



# NOT SO PRIMITIVE TECHNOLOGY

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**W**hat is technology and how do you use it in your daily life? Is it the phone in your pocket, the bus you ride to school on, or an axe used to cut down a tree? In reality, all of these are examples of **technology**, which is defined as the application of knowledge for practical purposes. Technology has played a major role in how humans interact with the world for thousands of years.

In today's Digital Age, it is pretty easy to think that the technology of the past is simple compared to the technology that we use today. However, just because technology evolves does not mean that old tech is 'low tech,' or that the people that made it were less smart than we are. For instance, if you did not have access to a computer or a book, would you know how to make hunting and fishing tools from stone and bone, turn a deer's skin into leather for clothing, or make a structure from forest materials that stands up to all four seasons in New England? Native Americans who lived in this area thousands of years ago would have learned this knowledge from a very early age because they needed it in order to survive, just as you learn how to use a computer.

In modern times, with help from archaeological excavations, historical records, and the oral traditions of Native Americans, scientists are using something called experimental archaeology to create a clearer picture of how the first people in the Americas were able to thrive for generations before the arrival of Europeans, Africans, and other cultures. **Experimental archaeology** is dedicated to solving the question 'how did people of the past build tools and structures with the resources as their disposal?'

In order to answer this question, experimental archaeologists reconstruct or replicate technology that was used in the past; technology that is sometimes called "**primitive technology**." Bone, tendons, rawhide, stone, and wood were all major materials used in tool technology by the Algonkian people of Pre-Contact Connecticut, more than 500 years ago. Thanks to the work of these scientists, we now know quite a bit about how these people moved around, made shelter, got food, and used natural resources to make technology that allowed them to thrive in the woodland environment.

## TRANSPORTATION TECHNOLOGY

**Did You Know:** In Connecticut before the arrival of Europeans, the fastest way to travel was on waterways. One of the earliest canoe styles is known as a Dug Out,



although some tribes called it a mishoon. In order to make it, Natives would find a tall tree and strip a ring of bark away from it, about a third of the way up, then cover the ring with clay. They would then light the base of the tree on fire in order to weaken it, but the fire would not creep past the clay. When it was weak enough, the Natives were able to chop the tree down easily using their stone axes. Controlled fire could also be used to hollow the tree out and transform it into a canoe, with the help

of a stone chisel or clam shell. This task takes great skill and patience to control the fire and hollow out the log in order to make a working canoe. How long do you think it would take you to make a dugout canoe this way?

Have you ever tried to peel an apple with your fingernails? Pretty difficult, right? How about an orange? You probably have had more success with the orange. If you wanted to make a wigwam, or wetu, the dome-shaped homes made of bark common to the Native Americans of the Eastern Woodlands, how would you peel the bark off of the tree? The early inhabitants of Connecticut knew that ash, elm, and tulip poplar bark could be peeled off the tree in large strips during the spring. This is because sap has been flowing between the bark and the trunk of the tree. The bark would be flattened using stone weights and they would build or rebuild their homes during the summer. During the winter, the dome shape of the wigwams allowed the heat from their fire inside to circulate. Low entrances kept the heat inside, but forced the smoke upwards and out of a smoke hole at the top of the structure. Reed or corn stalks could be used as insulation to keep the inside of the home even warmer. Cedar saplings provided a strong framework that supported the bark in heavy snow (plus, cedar is naturally insect repellent). During the summer, the bark could be removed, so that the reeds could provide a natural air conditioning. How cool is that?

## SHELTER TECHNOLOGY

## TECHNOLOGY FOR GETTING FOOD

Where do you and your family get most of your food? Chances are that, unless you live on a farm, you go to the grocery store and buy it. For Native peoples living



in Southern New England 1000 years ago, this was not an option. If you wanted to eat, you had to make tools that would help you to hunt, fish, garden, or effectively gather food from your environment. As an example, the earliest inhabitants of the Eastern Woodlands likely hunted with spears. In order to make the spear point, you would have to fashion it out of stone or bone using other stones or bones. Getting close to your prey was a challenge that could be solved using camouflage, but you would only be able to throw the spear as fast and as far as your arm could throw. That is, until something called the atlatl was invented. The atlatl works as a fulcrum, or lever, to launch your spear towards the animal that you are hunting. By adding feathers to the dull end of the spear, Native Americans knew that their spear would fly aerodynamically. Later, Native Americans of Connecticut began to fashion bows and arrows, which allowed for greater accuracy, more shots, and even further distance.



## CLOTHING TECHNOLOGY

What is your favorite clothing brand? Today, there are many different brands and stores where you can buy clothes. You can even buy clothes without ever leaving your house by ordering them online! Thousands of years ago in this area, people had to make their own clothes out of natural materials. One of the most common types of clothing was deer leather. Making leather involved stretching out the skin of the deer, using a bone, stone, or shell scraper, and applying natural chemicals to soften the skin. Indeed, an easily available chemical came from part of the deer's body itself – the brain! The final step was to smoke the leather, which helped to seal it up and clean it. While this might sound surprising to a modern audience, Native Americans knew that if they did not do this, they would instead get rawhide.

Rawhide is also deer skin that has been dried out and made into a harder material. It wouldn't work as well for clothing, but could either be cut into strips to tie tools together, or used to make a drum. It took about fifty deer per year to feed and clothe a family of four, so the early inhabitants of Connecticut were careful to use every part of the deer.



Now that you have learned more about the technology used by Native Americans in New England a long time ago, do you still think that their technology was primitive? How long do you think you could survive if you didn't have access to any of our modern technology?