

Make Your Own Petroglyph!

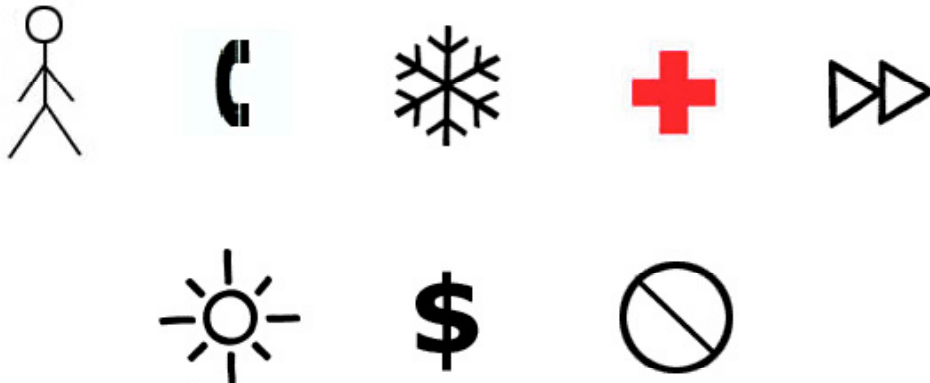
The sun dagger used by Chacoans to mark the passing of seasons is what archeologists call a “petroglyph.” A petroglyph is a symbol that has been carved into a rock surface by pecking or scraping with another rock. People in many ancient cultures around the world created rock art, and there are many surviving petroglyphs to be found in the deserts of the American Southwest.

While lots of rock art is quite beautiful, chances are it wasn't created for aesthetic reasons. Petroglyphs were used to convey messages and ideas. They aren't read like words, or even like ancient hieroglyphics. They're symbols that can represent anything from a simple object to a complex idea. Our modern cultures also use symbols in similar ways.

Interpreting rock art can be difficult. The symbols were created by a culture that is different than ours, and therefore an archeologist must know something about that culture in order to consider what the rock artist was trying to say. Some petroglyphs are fairly well understood, while others are the subject of great debate.

Modern "Petroglyphs"

In our modern cultures, we still use lots of symbols to represent ideas, some simple, some complex. Here are some common glyphs used in our modern world:



What does each of these symbols stand for? What meanings do they have in your culture?

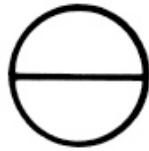
Often we don't realize how complex ordinary ideas in our culture are. There's more behind the meaning of a picture than just the object, event, or person it represents. Imagine that you had to explain the meaning of each of these symbols to an ancient Chacoan. What would you have to tell them about your culture in order to make them understand what the symbols mean?

Same Object, Different Symbol

There are some human experiences—birth, death, sky, earth—that are so universal, nearly every culture has symbols for them. But the symbols differ from culture to culture. For example, here are a variety of sun symbols from various parts of the world:



Common sun symbol
found in many cultures



China



Peru, probably Incan



Mohenjo-Daro region
(now Pakistan)



Euphrates-Tigris
region (now Iraq)

How are they alike? How are they different? What can the similarities and differences in the symbols tell us about the similarities and differences in how the cultures experienced the sun?

Petroglyphs at Chaco Canyon

Glyphs, symbols, and pictures had a purpose for the Chacoan people, as they do for most other cultures. While they may be beautiful, the intent behind them was to communicate a message.

Here are some petroglyphs (#1 is actually a pictograph, which means it's painted onto, rather than carved into, the rock) found in the Chaco Canyon area. What do you think they might mean?



#1



#2



#3



#4

You can find out more about some of these images by looking at pages and movies on our Web site:

- The Time section contains images 1, 3, and 4:
<http://www.exploratorium.edu/chaco/HTML/time3.html>

- Petroglyph 3 appears on the boulder Piedra del Sol:
<http://www.exploratorium.edu/chaco/HTML/piedra.html>
- Petroglyph 2 points the way to a sacred site at Wijiji:
<http://www.exploratorium.edu/chaco/HTML/wijiji.html>
- All of these images are related to the sun, the sky, or places to observe them. In our Sun Stories movie, researchers and tribe members describe the importance of the sun to Native American cultures.

Sun Stories movie: <http://www.exploratorium.edu/chaco/HTML/sunstories.html>

Make Your Own Petroglyph

As you can see, the seasons were very important to Chacoan people. The seasons are still an essential part of life in our modern cultures, though sometimes for different reasons.

Think about how the seasons are important to you. In what ways do the seasons affect your life? Draw a "petroglyph" that you think represents something significant about the seasons to you. You can incorporate modern symbols, or devise a completely original "petroglyph."

Show your "petroglyph" to other people and ask what their interpretation of it would be. In a classroom, you could work in pairs or small groups and take turns interpreting each others' symbols.

How easy or hard is it to determine the meaning of symbols created by other students? What strategies could you use to make it easier?

If your "petroglyph" were on a wall, how would it be different than graffiti?

Teacher Tips**Grade Level**

3–9

National Standards Addressed

Grades 9–12:

History & Nature of Science: Historical Perspectives

Grades 5–8:

History & Nature of Science: History of Science

Grades: K–4:

History & Nature of Science: Science as a Human Endeavor

Abilities of Technological Design: Understandings about Science & Technology

Key Concepts

Rocks, symbols, ancient cultures, universal themes of nature, symbols as communication, archeoastronomy, solar markers

Background Science

From the National Park Service Site for Petroglyph National Monument

What are petroglyphs?

<http://www.nps.gov/petr/Cultural%20Resources/What.htm>

Why were petroglyphs made?

<http://www.nps.gov/petr/Cultural%20Resources/Whymade.htm>

From the Arkansas Archeological Society

What's the difference between rock art and graffiti?

<http://rockart.uark.edu/qfgraffiti.html>**Ideas for Discussion**

- What symbols in use today represent universal concepts (water waves, stick figure people, fish, sun)? Can you imagine that rock art depicting these concepts might use similar symbols?
- There is more rock art in the American Southwest than in other parts of the United States. Why would this be? (Hint: It's not related to the number of people who lived there or whether people made rock art in other places.)
- Archeologists often disagree on the interpretation of rock art symbols. What things could they do to resolve debates? How could we know for certain what a rock art symbol means?
- What role can present Native American cultures play in interpreting rock art?

Related Media

- Our Time section has more information about Chaco petroglyphs:
<http://www.exploratorium.edu/chaco/HTML/time3.html>

Going Further

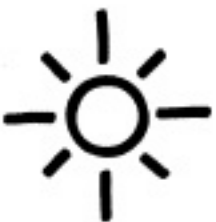
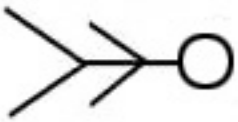
- Imagine that you have to design a petroglyph like the sun dagger (see link below), where you'd like the sun to fall across it in certain ways on certain days of the year. What would you need to know to put the petroglyph in just the right place? How do you think the ancient Chacoan people figured out where to place their sun dagger?

About the sun dagger petroglyph:

<http://www.exploratorium.edu/chaco/HTML/fajada.html>

- Learn more about how the seasons work with our activity, Modeling the Seasons:
<http://www.exploratorium.edu/chaco/HTML/TG-seasons.html>

Some symbols commonly used by modern cultures



A variety of ancient sun symbols



Common sun
symbol found
in many
cultures



China



Peru, probably
Inca



Mohenjo-Daro
region (now
Pakistan)



Euphrates-Tigris
region (now Iraq)