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Technology of the Shuswap

SHUSWAP CULTURAL SERIES • BOOK 5
SECWPEMC CULTURAL EDUCATION SOCIETY



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*THE SHUSWAP CULTURAL SERIES IS
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**TECHNOLOGY
OF THE
SHUSWAP PEOPLE**

SHUSWAP CULTURAL SERIES - Book Five

SECWEPEMC CULTURAL EDUCATION SOCIETY

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Technology of the Shuswap People

Introduction

The technology of the Shuswap people was developed around the natural environment. By speaking to Shuswap elders and studying the work of anthropologists and archaeologists, we have learned a great deal about the way the Shuswap took raw materials and worked them into the articles and tools necessary to make them a totally self-sufficient people. They adapted their surroundings to their use, creating a culture unique in its manufactures and implements. They utilized the animals, plants, stones and even the soil, in a variety of ways, to create the tools and material goods for a more successful way of life.

The fabrication of goods was a skill learned by all Shuswap. Children began, at an early age, to sew buckskin and chip stones into useable shapes. Clothing and household goods were made by the women and girls. The men and boys worked with the honing of stone and bone to create tools needed for fishing, hunting and building. Like every aspect of Shuswap life, work with the items of technology was shared. The hammer made by a man was hafted to its handle by twine spun by a woman. Men had to have sewing skills to mend their clothing while out on the hunt.

Those with special skills sometimes spent more time working with a particular article, which could be traded for goods. In general, many of the Shuswap had a wide range of technological skills; from tanning hides to building a sweathouse; from honing a razor sharp arrow head to shaping birch bark for a personal cup; from carefully combining materials into a strong, pliable bow to discovering the perfect flat stone to use as an anvil. The archaeological discovery of these items tell us of the extensive abilities of the people and the value placed on the items they made. The design and decoration tells us that the people took pride and satisfaction in their construction. The articles were developed from the natural world and demonstrate the ingenuity and skill of the Shuswap.

Tools Created for the Production of Other Tools

Several tools had to be made for use in making other tools. One of the most important tools was the knife. The knife for everyday cutting of wood, bark and food was made of different stones, usually basalt. The knife was chipped and flaked to a sharp point. It was used in the hand or attached to a wooden handle by wrapping with buckskin or raw hide.

Their stone tools were chipped to the right size with a stone hand hammer. The edges were then sharpened with an antler arrow flaker. The blunt end of the flaker was used to chip off larger pieces of the raw stone and the sharp point was to finish the fine knife or arrow edge. The stones being worked on were set on an anvil; a large, flat boulder which did not split or break easily.

Another type of knife used for making tools was the beaver tooth knife. It was used to cut and carve in wood and stone and was the tool used for making the arrow shaft smoother. This sandstone tool was needed to smooth and groove the wooden arrow shaft, to make it fly fast and true. A curved basalt carving knife was used for cutting bone and antler.

Whetstones and files used to sharpen stone tools were made of sandstone and gritstone. Stems of scouring rush were also used to sharpen and polish tools.

Thread and twine made from the bark of Indian hemp, elaeagnus or nettle, were in general use. The bark was removed from the trees and shrubs with bark peelers made of wood or caribou antler. The bark was braided by the women and girls, by twisting on the thigh. Three strands were braided together to make a strong thread.

The arrow flaker and bark peeler are the tools that were decorated. The arrow flaker was incised with lines, made with a basalt carving knife. Circles on both tools were made with two notched bone points; the outer one scribing the circle in the same manner as the modern mathematics compass.

Food Gathering Implements

Many implements of bone, antler and wood were used in the gathering of food. The knife, was an item carried by each person, for use whenever cutting was necessary. Another common item in use was the root digging stick. This tool was made of elk or deer antler and used to expose the many roots gathered throughout spring and summer. Other root digging sticks were made from a stem of saskatoon with a handle of birch wood. The blueberry gathering comb was made out of wood in the shape of a hair comb and used to pull the berries from the branches.

The sap scrapers, used to collect sap for food, were made of caribou antler. Others were made of the shoulder blade of black bear or deer, or the leg bone of a deer. These were used to collect the sap from the cambium layer of yellow pine, lodgepole pine and black cottonwood for food. It was collected with bone inner bark peelers in April of each year.

The food gathering implements were not highly decorated. Sometimes the handles of root diggers were stained with red ochre paint.

Fishing Technology

A variety of spears, hooks, nets and traps were made for fishing. Nets were constructed with the use of awls and needles made of wood. Holes were drilled in them to draw the thread through.

The netting thread was made of the bark of Indian hemp. It was used in weirs, traps and dip and bag nets. The same kind of thread was used to lash together poles, rods or twigs for different types of wood traps and weirs.

Large stone hammers were used to pound the stakes for traps and weirs into place. These were flat stones, driven by holding in both hands.

Salmon fishing was often done with a fish spear. The spear head was made of deer antler, sharpened to points. The prongs were attached to a long fir handle with twine of braided Indian hemp bark.

A shorter three prong spear was used when fishing for trout from a canoe. Single pronged spears were also used, as were hook and line. The small hooks were made of hare, dog, and deer



bone and the lines of Indian hemp bark. Sinkers on lines were made of stone and floats were made of dry reeds.

Canoes, used for travel as well as fishing, were made of bark or dug out cottonwood. Bark used to construct canoes was made from spruce or white pine, taken off the tree in one piece and sewn with split willow or split spruce or pine root. Paddles were made of wood in various shapes.

For winter fishing, ice breakers of pointed antler were used to break into the lakes and rivers to fish. Scoops were used to remove loose ice.

Decoration of fishing materials was limited to the occasional staining of the wooden needles with red ochre.

Hunting Technology

The Shuswap people depended a great deal on their hunting skills to survive. The animals they shot, snared and trapped supplied them with the major portion of their food and almost all of their clothing. One of the most important articles they made was the spear or arrow head. The arrow head was chipped and flaked from stone, usually basalt, but many other stones as well. They were carefully shaped with stone hammers, arrow flakers and sharpened with whetstone to a razor edge. The spear and arrow head was hafted to the arrow shaft with a winding of deer sinew, glued into place with pitch. A blunt arrow head was used to hunt birds.

The arrow was made of saskatoon or rosewood, cut about sixty-five centimeters long. It was grooved along its length with a bone grooving tool and polished smooth with an arrow smoother.

Arrows were painted with spiral designs to look like lightning, the shooting of a thunder bird, or of snakes.

The arrow was assisted in its flight by the even attachment of bird feathers around the end. The feathers were held in place with a wrapping of fine sinew smeared with glue or gum from balsam poplar tips. Red paint (micaceous hematite) half way down the feather was the sign of a Shuswap village it came from. Arrows were carried in a quiver made of wolverine or fisher skins, with the tails left on. In the Kamloops area, quivers of buffalo hide were used. Game calls, made of wood or bone, were carried in the quiver, as was the fire drill. Bull elk and bird calls were made from bone tubes and stems of cow parsnip (Indian rhubarb).

The bow was usually made out of juniper wood and was 120 to 150 centimeters long. Sometimes yew or birch wood was also used. The back was reinforced with a half inch thickness of sinew from the back of a deer. The sinew was glued into place. It was then covered with sinew or a wrapping of bird cherry bark. On either side of the hand grip was a braid of quill work, going around the bow. From each side of the hand grip, tails of red shafted flicker protruded.

The bow string was made of deer sinew and sometimes stretched. It was strengthened by rubbing with glue made from salmon or sturgeon skin. If sinew was not available, twisted Indian hemp bark was used.

Clubs were used in hunting and war. These were made of stone, some of jade, and could be used to kill food or foe. Wooden clubs were used and sometimes designed. A tomahawk of stone with a wooden handle was used as well. Clubs made of whale bone, incised with designs were used in the Kamloops area. Bone and antler daggers were used. Some of the daggers were designed with lines and circles. Beaver spears, with detachable handles, were made of bone or antler.

Winter hunting was made easier with the use of snowshoes. These were framed with maple or fir and had cross sticks of birch. The coarse mesh was made from strips of a buck or elk neck and the fine mesh was thin strips of caribou or deer skin.

Food Preparation and Implements

A basic implement used in preparing food was the fire drill, which was needed to start the fire for cooking. The fire drill consisted of a sharply pointed saskatoon stick, a dry poplar root, and tinder made of dry grasses, sage bark or teased Indian hemp bark. The saskatoon stake was set with its point in a groove on top of the poplar root. Tinder was placed in a groove on the side of the root, near the pointed drill stick. The saskatoon stick was twirled rapidly between the palms until sparks flew from it, lighting the tinder. Fire was moved from place to place with a slow match. This was a bundle of cedar bark which would hold smoldering fire for two days.

The knife, already described, was an important implement for cutting up fish, meat and vegetables. The berry mashers, were made of birch wood and used to crush berries or dried meat. Sometimes they were used to crush food so that it could be eaten more easily by the old people. Stone pestles, or hammers, may also have been used in food preparation. These were used with stone mortars. For these articles, a tough type of stone was chosen. It was shaped a little, but

chosen for having the right natural shape. The stone hammer and mortar were used for crushing tobacco and mixing paint as well.

Simple, but valuable implements, were the wooden fire tongs. These sticks, flattened at the ends, were used to move food toward or away from the heat or to remove hot rocks from the boiling basket. Utensils for mixing were also made of wood. Many kinds of wood were used for these tools which were sometimes carved into ornamental shapes and painted with designs.

The implements of eating included the cup, made of birch bark, and spoons. The spoons were usually shaped from a mountain goat or sheep horn. Some were also made of wood. A drinking tube, for taking water from a stream, was made from a hollow leg bone of a crane, swan or goose. These sometimes had holes in them so that they were also a whistle. Often the drinking tubes were designed with lines in various patterns. Girls and boys in training often wore them around their necks.

Mats of various types had many uses among the traditional Shuswap. Table mats, used for serving food, were woven from grasses, bulrushes, tules, willow and cat tail stalks. They were held together with twine of Indian hemp bark. Berry drying mats were made of woven willow twigs or the stems of alkali grass and other coarse grasses. They were also made from reeds, strung together and held at the ends with Indian hemp bark twine. Trays for serving and for collecting cranberries and soapberries were made of birch bark. Trays for catching animal fat were made of woven spruce or pine bark. Floor mats were made of reeds and bulrushes held together with twine or Indian hemp bark.

Mats were sometimes made decorative by the use of different materials of different colours being used alternately, creating a pattern. Designs were also created when colored grasses or bark were woven or embroidered into the fabric of the mats and bags.

Several kinds of bags were made for food storage. Meat and fat were stored in pouches made of goat skin or bear skin. Marrow from the deer was kept in the cleaned out stomach of a deer or caribou, which was sewn up on one end. Deer fat was stored in a cleaned and sewn deer bladder. The open end was tightened with twine. Raw hides of different animals were sewn on three sides for storage of various foods. Bottles made of dried salmon skins sealed at the ends with glue and twine were used to store salmon oil.

Basket Making

The most common containers used in food preparation among the Shuswap were the baskets and they had many other purposes as well. Baskets were of various materials. Their shapes reflected the uses they were put to.

Some baskets were woven from grass, cedar root or spruce root. These were decorated by the weaving in of long grasses or bird cherry bark strips over the outside to form patterns. The straw used for creating patterns was sometimes dyed red or yellow. The coiled root boiling baskets were round and had flaring sides.

Baskets made of woven spruce, balsam or poplar bark, or oblong shape and with high, flat sides were used for keeping water warm, melting snow and holding skins or dyes. Some of these were



roughly woven, for use once or twice, and were then discarded. Small baskets of the coiled cedar root were used for cooking berries. Large oblong baskets of coiled cedar root were used for storage of food or clothing. Woven baskets of conical shape were used for carrying supplies while travelling. These had hoops on them so that a tumpline could be attached. The tumpline is a strap which was tied around the forehead or waist for easy carrying.

Birch bark was most frequently used for baskets among the Shuswap. The bark for the baskets was shaped, then sewn together with split spruce root. Awls for basketry were made from split leg bone of the deer to strengthen it. The top stitching was decorated with split goose and swan quills, dyed red or dark green, or left natural. Glossy bird cherry bark was used to give the rim stitching red tones. Ornamentation was also achieved by incising with geometric designs or pictures and red dye.

The steaming basket, with flaring sides, was used to cook roots. The top was covered with a lid of bark. All water baskets were made of birch bark. They were cylindrical shaped and square-bottomed with a smaller top with a slightly wider mouth. A handle across the top of the birch bark basket was used by young men and hunters. A smaller basket, either round or square, was used for berry picking. These baskets had straps of buckskin attached for carrying. Large baskets with buckskin handles or tumplines were attached around the waist for carrying supplies.

Large temporary birch baskets were used to soak skins or melt snow. The hunter made a temporary basket, or kettle, from any available bark, or from the stomach of a deer he had shot. This was used to keep water or to boil meat. If a stomach was used, the top was held threading a stick through it, which was attached to other sticks going down the sides and under the basket, to keep it open.

Sewing Technology

The material used for most clothing was buckskin. Buckskin is deer hide which has been softened and preserved through the tanning process. (This process is described in the clothing booklet). Many implements were used to make clothing and other useful items. The knife was used in the skinning of the animal. The hair was then removed with the knife. Bone from the ulna of a deer was used to scrape the hides clean. The hide was stretched and softened with a tanning tools made of stone which was attached to a wooden handle with a buckskin wrapping.

After tanning, the buckskin was cut up with a stone knife with a wooden handle. Buckskin clothing was sewn together with bone needles and thread made from bark of Indian hemp, elaeagnus, or nettle stems. Thread made from sinew for the deer's back and thin strips of tanned or raw hide deer, elk and caribou skin were also used. A moccasin last made of wood was used to shape the buckskin to the foot.

Clothing and other times were sewn from raw hides as well. Bone awls were used in the sewing process, along with needles and thread of the kind described.

The Baby Basket

The Shuswap baby was carried in a basket. Most were made of birch bark and covered with buckskin which was dyed red. The buckskin covering often had flaps long enough to wrap around the infant. A wooden hoop was attached to the upper part of the basket. When the hoop was raised and tied securely into place and topped with a blanket, it gave the baby added protection. Trinkets which rattled were attached to these to entertain the baby. The baby's feet were padded with dressed rabbit skin. The inside of the cradle was lined with lynx skin and a pillow of muskrat skin. The baby was wrapped in a tiny lynx skin robe and covered over with a blanket of marmot skins sewn together.

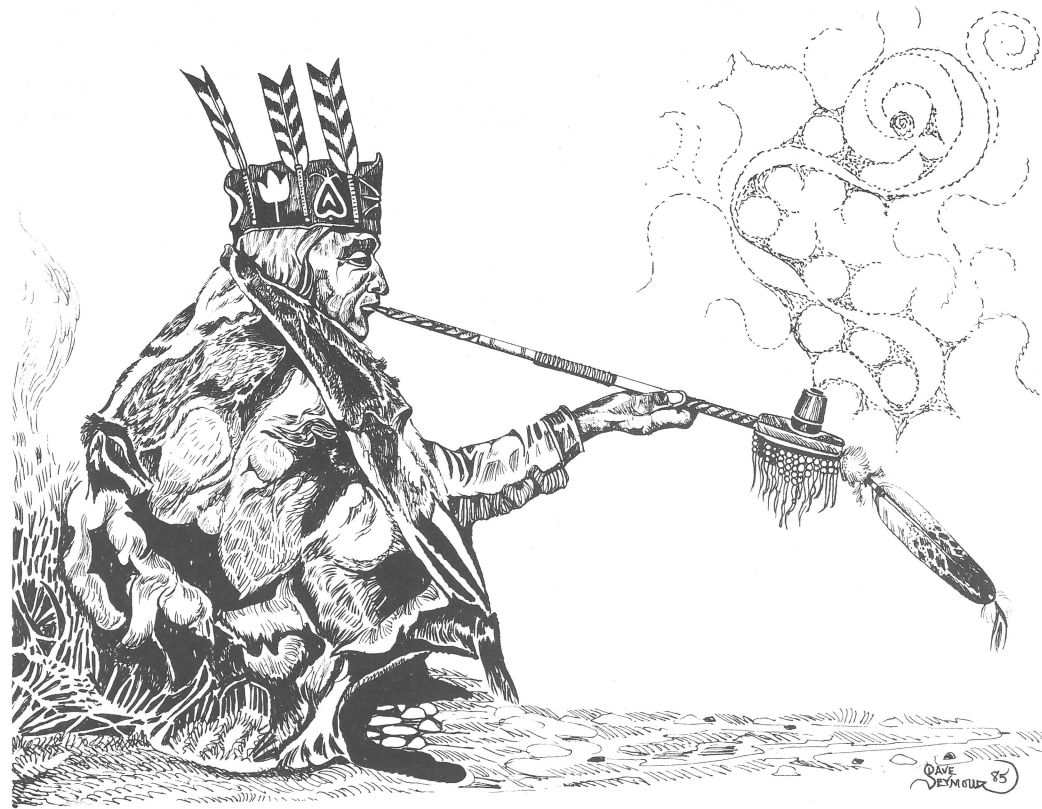
Sometimes cradle boards were used. If a board could not be found, rods were woven together with bark twine to make a surface to secure the baby on. The cover for a board consisted of a heavy buckskin sack which was dyed red in an alder bark solution, or yellow in one of water and wolf moss.

The baskets were carried on the mother's back by attachment of heavy buckskin thongs. When the mother was working in one place, the basket was hung in a tree.

Household and Other Manufactured Goods

Many items from the plant and animal environment were put to use in the household of the Shuswap people. A bed consisted of a cushion of dry grass covered by raw or tanned deer, sheep or bear skins. Blankets were softened bear skin, woven lynx, or rabbit skins. The pillow was heaped up grasses or fine brush under the bottom blanket. Floor mats made of hides were used.

Different types of bags were used. Household articles were stored in bags of woven Indian hemp or elaeagnus bark laced up the sides with buckskin. A bag for sewing supplies was made from tanned buckskin. Needles and awls were also kept in a container made of a hollow elk antler.



Bags made of caribou leg skins sewn together and finished around the top with a bear skin strip were used to store personal items and for travel. Smaller raw hide bags were also used for storage of personal goods. (The largest storage and travel bags were made from tightly woven strips of deer, caribou and beaver hides. The hides used for this purpose were soaked until the hair came out, stretched and cut into thin strips for weaving.)

The tobacco pouch was made of dressed skins and was heavily decorated. Tobacco was ground with a stone pestle and mortar. Paint was crushed in the same way. Paint and tobacco mortars were also made of hollowed out knots of wood. Small knots were hollowed and used as paint storage or mixing pots.

Pipes for smoking the tobacco were made of steatite and hollowed out with flaked basalt points. Hair combs were made of wild gooseberry or mock orange wood split into thin strips and glued together. Other combs were shaped from a single piece of birch or juniper wood.

An important item amongst the Shuswap was the drum. It was made by stretching and securing rawhide onto a round wooden frame. The drum was the instrument used to accompany songs and dances. A drumstick made of deer hide covering a wad of deer hair attached to a wooden handle about 25 centimeters long was used to beat the drum.

An item used in training young people was the deer bone scratcher. The scratchers were decorated with engraved circles and dentalia shells on buckskin thongs.

War shields were made of wooden rods lashed together with bark string. The shields were made of two or three layers of hides glued together and dyed red.

Many articles were made for personal ornamentation. Jewellery of many kinds was made of several materials. Earrings made of dentalia, teeth and bone were worn by both men and women. Later, beads and copper were also used. Large bird quills were made into earrings as well. These were carefully scraped until they were transparent, then filled with dyed bird down, shredded bark, wool or hair. Quills themselves were also dyed and strung onto threads, to be worn as earrings.

Both men and women wore neck pieces of various lengths. These were made of strung dentalia, bird quills, plain or dyed feathers, elaeagnus seeds, animal teeth, claws and bone tubes. Copper tubes, wampum and glass beads came into later use. Chokers were made by embroidering a width of buckskin with quills on one side. Dentalia shells with incised designs were also worn in the ear. The Shaman's necklace was made of grizzly bear claws.

Incised bone pendants of various shapes were used. The pendant, sometimes highly polished, was attached to a leather thong and was worn with a necklace or by itself. After European contact they were made of copper as well. The bone of the pendant was often incised with designs and filled with red paint.

Many of the women and some of the men used nose ornamentation. These were made of dentalium shells with the scalp of red headed woodpecker attached to each end. Polished and incised bone rods were also used, having scalp of red headed woodpecker glued to each end.

Sometimes a large breast piece or head ornament was made by sewing several rows of dentalia onto buckskin or stringing dentalia on a thong and folding it into a flat knot. A large breast piece could cover the wearer, from throat to waist. They were usually twelve to fifteen centimeters in size and were worn mostly by men.

Building Technology

Building tools were needed for working with wood. A simple stick of wood, itself, was a tool. Sharpened, it could be driven into the ground for structural support. A forked stick had several applications in the building of many structures. A wooden snow shovel, with a flattened end, was also used in the building process. Implements to work with were made of wood.

The personal knife was useful for cutting sticks and twigs. To fall trees, wedges and chisels were used with a hand hammer. Wedges were made of antler and chisels were made of stones, chipped and flaked to a sharp edge. Hammers made of stone were used to drive wedges, chisels and wooden stakes. When a heavier hammer was needed, a large flat stone, held in both hands was used. Axes, for cutting wood, were made of jade and serpentine. These were shaped by rubbing with gritty sandstone or beaver teeth. Building poles were shaped and grooved with the adze. This tool had a flaked stone head which was hafted to the wooden handle with a buckskin thong.

These tools were used to secure the wood for the framework of many structures. The wooden parts of a structure were held in place by notching or were tied with ropes of braided Indian hemp or elaeagnus bark. Summer structures were covered with black pine, spruce, balsam or cedar bark or matting. The large mats for covering the home were made from long stems of tules or bulrushes, held together by Indian hemp bark twine.

Technology Used in Games

The Shuswap enjoyed taking part in games. They made items for games from several materials. Dice were made from beaver teeth and incised with designs were used. Gambling sticks were made from wood or bone. These were decorated by engraving and dying with root of Gromwell dipped in hot grease. Buckskin mats were made to sit on while playing the gambling game. The mats were decorated with paint made from wolf moss and alder bark.

A ring and spear game of skill was played with a wooden spear and a ring wound in buckskin with wooden "beads" on the inside to indicate points. Dart games were played with wooden darts that had feather tails. The wooden sticks used in these games were usually incised with lines or painted.

Cards were made of birch bark and had shapes and designs painted on them. A ball game was played with a ball made of a natural wooden knot rounded off or a stuffed buckskin ball. This type of ball was also used to play a type of lacrosse. The stick for the game was of bent wood and used with or without a netting of Indian hemp bark string. In another ball game, the ball was attached by a thong to a stick. Players tried to catch the stick tied to the ball in the hoop of their stick.

Children played with slings made of Indian hemp bark and buckskin. Tops were shaped from yellow pine bark with a pointed wooden pin through the middle. Tobaggans were made out of flat stones and pieces of thick birch bark turned up at one end.

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SHUSWAP DECLARATION

TO WORK IN UNITY ON SHUSWAP LANGUAGE, HISTORY AND CULTURE

Traditionally, Shuswap territory covered an area of 56,000 square miles and included the Thompson River drainage basin, extended eastward to the Columbia River Valley and reached north into the Fraser District. European settlement and colonialism eroded Indian title to traditional lands and lead to the eventual breakdown of the Shuswap Nation. Where thirty communities existed at the turn of the century, seventeen remain occupying only one-third of the traditional territory.

British imperialism and the colonizing of the Indian nations resulted in the disintegration of the society and a gradual decline of Shuswap culture and language.

For years the Shuswap bands have struggled to recover their heritage and restore it to its true role as the foundation of their nation.

Perseverance and hard work resulted in the signing of the Shuswap Declaration, August 20, 1982. The seventeen Shuswap bands had agreed to work together to preserve, record, perpetuate and enhance the Shuswap language, history and culture. The Shuswap Declaration marked the renewal of a strong and harmonious relationship that existed among the bands prior to European contact.

The Secwepemc Cultural Education Society is one of two sub-groups of the larger Shuswap Cultural Working Committee involved in cultural education programming and carrying out the Shuswap Declaration Agreement.

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