

Archaeology as a Way of Knowing


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A presentation prepared for SALI 201: Introduction to the Salish Sea

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Let's get digging!

Land Acknowledgement

As we are learning together, we recognize that Whatcom Community College is on the traditional lands of the Lummi, Nooksack, Samish, Semiahmoo, and other Coast Salish peoples, who have cared for these lands and these waters since time immemorial.

We also recognize that archaeology is only one way of knowing about the past of these lands, and we acknowledge the importance of traditional story and oral history. Good archaeological practice requires consultation and collaboration with Indigenous peoples and other descendant communities.



What is Archaeology?

Put simply, archaeology is the study of the human past through the analyses of material remains -- the 'stuff' people leave behind. Archaeology differs from history in that history focuses on written records. In contrast, archaeology looks at material objects. This allows archaeologists to address a much longer time frame than historians; our human species has been around for at least 200,000 years, and the oldest writing (cuneiform, shown left), only dates back to about 5,500 years ago.



In addition, a focus on material objects means that archaeologists are not constrained by the point of view of the writer of a text. Remember, in most societies, it's the people in charge who are writing the histories. Not everyone's story is told! Archaeologists look at peoples' STUFF -- mostly their garbage -- and EVERYONE makes garbage.

The goal of archaeology is to “read” the stories of the people of the past through using the “stuff” they left behind as our text. We do this by looking at the context of where that “stuff” was found.

Click the link below for a brief video introduction –

- [What is archaeology: Understanding the archaeological record](#)



Sociology

Cultural
Anthropology

Geography

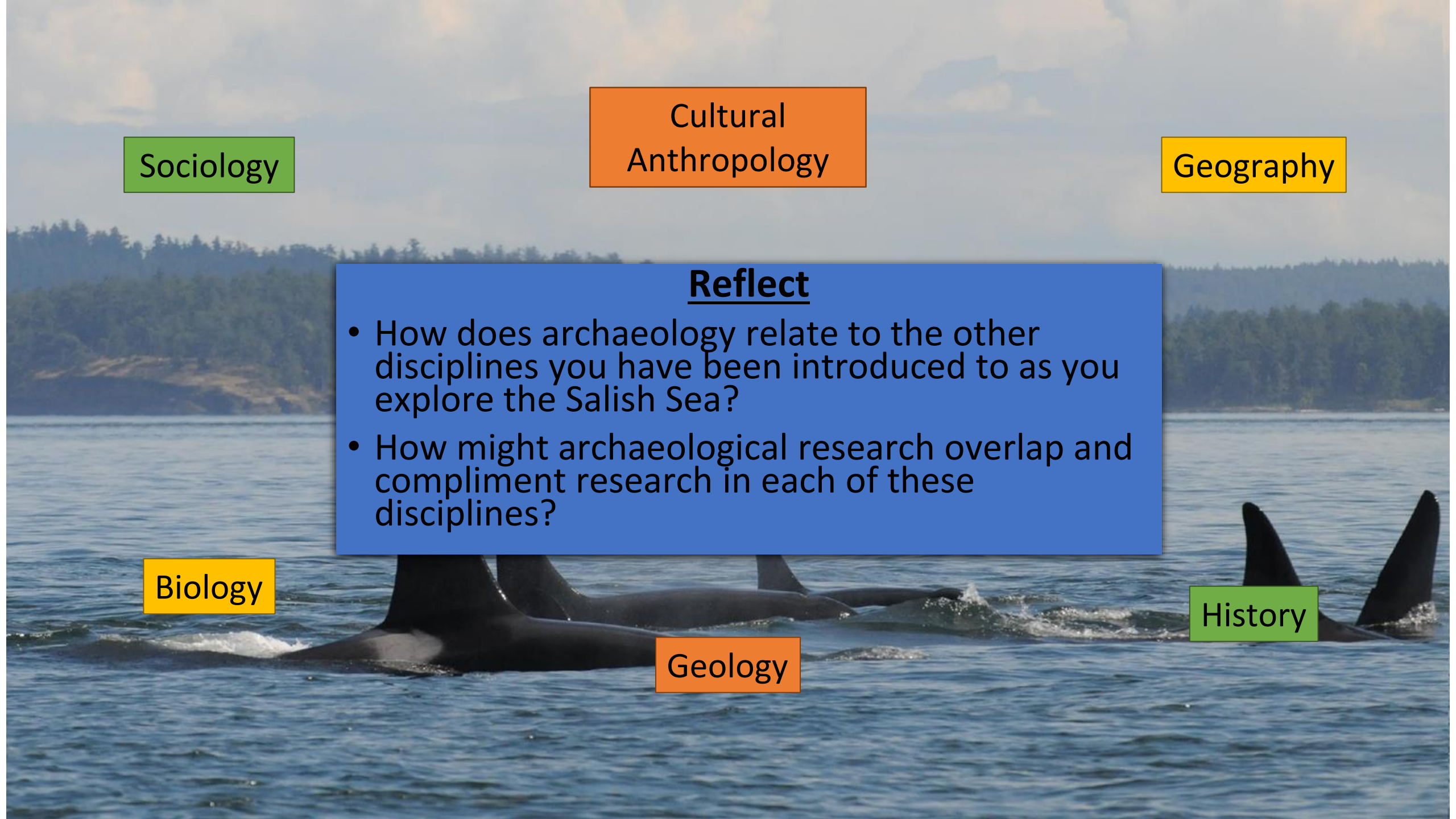
Reflect


- How does archaeology relate to the other disciplines you have been introduced to as you explore the Salish Sea?
- How might archaeological research overlap and compliment research in each of these disciplines?

Biology

Geology

History



An overhead view of an archaeologist in a dark blue long-sleeved shirt kneeling in a dirt trench. The trench is marked with a white string. Several large, dark, rounded stones are arranged in a line across the trench. The archaeologist's hands are visible, one resting on the string and the other near the stones.

How do archaeologists find sites?

Survey, Excavation, and Mapping

Survey

Most archaeological surveys are very simple and require little technology. Archaeologists simply line up along the side of a survey area and walk across it in straight lines known as transects, keeping an eye on the ground for any signs of cultural material. In areas where there is a lot of ground cover (like the forested environments of the Salish Sea region), archaeologists will dig shovel test pits in a simple grid pattern. While this does not require any equipment other than a shovel and a screen, it is very time-intensive.

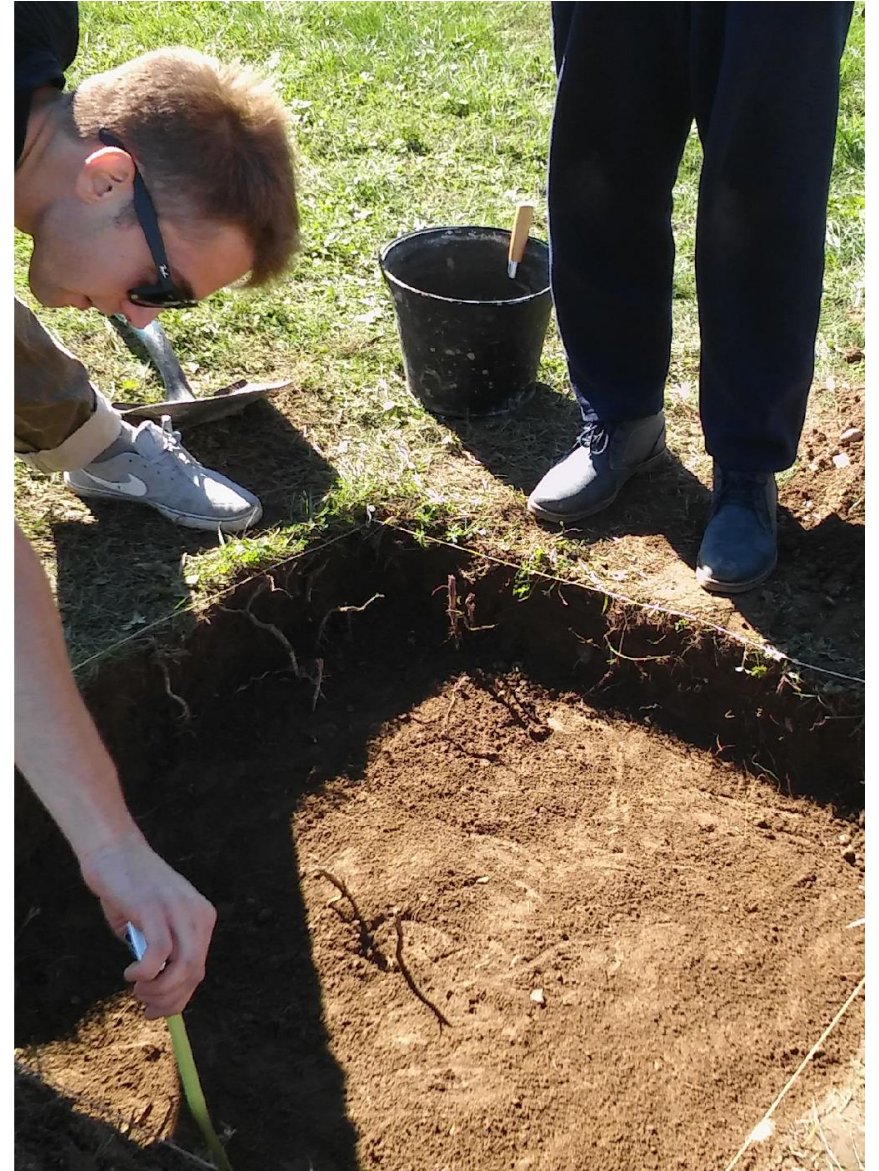


Excavation

Under most circumstances, excavation is conducted by hand tools. The trowel is a symbol of archaeology! We tend to dig in square units, scraping back the soil in slow levels, taking note of any major changes in the soil that might represent human activity. We also stop to map in any artifacts that we find.



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Mapping

Most archaeologists will make simple sketch maps in the field, using only a compass, some graph paper, and a pencil, marking the distance between important features by pacing the site. More accurate maps use GPS technology or a total station (shown at right.) Data is then brought into a spatial database program like ArcGIS for mapping and analysis.



Mapping is so important in archaeology because most of the data we gather depends on context. A arrowhead by itself, for example, doesn't tell us very much, but if that arrowhead is embedded in an ancient bison -- or a human vertebra -- or buried in a cache with other stone tools -- that tells a very specific story about what the arrowhead was used for.

At a larger scale, maps can show us relationships between human settlement and the natural environment. And this may also show how this relationship has changed over time.



How do archaeologists study artifacts?

Sorting, cataloguing, analysis, and dating

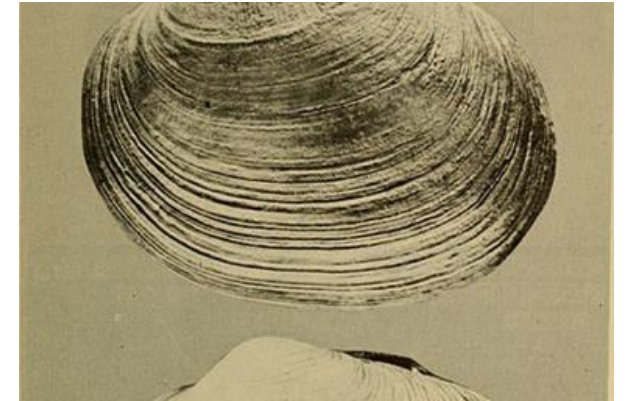


Sorting and Cataloguing

While the fieldwork is what most people associate with archaeology, most archaeological projects require at least three times as much time in the lab as in the field.

Most of this time is spent sorting and cataloguing what was found. If we want to know what the materials mean, we first need to know what materials we have!





Analysis

After they are organized, different kinds of data are collected from the different types of objects: bone tools, stone tools, shell, pottery fragments, basketry, etc.



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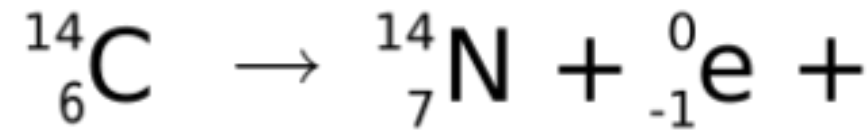
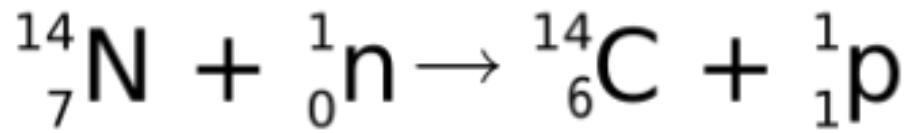


Dating

Finally, dating the objects we are looking at is one of the most important parts of analysis. If we want to look at the deep past, we need to have a way to correctly determine how old things are.

This assessment begins by considering the context of excavation. Essentially, we look at the levels of the soil. If something is in a lower layer of the soil, chances are, it's older!





Absolute Dates

Absolute dating, in contrast, gives you a number (or more accurately, a range of numbers). There are a LOT of different kinds of absolute dating techniques, but the most common in archaeology is radiocarbon dating. This works by measuring the decay of Carbon-14, which stops accumulating in plants and animals after the organism dies. It is a very effective tool but can only directly date organic material that is less than 50,000 years old.



How do
archaeologists know
what any of it means?



Asking Archaeological Questions

Remember, the goal of archaeology is to learn about people. But we don't see people in the past. We see their stuff. Archaeologists must ask questions that will help to build "bridging arguments" that link material objects to the actions of people in the past.

But how do we do that?



What do anthropologists want to know?



What do archaeologists find?

Testing Ideas

Too often, I hear students say that archaeologists "assume" that people lived in a certain way or that archaeologists "believe" that a particular artifact served a specific function. However, archaeologists (at least, good archaeologists) do not base our interpretations around "assumptions" or "beliefs." Instead, we develop hypotheses that may explain the material culture that we find and then we rigorously test these hypotheses.



Making observations

We begin with making simple observations. These observations are basic, but important, because if this data is not solid, we will be unable to make good interpretations. We might ask...

- Is this object pottery or rock?
- How much does it weigh?
- What color is it?
- Where was it found?
- What other artifacts were next to it?



Middle Range Theory

The next step is to ask what this object (or set of objects) could tell us about human behavior in the past. This is sometimes called “middle-range theory.”

Essentially, you need to identify specific material features that might tell us how this object was made or used. Take this stone bowl:

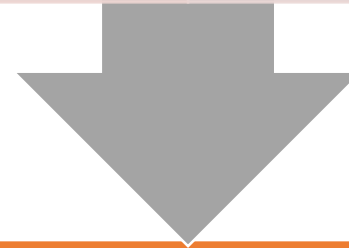
- Could we look at the chemical make-up of the rock to identify the quarry source?
- Could we look for residue within the bowl to see what was placed in it?
- Could we compare the decorative marks on the outside with other similar bowls to address questions of style or identity?




What's the Big Picture?

After we link our initial observations to human activity, it's time to consider why any of this matters. Archaeology can be used to inform our understanding of some of humanity's biggest questions! For example:

When and why did human culture evolve?	Why did some people begin developing agriculture?	Why did social hierarchies develop?	What explains the rise of civilization?	Why do societies collapse?	What is biological about sex/gender and what is cultural?	How do humans adapt to change in climate?	How do different cultures influence each other?
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How might an archaeological approach inform your understandings of the Salish Sea?



Now you try...
Look at this
stone bowl...

- What observations do you make?
- How might you be able to link those observations to human behavior in the past?
- What kinds of tests might you be able to do to test that interpretation?
- Why is this important?

Reflection questions

How do archaeologists learn about the distant past?

- How do archaeological methods build on or add to other approaches and/or other ways of understanding the past?

Why is it important for archaeologists to collaborate with descendant communities?

- What might a healthy collaboration look like?

Why is it important to record and preserve archaeological sites and other sites of cultural heritage?

- What relevance does archaeology have in the world today?