the sun in summer and rain in winter. It could probably hold 16–20 individuals at one time. They may have used it only periodically while the main residence was the Daisy Miller Site across the river at China Gulch. It may have been used for rituals, such as were performed before a hunt, for rites of passage, for a death, or for a healing. Though the caves were almost certainly inhabited much earlier, Yokut or Yokut ancestors probably created the pictographs between 500 and 700 years ago.

Though it is believed that the Yokut created the pictographs, Miwuk tribes lived in this area and were using the cave during the Gold Rush years. Native American use of the cave was discontinued after miners constructed the “canal,” or flume line, destroying the lower portion of the cave. Flume lines crisscrossed the Sierra foothills and were built to carry water to gold mining sites. The water was used to separate the gold from the mined soil.

There is a spring towards the east side of the cave that would have been a good source of water during the summer months. At the base of the spring are several mortar type holes. These mortar holes might have been used for grinding pigments but might also have been divining pools. The water in the mortars dissolves the minerals from the surrounding rock. This, along with algae or other chemical reactions, creates a colorful skin or sheen on the top of the water collected in the mortars. It is thought that the Miwuk tribes used these as scree dishes, looking into the patterns and colors of the surface to foretell the future.

Pigments could be made of local materials. Yellow was made from limonite (hydrrous ferric oxide). Red or orange were made from hematite or iron oxide. White was obtained from kaolin clays. Black was often made from charcoal or manganese oxide. The crushed rocks were mixed with wild cucumber seeds, milkweed sap or animal fat to produce the pigments. The pigments were probably mixed in the mortar holes near the back of the cave below the pictographs.

What do the pictographs mean? This is a natural question to ask, but the answers differ among archeologists. The following are interpretations conveyed through the resources listed at the end of this article.

Guksu was thought to be the main powerful spirit of the foothill tribes. He was good or evil depending upon the manifestation of the ritual or story. In the first drawing, he is interpreted to be in the negative form. The story portrayed in the pictograph could be of Guksu, the evil spirit, inhabiting the cave and then leaving. This is depicted by one symbol of Guksu, his footprints at the entrance to the cave, the comet above the cave, and then circles representing the spirit leaving. The comet most likely was used as a symbol of evil. Many believe that the center of the comet was struck with the point of a spear to cause the evil to leave. This ritual may have been performed at the beginning of each ceremony. The center of the pictograph comet is much deeper than the surrounding rock.

The same symbols may be interpreted to be a story of the salmon fishery: the sun symbol signifying the time of the year either for fishing or for inhabiting the cave. The number of moon symbols could be telling of the number of months for fishing. The mountains with the moon above them could show the location and exact time of year for the beginning of the season, and the river orientation being either from the delta or the three forks at the headwaters.

Circles and other repeated symbols may have been tribal symbols. It is speculated that



Objectives

Students will

1. demonstrate how ancient cultures drew messages to express their relation to water; 2. discern characteristics of pictographs and petroglyphs.

Grade Levels

K–8

Adult /Student Ratio

1 to 5

Where

Cave Paintings at
Camanche Reservoir
Caves

Skills

Interpreting, applying,
presenting

Key Words

Pictograph
Petroglyph



**Children
need
nature for
the healthy
develop-
ment of their
senses, and,
therefore for
learning and
creativity.**



—Richard Louv

The Last Child in the Woods

a symbol was marked either each time a person from a tribe passed through the area, at the beginning of each season of use, or depicted the tribes allowed to use the cave. In this cave, circular symbols are prevalent and the river or snake symbol is throughout the cave.

Shamans may have produced rock art at the conclusion of their vision quest to illustrate the spirits they had seen and the supernatural events in which they had participated. The rock art may have depicted a shaman's spirit helpers, portrayed his supernatural alter ego, and graphically illustrated the manipulations and rites he may have conducted while in the sacred realm, which might include curing, rain making and sorcery.

The shaman's rock art site may have been a sacred place that served as his portal. During his altered state of consciousness, the cracks in the walls of the site were believed to open to allow him to enter the sacred realm.

The California rock art represents symbolic systems that communicate relatively few specific ideas. These may include vision questing, initiation, fertility, sexuality, the mythic past, life crisis, and altered states of consciousness, that may have centered on shamanistic experience in this world and beyond.

Compiled by Ranger/Naturalist II Seanne Paussa and Steve Diers.

Sources for Background:

- Costello, Julie, correspondence, Foothill Resources, "The Horizon time period," Spring 2002.
- Edwards, Steve, interviewed by Ranger Steve Diers, "Rights of passage and making pigments," Summer 1995.
- Heizer & Baumhoff, *Prehistoric Rock Art of Nevada & Eastern California*, 1962.
- Johnson, Jerald, *The Archeology of Camanche Reservoir*, The Sacramento Anthropological Society, 1967.
- Paussa, Ranger Seanne, a Miwuk man whose grandfather passed on the oral history "Hunting or fishing story," 1998.
- Rigby, Jeffrey, Dept. of Anthropology, Cerritos College, related by Ranger Mark Bolton, Kootzoo story, 1998.
- Whitley, David, *The Art of the Shaman, Rock Art of California*, University of Utah Press, 2000.

Before-the-Field-Trip Activity

Activity: Create a Pictograph

Time: 1 hour

Materials: Photographs of petroglyphs and pictographs, drawing paper and pencils, chalk and chalkboard

Materials needed to create painted pictograph: flat surface such as plastic, rock, or paper, watercolors or other painting media, paint brushes

Materials needed to create petroglyphs: flat surface such as soap, plastic, a soft rock, plaster of Paris, nails, protective gloves, goggles

1. Have students list ways they leave messages for other people. Why do people leave messages? Have students describe how messages have been conveyed through time (e.g., telegrams, smoke signals, stone tablets).
2. Display pictures in the classroom of ancient pictographs or petroglyphs. Ask students to write what they think the original creator of the image intended. Discuss the meaning with class.
3. Discuss the characteristics of a pictograph, and clarify that a petroglyphs is a type of pictograph. A pictograph communicates through pictures on stone that are chipped, carved, or painted. The earliest form of pictograph is the petroglyphs, in which images are pecked or chiseled into rock surfaces with hard stone and bone tools. To create such an image, the carver wields a heavy stone to hammer a sharp rock into a stone surface.
4. On drawing paper, have students design symbols that they think represent water. Encourage them to consider clouds, steam, water drops, rain, snow, thunder storms, oceans, etc. Some of these symbols may be concrete, such as a water drop or a wave crashing on the beach. Others may be more abstract, such as wavy lines suggesting the surface of a lake.
5. Have each student come to the front of the room and draw one of his or her symbols on the board. See if the class can guess its meaning.

6. Instruct student to choose one or more symbols and create their own pictographs. They can make a painted pictograph or petroglyphs.

Instructions for painted pictograph:

Students can use paints to transfer their sketched image to a flat surface. Students might want to experiment making their own paints out of plant materials and minerals.

Instructions for Petroglyph:

Symbols can be carved or chipped into soap, plaster of Paris, or some other flat surface using a nail. If a hard material is used, students should wear goggles and heavy, protective gloves.

Field Trip Activity

Activity: Tour the Camanche Caves

Time: 1–2 hours

Materials: Nature journals, pencils

1. Tour the caves.
2. Have students draw 2–3 cave paintings in their nature journals.
3. Discuss what the possible meanings of the cave paintings.

After-the-Field-Trip Activity

Activity: What are the Messages?

Time: 1 hour

Materials: Drawing paper, pencils, modeling clay or baking dough, paint

1. Ask students to identify the characteristics of pictographs. What messages about water are people recording today that could be found in the future? What messages are we leaving for people in the future about attitudes toward water? Examples might include fountains, dams, water slides, interpretive signs located near water-related nature scenes, hot tubs, billboards containing water scenes, etc.
2. Have students create a display for their pictographs. Students can interpret each other's messages and write small descriptions for each display. How are the interpretations alike? How are they different? Students can discuss reasons for the variations.

3. Have students design water symbols and simulate pictographs and petroglyphs as they did in the Before-the-Field-Trip activity. Another technique to create a pictograph or other artifact involves using modeling clay. Roll out clay until it is about 1 inch thick and 6 inches in diameter. Students can press figures into the dough or shape the dough to create three dimensional images. Allow to dry, and paint if desired. These also make wonderful gifts.
4. Have students describe how pictographs are used by cultures.
5. Have students interpret possible messages presented in other students' pictographs.

Source

Adapted with permission from “Messages in Stone,”
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Resources

For the Teacher

The American River Natural History Association, *The Outdoor World of The Sacramento Region, A Local Field Guide*, available at the Nature Discovery Shop, located in the Effie Yeaw Nature Center, Ancil Hoffman Park, 2700 Tarshes Drive, Carmichael, CA.

Barrett, S. A. & Gifford, E. W., *Miwok Material Culture, Indian Life Of the Yosemite Region*, Yosemite Association, 1933.

Bates, Craig D. Lee, Martha J., *Tradition and Innovation A Basket History Of The Indians Of The Yosemite-Mono Lake Area*.

Campbell, Paul, *Survival Skills of Native California*, Gibbs-Smith Publishing, 1999.

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Whitley, David, *The Art of the Shaman, Rock Art of California*, University of Utah Press 2000.