

Maine Archaeology

The Newsletter of The Maine Archaeological Society

Eroding Midden at the Waterside Site, Sorrento, Maine - excavated by the late Brian Robinson. Note the orange flags mark artifact locations (photo courtesy of Art Spiess, MHPC)

Introducing the Maine Midden Minders Project, Alice Kelly, University Maine at Orono

Alan Button's comments in the winter TMS Newsletter describe an important issue facing Maine archaeology, namely the effects of coastal erosion exacerbated by climate change, and the resulting destruction of archaeological sites. In fact, one of the most distinctive features of shell midden sites is the apron of eroded bleached shells that mark their base. The new Midden Minders program seeks to help address this issue. Established through funding from Maine Sea Grant and the UMaine Senator George Mitchell Center for Sustainability Solutions, the Midden Minders is a citizen science group designed to document and monitor human induced and natural changes occurring at shell middens.

Volunteers will work to create a research database of observations and photographs and in severe circumstances may recover endangered cultural material. All monitoring is performed in accordance with land owner or land organization wishes, and Midden Minder volunteers must file a notarized letter from the landowner indicating permission to be on the property and clarifying the disposition of eroded cultural material. For questions related to this process or any other aspect of the program please be in touch, were happy to answer questions! middenminders@maine.edu.



Close-up of a typical Maine coastal shell midden disguised in new spring growth (photo courtesy of Alice Kelley)

Volunteer efforts are organized at three levels:

- Annual surveys focused on documenting erosion rates
- Monthly midden visits to record seasonal changes, describe erosion processes, and recover eroded cultural material as appropriate
- Acting as "storm chasers" who visit sites immediately following coastal storms to record storm damage and recover exposed/endangered materials

Information is archived in a database designed by the UMaine Advanced Computing Group and is entered online through drop down menus, notes, and photo uploads. Different from many citizen scientist databases, the general public does not have access which protects both landowner privacy and site location information. A Midden Minder volunteer can only look at and contribute data for the site they actively monitor. Site administrators can access all data, and cultural resource managers and researchers can apply for access to use the database as a research and management tool.

Interested volunteers may be able to work as part of a group with a coastal conservation organization or monitor a midden on private property. Midden Minders working with a conservation group may have the opportunity to attend hands-on training and will monitor sites within the organization's properties or easements. Volunteers monitoring a midden on private lands may be able to participate in a nearby conservation group training or can read educational materials provided on

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the Midden Minders website and complete an online skills evaluation.

This new program has great potential and we hope to draw many volunteers! The Coastal Rivers Conservation Trust in Damariscotta is currently forming a Midden Minders group, and we anticipate more groups will develop programs. As a Midden Minder you will be part of an exciting project working to create a much-needed scientific database that allows for informed decisions to be made regarding shell midden preservation and the documentation of the incredible culture and history present at these endangered sites. By collecting and archiving information about middens along Maine's coast, scarce resources available for their protection and data recovery can be focused where potential for damage is greatest. Additionally, cultural resource managers will be able respond more quickly to large-scale erosion events or other threats by drawing upon a team of trained, interested volunteers up and down the coast.

If you have questions, contact us at middenminders@maine.edu.



Alice Kelley, Joe Kelley and Jacque Miller examining erosion slump at Tranquility Farm in Gouldsboro, 2017 (photo courtesy of Art Speiss, MHPC)

Please visit our website:
<http://umaine.edu/middenminders>
and consider becoming a Midden Minder!

Dugout Canoe Recovered, Cape Porpoise, Kennebunkport, Tim Spahr, CPAA

Background

Beginning in the summer of 2016, an archaeological partnership was formed by the Kennebunkport Conservation Trust and the Brick Store Museum, located in Kennebunk, Maine, with a geographic focus on the nine-island archipelago. The Cape Porpoise Archaeological Alliance consists of professional and avocational archaeologists, anthropologists and museologists. Their goal is to identify and document Precontact, Contact and early Postcontact sites in threat of destruction due to global sea level rise which is increasing at a rate of 0.14 inches per year. Although small in proportion, this gradual increase equates to higher tides and greater storm surges. The extraction and conservation of the canoe was funded by the Rust Family Foundation.



Archaeological Alliance conducted a surface survey of the Cape Porpoise tidal flats located in Kennebunkport,

Maine. During this survey, the remains of a probable dugout canoe were located and documented with the Maine Historic Preservation Commission. Sample analysis determined the wood to be yellow birch. Radiocarbon dating analysis performed by Beta Analytic dates the wood between 1275 and 1380 AD calendar or calibrated years. The dimensions of the canoe are approximately 3.1 meters in length and 48.25 centimeters at its widest point. It is concave with what appear to be black charring and possible chop marks.

The canoe was in an area previously surveyed by archaeologists having observed no artifacts or features. Strong winter tides, however, shifted coastal sands and exposed the canoe. Throughout the winter of 2018-19, sands continued to move uncovering it even more. Concerned with accelerated deterioration due to tidal action and human contact, CPAA archaeologists decided to extract and house the canoe in a museum facility and begin conservation. In June of 2019, CPAA archaeologists coordinated with the University of New Brunswick/University of New England Coastal Archaeological Field School and recovered, crated and transported the canoe to the Clement Clark boat house in Kennebunkport where it is currently stable and soaking in fresh water in preparation for Polyethylene glycol (PEG) treatment.

In preparation for the extraction, archaeologists constructed a watertight crate specified to the canoe's dimensions. Anticipating it would be waterlogged and

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heavy, they installed three handles on each side and one at each end. About two hours before low tide, four archaeologists in wet suits began gently moving sand fines and particles from around the canoe. By low tide, they placed wide straps (approximately 40 centimeters wide) at close intervals under and along the canoe's length. In unison, they lifted the canoe and placed it in the crate. Some splitting of the wood did occur during the crating and transportation process. After PEG treatment, CCAA archaeologists intend to prepare the canoe for exhibition and study.

The Odd Artifact - A Chipped Stone Adze, Arthur Spiess, MHPC

Sometime about 1995 Bruce Flewelling was walking along the shore of Mattawamkeag Lake (30 km SW of Houlton, Mattawamkeag River headwaters) and noticed a fist-sized piece of red, chipped stone on the beach. He passed it along to David Lacey, now-retired Green Mountain Forest archaeologist for the U. S. Forest Service, who has been cleaning up old items from his desk. One of Dave's former field archaeologists now works for the Maine Historic Preservation Commission. Since the artifact is from Maine, he passed it along and wondered whether it might be of interest. Indeed, the find location is a new site, so we assigned a new Maine site number (137.1), the first recorded site in the area. (Thank you Dave Lacey and Bruce Flewelling.)

The artifact is a bifacially-flaked, rather chunky piece of red-purple mudstone, with lake beach wear (slight dulling) and a large patch of beach cobble cortex on the back. I thought, oh, someone tried to make a knife

out of a glacial cobble of Round Mountain chert (roughly 100 km north of Millinocket Lake) and tossed the unfinished piece. (Round Mountain bedrock, north of the Munsungun Lake area, has recently been mapped by Dr. Chunzeng Wang, University of Maine at Presque Isle.) Then I noticed that particular attention had been paid to one of the narrow ends of this piece. The artifact weighs 189 grams, and it is 11.5 x 6 cm by 2.7 cm thick.

The artifact is, in fact, a chipped adze or axe. The working edge is roughly symmetrical in cross section (an axe), slightly convex, about 3 cm long, and with a 45-50 degree working edge angle. The working end had been carefully thinned with 2 to 4 cm long parallel-sided flakes driven from that edge. There is heavy, two-sided (bifacial) use wear flaking from that edge, including some step flakes that are 0.5 mm long. That edge got a lot of use, with minimal attention paid to the other edges.

Further inspection revealed the piece had been made on a large flake: there is a striking platform 4 cm long on one side. The proximal end (opposite the axe end) is a naturally-narrow and slightly trimmed edge of the flake which might have easily fit in a haft. And looking at the piece of patinated cortex, which is basically flat, it is very likely an original weathered surface from the quarry outcrop on Round Mountain. So this piece did not start as a rounded, glacial drift cobble surface at all.

Maine archaeologists think of smaller axes and adzes as Ceramic period in age, contrasting with the larger, heavier stone woodworking tools of the Archaic. I don't think anyone has ever systematically tested that proposition. Even more interestingly, someone made a perfectly functional small axe head (presumably hafted) by flaking rock rather than pecking and grinding it. And, if this piece was taken directly from one of the Round Mountain quarries (or talus slopes) that means that the piece was physically moved from Round Mountain to Mattawamkeag Lake. We presume it had a trip in a birchbark canoe, and maybe even was used to make or repair one.

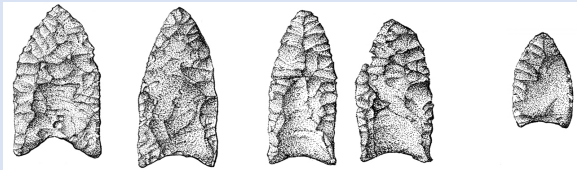


The Maine Archaeological Society

The Maine Archaeological Society (TMAS), a 501(c)3 non-profit organization, was founded in 1956 and currently consist of professional and avocational archaeologists, as well as individuals of the general public who are interested in furthering the objectives of the society. The organization's mission is to promote archaeological awareness through education and publication, and encourage archaeological conservation.

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mainearchsociety.org

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Fall Annual Meeting – Sunday, October 27th, 2019

Viles Arboretum in Augusta

<http://www.vilesarboretum.org/index.php/home>

Arthur Spiess of MHPC will kick things off with a talk concerning the significance of Maine's varied archaeology, recording archaeological sites and the contributions of Maine avocational archaeologists. **If you have an artifact collection, please bring it along to share.** We will have tables set up for people to layout artifacts including collections provided by MHPC representing varied pre and postcontact sites. The lecture will be followed by an indoor flint knapping demonstration. Lunch can be spent exploring the Arboretum (weather permitting) and after lunch we will gather to see, talk, and learn about the deep cultural and historical significance of the collections.

Schedule

- 10:30 to 11:15 – Lecture by Arthur Spiess, *Major Finds and Odd Artifacts: Avocational Collectors Contributions to Maine Archaeology*
- 11:15 to 12:30 – Flint knapping
- 12:30 to 1:30 – Break for lunch and lay out the collections
- 1:30 to 1:45 – Business meeting
- 1:45 - 3:00 – Discuss collections and artifact identification

Penobscot Nation Museum

The Penobscot Nation Museum reopened after a major renovation. The museum is operated through the Penobscot Nation Cultural and Historic Preservation Department and is dedicated to preserving and sharing the rich cultural heritage of the Penobscot and Wabanaki people. Also, home to Che' Molly's Trading Post – Penobscot made baskets, jewelry, fine art, and educational resources.



Address: 12 Down Street, Indian Island, ME
Hours: Wednesday - Saturday 10 am to 4 pm
Phone: (207) 827-4153
Website: <https://www.penobscotnation.org>

MOFGA Common Ground Fair

The Maine Archaeology Society will be at the Common Ground Fair! September 20-22. Stop by our table at this great Maine wide community event!



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