VERMONT ARCHAEOLOGICAL SOCIETY NEWSLETTER

Number 72 November 1993

Dr. Gordon M. Day

Gordon Malsom Day, 81, noted ethnologist of Ottawa, Ontario, Canada, died August 11, 1993. Born in Albany, VT, October 21, 1911, he was the son of Laforest and Cora Day. A former resident of Barre, VT, from 1920 to 1938 he graduated from Spaulding High School in 1929. In 1938 he received a Bachelor of Science degree, and in 1939 a Master of Forestry degree from Syracuse University. He graduated from Rutgers University in 1949 with a Doctor of Philosophy.

Dr. Day served in the US Armed Forces Infantry Intelligence and European Theater Headquarters from 1943 to 1946. He was employed as a forester by Vermont Forest Services, 1933-1935 and 1937-1940; a soils technician, Connecticut Agricultural Experiment Station, 1939-1940; a junior forester, United States Forest Service, 1940-1941; an instructor in forestry, Rutgers University, 1941-1943 and 1946-1949; an assistant professor, 1949-1951, an associate professor, 1951-1952; a research forester, New England Forest Industries, 1952-1957; a research associate in anthropology, Dartmouth College, 1957-1965; an ethnohistorian, National Museum of Civilization, National Museum of Canada, 1965-1979; curator emeritus, 1980-present.

Dr. Day was the foremost authority on the Western Abenki, publishing over 60 articles, most notably "A St. Francis Abenaki Vocabulary," "The Identity of the Sokokis," "The Indian Occupation of Vermont," "Rogers' Raid in Indian Tradition," "Abinaki Place Names in the Champlain Valley," "Missisquoi: A New Look at an Old Village," and "The Western Abinaaki."

Dr. Day was a past member of the American Anthropological Association, American Society for Etnohistory, Linguistics Society of America, Society of American Foresters, Vermont Archaeological Society, founder and past president of the Algonquin Conference, and was made an honorary member of the Vermont Historical Society.

Dr. Day was an acknowledged leader in the fields of ethnology, ethnolinguisticcs, and enthnohistory. He was made honorary chief of the Abinaki in Odanak, Quebec, Canada in 1960. He is survived by his five sons, Donald, Brendon, Kevin, Brian, and Kerry.

Because of Dr. Day's love of Vermont and Vermont history, the family requests that bequests in his behalf be made to the Vermont Historical Society.

A memorial gathering to celebrate Dr. Day's life will be held on November 21 at 2:00 pm at the Vermont Historical Society in Montpelier.

Submitted by Jeanne A. Brink

Gordon Day with Native American Raymond Waters at Odenak Pow-wow in July 1991.

VAS 25th Anniversary Meeting

The Vermont Archaeological Society celebrated its 25th Anniversary on November 6th with an exciting program with topics ranging from a history of the society, to nautical archaeology, to horticulture during the Late Woodland Period. The meeting was held at the Windjammer Conference Center in Burlington.

The program included Joseph Popecki of St. Michael's College who provided "A Brief History of the Vermont Archaeological Society," Art Cohn, Director of the Lake Champlain Maritime Museum, who described the "Results of 1993 Underwater Research," William Haviland, University of Vermont, who presented "Perspectives on Vermont Archaeology," and Dee Brightstar, Abinaki Tribal Council Member, told about the "Abenaki Research Project."

After a break for lunch and a meeting of the VAS Board of Directors, the program continued with Scott Stevens, Director of the Ethan Allen Homestead, who provided "An Analysis of Vertebrate Faunal Material from the Ethan Allen Homestead 1990-1993 Research Conducted by Nanny Carder," and, finally, James Peterson of the University of Maine, Farmington, presented "Early Horticulture and the Late Woodland Period in Northern New England."

Civil War Mortar Bombs Discovered

By David Skinas
Vermont Division for Historic Preservation

On August 24, 1993, Fort Drum's 55th Army EOD Unit recovered 97 Civil War period mortar bombs without a permit from an historic underwater archaeological site located in a lake in central Vermont. The Division, custodian of Vermont's underwater sites and artifacts, was extremely concerned that we were not contacted by the 55th EOD Unit prior to or during the recovery of these historic mortar bombs. This unique Vermont historic site should have been treated with special considerations using proper archaeological recovery and documentation techniques as specified in the Secretary of the Interior's Standards and Guidelines. Because we were not included in the artifact recovery there was no opportunity for the Division to ensure that appropriate archaeological documentation procedures were followed. As a result, a significant underwater historic archaeological site was destroyed. We questioned whether the recovery of these artifacts should have been considered a federal undertaking under Section 106 of the National Historic Preservation Act and if the Army's activities were also in violation of the 1975 Vermont Historic Preservation Act.

The Underwater archaeological site had been reported to the Division by local divers in July. We agreed to work with the divers to document the site. we then learned about the Army's artifact recovery operation by a WCAX television news team who had just filmed the dive and visited our office for comments. The following day, August 25th, we were told that all of the mortar bombs had been intentionally destroyed by the Army at an asbestos mine in Eden. We recently learned that 10 of these historic artifacts were not destroyed, but remain in the Army's possession at Fort Drum. On September 29th the Division wrote a letter to the Commanding Officer of Fort Drum requesting that discussions begin immediately regarding the return of this ordnance to Vermont once the mortar bombs are rendered harmless. Although we fully understand and appreciate the public safety issues that may have necessitated the Army's prompt action in this matter, we expressed our regrets about the unfortunate lack of coordination with the Division.

There are many questions still to be answered about how these 97 mortar bombs came to rest in the lake. We know that a Civil War hospital and armory existed in Montpelier at the present location of Vermont College. At the southeast end of the lake is a Grand Army of the Republic Memorial Hall. One elderly resident told me that a deed search of her property, located two miles from the lake, revealed that a powder house once existed on her land. She also remembered her grandmother talking about when men would practice firing the cannons at a nearby Calais hillside. How are these facts and oral histories related? Although we may never resolve how these mortar bombs ended up in the lake, the one fact that remains crystal clear is that these important artifacts are part of Vermont's Civil War legacy, and the remaining ordnance should be made available for public display at several of Vermont's museums. Vermont citizens have the

right to view these mortar bombs in order to better appreciate and learn more about Vermont's role in this extremely disturbing episode in our country's history.

Victor R. Rolando Nationally Recognized for Excellence in History

Nashville, TN — Victor R. Rolando of Manchester Center, Vermont, has received national recognition by the American Association for State and Local History (AASLH) "for contributions to the understanding of Vermont's industrial history." The Award of Merit was presented during the ASLH Annual Meeting, September 9, in Columbus, Ohio.

"The organizations and individuals receiving awards from the American Association for State and Local History reflect the outstanding work that is currently taking place in the field of state and local history," noted Patricia Gordon Michael, Executive Director of AASLH. "It is their ongoing dedication that enables the preservation and promotion of our heritage. Despite cutbacks in funding and resources, these award winners have continued with the important task of preserving our history."

Since 1945, the AASLH Awards have been North America's most prestigious recognition for achievement in the preservation and interpretation of local, state, and regional history. Over 300 nominations from across the US and Canada were considered for recognition in 1993. A national selection committee, composed of leaders in the history field, determined the winners.

This year, Awards of Merit were awarded to 27 nominees, and 66 were awarded Certificates of Commendation. Awards of Merit are presented for performance deemed excellent compared nationally with similar activities. Certificates of Commendation are presented for excellence within the context of available means and regional standards.

The American Association for State and Local History is a not-for-profit professional organization for individuals and institutions working to preserve and promote history. From its headquarters in Nashville, Tennessee, AASLH works to advance knowledge, understanding, and appreciation of local history in the United States and Canada. AASLH publishes books, technical publications, a bimonthly magazine, and monthly newsletter; sponsors regional training workshops and annual meetings; and serves as a networking source for the history field.

For information on the 1994 AASLH Annual Program, contact Debra Cummins, AASLH, 530 Church Street, Suite 600, Nashville, Tennessee 37219; (615) 255-2971.

The Lake Champlain Maritime Museum Works to Preserve Cultural Resources

The Lake Champlain Maritime Museum, with funding from the State of Vermont and the Champlain Basin Program, has recently completed an intensive two-year study of a five-mile section of Lake Champlain between Larrabee's Point ferry crossing and Chipman's Point. The archaeological investigation was motivated, in part by recent events which have raised concern for the management, protection and preservation of submerged cultural resources of the lake.

During the 1992 survey, utilizing remote sensing equipment and divers, the Museum's archaeologists located several significant sites dating from the late 18th, 19th, and early 20th centuries. Included among these features were the remains of the "Great Bridge" built in the winter of 1776-77 by American forces to span the waters between Fort Ticonderoga and Mount Independence.

Under the direction of Arthur Cohn and Dr. Kevin Crisman, a highly experienced team of archaeological divers documented the location and construction of 21 bridge-caissons. These stone-filled caissons, whicch resembled log cabins, provided anchor-points for the floating platforms that comprised the bridge.

Conducted at the same time as the bridge survey, a preliminary investigation of the waters along Mount Independence's northern shore revealed a number of unique Revolutionary War artifacts. Discovered on the lakebed, in eight feet of water, lay a ten-foot-long cannon, weighing over 3,000 pounds; a completely intact, French

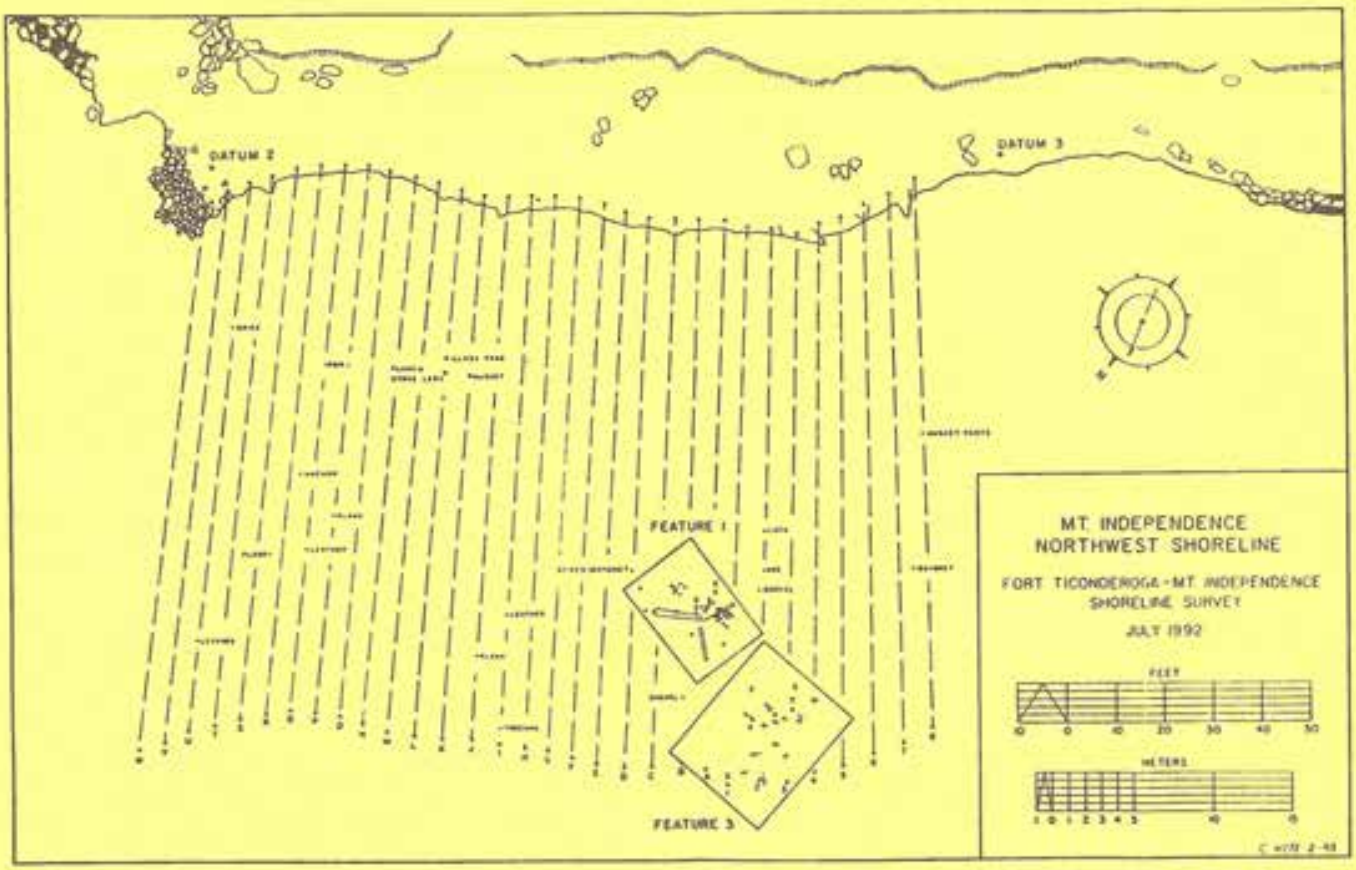
flintlock musket; barshot, round shot, and grape shot; grenades and mortar bombs; bayonets; spades; a pick ax; a grapnel anchor; rum bottles; and a variety of ceramics.

Because of the site's historical significance and its vulnerability to looting, the State of Vermont provided funds for the Museum to continue working on the site in 1993. At the conclusion of this year's field season, a total of nearly 800 artifacts were discovered and their precise locations on the lakebed documented, In June the entire collection of artifacts were removed to the Maritime Museum's newly constructed Conservation Lab for preservation.

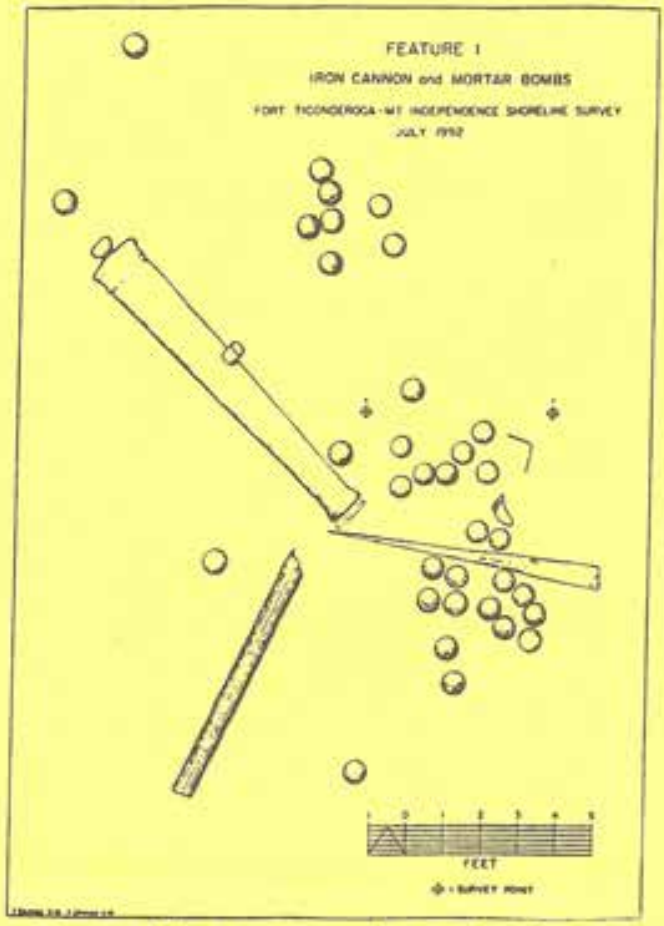
As part of the State of Vermont's and the Lake Champlain Maritime Museum's mission to educate the public about the region's rich history, the Museum's Conservation Laboratory was open to the public at no charge. Conservators John Bratten and David Robinson and the knowledgeable laboratory staff provided visitors with a truly unique experience, guiding them through the facility and explaining the processes used to conserve the variety of materials in this extraordinary collection. Rarely does the general public get an opportunity to see this type of work underway, much less have the chance to actually touch Revolutionary War artifacts.

Another exciting way that the Lake Champlain Maritime Museum shared this information with the public was through a special-focus tour for school groups this fall. *Diving, Digging & Documenting: The Process of Nautical Archaeology* was a 3-hour hands-on study of submerged cultural resources, nautical archaeology, and artifact conservation. This new and exciting program was designed to feature the nearly 800 Revolutionary War artifacts, which were recovered from the shore-side waters of Lake Champlain at Mount Independence this summer.

Over 1,200 students in grades 4 through 12 took advantage of this once-in-a-lifetime opportunity to work closely with historical artifacts



Section of shoreline survey showing Features 1 and 3. Drawing by C. Hite.

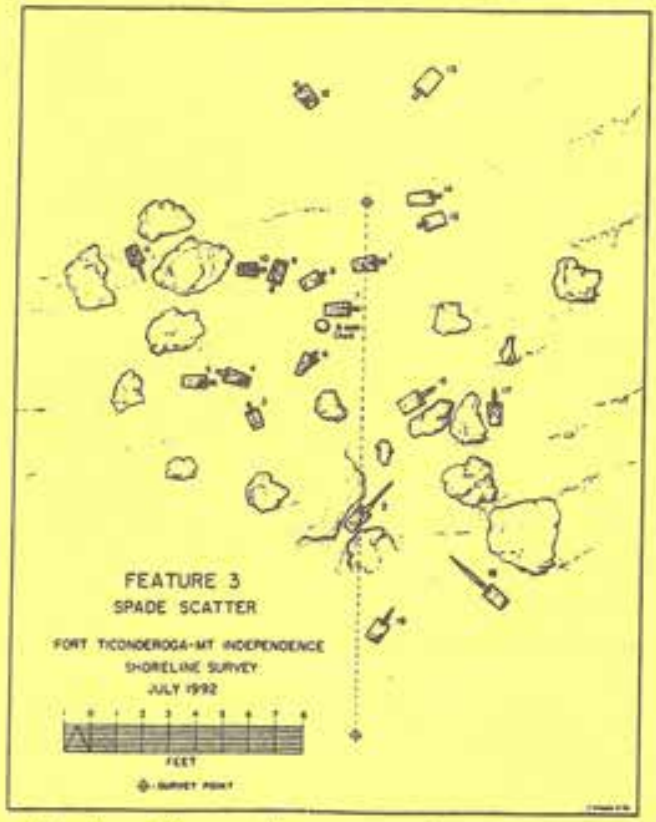


Feature 1, iron cannon and motar bombs. Drawing by J. Bratten and K. Chrisman.

in the intriguing new science of Underwater Archaeology. During the visit the students participated in a hands-on study of a debris field, created an artifact record by measuring and sketching the artifacts, and followed the process at the conservation lab where iron artifacts were being treated with electrolysis. Of course, no trip to the maritime Museum is complete without stepping on board the *Philadelphia II*, where the history of the American Revolution in the Champlain Valley is brought to life, and these relics from our past are put in context.

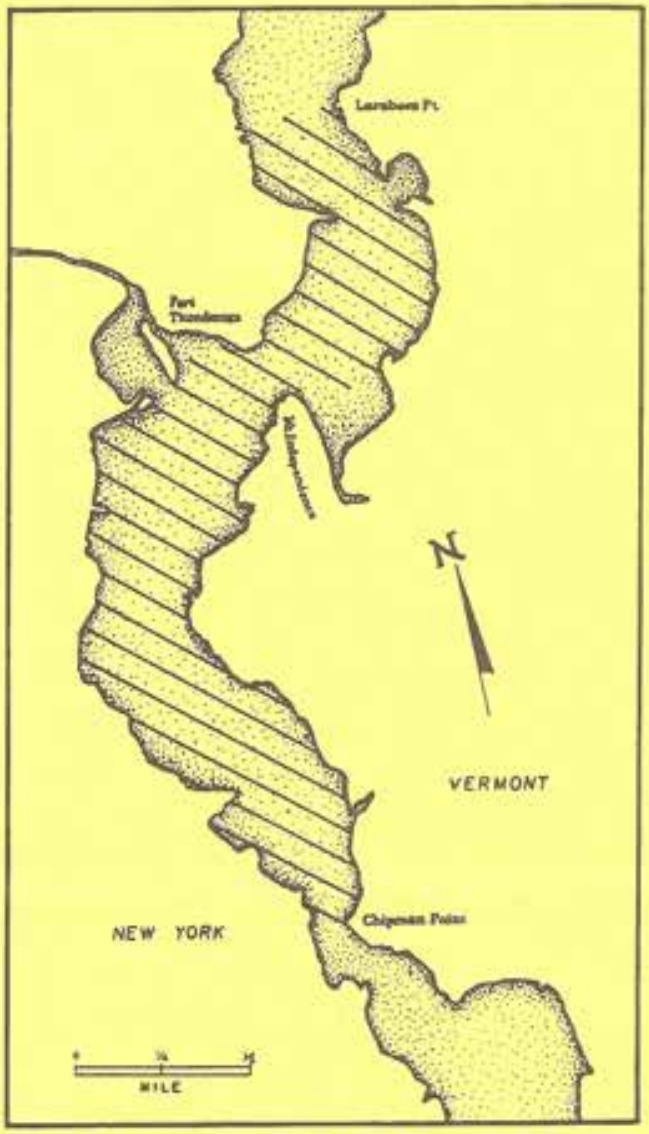
Digging, Diving & Documenting included previsit materials to help teachers prepare for the technical aspect of the tour, and post-visit lesson plans to follow-up after their museum experience. These lesson plans range from creating a site map to exploring the social issues involved in underwater archaeology, including the protection and management of submerged cultural resources.

The conservation of the Mount Independence artifacts is scheduled to be finished at the end of October. The State of Vermont is currently planning to place the collection in storage until a visitors' center at Mount Independence is completed.



Feature 3, spade scatter. Drawing by K. Crisman.

Bar shot from the artifact collection.



Five-mile section of Lake Champlain where survey was conducted. Drawing by D. Robinson.

Zooarchaeology in Vermont

by Nanny Carder, Consultant
Archaeological Consulting Team, Inc.

For the past two summers, I have been working with vertebrate faunal remains from the Ethan Allen Homestead Archaeology Program in Burlington, Vermont. As an archaeologist with a subspecialty in zooarchaeology, I find the quality of zooarchaeological analysis from sites in Vermont, in most cases, to be poor. While the following overview of zooarchaeology is familiar to most archaeologists, I think the *VAS Newsletter* is a good forum to voice the potential of zooarchaeology to add to anthropological and historical research in the region.

Principles and Objectives of Zooarchaeological Research

Zooarchaeology is based on the theoretical position that all organisms are dependent on the resources of their environment; this relationship also exists between resources and the human population which exploits them. The main objective of vertebrate zooarchaeology is to relate animal bone remains recovered from archaeological sites with human and animal populations at that site. Analysis of vertebrate remains should add to the theoretical problems explored by archaeologists, contributing to a larger perspective of anthropological research.

Zooarchaeology is multidisciplinary. It combines theories, methods, and data from fields as diverse as anthropology, anatomy, systematics, ecology, and zoogeography. Each of these disciplines aids the zooarchaeologist in identifying and interpreting the recovered archaeofauna.

Zooarchaeology Samples

The contribution of zooarchaeology to archaeological projects will depend to a great extent on the quality and quantity of the faunal sample. As many archaeologists in the region will attest, the recovered vertebrate fauna from prehistoric sites is often of very poor quality and in such small quantity as to make identification, much less analysis, difficult. However, I have looked at prehistoric materials from several small sites in Vermont and found that identification is often possible and many questions posed by the archaeologist. Rarely will no zooarchaeological identification and analyses be possible. In cases of small sample size and poor preservation of the excavated remains, zooarchaeologists may simply pose different questions of their data.

Zooarchaeological Methods

In the past (and often today in Vermont) many archaeologists simply report the vertebrate species present in the excavated materials. We often end up with a "laundry list" of identified fauna attached to the back of a field report with little or no analysis, interpretation, and integra-

tion. Yet, in recent decades zooarchaeologists have demonstrated that careful analysis of vertebrate fauna can contribute far more to the study of human subsistence than a simple species list.

Zooarchaeologists have established minimum standards for the identification of recovered vertebrate fauna. First and foremost, while there are many excellent osteological guides for identification of recovered vertebrate fauna, guides are not a substitute for a good osteolgical collection. Without access to a reference collection it is always best to refer the zooarchaeological materials to a specialist. Other accepted standards include never identifying excavated fauna with archaeological specimens. Identifications should always be on the conservative side. Data reported for each bone fragment, when possible, should include name of element, symmetry (left or right), distal or proximal end, degree of fusion, modifications to the bone (rodent chewing, carnivore gnawing, burning, worked bone, etc.), and sex.

Quantification and analytical methods of analysis differ somewhat among zooarchaeologists. Most are sample counts or derived measures which include bone weights and counts, Number of Identified Specimens (NISP), Minimum Number of Individuals (MNI), total live weights, edible meat weights, biomass, species diversity and equability.

Interpretation

The study of human subsistence efforts is a primary goal of zooarchaeologists. This is clear in the area where additional research is needed in Vermont. In studying human subsistence patterns, the zooarchaeologist may take into account seasonality and scheduling, nutritional requirements of human populations, procurement techniques, butchering practices, redistribution mechanisms, and degree of specialization. Other areas where zooarchaeological input is important include the study of past environments, changes through time in the zoogeography of a region, ethnicity and social status of site occupants, and determination of historic breeds of domestic livestock. There is a wealth of information gleaned from zooarchaeological analyses, depending upon the questions asked by the archaeologist.

Osteological Collections

While some institutions in the state do have reference collections, the holdings are limited in number and diversity of species, and completeness of specimens. The Archaeological Consulting Team, Inc. and I are in the process of creating an osteological collection for the identification and analysis of vertebrate faunal remains recovered from prehistoric and historic sites in this region. At present, the collection consists of 150 specimens representing nearly 100 species. Many of the species include different age classes and both sexes. We include in the collection domestic animals and those recently introduced into the region. This is not only necessary for historic sites, but these species are often intrusive in prehistoric sites. In addition, we are actively seeking specimens which no longer are found in the area today, and those not found in the past, allowing for range contractions, extensions, and introductions.

The following species list includes our current holdings. Multiple specimens of species are not listed. In addition, we possess many specimens which will be processed and added to the collection by the end of October. These species include raccoons, domestic chickens, grebe, mallard, woodchucks, grosbeak, cardinal, kingfisher, sandpipers, great horned owls, osprey, broad-winged hawks, kestrels, opossum, sharp-shinned hawks, and goshawks.

Researchers considering zooarchaeological analysis of their archaeological collections may contact Nanny Carder, (802) 899-2139, or Doug Frink, Archaeological Consulting Team, Essex Junction, Vermont.

SCIENTIFIC NAME	COMMON NAME
Ambloplites rupestris	Rock Bass
Aplodinotus grunniens	Freshwater Drum
Catostomus commersonnii	Common Sucker
Catostomus spp.	Sucker
Cyprinus carpio	Common Carp
Esox lucius	Northern Pike
Esox masquinongy	Muskelllunge (prob. Tiger Muskie)
Gadus morhua	Atlantic Cod
Ictalurus nebulosus	Brown Bullhead
Lepomis auritus	Red-breasted Sunfish
Lepomis gibbosus	Pumpkinseed

SCIENTIFIC NAME	COMMON NAME
Micropterus dolomieui	Smallmouth Bass
Micropterus salmoides	Largemouth Bass
Morone spp.	White Bass or White Perch
Notropis atherinoides	Shiner, Emerald
Noturus flavus	Stonecat
Perca flavescens	Yellow Perch
Rhinichthys cataractae	Longnose Dace
Salmo salar	Atlantic Salmon
Salmo trutta	Brown Trout
Salvelinus fontialis	Brook Trout
Semotilus atromaculatus	Creek Chub
Stizostedion	Walleye
? exotic	Newt, Fire-bellied
Rana palustris	Pickerel Frog
Rana pipiens	Leopard Frog
Rana spp.	Frog
Chelydra serentina	Snapping Turtle
Chrysemys picta	Eastern Painted Turtle
Graptemys geographaca	Map Turtle
Lampropeltis triangulum	Eastern Milk Snake
Opheodrys	Smooth Green Snake
Storeria occipitomaculata	Red Bellied Snake
Thamnophis sirtalis	Eastern Garter Snake
Blarina brevicauda	Short-tailed Shrew
Bos tarsus	Cow, Domestic
Canis familiaris	Dog, Domestic
Canis latrans	Coyote
Castor canadensis	Beaver
Cricetidae	Mouse
Erethizon dorsatum	Porcupine
Lepus spp.	Hare
Marmota monax	Woodchuck (Groundhog)
Microtus pennsylvanicus	Meadow Vole
Mustela rixosa	Least Weasel
Odocoileus virginianus	White Tailed Deer
Ondatra zibethicus	Muskrat
Ovis aries	Sheep, Domestic
Peromyscus leucopus	White-footed Mouse
Procyon lotor	Raccoon
Rattus rattus	Rat
Sciurus carolinensis	Eastern Gray Squirrel
Sorex cinereus	Masked Shrew
Sus scrofa	Pig, Domestic
Sylvilagus transitionalis	New England Cottontail
Tamias striatus	Eastern Chipmunk
Tamiasciurus hudsoni	Red Squirrel
Vulpes fulva	Red Fox
Zapus hudsonius	Meadow Jumping Mouse

SCIENTIFIC NAME	COMMON NAME
?	Quail, Farm-raised
Aegolius acadicus	Saw-whet Owl
Ardea herodias	Great Blue Heron
Bonasa umbrellus	Ruffed Grouse
Branta canadaensis	Canada Goose
Bueto platypterus	Broad-winged Hawk
Butorides striatus	Green Heron
Carduelis tristis	American Goldfinch
Colaptes auratus	Flicker
Corvus brachyrhynchos	American Crow
Cyanocitta cristata	Bluejay
Fringillidae	Sparrow
Gallus gallus	Chicken, Domestic
Geothlypus trichas	Yellowthroat Warbler
Larinae	Gull
Meleagris gallopavo	Turkey, Domestic
Molothrus ater	Brown-headed Cowbird
Phasianus colchicus	Ring-necked Pheasant
Philohela minor	American Woodcock
Spizella spp.	Sparrow
Strix varia	Barred Owl

Figure 1

This illustration was unfortunately omitted from VAS Newsletter, *No. 71 — see Jerome P. Dunn, "Signatures in Stone" (Figure 1), pp 10-11.*

Application for Membership or Renewal

☐ NEW ☐ RENEWAL

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