BACKGROUND-

Connections to the Land: Resources and Practices

> *Their food is whatever they can get from the chase and from fishing; for they do not till the soil at all....In January they have the seal-hunting: For this animal, although it is aquatic, nevertheless spawns upon certain islands about this time....In the month of February and until the middle of March, is the great hunt for beavers, otters, moose, bears (which are very good), and for the caribou, an animal half ass and half deer. If the weather then is favorable, they live in great abundance, and are as haughty as Princes and Kings; but if it is against them, they are greatly to be pitied, and often die of starvation....In the middle of March, fish begin to spawn, and to come up from the sea into certain streams, often so abundantly that everything swarms with them....Among these fish is the smelt; this smelt is two or three times as large as in our rivers; after the smelt comes the herring at the end of April; and at the same time bustards, which are large ducks, double the size of ours, come from the south....At the same time comes the sturgeon, and salmon, and the great search through the Islets for eggs, as the waterfowl, which are there in great numbers, lay their eggs then....From the month of May up to the middle of September, they are free from all anxiety about their food; for the cod are upon the coast, and all kinds of fish and shellfish....In the middle of September [they] withdraw from the sea, beyond the reach of the tide, to the little rivers, where the eels spawn, of which they lay in a good supply; they are good and fat. In October and November comes the second hunt for elks [moose] and beavers; and then in December (wonderful providence of God) comes a fish called by them ponamo [tomcod] which spawns under the ice.*

The above was written by Pierre Biard, a French priest who lived among the Wabanaki from 1611 to 1613, and represents an early European written record of Wabanaki life. While there is no reason to doubt the accuracy of Fr. Biard's observations, it must be read with some caution. It describes a migratory lifestyle—the inland woods in winter, the rivers in the spring, the sea coast in the summer and the rivers and woods again in the fall. While this undoubtedly represents the seasonal pattern of Wabanaki life in the early 1600s, contact with the Europeans may already have changed their traditional pattern by that time. Archaeological evidence from the coast and islands west of current Passamaquoddy territory indicates that before European contact people lived on the coast in the winter, and sometimes year round. With the arrival of trading ships, which came in the summer and which valued beaver above all else, the Wabanaki began to come to the coast in summer, to meet the ships and trade, and to retreat to the inland woods in winter to hunt beaver. So Fr. Biard's words should perhaps be read as an account of a resilient people responding to changes in their world by changing their annual routine.

What Fr. Biard's passage undeniably does describe is a people using the natural world around them to supply their needs. And it is clear that the ancestors of today's Passamaquoddy people knew their environment intimately and used it carefully to provide themselves with food, shelter, clothing and the other necessities (and some luxuries) of life.

FOOD

The Wabanaki of eastern Maine lived by hunting, fishing and gathering. There is no evidence of agriculture or gardening east of the Kennebec River drainage. People hunted deer, moose, caribou, bear, beaver, otter, hare, muskrat and sea mammals, like seals, walrus, porpoise and whales. Seal oil was a delicacy that was apparently also used on hair and bodies. They hunted birds–ducks, Canada geese, swans, partridge, wild turkey and the now-extinct passenger pigeon and great auk. In addition, they gathered eggs.

Most mammals and larger birds were hunted by bow and arrow or lance. Bows were made of spruce or rock maple and polished with flaked stone or oyster shell. The finished bow was about five feet long, with one curve, and was strung with moose sinew or gut. Arrows were made of white ash or alder, fletched with feathers and tipped with bone or stone points. The effective range of a bow and arrow was about 100 yards. Lances were made from beech wood, tipped with stone points, and were thrown at animals as they came within range. The size varied, depending on the prey. Dogs were the only animal domesticated by the Wabanaki, and they were an important part of the hunt, tracking and worrying animals like deer, caribou, moose and bear.

Animals like bear and beaver, and sometimes smaller animals like otter and mink, were also taken in deadfall traps. A heavily weighted log was set up on an unstable support with bait underneath. When the prey took the bait, the prop was disturbed and the log fell and crushed the animal. Snares were used to catch small mammals and birds like rabbits and partridge, and even larger animals like deer and moose.

Snowshoes, made of white ash or beech with rawhide webbing, were important winter hunting gear. They allowed the hunters to stay on top of the snow and follow game like moose, deer and caribou through the winter woods. Toboggans, made of planks split from rock maple, were used to carry the catch back to camp. A single person could haul about 200 pounds on a toboggan, or about half a moose.

The Passamaquoddy, more than other Wabanaki groups, utilized maritime resources. The name "Passamaquoddy" roughly translates to "pollock-plenty-place," a reflection of the abundance of marine life in the Passamaquoddy homeland. Flounder, cod, sturgeon, sculpin, smelt, sea bass, sea perch and other species were taken in fish traps woven of basket materials and weirs of rocks or stakes in rivers and tidal areas. Eels were caught by building dams across the streams up which they migrated to spawn and then diverting the eels into sluice boxes made

of wood lined with birchbark. Fish like salmon, sea trout and striped bass were speared with weapons called leisters, spears made by attaching two flexible prongs of shaped hardwood to a shaft with a sharpened bone point in the middle at the end of the spear. The point killed the speared fish and the side pieces held it on the leister for easy retrieval. At night, torches made of birchbark were used to lure fish like salmon. Fish which school, like mackerel and pollock, were taken with hooks made of fire-hardened wood or bone on lines of braided basswood fiber. In winter, similar gear could be used for ice fishing. Larger fish and sea mammals like sturgeon, porpoise, seals and, possibly, whales were hunted from canoes using harpoons with beautifully carved bone points. Intimate knowledge of the environment and of the characteristics of the different species of fish were important in matching the fishing method to the intended prey.

The shell middens found all along the Maine coast are testimony to the importance of shellfish. Clam, quahog, mussel and sea urchin shells are routinely found, along with bones from cod, sculpin and other marine species. Although lobster remains decay too quickly to be preserved in the archaeological record, there are early written reports of abundant lobster, including an account of lobsters five and six feet long in New York Bay. There are records of lobster meat being dried to store for winter eating.

Just as snowshoes and toboggans were essential parts of a winter hunt, canoes were important in fishing and for general transportation by water. Canoes made of logs, spruce bark and moose hide are known, but the most common type of canoe was made from birchbark. If possible, a single piece of winter bark was used, but over time as fewer large trees were available, bark was pieced together to cover canoes. The gunwales, lining and ribs were white cedar, and the birchbark was sewn onto the frame with lengths of split spruce root. A bone awl was used to make holes for the lashings, and these holes and any seams were sealed with pitch made of spruce or pine resin boiled down with animal grease. The exact size and shape of the canoe was determined by its intended use. A small, narrow canoe was good on streams and in white water, while a larger, broader canoe was more stable and better on large lakes. The Passamaquoddy made sea-going canoes with a V-shaped bottom up to twenty-five feet long. These canoes carried several paddlers and were used to hunt porpoise. By the 1800s, these sea-going canoes also carried a sail. The Passamaquoddy were known for the fine decoration etched into the bark of their canoes, usually in a band below the gunwales and at the ends of the boat. The personal mark of the owner was frequently used as the decoration at the bow and stern.

It is likely that the most common way of cooking the animals and fish the Wabanaki caught was by boiling in soups or stews. From about 3,000 years ago through 500 years ago the Native people of Maine made large clay pots that could be placed in the fire with coals raked up around the sides. Later, people cooked in large birchbark containers. Containers of green birchbark could be put directly over a fire, although the resulting charring usually meant the vessel couldn't be reused. People also probably used the technique of "stone boiling," heating rocks in the fire and then dropping them into birchbark or wooden containers of liquid and

stirring until the liquid was heated, replacing the rocks with hot ones as necessary. Food could also be roasted over the fire on a wooden spit, or baked in the coals, and shellfish were steamed in a fire smothered with seaweed.

Native people probably made fires by using a fire drill, a thin piece of wood that is twirled quickly against a wooden base. The friction of the two pieces of wood created heat that ignited tinder. The drill could also be driven by a bow. Fire could be carried from place to place by packing a bit of smoldering punky wood in a container made of clam shells lined with clay. After the arrival of Europeans, people made fires with "strike-a-lights," a piece of iron pyrite and a piece of flint that produced sparks when struck together.

Although the early European accounts list many of the species of birds, fish and mammals that were hunted, they rarely mention plants that were gathered, and since plant remains decay quickly, we have little absolute evidence of what plants the pre-contact Passamaquoddy used as food. Recent archaeological work has begun to look at microscopic plant remains from old sites. One site on Frenchman Bay has raspberry (*Rubus sp.*), goosefoot (*Chenopodium sp.*) and knotweed (*Polygonum sp.*). It would seem only logical that early people also used blueberries, strawberries, shad berries (June berries), wild grapes and other wild fruit. Nuts like acorns, beech nuts and butternuts were another resource. In addition, they undoubtedly gathered roots, tubers and greens which were eaten by themselves or used in soups and stews. We also know that the Wabanaki taught the Europeans how to make maple sugar.

Food was preserved by drying or smoking. Food was dried by hanging on branches or by spreading it out on reed or birchbark mats in the sun. Meat and fish were smoked on racks over an open fire, sometimes inside a structure that looked like a small wigwam. Once it was dried or smoked, food was stored in pits in the ground lined with birchbark, or in baskets buried in sand. The Passamaquoddy preserved blueberries in several ways. Some were simply dried in the sun, like raisins. Others were cooked and then put on thin sheets of birchbark where they were mashed, spread thin, and dried in the sun. The sheets of dried berries were then stored for winter use.

When thinking about how the first peoples of Maine lived on and with the land, we need to remember that the land wasn't the same as it is today. Population density was much lower, and the forest and marine resources more plentiful. There were, of course, fewer cleared areas and more forest. The Wabanaki were not, however, passive inhabitants of the landscape—there is evidence that they managed the land to encourage certain species by periodic burning.

SHELTER

"Wigwam" is a Wabanaki word which means "house" or "home." It doesn't specify shape or material, and several different types of structures are mentioned in early accounts. Wigwams could be shaped like domes, cones or A-frames, and could be covered with hides, reed mats, spruce bark or birchbark. By far the most common type of wigwam in Passamaquoddy territory was made of birchbark and cone-shaped. The frame was made of white cedar or spruce poles, held together with cordage of basswood bark and tied to a supporting wooden hoop about head high. It was covered with pieces of winter bark from the white birch. Lengths of bark were sewed together with spruce root with strips of wood added at the ends for strength. There were usually three tiers of bark on a wigwam, overlapping from top to bottom to keep out the rain and snow. A smoke hole was left at the top and an opening in the side for a door which could be covered with a moose hide or another piece of bark in bad weather. Balsam and hemlock boughs were spread on the floor, providing insulation and comfort. A fire pit lined with stones was built inside the wigwam, although in the summer most of the cooking may well have been done outdoors. Early French and English travelers commented favorably on the warmth and dryness of wigwams compared with Colonial houses.

CLOTHING

Before the arrival of the Europeans, clothing was primarily made of leather. Animal hides were tanned by soaking in a solution of animal brains, bird livers and oil, and were then worked and stretched until smooth and flexible. Hair could be left on or scraped off for a smooth hide. Finished hides could also be smoked for increased water resistance.

Early written reports say that men's and women's clothing was similar, and consisted of a loin cloth and separate leggings for each leg tied onto a belt. Like the leggings, sleeves were separate for each arm and were tied together at the back and front. A robe, of leather in the summer and fur in the winter, was attached at the shoulders and hung down to about the knees and was sometimes belted. Moccasins were made from thick, smoke-tanned leather, like seal or moose hide. Special boots for use with snowshoes were made from skin from moose shanks, left whole and tanned with the hair left on, making them especially waterproof. Clothing was decorated with painted designs, or with porcupine quills or moose hair embroidery.

After about 1600, the availability of European trade goods changed the style and type of clothing worn by the Wabanaki. At first, traditional clothing elements were simply made out of cloth rather than hides. Eventually, men wore trousers and a coat, and women a long skirt and a shorter jacket. Women also sometimes wore a peaked cap. These articles were usually made of blue, red or black trade cloth. Regalia, ceremonial clothing, was often decorated with elaborate piping of ribbons and by intricate beadwork on collars, cuffs, hats and belts. By the early 20th century, Wabanaki clothing was much like that of the Anglo population, but regalia was, and is, still worn on ceremonial occasions.

MEDICINE

Just as they used the resources of the natural world around them to provide food, shelter and clothing, the Wabanaki used natural resources for their medicines. Extensive lists of medicinal uses of native plants are available in many reference books. Blueberry leaf tea was used for rheumatism, spruce gum as a salve for cuts, and willow bark tea for relief from colds and fevers. In addition, sweat lodges were used to break fevers, and also more generally as a healthy practice.

A French source reported on how they treated broken bones:

> *...Nature has under the bark of the Balsam-fir trees, which are very common in all parts of Acadia, a marvelous remedy for all their wounds; it is a Turpentine, finer in quality and more balsamic than that obtained from Venice, and it is found wherever it might be needed for a dressing. If the Indians break their arms or legs, the bones are reset evenly, and large pads of soft fine moss are made, which are saturated with their Turpentine, and wrapped around the broken limb; outside of that is placed a piece of Birch-bark, which readily conforms to the shape of the part; splints are not forgotten and to hold this secure, they use long strips of thinner bark which make suitable bandages.*

GAMES, MUSIC AND DECORATIVE ARTS

There is ample evidence that the Wabanaki people did more than just scrape a bare existence from the land. Their lives had time for music, as shown by the flutes made from swan bones that are found in archaeological sites. There were also probably drums of hide stretched over wooden frames, and rattles of turtle shells and pebbles or deer dewclaws. People had time to make jewelry, using shell beads, animal teeth with holes drilled in them, and porcupine quills. They decorated their clothing with painted designs. Birchbark containers had designs etched on them, as did canoes. And people had time for games–waltes, a gambling game with dice made from moose shin bones, a shallow birchbark tray and wooden counters, and ring and pin games made from moose hide, cedar twigs, cordage and a sharpened stick. In winter, people played snow snake, competing to see who could throw their carved wooden “snake” furthest along the course.

USING RESOURCES WISELY

The Passamaquoddy and other Wabanaki people used the entire range of plants and animals available to them to provide what they needed to live well. They also used each resource as completely as possible. Wasteful killing of animals put people out of balance with nature and brought bad luck. The Wabanaki approach to using their land is exemplified by how they used two especially versatile resources, the moose and the birch tree.

When they took a moose, the first gutting was given to the dogs, and the heart and liver were immediately eaten as delicacies, as were the nose and tongue. The rest of the moose was taken back to the camp for processing. The meat was used for food, as was the nutrient-rich bone marrow. Using the brain for processing, the hide was tanned, then made into clothing, moccasins, bags, bed coverings and snowshoe lashings. The hair was used as embroidery thread. The bladder was used as a sack for storing seal oil, and the intestines as skin for sausage and as snowshoe webbing or bow strings. Sinew was also used for bowstrings and as sewing thread, as was the tendon running along the spine. Teeth were used for jewelry, and dewclaws in making rattles. Bones were made into tools like needles, awls and spear points, and pieces of antler into tools used in flint knapping. Even the shin and toe bones were used as pieces in games.

Just as the moose was used for a whole array of things, birchbark was also a multi-use resource. As well as being used for wigwams and canoes, its waterproof quality was exploited in the manufacture of bowls, dishes and cooking kettles, in containers and equipment for maple sugaring, and as impromptu raincoats. It was used to make meat bags, pack baskets, cradle boards, quivers and moose calls. It was used as tinder to start fires, and as torches for night fishing. Birchbark provided material for bandages, and for casts and splints to stabilize broken bones.

References used to compile this background material:

Adney, Edwin T. & Howard I. Chapelle. 1964. *The Bark Canoes and Skin Boats of North America*. Smithsonian Institution, Washington, DC.

American Friends Service Committee. 1989. *The Wabanakis of Maine and the Maritimes*. Bath, ME.

Butler, Eva L. & Wendell S. Hadlock. 1957. *Uses of Birch-Bark in the Northeast*. Bulletin VII. The Robert Abbe Museum, Bar Harbor, ME.

Calloway, Colin G. 1989. *The Abenaki*. Chelsea House Publishers, New York, NY.

Davis, Stephen A. 1997. *Mi'kmaq*. Nimbus Publishing Ltd., Halifax, NS, Canada.

Eckstorm, Fannie Hardy. 1937. *The Handicrafts of the Modern Indians of Maine*. Bulletin III, Lafayette National Park, Bar Harbor, ME. (Reprinted by The Robert Abbe Museum, 1980 and 1987.)

Eckstorm, Fannie Hardy. 1978. *Indian Place-Names of the Penobscot Valley and the Maine Coast.* University of Maine Press, Orono, ME. (Originally published 1941.)

Erickson, Vincent O. 1978. "Maliseet-Passamaquoddy," in *Handbook of North American Indians, Northeast* (V.5), Bruce S. Trigger, Ed., William E. Sturdevant, General Editor. Smithsonian Institution, Washington, DC.

Prins, Harald E. 1994. "Children of Gluskap, Wabanaki Indians on the Eve of the European Invasion," in *American Beginnings, Exploration, Culture and Cartography in the Land of Norumbega*, Emerson Baker, et al., Eds. University of Nebraska Press, Lincoln, NE.

Prins, Harald E. 1995. "Turmoil on the Wabanaki Frontier, 1524-1678," in *Maine, the Pine Tree State from Prehistory to Present*, Richard W. Judd, et al., Eds. University of Maine Press, Orono, ME.

Smith, Nicholas N. 1993. "The Wabanaki as Mariners," in *Papers of the Twenty-Fourth Algonquian Conference*, William Cowan, Ed. Carleton University, Ottawa, ON, Canada.

Snow, Dean R. 1980. *The Archaeology of New England*. Academic Press, New York, NY.

Speck, Frank G. 1997. *Penobscot Man*. University of Maine Press, Orono, ME. (Originally published 1940.)

Whitehead, Ruth Holmes & Harold McGee. 1983. *The Micmac, How Their Ancestors Lived Five Hundred Years Ago*. Nimbus Publishing Ltd., Halifax, NS, Canada.

Wilbur, C. Keith. 1978. *The New England Indians*. The Globe Pequot Press, Chester, CT.

Wilbur, C. Keith. 1995. *The Woodland Indians*. The Globe Pequot Press, Chester, CT.

ADDITIONAL RESOURCES

Text Resources

American Friends Service Committee. 1989. *The Wabanakis of Maine and the Maritimes*. Bath, ME. ***[This is an invaluable resource for all sorts of information on plants and animals and their uses.]***

Butler, Eva L. & Wendell S. Hadlock. 1957. *Uses of Birch-Bark in the Northeast*. Bulletin VII, The Robert Abbe Museum, Bar Harbor, ME.

Calloway, Colin G. 1989. *The Abenaki*. Chelsea House Publishers, New York, NY.

Snow, Dean R. 1980. *The Archaeology of New England*. Academic Press, New York, NY.

Wilbur, C. Keith. 1978. *The New England Indians*, and 1995, *The Woodland Indians*. The Globe Pequot Press, Chester, CT. ***[Both books have good illustrations of activities like canoe and wigwam building, but use them carefully since they cover all of New England and not just Maine.]***

Internet Resources

Brooks, Laura. 1995. "The People of the Dawnland," in Native American Political Issues, <http://www.geocities.com/CapitolHill/9118/history1.html> ***[A good overview of Passamaquoddy history put together by a Passamaquoddy woman.]***

Native Tech: Native American Technology and Art <http://www.nativetech.org> ***[This site has lots of good information on clothing (including pictures) and tanning hides, but be aware that it is not specific to New England.]***

Other Resources

Teachers Guide, Curriculum Guide and Student Handouts for "Teaching Tools, Maine Prehistoric Archaeology Teacher Resource Kit," by Archaeological Research Consultants, Inc., Ellsworth, ME, 1997. ***[See especially Student Handouts #25, "The Fishermen," and #27, "The Gathering."]***