MAINE ARCHAEOLOGICAL SOCIETY INC. BULLETIN

Volume 21
Number 1
SPRING 1981
$2.50

MAINE ARCHAEOLOGICAL SOCIETY, INC.

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1981	David Sanger; 37 Forest Ave.; Orono, Me. 04473.
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Permanent address of the Society:
Maine Archaeological Society, Inc.
Department of Anthropology
University of Maine at Orono
Orono, Maine 04469

Cover by Penny Mauro. Petroglyph Figures from the Hodgdon Site (69-4) Embden, Maine.

EDITORIAL POLICY

All manuscripts and articles should be submitted to the Editor. Originals will be returned if requested.

Any articles not in good taste or those plainly written for the sake of controversy will be withheld at the discretion of the Editor and staff.

The author of each article that is printed will receive two copies of the Bulletin in which his work appears.

Deadlines for the submission of manuscripts are March 1st, for the Spring issue, and September 1st, for the Fall issue.

Original manuscripts for review for publication should be typewritten and single spaced with double spacing between paragraphs. Illustrations and photographs should be planned for half or full page reproduction. Line illustrations should be done on white paper with reproducible black ink.

Please send exchange bulletins to the Editor.

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NOTICE OF SPRING MEETING

Date: Sunday, 26 April, 1981.
Place: Kominsky Hall, Husson College, Bangor, Maine.
Time: 11 a.m.-12. Set up displays and Social hour.
12-1 p.m. Lunch--Coffee and dessert snacks will be provided.
12:30. Trustees meeting.
1:30. Business meeting followed by program.
Program: Dr. Steven Cox of the Maine State Museum will speak on his research at the Goddard Site (Viking coin site). Question/answer session to follow.

LETTER FROM THE PRESIDENT

First, I am happy to report that as a result of our membership drive, the MAS has approximately 200 members. This represents an increase of about 50. We must continue to increase our membership and I will make several recommendations at our meeting on the 26th of April that will address this issue. In the meantime, I would urge those of you who will attend this meeting to bring an interested friend. Even if they don't join, they will enjoy the program and know what we are and what we stand for.

The MAS has a need to develop greater expertise in historic archaeology. Most of our current effort is in the pre-historic era. The value of locating and preserving 17th century sites is well recognized, but many endangered 19th century sites, too young for any professional interest, should be located and researched with information being preserved for future use. Nineteenth century lumber camps, wilderness hotels, and old tote roads are unique to our interior and under great pressure from uninformed "bottle hunters" and metal detector buffs, as well as the various natural dangers. One place that is a good example is "Smith's Halfway House" on the West Branch Penobscot. This was an important overnight stop for sports and lumbermen who were travelling between Moosehead and Chesuncook. Today all that remains is an overgrown cellar hole and a few hazy memories that recall the last year it was operated (1915), and they are going fast. We should preserve such information for future archaeologists and historians who will work on such topics.

The MAS publication of Fannie Hardy Eckstorm's Indian Canoe Routes of Maine is scheduled for the summer of 1981. This project is due to the co-operation between the MAS and the Maine Historic Preservation Commission, and a good example of the mutual benefits accruing to amateur and professional archaeologists.

The MHPC and Art Spiess are to be commended for the publication of C. C. Willoughby's Indian Antiquities of the Kennebec Valley. Currently the MHPC is in need of our support: budget cuts at the Federal level are pending which seriously jeopardize its future. I urge you to write your Senators and Representatives asking them to carefully consider this important matter.

In closing I wish you all well and am looking forward to seeing you on April 26th.

David S. Cook

MEETING MINUTES

The Maine Archaeological Society, Inc. October 26, 1980

The fall meeting was held at Winthrop High School.

Officers for 1981 were elected:

President:	Dave Cook
Vice-President:	Judy Husson
Second Vice-President:	Bert Farmer
Secretary:	Open
Treasurer:	Meg Cook
Trustees for three years:	Riley Sunderland; Open

Old Business: The Fannie Hardy Eckstorm paper is scheduled for publication in late spring, 1981.

New Business: 1. MAS voted to hire Mark Hedden to help MHPC. MHPC will reimburse MAS for Mark's salary, plus ten percent overhead. 2. Members were asked to help promote MAS by bringing new members to meetings. 3. Program speaker was Dr. David Yesner of USM who spoke on Casco Bay archaeology.

Margaret Cook
Secretary pro-tem.

Treasurer's report March 15, 1981

Paid members: 148 single or family, 35 institutions	
Unpaid members: 42 single or family, 3 institutions	
Savings account (1)	$603.49
Savings account (2)	101.59
Checking account	996.36
Income (October 26th-March 15th)	920.47
Expenses (Postage, Envelopes)	56.19

Margaret Cook
Treasurer

EDITORIAL

M.A.S. 69-4 or ME 146-1?

What do these numbers have in common? Interestingly, they identify the same archaeological site, the Hodgdon site, in Embden. This duplication resulted because of the numbering systems in use by prehistoric and historic archaeologists as described by Spiess and Bradley respectively, in the last issue of the MAS Bulletin. The prehistoric survey numbers are based on consecutively numbered topographic maps, and the historic survey is based on an alphabetical listing of townships. Both systems have their advantages as outlined by Spiess and Bradley. The result, I fear, will be confusion.

The Hodgdon site is a prime example. The site is a late ceramic and early contact period aboriginal site with an assemblage of historic artifacts that are probably trade items. The site is primarily prehistoric, yet the record is confused with an historic designation. Separately cataloguing artifacts from this site gives one the impression that there are two separate occupations, whereas in reality, there is but one occupation area.

A potential source of confusion is the fact that locations that made good aboriginal sites also made good homestead and town sites for European settlers. What happens when an historic site overlays a prehistoric site? Are the first few levels given one designation and those below another?

A third confusion factor is in the numbers themselves. For instance, 146 designates Embden township in the historic survey and Shin Pond quadrangle in the prehistoric survey. It would certainly be possible for artifacts from these two areas to become mixed.

I would suggest that a single site numbering system be adopted, preferably based on the topographical maps since they are more precise in locating a site. A subscript to the site number should be added which would indicate at a glance whether it is a prehistoric site, an historic site, or a site that spans both periods. I also recommend that this be done soon, before the surveys are so large as to be unmanageable.

NEWS AND NOTES

DATING THE SKOWHEGAN MARKER STONE

Conrad Swan, M.V.O., Ph.D., F.S.A., York Herald at Arms

[In the fall 1980 issue of the MAS Bulletin, Mr. Edward J. Lenik suggested that the arms on the Skowhegan marker stone might be those of Benedict Arnold and also a relic of Arnold's expedition to Quebec, September, 1775-July, 1776. For possible identification and dating of the arms, Mr. Riley Sunderland appealed to a distinguished professional authority, Dr. Conrad Swan of the College of Arms, London. Dr. Swan very generously replied at length and illustrated his opinion with a picture of a Maryland shield which displays similar heraldry. The Society and the Editor are most grateful to Dr. Swan for his comments.]

Naturally it is rather difficult to judge from the photocopy of the illustration provided but having studied the design, and assuming that it is contemporary with the carving then the Shield of Arms would appear to be of the late 18th or early 19th centuries. That particular shape of shield with the double cusping at the upper edge is characteristic of late 18th century even if a little "old fashioned" by the early 19th century but then one must bear in mind that a degree of conservatism that is exhibited in Colonial styles in many spheres.

One finds this type of shield widely used during the latter 18th century. [The American reader] will be fully conscious of this in many of the representations of the Arms of the United States where the Shield as displayed of the breast of the eagle supporter is of this kind - its origin, by a decision of Congress, being of this very period.

It is difficult to identify the Arms in question displayed on the Shield but it would appear that basicslly they are paly (vertical stripes) in the main part of the Shield with a chief (or broad band across the top of the Shield).

As for the crossed (?) sword and the fouled anchor, I am not able to present an opinion. The phrase frequently used by Heralds to describe a

decorative flourish, "a quaint conceit", might best describe this combination.

NOTES FROM THE ARCHAEOLOGY LAB - UMO

David Sanger

The summer of 1980 was a busy one for UMO archaeologists. Project directors were Rob Bonnichsen, Alaric Faulkner, and David Sanger.

Rob began the summer with his field school project in the Pryor Mountains of Montana. This is a project sponsored jointly by the University of Alberta, Canada. The emphasis of the research is the reconstruction of past environments and man's adaptation to these environments. By excavating in rockshelters at various elevations the adaptation to the attitudinal factors can be considered. A complete Holocene faunal record is developing, with multi-institutional funding including the National Geographic Society and the Montana Historical Commission.

Returning to Maine, Rob directed excavations of Munsungun Lake, concentrating on a Paleo Indian site. Crews from Earth Watch supplemented university students. Magnetometer surveys and soil chemistry analysis were combined in a new way to locate hearths and other features. Once again the Maine Historic Preservation Commission was partial sponsor. Also in northern Maine, Rob directed a survey aimed at locating sites on high terraces in the proposed Dickey-Lincoln reservoir area. A team of geologists and archaeologists worked together on the project, sponsored by the Corps of Engineers.

Alaric Faulkner and 3 students spent 2 weeks early in the summer charting the ruins of the Poland Hill Shaker Settlement, active from about 1819. The map will help assess the potential damage if future construction is carried out.

The second part of the summer was spent with a crew of 11 conducting a survey on Damariscove Island. The second year of the project, this year's mapping and testing confirmed the location of some 17th century fishing stages; but, the locations of a small pallisaded fort known to have existed from 1622 to 1676 remains in doubt. We now have a detailed map of the island showing its many 18th and 19th century structures and dumps. The work will allow the Nature Conservancy, the current land owners, to assess the historical value of their holdings, and may lead to a real excavation of some of the 17th century features in the next few years. The Maine Historic Preservation Commission and UMO sponsored the activity.

Dave Sanger continued with the Boothbay Project, sponsored once again by Sea Grant, the Historic Preservation Commission, and UMO. Nine students were involved in the 8 week field season. Three weeks were spent at 16-90, the Nahanada site, which yielded early 17th century historic artifacts in conjunction with Indian specimens. Dick Doyle, who was instrumental in identifying the site, spent 2 weeks with the crew. A report co-authored by Dave, Bob Bradley, and Art Spiess is in preparation. The remaining weeks were spent in survey and testing. Many of the sites are badly eroded, and some, unfortunately, destroyed by collectors. John Cross and Rick Will, both of Brunswick, were senior assistants on the project, which has now documented over 150 sites in the map area.

In August, the Institute for Quaternary Studies hosted the Biennial Meeting of the American Quaternary Association (AMQUA), a week long session of papers and field trips. Rob Bonnichsen organized a trip to the Munsungun Lake area to examine the geology, ecology, and archaeology of this important area. Dave Sanger led a trip to the Damariscotta oyster middens, Pemaquid Restoration, and then the Turner Farm site on North Haven Island where we were joined by Bruce Bourque.

Two graduate theses in archaeology were completed this spring (1980). James McCormick turned in his study of faunal remains from Passamaquoddy Bay and Chris Borstel presented his analysis of the Young site (companion site to Hirundo). This thesis is currently being prepared for publication by the State Museum and the Historic Preservation Commission.

For the future, we anticipate increased activity at UMO. Five new graduate students entered this fall and we are seeing increased interest in all programs, putting real pressure on our facilities. Once again, the close and productive relationship between the University and the Historic Preservation Commission is very much in evidence, providing information of Maine's historic and prehistoric residents, one of our most precious yet fragile resources.

NOTES - COUNCIL FOR NORTHEAST HISTORICAL ARCHAEOLOGY

The CNEHA Executive Board has decided to more formally structure and expand its activities by establishing a permanent mailing address and by creating several categories of membership. As the only regional organization concerned with the archaeology of the historic Northeast (New England, Mid-Atlantic States and Eastern Canada), CNEHA supports the development of all aspects of historical archaeology through conferences and publication of Northeast Historical Archaeology. The Council in the near future will become the major regional outlet for the reporting and publication of archaeological research on the entire historic period (ca. 1600-20th century) including underwater as well as terrestrial investigations. Membership is open to all interested individuals and institutions and is available in one of six categories: (1) Individual, $10.00; (2) Student, $7.50; (3) Institutional, $10.00; (4) Joint (receives one copy of publications), $12.50; (5) Fellow, $25.00; (6) Life, $200.00. Send check to: Council for Northeast Historical Archaeology; University Museum; University of Pennsylvania; 33rd & Spruce Streets; Philadelphia, Pennsylvania 19104.

NOTES ON HISTORICAL ARCHAEOLOGY, 1981

Maine Historic Preservation Commission
Robert L. Bradley, Ph.D.

Despite several inches of snow on the ground and temperatures consistently below zero, historic archaeological activity in Maine continues apace. Analyzing the past season's discoveries, along with research, writing, and planning for the 1981 season, keeps most of us very busy.

Professor Alaric Faulkner is now neck-deep in his analysis of last summer's work on Damariscove Island, the site of an English fishing station dating from at least 1622. The 1980 field season yielded an impressive

assemblage of early/mid-17th-century English artifacts from areas near the head of the harbor, but so far the test excavations in the thin layer of soil over bedrock have yet to reveal contemporary structural features. Clearly at least one more field season on Damariscove, involving an area excavation, would be rewarding.

The iron artifacts from Damariscove, Pemaquid, and several other historic sites are now being stabilized and conserved--an essential and costly process which prehistoric archaeology is fortunate in not having to face. Last year the State Bureau of Parks and Recreation turned over to UMO the artifact assemblages of several state-owned forts which were excavated by Wendall Hadlock in the 1960's. These collections are now being treated and analyzed for the scientific data which they can provide.

In the summer of 1981 Professor Faulkner, with the support of my Commission, plans to conduct survey in the Blue Hill Bay area to locate as precisely as possible early Acadian and Anglo-American settlements. In addition he intends to carry out test excavations on what appears to be the site of the French Fort Pentagouet of 1670 in Castine, a site suffering from devastating erosion.

Professor James Leamon of Bates College is continuing his photographic inventory of the artifacts from the Clarke and Lake Company Site in Arrowsic (1654-76). The metal artifacts have been dealt with and clay pipes and ceramics are now the focus of this project. As each artifact class is inventoried, the objects are transferred to UMO for curation and future detailed analysis.

Theodore Bradstreet of UMA, with advice from Dr. Arthur Spiess and myself, will continue test excavations on a prehistoric and colonial site in Pittston; the historical components are complex, ranging from a mid-17th-century trading post, a late 18th-century shipyard, and a late 19th/early 20th-century ice house.

My own activities are diverse. The Forts of Maine, 1607-1945: An Archaeological and Historical Survey is now finished and it appears that the Commission and the State Bureau of Parks and Recreation will jointly publish it this summer. The preliminary analysis of primary sources and European trade goods from the Nahanada Village Site has also been completed (see MAS Bulletin, Vol. 20, No. 1, Spring, 1980). Professor Faulkner and I are now undertaking a collaborative effort on a text book on historical archaeology in Maine, which will also be of interest to the layman. With the excavations on the Pemaquid officers' quarters of Forts William Henry (1692) and Frederick (1729) now at last completed, a two to three year period of analysis and writing is now underway to prepare a multi-disciplinary site report. I shall contribute chapters on the history of Pemaquid's forts, the history of Pemaquid research, and the structural features uncovered, along with an annotated bibliography. Helen Camp is analyzing the site's clay pipes and ceramics, while other specialists will prepare chapters on metal artifacts, vertebrate faunal remains, shellfish remains, and the prehistoric/protohistoric setting. An artist will be drawing precise plans and profiles as well as reconstructed views of the two forts. Come spring the stabilization of the Pemaquid officers' quarters will also be completed. I wonder when my involvement with Colonial Pemaquid will end!

In March, Professor Faulkner and I are travelling to London for ten days to confer with specialists and to conduct archival research on Maine's

sites of the colonial period. Since we must pay for this expedition ourselves, we may also drop into a pub or two.

On top of all of these activities, the routine duties do not escape our attention. The Maine Historic Archaeological Sites Inventory is expanding as always and we appreciate data on historic sites which the membership of your Society can provide (see MAS Bulletin, Vol. 20, No. 2, Fall, 1980).

If anyone has questions or suggestions regarding the current historic archaeological activities in Maine, I would be very happy to be of assistance. None of us can operate in a vaccum, and we all need your help in researching and protecting Maine's sites of the historic period.

PROGRESS IN PREHISTORIC TECHNOLOGY: ADVANCES IN COOKING METHODS

Arthur E. Spiess
Maine Historic Preservation Comm.

We are all familiar with the rapid rate of technological change during the twentieth century; and we have been taught that the rate of technological change has been increasing dramatically since James Watt invented the steam engine. By Contrast, when we think of Maine prehistory, we tend to think of hundreds or thousands of years when technology changed very slowly, if at all. Some of the change we see in the prehistoric record is thought to be purely stylistic (i.e., fashion or personal preference); while sometimes a case can be made for technological advantage of a succeeding type of tool over its predecessor. Rarely can we prove the case one way or another.

Luckily, Indian use of two basic types of pottery, and a non-pottery cooking method, survived in the East until the early 17th century, when they were witnessed and recorded by Europeans. As archaeologists looking back on these ethnohistoric records, after having dealt with the physical objects themselves, we can place a much wider perspective on the sketchy written accounts. We can see that each style of cooking had advantages and disadvantages of its own, and we can learn much about the archaeological record. (We are not here concerned with the essentially stylistic variation of pottery decoration, however.)

Cooking Vessel Types

Ethnohistoric accounts exist of the use of large wooden cooking troughs, heated by hot boiling stones, and of two fundamentally-different kinds of pottery. The two pottery types are: 1) a thick (7-15mm.) friable pottery with conical bottom and little or no collar, with various exterior decorative schemes; and 2) a thin (3-7mm.) fine-paste pottery with generally rounded vessel bottoms, and thickened collars decorated with linear designs.

Another cooking method, not considered here due to lack of ethnohistoric

accounts, is use of birchbark pots. Eckstorm (1932:47) states that they could be placed over a low fire if full of water. I also suspect that the boiling-stone method was used with birchbark containers.

The Wooden Cooking Trough

Nicholas Denys was a French businessman who operated fishing stations in what is now Nova Scotia and New Brunswick from about 1630 to 1670. He has left a wonderful account of the relatively "unspoiled" Indian way observed during the early years of his stay (Denys: 1671/72), including the following account of a wooden kettle (p. 402):

> This kettle was of wood, made like a huge feeding-trough or stone watering-trough. To make it they took the butt of a huge tree which had fallen; they did not cut it down not having tools fitted for that, nor had they the means to transport it; they had them ready-made in nearly all the places to which they went.
>
> For making them, they employed stone axes, well sharpened, and set into the end of a forked stick well tied. With these axes they cut a little into the top of the wood at the length they wished the kettle. This done they placed fire on top and made the tree burn. When burnt about four inches in depth they removed the fire, and then with stones and huge pointed bones, as large as the thumb, they hollowed it out the best they could, removing all the burnt part. Then they replaced the fire, and when it was again burnt they removed it all from the interior and commenced again to separate the burnt part, continuing this until their kettle was big enough for their fancy, and that was oftener too big than too little.
>
> The kettle being finished, it had to be used. To this end they filled it with water, and placed therein that which they wished to have cooked. To make it boil, they had big stones which they placed in the fire to become red hot. When they were red, they took hold of them with pieces of wood and placed them in the kettle, when they made the water boil. Whilst these were in the kettle, others were heating. Then they removed those which were in the kettle, replacing them there by others. This was continued until the meat was cooked.
>
> They always had a supply of soup, which was their greatest drink.

The only archaeological traces of these boiling troughs would be the fires and charcoal associated with their production, the hearths used to heat the boiling stones, and the boiling stones themselves. (These boiling stones could also have been used to boil small birch-bark containers, however.)

Fire-reddened and fire-cracked cobbles are perhaps the most plentiful artifact at interior riverine and lakeside sites. It is my impression that the concentration of such cobbles is generally less in coastal shell middens. However, some interior sites have been in use for at least 7,000 years, while most coastal shell middens are only 2,000-3,000 years old.

This statement that "troughs were ready-made in nearly all places they went" has vast implications. They must have been permanent features of well-

used camping spots, much as garbage cans and small cast-iron charcoal grills are today. These cooking devices would have been used by anyone who passed by, not being portable.

Parenthetically, reuse of the "designated" camping areas where these cooking-troughs existed may help explain a phenomenon that has perplexed archaeologists: the tendency of the same campsite to have been used frequently over many years, to the exclusion of nearby camping spots. This phenomenon of the "designated" camping spot may explain why we often detect sequential "occupations" that each lasted for some time (years, a generation, a century of several centuries?), but are separated by even more time of little or no site use. Equipment like the boiling troughs would be maintained at the designated camping spots until the locations fell out of favor.

Most importantly for our discussion though, pottery-making in Maine and the Maritime Provinces is over 2,000 years old. Yet the use of these boiling troughs lasted into the 17th century A.D. This boiling-trough method of cooking may be very ancient indeed, yet it survived alongside the use of pottery for two millenia. Clearly there must be advantages and disadvantages to both pottery and the boiling trough.

One important disadvantage to the boiling trough is its lack of portability: one didn't carry it around in a bark canoe! Pottery has the advantage of portability, moreover, one can put it directly in the fire and dispense with bother of heating and moving stones. But pottery itself had disadvantages: it is fragile; and it is limited in capacity. If one were cooking for all the in-laws, one would use a boiling-trough. Perhaps therein, too, lay a major advantage of the boiling trough: it "designated" a campsite and provided a focal point for gatherings.

Conical-Bottomed Pottery

Conical-bottomed pottery is described by Willoughby (1935:190-194) under the name "old Algonkian type". Apparently, conical-bottomed pottery was still in use by Virginia Indians about 1600. Willoughby (ibid: 192) notes that John White's drawings at the Roanoke Colony(1585-1588) clearly show conical-bottom Indian pots with a fire built around them. Willoughby (p. 193) quotes an early description of these pots: the Indians set their cooking-pots on a "heape of erthe to stay them from falling" and "putt wood under which being kyndled one of them taketh great care that the fyre burn equally rounde about."

We can detect this kind of pottery archaeologically directly through finding pointed basal sherds. Moreover, I now realize that I have seen lenses of light-colored earth in hearths in several sites. Such layers might be the mounds of earth in which the pot had been set.

These "old Algonkian type" pots are the ones commonly found in Maine shell-heaps. They vary considerably in thickness, from 7 mm. to 14 mm., with coarse or medium-grit temper of crushed rock, sand, or shell. A variety of surface decoration occurs, most common being "cord-wrapped stick", "dentate stamped", "rocker-stamped", and "punctate". The sherds often break into "inside" and "outside" fragments, and feel friable to the touch.

From the ethnohistoric account, we conclude that using these pots took a great deal of care and time. The fire had to be constantly tended to insure equal heating of the pot, or else it would crack. The fragility, and

the amount of time needed to tend them, were obvious disadvantages which 1) tended to preserve the older boiling-trough method, and 2) made anything perceived of as "better" an acceptable alternative. Apparently, the round-bottomed pots, adopted just before white contact, were an acceptable alternative.

Round-Bottomed Pottery

Round-bottomed pottery is described by Willoughby (p. 194-197) as "protohistoric Algonkian". It is thin (3-7 mm.), made of a fine paste, and feels harder and less friable to the touch then does the "old Algonkian" ware. The design on the collar often consists of groups of angled lines.

This pottery ware and shape resembles those made by Iroquoian-speaking peoples in New York State and the St. Lawrence drainage. It is found in New England frequently enough to have been manufactured here by our resident Algonkian-speaking Indians, rather than representing only trade items. However, we are not sure when this ware appeared in Maine: probably after 1300 A.D. It may have been introduced as late as 1500 A.D.

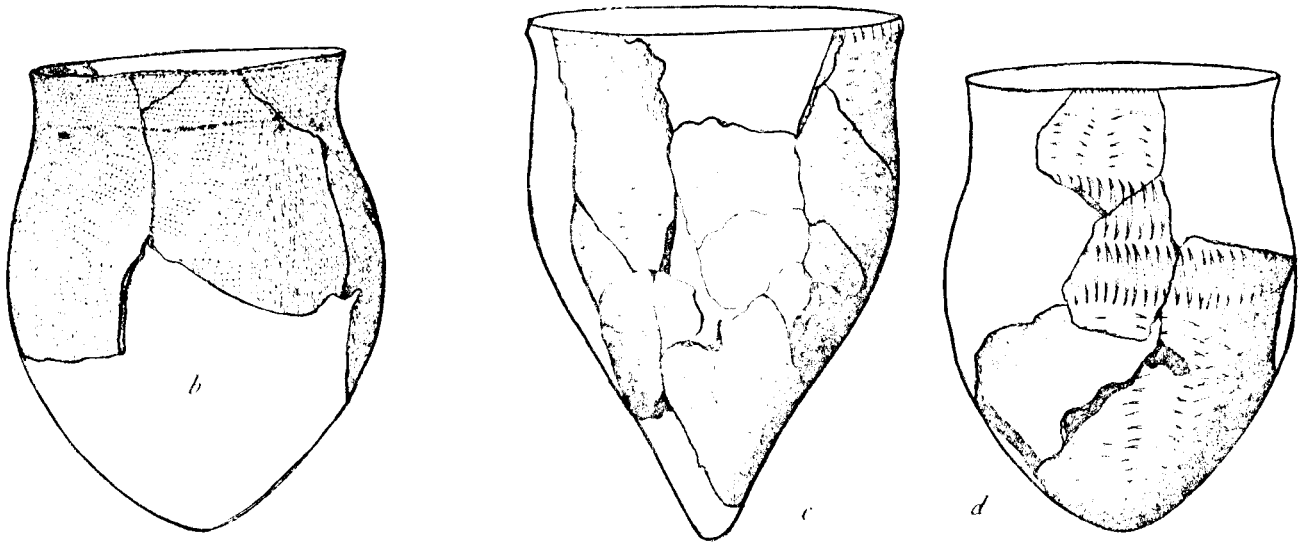
We have found this ware in an upper level of the Turner Farm site on North Haven (Bruce Bourque, personal communication), the Hodgdon site in Embden north of Skowhegan, and in a collection from Mechanic Falls. It appears to be widespread geographically.

A 1636 account of Iroquoian pottery manufacture and use almost certainly describes this type (quoted from Willoughby, p. 196):

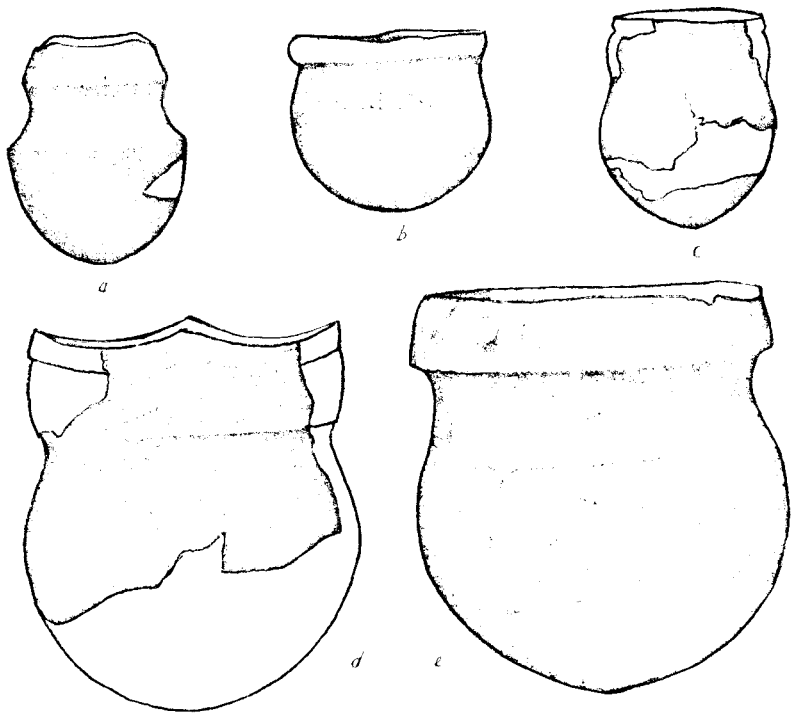
> They are skillful in making good earthen pots which they harden very well on the hearth, and which are so strong that they do not, like our own (European) break over the fire when having no water in them. But they cannot sustain dampness nor cold water so long as our own, such they become brittle and break at the least shock given them; otherwise they last very well. The savages make them by taking some earth of the right kind, which they clean and knead well in their hands, mixing with it, on what principle I know not, a small quantity of grease. Then making the mass into the shape of a ball, they make an indentation in the middle of it with the fist, which they make continually larger by striking repeatedly on the outside with a little wooden paddle as much as is necessary to complete it. These vessels are of different sizes, with feet or handles, completely round like a ball, excepting the mouth, which projects a little.

The description points out some of the advantages and disadvantages of this ware. These pots are suspended over the fire, presumably by a cord around the collar. They are not as sensitive to heat breakage as the conical pots that were placed directly in the fire. In fact, they were more heat-resistant than European wares of the time. However, not being glazed (and being thin?), they were adversely affected by dampness.

If we could find the correct site to excavate, containing the right evidence, it would be intriguing to examine the transition from use of the "old Algonkian" type to the "protohistoric" type of pot, how fast the latter was adopted and how rapidly it replaced the former style.



The Old Algonkian Type. From Willoughby, 1935, p. 191.



The Protohistoric Type. From Willoughby, 1935, p. 195.

Adoption of Metal Vessels

A 1674 account by Daniel Gookin of Massachusetts (Willoughby, p. 197) is self-explanatory:

> The pots they seeth their food in, which were heretofore and yet are in use among some of them are made of clay or earth, almost in the form of an egg with the top taken off. But now they generally get kettles of brass, copper, or iron. These they found most lasting then those of clay, which were subject to be broken.....

****

This short study of cooking technology, I hope, shows that Indian life was not a static, savage struggle against nature. Technological change and improvement was just as much a part of their life as it is of ours, if at a slower pace perhaps. The decisions to adopt new, and what where perceived as better, technologies were based upon rational assessments of the advantages and disadvantages of each new technological introduction. Often, a "new"technology was added to the list, while an old method remained in use where it was most advantageous.

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AGRY'S POINT STATUS REPORT

Theodore E. Bradstreet
University of Maine at Augusta

Introduction. As some of my readers know, I take very strongly the position that public education is more important to conservation of archaeological resources than any restrictive legislation. I believe in the feasibility of a program of archaeological education, utilizing the educational resources of central Maine, and available to the general public. I have therefore been attempting to establish an institutional base of operations, and to make courses of instruction available to the public, since my return home from graduate school.

I have had much encouragement from the Maine Archaeological Society, and especially from the Maine Historic Preservation Commission. I have also had some success. In the fall of 1979, Professor Jon Schlenker, University of Maine at Augusta anthropology faculty, and I succeeded in adding an introductory archaeology course to the UMA curriculum. The course was given in the spring semester, 1980, and will be offered every alternate year. In the summer of 1980, under joint Unity College, MHPC, and UMA sponsorship, I was able to offer, for the first time in Maine, an archaeological field school aimed at the general public, rather than undergraduate college students. The field school was a complete success both in terms of meeting its educational aims and in terms of archaeological results, though it was barely a break-even proposition in terms of finances, particularly my own.

In the fall of 1980, UMA created the unsalaried position of Research Associate in Archaeology for me, giving me an institutional base and facilities in which to do the lab work on the materials recovered in the field school. I presently have one student assisting with the lab work as an independent studies project at UMA. The archaeological site which has formed the basis of the program so far is Agry's Point (MSM25-16; Lenik, 1976, Williamson, 1869) in Pittston, Maine. The site is a very important and exciting one, as it contains a prehistoric occupation extending throughout the ceramic period, the first to be professionally excavated on the tidewater section of a major river in Maine. Historic occupations begin with a trading post in the mid-to-late 1600's, and include a revolutionary-period shipyard and important late-nineteenth-century ice houses. This paper is a progress report on the archaeological work on that site to date.

Previous Work. The work which initiated archaeological interest in Agry's Point is a paper by Joseph Williamson (1869), a noted Maine historian of the nineteenth century. He encountered a report that, when the point was settled sometime between 1761 and 1763 remains of an earlier, unknown, European occupation were found. He investigated by visiting the site personally and interviewing local residents. He did no excavation, and the data he collected were all at least second-hand, since he was working more than a century after the events reported to him.

In the published version of his work (Williamson, 1869), he does not identify his informants and quotes only the original tale. It stated that, in clearing the point, the brick bases of some fourteen chimneys were found and on one was growing an unidentified tree "over three feet" in diameter, presumably at stump height, and "over six hundred years old" by actual count of the annual rings. The age of the tree is highly suspect. No species of tree which might be reasonably expected to grow on the site should show such an incredibly slow growth rate (o.06 in./yr.) on such a site (Fowells, 1965). If we assume the diameter given to be correct, an age of 150 years is a far more likely maximum, and half of that a better estimate. If we assume the age to be correct, the figure is, of itself, very improbable, and an estimated diameter would be 20 to 30 feet, so remarkable that the likelihood of its shrinking in retelling must be very low. Therefore, if either figure is correct, it must be the diameter and not the age. This means that the tree would have begun growing sometime in the seventeenth century.

This interpretation is supported by information in Williamson's published report itself. He examined a brick supposedly from this unknown occupation and described it as "of a much larger size and of a lighter color than those manufactured in New England." This is a good description of seventeenth-

century common brick particularly as manufactured in England, but also as made in New England (Helen Camp, personal communication; Cummings, 1979; Moxon, 1678/80).

Further to the point is information in a draft manuscript of the published article (Williamson, n.d.). In the manuscript he identifies each of the local informants interviewed (the original tale came from an unnamed informant in Winthrop), and recounts the information given by each. The tree in question is therein identified as "pine" and its age given as sixty years. While the information given suggests the existence of more than one concentration of brick, there is no support for the claim of fourteen. White pine (Pinus strobus) would be by far the most likely species to be found growing in the situation described on the site, (Fowells, 1965) and a white pine growth curve for the site, compiled to test the reliability of the age estimates, supports the sixty-year estimate. This means that the tree began growing before 1700 and the unknown settlement would have been abandoned sometime previously.

Williamson's work, then, indicates the presence of an unknown, possibly English settlement at Agry's Point in the 1600's, and establishment of an unnamed shipyard there 1761-63. Because Williamson used the evidence of an unknown settlement to argue for the possibility of a Norse presence on the Kennebec, his work attracted attention in the Viking-mania that was the aftermath of the discovery of the Spirit Pond runestones (Haugen, 1972). The site was investigated in the fall of 1973 and spring of 1974 by the New England Antiquities Research Association (Lenik, 1976), an amateur group concerned with the search for evidence of pre-Columbian European activity in New England. Their work consisted of two days of archaeological reconnaisance including the digging of eleven one-by-one foot test pits.

The exact locations of NEARA's test pits are uncertain; those shown in Figure 1 are interpolated from the published report (Lenik, 1976), and may be incorrect. However, NEARA's work at Agry's point produced evidence of the unknown seventeenth-century occupation, established from field observations and from Everson (1970) the existence of a major ice-cutting operation on the site, and produced artifactual evidence of a prehistoric ceramic-period occupation. They were disappointed in their search for ancient brick structures, as might be expected. Williamson (1869) recounted not only the eighteenth-century clearing, but also nineteenth-century plowing on the site, besides which there has been the massive and obvious rearrangement of the topography for the ice houses after his visit.

Archival Research. In historical research on the Kennebec in the seventeenth and eighteenth centuries, there are two major problems. The first is that the traditional, "generally accepted" history of the seventeenth century is largely the product of publicists working for adversaries in major land-claims battles waged in the middle of the next century. This version is a vast over-simplification, and contains some outright fabrication. Even "original" documents pertaining to the period are suspect if they have been used in the court battles. They must individually be evaluated against sources not tainted by association with any eighteenth-century claim, and this is a difficult and time-consuming process. Nevertheless, progress is being made.

The second problem is that virtually all of the local histories produced for the area in the late nineteenth and early twentieth centuries simply recount local tradition with little or no actual historical research

to support it. This means that the version of eighteenth-century history which they present is badly garbled, and considerable research is required to ascertain the facts. With those cautions, I will proceed to a discussion of the history of Agry's Point, as it stands at this point in my research.

As regards the seventeenth-century situation, Nehumkeag is listed with Cushnoc as a trading location in an inventory of the Kennebec trade made in the late 1650's (Eben Elwell, unpublished data). There are two problems in assigning that place name, in all its spellings, to Agry's Point. However, the last use of that name for Salem in Bradford (1650), and in Perley's magnificent history of Salem (1924), is 1629. In The Planters Plea (1630), Rev. John White laments the passing of the Indian name for Salem, and Capt. John Smith, in Advertisements for the Unexperienced Planters of New England (1631), speaks of the place as "now" called Salem. It therefore appears that the Indian name for Salem went out of use about 1629, and references to Nehumkeag after that date should indicate a place on the Kennebec.

The second problem with Nehumkeag is that the place name itself was deeply involved in the land-claims cases of the eighteenth century. However, numerous depositions from those cases (Eben Elwell, unpublished data) make it very clear that Agry's Point is meant. The controversy was not the location of Nehumkeag, but whether or not it was synonymous with Negwenkeag (apparently it was not). That Agry's Point was Nehumkeag, and that there was a post ("houses out houses and cellare") there in the 1650's is supported by a group of "suspect" deeds (LD 1:20-6), which are in turn supported by "untainted" deeds (YD 8:158-60).

Given the existence of a trading post at Agry's Point in the 1650's, there remain the questions of who built it and when, who owned it, who used it, and when it was abandoned. From the documents cited above, it appears that it was built before 1654, and perhaps before 1649, by persons unknown. The question of ownership is complex, which is precisely the reason the eighteenth-century suits were necessary. It is clear that the Pilgrims considered that title to the land on the Kennebec was vested in the Indians, since they themselves obtained Indian deeds, in spite of their royal patent. Therefore, it presently appears that the first European owner was Christopher Lawson, an entrepreneur, who obtained title in 1649, and sold it in 1650 to Thomas Lake and his varying partnership, who appear not to have subsequently sold it. The whole answer as to ownership does not lie in land titles, however. The real source of wealth on the river was the trade, and it apparently functioned independently of land titles.

The Pilgrims first asserted their complete control of the Kennebec trade in the Hocking murder case of 1629 (Bradford, 1650) and it was upheld in the general court of Massachusetts Bay (though it is questionable if the latter had authority) at that time. It was challenged and upheld again by the courts in the late 1650's (Elwell, unpublished data). On confederation of the colonies in 1643, it became necessary to share the trade. This seems to have been done by admitting personnel from Massachusetts Bay to the trade at the retail and management level, but Plymouth retained complete legal control and apparently 50% economic interest. The listing of Nehumkeag with Cushnoc in the inventory cited above (which includes no real-estate) shows that it was, in the sense of economic interest, ownership of the goods, and accounts receivable, a "Pilgrim" post. There is presently no evidence that Plymouth ever gave up its control of the trade, though its land holdings apparently were sold. As to the names of people actually personally present

at the Nehumkeag post, the above documents place both Christopher Lawson and Thomas Lake there at various times. It is most likely that it was destroyed in the Indian raids of 1676 during King Philip's War: the archaeological data have more to say to this.

The eighteenth-century history is more straightforward, though the Revolution poses some difficulties. Thomas Agry, Sr., for whom the point is named, acquired title to the southern quarter of five-mile lot number fifteen (Plymouth right) from the Proprietor, Jonathan Reed of Woolwich, in 1763 (LD 3:190). This quarter lot fronted the river from Nehumkeag Stream to about a quarter-mile south of same, and included the point. Agry's lot was five miles deep, and passed right through the center of East Pittston into modern Whitefield. Williamson (1869) indicates the point may actually have been occupied as early as 1761, and shipbuilding began immediately with an unidentified vessel for Dr. Sylvester Gardiner. Agry still owned the lot, with the exception of 200 acres sold off the East Pittston end in 1774 (KD 10:130), at his death (LP 3:252-4).

Thomas Agry apparently built the first mill in Pittston on the Nehumkeag prior to 1766. From his estate inventory, cited above, and two court cases (LC 1:219, 2:74), it is clear that he was selling lumber and cordwood both locally and in the coasting trade by then. He still owned the mill at his death in 1783, and it was probably a combination saw and gristmill, though listed as a sawmill in the inventory.

Also from the above court cases, we know he let out a vessel of his ownerhsip, the sloop Hannah, 96 tons burden, for a voyage from Falmouth to Madeira and the Canaries in 1766. She was lost on that voyage and replaced with another sloop, name unknown, so that Agry was still involved as shipowner in the coasting trade in 1770. He is listed as builder/owner of the hermaphrodite brig Dolphin, 116 tons, the first Pittston-built vessel registered at the brand-new Bath customs house in 1780 (Baker, 1873), and as former part owner of the sloop Hannah (his wife's name) in his estate inventory, 1785 (LP 3:252-4). Since he is called shipwright in his deed, and given the information collected by Williamson (N.D., 1869), it is safe to assume he acquired these and probably other ships by building them. Whether he continued as shipbuilder and wood-products merchant through the Revolution is not yet directly documented.

It is established from primary documents (Smith, 1903) that Agry built the last (additional) twenty batteaux provided by Reuben Colburn for Arnold's expedition to Quebec. These were built at Agry's Point between 21 and 30 September, 1775. Smith (1903) suggests that, from the price (12/-), these were somehow inferior to the rest. This is a ridiculous assertion. From primary documents presented by Smith (1903), it is clear that fair retail price for a new, sound batteaux on the Kennebec at that time was 20/- or less. Agry's price to Colburn was factory-gate wholesale, while the 40/-billed the government by Colburn was an obviously inflated price, intended to insure delivery, and including oars, paddles, and poles. Comparison of the two prices is meaningless. As for quality, only the last twenty were built at Arnold's personal request, and under his eye: they, most of all should have been of high quality.

Who built the original 200 batteaux, where, and when, is far from demonstrated. If one considers only the primary documents presented in Codman (1902), Henry (1877), Roberts (1953), and Smith (1903), and ignores the speculation, rationalization, and hearsay also presented, there is only

one scenario that fits the primary sources. The initial 200 batteaux were built by Reuben Colburn, on his own frontage below his house, between about 20 July and 15 September, 1775.

Other information bearing on Thomas Agry's activities during the Revolution is contained in the list of dated debts, with interest, owed him at his death in 1783 (LP 3:252-4). He loaned goods and money to all and sundry (including Reuben and Oliver Colburn and Henry Smith) right through the war, so there is no reason to assume he shut down. However, while his activity appears to have been only somewhat depressed by the effects of Arnold's expedition on the local economy, his cash loans drop to nil in 1780-81, apparently as a result of the effects of the Penobscot expedition. I submit it is highly probable that his losses from that fiasco were direct: i.e., as owner of coasting vessel(s) running between the Kennebec and Boston, he is very likely to have lost a vessel, at least, on the Penobscot.

That Agry's vessel(s) may have been involved in military transportation is also suggested by the fact that one of Arnold's transports was named Hannah (Smith, 1903). While this was a common name (Baker, 1973), and demonstration of ownership may be impossible, it was a favorite name of Agry's. A Hannah on a run from Cambridge up the Kennebec in 1775 is far and away most probably his. This is expecially true given Arnold's care in choosing knowledgeable help: the transports were very likely familiar with the route.

The use of Agry's Point in shipbuilding continued under the Agry family and friends into the first quarter of the nineteenth century, at least until 1806 (Baker, 1973). Francis Flitner took over the mill about 1803 (KD 6:25), and took Edward Lawrence as a partner in 1806 (KD 9:596). Together they ran the mill well into the nineteenth century. The late history of the mill has not yet been researched, and the date and circumstances of its abandonment are as yet unknown. Likewise, the exact date and manner of the end of shipbuilding at Agry's point is as yet unknown.

In 1833 (KD 104:20) Daniel Kendrick (an Agry son-in-law?) sold the point to Elisha Hunt. Hunt farmed it into the late 1860's and was the "present owner and occupier" interviewed by Williamson (1869). The house occupied by Hunt is shown on several nineteenth-century maps as on the point, and local tradition (Ivy Norton, personal communication) says it was the Agry homestead. This is not unlikely, as it was located with good communication to both shipyard and mill. The foundation reported by Lenik (1976) may be of this house. On the other hand, the Agry home may have been on the east side of the present Rt. 27, south of Nehumkeag stream.

The Hunt children sold to Miriam C. Jewett in 1868 (KD 268:243), and she sold the point and a right-of-way to it to James S. Barker and Charles H. Matthews in 1870 (KD 275:450). Since the right-of-way ran along the south line of her property to the present Rt. 27, the bridge across the stream which had served the shipyard must have been out of service at that time, though apparently reestablished later.

Barker siezed the ice-cutting operation of the New York, Boston and Kennebec Ice Company in 1871 (KD 219:563, KS 32:263). From documents submitted in support of the case, it is clear that he built the first ice houses at Agry's Point during the fall, 1870, through spring, 1871, and even managed to put away about 15,000 tons of ice at the same time, as the company's supervisor. It was this operation he siezed, tools, ice, and all. From Everson (1970), it is clear that there were several changes in

name and/or ownership, and expansion and interconnection of the ice houses, in the late 1800's. They were abandoned by 1920 when they collapsed, at least partially, under a load of snow (Everson, 1970). The ice houses at Agry's Point eventually comprised one of the largest and most-photographed operations on the Kennebec; land use since its demise has not been researched, but has not been intensive.

Clearly, the possibility of further archival work to detail the historic occupations is far from exhausted. The scheme of seventeenth-century ownership and occupancy presented may have to be revised as research into that period on the Kennebec becomes more intense and sophisticated. Continuity of Thomas Agry's activities through the Revolution is probable but not documented, and their end is unclear. However, an adequate framework for archaeological research has been established, as follows: from pre-1654 to probably 1676, trading post; from at least 1763 to at least 1806, shipyard; from at least 1833 to 1870, farm; from 1870 to 1920, ice houses.

Field Work. An excellent topographic base map has been prepared by Coffin Engineering (Figure 1), and considerable effort has been spent in archaeological and geological reconnaisance. Most of the features found by Lenik (1976) have been re-located. By far the most obvious occupation, in terms of surface features, is the ice houses. The gently rolling topography described by Williamson has been changed to one of steep banks and flat, level expanses by cutting, filling and grading done for them. Many architectural features, from post-holes to piers (Figure 2) are still obvious. The only area apparently unaffected by their construction appears to be the extreme tip of the point, though old land surfaces may still exist in some areas under fill.

One feature encountered in walk-over is of particular interest. It was apparently investigated and interpreted by Lenik (1976) as a foundation for a steam engine, as it shows some disturbance dating from about the time of NEARA's activity. It is of brick, and has been cut down to present (ice house) grade and filled. It is doubtful that it is the base or fire-box of a boiler, as its central opening is 30 to 40 feet long, but only approximately 2½ feet wide, and shows no sign of firing. It is massively built: the one wall exposed is of six courses at grade, two stretchers, three headers, and afinal stretcher course, counting outward from the center opening. Embedded in the second stretcher course are vertical iron rods. It is built of late-eighteenth to early-nineteenth century handmade brick, and appears to be slightly skewed to the alignment of the surrounding ice-house features. I presently believe it to be a saw-pit associated with the shipyard, though there is a slight possibility it may pertain to some unknown equipment of an earlier ice house.

Excavation was prepared for by cutting an access path and laying out and clearing a north-south base line with the help of Professors Steven Resh and Grant Estell of the Unity College forestry faculty, prior to the beginning of the field school referred to in the introduction. Arrangements were made with the Arnold Expedition Historical Society for use of the Colburn barn on rain-days and for lectures. During the field school, a ten-meter grid was laid out on the tip of the point, and round test pits (Figure 1), 30 cm. in diameter and 30 cm. deep, excavated near each grid point and at some five-meter points as well. Twenty-six such pits were dug, and backdirt from these and all subsequent excavations was screened through quarter-inch hardware cloth.

Subsequently, based on information recovered from the test-pitting, nine one-by-one-meter formal excavations were laid out and excavated (Figure 1). The average depth of these excavations was 30 ± 35 cm., with one unit excavated to 50 cm., and one left unfinished at 20 cm. No sub-grade features pertaining to the above-listed occupations were encountered, though quantities of artifacts (Plate 1) pertaining to all were recovered, primarily from the surface, plow-zone, and rodent disturbances. Excavation was by arbitrary levels, 10 cm. within the plow-zone and 5 cm. below it.

Lab Work. Cleaning, cataloging, and analysis of the artifacts recovered is in progress, but most of the work remains to be done. Several artifact categories have received some preliminary analysis, and analysis of clay pipe fragments and European ceramics is complete. Two categories of architectural remains, daubing (Plate 1, upper left) and brick, are getting intense study because of their importance in demonstrating the seventeenth-century occupation. Both are abundant, but in small fragments due to repeated plowing.

Daubing is characteristic of seventeenth-century house construction, and the majority of the brick is believed to pertain to that period also. There presently appears to have been a major change in American brick manufacture at about 1700. I am currently hopeful that this can be demonstrated and that the Agry's Point brick can be identified and dated based on that change. I am presently compiling a reference collection of brick thin sections for petrographic analysis with Dr. Charles G. Cinnamon, Unity College geology faculty, but more specimens and much work is still needed. Mortar also changed about the same time, and we have a few small pieces which may be early.

Results to Date. Geologically, Agry's Point is a river terrace with its present upper surface between the twenty-year and hundred-year flood levels (Fed. Ins. Admin., 1980). It is composed of late-glacial alluvial sand over glacial till, the sand being extremely well-drained internally and thus resistant to erosion. This condition has been a major determinant of its somehwat peculiar vegetation, including butternut (Juglans cinerea) and white oak (Quercus alba), which has been present throughout the historic and probably well back into the prehistoric as well.

The site owes its present topography to two events which occurred after Williamson (1869) wrote his description. The first is the massive re-shaping done for the ice house, discussed above. Most of the original surface was destroyed, or buried, and the river bank considerably steepened by this. The second is the 1936 flood. According to local tradition (Herbert Goodwin, personal communication), the tip of the point was considerably altered by the flood. From geological evidence, it appears that much of the formerly gently sloping tip of the point was eroded, leaving the present bluff shape. I believe that this tip may have been the location of the actual construction of ships by the Agry's and that that area is thus lost to us. Further, considerable deposition is said to have occurred then. There is no evidence of such deposition on the uppermost surfaces, nor is it likely to have ocurred there, but apparently deposition ocurred on the slope facing Morton Brook (Figure 1), increasing in depth from the crest of the point toward the stream. This would have held true for other floods as well, including those of lesser magnitude.

Archaeologically, the evidence recovered indicates a prehistoric occupation throughout the ceramic period. Aboriginal potsherds are abundant,

though generally very small due to extreme maceration by the plow. Stylistically, they range from "Vinette-I-like" (Plate 1, lower right), of which the specimen illustrated is by far the largest, through dentate-stamped (Plate 1, lower center?) and cord-wrapped-stick-impressed, to late, well-made, incised ware. This shows a continuity of occupation from the earliest ceramic period--before 2,000 B.P. in Maine (Sanger, 1979)--to historic contact.

Lithics were scarce, consisting of a few hammerstones, some debitage, and one projectile point (Plate 1, lower left), and no features were encountered. I expect this means that our excavations were on the fringe of the prehistoric occupation. The site would have been most attractive, not just due to drainage and the availability of edible nuts, but because, even in the nineteenth century, the Nehumkeag drainage supported a considerable run of anadromous fish (Kingsbury and Deyo, 1892), and there is a local sturgeon fishery even today (Eben Elwell, personal communication). Although no evidence of preceramic occupation was encountered, the environment and resources of the site encourage further search for it.

Presently, the best archaeological evidence of the seventeenth-century European occupation is the abundant daubing. Daubing is a mixture of puddled clay and chopped straw used much like plaster before lime became available about 1700 (Bell, 1930; Briggs, 1932; Cummings, 1979). Since seventeenth-century dwellings in New England rarely had any interior wall sheathing, the daubing was applied directly to the inside surface of the exterior sheathing, which often consisted only of split clapboard. The specimen illustrated (Plate 1, upper left) shows both the holes left by the straw temper and the grain of the wood surface to which it was attached. Cummings (1979) believes daubing was replaced by nogging, the infilling of interior walls with brick, in the late seventeenth century, but it seems likely that this was only true of more substantial homes, sometimes only of the north and west walls (Bell, 1930). At any rate, daubing is strictly a seventeenth-century architectural feature in New England. Most of the daubing recovered is fired, some to brick color and hardness (thus its preservation), indicating the dwelling of which it was a part burned at high temperatures. This is consistant with the 1676 destruction by Indian raid proposed in the historical discussion above.

The small quantities of European ceramics and clay pipe fragments recovered also support the seventeenth-century occupation. While most of the ceramics pertain to a period from the mid-1700's to the mid-1800's, one piece (Plate 1, upper center) has been identified by Dr. Alaric Faulkner, UMO anthropology faculty, as North Devon sgrafitto, dated 1650-1710, and of English origin.

The pipestem fragments cluster very closely about the date 1635 (95% C.I. $\pm$15 years), but I do not regard the so-called Binford curve (Faulkner, 1980) as accurate for dates of this period on the Kennebec. Examination of pipe bowls complete enough to allow bore measurement from the so-called Clarke and Lake site at Arrowsic (James Leamon, unpublished data) yields a bore-diameter date of 1652 for small "glandular" belly-bowls dating stylistically 1600-1640 (Faulkner, 1980, Figure 2, A and B). The bowls examined were each apparently of different make, so the small diameter cannot be ascribed to a singleideosyncratic maker. The sample is admittedly too small for statistical certainty, but the implication is dire. If earlier pipes do indeed have generally smaller stem bores than later, curve dates are not just wrong, they are misleading. Nevertheless, such a date, though not precise, is a clear

indication of general seventeenth-century provenience. A single red-clay pipe stem fragment recovered (Plate 1, middle left) is consistent with this (Faulkner, 1980). The bowl fragments recovered at Agry's Point (Plate 1, upper right) are large belly-bowl pipes stylistically dating 1640-1680 (Faulkner, 1980).

The small number of pipe fragments recovered is in marked contrast to the high counts at the tavern in colonial Pemaquid (Camp, 1975) and at Arrowsic (James Leamon, unpublished data), suggesting a dwelling, as opposed to a commercial establishment. That is to say that, so far, we have recovered evidence in the field of a single seventeenth-century dwelling house which was burned. A few rose-head nails (Plate 1, middle right) were found, but may also pertain to the eighteenth-century occupation.

Diagnostic artifacts from the remaining historic occupations are few. Fragments of eighteenth-century brick, most of the European ceramics, one pipestem, one or two pipe-bowl fragments, and perhaps the rose-head nails pertain to the Agry occupation. The remaining few pieces of ceramic date to the Hunt farm. Artifacts from the ice-house era consist mainly of a blanket of structural iron, mostly machine-cut nails and spikes, covering the surface of the site. All but the ice-house materials have been plowed over, some for thirty-five years or more, and are found in small fragments mixed together in the plow zone.

1981 Plans. Although, as previously stated, archival research has provided an adequate framework for the archaeology, there will be a continuing attempt to refine the picture in the areas of uncertainty mentioned above. As more detail is acquired, seventeenth and eighteenth century primary sources are located further away geographically, outside the range of easy commuting. Further work in those periods will be postponed to await better funding, except to the extent that donated help is made available (already considerable). Archival research, in general, will receive lower priority than archaeological, but the early ice-house period will receive close scrutiny. This is necessary in order to discover whether there was more than one ice house in the same place, so that the features pertaining to each may be distinguished.

The cleaning, cataloging, and analysis of the remaining artifacts will continue, hopefully to be completed before beginning any further excavations. Research into colonial brick will also continue, with acquisition and thin-sectioning of reference samples obtained from well-dated contexts. Thin sections will be examined under the petrographic microscope, with the purpose of identifying attributes which can be recognized under a hand lens or dissecting microscope in un-sectioned brick fragments. The goal of this research is to provide criteria for dating of brick fragments useful to archaeologicists without expensive equipment or procedures. Mortar will also be examined.

In the field, some time will be spent in locating and examining the foundation of the Hunt farmhouse, of possible. The ice-house fill and the flood sediments on the stream side of the point will be cored with a cup-auger on a ten-meter grid, in an effort to locate any old land surface buried under them. The emphasis in coring will be on locating undisturbed prehistoric material for excavation, particularly any pre-ceramic. Of course, additional historic remains may be encountered also. Obvious ice-house features on the point will be mapped in detail. This work will be begun as soon as possible this spring.

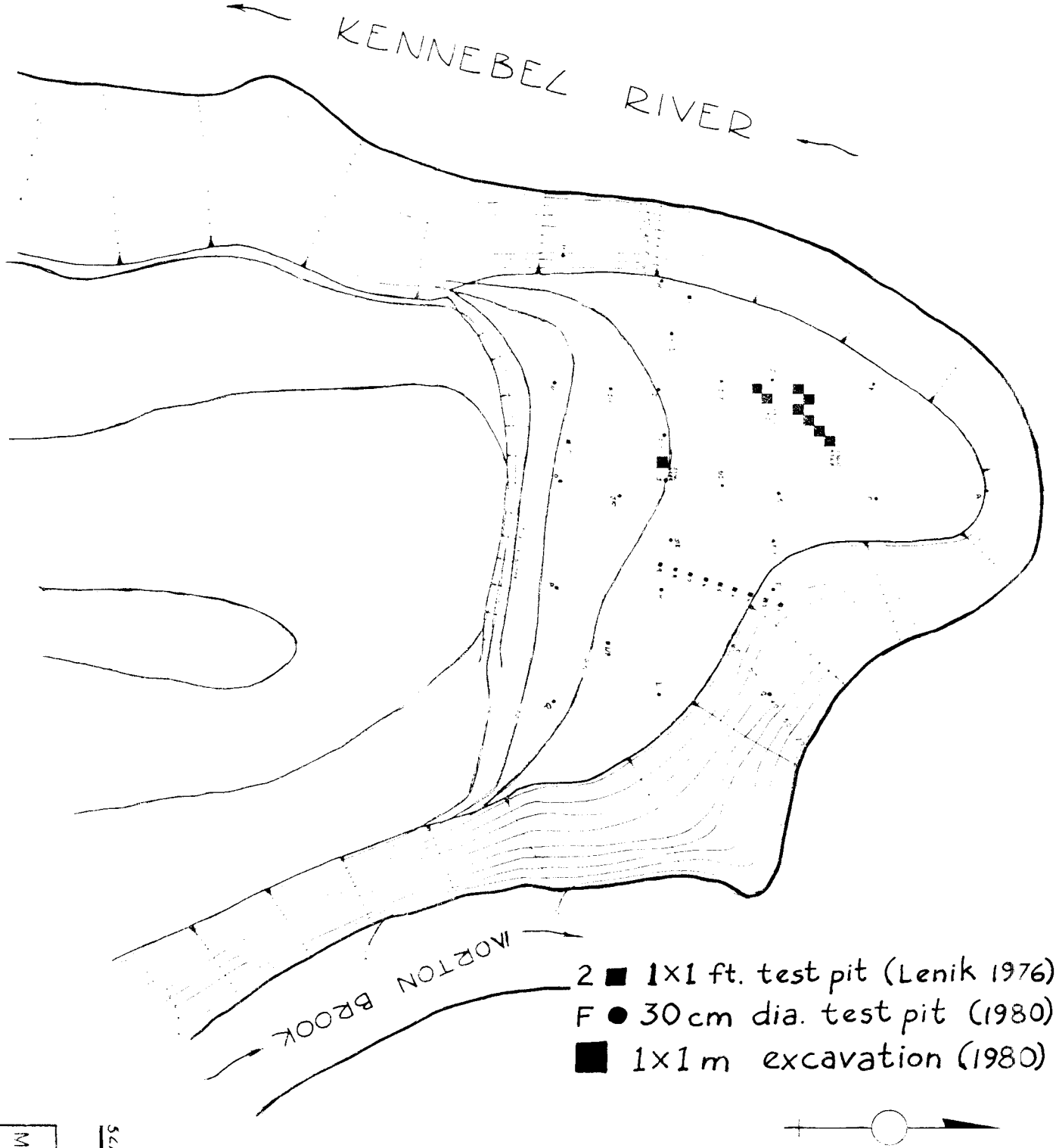

Figure 1.

Topographic Map of Agry's Point, showing working plot of excavations to date. (Base map by Coffin Engineering & Surveying, photoreduction by Unity College Photo Servi...)

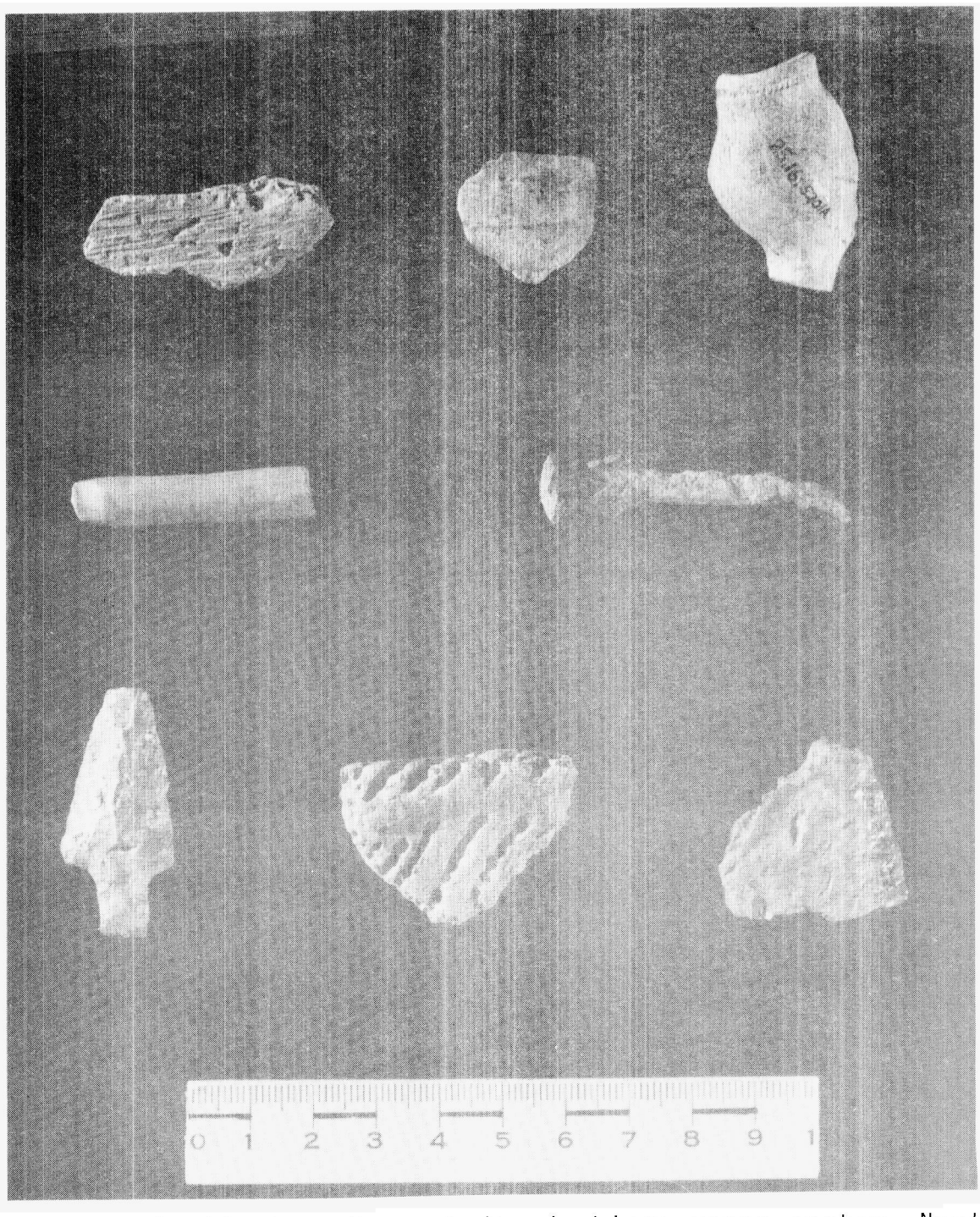

Plate I. Artifacts. Upper left, daubing; upper center, North Devon sgrafitto ware; upper right, belly-bowl pipe-bowl fragment; middle left, red-clay pipestem fragment; middle right, rose-head nail; lower left, projectile point; lower center, dentate-stamped (?) rim sherd; lower right, "Vinette-I-like" sherd.

(Photo by steve Bicknell, UMO Archeology Lab.)

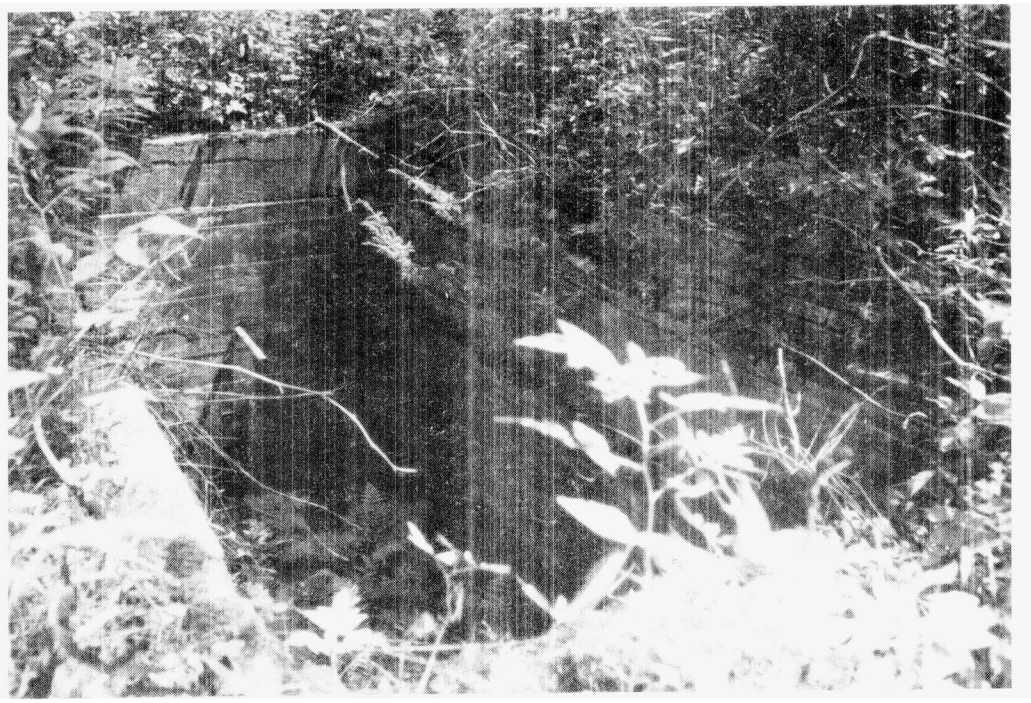

Figure 2. Ice House Features. Top: Lower of two cisterns supplying steam engines. Bottom: Best-preserved of two shipping piers. (Photos by Peter Lund, printed by UCPS.)

Excavation is planned for this summer, again in the context of a field school available to the general public. It will be structured as last year's six weeks broken into two-week blocks. Registration is possible for a minimum of two weeks to a maximum of all six, at one hour credit per week. Tentatively, it will run the same time as last years from after the Fourth of July to mid-August. Because of a considerable increase in MHPC support, tuition should be about half of last year's rates and fees should be small. Students will still be required to furnish their own small tools, however. Enrollment will be through UMA, and limited on a first-come-first-served basis. Registration will be on a permission-only basis, so registration materials and other information should be obtained from me directly, at P. O. Box 182, Albion, ME. 04910, phone (207) 437-9378.

Excavation this year will concentrate on sub-plow-zone features. We will attempt to expose the full horizontal extent of the saw-pit feature, and it will be cross-sectioned with at least a one-meter trench to expose its vertical form and any construction trench. Rod-probing will be done on a one-meter grid in an attempt to locate any cellar-hole in the area of known seventeenth-century occupation. This will be augmented as necessary with coring and test-pitting as a guide to formal excavations. Further excavation will be done in this occupation for general artifact recovery, as well. Any undisturbed prehistoric discovered under fill or flood sediments will also be subject to formal excavations, particularly in any area producing evidence of the pre-ceramic in coring.

Artifacts recovered are the property of the land-owner under Maine law, but the owners are being encouraged to donate the materials to the Maine State Museum, and cataloging is being done on the MSM system. Significant artifacts, particularly iron, needing special conservation treatments will receive it, with this in mind. Tentative arrangements have been made for iron conservation by UMO's historic archaeology lab.

Each of the occupations is, individually, a potential National Register of Historic Places nominee. We have decided to wait until after this field season to actually nominate the site, however. To the extent this season is successful, we will considerably strengthen the nomination. I expect to report to you next year that Agry's Point is on the National Register.

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Abbreviations:

KD Kennebec County Registry of Deeds, bk:pg.
KS Kennebec County Supreme Judicial Court, bk:pg.
LC Lincoln County Court of Common Pleas, bk:pg.
LD Lincoln County Registry of Deeds, bk:pg.
LP Lincoln County Registry of Probate, bk:pg.
YD York County Registry of Deeds, bk:fol.

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ACKNOWLEDGEMENTS

The Agry's Point Archaeological Project has already received, and will continue to need, contributions of time, effort, and money from many others than myself. If I were to detail the specific ways in which each has contributed, I would nearly double the length of this paper. I ask that I be forgiven, then, if I simply list all of those individuals and institutions who have provided help. I am sure, in such a long list, and with my unpolitical non-memory for names, I will have omitted someone. Those whom I remember as being especially helpful are Tom Abbott, Mr. and Mrs. Arthur Ashley, William Baker, Curt Berry, Bruce Bourque, Robert Bradley, John Briggs, Ed Churchill, Ed Coffin, Helen Camp, Gerry Cinnamon, Eben Elwell, Grant Estell, Ric Faulkner, Herbert Goodwin, Rick Hossman, Jim Leamon, Nathan Lipfert, the Crosby Milliman family, Ivy Norton, Dave Purdy, Steve Resh, Kinvin Roth, Dave Sanger, Art Spiess, Dave Starbuck, Lou Wilcox, and Ray Woodman.

Institutions providing support and services are the Arnold Expedition Historical Society, Coffin Engineering and Surveying, the Maine Archaeological

Society, the Maine Department of Transportation, the Maine Historic Preservation Commission, the Maine Maritime Museum, the Maine State Library and Museum, the Society for the Preservation of New England Antiquities, Unity College, the University of Maine at Augusta, and at Orono, and the U.S.G.S. The staff of the Kennebec and Lincoln County and Pittston Town offices have been most helpful. Without the gracious cooperation of the owners of the site and adjoining property, none of this would have been of much use.

Most of all, I am grateful to my students, Norm Blethen, Joyce Farrin, Robin Finney, Christine Fowler, Julie Kellogg, Peter Lund, David Stewart-Smith, Jeff Stone, and Dick Thompson, who have provided primary support for the work with their bodies, brains and picketbooks, and to my wife Ruth, whitout whose material and moral support I would long ago have either become a gas-station attendant or starved, naked in the woods.

EDITOR'S NOTE:

Eben Elwell will prepare an article for the fall, 1981 Bulletin on the settlement of the Kennebec by Pilgrim traders.

Archaeology of the Piscataquis Ahwangan: Preliminary Results

David Cook and Arthur Spiess
Maine Archaeological Society

I. Introduction.

Piscataquis Ahwangan is a travel-route concept, a series of alternative east-west routes and north-south connections from the Penobscot drainage at Howland to Moosehead Lake. In the days when the birch canoe ruled the Maine wilderness, the Piscataquis Ahwangan was the major east-west travel option through central Maine. To study the use of the canoe, indeed perhaps to discover its date of invention, an expert canoeist and an archaeologist are focusing their attention on the sites along this route.

The canoe, properly used, provides a versatile cross-country means of travel. It was meant to be paddled, poled, and waded upstream, carried on the shoulders past obstacles, as well as run downstream through foaming whitewater. Cross-country canoe travel is a subtle affair. One picks one's route from a series of alternatives depending on direction of travel, season-of-year, water flowage, and wind strength. One camps when tired, often before or after a carry, or when hungry. Modern downriver canoeists only experience one aspect of canoe travel. The prehistoric canoeists were proficient at all aspects of canoeing.

The placement of the camp spots themselves will tell us something about our travellers, and it may be that certain spots were used preferentially at certain seasons, or for different purposes. Thus, they may contain artifacts reflecting different seasonal activities. An even simpler hypothesis is the idea that we may be able to detect the age of oldest use of the birch canoe simply by looking at the right places.

II. Canoeing and Canoe-Routes in Maine.

The birch bark canoe was "the most complex and intricate product of native mechanical genius in the north...(Speck, 1940:65)". At the time of European exploration, this craft was already of ancient design, with tribal variations dictated by the environment in which they were used. The Penobscots credit their culture hero, Gluskabe, with having instructed the tribe how to make and use these delicate craft. There were, in general, two sizes: a small, light 12-16 foot craft; and a larger version (16-20 feet). The smaller model was primarily a pack canoe, while the larger was used in long trips and for the navigation of large lakes (Speck, ibid:65ff).

Canoe travel necessarily involved much upstream travel, often with arduous carries. Paddling ability was important, but skill with the setting pole was essential in ascending a rapid stream. Moreover, the shallow and rocky nature of many streams also demanded that the canoeist, who was in a fragile craft, descend with a pole; or as an old-time river guide put it: "to snub by". The pole allows perfect control of the canoe in either ascending or descending many rough rivers or shallow streams and brooks. Paddles, of maple, birch, or spruce, were useful in deep stretches of a river and indispensible on lakes.

Much of the actual paddling and all of the poling was done while standing. This is a very valuable skill, helpful when canoeing these old routes today. When standing the depth of the water is easily judged. A bark canoe cannot stand much scraping over gravel bottoms or sharp ledges,

and the deepest channel would be sought. The glare of the sun off sparkling water can be blinding while seated; but standing gives the paddler a more advantageous angle, improving his vision, which is his margin of safety.

When standing in a canoe, the paddler should assume a modified boxer stance with the center of gravity solidly in the middle of the canoe. When running through a chute or over a rapid with big waves, the paddler usually drops to his knees at the last second and rises as soon as the canoe is through. The paddle must be kept in the water as much as possible. Paddling provides speed and steerage. Having a paddle or pole in the water also gives one something to lean on and provides stability.

One aspect of ancient canoe travel was the required portages, or carries, that passed bad falls and rapids or connected watersheds. "The two types of carries--past falls, and from one water system to another--are of quite different character. Usually carries past falls parallel the river as closely as possible and are over hard, rocky ground....". Carry trails between watersheds...."were often very hard to find, very long when found, and wet, hard walking." Their reason for being was to make such portages as short as possible over the easiest terrain. The river systems of Maine, with the exception of those on the northwestern border of the state, rise in low lands very close to each other, so that a difference of a few feet in level would throw the headwaters of one system into another. Such is the character of the very difficult country in Hancock and Washington counties where westerly flowing tributaries of the St. Croix and the southerly flowing Union, Narraguagus and Machias Rivers take their rise close to one another in a wilderness of bog, marsh, swamp and low glacial plain, which makes it hard to find the courses and hard, in some cases, to follow them....(Eckstorm, 1945)."

The canoe was not an easy way to travel, but it was the only way during the ice-free months. The early explorers, guided by Indians, all noted the difficult nature of portaging and the indistinct nature of the trails themselves. In 1761, Col. John Montresor made the following observation while carrying between the Chaudière (Quebec) and Penobscot waters: "The Abenaquis, jealous of the knowledge of their country, took care to leave but few vestiges of their route. Even here we found but few knotches on the trees, commonly called blazes, the savages' constant guide in the woods.... On our first day's journey from the Forks (of the Chaudière) the country was as barbarous as can be imagined..advancing in five days not above five leagues." This expedition was hampered by low water, as they did not leave Quebec until the 14th of June, 1761. As a result, the portages were longer, since the spring runoff had subsided. The Indian quides told Montresor "....on the melting of the snow it is no uncommon thing to go from the forks or crotch of the Chaudière to the carrying place in two days....(emphasis added) (Montresor, 1761)."

While travelling, Indians seemed to make little haste. The idea of a "trip", such as Norridgewock to Quebec, certainly existed, but their concept of time and distance, and the need to hurry along the way, were different from ours. Col. John Allen's experience with the Passamaquoddy Indians during the American Revolution is revealing. Allen brought the tribe to Machias and American control in 1776, safe from British influence. Following an age-old canoe route, Allen and the tribe, some 500 persons travelling in 128 canoes (Kidder, 1867:311), left Meductic in mid-July and began the arduous journey westward. Kidder observes: "It must have tried the patience

of Col. Allen in the extreme, as it will be seen by the journal they often did not move five miles a day, which distance is counted a day's journey for Indians. It must have been tiresome to the whites, but the Indians are seldom in any haste and often spend a month on a short journey that could be accomplished in three days....(Kidder, 1867:80)."

When coming to a carry, Indians often made sport of the difficult, but absolutely essential, task of portaging. The effect of this practice was to take the mind off the more miserable aspects of the effort and emphasize the "fun". Allen, and later Thoreau, noted that the Indians raced, with canoes on their backs, across the portage paths.

At slow rates of travel, we should naturally expect frequent camping spots located along main travel routes. Such camping spots may have been spaced ½ to 1 day's travel apart, certainly spaced less than 5 miles apart. At carrying places we would expect a campground at suitable locations at one or both ends of the carry, as the night's rest was frequently made before or after a heavy carry.

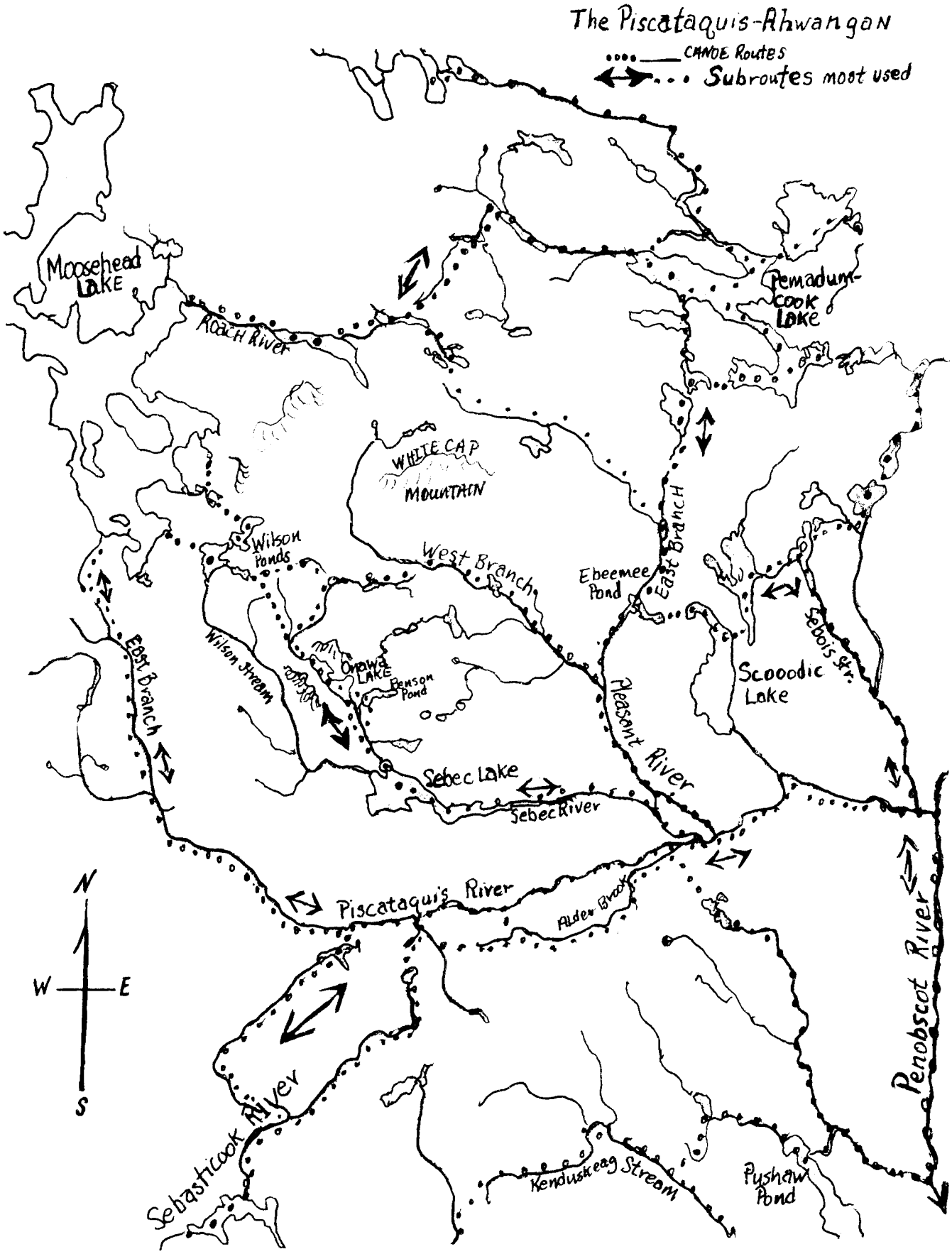
We must remember that, as the Indians had to subsist while travelling, campsites were often chosen for their access to food resources. When evaluating the suitability of a campsite one must consider not only the canoe advantages but also the fishing and hunting possibilities. One assumption we can safely make is that the prehistoric environment provided more abundant food resources, as the rivers were unobstructed by dams and the animal population was larger and more varied. Perhaps a close archaeological investigation of such sites will help us identify and understand which sites were mere over-night stops and which were prime food gathering spots.

III. Piscataquis Ahwangan Alternatives: Seasonality and Directionality.

In discussing these routes, the perspective of one travelling upstream will be employed, unless otherwise noted.

The major Piscataquis route to Moosehead Lake from the Penobscot at Howland was the Sebec River to Sebec Lake approach, utilized and reported by Joseph Chadwick in 1764 and Ebeneezer Greenleaf on 1816.

Chadwick, guided by Penobscot Indians, has left a sketchy account of the route. The...."Persscateequess River is a mostly raped (sic) Stream and Rocky ruff land but in sum parts are good tracts of land on which grows pine and other tember...." Chadwick's spelling is also most interesting. He continued...."Soback Pond (Sebec Lake) land is rockey - rising with an esey asent at sum distence appers to grow hard wood. But the most valueble tember is a large forriest of white ceders - many trees are more than 18 inches in diameter and 20 or 30 feet without apperence of lims...." "OBERNECKSOMBEEK Pond (Onawa Lake) has a vary remarkable Mounton (Boarstone Mountain) which serves to rectifie our reckeoning about 50 miles Eich way...." This route would have been the preferred route for several good reasons: it is the most direct, it is 56 miles shorter than going up the Penobscot and its West Branch; and it is easier canoeing. Sebec River drains a large area (Sebec Lake, Onawa Lake, Long Pond, and the Wilson Ponds are major headwaters) that would provide enough water for canoeing most of, if not all the open season. The other major branches, the Sebois, Pleasant, and upper Piscataquis itself, are steeper and shallower than the Sebec, often going dry by mid-July. None have the drainage area or the storage capacity in lakes or ponds that the Sebec has, even though the Sebec is the shortest river. Thus, we would expect greater prehistoric use of the Sebec branch then we would of


The Piscataquis-Ahwangon
CANOE Routes
Subroutes most used
Moosehead Lake
Roach River
Pemadumcook Lake
WHITE CAP MOUNTAIN
Wilson Ponds
West Branch
Ebeemee Pond
East Branch
Sebois Str.
Wilson Stream
Onawa Lake
Benson Pond
Scooodic Lake
Pleasant River
Sebec Lake
Sebec River
Piscataquis River
Alder Brook
Penobscot River
Sebasticook River
Kenduskeag Stream
Pushaw Pond
N
W
E
S

the other routes of the Piscataquis Ahwangan.

These alternate streams (Sebois, Pleasant, upper Piscataquis) could have been used in high water or a wet year, and all have interesting archaeological components; but the Sebec shows a higher concentration of sites.

Greenleaf has left an interesting account of his expedition to Moosehead to survey Day's Academy Grant. Both Chadwick and Greenleaf chose different sub routes to reach Moosehead from Sebec Lake. After they had traversed the lake they followed Ship Pond Stream north as far as they could conoe. Chadwick's party, guided by the most skilled of canoe travellers,Penobscot Indians, left this stream and carried east into Big Benson Pond. While there is a steep portage to Benson, after the canoes had been used to cross this pond the carry trail from Benson to Onawa LaKe is less than ½ mile and downhill.

Greenleaf carried up Ship Pond Stream directly into Ship Pond/Onawa, portaging a months' supply for six men in addition to their canoes. The amount of "wangan", the Maine term for camping gear, guaranteed a difficult passage. Their fieldbook (Greenleaf, 1819) states that they carried a total of 1,067 rods (3 1/3 miles) from Ship Pond Stream to Onawa Lake.

After paddling up Onawa Lake, up winding Long Pond Stream, these two explorers again chose different routes to Moosehead Lake. In 1764 Chadwick's party carried from the head of canoe navigation some distance below Slewgundy Falls up Long Pond Stream to Long Pond. Once there, he went north to Trout Pond, Hedgehog Pond, Brown Pond and from there into Wilson Pond. His party eventually came out in Lily Bay - they actually were aiming for Beaver Cove - but must have got over into Long Pond from Upper Wilson.

Greenleaf, on the other hand, reached the "old carry" on Long Pond Stream and, rather than swing N.-E. up that stream to Long Pond went northwest, a more direct route to the Wilson Ponds.

After much arduous uphill work they reached "little Wilson" pond - (today called Rum Pond), and from the southwest Bay of Upper Wilson carry over into Mud Pond and then into Moosehead - "to their great joy".

It again seems that Chadwick, with Indian guides, went out of his way while Greenleaf followed a more direct route. It will be found that while Chadwick did go a more roundabout route, it was probably no more difficult.

The Piscataquis Ahwangan must have been well known by later prehistoric peoples. It is reasonable that the sub-route most heavily used would have been the best known and the easiest route. It probably would show not only larger sites, but a wider range of artifactual materials. On the Sebec segment of the Ahwangan, occasional material has been found that was made of exotic (non-local) lithic material. On the other branches not only do the archaeological sites seem to be smaller, but they seem to contain less material of exotic origin. If these data remain valid, they may indicate that all the canoe routes were well known and used by local bands, but that the Sebec route would have been the choice of people from eastern Maine or the Maritimes who passed through the area.

Sebois Stream is one of the tributaries draining the area west of the main Penobscot and south of the West Branch Penobscot. When there was sufficient water, this stream could be ascended and, with a carry, be con-

nected with the West Branch at Shad Pond. The Pelasant River ponds of Upper and Lower Ebeemee can also be reached by means of carries, none long. Once at Upper Ebeemee one could follow Wangan Brook and reach the West Branch watershed Upper Joe Mary Lake, or follow the East Branch Pleasant to the northwest, eventually to the Roach Ponds which are Kennebec headwaters.

Like the Sebois, the Pleasant River is best canoed in the spring unless it is a rainy year. After several miles of paddling, upstream travel on the Pleasant requires almost exclusive use of the setting pole because of swift and shallow conditions.

The West Branch of the Pleasant separates from the East Branch above Brownville, and was used to obtain quantities of red ochre found in abundance at Silver Lake, site of Katahdin Iron Works, a 19th century mining and smelting operation. This stretch is a very difficult part of the river, being almost a continuous rapid below Silver Lake to the confluence with the East Branch of the Pleasant. This route too, could have been used to reach Moosehead Lake via Long Pond, but miles of arduous carrying through very rough terrain was the price to be paid. The route from the Sebois to Upper Joe Mary was probably more heavily used than were either the west or east branches of the Pleasant, because of the difficult nature of these branches.

If one were at the "Lower Lakes" (the Joe Mary Lakes, Pemadumcook, North and South Twins, Ambejejus) the Wangan Brook route in reverse might be chosen as a way to the Lower Penobscot. It is direct and perfect canoeing when the water is up. Many of the rapids requiring a carry in the ascent could be run or "snubbed by" with a setting pole when travelling downriver.

Once above the Sebec, the main branch Piscataquis remains easy canoeing with falls at South Dover, Dover, and Guilford that required portaging. These places are dammed for the most part now, with towns occupying all the good camping spots. Above Guilford the east and west branches separate, both draining a large area just south of Moosehead called Shirley Bog. Both branches have difficult areas for the canoeist which require portages, especially the West Branch Piscataquis.

The East Branch Piscataquis at its most northern point is very close to a brook which flows north into Moosehead at Greenville Junction, however, unnamed on the maps, an old-time Moosehead resident and guide (Myron Smart) told David Cook that when he was a boy--before World War I--it was called by some old residents "Carry Brook". The name would indicate use of this brook as a connector with the Piscataquis. (It is the same name as Wangan Brook found on the Pleasant River, but translated from the Abanaki, as many place names are.)

The reader will note that there are a few tributaries flowing from south of the Piscataquis. Black Stream, entering at Sangerville, is one, which with sufficient water, would provide access to Sebasticook Watershed brooks near Dexter. Mahanock Pond, Sebasticook/Kennebec water, is close to the Piscataquis, and so is Center Pond. Both of these were used as Sebasticook access to the Piscataquis and were well known to early white explorers and settlers as travel routes.

Mrs. Fannie Hardy Eckstorm relates that Kennebec Indians would often utilize the main stream Sebasticook to reach the Piscataquis Ahwangan. Once on the Piscataquis they would follow it up to Moosehead over the routes

just described. The use of the Sebasticook was made attractive because of the difficult and dangerous nature of the Upper Kennebec (Eckstorm, Indian Place Names, p. 13).

We have no explorers accounts of use of the main stream Sebasticook route, aside from the experiences of early pioneers who were penetrating from the Kennebec. Amasa Loring relates the story of Abel Blood, one of the first to settle in Dover, about 1779. Blood and his family left Norridgewock on foot, carrying the family baggage. At some point, probably at Moose Pond near modern Harmony, he "hired two men to bring their burdens, in birch canoes, up Main Stream, the company pushing along its banks. About ten miles brought them to the 'carry' from this stream to the pond in Parkman. Here they had to shoulder their loads, and bear them three miles to water.... We here observe that this boating route was the northern one, which roving natives sometimes used in their light canoes, in passing from the Kennebec to the Penobscot (Amasa A. Loring, 1880, History of Piscataquis County, p. 37)." This passage describes the trip to Mahanock Pond, just one mile from the Piscataquis.

A good archaeological survey of such a route as this will be very important to assess the nature of prehistoric traffic from the south. This route would be the most logical route for Kennebec Indians going to Moosehead, as opposed to coming by one of the other routes. Archaeological work will be designed to test that hypothesis.

Another stream entering the Piscataquis from the west and south is Alder Brook. This stream rises in Atkinson and runs roughly parallel with the Piscataquis through a low, boggy region, entering the Piscataquis near the Sebec at Milo. From Alder Stream one could carry south into Boyd Lake, via its outlet Birch Stream, to reach the Penobscot on Pushaw Stream. By going further west along Alder Brook, flooded by cooperative beaver, one ould also after a portage of several miles, reach Black Pond which runs back into the Piscataquis. This was a possible optional route through excellent trapping country. The main branch Piscataquis would be much faster to travel, but not as valuable for a trapper.

Another tributary from the west is Kingsbury Stream, joining the Piscataquis above Guilford. This short and rapid stream provided a practicable but difficult route to the Kennebec. It rises near Wesserunsett Stream, a Kennebec tributary, and could be used to bypass the upper Kennebec as a route to Moosehead. This route would require some hard carries, but no worse than others.

Perhaps the local Indians of the prehistoric era started the practice followed by historic Indians, and reported by early Europeans, of hiding canoes at the ends of such places, so that the long carry of the canoe could be avoided. This practice would make sense for local inhabitants, but long-distance voyagers would have to carry everything and hence stick to the best known and easiest routes.

The "easiest route"from Sebec to Moosehead is most difficult and tiring for modern travellers, even for those used to the rigors of canoe travel.

The Piscataquis Ahwangan is not the only place to make such a study as we are now doing. The role of the Piscataquis as a travel route through prehistoric Maine is similar to that of several other streams, providing east/west connections between north/south flowing main rivers. Five examples

come to mind: 1) Sabattus Stream, an Androscoggin/Kennebec connector; 2) the Sebasticook River, a Kennebec route to many points on the Penobscot/ Piscataquis; 3) the Passadumkeag, flowing from the east to the Penobscot, providing links with the St. Croix and other coastal rivers of eastern Maine (Union, Machias, Narraguagus); 4) the Aroostook, which via the Musquacooks, Spider Lake and several other access routes flows east, connecting with the St. John near the confluence of the Tobique (itself an important New Brunswick canoe river); and 5) the Mattawankeag River, the biggest Penobscot tributary and old canoe route to Meductuc on the middle St. John.

IV. The Archaeological Survey: Results and Preliminary Conclusions.

We have now completed a preliminary survey of the Piscataquis Ahwangan from Howland to the west end of Sebec Lake on the Sebec drainage, and Brownville Junction on the Pleasant River. The main branch of the Piscataquis beyond Milo, and the various routes from Sebec Lake to Wilson Ponds and Moosehead have received less attention. Our methodology has consisted of contacting local collectors, and exploring the riverbank on foot and from a canoe. We are certain that our methodology has relocated all major sites in the well-surveyed area, although minor sites or badly disturbed ones may have escaped attention.

The Howland to Milo stretch has revealed sites on the north bank of the Piscataquis near each major tributary stream mouth, and adjacent to the mouths of several smaller streams. There are at least 6 sites in roughly 16 miles of river. The collections we have seen contain Ceramic Period artifacts of the last 2,500 years (based on point styles, scrapers, and pottery), and a surprisingly high proportion of Late Archaic material specifically referable to the Susquehanna Tradition and to the Moorehead Phase. Small plummets and ground-slate points (other than the long "dagger" form of Moorehead Phase cemeteries) are relatively common. Of several hundred artifacts seen from this stretch of the river, none are referable to the Middle Archaic, or to a pre-Moorehead Phase Late Archaic such as the "Laurentian". No Otter Creek points have been located along the river.

The Milo area contains a local concentration of sites. There are major sites at the Piscataquis-Pleasant River confluence, Sebec-Piscataquis River confluence, and near the falls in the town of Milo. Again, the collections are dominated by Ceramic Period artifacts, with a significant strength of Susquehanna Tradition-related and Moorehead Phase-related material. No evidence of anything earlier has appeared.

Sebec Lake itself contains a concentration of sites near its outlet, and near the inlet of Wilson and Ship Pond streams in the northwest corner of the Lake. Other sites exist around the lake shores, indicating that Sebec Lake was a focus perhaps of a resident band of people, not just a stop on a travel route. The sites around Sebec Lake have been flooded by a series of dams. They are badly eroded, and have been collected by many people. However the locations are often still evident at low water as scatterings of fire-cracked rock, or cobble hearths. Collections from the lake, again, contain a high proportion of Ceramic Period material, along with a strong presence of Susquehanna Tradition and Moorehead Phase Late Archaic. Fragments of ground slate points are not uncommon, including several in stages of manufacture.

Silicified slate is available locally, in outcrops on Ship Pond Stream north of Sebec Lake, and on the West Branch Pleasant River near Brownville, and perhaps elsewhere. This resource may have been a special attraction for

Moorehead Phase people. Interestingly, the base of a Ramah Chert, contracting stemmed, Maritime Archaic-like point (as made in Labrador circa 4,000 B.P.) exists in the Packard collection, from the Packard's Landing area. Such points are limited to Moorehead Phase contexts elsewhere in the state.

The Middle Archaic appears at Sebec Lake in low frequency. We observed only one definite point and a possible second point from this period among several hundred artifacts reviewed. The one definite example is an unfinished, Stark-type, contracting stemmed and shouldered preform of a striped rhyolite, found at The Rips (just downstream from Sebec Lake outlet), in the collection of Mr. Walter MacDougall of Milo. The second possibility is a highly weathered point in the Packard collection.

The Piscataquis Ahwangan beyond Sebec Lake is practically unknown archaeologically. We do have a report of artifacts from the Bodfish Intervale, at the inlet of Lake Onawa, although they seem to have been lost.

Pending results from this most difficult section of the Ahwangan, we can make the follwoing observations. The Middle Archaic, as exemplified by the Stark/Neville-related points, is much more rare on the Ahwangan than it is in the lakes region of central and southern Maine and New Hampshire (the Cobbosseecontee drainage, Sebago Lake and Lake Winnipessaukee). When found, it is located on the largest lake in the region (Sebec). We suspect that Middle Archaic people (circa 7,000 B.P.) were not using the canoe route as such.

Otter Creek points, and "Laurentian-related" material are similarly rare. Such material is thought to date to about 6,000 B.P.

Ceramic Period material (2,500 to 500 B.P.) of all stages (early, middle, late) is well represented, as we might expect. Thus, we can postulateuse of the birch canoe by these peoples, meaning that they had a way-of-life in the woods similar to Maine's protohistoric inhabitants.

The most surprising result of this cursory survey is the relatively high proportion of both Susquehanna Tradition-related and Moorehead Phase-related material. At least 10% of the points seen, and many of the axes, are Susquehanna-related. It is difficult to believe that this route was not as intensively used by these people(s) as it was by later Ceramic Period people(s). The conclusion that the Susquehanna Tradition in Maine knew and used the birch canoe is a distinct probability, and therefore the birch canoe may predate the Ceramic Period in Maine. Moreover, the Susquehanna Tradition would not have brought with it birch canoe technology if (when) they immigrated from southern New England, as some have suggested. If it was invented during this period, it was invented in Maine or the Maritimes.

The Moorehead Phase is strongly present in the area, indicating use of mobile watercraft. However, their artifacts are not as common as Susquehanna-related ones, and they may have been drawn to the area frequently by the slate outcroppings. We regard use of birch canoes by Moorehead Phase travellers as a possibility, but at present we lack the evidence to test the hypothesis.

Discovery of Late Archaic material further upstream than Sebec Lake, especially along some of the difficult alternative routes, or seasonally-used routes, will be considered clinching positive evidence of pre-Ceramic use of the birch canoe.

Acknowledgement

We would like to thank Mr. Walter MacDougall and Mrs. Marjorie Brockway of Milo for their kind hospitality and help on this project. Mr. Myron Smart has passed a great deal of his valuable knowledge of Maine canoeing on to one of us (David Cook) with characteristic interest and good humor.

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BOOK REVIEW

Indian Antiquities of the Kennebec Valley. By Charles Clark Willoughby with a Foreword and Notes by Arthur E. Spiess. (Augusta, Maine: The Maine Historic Preservation Commission and The Maine State Museum, 1980, Pp. 136, Hardcover, $22.00).

This the first in a series of occasional publications in Maine archaeology, a joint effort of the Maine Historic Preservation Commission and the Maine State Museum. As the first of a series, this is certainly an auspicious beginning. This beautifully bound volume is a reprint of an original manuscript produced by Willoughby, probably around 1892, before he had become a professional anthropologist. It is written from the viewpoint of an antiquarian combined with the eye and skills of an artist. With the inclusion of the explanatory notes by Spiess, it becomes a valuable record of the archaeology of the lower Kennebec drainage.

The most outstanding feature of the book is the meticulously drawn series of color plates depicting the artifacts of the region. An expert photographer would be hard-pressed to duplicate the work shown here. The subtleties of

color and texture are captured with great accuracy. All drawings are to scale, making them an excellent reference to collections that may no longer exist and sites that may have been destroyed.

Willoughby colors his writing with the nineteenth century romantic view of the noble savage. He writes admiringly of the Indians' skill and expertise in tool-making, yet such terms as "dusky artisan" and "ancient arrow-maker" show that he shared the commonly held perceptions of the time. This is certainly no sin. The style itself adds to the value of the volume as an historic record.

The early historic accounts of Indian culture were apparently well known to Willoughby. He frequently cites accounts by these explorers and traders to illustrate the use of the various tools he describes. He also recognizes that these early accounts may not accurately portray Indian culture and habitation patterns due to the half century of contact with Europeans prior to their writing. Willoughby postulates that the Indians rapidly dropped pre-contact patterns with the establishment of trading relationships. While this theory currently has widespread acceptance, the reader must be careful (as noted by Spiess) not to totally accept all of his ideas. Many of these are assumptions based on evidence from other areas, particularly Southern New England.

Other valuable contributions of this work are descriptions of stone tool-making, a discussion of art objects from the Kennebec Valley, and a description of graves and grave goods. He also places emphasis on proper record-keeping during excavation of sites. Overall Willoughby appears to be far ahead of his time. His work probably represents the best in Maine archaeology prior to the 1960's.

The book has much to recommend it. It is valuable from an archaeological, historical and artistic perspective and is certainly worth acquiring for the library of the serious student of Maine Pre-history.

Eric R. Lahti