

The Indian Crossing Site, Chicopee, Massachusetts

Discovery

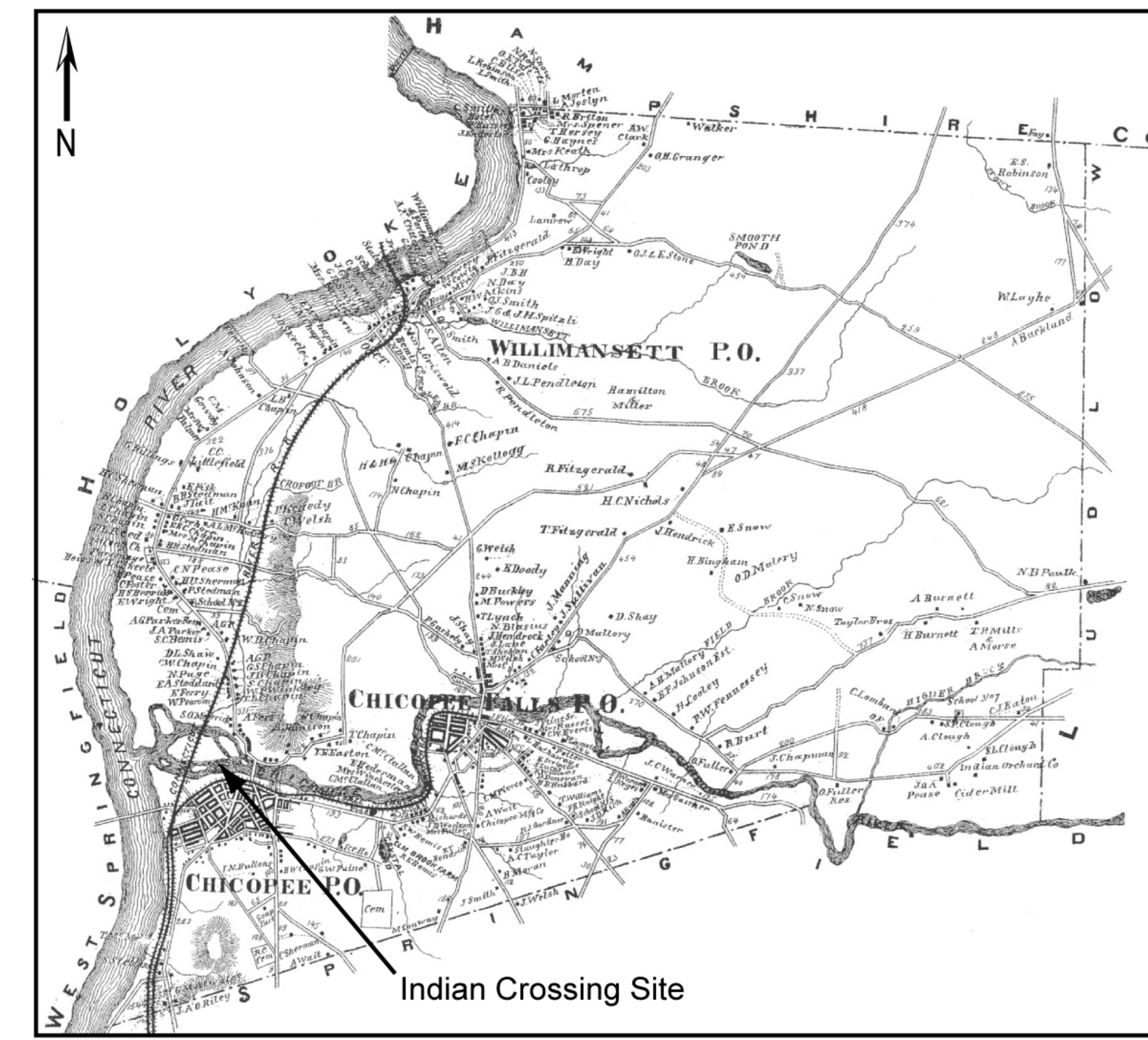
The Indian Crossing Site is of vital importance to New England Prehistory. Not only is it concerned with a little-known period in prehistory, it is also of paramount interest... it was the period where the very lifestyle, the means of subsistence, changed from hunting, gathering, and fishing to one that included horticulture. The change was basic and vital to the course of New England prehistory, and to much of the early history of colonial America. As such, it demands all the efforts that can be mustered to understand it.

Thomas Ulrich's concluding remarks in his report summarizing the preliminary analysis of the Indian Crossing site, April 1, 1977.

The use of federal funds for this project required that money be provided for an assessment of potentially significant historical and cultural resources within the proposed area of the construction of highway I-391. The Indian Crossing Site was discovered in Chicopee, Massachusetts during archaeological testing of an area proposed for the highway construction. Protection of historically significant sites had been written into various federal and state laws such as the 1966 National Historic Preservation Act. While these laws were on the books, they were not yet regularly enforced. The archaeological work undertaken for the I-391 project was one of the first large-scale projects of its kind in the state of Massachusetts.

In 1975, Robert Paynter and Peter Thorbahn of the Department of Anthropology, University of Massachusetts Amherst (UMass) received funding from the Massachusetts Department of Transportation to undertake the archaeological assessment of the proposed I-391 corridor. In June of 1975, they explored the corridor on foot with a small team of students and talked to landowners about artifacts they may have collected. They also excavated a number of shovel test pits and trenches, revealing important data.

On Walnut Island, near the mouth of the Chicopee River, the team discovered a small number of artifacts and a few features. Because the site was covered by 50–60 cm (about two feet) of recent floodplain deposits, the artifacts and features had been safely buried underneath. Combined, the artifacts, features, and floodplain deposits suggested a site might be found in two layers reflecting different periods of use; Indian Crossing was an ideal site to examine changing patterns of Native daily life along the Connecticut and Chicopee Rivers.



The 1870 Beers Atlas showing Chicopee and Walnut Island.

In 1977, funding was granted to the "Institute for Conservation Archaeology" (ICA) at the Peabody Museum, Harvard, and archaeologist Thomas Ulrich of UMass was employed to assess the Indian Crossing site. The primary goals of the assessment were to determine how large the site was and how deeply it was buried. It was also hoped that the site would reveal more artifacts and features so archaeologists could establish its function and periods of use. Most importantly, the study was meant to determine whether the site was eligible for the National Register of Historic Places.

Ulrich increased the areas of initial testing by expanding Paynter and Thorbahn's first pits and excavating additional test pits within the zone of proposed highway construction. Surprisingly, it was a test pit at the far northeastern side of the site near the steeply eroded bank that produced the most abundant archaeological material. Native potsherds (pieces of broken ceramic), stone flakes from tool manufacture, burnt cooking stone, and the tip of a broken arrow point were uncovered. The test pit was expanded into a larger trench (1-x-3 m), portions of which were excavated to over five feet in depth. This trench became the starting point for excavation across the site area.

More artifacts were found in two different horizons or levels. Shell tempered pottery (clay with crushed or burned shells added to make it less likely to break) from the upper horizon suggested a date sometime after AD 750. This information was based on data from other sites in New England. The lower horizon included only grit-tempered potsherds, stone flakes, and burnt rock. Decoration on the grit-tempered sherds suggested an earlier date of about 700 AD. The difference in time was important because it marked the transition between a hunting and gathering way of life and one in which farming became increasingly important. Ulrich concluded that the site was eligible for listing on the National Register of Historic Places because it had the potential to yield significant new information regarding this important period of Native history. He strongly recommended further work be undertaken before construction of the highway began.



Excavation

Working for the ICA, Ulrich began a full-scale excavation on June 27, 1979. The archaeological team supervised by Ulrich consisted primarily of UMass students. Crews stayed on site and worked through the weekends to maintain site security. Excavation continued through October 17, 1979 under pressure to complete the work so highway construction could begin: nearly one hundred and four days straight.

The archaeologists organized a number of public presentations and tours, with large crowds in attendance. Regional scholars visited the site during the project to keep tabs on the new information coming from the ground. If you were a New England archaeologist, Indian Crossing was the place to be in the summer of 1979!

Not only was the site one of the largest projects taken on in the region, the finds (features

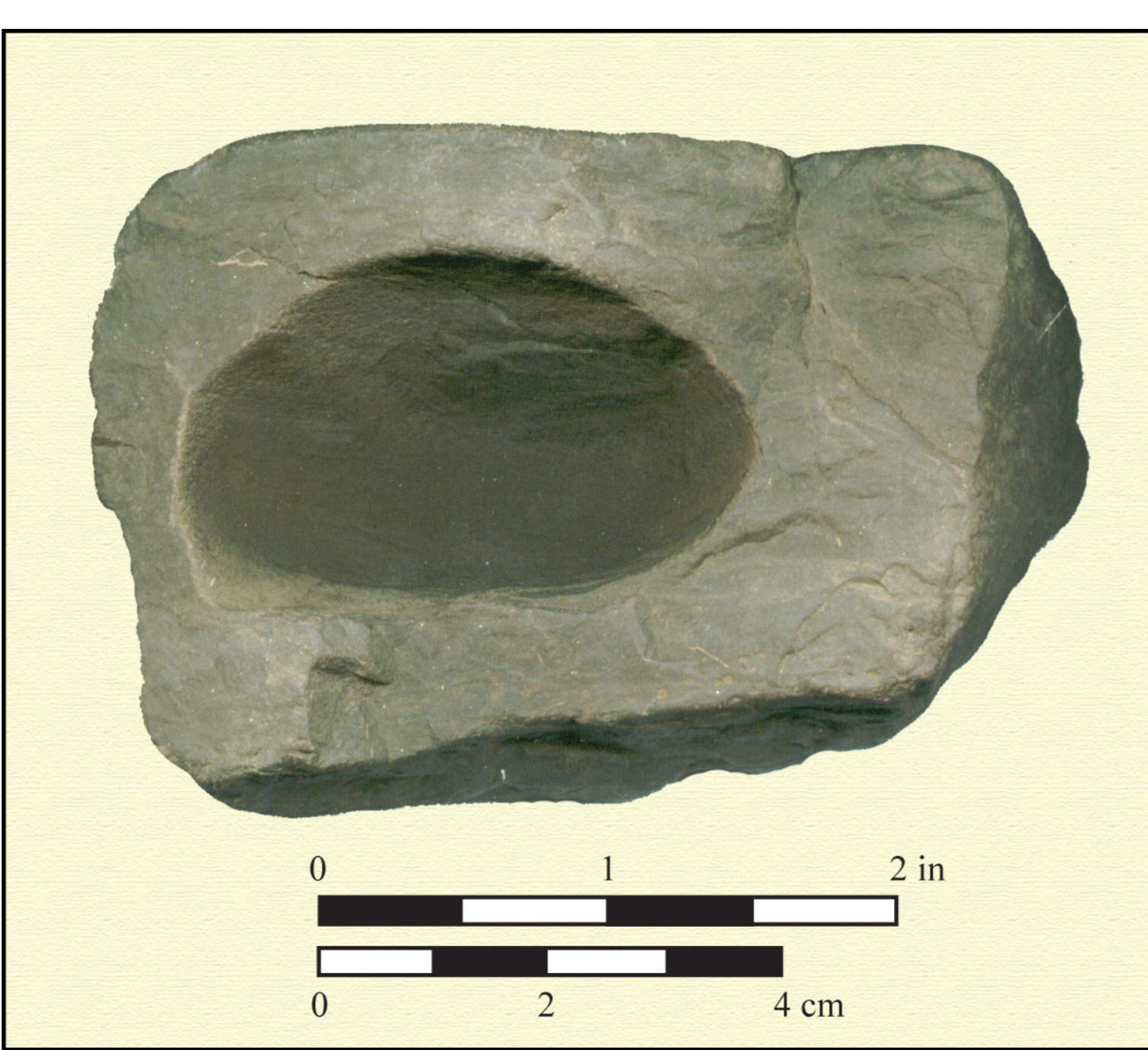


Stone Pavement Feature "BR" at the Indian Crossing Site, a possible sweat lodge or food roasting feature.

and artifacts) coming out of the site were some of the most important. A remarkable two hundred and two square meters of earth were uncovered, often to depths of a meter and a half (five feet). The recorded finds total nearly 75,000 pieces.

The most common artifacts the archaeologists found were small waste flakes from the manufacture of stone tools. Among the stone tools, the most common implements found were simple flake tools such as retouched flakes and scrapers and fragmented bifacially-worked tools (tools with two edges). They also found arrow tips, which were triangular in shape and related to the Levanna type of the final Middle and Late Woodland periods (after about 800 AD).

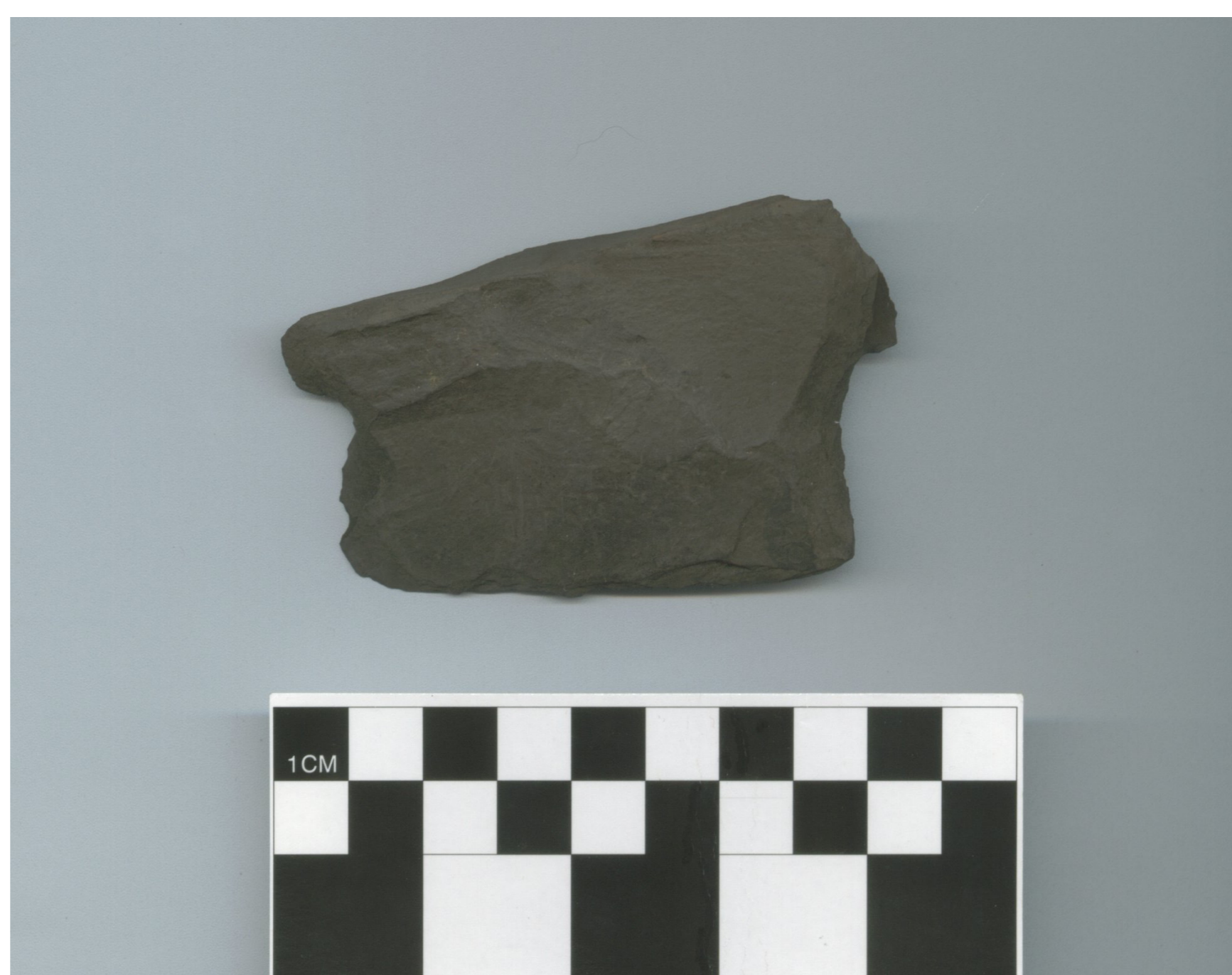
The archaeologists collected fragments of charcoal, plant remains, and seeds. Over four hundred small bone fragments were found. Perhaps more exciting was the recovery of 2,767 Native pottery sherds, mostly quite fragmented, but some with elaborate decorations.



Paint pot found at Indian Crossing.

Features containing burnt stone were numerous, and one in particular was quite large (see photo). These finds indicated food preparation and cooking had taken place and long term occupation of the site was likely.

The archaeologists also uncovered a fascinating cache of nineteen purposefully buried whelk columella (see photo, below). The columella is the inner spiral column of the shell used to make shell beads. Another peculiar find included two stones with natural hollows that might have been used as paint pots (see photo, above). Other interesting finds included six stone drill bits, a polished narrow slate chisel, and half of a stone hoe (see photo, right). The latter is important because it strongly suggests that people were growing their crops right there on the island, just as Ulrich had thought.



Notched hoe found at Indian Crossing.



Whelk columella deliberately buried at Indian Crossing.

Analysis

Native Americans occupied the Indian Crossing site for a period of about 800 years, which is a long time for a place to accumulate debris. The features and artifacts pointed to a semi-permanent, seasonal site, occupied by small families that performed their daily activities for just a few weeks before moving on to their next stop.

Stone Tools

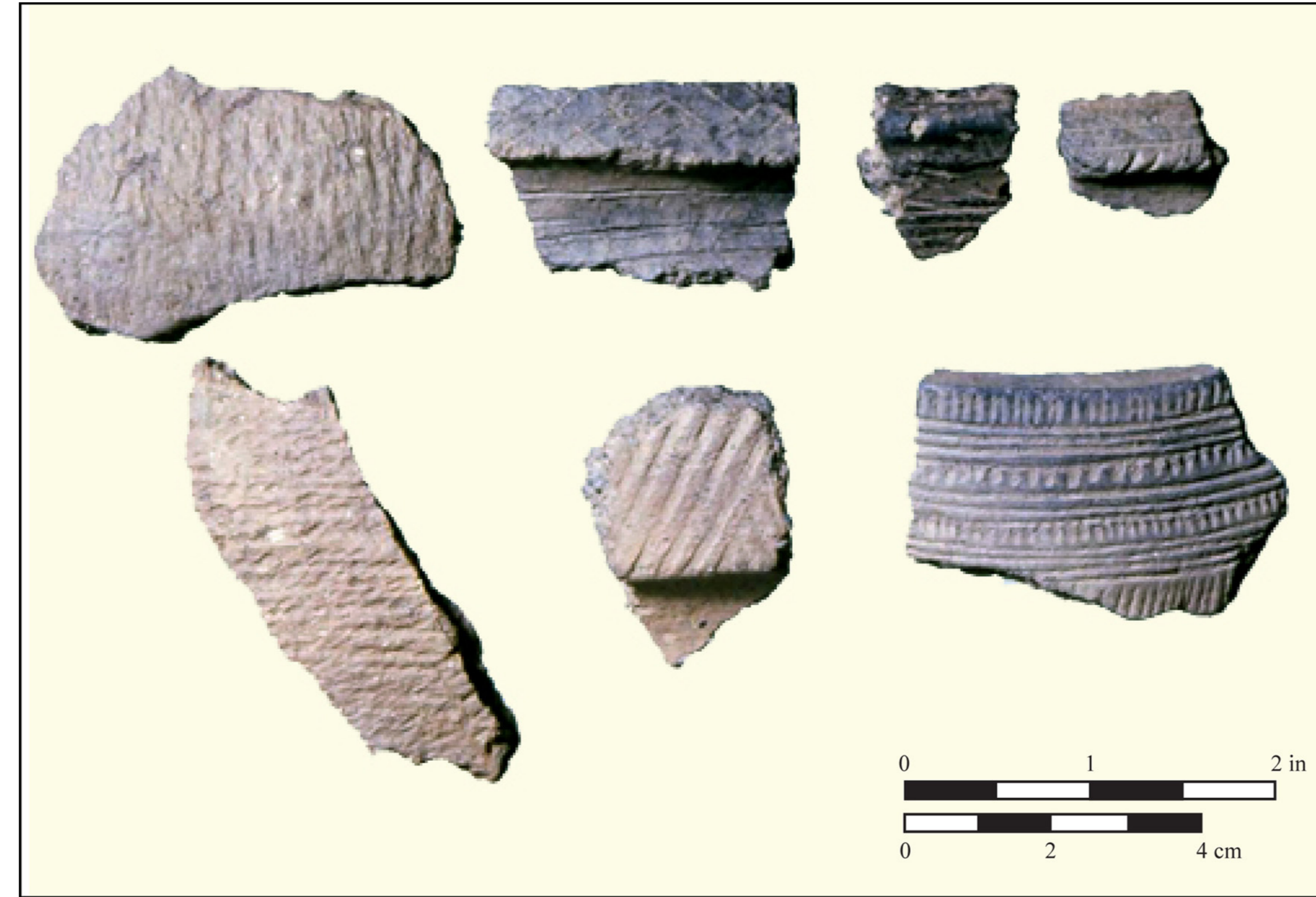
The stone tools and discarded waste materials found at the Indian Crossing site have stories to tell about the activities that occurred at Indian Crossing. Even humble tasks like sharpening a flake tool or repairing an arrow point, repeated over centuries results in thousands of discarded flakes and many dozens of tools. The most common tool types were simple flake tools designed for a variety of cutting and scraping tasks like cleaning fish, whittling, and preparing plant foods for cooking. These were all common, daily tasks performed by a variety of family members. Drills found scattered across the site indicate that wood, bone or antler tools needed perforations, perhaps for use as netting or weaving implements, or to make decorative objects to be sewn into clothing or to hang around the neck. About two dozen arrow points were also found. Most of the stone tools were made of local chert, quartz, and quartzite.



Projectile (arrow) points from the Indian Crossing site. The triangular points are a Late Woodland type called "Levanna." The notched point (lower left) is a Middle Woodland Jack's Reef type.

Native Pottery

The people of Indian Crossing made, used, and discarded pottery throughout the site's 800-year span. They crafted a variety of pottery styles and used different methods to make the pots. The diversity expressed at the site surprised archaeologists. Some of this diversity probably reflects the changes in style that occurred during the time the site was in use. However, the diversity could also reflect the small-scale social organization of the people who lived there. Indian Crossing is similar to other sites in the region in its great ceramic diversity. Excavated sites like Guida Farm on the Westfield River and Pine Hill along the Deerfield River share this trait. These sites are models of a Native way of life in the central Connecticut River Valley that remained rooted in relatively autonomous family-based groups. Their independence was, in part, responsible for the diversity of decorative styles we see in this region.



Native pottery decoration styles found at Indian Crossing.

Cordage Impressions

One of the most interesting things about the ceramics from Indian Crossing was the distinct impressions of fabric and cord still visible on the exterior of some of the pot sherds. Potters, whom we believe to be women, stuck or pressed the still wet clay of the pots with fabric and cord covered paddles to decorate them and give them a non-slip texture that was also pleasing to the eye. Native hand-woven fabrics and cordage are seldom directly preserved in the archaeological record of the Northeast, but it turns out pottery is one of the best ways to learn about their manufacture. The textile arts were well developed in the region. A variety of materials were available for fabric and cordage manufacture, including Indian hemp (dogbane), milkweed, nettle, and basswood fibers. To gather the materials necessary to make string, fishing line, rope, nets, and clothing, a family required many thousands of individual plant stalks every year. This strongly suggests that people grew the most important fibrous plants in well-managed, semi-wild gardens.

Cordage impressions from pottery found at Indian Crossing.

Results

The types of stone tools and ceramics, as well as the radiocarbon dates, all indicated that the Indian Crossing site was occupied on and off during an 800 year period between about 700 AD and 1500 AD. This period is important in New England history because it spans the transition from a hunting and gathering way of life to one that included farming. This period is marked by changes in how Native American people lived and worked. There is more evidence of permanent settlements or at least places that were lived in for much of the year. There are also changes in what people ate and how they stored their food.



One of the site's main functions may have been simply to act as an important way-point – a convenient place for families to relax for a few days as they went about their seasonal movements from place to place. The mouth of the Chicopee River is a crossroads between main north-south and east-west travel routes in the Central Valley and the site was located at a known river crossing. Short-term stays may be enough to explain the amount of stone tool-making debris left at the site. However, the abundance of simple flake tools at the site suggests that the inhabitants did quite a bit of work. This might have included cleaning fish and small game, making bone and antler tools, and preparing food. Arrow points were also manufactured and repaired. This level of activity is suggestive of at least some longer-term occupations.

The relative abundance of pottery and presence of some large features also indicates that the people lived at the site for longer periods, perhaps for full seasons. The 68 vessel lots identified in the relatively small portion of the site excavated suggest that more than 2,000 pots may have been discarded at the site over time. If people lived here during the shad and salmon runs, it might have been a very busy location that time of year. The presence of a broken hoe and a few kernels of maize (corn) indicate that at least some farming occurred right nearby, perhaps on the island itself. Even small-scale farming would have required a longer-term commitment to staying on the site. Clearing ground, preparing the soil, planting, weeding, protecting the crop from animals and harvesting would have required people to live at the site nearly continuously between spring and autumn.

Overall, the number of artifacts recovered from the upper and lower horizons at the site is remarkably similar through the 800 years of its use. This suggests that the general intensity of site use did not vary much during this span. A few notable things did change, however. First, was an increased use of shell-tempered pottery. While this is a general Late Woodland trend, it indicates that people needed the pots to withstand longer cooking times. This may have something to do with the increasing importance of maize in the diet. Second, the amount of stone acquired through trade decreased significantly during this time. This suggests that trade networks had broken down somewhat perhaps because of reduced mobility, or because conflict with western neighbors limited the flow of raw materials. Third, far fewer arrow points were recovered from the more recent parts of the site, suggesting that it was being used less often as a hunting camp. It is not entirely clear what activities began to replace hunting at the site, but a reasonable hypothesis might be that fishing and gardening activities were becoming more important. The discovery of a hoe in the upper (more recent) soil horizon supports this idea. Finally, a maize kernel provides the latest radiocarbon date of site use and suggests that at least one family was actually farming on or very near the island in the 1500s, shortly before the arrival of the first European colonists to the area.

The archaeologists who studied Indian Crossing recovered a picture of a very traditional Algonquian way of life, one that held tightly to its values focused on small-scale community living, mobility and independence. When maize, and eventually beans became available to these groups, they developed flexible farming strategies that allowed them to maintain a relationship with the land and to each other that was thousands of years old.



Sheltering from the rain - good spirits despite bad weather.

Acknowledgements

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