

## Archaeology and Construction



The population of the United States is growing. More people means more things like cars, fuels, plastics, and roads that need oil. Transporting oil can be difficult and costly. One way to transport oil is through a pipeline. An energy company is proposing an oil pipeline that will go across 1000 miles of the United States. An archaeological study was done before construction began. Some archaeological sites may not have been found because they have been buried deeply. The builders have been given one year to complete the pipeline.

One day three workers quickly dig out a trench for the pipeline. They have to stay ahead of the next crew that is ready to lay the pipe. Suddenly, the bulldozer uncovers some animal bones and stone tools. Some of the bones look very old. The three workers stop work and look at each other. They know that they have uncovered the remains of an archaeological site, but if they stop work they will get behind schedule. They discuss the problem for a few minutes and decide that they have no choice but to ignore the site and continue working.



## Guidelines for Visiting or Discovering an Archaeological Site

All of the things you see at an archaeological site are evidence of the lives of people who once lived there. Visitors who come to enjoy archaeological sites sometimes damage them by accident. There are guidelines\* to follow when you visit a site. By following these guidelines you can protect the site and save it for the future.

- If you see an interesting artifact, you can look at it, draw it, or photograph it. It is very important that you leave it in the same spot where you found it.
- Walk carefully so you step around artifacts or middens (ancient trash pits that look like dark stains in the soil).
- Keep your hands to yourself and stay on the path when you see old walls or buildings. Staying on paths or trails helps keep the soil in place and preserves the site.
- Food attracts animals that may dig or nest on the site. Make sure you properly dispose of your trash.
- Place your campsite away from archaeological sites. Archaeologists use ancient charcoal to date sites. Modern campfires produce new charcoal, which can confuse archaeologists when they try to date a site.
- Pets can damage archaeological sites. Leave your dog behind when you are visiting a site.
- When you find an archaeological site or artifact, record the location or mark it on a map. Share the information with a professional archaeologist. If you are visiting a state or national park, inform a park ranger. Each state has a State Historic Preservation Officer. People at his or her office record the location of archaeological sites. You can find the contact information for your state on the Web site of the National Association of State Archaeologists: <https://archaeology.uiowa.edu/national-association-state-archaeologists>

\*These guidelines were adapted from those developed by the Forest Service.



## Archaeological Resource Protection Act (ARPA)

In 1979, lawmakers in the United States wanted to stop archaeological sites on public lands and Indian lands from being damaged and artifacts from being stolen. They believed that these sites and artifacts are an important part of our history. Lawmakers created the Archaeological Resources Protection Act (ARPA) to help protect these important places and objects on public lands.

The law says that people may not dig for or collect archaeological resources including pottery, baskets, bottles, sites with coins or arrowheads, tools, structures, pit houses, rock art, graves, and human skeletons. No person may sell or buy archaeological resources that are taken illegally. People who break this law are punished.

**First Offense:** A person who breaks this law for the first time may be fined \$10,000 and spend one year in jail, or both. If the cost of repairing the damage to the site costs more than \$500, the person may receive a fine of \$20,000 and spend two years in jail, or both.

**Second Offense:** A person who breaks this law for the second time may be fined \$100,000 and spend five years in jail, or both.

Additionally, vehicles and other equipment used in breaking this law may be taken away from the person who breaks this law.

The Archaeological Resources Protection Act rewards people who tell law enforcement officers about people who break the law.

ARPA protects all public lands including the Bureau of Land Management, Forest Service, National Park Service, Fish and Wildlife Service, Bureau of Reclamation, military lands, and tribal lands.

Laws similar to ARPA have been passed by several states. Contact your State Historic Preservation Office or the State Archaeologist to learn what the laws are in your state.

### How long would it take?

Imagine an archaeological site in southwestern Colorado on land administered by the Bureau of Land Management. The site was built and occupied by village farmers about 800 years ago. They grew corn, beans, and squash and hunted deer in the surrounding forest. They built houses out of stone and wood, some of them 2-3 stories high. The villagers made beautiful pottery vessels for storing food, hauling water, and cooking. Archaeologists estimate that there are about 30,000 pieces of pottery on the site. About 1,250 people visit the site every year. If everyone who visited the site took a piece of pottery, how many years would it take before all of the pieces were gone? If a visitor took a piece of pottery, what law would he or she be breaking? Why should pieces of pottery be left where they are found? How might a visitor enjoy the pottery without taking one home? What would you tell your friends or family about protecting archaeological sites and artifacts?

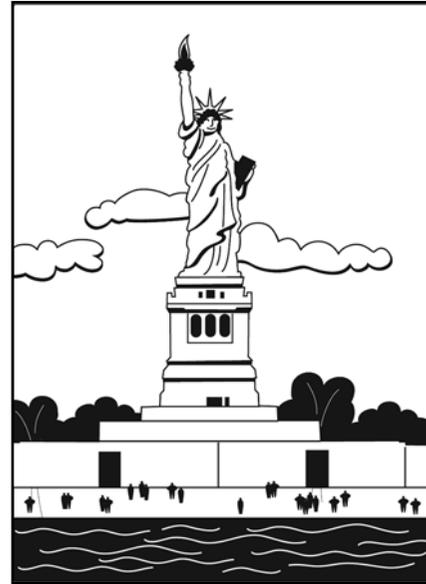
## National Historic Preservation Act (NHPA)

The house in Virginia where President Thomas Jefferson lived 200 years ago is called Monticello. People can visit Monticello today to learn how President Jefferson and his family lived. Old places are important because they tell about our history. Old places are found everywhere in the United States. Examples are old houses and other buildings, battlefields, bridges, archaeological sites, and even landscapes used by Native Americans and settlers.

Our lawmakers think that the spirit of our Nation is found in our history. They think it is important to save old places because we can learn from them and enjoy them. In 1966, lawmakers created the National Historic Preservation Act (NHPA). The NHPA was created because special places were being destroyed. The law was created to protect and preserve our Nation's historic sites and artifacts.

Whenever there is a construction project on public land or a project that uses money given by the Federal government, archaeologists study the area first. They look for archaeological and historic sites and record them. Then the State Historic Preservation Officer works with the Federal government to decide what to do with the sites. They will try to find a way to preserve the sites completely and leave them undamaged for the future. If the sites cannot be preserved, archaeologists will conduct more studies before they are damaged by the building project. If Native American sites are found, Native Americans may tell how they feel about damage to the sites. Any citizen is allowed to tell how she or he feels about the destruction or protection of a site.

Some very important sites such as the Statue of Liberty in New York Harbor are protected, and are put on the National Register of Historic Places. Every state has sites on the National Register. A person called the Keeper of the Register maintains a list of these sites so they can be protected from damage.



The Statue of Liberty

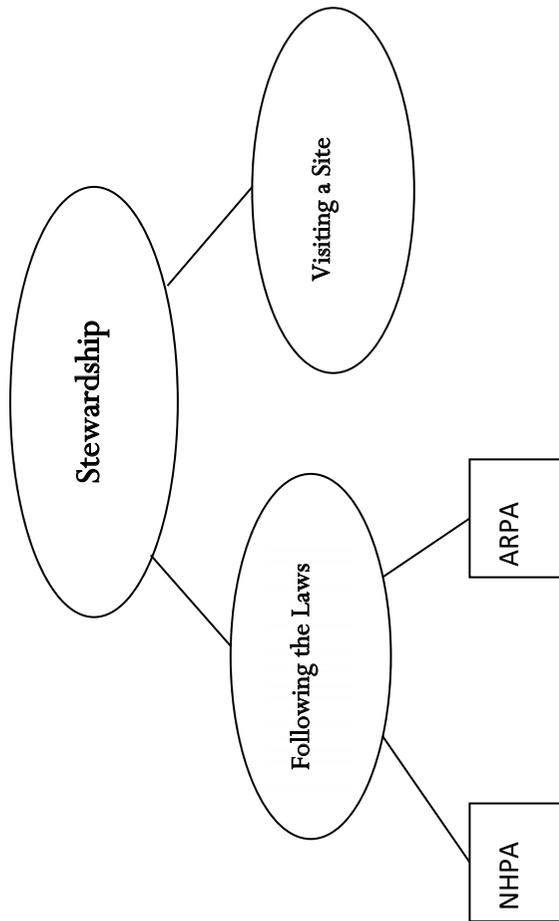


Example of a preservation problem; too much traffic for the one-lane historic bridge.



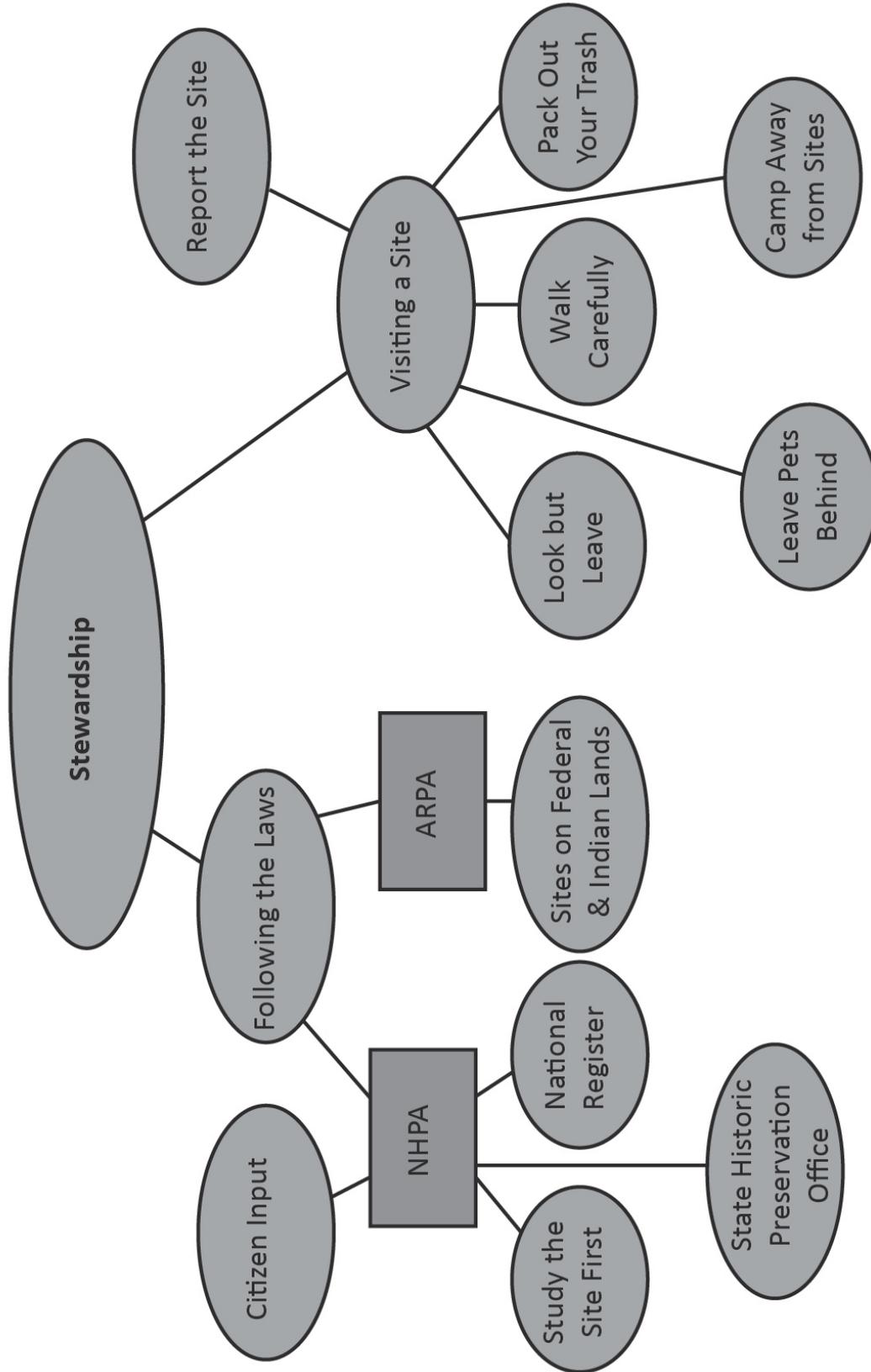
Example of a preservation problem; an important building is falling down.

## Stewardship is Everyone's Responsibility: Student Map





### Stewardship is Everyone's Responsibility: Teacher Key



## Learn More about Archaeology

There are many ways to get involved in archaeology and learn more about it.

- Join a local chapter of your state archaeological society. Some societies now offer classes for people to learn more about archaeology.
- Participate in some of the activities your state sponsors during archaeology week each year, including site tours, lectures, and hands-on archaeology activities.
- Volunteer! Some states have Site Steward programs that use volunteers to monitor sites and record changes to them. Archaeological societies often welcome volunteers to help record, survey or excavate sites. The Forest Service and National Park Service also sponsor volunteer programs.

For more information about these programs and activities, contact the Society for American Archaeology, 202/789-8200, [www.saa.org](http://www.saa.org).



### Luisa's Archaeological Discovery!



Luisa, a young woman, is camping with her friends in a national forest. One rainy day, while hiking, she sees a large white rock a few inches below the edge of the trail. She kneels down to look at it and discovers it is not a rock at all! It is a rounded piece of bone about three inches across. She wipes the dirt away and the rain washes the bone clean, showing the bone's jagged lines. Quickly she pulls her hand away! The bone might be part of a skull.

She looks around and notices a pile of blackened rocks that look like they might be the remains of a fire hearth. As she explores more, she finds some chipped rocks and an old corncob. Luisa remembers learning about archaeology in elementary school. With a cry of delight, realizes that she has found something special—a real archaeological site!

Luisa knows that her hiking boots could damage delicate bones and other artifacts that might be buried in the soft soil. She sits down on the trail, and pulls out her hiking map. She finds where she is on the map and marks the spot. She also takes photographs of the site and the artifacts. After taking one last look, she hurries back to the campsite, and tells her story to her friends. The next day, Luisa returns to town and calls the State Archaeologist to report her find. She sends him the map and photographs of the site. Later, a team of archaeologists uses the map and photographs to find the site and begin deciding how to protect it.

1. What law did Luisa obey?
2. What guidelines when visiting or finding an archaeological site did Luisa follow?