

# Trash Talks

## Interpreting Discarded Remains

by Shelby Brown (J. Paul Getty Museum)

Students become archaeologists as they study materials left behind by modern humans. While sorting and categorizing trash, they learn how historians and archaeologists study the objects used and discarded by ancient people. They experience how team members on a dig must work together to understand the evidence they uncover.

### Grade levels

Upper elementary ages through high school. This fun exercise can easily be modified to succeed with all ages. Everyone loves a puzzle!

### Goals

Students interpret modern trash to learn about people today in the same way archaeologists use ancient trash and material culture as evidence for people's lives in the past. For younger students the selection of trash can be kept simple; for older students it can be more complex, selected from multiple rooms and more people, and can leave more questions unanswered. This is an exercise in critical thinking, observation and inference, and confronting bias.

*Students will learn that:*

- archaeologists often answer questions about a culture by studying objects people used and discarded (material culture).
- **material culture** refers to physical things that can reveal **culture** (behavior and beliefs).
- categorizing helps historians and archaeologists interpret evidence.
- **observations** (what we can see) differ from **inferences** (our conclusions/stories we tell).
- **hypotheses** (educated guesses) change as more information is gathered.
- scholars build upon initial facts and solve problems working together.
- objects or their attributes (such as color) may mean different things to different people and within different cultures.
- some questions are unanswerable by the current evidence.

Ideally, students will conclude by summarizing questions still unanswered by their data—questions that will require further research or excavation.

**Cultural/historical context**

Archaeology includes the study of trash and the ways material culture changes depending upon time, culture, and context. Excavators often recover pottery fragments, pits, seeds, bones left from meals, broken tools, coins, and lost or discarded objects of all kinds. Sometimes these were intentionally thrown out and are found in trash pits, old wells, and dumps. As today, objects were also lost or discarded wherever the ancient owner happened to be. Both these forms of trash can reveal a great deal about the former owners.

Some waste items will not be part of this study, since collecting it can be unsanitary, but archaeologists study food remains, residues in jars, and even the remains of ancient latrines and sewers to learn what people ate and drank.

Trash provides many useful clues for reconstructing such as aspects of ancient life as the number of people who lived at a site, their professions and interests, their diet, where they traveled or traded, the environment, and much more. It can also reveal changes through time when recognizably older and newer objects are found together or in different layers of a pit (for example, old and new coins, old mobile phone and newer broken model).

**Time needed**

The time spent collecting trash or gathering materials to use as trash will vary. Once students begin to analyze the collected objects, listing and categorizing them and discussing conclusions should take approximately 1½ to 2 hours, depending on the size of the class, ages of the students, and complexity of the “finds.” This can be an opportunity to have students write and present more formally or can be kept largely informal.

**Required materials, tools, and preparation**

Teachers can intentionally manufacture or organize trash to suit a story they have in mind, compiling enough evidence for all the groups of students to analyze. Telling the story behind the trash provides a satisfying ending to the project. A scenario about a birthday party for two different people, for example, could be interesting and encourage conversation about assumptions. How much can we really tell about age, interests, and gender from material culture?

Teachers might also ask students to collect trash (with parent or teacher help) at home or school and to bring it to class for analysis. The collection needs to be very carefully monitored to omit items that are wet, unsafe, or unsanitary as well as anything that is private, includes names, or can easily be associated with specific people.

Whether brought from home or office or manufactured by the teacher, the trash will ideally be from several different contexts or rooms. Items may come from a kitchen, bedroom, photocopy room, reception area, or a multi-age gathering such as a holiday or birthday party. Students can infer what kind of area the trash came from, how many people were present when the trash was collected, what their possible ages and roles were, and what they were doing.

**Separate or mixed contexts?**

The separated trash from different rooms may be kept separate for easier analysis, with the goal being for students to identify the function of a room as well as analyze what can be inferred about its users. The trash mirrors the artifacts an archaeologist might find while carefully excavating individual rooms of a house.

For a more challenging project, combine all the trash from different rooms and then divide it into multiple bags. This trash might mirror the discarded finds all mixed together in an ancient pit or dump.

A teacher-designed scenario could be presented in either way (separate activity areas or mixed together from all areas).

**Teacher tips**

Make it easy on yourself. Use lightweight materials and start simply with only a few goals for students. You know your classroom.

- For older ages, add complexities that the group can handle and will enjoy. Make sure that bag contents differ in some ways, since groups should be able to learn from one another.

Some objects can be broken or torn, and a few joins within or across groups can reward collaboration. Puzzling objects are intriguing even if they can't be identified, and they show that the original context of the trash does matter. Joins of broken pieces can reveal useful writing or imagery and explain function. Finding joins (and related pieces that do not join) is lots of fun and tests observational skills!

**Classroom process**

Teachers should first discuss the difference between observations and inferences. Explain that students will use their observations and their knowledge of modern society to draw reasoned inferences (conclusions, suggestions, guesses) and answer specific questions. Since professional archaeology is a group activity, having students work in teams makes the analysis more realistic and provides opportunities for creative brainstorming.

The teacher should develop questions about the finds based on the trash collected. Separating observations from inferences is difficult for students and adults alike, and it should be a priority. Ask, "How do you know?" "What else might you find to support your idea?"

**Sorting and categorizing**

Divide the class into small groups of 4-6 students and give a bag of trash to each group. You may give students rubber gloves if you wish.

Each group will become experts in the contents of one bag. They should begin by sorting the trash into categories, which may overlap. The trash chosen for this exercise will likely be much better preserved than trash an archaeologist would find.

## OUTREACH AND EDUCATION

On excavations, **inorganic** trash (stone, metal, clay, glass) survives best, and **organic** materials (from plants and animals) generally decay and are lost. Students can imagine how much evidence they would lose with organic remains removed. Many categories are possible:

- material: plastic, paper, metal
- color: red, white, multi-colored
- type: food-related items, tools, sports equipment, schoolroom materials
- theme: holiday, birthday, home, office

The point of categorizing is to make order out of a jumble of materials. Students may change their minds about their categories and, if so, should discuss why categorizing was difficult, why they changed their minds, and how the categories overlap.

### Observing and inferring

The categorized trash should be considered the foundation from which students draw inferences. Groups should write their organized observations and – separately – their conclusions, answering as many questions as possible about the people who left the trash.

Questions might include:

- Who were the people who discarded the trash?
- How many people were there?
- What were they doing?
- What time of year was it?
- Are there clues about age? Is there evidence for gender? (Might inferences be based on cultural assumptions?)
- What might be missing from the trash, and why?

When the teacher is satisfied that each group has organized its finds, made reasonable observations, and reached some logical inferences, the groups should come together to present their findings.

*Members of each group should:*

- explain how categorizing helped them organize the collection of objects.
- summarize their observations.
- present their inferences.
- note alternative explanations for some data.

### If there is time

The end of an archaeological project requires that investigators think again about what they have found and have NOT found. After the groups have presented their individual conclusions, ask the students to put all the clues from the entire assemblage together and try again to interpret the trash. Are there any additional material remains they would expect (or hope) to find if this were a real dig site and they continued excavating, or if they asked other archaeologists digging similar sites?



## Resources

**Books on archaeology**

Bahn, Paul. 2018 (2nd ed.). *Archaeology: A Very Short Introduction*. Oxford: Oxford University.

Muckle, Robert J., and Stacey L. Camp. 2021 (3rd ed.). *Introducing Archaeology*. Toronto: University of Toronto.

Newman, Sarah. 2023. *Unmaking Waste: New Histories of Old Things*. Chicago: University of Chicago.

Rathje, William L. 1974. "The Garbage Project: A New Way of Looking at the Problems of Archaeology." *Archaeology*, vol. 27 (4): 236-241. (An early project that recognized the value of modern trash analysis in teaching about the past)

Sutton, Mark. Q. 2018 (5th ed.). *Archaeology: The Science of the Human Past*. Abingdon: Routledge Press. (Too expensive for those who just want a quick resource, but it useful for a deeper dive)

White, John R., and Mattie Oveross. 2019 (2nd ed.). *Hands-On Archaeology: Authentic Learning Experiences That Engage Students in STEM*. Waco Texas: Prufrock Press.

**Online overviews of archaeology**

Archaeological Institute of America (AIA): Archaeology 101

<https://www.archaeological.org/programs/educators/introduction-to-archaeology/>

Society for American Archaeology

<https://www.saa.org/about-archaeology/what-is-archaeology>

National Geographic

<https://www.nationalgeographic.org/encyclopedia/archaeology/>

Artifacts and Artifact Classification

<https://science.jrank.org/pages/530/Artifacts-Artifact-Classification.html>

**Lessons and projects from the Department of the Interior**

National Park Service: Archaeology Program Teacher Resources

<https://www.nps.gov/subjects/archeology/for-teachers.htm>

National Park Service: Teaching with Museum Collections (American history)

<https://www.nps.gov/museum/tmc/docs/TMCtemplate.html>

Bureau of Land Management (BLM) Project Archaeology

<https://projectarchaeology.org>

<https://www.blm.gov/learn/teachers/project-archaeology>