N'tolonapemk

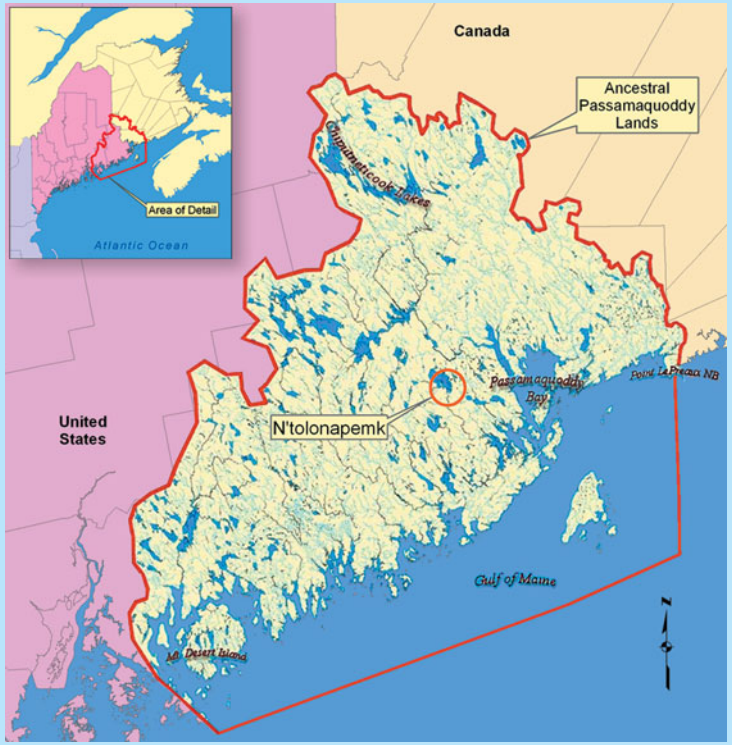
An Ancient Native American Village on Meddybemps Lake, Maine

263100

N'tolonapemk – "Our Ancestors Place"

Native Americans have lived and camped on the shore of Meddybemps Lake at its outlet on the Dennys River for over 8600 years. The Passamaquoddy people named this site N'tolonapemk, which in Passamaquoddy means, "Our Ancestors Place". It is centrally located within ancestral Passamaquoddy territory in Washington County, Maine and affords easy travel to the ocean, the St. Croix River, the lakes and waterways of interior Maine and New Brunswick, and to the abundant and varied resources these settings provide.

N'tolonapemk has always been known to the Passamaquoddy people, and stories of this important place live on today in their oral history and traditional stories. Archaeologists have known about the site since the 1960s, but it is only recently that the historic and scientific importance of the site has become more widely recognized through archaeological research.



This is the story of N'tolonapemk, as seen through archaeology and the stories and knowledge of the Passamaquoddy people. The scientific methods used by archaeologists and traditional Passamaquoddy stories complement one another and create a more complete picture of this important place. When you see this traditional design of the Passamaquoddy people, you are reading an excerpt from a traditional Passamaquoddy story or a contemporary Passamaquoddy viewpoint.

A Strategic Setting in a Rich Environment

The location of N'tolonapemk is notable for its strategic setting near the outlet of Meddybemps Lake at the mouth of the Dennys River. The nearby Meddybemps Heath, Staples Fen and other numerous wetlands and forests provided a wealth of animal and plant resources for the Native Americans living at the site. The site is also situated at an important travel nexus connecting coastal regions in Passamaquoddy Bay to interior regions via the St. Croix River waterway.

A fire was blazing in the center of the wigwam, the children looked at each other with anticipation; it was their favorite time during the long cold winter evenings. Sopiel Selmore came into the wigwam, he has long been the Keeper of the History, a position that comes with duties of retaining and telling the stories of the Passamaquoddy people. The children huddled close to the fire and leaned towards Sopiel. "Children, I am going to tell you a story that was told to me by a very old man when I was a young boy. It has to do with creation, it has to do with the land and the water, which is so important to us because that is what makes us who we are." Sopiel put an extra wood in the fire and started to tell the story of the giant ice age and how summer slowly pushed the grasps of winter further away from the land of the Passamoquoddy, exposing the landscape around Meddybemps Lake and the village of N'tolonapemk.

Why Do Archaeology at N'tolonapemk?

N'tolonapemk has a long Native American history, and an interesting Euroamerican history including 250 years of industry, commerce, farming and settlement. Unfortunately, the most recent history of the site was its use by the Eastern Surplus Company, a salvage yard specializing in military surplus. In its 50 years of operation from the 1940s to the 1990s, hazardous and highly toxic waste stored there caused the site to be seriously contaminated. The problem was so extreme that in 1996 the site was declared a Superfund Site, and a federally funded cleanup effort was undertaken by the United States Environmental Protection Agency - an effort that is ongoing today. The clean-up involved removal of contaminated soil, drilling wells, constructing buildings and other ground disturbing activities that jeopardized the archaeological evidence preserved beneath the salvage yard. A law protecting cultural resources called the National Historic Preservation Act (1966) required that the unavoidable adverse effects of the cleanup operation would be mitigated through archaeological investigations of a non-hazardous portion of the site. The University of Maine at Farmington Archaeology Research Center, in collaboration with the Passamaquoddy Tribe, conducted data recovery excavations at the site in 2000 and 2001. Over 220 square meters were excavated, one of the largest archaeological excavations to be conducted in Maine to date.

The National Historic Preservation Act of 1966 and other laws are in place to ensure that undertakings of the federal government do not cause the destruction and loss of significant cultural resources, including archaeological sites. These undertakings include such things as highway projects, airport expansions and even environmental cleanup work like the EPA's effort at N'tolonapemk. If an undertaking is going to jeopardize an important archaeological site, archaeologists may be hired to study and assess the situation. In this process, progress and development can continue while preserving the past and our cultural heritage.

What is Archaeology and How Does it Work?

The long-term repeated use of N'tolonapemk by Native Americans left behind a complicated and confusing set of clues about the past. Careful archaeological recovery techniques and methodologies were utilized to learn about the site. Archaeological deposits were carefully excavated by hand using trowels and shovels, and the sediment was passed through screens to make sure all the artifacts were recovered.

The location of the cultural material was precisely recorded through the use of a horizontal metric grid system, like a checkerboard, with all remains assigned to specific, numbered, squares. The depth of all artifacts and associated materials was also recorded using a vertical elevation system, essentially a vertical grid. Each layer, like the horizontal grid squares, is numbered thereby allowing archaeologists to keep track of where materials were found.

One of the goals of archaeology is to interpret a site that has been excavated, so careful recording and mapping techniques, as well as photography are very important.

Native American History

An Archaeological Perspective

"The unique story of the Passamaquoddy People can be traced back to the retreat of the giant glacier over 12,000 years ago, but oral history talks about a longer period of time residing in this area we call 'Skitkomiq Kikuwosson': Our Mother Earth."

-Donald Soctomah

Archaeologists develop histories of human occupation specific to different geographic regions, called "chronologies", in an effort to understand the progression of change among groups of people over time. Chronologies are based on the type of information available to archaeologists, namely recovered artifacts, features, and radiocarbon dates. The context of these remains is important, including the relationship of objects and features to each other. Is one object above, below or adjacent to another? Each of these scenarios leads to a different interpretation-if an object is below another it is often older, if above it is usually younger and if adjacent it may be the same age. Chronologies are constantly being refined and sometimes even changed as new information is learned.

In Northern New England, archaeologists divide the chronology of Native American history into specific periods, reflecting major shifts in peoples' way of life. This chronology is applicable to N'tolonapemk and helped archaeologists learn about how the site was used by people in the past, but what was learned at N'tolonapemk will also help archaeologists understand other archaeology sites as well. Evidence collected from the site suggests that N'tolonapemk was occupied as early as 8,600 years ago, during the Early Archaic Period.

A Time Line of American History

Written history goes back in time only so far, so we rely on traditional Native American stories and archaeology to explore pre-European times.

Archaeologists divide Native American history into periods, reflecting important changes in the way people lived.

The Paleoindian Period (9000-7000 B.C.)

People moved into Northeastern North America and Maine about 11,500 years ago after the Laurentide ice sheet receded at the end of the last ice age. They lived in a tundra-like environment, much colder and drier than today. Small groups traveled extensively in pursuit of caribou and other animals. Specific types of stone were used to make beautifully crafted "fluted" spear points. The Paleoindian tool kit included spear points, drills and scraping tools, and undoubtedly included other items as well, but items made of stone survive best in the soils of Maine.

The Archaic Period (7000-1000 B.C.)

The change in environment to a dense forest and more temperate conditions similar to today marks the Archaic Period. Native Americans learned to use the different stones, plants and animals that were available for food, clothing and shelter. Specialized tools for the forest such as axes, adzes and gouges were made and were prized items. The dugout canoe, hewn from a single, large tree, was developed for river and lake fishing and travel. Native Americans utilized the abundant resources locally available to them, including moose, deer, beaver, otter, muskrat, birds, fish, reptiles and a wide variety of plants and nuts. Sophisticated burial ceremony during this time reflects a rich religious life.

The Ceramic Period (1000 B.C.-A.D. 1550)

In the Ceramic Period, Native Americans began making and using ceramic pots, along with the birch bark and wooden containers that were already in use. The bow and arrow were developed, and birch bark canoes largely replaced the dugout. A greater diversity of plants was used. Waterways provided food and other resources, travel routes, and settlement locations. People settled in large villages along major rivers during the latter part of the Ceramic Period. In western Maine and elsewhere to the southwest, they began cultivating corn, beans and squash, supplementing the traditional diet of wild animals and plants.

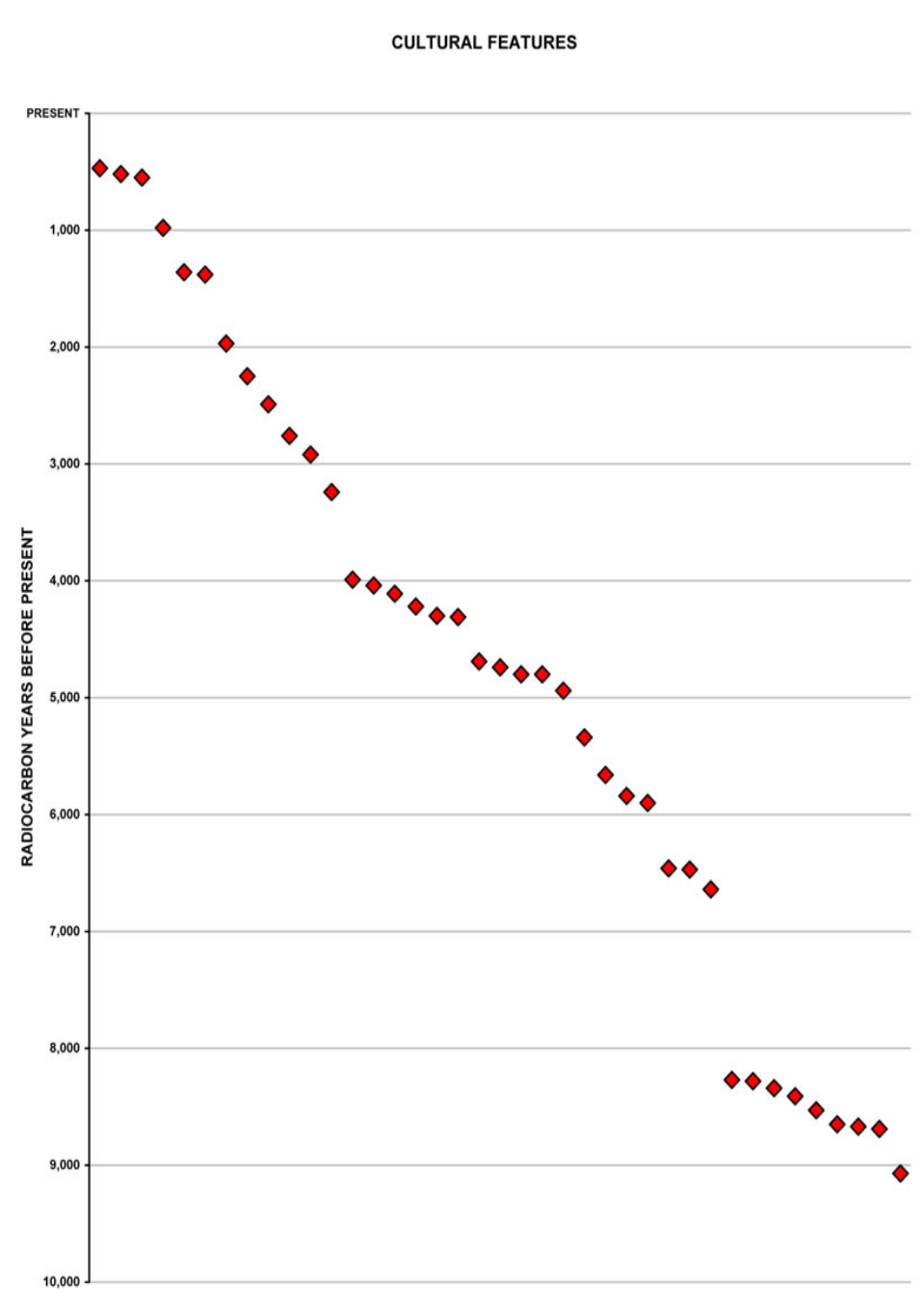
The Contact Period (A.D. 1550-1750)

By the early 1600s the lives of Native Americans were dramatically altered with the arrival of Europeans. Interactions between Europeans and Native Americans resulted in changes in indigenous economies, technologies, settlement patterns, demographics and religion. Native peoples traded beaver pelts for many European items including iron tools, copper kettles and glass beads. One of the most tragic results was a high death toll due to smallpox and other European-introduced diseases, for which Native Americans had no immunity. In many ways Europeans learned from Native Americans how to live and survive in their new world.

Determining the Age of the Site

The age of N'tolonapemk was determined through studying the styles of specific artifact types. Like clothes and cars today, the styles of artifacts changed in notable ways-one spear point is not just like another. Just as someone can tell that a vintage automobile is older than a modern one, archaeologists can tell the age of certain artifacts. Archaeologists also use a scientific method of determining the age of organic material, called radiocarbon dating. Everything living, plant or animal, absorbs carbon throughout its life, and when it dies the carbon decays in a predictable way. By measuring the amount of carbon left, for example, in a fragment of charcoal, the age when the charcoal was a living organism can be determined. If the archaeologists are confident about the "context", or relationship of radiocarbon-dated charcoal with surrounding objects, they can safely assume that the age of the artifacts matches that of the charcoal.

Archaeologists mapping cultural features.



Radiocarbon dates from features at N'tolonapemk.

It was a dream of Mincel's to learn the magical power that his Grandfather Sopiel had and to help the community with it so he too could be looked up to in the village. Sopiel was a famous medouline and traveled to visit other medoulines across the region. His powers were well known. Another thing Sopiel was noted for was his knowledge in the use of plants. He had many different plants hanging in a corner of the wigwam. Besides smelling good, the plants were used to honor the spirits and cure the sick. Most of his plants came from the area around Meddybemps Lake and down the Dennys River; but special trips were taken far away to gather some of the rare plants. Mincel went on many trips with his Grandfather to collect plants around the lake and as they moved to new village sites.

He asked his Grandmother Mali about the plants, since she was the one who prepared them for different uses. She said that only certain people are endowed by nature with the qualities that enable them to diagnose and treat disease with plants. One way to prepare the plants for use was to boil them in dishes of birch bark placed on hot ashes or stones heated by fire beneath or heated stones were dropped into the liquid.

We went outside and she pointed to the trees "there is hemlock, cedar, poplar, fir, ash, black cherry, alder and elm". I can use them for all the medicine I need.

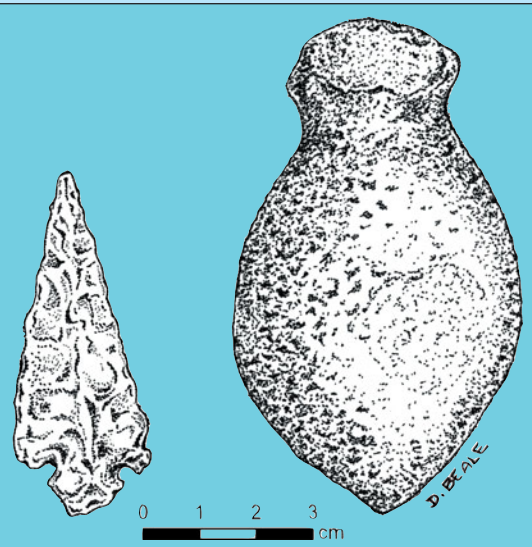
What Was Found

A wide range of cultural remains was left behind by the people who lived and camped at N'tolonapemk.

Stone Tools: Several thousand stone tools representing a diversity of types and ages were found at the site. Archaeologists recovered a total of 1,545 flaked stone tools and 565 ground stone tools. These included both complete and fragmentary examples of spear and arrow heads, scrapers, wood working gouges, abrading stones and net sinkers.

Stone Flakes: Flakes are the byproduct of making flaked stone tools and some were even used as expedient cutting tools. Over 37,600 flakes were found at the site. Flakes can tell us about how stone tools were made and the origin of the raw materials.

Pottery: Nearly 6,000 pottery sherds were recovered representing at least 162 individual vessels and fragments of five smoking pipes.

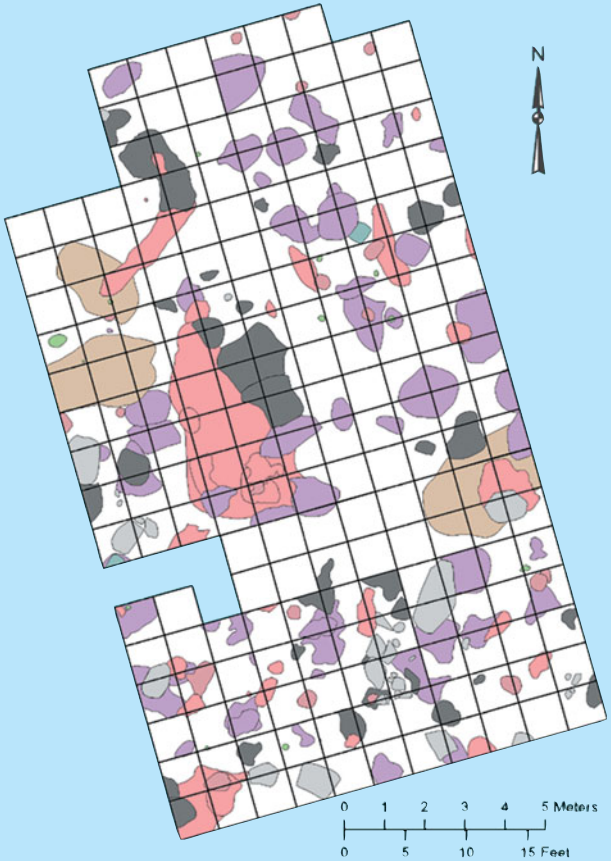


Flaked Stone Tool
Projectile Point

Ground Stone Tool
Net Weight

Ground Stone and Flaked Stone Tools

Native Americans used two different but complementary types of stone tools, each made by a specific method of manufacture. Flaked stone tools include such things as spear points, arrowheads, drills and small scraping tools. These were made from very selective materials that have in common glass-like characteristics that enable the stone to be fractured in predictable ways. Materials such as chert and quartz were used, and people traded and traveled long distances to obtain these important materials. Hammer stones and deer or moose antler billets were used to strike the material and shape it into the final form. This process resulted in many chips or flakes as byproducts, which are often the most frequent artifact types found at a site. Ground stone tools include such things as axes, gouges, and celts. They are made from more commonly found materials and are manufactured through a process of rough shaping through chipping, pecking and grinding.



Map of the excavation block at N'tolonapemk showing cultural features. Colors represent different feature types.

Archaeologist pointing at a cross-section of a feature.

Features: Anomalies discovered in the ground are called "features" by archaeologists. These alterations to the natural soil may represent a place where a campfire was made or a place where someone dug a hole in the ground. A range of feature types were identified at the site such as hearths, house pits, storage and refuse pits. These features help us understand the kinds of activities people engaged in and, together with the material in them, are like time capsules that inform us about the past. Over 200 cultural features were identified at N'tolonapemk.

Animal Bone: Over 20,000 fragmentary animal bones were recovered from the site. Most of these are very small, smaller than a thumbnail, and they have been preserved all these years because they are burned, or as archaeologists call them, "calcined". Calcined bone was recovered from many of the features which helps us reconstruct what kinds of animals were used for food and other purposes. A specialist called a zooarchaeologist analyzes the bones and attempts to identify what animal species they represent. The calcined bones were recovered from the sediment found in the features through a process called "flotation".

Plant Remains: Like animal bones, plant remains can also survive if they have been burned. Large amounts of charred plant remains were recovered through the technique of flotation. Select samples were sent to an archaeobotanist, a specialist who can identify and associate very small, burned plant remains to individual species. This analysis tells us what types of trees grew around the site, what kinds of wood were selected for firewood and what types of plants were chosen for food, medicines and other purposes.

Flotation: a laboratory process by which charcoal and other light fragile material is separated from sediment. Essentially, soaking sediment in water and separating what floats from what sinks.

Linking Artifacts and Features with the People and Activities of the Past

Making the leap from the interpretation of artifacts and features to human behavior is the ultimate goal of the archaeologist. It's a difficult task, because only a small part of everyday life survives in the archaeological record. In this part of the world, many things deteriorate including cloth, hide, wood and bone. However, wood and even bone can survive for longer periods if it is partially burned, or preserved in some other way. Only some material aspects of culture survive. Songs, stories, language, music, and other non-material aspects of life are generally unavailable to the archaeologist.

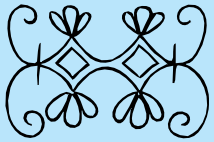
Why do archaeologists go to such lengths to carefully keep track of where artifacts and features come from? Where an artifact was found, and what it was found with, can tell us much more about the past than an artifact with no known provenience or locational information.

Feature 127 with stone ulu dated to 5840 years ago.

The Importance of Context and Association

On its own, a projectile point made of stone from Labrador, for example, is an interesting object but has little to offer archaeologists. But if it is known that the stone tool was found in Maine it can tell archaeologists something about how people traveled and traded in the past. If found "in place" with dateable charcoal and other artifacts, it can indicate much more about how and when people used it. If the artifact was found deeper in the ground than another object, the conclusion may be that it is older. Archaeologists call this "context and association" and strive through careful methods to record and understand the context of all cultural material.

He listened as Grandmother sang an old song about the sacred drum, which was the means of communicating with the Great Spirit.

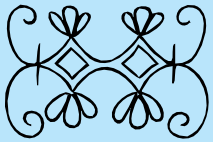


"I sit down and beat the drum, and by the sound of the drum, I call the animals from the mountains. Even the great storms answer to the sound of my drum.

I sit and beat the drum, and the storm and thunder answer to the sound of my drum. The great whirlwind ceases its raging to listen to the sound of my drum.

I sit down and beat the drum, and the spirit-under-the-water comes to the surface and listens to the sound of my drum, and the wood-spirit will cease chopping and answer to the sound of my drum.

I sit down and beat the drum and the great Abbodumken sea serpent will come out of the deep and answer to the sound of my drum. The lightning, thunder, storms, gales, forest-spirit, whirlwind, water-spirit, and the spirit-of-the-night-air are gathered together and are listening to the sound of my drum."



Early Archaic Period

Native Americans first camped at N'tolonapemk sometime around 8,600 years ago. By the time of these occupations, Meddybemps Lake had formed with a shoreline near its modern location, and the Dennys River had cut a channel immediately south of the site to become the outlet of the lake. Importantly, a spring spawning-run of alewife, a type of fish, had been established. The site faced east toward the lake and was surrounded by a forest of mixed hardwoods and pine, spruce and fir trees.

The earliest occupants at N'tolonapemk started a pattern of subsistence strategies utilized by all the people that were to follow. This included a seasonal emphasis exploiting the alewife spawning run, fishing for perch, sucker and eels, hunting of large mammals and the hunting or trapping of beaver, muskrat, woodchuck, as well as various birds and turtles. They also collected a variety of plants as evidenced by charred nutshells, seeds and other recovered plant fragments.

Inhabitants of N'tolonapemk during the Early Archaic Period made a wide variety of stone tools dominated by quartz cores and thick quartz uniface scrapers as was typical among other Native American communities in New England at that time. Sandstone abrading stones, choppers, and hammerstones were common. Less common, but still significant, were stone rods, gouges and other ground stone tools. The presence of unfinished ground stone tools and hammerstones indicates that they were made at the site. The fully channeled gouges suggest that people were using these tools for heavy woodworking tasks, perhaps making dugout canoes, wooden boxes/containers and other wooden objects. People during the Early Archaic Period favored quartz and other local stone for their tool making. Flaked stone spear points appear to have had a very limited place in their tool kit, which raises the possibility that bone spear points may have been more commonly used.

The quantity of food remains imply that food preparation and food preservation were important activities. People were not just collecting food for the day, but were planning ahead for upcoming months. The presence of features identified as storage/refuse pits suggest that some kind of food storage took place.

If we just consider stone artifacts, there is little evidence of trade or exchange between the Early Archaic Period inhabitants of N'tolonapemk and people from other areas. However, the pattern recognized here is not based on all the material goods that may have been traded, such as perishable items like feathers, food and wooden objects. Even though stones may not have been traded, we know that ideas were passed and shared between peoples from afar.

What is known from the archaeological record at N'tolonapemk suggests that during the Early Archaic Period there were a series of small occupations by no more than a few families at a time, which occurred over a span of about 400 years. During each of these occupations people resided at the site, at least intermittently, from the spring alewife run until the fall. It is unknown whether any of these occupations lasted through the winter.

The identification of house pits at N'tolonapemk is unique in Maine and these houses, although certainly utilized during the spring, summer and fall, could also have been occupied in the winter. These circular houses were dug into the ground and covered with bark or hide. Beginning in the Early Archaic Period, N'tolonapemk functioned as a base camp from which a broad spectrum of plant and animal resources were procured from the surrounding forests, wetlands and from Meddybemps Lake and the Dennys River.

A Glossary of Archaeological Terms

Subsistence Strategies: the way in which people procure their food and other materials needed to sustain life.

Flint Knapping: the stoneworking process of making spear points and arrowheads and all other flaked stone tools.

Unifaces and Bifaces: stone objects whose edges are modified on both sides are bifaces and those with edge modification on only one side are unifaces.

Projectile Point: a term used for both spear points and arrowheads. Projectile points are worked on both sides - bifaces.

Core: a chunk of stone from which flakes are struck.

Flake: the waste or byproduct of stone tool manufacture. These are naturally sharp and were often used as “pick up” or disposable cutting tools.

Scraper: a large flake with one edge regularized and steepened through additional flaking to make a strong edge used for cutting and scraping hides and other materials. Usually these tools are unifaces.

Chopper: a large, often crudely made tool with limited modification and used for rough cutting and shaping of a variety of materials.

Hammerstone: a round hand-held stone, usually small cobbles showing damage from use. These were used to make stone tools.

Gouge: a ground stone tool used for heavy woodworking. These often have intentionally formed channels or grooves.

Stone Rod: an abrading tool used to form and sharpen gouges and other ground stone tools.

Reconstructing Past Environments

The environment changed over time and some of these changes have direct bearing on the history and archaeological interpretation of N'tolonapemk. Plant remains from sediment cores taken at select locations around the lake tell us the sequence of environmental changes, including fluctuating lake levels. This analysis is called paleoenvironmental reconstruction.

Before the site was occupied, the lake originally drained northward at Stony Brook. Sometime around 8,600 years ago the outlet switched to Dennys River at the southern end of the Lake. The Dennys River reaches the ocean about 25 miles downstream. With the shift in direction of the lake outlet, the site area became a prime location for human habitation. The various fish runs and the travel route to the coast made N'tolonapemk a very attractive setting.

Geologists recording and preparing a lake sediment core for transport to the laboratory for detailed analysis.

Geologists taking a lake sediment core from the bottom of Meddybemps Lake.

Paleoenvironmental reconstruction also tells us that for a period of time the lake levels became quite low and Meddybemps may have even been a stagnant pond with no outlet. This corresponds with the archaeological evidence that N'tolonapemk appears to have been largely abandoned during the period of very low lake levels. Lake levels once again rose and the Dennys River became active along with the fish runs. The Dennys River continues to be the outlet of the Lake today.

Middle Archaic Period

People rarely visited N'tolonapemk during much of the Middle Archaic Period (ca. 7,400 to 6,000 years ago) based on available information. This occupational hiatus was during a change in climate when the level of Meddybemps Lake was lower, causing the shoreline to retreat north and east of the site. Meddybemps Lake may have become a stagnant pond without an outlet, causing the Dennys River alewife spawning runs to fail. Likewise, the wetlands of Meddybemps Heath and Staples Fen may have dried out, contributing to a less productive environment.

Native Americans during the Middle Archaic Period may have moved their habitation area nearer to the retreating lakeshore. Two Middle Archaic Period cultural features were identified and produced very similar radiocarbon dates (6,460 and 6,470 years ago). It is therefore possible that the Middle Archaic Period component at N'tolonapemk represents one or a very few episodes of habitation.

The small assemblage of flaked and ground stone tools recovered from Middle Archaic Period features is similar to that recovered from Early Archaic Period features with one interesting exception. A new tool form - a hafted ulu - was recovered. Ulus are cutting tools traditionally used in the Arctic for butchering large mammals and splitting fish. Several spear points recovered from undated portions of the site resemble those found in other parts of the Northeast dated to this time period. Rhyolites were commonly used for stone tool making. Flint Island rhyolite was available along the coast at Flint and Shipstern islands in Narraguagus Bay, centrally located between Penobscot and Passamaquoddy Bays.

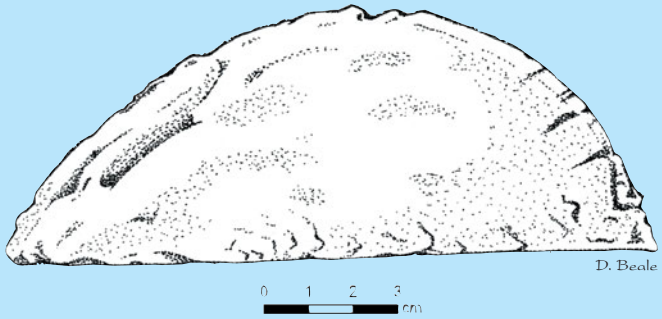
The range of animal species utilized by the Middle Archaic Period occupants of N'tolonapemk is also similar to that of preceding times. Once again the presence of spring spawning alewife signals a spring occupation while nuts (acorn and hazelnut) indicate a fall occupation.

This occupation (or occupations) was similar in location, season of use, subsistence strategies and technologies to those of the Early Archaic Period.

Late Archaic Period

During the Late Archaic Period (ca. 6,000 years ago to 3,000 years ago), people stayed at N'tolonapemk more frequently and expanded their settlement along the mouth of the Dennys River. This expansion into previously uninhabited areas of the site suggests that the number of people and frequency of visits were increasing. Radiocarbon dates ranging from 5,900 to 3,990 years ago were obtained from eleven Late Archaic Period cultural features.

Spear points of several varieties are prominent in the Late Archaic Period flaked tool assemblage while quartz core/uniface scrapers decreased and apparently eventually ceased to be made. Cultural features of the earliest portion of the Late Archaic Period, about 5,900 to 4,800 years ago, contained many stone tools similar to those of preceding periods, with the addition of short-channeled gouges, net sinkers and thick, spear points with serrated margins. Between 4,700 to 3,900 years ago, people at the site began to produce distinctive small stemmed spear points while fully channeled gouges ceased to be used. Flattened, perforated stone rods also appeared during this period. Quartz and rhyolite, particularly Flint Island rhyolite, was prominent among the Late Archaic Period tool kit.



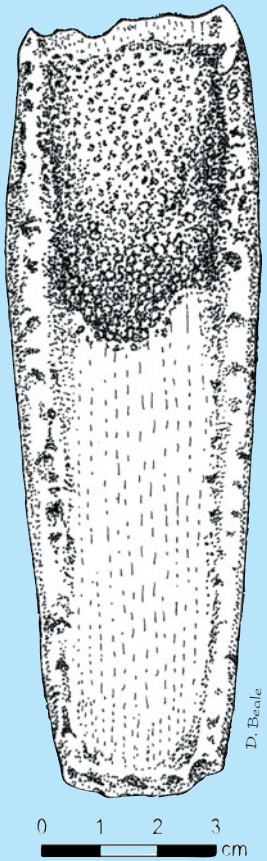
Ulu, or "women's knife" dated to 5,840 years ago. The straight portion was held in the hand and the curved portion was the beveled cutting edge.

In addition to stone tool production, people during the Late Archaic Period were engaged in a number of activities at the site including woodworking and the likely manufacture of tools/objects from bone. The actual size of any one Late Archaic Period occupation is difficult to ascertain, but during the alewife runs perhaps several families made their home at N'tolonapemk.

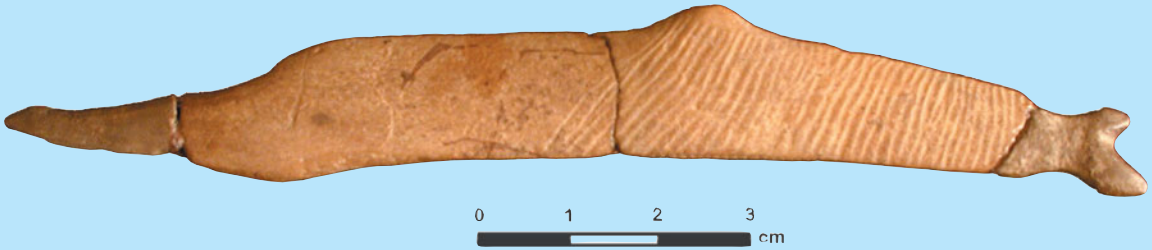
Throughout the Late Archaic Period the level of Meddybemps Lake was probably still lower than it is today but the Dennys River was functioning as its outlet. A larger variety of animal remains were recovered than from earlier periods including species such as deer, bear, loon, hare and swordfish. A greater variety of seeds and berries were also identified including a possible fragment of a sunflower seed.

Occupation of N'tolonapemk increased in frequency and overall size during the Late Archaic Period. There was a continued focus on the spring alewife runs though evidence indicates that people lived at the site well into the fall season. The long established connection with coastal rhyolite sources increased in importance and the presence of swordfish bone fragments may indicate an increased utilization of other coastal resources. Evidence for the end of this period, called the Terminal Archaic, was very limited but provides the first suggestions, in the form of a few stone tools, of contact between the people of N'tolonapemk and the upper St. John River region of New Brunswick.

The Late Archaic occupants of N'tolonapemk undoubtedly participated in a well documented pattern of long distance trade, a shared pattern of human burial rituals and expanding connections between different communities throughout Maine and the Maritime Provinces.



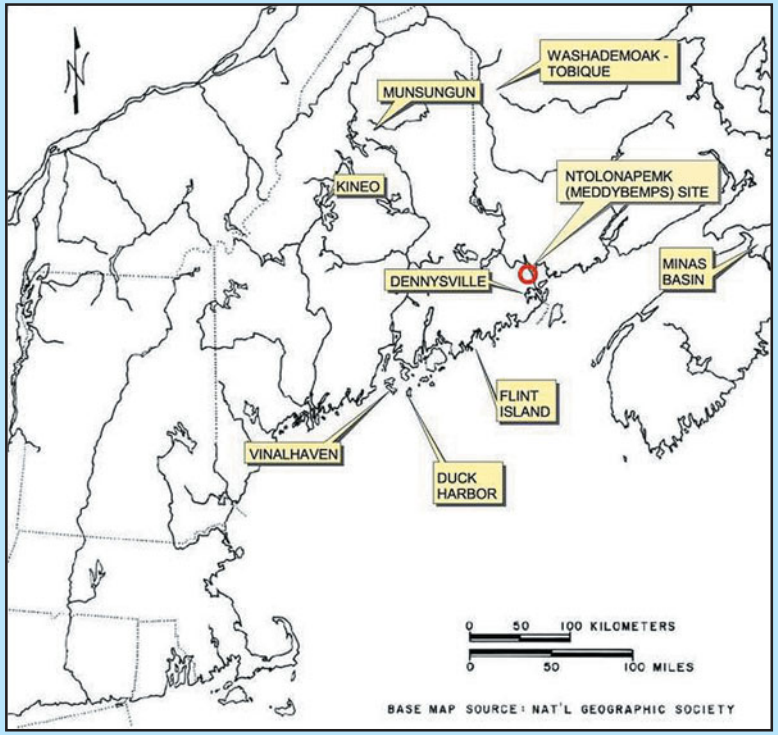
Ground stone gouge used for heavy woodworking. The sharpened edge is at the top and shows evidence that it was used.



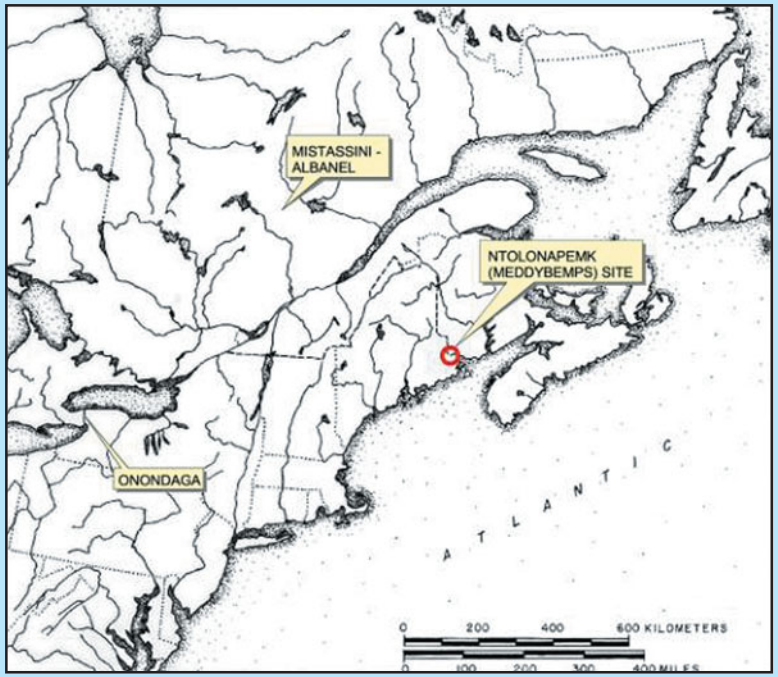
Rare carved stone animal figurine. Its use is uncertain but some people interpret it as a utilitarian object possibly used as part of a toggling harpoon or a shuttle for weaving fish nets; others suggest its use was purely ornamental or ritual. Perhaps it was both.

Stone Material

Most of the raw material used for stone tools was collected from local coastal volcanic formations. Of these, the Flint Island Formation, located at the mouth of Pleasant Bay and Narraquagus Bay, is seen as the most likely source of the majority of rhyolite utilized at N'tolonapemk. Although known outcrops of this formation are more than 70 kilometers distant from the site, connecting water routes would have made it feasible for people to travel from N'tolonapemk to procure rhyolite. However, coastal rhyolites may have arrived at the site as a result of participation in a trade or exchange system with people residing on the coast. White quartz and a variety of coarse-grained stone materials were available nearby the site.



The major sources for stone used by the people of N'tolonapemk.



People traded for material from as far away as New York for Onandaga chert and Quebec for Mistassinni chalcedony.

Once Dennys River and its streams were released from the grip of winter's ice, it was the time to plan traveling. In the travels of Johnot, he was exceptionally fortunate because the intersecting of the rivers made navigation by light canoe fast and easy. There is no other place in the world so completely watered by navigable streams in such a pitch of perfection. The principal streams of the area run in pairs and routes may be found in almost any desired location. A skilled canoe man, with a light pole of nine feet in length, can force such a craft up the swiftest river, surmounting rapids and even low falls guiding it with the greatest nicety among rocks and with exactness into the deepest places. If the water is too shallow in places for it to float, its bottom is covered with a type of canoe shoe or splints of cedar and thus it may be dragged unharmed over wet stones. Finally, when the head of the river is reached, Johnot would turn the canoe upside down over his head, along the middle bar on which it exactly balances to rest across his shoulders and then trot off over the portage path. The rate at which Johnot can travel upon the rivers depended on the character of the river channel, its amount of descent, whether smooth or broken by falls, upon the height of the water and, especially, upon whether traveling with the current or against it.

Early Ceramic Period

The appearance of ceramics around 2,800 years ago marks the beginning of the Early Ceramic Period. All over the Northeast, Native Americans began making ceramic pots and the people of N'tolonapemk were no exception. Occupation of N'tolonapemk continued to be frequent during the Early Ceramic Period which lasted from about 2,800 to 2,150 years ago. By this time Meddybemps Lake had reached its modern level and Meddybemps Heath and Staples Fen were productive wetlands. The regional climate was becoming seasonally cooler.

A total of 38 unique vessels was identified among the pottery fragments. The presence of unformed fired clay called "manufacture scraps" suggests that the community at N'tolonapemk was making ceramics on site. These ceramics are similar to other Early Ceramic Period pottery from the Maine Maritimes region with fabric paddling, a form of surface treatment, on both the interior and exterior vessel walls. The people of N'tolonapemk made ceramic pots with pointed bases that ranged in size between 1/2 gallon to over a gallon in capacity. They made stone spear points and pottery vessels patterned after styles common across much of the Northeast.

Native American ceramic rim sherds. All ceramics from N'tolonapemk were quite fragmentary like these examples.

Distinctive Early Ceramic Period projectile points with "lobate" bases.

What Can Ceramics Tell Us?

The study of ceramics, or pottery, entails a special approach. Two hundred broken pieces of pottery can represent a single pot or 200 different pots, or more likely something in between. A methodological approach called "vessel lot analysis" is employed, in which the analyst studies individual sherds as well as groups of sherds from the same vessel.

At certain times in Native American history, pottery was impressed when unfired or still soft, with fabric or string/cord that was wrapped around sticks, either as decorations or a way to smooth the surface. Because they decay in the ground, perishable materials are rarely found on their own, so studying their impressions in the pottery offers a glimpse of this aspect of the material culture otherwise unavailable to the archaeologist.

Styles of pottery, more so than any other artifact type, changed frequently over time. People made pottery styles generally similar across large regions but styles, like fashions today, changed relatively frequently. Archaeologists have refined the ceramic sequence to the point where experts can tell within just a few hundred years (over the 3,000 years that pottery was made) how old a particular ceramic sherd might be. Pottery, therefore, is one of the best indicators of time for the archaeologist.

Ceramic vessels may have partially replaced earlier containers made out of bark, hide or wood and were likely used for a variety of purposes and carefully saved, given the complexities of ceramic manufacture. Ceramic vessels were multipurpose and used for food preparation, food storage and food consumption as well as for plant/animal material processing.

During the Early Ceramic Period people made flaked tools of stone from the Washademoak or Tobique regions of New Brunswick, the Minas Basin region of Nova Scotia, the Munsungun Lake area of central Maine and from the eastern New York region. Rhyolite, including Flint Island rhyolite, continued to be a popular material for tool making.

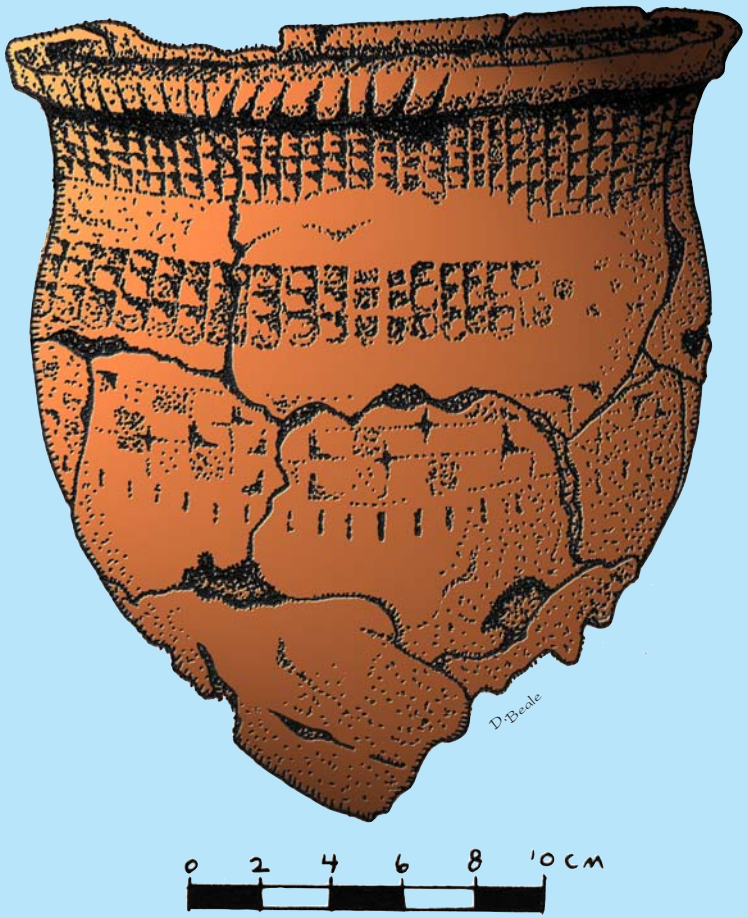
Like their predecessors, the occupants of N'tolonapemk during the Early Ceramic Period used a variety of mammals, birds, fish and turtles with alewife, beaver and muskrat prominent in the samples. The N'tolonapemk community participated in a widespread trade/exchange network stretching from Nova Scotia to New York and used artifact forms similar to their contemporaries in other parts of the Northeast.

Middle Ceramic Period

The Middle Ceramic Period occupation at N'tolonapemk suggests the continued popularity of this location for seasonal habitation. The area along the Dennys River was a focus of settlement during this period. Fragmentary pottery sherds dating to the Middle Ceramic Period were plentiful at the site and indicate that ceramic manufacture was an important activity for the N'tolonapemk community. Radiocarbon dates ranging from 1,970 to 1,360 years ago were obtained for two Middle Ceramic Period features at the site.

The earliest Middle Ceramic Period pottery style is present but is rare at the site and includes both rocker dentate and pseudo scallop shell decorated varieties represented by very well-fired ceramics. This particular ceramic type was made by Native Americans for a brief span of time over a very broad area of the Northeast. The large majority of Middle Ceramic Period pots recovered from the site include 44 fragmentary vessels with rocker dentate decoration. People also started making bigger pots and decorating them in new ways. Cord-wrapped stick decoration became prominent about 1,400 years ago. In this technique, the potter would wrap a piece of string around a wooden stick and press this into the un-fired pot.

People at N'tolonapemk during the Middle Ceramic Period made projectile points primarily of rhyolite with only limited examples of chert tools. Toward the end of the period a relatively brief change in the global climate occurred and winters became milder. The variety of animal remains identified in features is very similar to that of the Early Ceramic Period with alewife figuring prominently.



Middle Ceramic Period rocker dentate decorated pot. Similar pots were made by people at N'tolonapemk.

Late Ceramic Period / Early Contact Period

By the beginning of the Late Ceramic Period the climate changed to near modern conditions and the shore of Meddybemps Lake was near its modern position. During the Late Ceramic Period, and possibly to the early Contact Period when Europeans arrived, about 950 to 400 years ago, occupation of N'tolonapemk was quite frequent. These occupations were likely similar to preceding times with several families gathered along the lake shore to harvest alewife in the spring and to take advantage of the other locally abundant wetland, lake and river resources.

People continued making ceramic vessels on-site and during this latter portion of the Ceramic period people also started making ceramic pipes. Fragments of at least 35 different vessels were assigned to the Late Ceramic Period and a few examples likely date to the Early Contact Period. Native Americans at N'tolonapemk began using shell temper in their clay preparation and ceramic making process as was common in coastal and near coastal areas of the Maine and the Canadian Maritimes region during this time. The majority of the ceramics assigned to the Late Ceramic Period are attributable to pre-European times, likely before the permanent arrival of Europeans.

The animal remains identified from Late Ceramic Period features are generally similar to that of earlier periods, with a significant addition. One feature contained a single caribou bone. Alewife bones, nuts and berry seeds occurred in several features indicating spring through fall occupations.

The archaeological remains dating to the Late Ceramic/ Early Contact Period represent the last archaeologically visible Native American occupation of the site. Passamaquoddy history tells of frequent visits to N'tolonapemk to take advantage of the spring alewife runs during the Contact Period, however, little physical evidence remains to tell us about these occupations. Evidence that N'tolonapemk was frequently occupied throughout the entire Ceramic Period was widespread and suggests continuity with the contemporary Passamaquoddy people.

We are the Passamaquoddy, Children of the Dawn Country, People of the East. Long have the white men been among us, yet we still remember many of the old songs and stories, we have never lost our language. Yet some of us still remember hearing about the time when our ancestors' lives were spent in hunting and fishing and our villages were of wigwams instead of houses. In the olden time our ancestors' garments were of moose skins and fur, our pouches were of the skins of animals, our dishes were wood and bark. Before the coming of the white men, our knives and tomahawks and all our tools were of stone. With the stone knife we cut open the moose and with a tool of stone we skinned them. We fished and our marriages were happy. Man and woman made their vow to the Great Spirit. In our old religion we believe that the Great Spirit who made all things is in everything and that with every breath of air we drew in the life of the Great Spirit.

Today we can view life in the Meddybemps village of N'tolonapemk as a vision of harmony with people and nature. The Passamaquoddy people can view this story, as a success and know that a sense of respect and honor was brought back to the ancestors of the N'tolonapemk village.

The Meddybemps project is an example of what can be done when people work together as it incorporates science with native concerns. Here was an ancient village of the Passamaquoddy Tribe engulfed with layers of hazardous waste; as a result the site received the attention of the United States Environmental Protection Agency (EPA) and a superfund designation. For many years the tribal voice was not heard, now the voices for a clean environment on the Dennys River and Meddybemps Lake have been heard and action has been taken to return this site to its natural setting. The EPA and its contractors are to be commended for the clean up of this site who worked hand in hand with the Passamaquoddy government for the recovery and respectful treatment of artifacts.

The Future of the N'tolonapemk site is very important to the Passamaquoddy people, it is a strong link to the past which future generations will be able to see and learn about. Tribal people need to be involved in archaeology, so we can have a voice and control in the ground work while we look for links to our past. It can be looking for something that's been lying in the dirt for five to six thousand years. It was probably created by our ancestor and being the first person to touch that artifact in five thousand years that your ancestor left behind is pretty powerful. The Tribal people who were involved in this project say it's very important to stay involved, especially, to continue this time of cultural healing with our artifacts and traditions.

The archaeological research conducted at N'tolonapemk as part of the Environmental Protection Agency's cleanup of the Eastern Surplus Company Superfund Site has added greatly to the archaeological knowledge of the broad region and Native American Passamaquoddy history of the local area.

We know that intermittent Native American occupation of N'tolonapemk began about 8,600 years ago during the Early Archaic Period. These initial occupants established a pattern that would be generally followed by their successors, with some variation, for thousands of years.

This pattern included episodic occupations of the site from the spring into the fall and possibly through the winter as well, a hunter/fisher/gatherer subsistence strategy that utilized a broad spectrum of plants and animals from the surrounding wetlands, forests and the adjacent Dennys River and Meddybemps Lake. From the initial occupation of the site, there was an emphasis on the spring alewife runs.

The long-term continuity reflected in subsistence strategy and the strong sense of place in the landscape is juxtaposed with pronounced technological and material change over time reflecting the complexity of regional human social interactions.

The research at N'tolonapemk is far from being fully realized. Besides there being intact portions of the site remaining, the curated material from N'tolonapemk still holds a wealth of knowledge about the past for future research. The site remains important to the scientific community and the general public, but also has significance to the contemporary Passamaquoddy Tribe as a continuous focal point of the dynamic historical landscape.

This pamphlet was produced by the University of Maine at Farmington Archaeology Research Center and the Passamaquoddy Tribe. Archaeology at N'tolonapemk was conducted by the University of Maine at Farmington Archaeology Research Center for the United States Environmental Protection Agency under contract with Tetra Tech NUS Inc., in cooperation with the Passamaquoddy Tribe, the Maine Department of Environmental Protection and the Maine Historic Preservation Commission.

Indian Township
Tribal Government

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