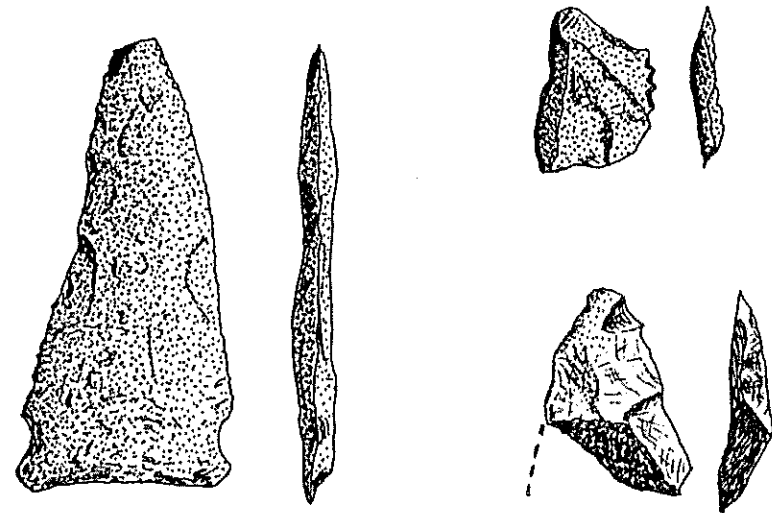




Conference on
New England
Archaeology

NEWSLETTER

Vol. 7, No. 2 February 1988



CONFERENCE ON NEW ENGLAND ARCHAEOLOGY

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Conference on New England Archaeology

NEWSLETTER

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COVER:

Brewerton projectile point and lithics from
the Fafard site, Bellingham, Massachusetts
(see page 14)

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CONFERENCE ON NEW ENGLAND ARCHAEOLOGY
1988 ANNUAL MEETING PROGRAM
CORES, PERIPHERIES AND MODELING
IN
CONSERVATION ARCHAEOLOGY

Conference Center Meeting Hall
Old Sturbridge Village
Sturbridge, Massachusetts
Saturday, April 9, 1988

The 1988 meeting of the Conference on New England Archaeology will be held at the meeting hall at Sturbridge Village. The program will be as follows:

9:00-9:30 Registration (Coffee and muffins)

9:30-12:00 Presentations:

James Bradley (Massachusetts Historical Commission)
Modeling Massachusetts: A Ten Year Perspective

Michael Nassaney (University of Massachusetts, Amherst)
Centers and Peripheries: Some Theoretical Considerations

George Nicholas (American Indian Archaeological Institute
and UMASS Amherst) Core-Peripheries and Early Holocene
Land Use.

Paul Robinson (RI Historic Preservation Commission) Models
for Management: Priming the Past for the Present.

12:00-1:30 Lunch at local restaurants

1:30-2:00 Business Meeting (Yearly reports, elections)

2:00-4:00 Workshops

1. Modeling in Conservation Archaeology
2. Field sampling methods and modeling

4:00-6:00 Social hours (at a local "watering hole"
to be announced)

Registration fee: \$5.00

Annual dues: \$10.00

CONSERVATION ARCHAEOLOGY AND THE
PRACTICALITIES OF THE REAL WORLD:
PLANNING FOR THE FUTURE OF THE
ARCHAEOLOGICAL RESOURCE BASE

Brona G. Simon
Massachusetts Historical Commission

Conservation archaeology has been a commanding force in New England archaeology, and has dramatically shaped the direction of archaeological research over the past ten or more years. More than 90% of the archaeological investigations in Massachusetts have been conducted under the ethic of conservation archaeology, i.e., supported by public funding or in compliance with federal and state environmental and historic preservation laws.

At the foundation of conservation archaeology is the basic principle of the conservation ethic. Alarmed by the rapid rate of archaeological site destruction in the 1970s, Lipe (1974, 1977) and others emphasized the need for a conservation ethic to preserve the archaeological resource base. The implementation of the conservation ethic in conservation archaeology has had some beneficial effects in the preservation of the resource base, but has also affected the scope, intensity and direction of archaeological research. The purpose of this paper is to explore some of the ramifications of the practice of conservation archaeology in Massachusetts and to offer some topics for further discussion at the upcoming CNEA meeting.

In this paper I use the term "conservation archaeology" as others may use "public archaeology", cultural resource management" or "contract archaeology". Conservation Archaeology and these other terms are fairly equivalent, but the term Conservation Archaeology expresses a keen application of the conservation ethic. The key principle behind the conservation ethic is the preservation of archaeological sites and data. The result is a "banking" of archaeological resources which are now being deposited and saved until they will be withdrawn some time in the future. The conservation ethic is an archaeologist's savings plan.

The conservation ethic has been adopted into federal and state laws and regulations concerning environmental review procedures. Both the "Section 106" (of the National Historic Preservation Act) and Massachusetts State Register review procedures establish a preference for the preservation of archaeological resources in situ. Archaeologists on the staff of SHPO offices have become very adept at negotiating with project developers for the preservation of sites. This is especially true in Massachusetts, where the

Massachusetts Historical Commission has succeeded in negotiating for site preservation rather than site excavation (i.e., when project impacts are unavoidable) in the vast majority of cases. For instance, over the past five years, almost 400 archaeological surveys were conducted (Table 1). In only 19 sites were construction impacts to important sites unavoidable, resulting in data recovery efforts.

Table 1
Massachusetts State Archaeologist's Permits
Scope of Research

Year	Recon- naissance	Intensive Survey	Site Exam.	Data Recovery	Total
1983	6	45	13	2	66
1984	7	34	6	1	48
1985	12	45	5	13	75
1986	5	63	8	0	76
1987	11	71	27	3	112
Total	41	258	59	19	377

This figure represents only a third of the sites which were tested at the site examination level of investigation to obtain sufficient data to form an opinion of the site's National Register significance. In addition, many sites, which were tested only during initial locational surveys, were also avoided, protecting them from project impacts.

The practice of the conservation ethic has had ramifications for the nature and direction of archaeological research. Since the primary need of the SHPO office is to determine whether any important sites exist within any given project area, the most frequent scope of work for an archaeological survey is that of a locational survey (Table 1). In most surveys, no significant sites are discovered. But when sites are discovered in a project area, the SHPO staff confer with the project developers, and, in advocating a conservation ethic, usually find a feasible project solution which avoids the site. The success of the negotiations depends not only on the negotiation skills of the SHPO staff, but also to the developers' main interest: the profit margin. Developers who agree to preserve sites are, with few

exceptions, not converts to the conservation ethic. They don't care about archaeology; they care about development costs, construction delays, getting the necessary permits, and the profit margin. When developers weigh their options to preserve a site through project redesign versus paying for the data recovery efforts and scheduling the construction contract after the excavations are complete, it is easy to understand why they usually opt for the cheaper and less time-consuming option of project redesign and "leaving the site alone."

Since most archaeological research has been geared to site locational surveys, it is in this area that conservation archaeology has contributed greatly. New sites are constantly being identified and added to the state inventory. Survey methodologies have been developed and tested. We have increased the data base relevant to addressing questions concerning the spatial distribution of sites, testing settlement models, and evaluating the effectiveness of various survey techniques. Interestingly, however, as the data base needed to tackle these types of inquiries has increased, the number of regional settlement studies has decreased. Ten years ago there was a flurry of regional settlement and site predictive modeling studies conducted in Massachusetts (e.g., Dincauze and Meyer 1977; Barber 1978; Thorbahn et al. 1980). In the 1980s, few studies concerning site location and models of settlement systems beyond the local scale have been completed in Massachusetts (e.g., Thorbahn 1984; Carlson 1987). The reasons for the decline in attention paid to settlement studies and predictive modeling are many. One observation concerns the level of funds available for such studies. The 1980s have been marked by constraints in federal financial support of domestic programs, including the Historic Preservation Fund which supports SHPO programs, and other potential sources of funding for archaeological research, such as NEH and NSF. Thus, the shrinking federal dollars in the MHC's budget have resulted in fewer survey and planning grants which had supported regional settlement studies in the past. Another cause for the decline in more problem-oriented research in Conservation Archaeology is the problem of finding a source for matching or substitute funds for survey and planning grants.

While the 1980s have seen a decline in regional or synthetic studies in archeology, the decade so far has boasted an enormous amount of archaeological research which is conducted to meet compliance with public environmental review. As I stated earlier, it is in this arena that the conservation ethic has been most rigorously applied and maintained. Negotiations with project developers have resulted in site preservation agreements which preserve the site within open space portions of developments. A number of developers have even donated preservation restrictions or conservation easements on the deed to the site areas, which act as permanent, legal means to preserve the sites regardless of whether the land is sold to another party (e.g., Wordell Farm in Fall River and "The Pines" in Pittsfield). Other developers have agreed to donate the land outright to a local agency for use as public conservation land (e.g., Ipswich Country Club). These successful negotiations certainly appear to be preserving sites. But are the sites actually being preserved?

Last summer, two important prehistoric sites were destroyed by bulldozing--the Nook Farm site in Plymouth and Fox #5 in Mashpee (Leveillee 1987; Mulholland et al. 1987). Although the circumstances of destruction were very different, in both cases the developers had publicly expressed their commitment to preserving the sites. In the Nook Farm case, the destruction of the site was at the hand of a bulldozer operator working for the abutter on an adjacent parcel. He crossed over the property line and scraped away the site to use it for landscaping. In the Mashpee case, the developer has stated that he saw the archaeologists leave the site and, thinking they were finished, he bulldozed the site to construct a golf green. These two cases were well-publicized because both developments, somewhat controversial for other reasons, were closely watched by the local communities. One wonders how many other sites are being destroyed without our knowledge.

The most prevalent destroyer of sites, without rival, is development. The Massachusetts building boom of the 1980s almost matches the post-World War II scale of development. With the upcoming development of office, industrial and residential buildings which are planned for the next 15 years, the current growth rate is not expected to decline as we near the 21st century. Along with the economic growth comes a concern for the future of archaeological site preservation. We must continue to explore practical strategies which will insure the preservation of the sites already in our "bank" and all future deposits. We must invest effort and resources into implementing insurance policies for our important sites.

There are many strategies available to us to arrange for the conservation of sites (e.g., Simon 1986). These have varying levels of protection. Minimal protection can be gained from "gentlemen's agreements"--"soft" negotiations where the developer agrees to preserve the site; this is used in cases where there is no legal requirement to do so. A moderate level of protection is garnered through the environmental review process--in these instances, developers may also agree to preserve a site and their agreement serves as the record of compliance with the state or federal laws. However, these negotiated preservation plans are only moderately protective, as there is currently no penalty in state or federal statute for a developer who destroys a site. The most powerful strategies to conserve a site are: (1) acquisition by a conservation-oriented agency or organization; and (2) the placement of a restriction on the deed which prohibits destruction of the site. However, these strategies are not foolproof. For example, a town may acquire a site for conservation land, yet may not have the resources to protect it from damage by pothunters or vandals. Similarly, a town may acquire a site area with the intention of preserving it, but at a later date use the site for their municipal landfill (as was the case at the Massachusetts Hornfels/Braintree Slate Quarry site at the Milton landfill). A recent unfortunate case of miscommunication involved the DEM's acquisition of the Plummer's Landing site in Uxbridge and their subsequent bulldozing of the yard areas for landscape improvements (Public Archaeology Laboratory, Inc. 1987). In this case, although the DEM planners were fully informed as to the

significance of the site area, the actual operator of the bulldozer was not. A key element in the successful management of sites is the education of the members of conservation organizations or agencies which own sites. Deed restrictions are only effective in preventing damage to sites if the owners are fully informed about the best way to manage the site, and if all future owners are also instructed.

Policing has been suggested as a way to enforce site conservation. Certainly, the presence of a security officer would deter unauthorized access to a site. However, this is costly, and may not be the key to deterring the majority of agents of site destruction, which include the actual property owner, developer, construction contractor, and members of the construction crew. These people are, unfortunately, prone to "accidents" in their race to complete a project on time and at a healthy profit. The clearing and stripping of land, the driving of heavy equipment, and the stockpiling of construction supplies are usually done in a manner which is most expedient for construction and may not be the most careful way for preservation. To help troubleshoot potential damage to sites located within a development parcel, developers and project foremen can be instructed as to the location of the site and suitable management activities; the site area can be flagged or fenced off and clearly marked on project plans; construction specifications can be written which give specific instructions to all subcontractors to avoid the site. These are certainly practical measures for dealing with the immediate development. Preservation of the site after the developer sells or leases the houses or offices on the site becomes more problematical. How do we keep the archaeological site information in the network of future planning for project expansions, new parking lots, access roadways, or utilities when it is unlikely that any of these modifications would need state or federal approvals?

Despite everyone's good efforts, sites are being destroyed even when there is an earnest commitment by the developer to preserve the site. In response to a growing concern over site destruction, the MHC has submitted an expanded state budget request for \$500,000 within its Preservation Projects Fund to be used for archaeological surveys and excavations of threatened sites. In so many negotiations with developers, we have found an open reluctance to spend money on archaeological surveys. Given the large number of important sites which are threatened, MHC feels it is time for the state to help retrieve archaeological data before it is lost. If awarded the funds, the MHC would make the funding available as matching grants. These funds could be used to survey poorly understood areas which are slated for development, to salvage threatened sites, or to take "insurance samples" from sites which are in our site "bank." Excavating a small sample of sites which are slated for preservation, but whose future cannot fully be guaranteed, could help act as an insurance policy if the site was "accidentally" destroyed. If only we had taken an insurance policy out on the Nook Farm and Fox #5 sites ...

Taking insurance samples of sites cannot, however, be conducted without the explication of meaningful research designs. Sampling for the sake of

sampling, without a research design, would be as unethical as excavation for the sake of excavation (Plog 1974).

The availability of survey and excavation grants from the MHC could change the current pattern of archaeological research in the state. Regardless of whether the Massachusetts State Legislature votes to increase MHC's budget, the question of taking insurance samples from sites still demands consideration and discussion on what would constitute an adequate insurance sample and under what circumstances sites should be sampled. It will be important to reassess research priorities and goals and to develop sampling strategies appropriate to these research goals. Likewise, as we try to keep one step ahead of the bulldozer, it will be important to increase our arsenal of strategies which can be employed practically to insure that archaeological sites and data are preserved.

I look forward to this year's CNEA meeting for a lively and fruitful discussion on future research directions, core-periphery and other models of settlement, information needs, and methodologies.

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CURRENT RESEARCH BY TOPIC

CHRONOLOGY AND DATING METHODS

Douglas Frink (Westford, VT) is working on a new method for dating carbon-rich soils, using two pedologic procedures ("Ball Organic Matter Loss on Ignition" and "Walkley-Black Organic Matter by Wet Oxidation"). The Oxidizable Carbon Ratio (OCR) derived from the two procedures varies indirectly with the radiocarbon age of the soil samples. Preliminary results show a strong correlation ($r^2=.94$) between the OCR and radiocarbon dates. A report on the new method and the preliminary results is being considered for publication in the journal, *Geoarchaeology*.

Robert Hasenstab (UMass, Amherst) has written a computer program to calibrate radiocarbon dates. The system performs the Stuiver & Pearson (1986) high-precision calibration, producing tables and plots of the calibrated dates--including curve intercepts and confidence intervals at one and two sigma. It will also generate probability distributions for the likelihood of the actual date occurring at each year within the confidence range. The system presently accommodates dates back to 3,000 B.P. Anyone with a large data base of radiocarbon dates can have the dates calibrated by transmitting them over BITNET to BOBH@UMASS or write to Bob c/o Department of Anthropology, UMass, Amherst, 01003. Send a preliminary message first to arrange details. Dates earlier than 3,000 can be processed if you agree to help digitize the earlier part of the calibration curve.

RECENTLY CONTRIBUTED RADIOCARBON DATES

DATE	LAB-NUMBER	SITE	ST ASSOCIATION	CONTRIBUTOR
3610 +/- 90	GX-12870	Paquette Site	MA Atlantic Phase	John Pretola
7980 +/- 200	Beta-15192	Plymouth Street	MA Bifurcate Base	C. Hoffman

PREHISTORIC LITHIC ANALYSIS

David M. Lacy (UMass, Amherst and Green Mountain National Forest) reports that the initial data recovery phase of the on-going investigation of the Homer Stone site was completed in the Fall of 1987. The site is a large prehistoric

(period unknown) mountain-side quartzite quarry. The primary research goal is to assess the range of organizational modes or task group sizes represented at the site. Preliminary spatial analysis of debitage shows a gross pattern of slope and distance-from-water correlations for various stages of reduction. These apparent "zones", in the absence of any clear evidence of extensive post-depositional movement, indicate greater intra-site structuring than would be expected for individual, opportunistic exploitation of this lithic resource.

Robert Goodby (Brown U.) is currently analyzing the use and distribution of yellow "Pennsylvania" jasper at the Rock's Road Site (NH 47-21), Seabrook, New Hampshire. The large late Middle Woodland, "Jack's Reef" component from this site has yielded an abundance of jasper tools and debitage in association with dated features. In addition, the occurrence of jasper from interior Merrimack River drainage sites is also being studied, in an effort to shed light on the dynamics of exchange systems during the late Middle Woodland period. Amateur collections from the Merrimack Valley and from the New Hampshire Lakes region are another focus of ongoing research into this question. As part of an effort to understand the use and movement of Pennsylvania jasper in a larger, regional context, Goodby would appreciate hearing from anyone in New England with data relevant to this study. He can be reached at the Department of Anthropology, Box 1921, Brown University, Providence, R.I. 02912.

Robert Hasenstab of UMass Archaeological Services finished a site locational survey report of a project area containing the Hannemann Paleoindian site in the Connecticut River Valley of Massachusetts. The site is unique in having a lithic assemblage comprised almost exclusively of yellow and red jasper material. Anyone interested in pursuing a trace element analysis or sourcing of the jasper should contact Bob at UMass.

PREHISTORIC SETTLEMENT PATTERNS: BOSTON HARBOR

During the summer of 1987 **Barbara Luedtke** directed a field school at World's End in Hingham, MA. This Trustees of the Reservation property is one of the last relatively undeveloped areas on the Boston Harbor mainland, and thus provides an interesting comparison with the Boston Harbor Islands. Systematically spaced shovel test pits were used to find concentrations of

prehistoric materials, and one-meter squares provided further information about sites. It was predicted that ease of access would have resulted in greater use of the mainland than the islands, but that otherwise there should be similar patterns of activities and resource use. It was found that site density does not appear to be significantly greater than on similarly surveyed islands in Boston Harbor, but that artifact density is greater at World's End, suggesting more intense use. It was also found more Late Archaic and Late Woodland artifacts, and fewer artifacts from other time periods, than is usual for the Islands. Determination of seasonality and activities awaits further analysis of the faunal, floral, and lithic remains.

PREHISTORIC SETTLEMENT PATTERNS: COASTAL AND ISLAND AREAS

Site location and site examination investigations have been conducted for a 153-hectare coastal property in Mashpee, MA. The site locational survey of the Fox Run Housing Project, conducted by Leslie C. Shaw and Alan McArdle of UMass Archaeological Services, identified five prehistoric sites and two Historic Period Native American sites. Inner Cape Cod, and especially Mashpee, has received little attention from archaeologists, and prior to this survey, only seven prehistoric sites had been recorded for the town. The number of sites in the Fox Run area suggests that a high site density exists on the southern coast of Cape Cod, especially along the coast, rivers, and interior wetlands.

The five prehistoric sites in the Fox Run area include occupations dating from the Middle Archaic through the Late Woodland. Additional archaeological examinations were conducted by Leslie C. Shaw and George Stillson. Two sites (Fox-1 and Fox-2), both located on high promontories overlooking Shoestring Bay, contained lithic scatters but showed no evidence of long-term use. Two other sites (Fox-3 and Fox-4) were located along Quaker Run, a small stream associated with an extensive interior wetland. Fox-3 is a large shell midden site situated on a protected terrace with southern exposure. The site examination for Fox-3 identified micro-stratigraphy and a high density of features. Artifacts associated with the lower levels included Small Stemmed Points, Early Woodland ceramics and a Rossville-like biface. Radiocarbon samples have been submitted to Beta Analytic, Inc. for dating from these levels but have not been received. However, the association of Late Archaic and Early Woodland types suggest that revisions may be needed in the criteria used to identify culturally and temporally diagnostic assemblages in southern New England.

The second site along Quaker Run (Fox-4) contained evidence of multiple occupations, with the earliest dating to the Middle Archaic. A stemmed biface was recovered from Fox-4 which is morphologically similar to Stark-like bifaces. Recovery of a similar biface from the Fox-3 Site suggests, however, that a biface type similar to Stark may have been produced during the Late Archaic or Early Woodland, and may relate to what Thomas Mahlstedt has termed the "Cape

Stemmed" type.

The fifth prehistoric site (Fox-5) located in the Fox Run area is situated along the west bank of the Santuit River. Prehistoric materials were recovered from the terraces along the river for a distance of several hundred meters. The site represents several occupations from the Middle Archaic through the Middle Woodland, indicating a repeated use of locally available resources. The Santuit River may have supported anadromous fish runs which attracted prehistoric groups, but unfortunately, no preserved faunal remains were recovered from the site. This site was destroyed in August when it was inadvertently bulldozed. (See Simon's article this volume).

Two historic Native American sites were evaluated by Ellen-Rose Savulis and George Stillson. See section on Native American Ethnohistory this volume for details.

The distribution, density, and multicomponent nature of the occupations at the five prehistoric sites in the Fox Run project area clearly indicate that there was intensive use of the south coast of the Cape as early as the Middle Archaic, continuing through the Woodland and into the Historic period. This area of the Cape is presently undergoing rapid and intensive land development and, because most of this construction is undertaken by private developers, very little archaeological survey is being conducted. With so little known about the Inner Cape, this is especially serious; attempts should be made to intensify archaeological research in the area.

Diane Kopeck (The Robert Abbe Museum, Bar Harbor) reports that the museum is involved in an on-going prehistoric site survey and testing project, partially funded by the Maine Historic Preservation Commission and the U.S. Department of the Interior. The focus is on Frenchman's Bay, which lies along the central to eastern portion of the Maine coast in Hancock County. Eighty-five prehistoric sites were located and documented during the 1985 and 1987 field seasons. In addition to site testing, excavations and a field school were conducted at the Watson site (59-8) during the summer of 1987. The excavation was a joint endeavor of the Abbe Museum and the Center for Northern Studies in Wolcott, Vermont. The excavation was supervised by Dr. Steven L. Cox of the Center for Northern Studies.

The Watson site is of particular interest because of its similarity to the Goddard site (30-42) on Blue Hill Bay, which was excavated in 1979 by Cox and Bruce J. Bourque of the Maine State Museum. The Watson site is a multicomponent, mostly shell-free black soil coastal midden. Preliminary analysis suggests that the major component at the site is Late Ceramic, followed in order of size by Middle Ceramic, Susquehanna Tradition, and Moorehead Phase components. As at the Goddard site, a significant percentage of exotic lithic materials is represented within the Late Ceramic component at the Watson site. Exotic materials include Ramah chert from Labrador, cherts and native copper from the Bay of Fundy (Nova Scotia), Onondaga chert from western New York, and Pennsylvania jasper.

In the 1987 field season the Public Archaeology Survey Team (PAST) of the University of Connecticut continued work on Block Island, funded by the town of New Shoreham with assistance from the Rhode Island Historical Preservation Commission. Our work has included survey and limited site excavations, and has produced great quantities of data important to understanding prehistoric settlement and subsistence on the islands in particular and in maritime and island economies in southern New England in general. PAST hopes to return in the summer of 1988.

PREHISTORIC SETTLEMENT PATTERNS: COASTAL PLAIN

Curtiss Hoffman's 1987 Bridgewater State College field school concentrated on the Plymouth Street Site in Bridgewater. This site was discovered by amateur archaeologists William Halleran and William Casciottlo in 1978 and contains an unusually high density of Late Paleoindian-Early Archaic material; a radiocarbon date of 7980+/-200 (Beta-15192) was obtained in association with Bifurcate Base points. The site has been heavily disturbed by late nineteenth and twentieth century industrial and landscaping operations, but portions remain relatively intact. It was in one such area that the field school worked, again under pressures from development. The area investigated contains Middle Archaic and Middle Woodland components, possibly vertically separated by a stratum of water-lain sediment resulting from the temporary damming of a small stream course. Features include a rectangular pattern of well-preserved post molds enclosing an area of about 5 square meters. Analysis of materials is still underway, but the developer has agreed to a staged plan of development, allowing up to seven years for continued exploration of this site.

PREHISTORIC SETTLEMENT PATTERNS: LOWLAND RIVERINE ENVIRONMENTS

Blythe Roveland and David Wallace of UMass Archaeological Services located two prehistoric sites during an archaeological survey in Lowell, Massachusetts. Both sites are located on the north bank of the Merrimack River approximately 2.5 river miles west of the confluence of this river and the Concord. Site 19-MD-556 is a potential multicomponent site defined by a lithic scatter of blue-grey chert and vein quartz. These raw materials cluster into two distinct loci and were found at approximately the same vertical depth range. All flakes recovered here are attributable to the final stages of tool manufacture and maintenance. One piece of utilized graphite was also found.

A scatter of tertiary flakes of green felsite makes up the second site, site 19-MD-557. No diagnostic cultural material was recovered from this site nor was any found at site 19-MD-556. Therefore, the sites cannot be attributed to any culture period as of yet. It is hoped that a site examination will help to clarify this point.

A better understanding of these sites can contribute to the state of knowledge concerning peripheral riverine habitation in the Lowell area. Also, these sites are important in that they lie on one of the few remaining undisturbed riverbank locations in Lowell.

PREHISTORIC SETTLEMENT PATTERNS: UPLAND ALLUVIAL SETTINGS

An initial survey was conducted by Peter Thomas of the University of Vermont in Highgate Falls in 1980 and established the presence of 15 prehistoric sites on floodplains or alluvial terraces. These sites were located after sampling only 5.5% of the area which was due to be impounded by a hydroelectric facility. Intensive evaluations were undertaken at four sites in 1982. The district was determined eligible for the National Register in 1983. Research conducted in 1984, 1986 and 1987 has focused on documenting Middle-early Late Woodland (ca. 1700-550 B.P.) and Early Archaic (pre-7730-7970 B.P.) components. Other time periods are virtually unrepresented even though detailed studies of the alluvial geomorphology by Robert Brackenridge (Geography Department, Dartmouth College) and Peter Thomas indicate that stable landforms existed during such periods.

While trenching several floodplains in Highgate to document the underlying alluvial sequences, numerous logs were recovered from the base of a floodplain and older alluvial terraces in bank facies deposits. Once lodged in the bank, these logs had been buried beneath a laterally migrating floodplain. Eight logs dating between 1375 and 8090 B.P. and carbon dates from cultural features associated with old floodplain surfaces anchor the geochronology. A summary article describing the geomorphology and its wider implications has gone through final revision and may be published in Quaternary Research in the near future.

Ronald Johnson and Ellen Savulis (UMass Archaeological Services) completed field work in Forest Park, Springfield, Mass. for the Massachusetts Department of Environmental Management's Olmstead Parks Restoration Program (April, 1986). Extensive background research in the prehistory of the area, conducted by Carol Piacentini, provided a model for predicting Native American sites within the park, which encompasses the southwestern corner of a large glacial delta. A brook and a smaller spring-fed drainage dissect the delta, exposing clay deposits from Glacial Late Hitchcock. Although material ranging from

Paleoindian to the European Contact period was anticipated, no diagnostic material was recovered (this includes the absence of pottery). Two relatively dense lithic flake scatters (one yielding tool fragments) were found to be associated with elements identified by Piacentini's background research: a "stockade" attributed to King Philip, and a Native American trail. Much of the lithic material was derived from a presumably local maroon siltstone, while a smaller percentage was made up of exotic chert. Thin flake scatters were found associated with springs that feed the minor drainage through the delta. One question that arises from this locational survey involves the rate of soil development on Pleistocene landforms during the Holocene. Since much of the cultural material was found at depths of 50-60 cm (including concentrations of fire-cracked rock), it seems difficult to explain this depth given the assumption of a stable landform once the ice had retreated and the lake drained. Aeolian mixing and redeposition during times of scant vegetation may account for this anomalous condition.

PREHISTORIC SETTLEMENT PATTERNS: UPLAND INTERIOR

During the summer 1986 field season, a Springfield Science Museum salvage team led by John Pretola conducted excavations at the Paquette site in Warren, Massachusetts. The site represents a Snook Kill/Atlantic Phase camp radiocarbon dated at 3610+/-90 B.P. (GX-12870). Located adjacent to Naultoag Brook in the upper Chicopee River drainage, the Paquette Site exhibits typical Snook Kill site characteristics, including a thin distribution of artifacts, stone platform features, unlined hearths, and pits containing few or no artifacts. Floral remains include large quantities of charred hickory nut. Faunal remains consist of small quantities of calcined mammal and bird bone. A late summer/fall habitation is indicated. Artifacts include broken projectile points, drills, choppers and scrapers. Lithics demonstrate the use of eastern New York chert, eastern Massachusetts felsites, argillite and local quartz and quartzites. This would suggest trade networks, making the Snook Kill/Atlantic appear less parochial in central Massachusetts than the literature suggests. Analysis is continuing with Tonya Largy conducting floral analysis of a flotation sample. A number of radiocarbon samples await processing and faunal analysis is warranted. Further excavation may take place this summer if the site is not completely destroyed by gravel quarrying.

Edward Hood, Blythe Roveland and David Wallace of UMASS Archaeological Services conducted an archaeological site locational survey in Bellingham, Massachusetts and uncovered four prehistoric sites. A Brewerton side-notched projectile point, several lithic flakes and two vertically stratified hearths were discovered at one of the sites. The remaining sites are represented by

lithic scatters. The sites can greatly contribute to the understanding of the poorly known upland region prehistory of the Bellingham area.

In the spring of 1987, George P. Nicholas (UMass Archaeological Services and the American Indian Archaeological Institute) completed an archaeological survey of a parcel of land reputed to contain burials associated with the eighteenth century Housatonic Indian village of Skatehook. The project area consists of 35 acres located on a peninsular landform, or "spit," that extends out onto the floodplain of the Housatonic River; at least half of the property has been seriously disturbed by a tree nursery. The Skatehook site (19-BK-28), a reportedly late prehistoric/Contact period site is located on this property. On the basis of historic documentation, local tradition, and previous archaeological field work, it was strongly suspected that the project area would contain evidence of significant prehistoric and historic aboriginal occupation and utilization, including human burials. Prehistoric sites are numerous throughout the Housatonic River Valley in this area, based on systematic surveys conducted by Nicholas and Russell Handsman in the Robbins Swamp area, immediately south of the project area, and by Leslie Shaw and others in the Pittsfield area, to the north. Also, a relatively large number of prehistoric burials have been reported throughout the Sheffield/Great Barrington area over the last two hundred years, usually on sandy bluffs or rises above the floodplain. The results of field investigations by Nicholas indicate that the undisturbed portion of the property contains evidence of prehistoric occupation that extended back at least to the Middle Holocene, based on the recovery of Lamoka and other small stemmed points, in addition to quartz, chert, Taconic slate, and "Sheffield chalcedony" artifacts and debitage. Although the property has been cultivated for at least a century, subsurface testing did reveal intact portions of the site in the B horizon. Testing failed to reveal any evidence of burials or European Contact period artifacts, although the potential for either remains high in untested areas. In addition, the prehistoric component (or components) at this site provide information on changing land-use behaviors in the Housatonic drainage over the last 10,000 years. Future archaeological field work and research at this and other locations in the area may provide new information on the Housatonic Indians during the European Contact period, a time of significant cultural transformation that should be reflected in land-use patterns, mortuary behavior, social organization, and material culture.

George P. Nicholas and Edward Hood (UMass Archaeological Services) conducted an archaeological site locational survey for a water treatment facility on a small parcel of land off Swamp Road in Montague. The property is situated on an alluvial terrace bounded on one side by a small wetland, and is located within the maximum limits of Glacial Lake Hitchcock. At least part of this terrace

appears to consist of historic fill that may have been used to extend the land surface onto the adjacent wetland. Limited subsurface testing revealed a small prehistoric site immediately outside of the project area, and a historic brick yard within. The prehistoric site was identified on the basis of 23 "Old Blue" quartz flakes recovered in the B horizon of one shovel test pit. Surface reconnaissance and landowner interview also verified the location of an Archaic site within about 150 m of the project area; artifacts included corner removed bifaces, preforms, scrapers, and debitage, mostly of "Old Blue" quartz. Background research and testing also revealed the presence of a historic brick yard associated with the "Montague Brick Company," which extended throughout the project area. Artifactual evidence indicates that the facility may date to before 1850.

PREHISTORIC SETTLEMENT PATTERNS: UPLAND LACUSTRINE ENVIRONMENTS

During the past three years, field teams at the Consulting Archaeology Program at UVM, headed by Scott Dillon, Geraldine Kochan, Corbett Torrence, Douglas Frink, William Matthews and Laurie Kutner have been testing previously unsampled environments in the greater Burlington area. These include predominantly sandy outwash plains, older lake plains and the intervening hill country away from the Winooski River and Lake Champlain. Basic sampling approaches have included the intensive walkover of 346 acres of plowed land with crew members spaced at 1.5 m intervals and the excavation of 4,365 test pits spaced at 8 m intervals within 101 sample areas. Eighty-seven prehistoric sites have been identified. Time periods represented include Paleoindian, probably Early or Middle Archaic, Late Archaic and Middle-Late Woodland. Prehistoric activity in these environments away from the Winooski River or the lake shore has obviously been on a continuum, ranging from random losses of tools to the occupation of residential bases. In a few instances, there has been the opportunity to carry out more extended evaluations of specific sites. Future evaluations of most hinge on development schedules or whether projects can be redesigned to avoid identified sites.

George P. Nicholas of the University of Massachusetts, Amherst, and the American Indian Archaeological Institute, is continuing his research on long-term wetland ecology in Litchfield County, Connecticut. He is attempting to qualify aspects of the human use of wetlands over extended periods of time in terms of wetland size and type, productivity, diversity, reliability, and developmental histories. This study extends previous work by Nicholas and Russell Handsman (ALAI) on long-term land-use patterns associated with glacial lake basin/wetland mosaics at Robbins Swamp and other locations in the area. One aspect of this project is the production of a report on the importance of

wetlands to cultural resource management, which is oriented to land managers, developers, and others who have an interest in wetlands. Nicholas' interest in wetlands is not limited to this location, and he would appreciate copies of reports or references dealing with archaeological sites in association with wetlands anywhere in the Northeast.

Curtiss Hoffman has successfully completed an Archaeological District National Register Nomination for Cedar Swamp in Westborough. This 2700-acre tract of wetland and adjoining lake terrace includes 30 known and 13 suspected prehistoric sites. Excavation on 11 of these undertaken by the W. Elmer Ekblaw Chapter of the Massachusetts Archaeological Society under Curt's direction over the past four years has produced a wealth of data on prehistoric adaptations to an upland lacustrine environment with a sequence of dates from Middle Archaic through Final Woodland. Palynological, surface geological, paleobotanical, and paleozoological studies by Leslie Sheddon, Byron Stone, Stephen Dean, Tonya Largy and Nick Bellantoni have contributed to an increased understanding of the dynamics of human settlement patterns in this area, which was previously underrepresented in the archaeological record.

Curt is also working on the analysis of materials recovered from a large-scale salvage operation at the Charlestown Meadows site in Westborough in the Fall of 1986. An area 25 by 54 meters was exposed by a bulldozer to a depth of 20 cm, and the remaining topsoil was shovelled off by Ekblaw Chapter members and Bridgewater State College students under Curt's direction, to reveal a complex pattern of features, including rock platforms, deep red earth pits, charcoal pits, living floors, and smaller soil stains. Due to extreme time and weather constraints, the contents of all of the 129 features found were removed by shovel and bagged for wet screening. The wet screening devices, designed by Chapter member Charles Bartels, allowed for the relatively rapid processing of the 816 bags full of feature soil. Separation of the samples is still underway, but moderate quantities of deer bone, turtle bone, hickory nuts, and seeds are already apparent, along with large quantities of lithics. Charlestown Meadows will probably be developed during the Spring of 1988, so this was likely our last opportunity to study this large Late/Transitional Archaic site.

HISTORIC NATIVE AMERICANS: ETHNOHISTORY AND ARCHAEOLOGY

The Public Archaeology Survey Team, Inc. (PAST) under the direction of Kevin McBride at the University of Connecticut Department of Anthropology has just completed the fourth year of a multi-year effort to reconstruct Mashantucket Pequot culture history from the Late Prehistoric period to the present. This effort, known as the Mashantucket Pequot Ethnohistory Project, is funded by grants from the Connecticut Historical Commission and the Tribe, and includes

oral history, documentary and archaeological research. To date, the project has focused primarily on the documentary history of the Pequots from the early seventeenth century to the close of the Pequot War, and includes a large-scale effort to locate and record every written source that refers to the Pequots directly or indirectly. The archaeological research has been concentrated on the current Mashantucket Reservation, and includes survey and excavation. The first goal is to reconstruct the boundaries of the tribe's reservation through time and to locate all archaeological sites on the reservation. We have walked over and visually inspected what we believe to be the original seventeenth century 3,000-acre reservation, and have completed a subsurface survey of a sample of this area. Approximately 75 sites have been located, dating from the late sixteenth to the twentieth century. We have also begun more intensive work, through limited excavations, to gather more information on the sites, including site type, age and function. To date, we have collected enough information to allow reconstruction of the reservation boundaries as they have changed through time. We have also tested enough sites to reconstruct settlement patterns on the reservation in 50-year increments and to examine changes in house form and site structure through time. We do not yet have detailed information on subsistence practices or on the type and arrangement of activities within these sites, but will be collecting these data in the near future.

The Mashantucket Pequot Reservation is a remarkable repository of Pequot material culture, as parts of it have been continuously occupied by Pequots from the prehistoric period to the present, with perhaps a 20-year hiatus between 1638 and 1658. We have a unique opportunity to correlate material remains with the documentary evidence, and thus to make strong inferences about the behavioral correlates of the material remains.

Ellen-Rose Savulis of UMASS Archaeological Services recently completed a site locational survey and site examination of the Isaac Simons house site, an eighteenth and nineteenth century household of Native American mariners. According to documentary evidence, the Native American Simons family was living within or near the project area by at least as early as the late 1830s. The earliest record of Simons land ownership dates to ca. 1840 when Isaac Simons, Jr. purchased a 10-acre parcel on which he was already living. In 1842 Isaac Simon, Jr. sold this property including a house to his nephew, William H. Simon, Sr. William acquired an additional 60 acres and another house near Quaker Run from his grandfather, Isaac Simons, Sr. in 1852.

The Simons House site consists of a thick occupational midden deposit measuring approximately 20 by 30 m plus "sheet refuse" covering an area of approximately 50 by 37 m. The site is clearly undisturbed.

The historic material recovered during the site examination included 850 artifacts and indicates that the site was occupied as early as the late seventeenth or early eighteenth century. Five types of early historic ceramics were found at the site. These include Rhenish stoneware (c. 1650-1725),

Westerwald stoneware (c. 1700-1775), blue-glazed delft (c. 1680-1800), North Devon Sgraffito (c. 1650-1710) and yellow, lead-glazed slipware (c. 1670-1795). The bulk of this early historic material was obtained from within the midden deposit. Application of Stanley South's Mean Ceramic Date Formula produced a date of 1705.5 for this feature, which extends the length of site occupation back over a century earlier than that recorded in historic documents. The variety of seventeenth and eighteenth century ceramic materials appear to have been primarily from food processing or serving vessels. Other materials included brick; window and bottle glass; wrought, cut and wire nails; oyster, conch and clam shells; whiteware and creamware, a grey gun flint, deer bone, and an iron kettle fragment. In addition, 54 smoking pipe fragments were recovered. Of these, 78% (42) were obtained from within the midden deposit. Eight of these smoking pipe fragments had bore diameters of 5/64 of an inch dating to c. 1710-1750. A single pipe fragment had a bore diameter of 4/64 of an inch dating to c. 1750-1800.

The sheer size of the midden (20 by 30 m) suggests that more than one family occupied the site and disposed of refuse in a common area. This is supported by historic documents which indicate that two Simons houses existed at the site by the mid-nineteenth century. The remaining domestic and architectural material consisted of "sheet refuse" distributed across the 50 by 37 m site. The foundations of the house and outbuildings were not found within the site boundaries. This suggests that either these features are outside of the area that was tested, or that the structures themselves did not have cellars, stone footings or chimney bases. Another possibility is that the superstructures and foundations were removed and used elsewhere.

The presence of European ceramics within the midden suggests that the site's occupants had some degree of contact with Whites by the turn of the eighteenth century. The ceramics appear to have been primarily utilitarian food processing or serving/storage vessels. No expensive, highly decorative wares such as Chinese porcelain or polychrome delft, were found. The pattern of trash deposits, "sheet refuse" and lack of architectural features at the Simons House site is strikingly different from that found at contemporaneous White domestic occupation sites. Eighteenth and nineteenth century White domestic sites are noted for the presence of discrete, buried trash deposits and landscaping. In contrast, the Simons House site has an extensive, formerly open midden near dwelling areas, and no apparent landscaping.

EARLY HISTORIC FISHERIES AND TRADE

Archaeological investigations, sponsored by EARTHWATCH and the Shoals Marine Laboratory of Cornell University and the University of New Hampshire, were directed by Faith Harrington last August at the Isles of Shoals for the second season of a long-range research investigation focusing on the history of this island group. The Isles of Shoals feature prominently in the early history of New England because of their importance in the international cod fishery. Here a major commercial entrepot developed probably as early as 1620 and continued

throughout most of the eighteenth and nineteenth centuries, with the price of fish in the world market still quoted from the Isles of Shoals as late as 1822.

To date, archaeological reconnaissance surveys and limited testing of certain sites have concentrated on the earliest features and structures at the Shoals, and particularly those which might be associated with the first fishery. Conservation concerns, as well as research interests, guide this approach since these sites are exposed to the destructive forces of water and wind erosion. In 1986, the remains of an intact fort on Star Island were discovered. Fort Star was built in 1653 to defend the fishery and the island inhabitants and was dismantled in 1774 upon the eve of the Revolution when the British threat along the coast increased. Over the past few years, several foundations dating to the first half of the eighteenth-century or earlier have been located on Appledore Island and the remains for numerous structures including hotels, cottages, houses, barns and other outbuildings have been identified through documentary and cartographic research and a study of aerial photographs. On Smuttynose Island, several foundations dating to the nineteenth century surround a small Cape-style house believed to be one of the oldest buildings in the state of Maine. Prior to the Revolutionary War, Smuttynose Island housed a tavern, brewery, bake house, ropewalk, and blacksmith shop facilities which served the active fishery. Using aerial photographs and cartographic and documentary information of all types, "building inventories" have been constructed to pinpoint, record, and map structural remains on each one of the islands and to indicate potential areas for future archaeological investigations.

A fifteen-member EARTHWATCH team helped conduct survey activities and test excavations of Lunging Island during the last two weeks in August 1987 (field report available from Faith Harrington, Boston University, Archaeology Dept., 675 Commonwealth Ave., Boston, MA 02215). Documentary evidence and oral tradition suggested that a trading post built c. 1620 by the London Company was located here. However, through archaeological testing we did not recover any materials dating to the seventeenth or eighteenth centuries. Many nineteenth-century artifacts were uncovered, however, and provide information about the use of the island at that time and the construction dates for two structures.

EARTHWATCH and the Center for Archaeological Studies at Boston University will be sponsoring the Isles of Shoals Maritime Archaeological Project from August 1st through August 27th, 1988. During the summer of 1988, archaeological investigations will concentrate on locating and identifying structures such as stages, flakes, sheds, living quarters and other facilities associated with the early fishery at Appledore. Appledore is the largest of the Shoals with several important sites located there, including the remains for the "mansion house" of William Pepperell, an influential and prosperous merchant who was actively involved in the fishery during the second half of the seventeenth-century. The building inventory research, based on aerial photographs and all the currently available cartographic and documentary data, indicates that well over 40 structures (not including what would have been numerous buildings associated with the seventeenth-century fishery) once stood on Appledore Island.

Archaeological reconnaissance survey techniques will be employed on

Appledore in an attempt to locate and identify any historic or prehistoric sites. Ground-search survey techniques will include visual inspection of the island, soil-core sampling, and limited shovel test pit excavations. Participants can enroll in this project through Boston University's Center for Archaeological Studies (675 Commonwealth Ave., Boston, MA 02215, ph. 617-353-3415) or EARTHWATCH (680 Mt. Auburn St., Watertown, MA 02272, ph. 617-926-8200) for either a two-week or a four-week session. Participants will learn to read U.S.G.S. maps, to measure their pace and pace distances from one point to another, to read a compass, to take bearings on points in the field, to set up a transit and take horizontal and vertical measurements with it, to excavate shovel test pits using a shovel and trowel and properly fill out standard forms, to excavate test units (from .5 m to 2 m square) according to standard professional archaeological techniques of excavation, sieving, recording, mapping, retrieving soil samples, etc. A field laboratory will be set up at the Shoals Marine Laboratory, and during inclement weather, crews will work inside upgrading field forms, researching historical topics, or washing and cataloging artifacts recovered in the field. Participants will be instructed in the identification of material culture of the historic period, and the basic methods involved in the processing and conservation of artifacts. Lectures, films, and guest speakers provide a lively atmosphere for learning about the early history of New England.

If sufficient interest and numbers develop, an underwater research component will be added to the project. Dr. Robert Farrell of Cornell University will direct qualified participants in underwater archaeological research, specifically in shoreline searches to locate the submerged remains of the fishery staging facilities and to retrieve soil samples which may contain faunal materials (fish bones) that will help pinpoint the exact species of fish taken and perhaps provide information on seasonal aspects of the fishery. Qualifications to perform underwater work require that the individual be a SCUBA-certified diver and fulfill the additional medical, experience, and equipment requirements of the Shoals Marine Laboratory. Anyone interested in underwater research should contact EARTHWATCH immediately.

HISTORIC AGRICULTURE AND CRAFTS

As part of their ongoing study of the transformation of the Central New England countryside during the early nineteenth century, Old Sturbridge Village (OSV) researchers completed the fourth and final season of excavations in the agricultural/crafts neighborhood of Barre Four Corners, Massachusetts.

During 1825, Cheney Lewis, a shoemaker and farmer, built a house in Barre Four Corners on a one-acre lot across from the Bixby home. There, he lived, practicing his craft until 1866, when he sold the property to Chauncy Hemenway. Chauncy raised a large family in the house until it was destroyed by fire in February, 1901. The remains lay largely undisturbed until this past summer, when it became the focus of the 1987 OSV Field School in Historical Archaeology. Eight students, seven volunteer staff, and directors David Simmons and John

Worrell, spent six weeks exploring the yard space of Bixby's nearest neighbors.

Test probing of the home lot and mapping of the structural remains upon the triangular parcel were followed by intensive excavations in the side and rear yards and within the interior of Lewis' shoe shop. The archaeological evidence informed us not only about the Lewis and Hemenway use of yard spaces, but provided details on site activities before and during the house's construction. Like the Bixby site, the Lewis parcel also appears to have been subject to an earlier agricultural phase, having been first cleared by burning, and then harrowed. The site was down slope from the Bixby lot, a situation turned to advantage by the builders of Lewis' house and barn. The structural foundations were built beginning near the ground surface, the surrounding area being raised, leveled, and provided drainage by over 1,000 cubic yards of cobble and boulder fill, which formed an apron around the buildings. Excavation, together with the study of early photographs, suggests that the first complex included the house, New England barn, and a "ten-footer" shoe shop. Early additions extended the immediate living area of the house and connected it with both the barn and, via a woodshed, with the shop. Traffic ways in the vicinity of those additions were documented archaeologically.

While much of the recovered data related to the catastrophic 1901 fire, including shutter pintles and other hardware made by Bixby for his neighbor, we found little "sheet refuse" or trash broadcast directly into the yard, from the Lewis occupation. The striking dissimilarity in appearance of the Lewis and Bixby yard spaces during their first years in Barre Four Corners--the one relatively devoid of trash--the other having still been a primary receptacle for household refuse, is a telling indication of changing concepts of acceptable behavior in the neighborhood. It appears that the Lewises had adopted a more modern mode of waste disposal and aesthetic concern for the yard a number of years before these ideas had taken hold across the road.

During the summer of 1987, we also completed detailed mapping, recording, and excavating of the Emerson Bixby home lot. Through meticulous stratigraphic separation, we were able to phase a number of features and strata in the front yard (eighteenth-century roadbed, quarrying, site burn-off, early agricultural outbuildings) and in the side yard (early barn/shed complex and its relationship to the house and additions and to a series of early yard surfaces).

The recovered material culture assemblage from both the Bixby and Lewis sites has undergone initial processing, and descriptive information has been entered into several computer data bases: a general one for all material culture, and two extensive files for ceramics (now containing data on over 11,000 sherds from the Bixby site) and for the physical and chemical properties of soil samples. Systematic analysis of these data is proving very productive, helping to elucidate the patterns of structure and site use during an important period of changing material and social expression in Barre Four Corners.

FRONTIER ESTATES - LATE EIGHTEENTH CENTURY

During the summer of 1987 David Starbuck of Rensselaer Polytechnic Institute conducted a third field season at the site of Governor John Wentworth's plantation in Wolfeboro, New Hampshire. Created between 1768 and 1775, this estate was one of the few truly autonomous frontier plantations in New England, located some 50 miles from the seacoast and occupied by the Governor only during the summer months. The central portion of the estate, which contained the mansion and many outbuildings, is now part of Wentworth State Forest, administered by the New Hampshire Division of Parks and Recreation. In three years it has been possible to excavate large portions of the mansion cellar hole, exposing burnt floorboards and artifacts in the bottom, as well as several outbuildings. (The 100-foot-long mansion burned to the ground in 1820.) Two trash-filled structures have been completely excavated, and lesser testing has been done inside the foundations of a dairy, a stable and coach house, and a barn. Studying the layout of the Wentworth buildings has the potential of furnishing us with a rich and unparalleled view of how a colonial governor conceived of and arranged his estate on the eve of the Revolution. An additional field season is planned for the summer of 1988, at which time much more testing will be conducted within the mansion.

HISTORIC MARITIME ARCHAEOLOGY

Elizabeth Little (Nantucket Historical Association) has been documenting whaling voyages from Nantucket before 1750 made in sloops with Indian crews to Nova Scotia, Newfoundland, and Greenland. The research will be published in the Papers of the Nineteenth Algonquian Conference. In her capacity as editor of the Bulletin of the Massachusetts Archaeological Society, Betty encourages the CNEA membership to submit articles of potential interest to archaeologists working in Massachusetts for publication consideration.

Arthur B. Cohn (Basin Harbor Maritime Museum, Champlain Maritime Society) and Kevin Crisman (Champlain Maritime Society) have continued the nautical archaeological and historical investigation of watercraft and maritime events on Lake Champlain under the supervision of the Vermont Division for Historic Preservation and the NY Departments of Education and Parks and Recreation. They have recently completed the scientific investigation of the steamboat PHOENIX (built 1814), U.S. brig EAGLE (built 1814), sailing-canal boat GENERAL BUTLER (built 1862) and H.M. sloop BOSCAWEN (built 1759). The research has been funded by the U.S. Department of the Interior, National Park Service, the states of Vermont and New York, and the Fort Ticonderoga Museum.

As part of its program on the history of Lake Champlain, the Basin Harbor Maritime Museum (Basin Harbor, VT 05491. Tel. [802] 475-2317) welcomes

information on Lake Champlain watercraft, shipbuilding, maritime culture, industry, and documentary material (maps, paintings, prints, manuscripts, artifacts, books, and newspapers).

HISTORIC WHARVES AND LANDFILLS

A discussion about wharves and landfill sites, one in a series of briefings about archaeological work in Boston, was held July 23 for archaeologists and others working on the Central Artery and Third Harbor Tunnel project in Boston, Massachusetts. In attendance were Mac Goodwin and Nancy Seasholes of Boston University (BU), Brona Simon of the Massachusetts Historical Commission (MHC), Steven Pendery of the Boston Landmarks Commission (BLC), and Anne Booth and John Rempelakis of the Massachusetts Department of Public Works (MDPW). Informal presentations were given by James Bradley of MHC on the Bostonian Hotel site, Michael Roberts and Timothy Kennedy of Timelines, Inc. on the 75 State Street project, Laurie Boros of Public Archaeology Laboratory, Inc. (PAL) on the Central Artery North Area (CANA) project sites (Town Dock Wharves, Town Dock Pottery and Parker-Harris Wharf) and Beth Anne Bower of Bechtel/Parsons Brinckerhoff (B/PB) on Parcel D-10 (Long Wharf).

The Office of Public Archaeology (OPA) at Boston University, which was awarded a contract by the MDPW to conduct a Phase I/Phase II survey of the artery/tunnel project area, is currently carrying out background research and evaluating existing conditions prior to field testing. Ricardo Elia and Conrad (Mac) Goodwin are co-principal investigators for the project and Nancy Seasholes is the project historian. The Management Team of Bechtel/Parsons Brinckerhoff is overseeing the archaeological work for the MDPW and has hired Beth Anne Bower as staff archaeologist. B/PB is sponsoring a series of briefings for the project archaeologists and the design team to familiarize them with past and present archaeological projects in the Boston area.

The Wharves and Landfill briefing was held July 23, 1987 at the project headquarters at 99 High Street. The discussion following these presentations focussed on what were the significant research questions for wharf and landfill resources. In general it was agreed that:

- * Very early components of sites can and do survive beneath the modern city landscape.
- * The surviving components are usually very complex.
- * Careful study can reveal information about lot, neighborhood, and city growth, development and change.

Waterfront structures are of particular importance because of Boston's maritime history. Wharves, as well as piers, dry docks, docks and sea walls tell a history of urban development and technological innovation. Suggested research questions for wharf sites included:

- * English vs. American Technology. Can regional English or European influence on design and construction of wharves be identified? What American elements were added over time? Did the availability of different raw materials impact how wharves were built?

- * Are there regional American differences in wharf technology? Are there temporal changes?

It was agreed that establishing a wharf typology and an accurate field recording technique were particularly important.

Landfill, like waterfront structures, is indicative of Boston's unique urban history. The landfill discussion centered around its urban context:

- * Landfill may be the product of private, neighborhood, corporate and/or municipal efforts.

- * As such it may be viewed with other archaeological resources from the same context.

- * Differences in the content and extent of fills may be the results of variables such as time, place and source.

WATER POWERED INDUSTRY

The Research Department at Old Sturbridge Village is conducting an archaeological and historical survey of water-powered mills in the Quinebaug River Valley located in central Massachusetts. The survey is one component of a large research project, partially funded by NEH, entitled "Tradition and Transformation: Rural Economic Life in Central New England 1790-1850". Research focuses on changes over time in agriculturally-based water-powered industries, the effect of emerging large-scale industry on non-commercial mills, the technological traditions and innovations evident in milling techniques, and the analysis of economic and social networks generated by milling activities. Approximately 250 sites have been identified in the watershed area through cartographic and preliminary documentary research and will be further investigated and documented. Field survey, hydrological assessments and measured drawing of selected sites will also be undertaken.

In addition to the general mill study, the Research Department is initiating an intensive study of grist mills and milling in central New England from settlement to 1860. Persons with information, documents, and photographs of grist mill structures, machinery, and sites throughout New England please contact Martha Lance, Research Department, Old Sturbridge Village, 1 Old Sturbridge Village Road, Sturbridge, MA 01566. Tel. (617) 347-3362.

MANAGEMENT OF ARCHAEOLOGICAL COLLECTIONS

Linda A. Towle and Darcie A. MacMahon report that Volume 1, the last of the four volumes of the Archaeological Collections Management Project (ACMP) report for Minute Man National Historical Park, was sent to the printers in early August, thus completing the ACMP for Minute Man. Volume 1 contains chapters on the goals and history of the project, the history of archaeology at Minute Man, the project methodology, and three chapters on sites from the Fiske Hall area of the park. It also contains an inventory of the total archaeological collection at Minute Man, which contains 120,997 artifacts, most of which are historic. These collections were recovered from 19 domestic sites in the Park, most of

which were occupied during the eighteenth century. The four volumes provide an analysis of the collections from each site, as well as the artifact data values themselves. Strengths and weaknesses in the collections are noted for research purposes. The inventory of the Minute Man collections forms a data base which should be useful for researchers who need comparative data from rural New England domestic sites. Anyone interested in using the collections should contract the Park Curator.

The ACMP has expanded into other parks in the region. The project has slightly shifted in focus to accommodate the computerized cataloging of previously uncataloged archaeological collections. Doreen Crowe and Mary Ann Larson have been doing the actual cataloging, using the new NPS Automated National Cataloging System (ANCS), which runs on personal computers using the software program Dbase III+.

To date, collections from Lowell NHP, Longfellow NHS, Boston NHP, and Saugus Ironworks NHS have been cataloged. Short reports will be written for those parks with smaller collections, and more extensive reports will be done for parks with larger collections which were either poorly reported on or otherwise merit a more extensive analysis. A longer report is currently being written for the previously uncataloged collections from excavations at the Saugus Ironworks. All reports will contain inventory data summarizing the contents of each collection. It is hoped that these data will provide other archaeologists with a basis for conducting comparative research or other collections-oriented studies.

OTHER CURRENT RESEARCH BY STATE

CONNECTICUT

PAST completed the five-year archaeological study of Relocated Route 6 for the Connecticut Department of Transportation. Eighty-five prehistoric sites were located and intensively tested; thirty-five of these were excavated and over 50 radiocarbon dates were obtained. The full report will be completed in the spring of 1988.

MAINE

The Maine Archaeological Society has added a Newsletter under the editorship of James B. Petersen (University of Maine, Farmington) to its Bulletin to disseminate information on Maine archaeology. The Newsletter will contain announcements, brief reports, and articles of general interest. People interested in contributing to the newsletter should contact Jim. The first two issues contain research summaries on the Piscataquis Archaeological Project in central Maine (UMaine, Farmington), the Penobscot Valley Archaeology Program (UMaine, Orono), analysis of materials from the Nevin Site in Blue Hill Bay and sites in Casco Bay (Southern Maine).

NEW HAMPSHIRE

Three new archaeologists have been added to the staff of the New Hampshire Division of Historical Resources. Joining State Archaeologist Gary Hume are Richard Boisvert, Parker Potter, and Wesley Stinson. The result of this expansion of the DHR's archaeological staff is that many of the functions performed until 1986 by the successful SCRAP program, including survey and avocational training and certification, will now be handled in-house at DHR.

Richard Boisvert is a prehistorian who most recently worked in the office of the Ohio SHPO. At DHR his activities will include survey, field work, and also coordination of the computerization of the DHR's archaeological and other records. To date he has undertaken several small surveys but his future plans call for systematic surveys of the Lamprey and Saco Rivers (with volunteer assistance) and an inventory of New Hampshire's lithic resources.

Parker Potter is a historical archaeologist specializing in education and outreach, as well as with the preservation planning process. So far he has created a strategy for the protection of historic graveyards and in the upcoming months will be helping to outline New Hampshire's comprehensive plan for historic preservation. Wesley Stinson has experience with both historic and prehistoric archaeology and he comes to New Hampshire after working as an archaeological consultant in a wide variety of places. With the DHR he will devote considerable attention to coordinating the avocational training and certification program as well as to establishing and maintaining an

archaeological data management system for the DHR. In the area of research, he is planning a volunteer-assisted survey of the Souhegan River in South Central New Hampshire. Anyone interested in participating in any of the upcoming DHR survey efforts is encouraged to contact us at (603) 271-3483.

VERMONT

The Consulting Archaeology Program at UVM, directed by Peter A. Thomas, undertook 56 projects during 1986-87. Thirty-one studies were conducted as a result of federal review, 18 studies fell under Act 250 state review, and seven were management studies.

Supervised by R. Scott Dillon, field work during July and August at the Bessette 3 site brought to a close three field seasons of intensive excavation along a 3.5-mile stretch of the Missisquoi River within the Highgate Falls Prehistoric Archaeological District. As part of this effort, James Petersen and members of UVM's field school focused on an early Middle Woodland component at the Bessette 1 site.

Other studies include 37 reconnaissance phase surveys in Rutland, Addison, Chittenden, Franklin, Washington, Orange, Caledonia and Windsor Counties; three management studies prepared by Marie Bourassa for Army Corps of Engineers facilities at North Hartland, Townshend and Union Village; intensive research by Prudence Doherty and Jan Warren and subsequent testing at a nineteenth-century sawmill-tannery-chair factory complex in Searsburg for which a mitigation plan is currently in the process of being developed; and an historic background and reconnaissance level survey of the four-acre holdings of the Division for Historic Preservation at Chimney Point. Late Archaic-Late Woodland components were identified at the Point both in the tavern yard and in much of the surrounding area in plowed and unplowed contexts. Domestic deposits dating from the late eighteenth to mid-nineteenth century were recovered in the tavern yard and nineteenth-century deposits were found around an adjacent residence. The foundation of an early store on the lake shore, two ferry landings and the approximate location of an eighteenth-century residence were identified either through field work or background research. Little evidence of a military occupation can be documented based on the testing completed.

Colin Calloway (University of Wyoming) is currently working on a book entitled Western Abenaki Diaspora: War, Migration and the Making of an Indian Remnant People, 1600-1800. The book focuses on the western Abenaki of the Vermont area and their experiences during two centuries of disruption and conflict, emphasizing both dispersal and survival.

MEETINGS AND CONFERENCES

FAUNAL ANALYSIS CONFERENCE

The Second Annual Northeast Faunal Analysis Conference will be held on Saturday, April 9 at Forbes College, Princeton University. Among the 14 scheduled papers are:

Nicholas Bellantoni - "A Comparison of White-tailed Deer Processing at Two Coastal Contact Period Sites in Connecticut"

Catherine Carlson - "Problems in the Study of Prehistoric Atlantic Salmon Utilization in New England"

Arthur Spiess - "Seasonality of Annual Line Formation in Maine White-tailed Deer"

Registration includes morning coffee and lunch for a modest \$12 fee. Checks payable to "Princeton University" should be mailed to

Northeast Faunal Analysis Conference
c/o Center for Visitor and Conference Services
Princeton University
Princeton, NJ 08544

Further details may be obtained from the conference organizers:

Pam Crabtree
Dept. of Anthropology
Princeton University
Princeton, NJ 08544
(609)452-4556
BITNET: 1424795@PUCC

Peter Bogucki
Forbes College
Princeton University
Princeton, NJ 08544
(609)452-5229
BITNET: 0526046@PUCC

AMERICAN QUATERNARY ASSOCIATION

The 10th Biennial Meeting of the The American Quaternary Association will be held June 6-8, 1988 at the University of Massachusetts at Amherst. The theme for the meeting is "Land-Sea Interactions in the North Atlantic Region Between Approximately 14,000 and 6,000 Years Ago".

In addition to invited speakers, papers, and poster sessions, there will be 7 field trips.

Pre-Meeting Field Trips

- B.1 Glacial Lake Hitchcock and Post-Glacial Uplift
- B.2 Lake Albany and Its Successors in the Hudson Valley
- B.3 Glacial History, Paleoecology and Archaeology of the Cape Cod Area

Post-Meeting Field Trips

- A.1 Late Quaternary Glacial and Vegetational History of the White Mountains, New Hampshire
- A.2 Glacial and Post-Glacial Events in Southeastern Connecticut, Thames-Shetucket and Lower Connecticut Valleys
- A.3 Sea-Level Changes in the Late Quaternary Stratigraphic Record from Coastal Maine
- A.4 Glacial Lake Hitchcock in Southeast and East-Central Vermont and Southwest New Hampshire

The field trips range in estimated cost from about \$55 plus transportation to \$250 for transportation, room, and board. There may also be shorter field trips in the Amherst area.

For further information on the 1988 AMQUA Meetings, write to:

AMQUA 88
University Conference Services
Campus Center
University of Massachusetts
Amherst, MA 01003

PUBLICATIONS

UMASS (University "Monthly" Anthropological Survey Service) is published five times a year and contains tables of contents from recent journals and edited volumes in all subfields of anthropology and related social and natural sciences. It is intended to help anthropologists keep up with the rapid growth in relevant literature. The subscription rate is \$10/year for U.S. addresses and \$25/year for addresses outside the U.S. (Air Mail). Checks payable to "University of Massachusetts" should be mailed to:

Blythe Roveland
Department of Anthropology
Machmer Hall
University of Massachusetts
Amherst, MA 01003

NEW PUBLICATIONS AND REPORTS WITH REFERENCES CITED IN TEXT

Luedtke, Barbara E.

1987 The Pennsylvania Connection: Jasper at Massachusetts Sites. Bulletin of the Massachusetts Archaeological Society 48:37-47.

Nicholas, G.P.

1986 The Carlson 1 Site: Preliminary Report of Field Investigations 1984-1986. A Technical Report of the Robbins Swamp Project. Research Manuscript Series, American Indian Archaeological Institute, Washington, Connecticut.

1987 The Housatunnuk at Skatehook: Results of an Archaeological Site Locational Survey in Sheffield and Great Barrington, Massachusetts. UMASS Archaeological Services Report 70. Submitted to Resource Recovery Systems, Sheffield, Mass.

1987 Hunter-Gatherer Society and the Prehistoric Use of Jasper. Artifacts XV (3):16-19. American Indian Archaeological Institute, Washington, CT.

1987 Redundancy in Early Postglacial Land-Use in Robbins Swamp, Southwestern New England. Current Research in the Pleistocene 4: 21-22.

1987 Rethinking the Early Archaic. Archaeology of Eastern North America 15: 99-124.

Shaw, Leslie and Ellen-Rose Savulis

1988 Archaeological Site Examinations at the Prehistoric and Historic Sites at Willowbend (Fox Run), Mashpee Massachusetts. UMASS Archaeological Services Report 78. Submitted to Commonwealth Collaborative.

Shaw, Leslie and Ronald Johnson

1987 Archaeological Locational Survey of Route 3 North, Northeastern Massachusetts, Middlesex County, Massachusetts. UMASS Archaeological Services Report 62. Submitted to the Massachusetts Department of Public Works.

Stuiver, Minze and Gordon Pearson

1986 High-Precision Calibration of the Radiocarbon Time Scale, A.D. 1950-500 B.C. Radiocarbon 28(2B):805-838.

CONFERENCE ON NEW ENGLAND ARCHAEOLOGY

CURRENT RESEARCH

Please submit a brief paragraph on your current New England Archaeological research for inclusion in the next CNEA Newsletter. Also submit any new bibliographic titles for books, articles, reports, etc. in American Anthropologist format. Thank you.

Please return by May 15, 1988 to:

Mitchell Mulholland
UMASS Archaeological Services
University of Massachusetts
Blaisdell House
Amherst, MA 01003

or to your local CNEA Steering Committee representative. If possible send your contribution on a computer diskette (with paper copy) on IBM or compatible, Apple, McIntosh, or Kaypro. Please specify the computer model, word processor operating system used to create your file. Your diskette will be returned to you. Please begin with a paragraph, or at least a few sentences stating what your research topic is, and how your data are used to answer your research questions.

Name _____

Institution _____

Mailing Address _____

Bibliographic entry _____

Research _____

Research topic _____

Current research _____

PLEASE MAIL AS SOON AS POSSIBLE

(continue on reverse)