



The Fingerprint Pot

Subjects Social Studies, Art

Grades 4-7

Brief Description

This hands-on activity invites students to think creatively about ancient lives, using an artifact from the image database to prompt their creativity. Students may find ancillary research into the forensic applications of fingerprints interesting, and start to look for individualizing marks in other hand made items.

This lesson is best suited to one or two students working at a time and may be appropriate as a quiet enrichment activity for an advanced student or small group of advanced students. It may also work well in a home schooling situation. The lesson fits well into curricula relating to art, ancient cultures and creative writing and should be taught after the students have had an introduction to Andean cultures.

Learning Objectives

Students will:

- Use a database to find the correct image
- Use simple image manipulation software to resize the image
- Practice estimating and approximating
- Practice arithmetic in measuring and comparing
- Use historical detail to guide creative writing

Keywords

Pottery, Ecuador, ancient, art, archaeology, artifact, geography, prehistoric, ceramics, measurement, arithmetic, estimating

Materials Needed

- access to the *¡Hola Canada! The Latin-American Collections at the Simon Fraser University Museum of Archaeology and Ethnology* web site
- access to simple image manipulation software
- access to a printer (black and white is fine)
- scissors
- a bowl or pot with a diameter of 16.5 cm
- tape
- writing tools

Lesson

Have the students search the image database to locate pot number 2006.003.213 and note the catalogue information available about that pot (This is extracted and repeated below). The pot can be located by searching for 'Tuncahuán ' under 'Culture' in the **Artifact Database**. The pot is over 1500 years old and is from Rio Bamba, Ecuador. Research the geography, environment and ancient cultures of Ecuador using maps, library reference materials and the internet. Also research the sequence of hand made pottery manufacture.

Find the image in the database that clearly shows the smudges on the outside of the pot. Many people examined, photographed and catalogued that pot between 1970 when it was donated to the museum and 2006

when it was photographed for this web/database project. The archaeologist who took these pictures has worked with the police doing forensic archaeology and was the first to recognize the smudges as fingerprints. She identified the smudges as marks made by a person picking up the pot with her/his right hand, with the thumb inside the pot and four fingers outside. The fingerprints were made after the pot was finished and decorated, but before it was fired. The fingerprints are a permanent part of the fired pot as a slip glaze. There is no thumb print; either it was made and removed, or the thumb was clean, and so did not leave a clay thumb print on the inside of the pot.

The students will compare the ancient fingerprints to their own and imagine a scenario that will result in the fingerprint smudges on the pot. First, they will print the image of the pot and measure the width of the pot. The original pot is 16.5 cm in diameter and the smudges are 9.4 cm from the outside of the left finger to the outside of the right. Have the students measure the printed-out image of the pot and compare these measurements to the measurements of the actual pot in the museum. If their image is too big or too small, calculate the percentage of change needed, resize and print again. When they have an image of the correct size they will cut the image out and tape it onto the outside of their bowl or pot.

Next have the students each pick up the bowl or pot with their right hand, placing their fingers in the ancient fingerprints, with the thumb on the inside of the bowl or pot.

Have the students note if their fingers are bigger or smaller than the ancient ones. Are the fingerprints wider apart or closer together? Are the prints made by the finger tips each larger or smaller? Have them estimate the percentage larger or smaller.

Have the students make a list of the characteristics of a person who is larger or smaller than themselves. For example, if smaller, the original fingerprint-leaver might be younger, or shorter, or female, not male, or malnourished. The person must have been present when the pot was being made, either as an assistant or as a potter.

Utilizing the research the students have done on the cultures of ancient Ecuador and pottery construction techniques, have the students write a short story about the person who left the fingerprints.

Evaluation

Students are graded on the accuracy of their measurements and the quality of the written short story. Have they understood cultural differences between our society and that of ancient Ecuador? Have they been able to transpose themselves into a realistic past? Have they integrated other information about ancient Ecuador into their story?

Background Information

Tuncahuán Phase Ceramics

Artifacts # 2006-003-213, 2006-003-347 and 2006-248

The Tuncahuán Phase culture is centred in the central highlands of Ecuador, near the modern city of Riobamba, and is believed to date to 500 BC to AD 500. Very little archaeological research has been carried out in this region of Ecuador and there is still much to be learned of its prehistory.

The Tuncahuán Phase was first described by Ecuadorian archaeologist Jacinto Jijón y Caamaño early in the 20th century, based on his excavation of five graves in a cemetery. All the graves, with the exception of one belonging to a child, contained pottery and copper grave goods.

Pottery from this phase is often decorated with white paint, red slip and negative painting in several different combinations. One Tuncahuán bowl in the SFU collection is a pedestal bowl, or *competera*, with a tall annular base supporting a simple, unrestricted bowl. The annular base has been decorated with cut-out sections, incision and cream slip. The bowl itself is cream slipped on the interior with red slip on the lip extending slightly down the exterior rim. Interestingly there is a clear hand print on the exterior of this bowl that would have been made by the potter when he or she picked up the bowl with a hand that had wet white slip on it.

With no excavations of Tuncahuán Phase living sites, archaeologists know little of the way of life of the people that produced this pottery.