



VERMONT ARCHAEOLOGICAL SOCIETY NEWSLETTER

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Zukunft Bund **New Vision for the 21st Century and Beyond**

by Robert Sloma, President, VAS

I would like to thank the members and the Board of the Vermont Archaeological Society for appointing me to the position of president. As president, my agenda will be to focus and redirect VAS activity in order to form new organizational vision. Based on the Society's original purpose and goals, current needs, and the present state of archaeology in Vermont, this new vision includes active participation of members in establishing an infrastructure that will be able to sustain expanded membership, activities, and staff with office and meeting space. Infrastructure may revolve around developing the Society to act as a clearing house for archaeological information. In addition, activities such as research and curation could also be conducted. Workshops, conferences, lectures, exhibits, publications and other activities would be developed, funded and conducted. As president, I will move as rapidly as possible to work with the board to examine and develop such an infrastructure based on new vision. Innovative planning and hard work will over time increase the opportunities available to members and the public. Design and implementation of these plans call for input and cooperation from all VAS members. Therefore, comments, suggestions and/or concerns should be sent directly to me, or other board members.

This year, 1993, presents many opportunities for the Vermont Archaeological Society. 1993 marks 25 years since the Society was established with the intent of

VERMONT ARCHAEOLOGICAL SOCIETY

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VAS Spring Meeting on May 15

The 1993 Spring Meeting of the VAS will be held on Saturday, May 15, at the Basin Harbor Club in Basin Harbor, Vermont. Louise Ransom is working on the program, and more information will be forthcoming very soon.

preserving the archaeological heritage of Vermont. The Society was founded at a time when destruction of archaeological sites was rampant. Sites were being devastated at an alarming rate through urban and regional development, natural phenomena, and untrained collectors. Both professional and avocational archaeologists saw the great need for preserving sites through organized archaeological advocacy. This in part led to the establishment of the VAS. Over the past 25 years new laws and educative efforts sponsored by the State, VAS and others have curbed some destruction. Some sites that could not be preserved underwent archaeological sampling. A smaller percentage of sites underwent some form of data recovery, while other sites were simply lost. At this time, no one can accurately estimate the number of archaeological sites that have been destroyed in Vermont, but there have been many. Destruction of sites continues through the same previously mentioned forces. Population growth and increased availability of remote sensing technology to the public seems to have accelerated some destruction. New technology seems to have impacted underwater sites greatest. Many believed preservation of these sites was not an issue because of their inaccessibility, but this is no longer true. The VAS must meet the challenges of this decade and the coming century by more vigorously pursuing its stated purposes and goals:

(A) To foster archaeological study and research and to educate the public in understanding, supporting, and appreciating such study and research. When appropriate, to collect, to receive by gift or otherwise, to hold, to preserve, and to interpret archaeological information, data, artifacts, specimens and examples, particularly relating to Vermont and sites within Vermont.

(B) To promote judicious, careful and scientific archaeological field methods that will tend to preserve data, sites, examples, artifacts and specimens while at the same time extracting the optimum amount of information, and as a correlative to prevent injurious exploitation of archaeological sites, artifacts, specimens and examples by amateur, commercial, or other interests (VAS Bylaws Article I, Section 2, A and B).

Recent archaeological meetings sponsored by the VAS (Fall 1992) and the Consulting Archaeology Program (Jan. 1993) have proven that there is a need for dependable, readily-available archaeological information and services in the area of preservation, education and research. The Vermont Archaeological Society can and should take up this role as it is already part of its mission. Based on the Society's original purpose and goals, current needs, and the present state of archaeology in Vermont, we desperately need to focus and redirect our activity and develop a new vision plan for the future; lest our organization go the way of the dinosaurs. My major task as president of the VAS will be revitalizing the Society through redirection of our mission.

I have chosen the phrase *Zukunft Bund* to describe my personal view of a means of attaining this new vision. *Zukunft Bund* is German for future cooperation. I see *Zukunft Bund* as a philosophy which will propel the VAS into the 21st century and beyond. *Zukunft Bund* involves interactive cooperation for an enriched future. The VAS will need active cooperation from all its members to address coming challenges. As we surmount these challenges through innovative planning, and hard work, we will in time increase opportunities available to ourselves and the general public. As president I will work with the board to move in this direction as rapidly as possible.

The VAS will seek to actively engage more members in operational and planning issues by expanding opportunities to serve on committees. Experience on committees should provide members with a familiarity of the organization, its vision, operation, and membership. Constructed to operate as self-sustaining units with minimal counsel from the board, committees will be charged with designing and implementing active and engaging programs to serve members and the general community. Committees will deal with topics such as research, education, legislative advocacy, membership, fund-raising, publications, meetings, workshops, lectures, exhibits, and the newsletter. Committees will also be formed to address those areas in which we as an organization are deficient. The VAS has many supportive and talented members, nearly 150 strong. Since the Society currently exists as a volunteer organization it relies solely on members. We will need continued and growing involvement of members. I believe that we

can greatly enhance our situation through the development of a sustainable infrastructure and staff. The past has shown that we cannot adequately sustain development, planning and implementation of our goals solely through membership. If we are to continue as an organization we owe our members, ourselves, much more for our membership than we are currently providing. I will therefore seek to develop a self-sustaining position or positions, as well as possibly a permanent office and meeting space to aid in our endeavors. The organizational framework necessary to support such a society will be complex, but so will the benefits. Until we begin to develop our own infrastructure, I do not believe we will be able to attract many new members. However, once this process begins, I foresee the VAS becoming a much larger and active organization. It is time that the Vermont Archaeological Society took up its role as an active participant in the preservation of Vermont's impressive and diverse archaeological heritage.

In conclusion, I again ask that members contact me with any ideas and suggestions for what they would like to see in this, our organization. Also, if anyone is interested in becoming a committee member, please do not hesitate in contacting me or other board members personally; we are here in a common cause. I can be reached by mail at the VAS mailing address or by phone at home (802) 862-5817, or work (802) 656-1991.

Summary of Vermont Archaeologists' Meeting January 14, 1993

by Prudence Doherty

In the late 1970s, the Vermont Division for Historic Preservation and the University of Vermont hired two professional archaeologists to insure that Vermont's rich archaeological heritage would be protected as required by a variety of state and federal laws and regulations. The community of archaeologists actively working in the state has increased dramatically since then, and many significant archaeological projects have been undertaken. At the same time, archaeologists working in Vermont are often frustrated because many other worthwhile and necessary projects are identified and discussed but not initiated and completed.

On January 14, 1993, a group of twenty-four Vermont archaeologists met at UVM for a day-long session to plan some of the activities that they would like to undertake during the next decade. Using a collaborative process, the group identified a range of objectives. Many of the proposals involve education and outreach at all levels—between professionals, with the general public, in schools, colleges and universities,

and with Vermont's Abenakis. Products would include pamphlets, an elementary level textbook, workshops for developers, engineers, and town officials, research publications, and field schools. The group tentatively scheduled a Vermont Archaeology Week for spring, 1994.

The archaeologists also see many opportunities to improve the quality of archaeological protection mandated by state and federal laws. Federal and state agencies need to be pressured into compliance with existing regulations; many would be better equipped to meet their obligations if they hired staff archaeologists. Another important need is an adequate facility for long-term curation of artifacts and project records. The group ranked legislative advocacy as a high priority to insure funding and support.

The planning session was hosted by the Consulting Archaeology Program, University of Vermont. Participants included archaeologists and staff affiliated with the Vermont Division for Historic Preservation, the Green Mountain National Forest, private consulting firms, the Lake Champlain Basin Program's Archaeology on the Farms Project, the Vermont Archaeological Society, the Vermont Agency of Transportation, the Lake Champlain Maritime Museum, the Vermont Environmental Board and the UVM Consulting Archaeology Program. These individuals have diverse responsibilities, including protecting archaeological resources through environmental review proceedings, education and outreach, and field work at prehistoric and historic period sites on land and underwater.

The group began to meet one of their goals—increased communication among Vermont archaeologists—at a meeting in March. Part of that meeting was used to develop specific action plans to meet some of the many goals. An afternoon session was devoted to methodological innovations that can be used in Vermont archaeological projects. The afternoon included presentations on a less expensive and faster alternative to radiocarbon dating of charcoal, development of a model to predict prehistoric burial locations, and a water flotation process which can be used to recover small faunal, floral and artifactual material from bulk soil samples.

VAS Board Member Victor R. Rolando Appointed to Center for Research on Vermont

Victor R. Rolando was recently appointed an Associate Member of the Center for Research on Vermont by Howard Ball, Dean of the College of Arts and Sciences, UVM.

The Center for Research on Vermont promotes and

facilitates research, teaching, and related scholarly activities dealing with the state of Vermont or matters of interest to the state, particularly in, but not confined to, the disciplines of the social sciences and humanities. Members of UVM faculty with a demonstrated interest in research on Vermont may be appointed Fellows of the Center by the Dean of the College of Arts and Sciences upon nomination by the Executive Committee. Members of other faculties, other Vermont educational institutions, or any other persons with demonstrated research interests on Vermont may be appointed as Associates of the Center.

Rolando was recommended to the Executive Board for nomination by Tordis Ilg Iselhardt of the Bennington Historical Commission upon publication of his new book, *200 Years of Soot and Sweat: The History and Archeology of Vermont's Iron, Charcoal, and Lime Industries*. Vic was VAS vice-president from 1986 to 1989, president from 1989 to 1992, and has been a VAS member since 1978.

Notes From the State Archeologist

by Giovanna Peebles

Vermont Division for Historic Preservation

David Skinas, the Division's Survey Archeologist, has taken on four internships of 50 hours each through Johnson State College's archaeology class. Two students are working in the office on the Vermont Archeological Inventory. The other two interns are conducting a research project in the Town of Johnson. Using the 1869 *Beers Atlas* for Johnson and comparing these 19th century town maps with modern orthophoto maps, the interns are determining which historic structures remain standing and which have become historic archaeological sites. The map research is followed by on-site confirmation. This project will add new site information for Johnson to the Archeological Inventory. This internship program with the Division has been on-going for several years, and we are indebted to Dr. Fred Wiseman for encouraging his students to work with us.

Using our new GIS system, we recently compiled preliminary archaeological sensitivity overviews for the Town of Berlin (Washington County) and for the Green River Watershed (which includes various towns in Windham County). The GIS allows us to relatively quickly delineate prehistoric archaeologically sensitive areas in a town. This information can then be used by the planning commission and developers as an early warning system to further consult with us early in project planning stages. The GIS is a powerful planning tool that, over time, will hopefully help towns better protect historic and archaeological resources and reduce the "surprise" element during Act 250 project reviews.

In January, I planned and hosted a planning meeting for the Lake Champlain diving community on the future of Vermont's Underwater Historic Preserves. Begun in 1985 and at that time unique in America, Vermont's Preserve program consists of 4 historic shipwrecks—each with special moorings, underwater signage, and individual interpretive brochures—designated of special recreational interest to divers. The Preserve program is now at a critical crossroad: there are more and more demands placed on it with fewer and fewer dollars. Thus, our fragile and irreplaceable historic shipwrecks are threatened by our current inability to meet the demands of this maturing program with existing staff and money. The most important outcome of this meeting was developing short and long term goals for the Preserve program and forming a citizen's advisory committee to help the Division plan and manage the program. The Underwater Preserve Advisory Committee has since had its first meeting at which the needs of the 1993 Preserve season began to be discussed. This group will make a major difference in helping the Division meet the challenges of the Preserve program.

A "guilty" verdict was handed down to diver Charles Schroyer, from Hartford, Indiana, charged in 1991 with collecting Revolutionary War period artifacts from underwater historic sites off Mount Independence without a permit. The judge found that Mr. Schroyer's acts were an intentional effort to violate the law. Sentencing and the size of the fine remain unresolved to date. We were heartened that this first enforcement action taken under the Vermont Historic Preservation Act (22 V.S.A. Section 782) resulted in a conviction. The guilty verdict sends a strong message to those few divers who feel that Lake Champlain's historic artifacts are for their personal gain or enjoyment.

The National Park Service, Northeast Regional Office, has earmarked a special \$50,000 appropriation for a joint Vermont/New York cultural resource project(s) in the Lake Champlain Basin and in cooperation with the Lake Champlain Basin Program. Discussions are on-going with key New York State staff to identify one or more cultural resource projects of mutual and long-term benefit. At this time, we are looking at various needed tasks that can serve as building blocks for a comprehensive cultural resource plan for the Basin, a major goal for both states and interested organizations. Of the various non-state funding sources that I have been looking at for special projects, the Park Service money looks to be the only federal money available for cultural resource projects in 1993 since we have recently learned that the Lake Champlain Management Conference decided not to fund any cultural resources projects in 1993.

The recent Winter 1993 issue of "Casin' The Basin," the publication of the Lake Champlain Basin Pro-

gram (LCBP), features the cultural and historical resources of the Lake Champlain Basin. To get this excellent, free Newsletter, contact the LCBP at (802) 372-3213 or, in Vermont, 1-800-468-5227.

As a necessary follow-up to the 1992 *Mount Independence/Fort Ticonderoga Submerged Cultural Resources Project*, the Division is asking the Legislature for \$75,000 from the Capital Budget to recover, conserve, and interpret a unique cluster of Revolutionary War artifacts discovered in 1992. Including armament, personal gear, tools, and a large, iron 18# or 24# cannon, this artifact concentration is of national significance. In relatively shallow water, it is threatened by treasure divers and curiosity seekers. The project, if funded, will include careful recovery of these materials as a single collection, their stabilization and conservation, and a temporary interpretive program until they can be permanently displayed at the Mount Independence historic site later in the decade.

On the Connecticut River side of the state, we continue to lose important prehistoric Native American archaeological sites to riverbank erosion. An old problem with, thus far, little resolution in sight, unique cultural sites, including Vermont's first farming site—dating to A.D. 1210—in Springfield, are being devastated. Dave Skinas's article on the Long House site on the upper Connecticut, elsewhere in this Newsletter, describes another site of major importance that is being destroyed by erosion. At the same time as we are losing our prehistoric patrimony, we are also losing prime agricultural lands. A recent independent investigation of the riverbank erosion at the Springfield site clearly concluded that a primary factor responsible for erosion is the existence of New England Power Company's dam, reservoir and hydro-project operation. This study finally confirmed our and others' observations that New England Power's daily water fluctuations were a direct cause of bank erosion and site destruction. Unfortunately, this study has not prompted any action to protect the eroding sites (and farm lands) on the part of either New England Power Company or the Federal Energy Regulatory Commission, the federal agency that licenses the hydro projects creating this huge problem. Many letters, phone calls, and even meetings over several years with these and other parties has not resulted in any resolution. At best, this has been an extremely frustrating process. All we can do is to continue to make a lot of noise about the on-going, rapid-paced destruction of our unrenowned, ancient, Native American heritage.

Don't forget to let your legislators know that you care about these fragile, important resources!

Book Review

Near-Surface High Resolution Geophysical Methods for Cultural Resource Management and Archaeological Investigations

by Don H. Heimmer

reviewed by Dennis Howe

While excavation has continued to be the most comprehensive method for archaeological site assessment, the noninvasive identification of subsurface archaeological features has become increasingly popular with archaeologists concerned with cultural resource management. Recently, an increasing number of remote sensing and "non-digging" research techniques have been applied by archaeologists. These range from aerial photography exploiting various visible and nonvisible energy bands, to geochemical testing, to an aggregation of geophysical engineering methods.

By far the most popular have been the methods developed by the geological sciences because they tend to be less costly and more generally available. Defined as geophysical methods, these techniques borrowed for archaeology include passive surveys which measure naturally occurring magnetic fields, gravitational fields and electrical fields, as well as active surveys that involve the subsurface transmission of electrical current, electromagnetic fields, or acoustic energy fields. While all of the various geophysical methods have demonstrated an ability to locate subsurface archaeological features, each has its own unique environment for the most satisfactory results. Choosing the "right" method can be a problem.

A new publication, *Near-Surface, High Resolution Geophysical Methods for Cultural Resource Management and Archaeological Investigation*, by Don H. Heimmer, is an important addition to the literature concerning the subject. While not for everyone, it will be useful to serious advanced avocationals, professional archaeologists, and engineers involved in construction planning. The publication, which is better defined as a manual, was developed to support a geophysical training course sponsored by the National Park Service as part of its Cultural Resource Training Initiative. It is written and organized in the typical Federal training manual style with sections covering all of the geophysical methods currently in use, thoroughly discussing such concerns as limitations, applications, equipment, data acquisition, data interpretation, costs, and survey project management. It even has a section which covers the use of metal detectors.

In addition, the publication contains appendices which provide a glossary, bibliography, equipment and potential contractor sources, and data examples.

The manual is available to the public at no cost.

Near-Surface, High Resolution Geophysical Methods for Cultural Resource Management and Archaeological Investigations. DON H. HEIMMER. Geo-Recovery Systems, Inc., Golden Colorado. Submitted to Interagency Archeological Services, National Park Service, Denver, Colorado, Purchase Order No. PX-1242-1-1373, 1992. ix + 143 pp., figures, appendices, bibliography. Copies available from Interagency Archeological Services, Rocky Mountain Regional Office, PO Box 25287, Denver, Colorado 80335-0287.

Minutes of the January 21, 1993 Board Meeting Sheldon Museum, Middlebury

Present: Bruce Hedin, Gerry Kochan, Bill Murphy, Audrey Porsche, Louise Ransom, Marjorie Robbins, Vic Roland, Bob Sloma, David Starbuck

Absent: Ann Clay, Stephen Moore, Joe Popecki, David Skinas, Louise Luchini

The meeting was called to order at 7:30 p.m.
Minutes of last meeting accepted.
No treasurer's report.

Old Business

1. 25th Anniversary Volume: Starbuck reported on progress to date. Three articles have already been submitted, together with 10 abstracts (papers to follow) and 4 verbal commitments.

Starbuck and Rolando will write a proposal for funding from the Free Press Foundation, Inc. The foundation will meet to review grants in March. Bob Sloma will check with other grant sources.

It was suggested that we print enough extra copies for resale, but that members get their volume free.

There was a general discussion about the general theme of the volume. Most felt it should be devoted to broad overview topics, rather than specific site reports.

2. Reward Program: Bob Sloma presented a press release regarding the program and would like feedback on it at a later date. More research is needed into how this program might work, particularly with regard to the logistics and how this program might fit into existing programs and laws.

\$100 is being proposed as the reward amount, but more money may be available (\$500 perhaps).

Audrey Porsche will contact the Middlebury Barracks to set up a meeting to discuss our plans with the State Police.

3. Annual Dues: The discussion on changing dues was tabled until the treasurer could be present.

The issue of membership cards was raised. Louise Ransom also suggested we create a membership category for the educational community (public schools, teachers, etc.)

4. Newsletter Mailing: Long discussion on who should receive copies of the newsletter *gratis*; in particular, legislators. Vic Rolando suggested that there were too many, and most don't read them—perhaps we should target specific ones. Audrey Porsche will check with Giovanna Peebles first to see whom she sends them to and whom she recommends we send them to.

The motion passed to send newsletters *gratis* to some of the organizations Bob Sloma listed.

The motion passed that Louise Ransom write a letter to delinquent members asking them to renew and become active. After two free newsletters without renewal, we should take them off the list.

General discussion on how to inspire membership and attract new ones. Gerry Kochan will look into the possibility of organizing field trips to excavation sites this summer (perhaps in Canada?).

5. VAS Materials at UVM Lab: Vic Rolando agreed to go through the boxes of VAS materials and condense them; keep archival materials, try to sell T-shirts and booklets.

An official repository for materials must be found.

6. Spring Meeting: Louise Ransom will look into possibility of holding the Spring Meeting at the Basin Harbor Club in Vergennes. The date of May 1 was mentioned but must be finalized based on space availability.

It was agreed to move the 25-year anniversary theme to the annual meeting in the fall. At the next Board Meeting, the theme will be decided for the Spring Meeting.

7. Position Paper: Bob Sloma would like feedback on his position paper by March 4.

New Business

Agenda items were tabled for the next meeting as time was running out.

Announcements

Bill Murphy mentioned the Heritage Corridor proposed by Senator Jeffords may be in trouble because

of uproar by Adirondack Solidarity Alliance. Bill also suggested the MIC become part of the VAS organization.

Louise Ransom expressed a desire to submit her resignation as Vice-President.

Vic Rolando brought to the Board's attention that he wishes to use the VAS name for purposes of advertising his book. This was approved by the Board.

The meeting adjourned at 9:00 p.m. The next meeting is scheduled for March 18 at 7:00 p.m. at the Sheldon Museum.

Respectfully Submitted,

Audrey Porsche

Long Houses on the Upper Connecticut River?

by David Skinas

Vermont Division for Historic Preservation

Last fall I reviewed a Soil Conservation Service (SCS) streambank stabilization project located on the Connecticut River above Fairlee, Vermont. (Due to the farmer's wishes I must be vague in describing the site's location.) The landowner has a 1700 foot stretch of eroding farmland on the river that requires immediate stabilization. In April of 1992 ice break-up and spring floods scoured 50 foot deep gouges into the site. This stretch of the river lies within New England Power Company's Wilder reservoir which is subjected to daily flood-pool fluctuations.

I examined the eroded bank and identified fourteen cultural features found between 12 to 60 inches below surface. These features are dark, organic-rich layers that measured between 1" to 5" thick. These dark layers are similar in color and texture to small house floor features identified at other prehistoric Native American sites located on the Connecticut River in Fairlee (VT-OR-34), Windsor (VT-WN-186) and Springfield (VT-WN-41), Vermont.

One major difference is that the features at the SCS site measure on average 38 feet long as compared to the 9-13 foot long house floor features previously identified in Vermont. The SCS site house floors range in size from 16 feet to 80 feet in length. Eight of the most southerly cultural features consist of a single house floor deposit (Feature 1-8). Feature 8 contained a hearth, and a post mold was also identified at the southern end of the house floor. Features 9, 10 and 13 each have three house floors stratigraphically separated by thin lenses of flood-deposited materials. Feature 12 has seven living floors, and Feature 11 has eight stratigraphically separated house floors in the middle of the cultural deposit. Feature 14 has five overlying house floors. Thus,

thirty-seven individual features or living floors were observed along the eroding riverbank.

The size configuration of these house floor features suggests that they may represent the remains of long houses that were used by prehistoric peoples during the later stages of the Late Woodland Period and into the Contact Period (AD 1500 - AD 1700). The presence of long houses suggests that social organization had evolved from small, highly mobile hunter/gatherer groups typical of the Middle Woodland Period in Vermont (AD 100 - AD 1000) into somewhat larger bands that still followed seasonal patterns of settlement but became more sedentary as their food base became more reliable.

Agriculture was probably practiced to sustain the relatively larger population that occupied a site of this size for a period long enough to produce such archaeological deposits. The fact that 43% (n=6) of the features show evidence of repeated occupation in the same location suggests that some form of the house structure survived from year to year or season to season which facilitated the occupation and refurbishing of existing shelters, perhaps by the same extended family members.

Six soil samples were extracted from the archaeological deposits for radiocarbon dating and botanical examination. Preliminary analysis of the soil samples produced a substantial amount of well-preserved wood charcoal. Birch and red elm or hackberry were identified. This suggests that detailed studies of paleoenvironment and wood use preferences could be undertaken at the SCS site.

Archaeological sites that contain this type of information are extremely rare in Vermont because of the shallow nature of most sites, where plows and frost heaving tend to destroy structural site features and their botanical remains. Although subsistence remains such as corn were not found in the preliminary study, the potential for the presence of food remains are excellent because charred food remains are subject to the same preservation effects as wood charcoal (Jack Rossen, pers. comm.). At a similar but older site in Springfield (VT-WN-41) corn, beans and squash were recovered from a refuse pit located at one end of a small house floor deposit. Organic material recovered from the refuse pit produced a radiocarbon date of AD 1140, which is the oldest date for the use of cultigens in Vermont.

This site is clearly eligible for inclusion on the National Register of Historic Places. It is imperative that this site be protected from the effects of river erosion. A streambank stabilization design that does not adversely affect this archaeological site is necessary to provide long-term protection of what is probably one of Vermont's premier prehistoric Abenaki village sites.

History In Our Backyard

by Douglas Frink and Richard Allen

What happens when you let 65 grade school kids loose on a significant archaeological site? The result might surprise you.

In June, 1992, the Archaeology Consulting Team, Inc. (ACT) of Essex Junction, Vermont, conducted a Phase I archaeological site identification study of the proposed Williston Community Park project in Williston, Vermont. Two Native American sites, VT-CH-583 and 584, were identified during a plowed-field walkover inspection on the terrace above Allen Brook. The two Native American sites were identified by widely dispersed lithic scatters. No temporally diagnostic tools were recovered. Since this was a Town sponsored project on Town land adjacent to the Williston Central School (WCS), the ACT recommended that the Phase II site evaluation study be conducted under a designed educational program using these sites as outdoor laboratories for the students of the WCS. Such a program would address the needs of the community and would be an appropriate use of these potentially significant archaeological resources. The Town of Williston and the Vermont Division for Historic Preservation overwhelmingly supported this innovative program which would maximize the public benefit while minimizing the cost of the archaeological research.

Funding for this program was solicited and received from the Williston PTA and the Chittenden South Supervisory (school) District in the form of a Chapter II Innovative Program Educational Grant. The program was offered to the school community through the Enrichment Program, coordinated by Mr. Richard Allen.

Under the direction of Douglas Frink, Principal Investigating Archaeologist of ACT, part of one of these sites was used in a multi-disciplinary program of math, science and social studies during the fall of 1992. Sixty-five WCS students between the ages of seven and thirteen were divided into four independent teams of scientists. Students were grouped by relative ages, 7-9, 10-11, 12-13 to account for varying degrees of experience and abilities. Although the program was tailored for the age level of each team of scientists, all participants were exposed to the same material and experiences.

The program was divided into 16 weekly meetings for each team.

Class 1 created the team of scientists as opposed to students, and introduced the topic of inquiry. The goals of the project, the evaluation of the archaeological site, and the expectations placed on each team member were discussed. An overview of Ver-



Tyler Yandow, 6th grader, starts to dig, as Jarod Waite, also 6th grade, holds the sifter.

mont archaeology and a pre-study briefing of the project was presented to the team of scientists.

Class 2, "Mathematics, Measurements, and Maps," addressed the problem of "How do you draw a square that is really square?" and "How do you prove it?" This problem was presented as a world wide problem. Examples of solutions, derived from a study of ancient Chinese and Greek cultures, were presented, and used to construct a measured Cartesian grid on a map of the study area.

Class 3 involved the field application of "Mathematics, Measurements and Maps." Using the techniques learned the previous week, each team of scientists laid out a Cartesian grid over the site using only measuring tapes, a preestablished north-south base line and a datum point. Each team's grid was subjected to evaluation by a transit, and corrected. Perfection was the required and obtained result.

Class 4 involved the construction of scientific hypotheses. Before the actual excavation of the site each team developed a contingency table of the expected data recovered and the range of possible meanings that might be inferred from that data.

CONDITIONS	a large number of artifacts found	a small number of artifacts found
many different types of artifacts	many different activities many different occupations many people manufacturing activities long duration	different activities different occupations by few people processing activities short duration
limited number of types of artifacts	limited activities different occupations for same activities short duration manufacturing activities many people doing the same thing	one activity one occupation short duration processing activities few people doing the same thing

Fifth grader Chris Vance helps Julian Berg, 1st grader, classify artifacts from a simulated dig.



Class 5 and Class 7 involved the actual excavation of the archaeological site within the context of the "perfect" Cartesian grid established during Class 3. Excavation was conducted using shovels, trowels, screens, and measuring tapes, and detailed records were kept of stratigraphic levels, soils and recovered cultural material. The concept of provenience for each individual artifact recovered was focal throughout the excavations—grid location, soil stratification, soil genesis and cultural affiliation. Native American and European American cultural materials were recovered.

Class 6 dealt with the environmental context of the site. Using forest reconstruction models, the teams discussed what resources would have been available to Native Americans at different times in history. Additional hypotheses were developed about what activities might be represented by the artifacts recovered.

Class 8 and Class 9 involved the laboratory procedures of washing, measuring and cataloging the recovered artifacts. The teams of scientists processed both the European American and Native American artifacts that they had recovered during Classes 5 and 7, and entered their data into school computers. Analysis of the data was conducted through further hypothesis building.

Class 10 involved the post-study briefing, reviewing all that we had accomplished and learned. Following the briefing, a discussion of the scientist's responsibility to the public introduced the next and final part of the program, the report. From the first class onward, the participants in this program were informed that some form of public presentation would be required. A variety of formats were chosen by these scientists, and a wide range of audiences were targeted for presentation.

Archaeologist Doug Frink instructs some Williston Central students on proper excavation techniques.



HISTORY IN OUR BACKYARDS PUBLIC PRESENTATION PROJECTS

7 Dioramas	2 Slide Shows
2 Drawings	4 Booklets
3 Graphs/Charts	2 Bulletin Board Displays
6 Articles	2 Simulated Digs
3 Videos	2 Oral Presentations

Class 11-15 consisted of the scientists, individually or in groups of two to four members, working on their projects for presentation. The work was organized and directed by the individual scientists, with Mr. Allen facilitating the projects and Mr. Frink functioning as an informational resource.

Class 16 was entitled "Where the rubber meets the road—taking it to the public and fulfilling our scientific and civic responsibilities." An open house was held on March 23, 7:00 pm at the WCS which included the general public (See announcement elsewhere in this publication). Other public forums are being considered.

The "History In Our Backyard" program utilized a public resource as a vehicle for public education on the topics of mathematics, science, history, anthropology and civic responsibility. The program was designed as a hands-on exercise where the students operated as teams of scientists responsible for each other and the accomplishment of new tasks. Too often what is learned in school is far removed from real life situations. Learning confined to the four walls of the classroom can seem irrelevant to students. The use of an actual, not simulated, archaeological site, and the requirement of a final product to be shared with the public have made this program special. Failure of the individual or the study was not considered as a possibility.

At the present time in Vermont there is no organized archaeology curriculum on the state level. If a school considers archaeology at all it is usually done with lectures, readings, and perhaps an excavation of a synthetic site. This program provided a tactile view of earlier cultures that lived historically in our backyard. History and anthropology are no longer just stories about other cultures. "History In Our Backyard" allowed the students of WCS the opportunity to see and understand these cultures as a real part of their lives. It is hoped that this project can serve as a model for similar studies in schools throughout the State of Vermont.

The "History In Our Backyard" program was conducted as a special course offering through the Enrichment Program, which presents learning experiences on three levels in accordance with the Enrichment Triad model promoted by Joseph Rensulli (1985).

Type I: introductory experiences "designed to expose students to new and exciting topics, ideas and fields of knowledge that are not ordinarily covered in the regular curriculum."

Type II: developing skills in creative thinking and problem solving, research and reference skills.

Type III: acting as a practicing professional and developing a product to have an impact on a specified audience.*

"History In Our Backyard" has successfully incorporated all three levels of the Triad model.

And what of the quality of archaeological data recovered by these four teams of scientists? First of all, due to the number of people involved in the excavation and analyses, roughly three times the area was sampled when compared to the normally recommended amounts. As we were dealing with a low density lithic scatter (approximately one artifact per meter), the increased amount sampled translated directly to the number of artifacts, and information recovered. As the total number of Native American artifacts recovered during this study amounted to only 15, the additional material recovered was very important for evaluating this part of the site. Although no temporally diagnostic projectile points were found, the recovered artifact assemblage is comparable to similar assemblages from Late Paleo Indian Period through Early Archaic Period (10,000 to 8,500 years ago) sites in this area.

The quality of excavation and record keeping compared well with professional archaeological studies. Provenience data allowed interpretation of the site formational processes, and thereby the relationships of each individual artifact to the assemblage as a whole. The data obtained from the program this year will greatly enhance future studies of this site.

*Footnote: Joseph Rensulli and Sally Reis, *The Schoolwide Enrichment Model*, Creative Learning Press, Mansfield Center, Connecticut, 1985, pg. 40.

Signatures in Stone

by Jerome P. Dunn

The gorge at Bellows Falls in Vermont is a geologic marvel. The Connecticut River has cut a gorge over 130 feet (40m) deep. It has drilled holes and tunnels the size of people through stone. Only the hardest stones survive, such as quartz, quartzite or granite.

These lithic survivors include the granite into which petroglyphs were pecked. This granite is well polished by the Connecticut River which rises about sixty feet (18m) up the sides of the gorge each spring and just manages to give the petroglyphs a tremendous bashing.

The petroglyphs to which I refer are not those mentioned by Benjamin H. Hall (Hall 1858:587-590). Hall's petroglyphs were located downstream and much deeper in the gorge. They can no longer be seen. They were either covered by construction debris, or, more probably, they were eliminated by erosion.

Most of the petroglyphs which can still be enjoyed were recently painted yellow. They can be seen by turning left as soon as one crosses the bridge into Vermont, going about sixty feet (18m) and by looking cautiously over the edge of the precipice. They are in two groups. A tiny unpainted one is higher up the gorge and about forty feet (12m) downstream from the two groups. Some of them are in a photograph in John C. Huden's compilation of archaeological literature (Huden 1971: ante p.40).

The petroglyphs resembled Figure 1. Similar faces have been pecked into stone in Siberia along the Yenisei River (Lypski 1970:163-173). A.N. Lypski argues that the Siberian petroglyphs represent the supernatural guardians of rivers, but the ones at Bellows Falls obviously depict families of actual people. About one-fourth of those at Bellows Falls have rays pecked above the faces. These represent feathers and symbolize male authority. Feathers had become a substitute for antlers.

Some of Hall's faces had more than two feathers. This motif is analogous to the so-called Sun-strike of Siberia, but, ironically, many of the Sun-strikes have feminine characteristics (Lypski 1970).

The people who pecked at Bellows Falls desired circularity. Tree trunks or branches may have been used as guides. Most of the faces have a diameter of about seven inches (18cm). The more interesting ones are unpainted and partially covered at their bases by

construction debris. This debris dates them because they could not have been pecked after the debris was dumped.

Some of the pecking created cuts with acutely angled slopes and narrow bottoms as deep as six-tenths of one inch (1.5cm). This fact suggests that metal tools were used to make some, if not all, of the petroglyphs.

Some of the faces are connected by pecked lines. Two of them are joined by a natural vein of minerals. These connecting lines indicate close relationships such as mother-daughter or husband and wife.

The petroglyphs at Bellows Falls are in much better shape than those at Dighton Rock in Berkeley, Massachusetts. The latter, like some in Narragansett Bay, were done in sandstone, which does not resist erosion well.

Note: Metric measurements are approximate.

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St. Albans Historical Society to Host Two Part Series on Native Americans of Western Vermont

At their regular monthly meetings on March 8, 1993, and April 12, 1993, respectively, the St. Albans Historical Society heard and will hear presentations on the history and culture of the Native Americans of Western Vermont.

The first presentation, on March 8, on Native American history, was given by Mr. John Moody, ethnohistorian from Sharon, Vermont. Mr. Moody is a graduate of Dartmouth College where he earned a degree in Native American studies and anthropology. He has been studying Native Americans and the Western Abenakis for over twenty years and has written on the subject. Mr. Moody is also a member of the Abenaki Research Project, a group established by the Abenaki/Nation Vermont to conduct research on Abenaki ancestry and tribal history.

The second presentation, on April 12, will be by Dr. Fred Wiseman, Associate Professor of Humanities, Johnson State College, Johnson, Vermont. Dr. Wiseman teaches a number of courses concerning Native Americans and will display examples of Abenaki handicraft and art and discuss Abenaki culture. Dr. Wiseman is a member of the Abenaki Research Project and also serves on the Governor's Commission on Native American Affairs.

Research in archaeology, anthropology, genealogy and oral history over the past thirty-five years has established that Vermont has been occupied by native peoples for at least eleven thousand years. And in 1609 when the first Europeans viewed Lake Champlain there were thriving villages of Abenakis in the Swanton-Highgate area, St. Albans, Milton and in the Winooski area, as well as in a number of other locations in Vermont. The Abenaki story is fascinating.

The Historical Society is greatly pleased to host these two lectures which should be both timely and interesting.

All those interested in the history and culture of the Native Americans of Western Vermont are cordially invited to attend the April 12 presentation. The meeting commences at 7:00 p.m. Refreshments and coffee will be served during the discussion period after the meeting.

Current Historic Research, Consulting Archaeology Program, University of Vermont

by Nora Sheehan and Robert Sloma

While prehistoric excavations have constituted a majority of Vermont's archaeological endeavors, only recently have historic sites received similar attention. Construction of the Chittenden County Circumferential Highway (CCCH) has offered a rare opportunity for Vermont historic archaeology. Archaeological remains from four domestic sites in the town of Essex are now being analyzed. As analysis proceeds some questions are answered, while, as always, others continue to arise. These questions reflect what we believe to be the diversity and uniqueness among the sites encountered, especially sites VT-CH-491 and VT-CH-493.

VT-CH-491 is located near a falls on Indian Brook. The brook provided water power for a mill complex that was in operation by 1798. Land records indicate that VT-CH-491 may relate to the mill complex, which is located about 70 meters west of the site. Excavation of VT-CH-491 identified 31 historic features. Of these features, 24 were excavated or partially excavated, including an earthfast house and

outbuilding, both of post-in-ground construction. The house contained a cellar lined with wooden planks. Other features included refuse pits and possible animal pens.

Initial analysis of ceramics recovered from across the site area suggests they are consistent with those typically found within the first third of the nineteenth century on rural domestic sites of northern New England and eastern New York. Excavation of the cellar and related builder's trench unearthed artifacts which offer *terminus ante quem* and *terminus post quem* dates of 1802-1831 for site occupation. It is expected that detailed analysis of both the ceramics and other artifacts will reveal the variety of activities occurring at the site, as well as define the socioeconomic means of the inhabitants. Further documentary research may yield information as to whether occupants of the site owned the land and residence, were workers who serviced the mill, or simply tenants.

A general lack of documentary information places a heavy reliance on archaeological remains found at VT-CH-491. The most perplexing "artifact" present is the architecture. Both the domestic residence and nearby outbuilding were earthfast by means of post-in-ground. While post-in-ground buildings are not uncommon in the South they are practically nonexistent in New England, except in barn construction. The architecture unearthed represents a rare find in this region.

Dimensions of the residential building are based on physical evidence of wooden posts, stone and brick post replacements and trash pits that lie along the outside walls of the building. The extant posts appeared to be spaced evenly along the outside walls. Based on this evidence, a total of 12 posts may have existed. Measurements of the building are roughly 25x24.5 ft. The plank lined cellar is located in the south central portion of the building. The cellar measures approximately 9 ft. square, and probably had a depth of about 6 ft. Remains of vertical wooden posts are present inside each corner. Evidence of a wooden divider, perhaps a storage bin, runs north to south across the cellar, 2.25 ft. west of the east wall. Horizontal wood fragments suggest that part if not all of the bin and perhaps the cellar, had some sort of wooden floor. Although apparently most of the building and cellar burned as a result of fire that originated northwest of the cellar, no direct evidence of a hearth was found. This burning may account for much of the wood preservation.

An associated outbuilding was located 24 meters northwest of the residential building. Physical evidence was limited largely to charred wood and organic staining. The outbuilding measured approximately 12 ft. square. Evidence of either a wall dividing the building into two sections, or a structural

element, was found lying horizontally and parallel to the north and south sills. Directly in the center of the building was a stone which may have functioned as a wall/floor support. At least three posts and one trash pit were also identified. A total of six posts are believed to have existed.

A number of researchers have been contacted as a part of the search for information on post-in-ground buildings in New England, New York, southeastern Canada and Tidewater Maryland and Virginia. So far, little useful data has been uncovered on such structures in New England. A few site reports have been found amongst the forest of grey literature. The information compiled so far points to the probability that the buildings at VT-CH-491 are more than a mere aberration. If this is substantiated through continued research, an advance will be made in the understanding of northern New England's historic vernacular architecture. Anyone who may have relevant information on post-in-ground structures is asked to please call Robert Sloma at the Consulting Archaeology Program (802) 656-1991, or at home (802) 862-5817. Information on plank lined and other unusual historic Vermont cellars is of particular interest.

VT-CH-493 is located 1.2 miles east of the VT-CH-491, in a south-facing hayfield. Although there is now no road in the vicinity, historic maps indicate that a road passed here in the early nineteenth century. Another domestic site on this old road (VT-CH-247) was identified during the initial reconnaissance survey for the (CCCH) project. Historic research conducted thus far has not uncovered any record of the site's former inhabitants.

VT-CH-493 consists of the remains of a small structure and several related features. The structure has a fieldstone half-cellar with a wooden floor. The remains of a large end-chimney had collapsed onto the chimney base. Location of the chimney base and cellar suggests that the house was fairly small, 10-15 by 20-25 ft. A wood-lined trash pit with a dense deposit of refuse was found directly adjacent to the cellar. This may have originally been a bulkhead or storage pit that was later used for refuse disposal. A level area north of the structure appears to have been used to pen animals, possibly pigs. The soils in this area contain relatively high phosphate levels, evidence of organic enrichment. Several pig teeth were recovered, and two organic stains were visible in the subsoil after mechanized removal of the topsoil. These stains contained bone fragments and burned wood, which suggests that this area was a compost pile or pig slop location. The absence of outbuildings indicates VT-CH-493 was not a farm; instead it may have functioned as a shop or tavern.

Given the lack of documentary evidence for the site, the artifact assemblage holds potential for yielding

important data about the site and its occupants. Preliminary analysis of the artifacts recovered from VT-CH-493 indicates a late eighteenth to early nineteenth-century occupation, during the first wave of settlement of the area. The date is based on the large amount of creamware recovered in relation to the other ceramic types in the assemblage; the presence of black dry-bodied stoneware and Whieldon "clouded" ware, both manufactured in the second half of the eighteenth century; and the recovery of coins with legible dates of 1805 and 1798, a token dated 1814, and a King George halfpenny with an illegible date (1760-1820). Initial analysis of the artifacts has raised several questions that will be addressed in the future. There are several 18th century wares represented in the assemblage (basalt, Whieldon "clouded"), as well as early 19th century wares such as edged pearlware. The ceramic assemblage represents a wide range in manufacturing dates, indicating that the site may have been inhabited for some time. Why is there no record of the site in the documents? Why do the artifacts indicate a high socioeconomic status occupant (basalt, porcelain, teawares, ivory-handled utensils) when the house appears to be so small and unpretentious? How were the occupants supporting themselves? The artifact assemblage possesses a number of possible occupation-related artifacts, including a high number of buttons, several pairs of scissors, several sharpening stones, and many iron implements. The presence of these artifacts will assist in the interpretation of activities conducted at the site.

VT-CH-491 and VT-CH-493 represent small segments of a large rural community. Such archaeological sites are rather unique in Vermont because of the minimal number of systematically excavated historic sites in the state. The information contained within these sites will be invaluable in developing an understanding of the historic past of Vermont and northern New England. The results of this study will be part of a growing database that will contribute to the understanding of the nature of rural communities in this region.

Vermont Archaeology in the News

by Victor R. Rolando

The January 24 Sunday *Rutland Herald* and Sunday *Times Argus* was a bonanza of Vermont archaeology news, and for those who didn't see the three articles, a synopsis of them follows.

The major article was "Champlain's Hidden Treasure: Should we salvage it or leave it alone?" by Yvonne Daley, in the *Vermont Sunday Magazine* section. On the front cover was a full-page color photo of Fort Ticonderoga in the background with Lake Champlain in the foreground, taken by Samuel M.

Trudel, probably from a high point at the western end of Mount Independence.

The article starts with the events surrounding Chuck Schroyer and his diving, in 1991, for Revolutionary War artifacts in Lake Champlain off Mount Independence. Catching the attention of others, Schroyer became the first person charged and found guilty under Vermont's 1975 Historic Preservation Act. But equally as important, although the Schroyer case initially caused an uproar from sport divers, dialogue between divers and historic preservation officials developed into a better understanding of the problem and led to a good working relationship in identifying and cataloging the underwater artifacts.

Four pages of text and illustrations discuss the controversy surrounding the issue of whether artifacts found on the lake bottom should be retrieved for study, display, and interpretation, or left undisturbed on the bottom of the lake. "The debate raises a host of questions that challenge our traditional sentiments about treasure hunters, collections in art museums, the rights of sport-diving public and the particularly significant finds and the information that they might contain" wrote Daley. Art Cohn, Director of the Lake Champlain Maritime Museum, "had always been an advocate of leaving things where they were, especially when—as in the case of Lake Champlain—weather and other natural conditions had protected artifacts and could be expected to provide such protection in the future."

An underwater survey of a section of the lake in the vicinity of Mount Independence and Fort Ticonderoga resulted in finding a quantity and quality of artifacts that "surpassed anything they had imagined." Located and documented were remains of a railroad trestle, British and French vessels dating to the 1750s, canal boats, spades, bottles, cannon, shot, and various other Revolutionary War ordnance. With this startling discovery, Cohn found himself torn between his long-standing philosophy of leaving artifacts untouched and the realization that the discovered artifacts might be looted or lost through a possible changing lake-bottom environment.

Last fall, the Lake Champlain Management Conference, which consists of representatives of Vermont, New York, Quebec, and Washington, D.C., and which oversees and makes decisions about the future of the lake, received Cohn's report and deliberated over the findings. "We finally realized we need to get these artifacts out of there and share them with the public because that's their best use" said Cohn. The Lake Champlain Basin Program has requested \$75,000 from the Vermont Legislature to fund removal of the artifacts. Reasons for removal included consideration of the shallowness of the lake in this area, artifact damage from boat anchors, and use of artifacts for public display to keep them out of private ownership.

Cohn explained that the Lake Champlain Maritime Museum has no desire to add the artifacts to its collection. "We believe the long-term disposition should be at Fort Ticonderoga or Mount Independence, where the history they are a part of occurred."

Reclamation of the artifacts could start as early as this spring (1993) should the funding be received. "What's happening to some of these treasures is analogous to what we are doing with endangered species. The first requirement of any recovery should be to preserve the information in the process, which a formal archaeological project can do and treasure seekers rarely do. Once the information is lost, it's lost forever" Cohn concluded. (Papers by Art Cohn and Don Wickman at the Mount Independence Coalition meeting last fall in Orwell dramatically illustrated the lakebottom finds.)

Another article, on the front page of section 1, is titled "Abenaki Burial Site Imperiled By Erosion" by Melissa Tarkington, Sunday Staff Writer. The article explains how shore erosion along the Missisquoi River at the Swanton-Highgate line is gouging human remains out of a 3-acre, Abenaki Nation 2,000-year-old burial ground. "The site is threatened mostly by erosion because of the ice jamming in spring. The ice rides along the bank and gouges the burial ground. I've been here several times after the ice has jammed to find human bones strewn about" David Skinas said. Michael Delaney, an Abenaki tribal judge, said that he fears this year's thaw may be the one that destroys the burial ground.

Skinas said that the bank has eroded an average of two feet per year since 1988, when state archaeologists started studying the site. The Division for Historic Preservation purchased the site from the state in 1989 with funds from the Nature Conservancy, with the state appropriating \$15,000 for stabilization, although Skinas estimates successful stabilization closer to \$70,000. Plant cultivation, an inexpensive fix, requires time for successful rooting, but the site has little time remaining. Quick but expensive rip-rap might also do damage of its own to the shoreline burials. Abenaki families, none-the-less, watch in despair as the site slowly disappears, and periodically retrieve remains that become exposed. These are turned over to the state for documentation and reinterment at other burial sites in the vicinity. (See three related VAS Newsletter items: "Update on Highgate Burial Land" by Pru Doherty, April 1989; "Stabilization Efforts at VT-FR-8 Fall Short" by David Skinas, June 1991; and "VT-FR-8 Stabilization Update" by David Skinas, September 1991.)

The third article, continuing at the end of the second on page 7, is titled "Fancy Radar Helped Find Burial Site," also by Tarkington, described how Ground Penetrating Radar was used to confirm the burial site without the need to dig anything. (See "Use of Ground Penetrating Radar on Native American Site" by Douglas S. Frink in VAS Newsletter, October 1992.)

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