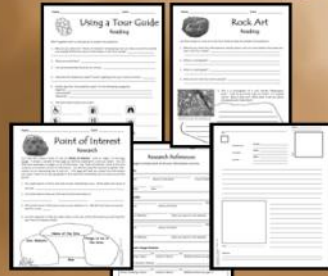
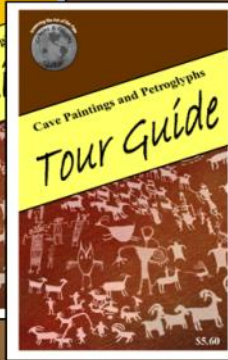
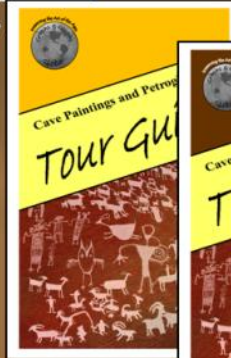


# Cave Paintings & Petroglyphs



## Vocabulary



## Reading & Writing Worksheets



## Poster

## Student Readers:

## Grades 3/4 & 5/6

## Writing Models

# Reading & Writing in the TRAVEL GENRE

Thank you for taking the time to check out these materials for the study of Ancient Rock Art. This is one of the components of the thematic unit Cave Paintings & Petroglyphs. I hope you'll find it exciting and educational!

## Cave Paintings and



## Petroglyphs

**Altamira:** ALL tuh ME ra

**Bhimketka:** beem KET kuh

**Blombas:** BLOM bus

**Chauvet:** SHOW ven

**Kakadu:** kuh KAW doo

**Lascaux:** LAS coo

### accessibility:

ack SESS uh BIL uh tee  
how easy something is to get to or to use.

### accommodation:

uh com uh DAY shun  
a place to stay, such as a hotel.

### amenities:

uh MEN uh tees  
places that give comfort or convenience,  
like a restroom, restaurant, or hotel.

### crosshatch:

CROSS hach  
A pattern that is drawn, painted, or  
carved with diagonal lines crossing over  
each other to form rhombus shapes.

### engraved:

in GRAVED  
to cut or press letters, words, or pictures  
into a hard surface.

### excised:

EX sized  
a picture that is cut out from the rock. The  
rock around the image is chipped away so  
that the carving stands above the surface of  
the rock.

# Vocabulary Bookmarks

## Cave Paintings and



## Petroglyphs

**Altamira:** ALL tuh ME ra

**Bhimketka:** beem KET kuh

**Blombas:** BLOM bus

**Chauvet:** SHOW ven

**Kakadu:** kuh KAW doo

**Lascaux:** LAS coo

### accessibility:

ack SESS uh BIL uh tee  
how easy something is to get to or to use.

### accommodation:

uh com uh DAY shun  
a place to stay, such as a hotel.

### amenities:

uh MEN uh tees  
features or places that provide comfort or  
convenience, like a restroom, restaurant, or  
hotel.

### crosshatch:

CROSS hach  
A pattern that can be drawn, painted, or  
carved with diagonal lines crossing over  
each other to form rhombus shapes.

### engraved:

in GRAVED  
to cut or press letters, words, or pictures  
into a hard surface.

### excised:

EX sized  
an image that is cut out from the rock. The  
rock around the image is chipped away so  
that the carving stands above the surface of  
the rock.

### image:

IM ij  
a physical representation of a person,  
animal, or thing that has been drawn,  
painted, carved, or photographed.

### incised:

IN sized  
an image that is cut into the rock. The  
surface of the rock stands above the  
carving.

### ochre:

OH ker  
a type of stone which contains iron; it's  
often reddish or greenish in color.

### patina:

puh TEEN uh  
a crust that develops on rocks or metal  
surfaces as a result of a chemical reaction.  
The rock below is often lighter in color.

### petroglyph:

PET row glif  
carving upon a rock  
*Petros* is the Greek word for stone.  
The root "*glyph*" means "to carve."

### pictograph:

PICT uh graf  
pictures painted onto stone  
The root "*pict*" means painting.  
The root "*graph*" means to write.

### pigment:

PIG munt  
liquid or powder made from natural mat-  
erials that is mixed with water or oil to  
make paint.

### porous:

PORE us  
full of pores—little holes that allow water  
or air to pass through the covering or sur-  
face of an object.



Copyright © 2011 Integreat! Thematic Units  
[www.thematicteacher.com](http://www.thematicteacher.com)

Orange,  
Grades 3/4

Brown, Grades 5/6



Cave Paintings & Petroglyphs  
Vocabulary Cards



**petroglyph**

PET row glif

a carving upon a rock.

Petros is the Greek word for stone. The root "glyph" means "to carve."

*Petroglyph =carving on stone*



**amenities**

uh MEN uh tees

Features or places that give comfort or convenience, like a park, a restroom, a restaurant, or hotel.

**accessibility**

ack SESS uh BIL uh tee

How easy something is to get to or to use.



**pictograph**

PICT uh graf

a picture painted onto stone. The root "pict" means painting. You find it in words like *picture* and *depict*. A group of ancient Scots painted and tattooed themselves heavily, and were named "Picts." The root "graph" means to write. *Pictograph=painted writing*



**accommodation**

uh COM uh DAY shun

1. Changes made to something to make it easier for another person to use.
2. A place to stay such as a hotel.

**image**

IM ij

a picture of a person, animal, or thing that is



**archaeologist**

ARK ee AWL uh jist

a scientist who studies prehistoric people and cultures.



**engraved**

in GRAVED

to cut or press letters, words, or pictures into a hard surface.



**ochre**

OH ker

a type of stone which contains iron; it's often reddish or greenish in color.



**crosshatch**

CROS hach

A pattern that can be drawn, painted, or carved with diagonal lines crossing over each other to form rhombus shapes.



**Bhimbetka**

beem BET kuh

The name of a group of caves in India believed to be the oldest rock shelters on earth. It was named after a local god, Bhima, who was said to sit on the rocks.

**incised**

IN sized

An image that is cut into the rock. The rock inside the image is chipped away so that the surface of the rock stands above the carving.



**Chauvet**

SHOW ven

a cave in France containing beautiful, painted images of dangerous, wild animals



**patina**

puh TEEN uh

a crust that develops on the top of rocks or metal surfaces as a result of a chemical reaction. It makes the surface of the rock darker in color than the rock that is below it.



**hammer stone**

HAM mer stone

hand sized stones used by ancient people as hammers.



**excised**

EX sized

An image that is cut out from the rock. The rock around the image is chipped away so that the carving stands above the rest of the rock.



**paleoanthropologist**

PAY lee oh AN throw POL uh jist

a scientist who studies the ancestors of modern humans.



**chisel stone**

CHIZ uhl stones

stones with sharp corners used to chip, peck, or cut out pieces of rock or wood.



**pigment**

PIG munt

a liquid or powder made from natural materials that is mixed with water or oil to make paint.



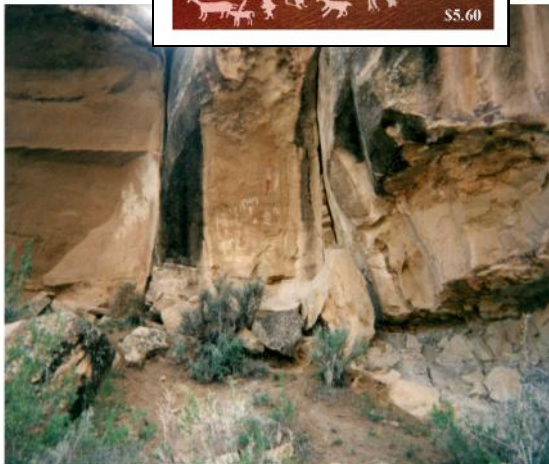
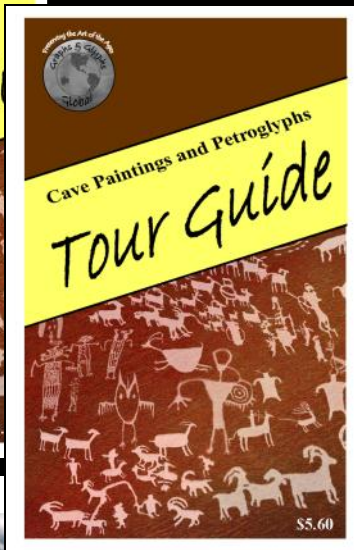
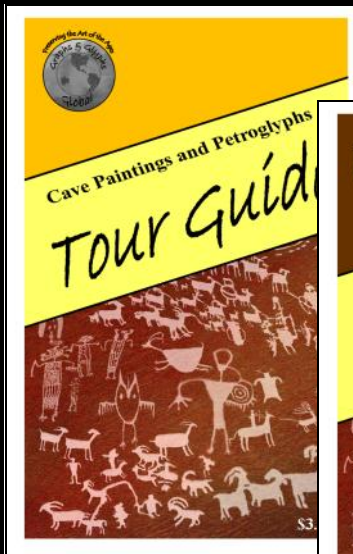
**porous**

PORE us

full of pores—little holes that allow water and air to pass through the covering or surface of something.



# Vocabulary Cards for introducing new words, practicing, and review



Canyon Fintado Rock art, Colorado: Photo by K. Armstrong, via National Scenic Byways Online (www.byways.org).

## Rock Art of the Ages

People have been leaving their mark on the world for as long as they have lived here. Long before the beginnings of written language, messages have been painted and carved into the very stone of the earth. How did it start? Why did these ancient people spend their precious time carving on rocks? What tools did they use? Did the images stand for words? Were they trying to communicate? What was it all about?

There are many unanswered questions regarding the ancient and beautiful pictures created thousands of years ago. It's amazing how these images, many of them sitting out in the wind and rain, have endured as long as they have, yet scientists have concluded that some of these first art works of mankind may be seventy-five thousand years old!

2

## Using Your Tour Guide

**Map Locator**  
Identifies the site on the world map.

**Adventure Level**  
The level of difficulty in reaching and exploring the site.

**Accessibility**  
The level of difficulty in using the site.

**Amenities**  
The type of facilities available at the site.

**Site Rating**  
The petroglyph site is rated according to the quality of the art you can see, on a scale of 1-5 rocks, 5 is best.

**Title**

**Website**

**Image**

**Accommodation Icons**

Rock art is either painted on, or carved, into the rock.

### Pictographs

Pictographs (*PICT uh grafz*) are pictures painted onto stone. Many of these images were painted on rock that was sheltered from the weather, so they are often found inside caves, but a surprising number of them still exist on rock walls that are exposed to the weather. In Baja (*BAH hah*) California, there are hundreds of brilliantly colored, enormous, larger-than-life sized images. They are a living monument to a people long gone.



Primitive Artist: Photo by Edward S. Curtis, via the Library of Congress Edward S. Curtis Collection Reproduction Number LC-USZ62-49234 (b&w film copy neg.).

Paint was applied in a number of ways, using different tools. It could be dabbed on by hand. Brushes made of animal hair, plant fibers, and even tufts of lichen and moss were used. Straight lines were made with strong twigs and bones, and paint could even be sprayed onto the rock surface by blowing it through a hollow tube. Believe it or not, these resourceful people even made their own crayons! They dug iron out of the ground in clayish clumps. Pigments were mixed into it, and it was shaped to form a colored drawing stick.<sup>2</sup>

*pict* = "to paint"  
*graph* = "to write."  
**pictograph** = "painted writing"

Paints were made from natural materials including dirt, charcoal, stone, and plant juices. The dry materials were ground into powder, called pigment (*PIG munt*) and then mixed with water. Saliva, animal blood, or fat were added to the paint to help it stick to the rock. The wet paint was worked into the porous rock wall, which helped to embed it into the stone.<sup>1</sup>

3

# Student Reader: Tour Guide Orange, Grades 3/4, Brown Grades 5/6 16 pages (4 pieces of letter sized paper, 2 sided)



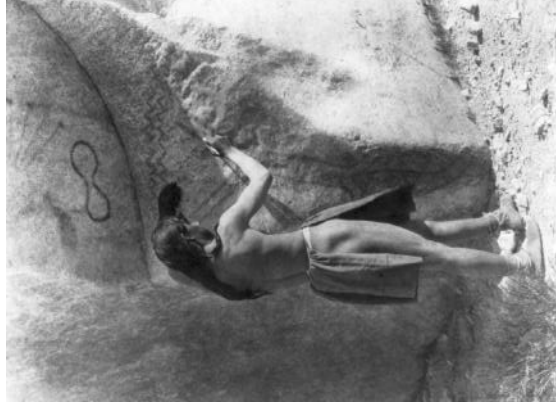
Rock art is either painted on, or carved, into the rock.

## Pictographs

Pictographs (*PICT uh grafz*) are pictures painted onto stone. Many of these images were painted on rock that was sheltered from the weather, so they are often found inside caves, but a surprising number of them still exist on rock walls that are exposed to the weather. In Baja (*BAH hah*) California, there are hundreds of brilliantly colored, enormous, larger-than-life sized images. They are a living monument to a people long gone.

*pict* = "to paint"  
*graph* = "to write."  
*pictograph* = "painted writing"

Paints were made from natural materials including dirt, charcoal, stone, and plant juices. The dry materials were ground into colored powder, called pigment (*PIG munt*) and then mixed with water. Saliva, animal blood, or fat were added to the paint to help it stick to the rock. The wet paint was worked into the porous rock wall, which helped to embed it into the stone.<sup>1</sup>



Primitive Artist: Photo by Edward S. Curtis, via the Library of Congress Edward S. Curtis Collection Reproduction Number LC-USZ62-49234 (b&w film copy neg.).

Paint was applied in a number of ways, using different tools. It could be dabbed on by hand. Brushes made of animal hair, plant fibers, and even tufts of lichen and moss were used. Straight lines were made with strong twigs and bones, and paint could even be sprayed onto the rock surface by blowing it through a hollow bone tube. Believe it or not, these resourceful people even made their own crayons! They dug iron out of the ground in clayish clumps. Pigments were mixed into it, and it was shaped to form a colored drawing stick.<sup>2</sup>

Yellow, white, black and red were common paint colors used by people around the world. Some cultures developed additional pigments.



Horses, Chauvet Cave, France: Photo, via Wikimedia Commons.

The paintings had to be protected from the weather. Rain could wash the images off the rock, and blowing sand and dirt could erode them away. The most sheltered area was inside a cave, but these ancient paintings can be found on exterior rock walls and on cliffs underneath overhanging ledges. It's absolutely amazing how they have endured through the years.

*petros* = "rock"  
*glyph* = "to carve"  
*petroglyph* = "rock carving"

## Petroglyphs

Petroglyphs (*PET row glifs*) are rock carvings. They were usually pecked or scratched into the surface layer of the rock to form a groove (incised), but sometimes the surrounding layer of rock was chipped away to expose the picture as a raised image (excised).

**Incised:** cut into the rock



Petroglyphs, Pu'u Loa, Hawaii: Photo by A. Crane, via National Scenic Byways Online.

**Excised:** cut out of the rock



Petroglyph Replica: Photo by S. Flynn, Integrate! Thematic Units.

Name \_\_\_\_\_ Date \_\_\_\_\_



## Using a Tour Guide Reading

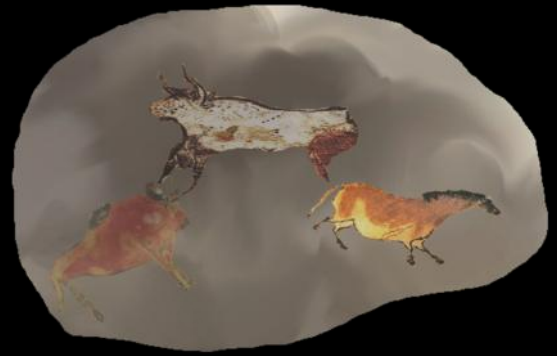
Work together with a small group to answer the questions.

1. Why do you think the "Points of Interest" (interesting rock art sites around the world) are located AFTER the rock art information in the Tour Guide? \_\_\_\_\_
2. What are amenities? \_\_\_\_\_
3. List some amenities found at our school. \_\_\_\_\_
4. Describe the "Adventure Level" found in getting from your home to school. \_\_\_\_\_
5. Briefly describe "Accessibility Levels" for the following categories:  
 Beginner \_\_\_\_\_  
 Intermediate \_\_\_\_\_  
 Advanced \_\_\_\_\_

6. Tell what these travel icons mean:



Copyright © 2011 Integrate! Thematic Units  
www.thematicallyteacher.com



## Rock Art Comprehension

Name \_\_\_\_\_ Date \_\_\_\_\_



## Rock Art Reading

Use the articles on rock art in the Tour Guide to help you answer the questions.

1. Why do you think the informational articles about rock art come before the travel articles in the Tour Guide? \_\_\_\_\_
2. What is a pictograph? \_\_\_\_\_
3. What is a petroglyph? \_\_\_\_\_
4. What do we mean by ancient people? \_\_\_\_\_



Newspaper Rock, Utah: Photo by Greg Owsen, via National Geographic Online (www.nationalgeographic.org).

5. This is a photograph of a rock named "Newspaper Rock." How do you think it got its name? Is it a good name? Why or why not? What does it tell you about the people who lived there?

\_\_\_\_\_

\_\_\_\_\_

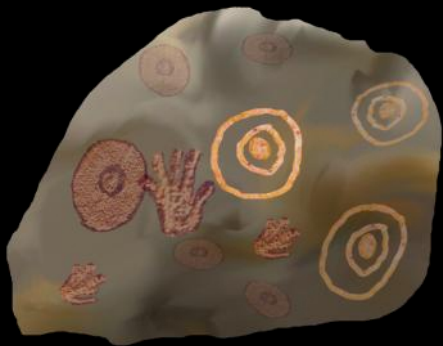
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Copyright © 2011 Integrate! Thematic Units  
www.thematicallyteacher.com

## Travel Genre Reading



# Reading Worksheets (4 pages)



Altamira Cave Spain

Lascaux Cave France

Chauvet Cave France

Blombos Cave South Africa

Bhimbetka Caves India

Kakadu National Park Australia

Petroglyph National Park New Mexico, USA

North Fork American River, California, USA

Baja California Mexico

Cuevo de los Manos Argentina

Lascaux Cave France

Altamira Cave Spain

Lascaux Cave France

Chauvet Cave France

Blombos Cave South Africa

Bhimbetka Caves India

Kakadu National Park Australia

Petroglyph National Park New Mexico, USA

North Fork American River, California, USA

Baja California Mexico



Cuevo de los Manos Argentina

Lascaux Cave France

# "Point of Interest" Cards & Poster Describe 10 rock art sites in the travel genre for reading instruction and writing models

## Lascaux Cave France

[www.lascaux-cave.com/fr/fr/02\\_00.xml](http://www.lascaux-cave.com/fr/fr/02_00.xml)

**4**   

**Beginner**

**Access:** You cannot visit the caves. A replica has been built for visitors to enjoy.

**Tours:** Guided tour lasts 40 minutes.

**Open:** Year round, except January-mid February. Daily hours vary due to time of year. Entrance fee 8.50 euros. Expect a long line, especially in summer. A prehistoric theme park is in the area. Visit it first to prepare for the cave painting experience.

**Tours Available:**

**All services available:**








      

Photo by Peter Ewen/Retna - Not Public Domain



One Sunday afternoon in September, 1940, four boys and a dog went for a walk in the woods. They were trying to get away from the tension of their parents as Germany had invaded France and taken over Paris. They were climbing on a hill said to have a secret cave that led to a local castle. On the way home, Robot, the dog, disappeared. His owner, Marciel Ravidat, called out for him and heard him in the middle of a thicket. The boys pushed their way through the brambles and found Robot in the bottom of a hole about five feet deep. Marciel climbed into the hole to get his dog and found another small hole in the bottom. It was late, so they all went home, but Marciel came back four days later to snoop around. Along the way he picked up three friends to go with him. After enlarging the hole, he squeezed down a narrow tunnel. He was carrying a homemade fire torch, and he slithered along on his belly until he reached a room. When he stood up he slipped on a piece of flint, his torch went out, and he slid down a slope until he reached the bottom. Bruised, but okay, he called for his friends to follow. The boys could barely see what was around them, but they explored the rooms of the cave. As the tunnel narrowed, Jacques happened to look up. Astonished, he cried out and pointed to the ceiling! Paintings of horses and bulls ran together all over the ceiling and the walls of the tunnel. The cave walls were made of white calcite and the brilliantly painted animals looked like they were rushing around in the flickering torch light. The boys danced around in amazement. "We were completely crazy," Jacques said. They vowed to keep the cave a secret, but two days later they brought some visitors, and ten days later 200 people a day were visiting the magical spot. They brought their teacher to see it, and he brought an archaeologist. It was one of the great discoveries of the twentieth century, made by a dog and some children!



France: Image by NASA Goddard Space Flight Center via iStockphoto.com

# Altamira Cave

## Spain

5



**Beginner**

**Tours Available**

**All services available**

**Access:** You can reach the cave by car, bus, or taxi. The cave is in the town of Santillana del Mar.

**Tours:** There are guided tours of the replica cave as well as the original cave.

**Open:** May to October, Tue-Sat 9:30-20; November to April, Tue-Sat 9:30-18, Sun, Holidays 9:30-15.

<http://museodealtamira.mcu.es/index.html>



Photo by Jeannette O'Neil, via Public Domain Pictures.net.



Beautiful colored paintings, 15,000 years old, cover the ceilings of the S-shaped Altamira cave in northern Spain. Bison are the primary subject of this archaeological wonder, but horses, a hind, and two wild boar also cover the walls of the cave. Hand prints, hand outlines, and animal-people can be found here as well. Altamira is made up of a series of rooms, connected by passages. The main hall is about 30 meters from the entrance of the cave.

The artistic style, and the way the paintings have lasted through the years, made the original researchers think the work was a fake. Many of the animals are painted larger than life and details are clearly shown. Fur and manes are painted with a variety of textures created through the use of only three colors—ochre, red, and black. The animals move across the ceilings of the cave as if they are alive.

In 2008, British scientists dated the paintings using a method called U/Th. Uranium changes into thorium over time, and this is what is measured in the U/Th method.



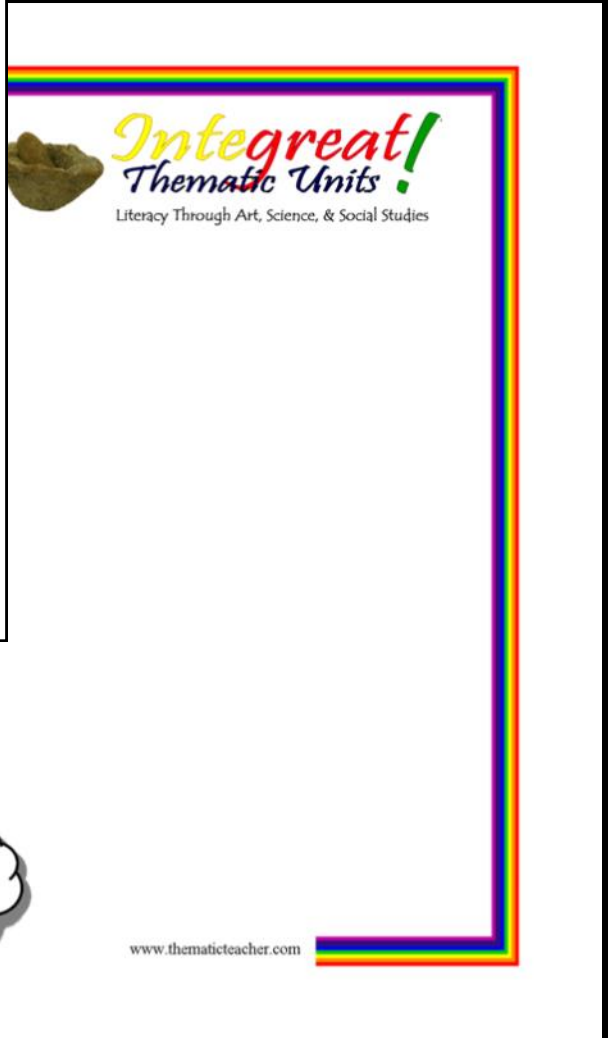
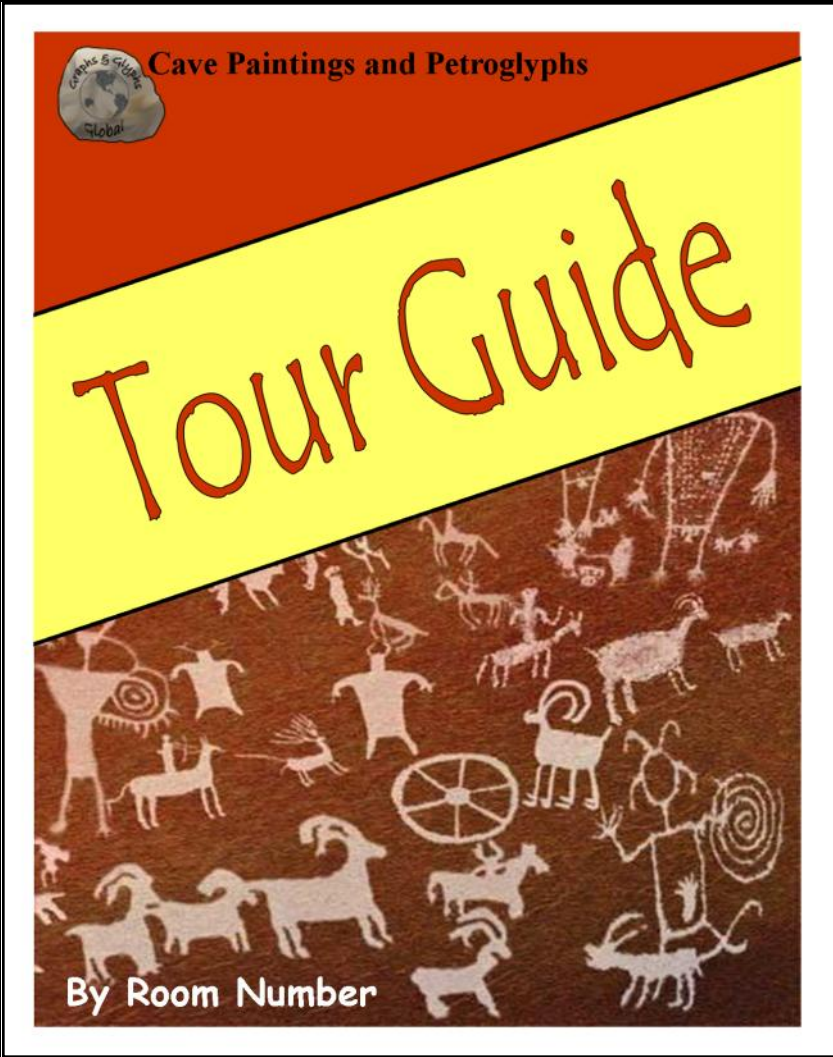
Spain: Image by NASA/Goddard Space Flight Center, via Wikimedia Commons.

The crust (patina) that grows over the painting is tested to see how long it has been there. This method only gives a minimum (the youngest) age of the painting, but these tests indicate the Altamira paintings are between 25,000 and 35,000 years old!

Access to the cave is restricted. Carbon dioxide in the visitors' breath damages the paint. In 2002 a replica of the cave was opened, and now that is the only way most visitors can see these amazing pieces of art. The cave was reopened in 2010 to a very small number of visitors per day.







Covers for Class made book  
Type in your own name