

# LANDSCAPE OF NATIONS 360°

## INDIGENOUS EDUCATION INITIATIVE

### **Anishinaabe Knowledge and the building of a Birchbark Canoe**

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#### Introduction

The birchbark canoe was the principle source of water transportation for the Indigenous peoples of the Eastern Woodlands. Besides travel to other communities (sometimes over great distances) it was used to gather plant-based foods, hunt and trap. Water transportation was the most relied upon method of long-distance travel until sometime into the 19<sup>th</sup> century. The birchbark canoe remains an iconic connection to Indigenous cultural histories, contemporary expressions of connectedness to the natural world, and serves as a bridge builder for reconciliation efforts.

All Indigenous nations who build the canoe have developed designs that are best suited to the aquatic environments they encounter most often. The Algonquin canoe is different than the Ojibway canoe, etc.

#### Anishinaabe preparation for the White Birchbark canoe build

Traditionally the Anishinaabe birchbark canoe builders began with ceremony contemplating *Ginawaydaganac* or other Anishinaabe iterations of the laws that place us equally among all life and define our responsibilities under Natural Law.

For canoe building materials that took the life of a plant, tobacco had to be placed down honouring laws of reciprocity and gratitude.

#### Gathering the materials

The canoe builder then usually began by walking the forest looking for white birchbark that is of good quality. Today, this is increasingly difficult as the supply of good trees has been impacted by forest management policy and climate change. In Ontario for example White Birch is “on the house” during most cuts that happen every 10 to 25 years. This means that all members of a species that is on the house can be clear cut down to pole wood size (10 centimetres or 4 inches in diameter). There is no forestry science in Ontario with regard to genetics of white birch nor are the needs of Indigenous peoples taken into regard without difficulty. In Eastern Ontario for example, it took several years to write a cultural values paper, develop policy which

initially was ignored and then audited and pointed out without penalty to the sustainable license holder, referred to the head of audits. Finally, after certification with the Forest Sustainability Council some progress was made though few Ontario Certified Tree Markers have been trained to identify quality White Birch trees for canoe making.

In selecting the bark, it must be firm with the black eyes or lines on the bark spaced apart as far as possible indicating strength. White birchbark is waterproof, easy to cut, relatively easy to bend and stitch. However, a small strip of outer bark is often harvested and tested to see if it is at least a ¼ inch thick, will bend properly and not crack.

The white birch bark is then peeled from the circumference of the tree by cutting through the first layer or outer bark without cutting into the second layer or inner bark which means that bark can be harvested again in twenty years or so. Ideally, strips of 16 to 20 feet are harvested but smaller lengths can be harvested for smaller canoes. The bark should be 3 to 4 feet wide.

Winter bark harvested from early fall until the fireflies come out in June is preferred because it can be etched making beautiful, culturally significant designs and it is usually somewhat stronger. However, summer bark is used for repairs and occasionally for a canoe build.

White birchbark is usually harvested in sheets as long as possible to avoid unnecessary seams that must be gummed up with boiled spruce gum.

The gatherers are instructed by their teachers to make sure the trees to be harvested for the frame (usually white cedar and white ash) must be selected that are not only likely to be straight grained (to avoid waste) but should also be selected to have the least impact on others of the same species to reproduce and other species of plants and animals to thrive. This often means selecting a tree crowded by other trees, or if it has disease (that does not impact the quality of the wood), but it should not be significant as a food producer for other species such as deer, bears, and various birds or serve as specific important shelter for plants and animals.

The length of white cedar and white ash logs are dependent on the size of the canoe. Most canoes built by Anishinaabe builders are 10 to 16 feet long (3 to 5 metres). White Cedar is used for ribs, thwarts, and sometime the gunwales. White ash is used for the gunwales when durability is at a premium and weight is not an issue.

White or red spruce roots are harvested when the ground is not frozen and should not be harvested beyond the point of creating harm to the trees from which it is harvested. They are then cleaned, split and rolled up based on size for different applications in binding the canoe. Small roots not usable for the canoe are saved to make birchbark baskets.

Spruce gum is harvested from the side of the tree, boiled, and impurities are skimmed off the liquid. The gum is stored for later application.

Building the White Birchbark canoe

A frame is built that determines the size of the canoe. It is usually built of white cedar and placed on top of the unrolled birch bark sheets. Then the bark is rolled out and held in place by rocks or other items of sufficient weight. Where necessary the bark is sewn together with spruce root.

Stakes are driven into the ground or if inside holes are driven in wood to support the stakes along both sides of the frame to hold the bark upright. Gores are cut and pieces of extra bark may have to be sewn in place at this point.

The inner gunwales are split and sized to be the same as the original frame. They are clamped to the stakes.

The thwarts are then made of white cedar and shaped with a crooked knife and the ends are beveled to fit into the mortises that has been temporarily placed into the inner gunwales. Holes are drilled into the thwarts so that they can be lashed with spruce root later.

Stems are carved from green wood for placement at the front and back of the canoe and allowed to dry. Sometimes a triangular piece is added at the top of the canoe stem.

The previously coiled spruce root is uncoiled and approximately in increments of 2 inches marks are made on the gunwales on both sides. An awl is used to punch holes through the bark. The gunwales are lashed to the bark using the spruce root leaving two inches between each lashing (or stitch).

The ends of the roots are tucked under a neighboring lashing.

The bark is cut to shape and the ends are lashed to the stems.

Once the gunwales are lashed securely the frame is removed and thwarts are temporarily put back in to keep temporary stability.

Sheathing is made from white cedar strips that are split between 1/8" and 1/4" and 4 inches wide. The ends are rounded to prevent gouging the bark. The ribs are created from a white cedar log too and must follow the grain if they are to bend properly. The ribs are two inches wide and 1/4" to 3/8" thick and the length is determined by the size of the canoe. The rib pieces are either steamed or soaked in water before installation. The ribs are bent and installed creating a bottom that is relatively flat.

The thwarts are then lashed into position giving the canoe added strength.

Later, the spruce gum is heated, and sometimes animal fat and charcoal are added to avoid cracking in the cold or melting in the sun. The gum is spread on the seams of the canoe and over the spruce root stitching to make a water-tight vessel.

The final stage of the canoe build is most often to etch figures of animals or plants that have special meaning to either the builder or the intended receiver of the canoe build. Often, this is an animal that has special meaning such as a clan figure, a tree, or other plant such as wild rice, to be part of a story or may reflect celestial connections to the sky world. Sometimes it is a combination of these artistic expressions.

### Principles from the Forest Stewardship Council

These principles are important to the preservation and maintenance of forest resources used in the making of an Anishinaabe birchbark canoe:

Principle 3: Indigenous Peoples' Rights - identify and uphold Indigenous peoples' legal and customary rights of ownership, use and management of land, territories and resources affected by management activities.

Principle 6: Environmental Values and Impacts - maintain, conserve and/or restore ecosystem services and environmental values of the Management Unit, and shall avoid, repair or mitigate negative environmental impacts.

*The Forest Stewardship Council is a global not-for-profit organization that sets the standards for what is a responsibly managed forest, both environmentally and socially. We don't set these standards alone. We consult with our global network of environmental, social, and economic members to ensure that forest standards represent everyone's needs, from Indigenous Peoples to endangered animal species.*

*When timber leaves an FSC-certified forest we ensure companies along the supply chain meet our best practice standards also, so that when a product bears the FSC logo, you can be sure it's been made from responsible sources. In this way, FSC certification helps forests remain thriving environments for generations to come, by helping you make ethical and responsible choices at your local supermarket, bookstore, furniture retailer, and beyond.*

*FSC members include some of the world's leading environment groups (WWF and Greenpeace), social organizations (the National Aboriginal Forestry Association), businesses (Tetra Pak and Mondi PLC) as well as forest owners and managers, processing companies, campaigners, and individuals like you.*