HOW (AND WHY) WE DO ARCHAEOLOGY

An Introduction to the Indigenous Archaeological Record

A LESSON PLAN BY CORA WOOLSEY AND PATSY MCKINNEY

Lesson Plan 1:

What Is Archaeology?

How (and Why) We Do Archaeology: An Introduction to the Indigenous Archaeological Record
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Statement of recognition: This lesson plan has been developed using educational facilities and resources within the traditional lands of the Wolastoqiyik and many other First Nations of Canada. The material in these lesson plans deals with the culture and history of the Wolastoqiyik, the Mi'kmaq, and the Peskotomuhkadi, as well as the First Nations in the Northeast of North America and across all of the Americas. Much of the knowledge base shared in this lesson plan is the direct result of the sharing of knowledge by the First Peoples of the Americas. The authors gratefully acknowledge that the unceded territories of the Mi'kmaq, Wolastoqiyik, and Peskotomuhkadi and all First Peoples made this lesson plan possible and that the rich cultural history of these peoples created the sites that we study.

Note Concerning Ethical Treatment of the Archaeological Record

This lesson plan is not intended to replace archaeological education or give students or teachers the skills to conduct archaeology. The authors and NCCIE in no way endorse seeking out Indigenous artifacts, withholding archaeological information from regulatory bodies, looking for archaeological sites, or digging with the intention to find artifacts or sites. Conducting archaeology, including excavation, testing, surveying, and monitoring, is only to be undertaken by an archaeologist or under the direction of an archaeologist who meets the criteria to be permitted by the provincial regulatory body of the province in question. The authors and NCCIE strongly condemn any activity that endangers the archaeological record, treats artifacts in a disrespectful way (such as selling or destroying artifacts), or impedes the ability of regulatory bodies to protect cultural resources.

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Lesson 1

What Is Archaeology?

In this lesson, you will learn about the basics of archaeology, including what kinds of things are artifacts and why we do archaeology.

Archaeology is the study of humans in the past. We learn about past humans, their behaviours, and their societies by looking at what they left behind in the **archaeological record**. We study how past humans lived to understand:

1. How we came to be the way we are now;
2. What people in the past knew that we might have lost; and
3. How our cultures evolved through time and why.

Archaeology is done by carefully examining **evidence** about the past. Evidence comes in many forms. Here are the main ones.

Artifacts

We often find things humans made in the past. These things are called **artifacts**. Artifacts can be any object made or modified by a human, including a rock with a hole, a clay pot (or piece of a clay pot), a fragment of clothing, a carved bone, an arrowhead, a book, a sled (or piece of a sled), a building, a piece of furniture, a cooking utensil, or a piece of jewellery. Even a car or a piece of a modern house can be an artifact, if it tells us about the past and if it was made by a human.

1. Stone woodworking tools used by early people of New Brunswick.

Stratigraphy

Stratigraphy is the study of soil layers, which build up over time. Because each soil layer (or **stratum**) represents a time period, we can see **events** that occurred through time depending on which layer they occurred in.

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Layers at the bottom are earlier, while layers at the top—or near the surface—are the most recent. Sometimes, we can see that lower layers contain lots of stone tools but no pottery, then higher-up layers contain pottery, but no metal, and then the highest layer contains metal objects. We can say from this evidence that the earliest people relied on stone tools while later people had pottery, and finally they had metal tools as well. This tells us about the **cultural evolution** of a people.

Features

Sometimes we don't find objects but we see evidence that people were using the land. For instance, one soil layer may contain evidence of a camp fire (called a **hearth**). Evidence might be reddened earth where the fire was, rocks placed in a circle, and animal bones that were thrown into the fire after the animal was cooked and eaten. This is called a **feature**. Other examples of features include different soil colour where a post was pounded into the ground (called a **post mould**), a pit dug to store things, or a cleared circle where a wigwam was set up and lived in. When we find a feature, we know that people were living or resting there and using the land.

History

Often we can gain valuable insights about the past by listening to our elders who remember how their ancestors did things. When we listen to the stories of our parents and grandparents, we are learning through **oral history**. We might also want to read the accounts of people who lived long ago, and when we do this, we are learning through **written history**. For example, Samuel de Champlain wrote about the people who lived in New Brunswick when he sailed from Europe, and from his accounts we know of a great town called Ouigoodi where the city of Saint John is currently located. We have to be careful though! People who write accounts of their lives often have a very specific viewpoint and sometimes they do not record things about what they are seeing that contradicts their viewpoint. Still, we can gain valuable insights from reading these accounts.

How We Do Archaeology

Archaeology is done in several ways:

1. Research
2. Field work
3. Lab work

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Research

Archaeologists need to do a lot of research on their subject to find out what others have discovered and what others can reveal about a subject. Anytime an archaeologist is looking at a particular area (maybe they have discovered a site, or maybe they think they can find a site), they need to find out about other sites that have been discovered in the area. They do this by reading books written about other sites in the area, going to the local government archaeology bureau and asking what is on record, or asking other archaeologists what they know about the area. Archaeologists also need to ask the people who live in the area what they know about the history. Oftentimes, the people who live in the area you are interested in know a great deal about what has happened there in the past, sometimes stretching back hundreds or even thousands of years!

Field work

Archaeologists have to learn how to properly excavate archaeological sites so that they can see the stratigraphy, find artifacts and features, and understand how the site was made. They do this by carefully recording the layers of dirt as they dig down and by noting the depth that each artifact or feature was found at. Sometimes, archaeologists use shovels very carefully but most often they use a trowel. But field work involves more than digging. Archaeologists also need to learn how to look at the landscape and imagine themselves living on it many years ago. How would they use the land? Where would they be most likely to do different activities, like fishing and hunting, building a camp, or settling in a village? Archaeologists also need to develop a very keen eye for spotting artifacts that might be lying on the ground.

2. An archaeologist surveying a wetland.

Lab work

Archaeologists might find many amazing things in the field and they might have discovered a lot by doing research, but the real discoveries get made back in the lab. Artifacts need to be cleaned and catalogued so that the archaeologist can better understand what they are looking at. For instance, it may have escaped an archaeologist's notice while in the field that many, many bones came out of only one part of the site. By cataloguing the artifacts and laying them out according to where they came from in the site, an archaeologist may finally see that one section of the site was an important

3. An archaeologist doing lab work.

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butchering spot or a pottery workshop, for example. Because lab work is so important to making discoveries, archaeologists need to be very careful about documenting the artifacts they have and not getting the m mixed up. This means that artifacts must be carefully labelled and stored and all information about them needs to be kept in a database. Otherwise, it gets confusing fast!

Asking Questions and Finding Answers

Archaeology is all about discovering and answering questions that we have. For instance, we might be out for a walk and find an interesting metal circle on the ground. We might pick it up and realize we have no idea what it is! But we know some things about it, like that it is made out of copper, and that it has a decoration around the edge, and also that it appears old. This leads us to ask several questions: what is this object for? Who made it? How old is it? How did it get here?

After putting it back in the place where we found it and notifying the archaeological authority, we might want to start by looking in books on archaeology of the area, and maybe also asking some archaeologists if they know what it is. Taking many pictures will help archaeologists understand what they are looking at. This might answer many of our questions. We might also want to take it to a lab to have a better look at it. Maybe the decorations match decorations from other artifacts already in museums or shown in books, in which case we can say that the artifact is probably the same age as those other ones. If we don't find a match, however, we might have to find other ways to determine the age. Maybe, once it has been examined by the provincial archaeologist, they can find a maker's mark, which would tell us who made the artifact. Maybe the province can have the copper analyzed by a lab that could pinpoint where the copper came from, and this might tell us who made the object and when, if other artifacts from the same location have also been studied before. Looking at research on other archaeological sites might tell us that a major trading hub existed nearby, and this artifact probably came from a long way away. Or maybe we will find out that a craftsperson made copper jewellery nearby and this is probably a piece that got lost or was discarded for some reason. There are many ways of answering questions if we are willing to follow the story to the end.

Ethical Practice in Archaeology

Artifacts are exciting and often very beautiful, and so it is only natural to want to find artifacts. However, artifacts need to be treated with respect because they represent very specific knowledge about the past (sometimes the only knowledge we have) and also because they were important to the people who lived before and therefore they are important to the descendants of those people. Artifacts are the legacy left for us and they cannot be treated as regular objects. If you find an artifact or an archaeological site, **do not remove it from its location.** Inform the regulatory body in your province.

Here are the regulatory bodies in each province:

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NB:	NS:	PEI:
Manager – Regulatory Unit Archaeology and Heritage Branch (Anne Hamilton) (506) 453-2738 anne.hamilton@gnb.ca	Nova Scotia Curator (Dr. Katie Cottreau-Robins) (902) 424-6461 catherine.cottreau-robins@novascotia.ca	Director of Indigenous Relations and Archaeology (Dr. Helen Kristmanson) (902) 368-5378 hekristmanson@gov.pe.ca Staff Archaeologist (Erin Montgomery) emmontgomery@gov.pe.ca

Each province has an act governing the treatment of artifacts and heritage. New Brunswick's act is called the **Heritage Conservation Act**, passed in 2010, and can be found here: http://laws.gnb.ca/en/ShowPdf/cs/H-4.05.pdf. Nova Scotia's act is the **Special Places Protection Act**, passed in 1980, and can be found here: https://nslegislature.ca/sites/default/files/legc/statutes/specplac.htm. Prince Edward Island's act is the **Archaeology Act**, updated in 2015, and can be found here: https://www.princeedwardisland.ca/sites/default/files/legislation/A-17-1-Archaeology%20Act.pdf. All three acts state that artifacts and sites are protected and are not to be investigated except by archaeologists or people working under the direction of archaeologists. Keep in mind that this applies to both currently known and currently unknown sites and artifacts.

There are some important guidelines for what is, and what is not, ethical treatment of artifacts and the archaeological record. They are:

1. **Never dig for artifacts**, even if you are using archaeological excavation techniques. Excavation (or any form of digging) destroys the context artifacts are in, so all the information attached to the artifact and significance of the site is lost during this process. Therefore, not even archaeologists are allowed to dig unless they have applied for a permit from the government and have been approved.

   Recording the site properly as excavation is carried out is only part of what needs to be done to protect the information and significance; another very important part is consulting with the people who have expertise and interest in the heritage of the province about whether digging is appropriate. Sometimes the answer is no, and archaeologists must abide by not only the decision of the government but also of the Indigenous bodies set up to oversee archaeology of pre-European sites. A third very important part of archaeological breaking ground is passing in a report at the end of the work, so that the site can be reconstructed, the artifacts can be properly understood and studied, and the findings are available for everyone. This is a lot of work, but no archaeology should ever be undertaken if the archaeologist feels they may not be able to do all this work, which is crucial to proper documentation.

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Only under the direction of an archaeologist should you ever break the ground in pursuit of archaeological knowledge or cultural resources.

2. **If you find an artifact, you must notify the regulatory body of the province where it was found.** By law, artifacts in the Maritime Provinces are under the jurisdiction and protection of the Crown, which means each province provides stewardship for the province's heritage in trust for the people of that province. If you find an artifact, you are required to leave it in place and inform the provincial Regulator or Curator.

   Try to keep track of where you found it and take pictures. A GPS location is very helpful, which most phones can give you. If you find more than one artifact, it is especially important that you leave it in place as you may have discovered an important site and the artifacts' positions are crucial to understanding that site.

   If a **private collection** of artifacts existed before legislation protecting heritage was introduced in New Brunswick and Nova Scotia, it is not necessary to hand it over, but in Prince Edward Island, all collections are under the jurisdiction of the Crown. A private collection is an artifact collection that is in the care of a private citizen (not a government, academic, or professional archaeologist). However, you are expected to give access to the provincial regulators and to treat the artifacts respectfully, neither selling nor destroying them in any way. This means that, if you are unable to take care of them properly, you should donate them to an institution that can look after them, such as a museum or a university, or hand them over to the government. In New Brunswick, the Heritage Conservation Act was passed in 2010. In Nova Scotia, the Special Places Protection Act was passed in 1980, and in PEI, the Archaeology Act was passed in 2015. Collections that existed before these times in New Brunswick and Nova Scotia will not be seized under normal conditions, but mishandling of these artifacts is still illegal and will result in fines and/or seizure if prosecuted. In Prince Edward Island, all collections are subject to seizure and/or fines.

3. **Never buy artifacts.** Artifacts are irreplaceable and represent the heritage of our region and our people. They are not commodities. If you buy an artifact, even if you mean to take care of it respectfully or return it to its rightful place, you will give artifact sellers an incentive to continue to dig for artifacts and to sell what they find. Digging for artifacts with the intention of selling or collecting them is called **looting**.

4. **Don't go looking for archaeological sites.** The best way to protect cultural resources is by leaving them in the ground. Except in some very specific cases, the biggest threat to sites is usually when people start poking around them. Also, if you know where an archaeological site is, don't tell other people the

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location; this can result in people poking around or even digging who may not understand the importance of context and ethical treatment of the archaeological record.

5. **If you encounter human remains, whether they are modern or ancient, you must leave them where they are and contact the RCMP, the Coroner, and the Archaeological Regulator or Curator immediately**. The RCMP will notify a forensic anthropologist and consult with an archaeologist as necessary. The Coroner will decide what to do with the human remains if modern. The archaeological authority will determine the ancestry of the human remains and decide how best to lay the remains to rest, whether by handing them over to a First Nation for repatriation (if of Indigenous descent) or other respectful disposal as appropriate. It is very important in this situation that you not move anything, including any of the things around where you found the human remains. If you find human remains, you may have discovered a crime scene, in which case the position of everything around the human remains is important in understanding what happened, even if the human remains have already been disturbed. Or, you have discovered a burial, and in the Maritime Provinces, we have a strict moratorium on digging or disturbing burials. In both cases, exposed human remains will be dealt with respectfully and appropriately once the RCMP are notified. Remember that **interfering with human remains is illegal according to Section 182(b) of the Criminal Code of Canada and can result in a prison sentence.**

   In Nova Scotia, the Assembly of Nova Scotia Mi'kmaw Chiefs have a protocol for finding human remains of Indigenous ancestry and can be found here: http://mikmaqrights.com/wp-content/uploads/2014/01/2016-Human-Remains-Protocols-The-Fundamental-Principle.pdf.

   If you are unsure whether what you have found is human remains, contact the RCMP to be sure.

6. **Don't remove objects from known archaeological sites.** These sites are protected and collecting from them is illegal.

Remember that you are able to go and visit the artifact collections that are held by the government. These artifacts are available for people with an interest in archaeology and history and people who want to study the past. This is the best and most ethical way to research the past and feel a connection with the archaeological record.

Artifacts and What They Tell Us

Artifacts are probably the most important part of archaeology. We study artifacts because people made and used them, so we can better understand how people behaved in the past. But we also study artifacts in relation to each other—this is called

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4. Some scrapers from the Bliss Islands in New Brunswick.

their **context**—and we also study the materials artifacts are made out of and the way they are shaped. Most importantly, we study how artifacts changed through time. In this way, artifacts can tell us a great deal about what people wanted out of their tools, where and how they were getting their materials, and how these ideas and behaviours changed through time. Hopefully, we also learn *why* these ideas and behaviours changed.

There are several artifact **classes** (categories) that every archaeologist needs to be familiar with. A major artifact class, found nearly everywhere in the world, is **lithics**, or stone tools ("lithic" means rock in Greek). Another major class is pottery, also called **ceramics**. While not necessarily artifacts (which must be made or modified by a human), **faunal remains** are any product or part of an animal. Other artifact classes include metal, textiles, and mineral products. We will take a closer look at each of these.

Lithics

Lithics are a very important kind of artifacts because they occur in virtually every culture and time period. Stone tools are the oldest human technology and some believe that making stone tools was the reason for the development of language in humans. Stone tools also made humans better hunters and gatherers, allowing humans to adapt to their environment so successfully and to think creatively about problem-solving.

5. Reproductions of some common artifacts by a modern flintknapper.

FLAKED-STONE TECHNOLOGY

The first lithic technology was **flaked** stone. When you see stone arrowheads or spear points, usually what you are looking at is **flaked-stone tools**. These tools are created by using a **hammerstone** (a rounded stone, also called a **cobble**) to hit another piece of stone at just the right angle, driving off thin **flakes**. This process of making stone tools using flaked-stone technology is called **flintknapping**.

Not just any stone will work though! You need a stone that has certain properties, the most important being a **conchoidal fracture**. This means that the stone will break very

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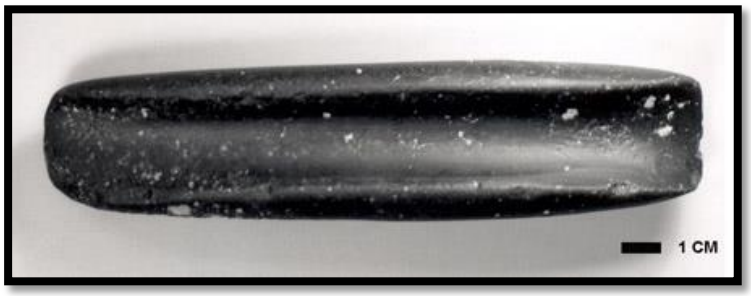
much like glass because it does not have a crystal structure. When glass breaks, it has very sharp edges, and this is why conchoidally fracturing stone is so useful in making stone tools. The ancestors of humans learned to harness this power of stone tools over 2.6 million years ago! The most skilled flintknappers could make spear points as large as your hand that were thinner than 0.5 cm.

Flaked-stone tools are often, but not always, symmetrical (both sides are mirror images of each other) and are usually meant to be **projectile points**. They are usually, but not always, made to be **hafted** onto a handle, if a knife, or a shaft, if a spear or arrow. We call these projectile points because we are not always sure whether they are intended to be launched, thrown, used in stabbing, or used in cutting, so we try to avoid words like "arrowhead," "spearpoint," or "knife blade" because we really can't be sure what the function was. On the other hand, many flaked-stone tools are not projectile points but instead are large flakes that were used as tools. In this case, the flintknapper didn't bother making the tool symmetrical because it had a good cutting edge, and that was all the flintknapper really needed. In this case, we call the tools **utilized flakes**, which just means that the flintknapper made a flake and used it between their fingers without hafting it.

Another kind of flaked tool is a **scraper**. These tools have a scraping edge sort of like a chisel and a tail or longer section for hafting to a handle. Scrapers were used to scrape hides, de-bark and carve wood, and any other thing that needed scraping. They range from about 10 cm long to very small, about 1.5 cm long (these last are called "thumbnail scrapers because they are often the size of a thumbnail).

The genius of flaked-stone tools is that they can be re-sharpened pretty much anywhere. People probably carried a hammerstone with them wherever they went, and if their projectile point (such as a knife) lost its edge, they could use their hammerstone to knock off a few small thinning flakes to give the tool a crisp new edge. However, this could only be done so many times before the tool was worn down to where it could no longer be sharpened. Sometimes, these tools were made into other tools, like drills for making holes or wedges for splitting logs.



6. A groundstone gouge.

The flakes that come off of flaked-stone tools are also important. These flakes, called **debitage**, often occur in a **flake scatter**, showing approximately where the flintknapper was when the tool was being made. Flakes are not all created equal though! Depending on the size of the flake, we can also tell what the flintknapper was doing, whether making a very rough **biface** (a multipurpose tool flaked on two sides) or a **formal** (finished) tool or

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resharpening an already made tool. Debitage can tell us quite a lot about the person who did the flintknapping, in fact.

GROUND-STONE TECHNOLOGY

Groundstone tools are also made out of rocks, but are formed by grinding the stone into the desired shape and polishing the surface. These tools are usually large woodworking tools such as gouges, axes and adzes, and mauls that are made for hewing and carving wood. A gouge is like a large chisel with a U-shaped blade. An axe is a wedge-shaped tool with an edge for chopping or splitting. An adze is similar, but with the edge perpendicular to the handle instead of parallel, like an axe. A maul is a bit like a hammer and was probably used to hit the ends of gouges, axes, and adzes for a bit if extra chopping power.

7. Groundstone bayonets.

Groundstone tools are different from flaked-stone tools in several ways. They are usually very polished and smooth whereas flaked-stone tools have **flake scars** all over them, which are small, shallow scoops where flakes were driven off the surface. Because they are very polished, they are usually made out of a different kind of rock that is easy to grind and will not shatter (like glass) when pressure is applied to them.

Groundstone tools are made by pecking a rock with another rock to shape it roughly to the right shape. Sometimes they are flaked like flaked-stone tools, but only in the first stage; after this, they are ground down with an **abrader** (a gritty stone like sandstone that is used very much like sandpaper) until the rock is perfectly smooth and symmetrical. Then the rock is polished with a fine-grit abrading stone, like fine-grit sandpaper, until it shines just like a polished gemstone. Sometimes, tools were polished brightly only on the edge meant for cutting, called the **bit edge**, but often the whole tool was polished. These tools were especially important between about 8000 and 3000 years ago and were probably most often used for making dugout canoes out of logs.

Groundstone technology was also used for other objects whose use is not well understood. "Birdstones" and "boatstones" are groundstone objects shaped like birds and boats that may have been part of a hunting weapon called an atlatl (a spear thrower). "Gorgets" are flat, usually rectangular pieces with two holes in them. They are named "gorgets" because they resemble the piece of armour in a knight's suit by the same name. "Plummets" are groundstone objects that seem intended to hang and may be weights in a fishing net or weights used in weaving. Groundstone bayonets are long, thin blades (about 12" long) that have a handle for hafting and often have decorations carved into them; some have thought that maybe they were for stabbing sea mammals with the killing blow. All are made by shaping with pecking or flaking and then ground to the right shape.

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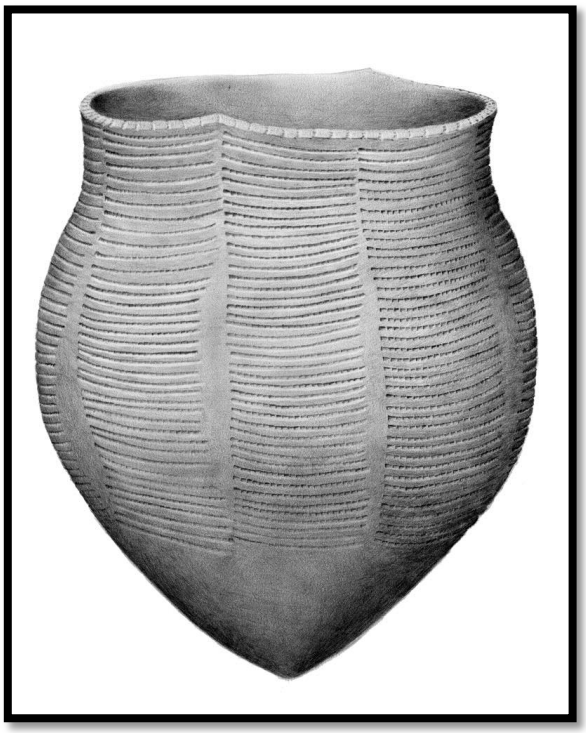
Pottery

Pottery is more common in other parts of the world than in Atlantic Canada, but pottery is a common artifact found in archaeological sites younger than 3000 years old. The people of this region made cooking pots out of clay they found on river banks and in swampy areas and fired the pots in open bonfires or in fires covered by broken pots to keep the heat in. Usually, we find pots in small pieces called **sherds**, but a few pots have been found unbroken or nearly whole. From these pots, we know that pottery was almost always a **conoidal** shape (with a pointed bottom, round shoulders, and a slightly constricted, or closed, neck). Pottery was usually decorated by carefully stamping the surface with the edge of a tool, usually carved into a wavy line (called **Pseudo-Scallop Shell** decorations) or a row of "teeth" (called **dentate** decorations). Sometimes, cord was wrapped on a stick and the stick was impressed into the surface, called **cord-wrapped stick** decorations.



8. A drawing of a clay cooking pot.

One interesting thing about the pottery made here is that it is similar to pottery made all over the world in **small-scale societies**. Small-scale societies are those that rely on trade and giving rather than money, traditional skills and technology rather than factories and offices, and traditional hunting, herding, gathering, and horticulture rather than large-scale agriculture and food processing. In these societies, pottery usually shares similar **traits**, or characteristics: made by hand, from clay gathered nearby, for cooking. This kind of pottery also usually has a pointed or rounded bottom instead of a flat bottom, and also has **temper**, which is ground-up particles in the clay like sand or shell. This is not because people shared their ideas with each other across the world, however. The similarity in pottery traditions around the world is the result of people learning what works best for making cooking pots.

9. Pottery sherds.

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10. A jaw bone of a goosefish.

In today's society, we no longer have these cooking pots. This is because our society made the transition to metal pots some time ago, which are easier to clean, and they don't break down as fast from being used. Although ceramic cooking pots make better food and keep the food warm longer, they work best for people who are outside a lot and who are tending a cooking hearth much of the day. They are not as good for people who cook indoors on a stove or in a fireplace. Cooking pots are made for sitting in a fire (that's what the pointed bottom is for), but we no longer use fires as our main heat source, and even if we did, we do not have anyone skilled enough to make the pots for us!

Faunal Remains

Faunal remains are parts of animals and fish that have been left behind in the archaeological record, usually after the animal was eaten or its body parts used in some way. The most common faunal remains are bones in hearths from animals that have been eaten by humans and then thrown into the fire. The reason these are the most common is that bones become **calcined** when they have been exposed to high heat, meaning that the chemical composition of the bone changes so that it is more resistant to decomposition. This causes calcined bone to survive in the archaeological record better than cooked or raw bones.

11. A beaver incisor (front tooth) set in a carved bone.

Faunal remains are important for several reasons. First, they help archaeologists figure out what people were eating. Archaeologists can often figure out animal **species** by looking at a single bone, especially if it is a common bone, like a **vertebra** (a spine bone) from a cod or a **scute** (bony plate) from a sturgeon. Second, some species, like shellfish, can tell you the season when they died, so archaeologists can figure out when people were living at a site if all the shellfish show they were caught in a certain season, like spring. Sometimes, faunal remains from a dog are found, and they are not where you would expect! Sometimes, dogs were buried when they died, just like humans. Other times, they were eaten, just like we eat domestic animals such as pigs. Another important type of faunal remains is bones and antlers that have been made into tools of survival and craft, such as bone **awls** and needles, antler scrapers, harpoon heads made of bone or antler, teeth made into carving tools, and combs made out of bone or antler. Although very rare, sometimes we also find animal parts such as sinew used to haft a projectile point, rawhide strips used to haft groundstone tools, and spruce root used to stitch leather pieces together.

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The study of faunal remains is called **zooarchaeology**. It is a specialization within archaeology because it takes a long time to get good at identifying species by only one or two bones, especially since the bones sometimes are so decomposed that you can't even see the original shape anymore.

Fibre Arts and Textiles

Rarely do baskets, animal hides, and woven materials survive in the archaeological record of the Atlantic Provinces because of our cold environemnt and our acidic soils. However, occasionally archaeologists have found remnants of **fibre arts** such as baskets and **textiles** such as woven or **plaited** thread or cord. Plaited (pronounced "platted") edges are braided cords with three or more strands (sometimes as much as one hundred strands) and are known to have existed from fragments found in some rare archaeological sites. The cords used to make these fragments are made out of moose fur, spun just like wool from a sheep, or plant fibres like cattail reeds or sweet grass. We also know that baskets were made by the small fragments that exist from archaeological sites but also because Europeans have kept records of Indigenous basket-making practices since they first arrived on this continent and because Indigenous people have oral histories of making baskets since time immemorial.

Textiles would have been used for all sorts of things, although we don't know how common they were or which kinds of things were most common during which periods because we do not have a lot of evidence from archaeological sites. We know that the people made beautiful embroidery on clothing and other things like bags using dyed moose hair and porcupine quills, and we know that clothing was often edged with fine plaited or braided borders. We also know that the people made plaited straps and probably made larger pieces, maybe for use as rugs or covers. Spun cord (basically, yarn) was used to make cord-wrapped stick decoration tools to impress in pottery, and cord was also wrapped on paddles and used to paddle pot walls into the right shape. We know this because we can see the impressions of cordage in the ceramic surfaces.

Metal

Artifacts made of metal are less common in the archaeological record of Atlantic Canada because lithics were the main technology for making cutting edges and projectile points and ceramics and fibre arts were the most common technologies for containers. After Europeans arrived, they brought many kinds of metal artifacts, but because this period is so short (about 500 years), and because metal decomposes quickly, European metal artifacts are also not very common. However, there are some metal artifacts that have been found in many sites.

COPPER

Copper was a valuable metal very far back in time in the Americas, at least 8,000 years ago. Copper was traded all over North America and the people made beads, necklaces, bracelets, and ear spools out of copper. They also sometimes made projectile points out of copper, but these may not have been meant for **utilitarian** purposes (not meant to be used as projectile points) and instead might have been ceremonial or just for

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show. **native copper** is copper that is found in chunks and can be worked without any **smelting** (purifying through high heat or chemical processes). These chunks of native copper were worked by heating and then pounding into very thin strips with a hammerstone, and then cut into shapes to make beads and other jewelry. Sometimes, people did not make anything out of the pieces of copper but placed them in burials, traded them for other items, or gave them as gifts. These pieces are called **copper nuggets** and were clearly objects of wealth and prestige (high status).

12. Copper nuggets.

Very rarely, people also made objects out of silver or gold; however, these kinds of artifacts are more common to the west and south of the Atlantic Provinces since finding native silver or gold pieces big enough to work was very rare in this region.

After Europeans arrived in 1497, Indigenous people began to acquire metal objects from Europeans. Some of the most desired objects were copper kettles, which Indigenous people used for cooking, trading, and burying with the dead. Indigenous people tended to see the copper kettles of the Europeans as highly valuable and were surprised that all Europeans wanted for them was the hides of beavers and other game, which Indigenous people at that time saw much like we see blue jeans—not very valuable for trade.

EUROPEAN IRON ARTIFACTS

Another item that Indigenous people used quite a lot after Europeans arrived was the trade axe, which was an iron axe head that Europeans brought with them as gifts or for trade when they travelled through North America. These axes were easily hafted onto a wooden handle and were commonly available, so the traditional groundstone and flaked-stone axes—which required quite a bit more work to make and were more easily broken—were made less and less until Indigenous people stopped flaking and grinding stone altogether.

13. Some European artifacts including axes, metal drawer handles, and clay pipes.

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Other items that Indigenous people began to use were guns, which have many metal parts on them. European-style houses began to be built and lived in by Indigenous people, so nails, hinges, locks, and handles became common wherever Indigenous people lived. Finally, iron pots and wrought-iron fixtures (like hooks and fire pokers) became more common through time.

Other Artifacts

Lots of objects have been found in archaeological sites that don't fit easily into one of the major artifact classes. This can make it hard to tell what the objects were for and what their significance was. For instance, shark's teeth are sometimes found in larger sites, especially if there is other evidence of trading. These shark's teeth probably come from Chesapeake Bay in Virginia, where it is clear that people were harvesting sharks for their teeth judging from some sites with many, many shark remains and a large number of teeth in nearby sites. This suggests that shark's teeth were being traded all over the continent along with other things like copper, gemstones, groundstone tools, lithic materials (called **toolstone**), and certain kinds of projectile points. Probably much more was being traded also but it is not evident from the archaeological record, especially if the things traded were food or **perishable** items like baskets that decompose quickly.

14. Shark's teeth.

Sometimes, archaeologists find carvings or **pictographs**, which are pictures that seem like they are meant to convey information. Sometimes we find objects that have decorations but their meaning, and the function of the artifact, is not clear. Sometimes we find beautiful stones or pieces of bone or ceramic that have not been worked in any way. There are many different objects that result from all kinds of human behaviours and activities, like accidentally cooked clay or metal from being too close to a fire, or half-finished stone tools that were dropped by accident and never found again, or pots that broke and were turned into new scraping tools, or pretty stones that someone picked up and forgot they had until they got home. These objects that don't quite fit into our regular categories make for some of the funnest archaeology of all.

Wrapping Up Our Intro

In this lesson, you have had a chance to see a bit about what we do in archaeology. Asking questions is probably the most important part, but answering them by investigating a wide range of information is as important. It is also very important to know a little bit about many things and to have an idea of what to look for when you are doing archaeology. For instance, if you find some lithic debitage while doing

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archaeology, you should probably start looking for a nearby campfire because someone was making a stone tool, and what better place to do that than next to the fire? Also, if you find a pot, you might also find some faunal remains, because pottery was most often used for cooking, and that cooking probably involved animals. Finally, an important lesson to remember in archaeology is that people in the past were not that different from people of today, and sometimes you can figure out what was going on just by imagining yourself in the same situation. For instance, if you were making a stone tool and you couldn't get it just right, what would you do with it? You might consider just throwing it on the ground in frustration, just like someone 8,000 years ago might have; this is probably why we find a lot of projectile points in hearths that don't look perfect, while the really nice projectile points get put into burials or on the ends of spears and thrown at animals.

Remember that looking for artifacts (whether digging or surveying) is only to be done by an archaeologist or under the direction of an archaeologist. You are learning about how sites are formed and how to do archaeology but it is very important to use this knowledge responsibly. Always make sure that you are in line with the regulations in your province and that you are not looking for artifacts unless you have been permitted to do so by the government and the Indigenous organization in charge or archaeology in your province.

In the next lesson plan, you will learn about how we use artifacts and other data in a specifically archaeological way. We use this data to build histories, figuring out which artifacts came earlier in time and which came later.

Photo Credits

1. *Stone woodworking tools, courtesy of the University of New Brunswick and David Black.*
2. *An archaeologist surveying a wetland. Photo: Cora Woolsey.*
3. *An archaeologist doing lab work, courtesy of Stantec Ltd.*
4. *Some scrapers, courtesy of David Black.*
5. *Reproductions of some common artifacts, courtesy of Mikael Basque.*
6. *A groundstone gouge, courtesy of David Black.*
7. *Groundstone bayonets, courtesy of Bruce Bourque.*
8. *A drawing of a pot,. Cora Woolsey.*
9. *Pottery sherds, Cora Woolsey.*
10. *A jaw bone of a goosefish, courtesy of David Black.*
11. *A beaver incisor, courtesy of David Black.*
12. *Copper nuggets, courtesy of CRM Group Ltd.*
13. *European artifacts, courtesy of Drew Gilbert.*
14. *Shark's teeth, courtesy of CRM Group Ltd.*

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