

## Evolution in Abenaki Material Culture

### *About the Abenaki Nation*

The people of the Abenaki Nation and their ancestors have lived in Vermont from at least 12,000 years ago to the present. The traditional Abenaki homeland includes Vermont, New Hampshire, Maine, and Southern Québec. The word “Abenaki” itself speaks to the nation’s geography: it is derived from *Wobanakik*, which means “dawn land” or “east.” Of course, for most of Abenaki history, the region now called “New England” was known by another name: *Ndakinna*, which means “our land.” Of the 500 American Indian Nations in North America, the Abenaki were among the first to make contact and trade with newly arrived European peoples. In Maine, there are four groups, the Penobscot, Maliseet, Passamaquoddy, and Micmacs, that are collectively known as the *Wabanaki Confederacy*. Abenakis in Maine and Canada have been afforded recognition by the state, provincial and national governments. As of this writing, the Abenaki people in Vermont and New Hampshire continue their struggle for acceptance and recognition from their states and the federal government.

### *Introduction*

This lesson was originally structured around an exhibit at the **Fairbanks Museum & Planetarium** entitled “*Pathways: Evolution in American Indian Material Culture*,” which was on view from January 2005 through February 2006. This expansive exhibit contained a multitude of objects that originated from within the various nations of North America, most of them made within the last hundred years. The artifacts represented four distinct regions of the North American continent, and the exhibit was organized into four geographic sections: *The Northeast*, *The Plains*, *The Pacific Coast*, and *The Southwest*. Within each region, *Local Materials* were identified as well as objects that represented examples of the following craft categories: *Beadwork*, *Basketry*, and *Painting*. Visitors were guided through the geographic regions by colored “pathways” that connected craft and material themes throughout the exhibit.

**The central, unifying characteristic of the varied objects in the *Pathways* exhibit was their being both authentically American Indian while simultaneously showing the impact of European-American materials and consumer sensibilities.**

Since the Fairbanks Museum is located in the Abenaki homeland, *Pathways* also included a section devoted to the work of contemporary Abenaki artists and artisans. On display were pen and ink drawings by **Rick Hunt**, beaded bags and leggings by **Rhonda Besaw**, painted gourd bowls and rattles by **Tatyana Donovan**, and ash splint baskets made by **Jeanne Brink** and her apprentices.

Placed prominently in the center of the gallery was a century-old birch bark canoe made by skilled Abenaki craftsmen from the Odanak Reservation near St. François du Lac, Québec. This boat is a perfect microcosm of what *Pathways* revealed: although it is an exemplary model of the birch bark hulls, white cedar frames, and spruce root lashings typically employed in traditional Abenaki canoe designs for the last two millennia, this vessel also has gunwales fastened together with iron nails.

When this class was taught at the Museum, the latter half of the period was spent taking a guided tour through the entire *Pathways* exhibition. The Museum Educator would select several objects from the exhibit, such as a **glass-beaded cap** from the Haudenosaunee (Iroquois) Confederacy or a **Kachina doll** from the Hopi Nation, to discuss aspects of style and materials as they relate to the central concepts of *Pathways*. Although the full exhibit will not be on view after February 28, 2006, many of the objects from this exhibit will be displayed in the Museum's Second Floor Balcony Galleries.

The first of half of the original lesson, relating to specifically Abenaki material culture *before* European contact, can be easily reproduced anywhere within the Great Northern Forests of *Ndakinna*, "our land" in Abenaki: Vermont, New Hampshire, Maine, and Southern Québec, or anywhere else that allows for the easy attainment of the appropriate class materials.

### ***Lesson Objectives***

In teaching this lesson, it is crucial that the following facts about Abenaki culture are successfully explained to students:

- ✧ As early as 10,000 years ago, as confirmed by archaeological findings, ancient residents of *Ndakinna* used extensive intra-continental trade networks to import exotic materials such as copper, shells, and minerals from places as far away as Florida, California, and the Canadian Arctic. Because of their rare and precious nature, these foreign materials were typically used to make artistic or sacred objects. For the more mundane objects and tools, the ancient ancestors of the Abenaki developed technologies based principally on materials that were locally available.
- ✧ The extreme scarcity of hard metals in *Ndakinna*, such as iron, meant that most tools were made of stone, bone, or wood. This fact does not imply, however, that there is anything "primitive" about ancient Abenaki technology. The term "primitive" does not accurately describe the sophistication of these implements and only serves to perpetuate the untrue, yet commonly held views and negative stereotypes about American Indian cultures and their traditional technologies.
- ✧ Due to their inherent resistance to decomposition, the stone portions (ax blades, projectile points, hammerheads, bow-drill bits, etc) of tools and stone sculptures, shell beads, and fragments of ceramic pottery provide the bulk of the artifacts that archaeologists use to reconstruct ancient Abenaki technologies. Microscopic residues and traces of some natural materials, such as paints and foods, also yield valuable clues when uncovered at digs. The countless findings and data gathered over the years attest to a *constant evolution and refinement of technique* as well as an occasional *incorporation of foreign material, design, and aesthetics* into *Ndakinna's* material cultures.
- ✧ There was never only one "Abenaki way" for making anything, but there were several technical traditions built upon generations of accumulated wisdom. Personal creativity, as in all cultures, played a large role in how individual Abenaki people made the things they needed for daily life.
- ✧ Over the course of their long history, Abenaki societies innovated, adopted, absorbed, and adapted various technologies, both homegrown (such as snowshoes and birch bark boats) and foreign (such as corn originally from ancient Mexico), so that *centuries before European contact* they were already masters of many technical disciplines, including:

- ✿ **Farming** – intensive agriculture based mostly on corn, beans, squash, tobacco, medicinal herbs; using hoes, corn planters, mortars and pestles for food processing
- ✿ **Fishing** - both freshwater and marine; through use of boats, lines, hooks, spears, traps, tidal weirs
- ✿ **Forestry** - both for lumber and for fuel, selective use of fire for control of forest understory, extensive nut and berry harvesting/propagation, maple sugar production
- ✿ **Wildlife and Game Management** - linked to forestry & fire practices, archery, trapping, seasonal hunting camps
- ✿ **Pottery** - fire-cured ceramics, highly ornate pots, plates, containers
- ✿ **Medicine** - voluminous herbal pharmacopoeia, healing techniques and hygiene rituals
- ✿ **Musical Instruments** – flutes and other woodwinds, drums, rattles and other percussion
- ✿ **Cosmetics** - use of pigments, oils, animal fats for personal decorative purposes, sunscreens, bug repellents, world-renowned hairstyles, dress fashions
- ✿ **Sports and Games** – lacrosse sticks, “snow snakes,” stone spheres and balls, dice
- ✿ **Warfare** – weapons, shields, armor, palisade walls and other wooden fortifications

### ***Five Important Materials in Abenaki Culture Before European Contact***

Examples of the following materials should be acquired so that students can handle them up close. If you live in the Northeastern United States or Eastern Canada, they may be found in your surroundings.

#### ✿ **Stone**

Being the main material for so many tools, an intimate knowledge of stone types and potential applications was key for any Abenaki craftsperson. Luckily, the lands of *Ndakinna* yield a seemingly infinite supply of rock resources of incredible variety. Among the more useful minerals:

- ✿ **Granite** – dense and heavy, often used for hammerheads, ax blades, wood-carving gouges, fishing line sinkers, clubs, mortars and pestles
- ✿ **Quartz** – extremely common, used for projectile points, knife blades, drill bits, as well for soapstone carving tools
- ✿ **Iron Pyrite** – a.k.a. “fool’s gold,” this was the ubiquitous fire-starter
- ✿ **Flint** – the preferred stone for anything that needs to be sharp: it is easy to chip flint into the desired shape. Flint is relatively rare in *Ndakinna*
- ✿ **Chert** – almost as easy to chip and sharpen as flint, chert is a much more common rock in *Ndakinna* and therefore was the most widely used to make arrowheads and their spear-point predecessors, drill bits, and all manner of cutting blades
- ✿ **Slate** - still used for tiles and blackboards, slate has a tendency to break in flat sheets with sharp edges. Used to make mostly game pieces and jewelry pendants but also blades, projectile points, hide scrapers, and engraving tools
- ✿ **Soapstone** – a uniquely carvable stone, most Abenaki soapstone was imported from ancient quarries in Western Massachusetts. Usually rendered into cups, bowls, pots, kettles, plates, and other hollowed containers. Soapstone was also the material of choice for game balls.

Stone tools are difficult and often time-consuming to manufacture, and the brittle nature of most rocks makes them relatively fragile. It should be clear as to why the convenience, durability, and ease of use provided by steel tools, made available eventually through trade with people from European cultures, quickly made most stone tools obsolete in Abenaki culture,

### ✧ *Leathers and Furs*

The successful capture of a large animal like the *Nolka* (white-tailed deer) provided a hunter's family with food, bones and possibly antlers for tool-making, sinew for making twine and sewing threads, and an incredibly useful skin. All animal hides require a considerable amount of processing if they are to be used to make clothing, footwear, bedding, and rugs. The climate of *Ndakinna* makes using skins in homebuilding unfavorable as the constant summer moisture causes the rapid decomposition of leathers exposed to the weather. It is important to note that different animals' hides have greatly contrasting qualities: each has its strengths and weaknesses for specific applications. For example: the hide of the *Owassos* (black bear) is surprisingly thin and would make a short-lived shoe sole when compared to the quarter-inch thick skin of a healthy *Moze* ("moose" in its original Abenaki pronunciation).

Here are some of the general procedures involved in the processing of hides according to Abenaki tradition:

- ✧ **Cleaning and Scraping** – using a specialized sharp-edged tool, hides must be scraped to remove subcutaneous fat, blood, guts, etc.
- ✧ **Brain Curing** – one of the members of the **W'abanaki Dancers, Marge Bruchac**, recently joked that according to Abenaki people, "every animal should be smart enough to cure its own hide." This joke refers to the use of the animal's brain in the processing of its leather. One deer brain should be enough for one deer hide, likewise one squirrel brain is enough for one squirrel hide. The brain is a source of enzymes that cure and preserve the hide. Brain matter would be chopped up and mixed with water in a large pot. This enzyme solution was then liberally applied onto the hide and allowed to soak in and react with the skin to act as a preservative.
- ✧ **Tanning** – Once cured, a skin would be stretched on a wooden frame for drying and tanning. The sun or smoke were used, depending on the desired results, and each had different effects: sun will lighten leather but can also make it brittle and stiff, smoke will invariably darken the leather but it will also make it very supple.
- ✧ **Hair Removal** – If the leather was to be used to make summer clothing, bags, rawhide lacing, or anything else in which the fur is undesirable, then a further step was required. Instead of wasting time trying to shave a hairy moose hide, Abenaki leather workers prepared a caustic depilatory solution made from wood ashes and water. A hide could be soaked in this solution and the alkaline lye from the ashes would eventually cause the hair to flake off with minimal effort.

After the processing steps listed above, a hide could obviously be used to make any number of items including: shirts, leggings, skirts, dresses, shoes, hats, winter coats, mittens, blankets, bedcovers, bags, purses, rugs, rawhide lacing, etc.

### ✧ *Porcupine Quills*

The notoriously sharp and barbed protective hairs of the porcupine (*Erethizon dorsatum*) provide what is perhaps the most intriguing material in traditional Abenaki decorative arts. Each porcupine is covered with approximately 64,000 quills, so attaining them is a simple matter of catching this slow-moving rodent. Each quill is actually a hollow tube that resembles modern plastics when examined closely.

In order to be made useful for the embellishment of clothing, quills have to be extensively processed. This generally involves soaking or boiling them in water until they are made soft and pliable. The quills are then flattened with stones, or even between the craftsperson's front teeth, after which they resemble flat, stiff ribbons. They actually end up looking just like tiny versions of a drinking straw that's been chewed on for a while (children will readily understand this analogy). Given that they are mostly white in color, quills were almost always dyed in a great variety of colors using plant-based pigments. The quills from the back of a porcupine can be 5 inches long and thick, making them more suitable for large, coarse work. The shorter, thinner quills from the head and neck are preferable for fine, detailed quillwork.

Once ready, the quills can be used to decorate clothing and other fabrics in manner visually similar to embroidery or beadwork. The processed and dyed quills are wrapped or braided around a framework of sinew previously stitched onto the garment.

The shiploads of ready-to-use, permanently colored, and inexpensive glass beads that European merchants brought to *Ndakinna* meant that many Abenaki artisans had a new medium for decorative arts in addition to the porcupine quills and moose hairs used in traditional embroidery. In the Northeastern United States, glass beads did not necessarily replace quillworking, as occurred in other regions of America. The adoption of glass beads also allowed for a region-wide explosion of stylistic innovation afforded by the enormous variety of colors and sizes. Relatively few artisans practice it now but there are many expert quillworkers in the Micmac Nation of Nova Scotia and New Brunswick that are today world-famous for their beautiful wares.

### ✧ *Birch Bark*

The omnipresent and fast-growing White Birch tree (*Betula papyrifera*, a.k.a. Paper Birch or Canoe Birch) is the source of perhaps the single most useful material in traditional Abenaki technologies. Removing birch bark without damaging the material, or the living tree, requires considerable skill and patience. If done right, the peeling process will not kill the tree, but the regenerated bark will not be suitable in the future. Often, large trees were felled to make bark removal easier. Prized for its waterproof qualities, Birch Bark's impermeability is due to the distinctive orange-brown cambium layer that coats the inside of a successfully harvested bark sheet. This cambium layer also affords creative opportunities as it can be easily scraped off when wet, in an art form known as *scrafito*, revealing a lighter layer of bark beneath. As the cambium layer ages, it takes on a deep brown color, and scrafito designs remain permanently visible. Abenakis classify birch bark into two general categories:

- ✧ **Summer Bark** – this term applies to the thinner type of birch bark, harvested during the growing season, that resembles the commonly seen paper-like sheets that often peel themselves off of the tree trunk and are easily found littering the forest floor. Much like paper, Summer Bark can be used for decorative purposes, like drawing, or even basketmaking, but it is not used in construction.

- ✿ **Winter Bark** – this is the name for the half-inch thick, waterproof sheets of bark that can be carefully peeled off of birch trees in winter or early spring. The orange inner layer is typically placed on the outside of the container, house, or boat and the outermost white layer (now on the inside) is often scraped off.

Winter Bark was usually used in conjunction with the peeled and split roots of the swamp-dwelling Black Spruce tree (*Picea nigra*), used for lashings and lacings, and the lightweight wood of Northern White Cedar (*Thuja occidentalis*) for structural framing and reinforcement.

This versatile and rot-resistant trio – Winter Bark, spruce root lashes, and cedar lumber – were the primary materials for three critical Abenaki technologies:

- ✿ **Boatbuilding**

With a sturdy skeleton of white cedar fitted together with mortise, tenon, and dowel joinery, Abenaki canoes had a tough hull made of often seamless Winter Bark lashed to the frame with spruce root laces. Their form was usually identical to that of modern, commercially available canoes, although they varied greatly in length and passenger occupancy. A waterproof putty, made from spruce pitch, charcoal, and animal fat, was used to seal awl-punched lace holes as well as any other potential leaks or damage incurred by the hull. This lightweight construction made birch bark boats ideal for long journeys along *Ndakinna*'s liquid highways since our rivers have many rapids, falls, and other dangerous obstacles that require many long hauls on land. This boat design was a major improvement over the more ancient, and incredibly heavy, pine dugout canoes.

- ✿ **Homebuilding**

The traditional Abenaki home, the *Wigwam*, was typically constructed with a frame of flexible cedar poles covered with a thick sheathing of overlapping layers of Winter Bark, placed orange side out, much like giant shingles. Lashed together with spruce root, these homes were built to last many years, and were relatively easy to maintain given the intrinsic rot-resistant qualities of the materials. *Wigwams* were made in any shape and size, but were usually either round domes or long rectangular structures. Winter lodges usually had chimney holes cut into their roofs allowing for heating and indoor cooking. In addition to permanent structures, Abenakis traveling on long journeys would use sheets of Winter Bark, spruce root and wooden poles to construct lightweight portable housing, similar in appearance to Plains Indian *tipis*, and functionally much like modern camping tents.

- ✿ **Sap Buckets and other containers**

The harvesting of maple sap was traditionally done with watertight birch bark containers, which sometimes resemble miniature boats. Other kinds of containers, buckets, and baskets of various functions were made commonly from Summer Bark.

- ✿ **Black Ash**

The Abenaki tradition of Black Ash (*Fraxinus nigra* a.k.a. Brown Ash, Swamp Ash) splint basketry is vibrant thanks to the prolific work of contemporary Abenaki basketmakers such as **Jesse Larocque**, **Newt Washburn**, and **Jeanne Brink**. The unique properties of this tree's annual growth rings make it ideal for use as a basket splint material. The following steps, as demonstrated by Jesse Larocque, are typically used to prepare Black Ash for basketmaking.

Layer by layer, these methods will efficiently turn one log into enough material to make more than 1,000 baskets!

#### ✿ **Pounding the Log**

In order to separate the annual growth rings, every square inch of a freshly cut (or water-soaked) ash log must be carefully and systematically pounded with a smooth-faced hammer. This will cause the annual growth layers to separate. This pounding must be repeated every time two or three layers of splints have been removed.

#### ✿ **Removing the Splints**

After thorough pounding, one or two four-inch wide splints can be removed at a time. It is critically important these splints remain straight and uniform in width as they are peeled from the log. With great care, it is possible to yield nearly all of a healthy tree's growth layers, from the delicate white sapwood on the outside down to the three-inch core of heartwood. These long splints are quite substantial and are too thick for most uses.

#### ✿ **Splitting the Splints for Thickness**

In order to achieve the desired thickness, the rough splints must be split into separate, thinner layers. This splitting can be done by hand without any tools. With skill, the splitting process usually results in a smooth and iridescent finish on the inner sides of the resultant splints that require no further processing. The rougher side is usually smoothed, and occasional splinters are removed, with a sharp knife.

#### ✿ **Cutting the Splints for Width**

Once split, these thinner plies are sliced along their lengths to achieve the desired splint width. In order to weave a basket, it is crucial that all the splints are of uniform width. Many basketmakers have innovated various homemade tools (made mostly from wood, razor blades, and screws) to quickly cut splints to a great variety of widths. Splints can be cut as narrow as a mere 1/32<sup>nd</sup> of an inch wide and still remain impressively strong.

#### ✿ **Weaving the Basket**

Ash splints can be woven into a basket of any shape and size, from sturdy backpacks to tiny jewelry baskets. The rare bright white sapwood splints can be used to create weaving patterns that contrast with the darker brown of most of the other splints. Many of the decorative elements of Abenaki baskets, such as the use of ornamental loops on the outer surface of fancy baskets and the interweaving of delicious-smelling Sweetgrass (*Hierochloe odorata*), hail back to very old stylistic traditions. The baskets of the late **Sarah Somers** (1823-1931), one of which was displayed in *Pathways*, as well as the work of contemporary Abenaki basketmakers, often incorporate these traditional embellishments.

#### ***Vermont Standards Applied***

- 4.3 - Cultural Expression
- 4.5 - Continuity & Change
- 4.6 - Understanding Place
- 6.13 - Concepts of Culture

**Books:*****The New England Indians, Second Edition***

by **C. Keith Wilbur** (Globe Pequot Press, 1978,1996)

This is the best way to see excellent illustrations of just about everything mentioned in this guide. Make sure to see the stone tool charts and the birch bark canoe-making process. Many of the things illustrated actually exist in museums around the world.

***The Western Abenakis of Vermont, 1600 – 1800***

by **Colin G. Calloway** (University of Oklahoma – Norman, 1990)

This book is the definitive synthesis of all written historical accounts of Abenakis, with an emphasis on the Vermont region, during the tumultuous centuries following European contact.

***1491: New Revelations of the Americas before Columbus***

by **Charles C. Mann** (Knopf, 2005)

This book pieces the latest archaeological findings and the historical record to present a “big picture” view of the many nations of the Americas.

***The Abenaki***

by **Colin G. Calloway** (Chelsea House, 1989)

This book is mainly directed to a young audience, and it focuses more on Eastern Abenaki people. It has many illuminating photographs of Penobscot Abenaki life during the early 20<sup>th</sup> century.

***Aunt Sarah: Woman of the Dawnland***

by **Trudy Ann Parker** (Dawnland Publications, 1994)

Written by one of her descendants, this book combines family history and local records to construct a narrative of the long life of Sarah Somers, an Abenaki basketmaker from Lunenburg, VT.

***Web sites***

<http://www.abenakination.org>

This is the web site maintained by the St. Francis – Sokoki Band of Abenakis. Be sure to check out the pictures from the Abenaki Museum in Swanton, VT.

<http://www.museedesabenakis.ca/>

This is the newly renovated Abenaki Museum in Odanak, Québec. It has an amazing collection of modern art made by Abenakis, as well as some illuminating historical exhibits.

<http://www.cowasuck.org>

This incredibly informative web site is maintained by the Cowasuck – Pennacook Band of Abenakis. Check out their Abenaki language lessons pages. Their newsletter, *Aln8bak News*, will keep you informed of upcoming events.

<http://www.ndakinna.com>

This is the link for the Ndakinna Education Center, a non-profit educational organization run by James of the famous Bruchac Family. This is a great place to learn about some amazing characters in Abenaki folklore.

<http://www.abenakis.ca>

This is the homepage for Waban-aki Nation Grand Council in Québec.

Fairbanks Museum & Planetarium  
1302 Main Street • St. Johnsbury VT • 05819  
(802) 748-2372 • [www.fairbanksmuseum.org](http://www.fairbanksmuseum.org)

<http://www.abenakibaskets.com>

This is Jesse Larocque's commercial website. He was an invaluable source in the preparation of the black ash basket making section of this guide, and his website offers photos of his techniques and his baskets.