Although the FOSA Annual Meeting is now a distant memory, we were very fortunate to host an exceptional speaker, Dr. Jim Chatters. His presentation on the discovery of Kennewick Man and the subsequent developments regarding the ability of the scientific community to undertake studies on the remains was of great interest to all those who attended the meeting. The question of what these remains can tell us about the past, and what will ultimately happen with these remains, makes this a subject that will be of interest for some time.

After the meeting, Dr. Chatters mentioned that he gauges each audience by the number and type of questions that follow his formal presentation. He was extremely pleased with both the number of attendees and the level of questions that followed his presentation. It may be good to have him return in a few years to provide an update on the studies being conducted on the Kennewick remains.

Special thanks must be directed to Nick for his ability to locate and arrange for speakers of the caliber of Dr. Chatters. It is through Nick’s contacts at the national level that FOSA is able to bring speakers like Dr. Chatters to Connecticut. Thanks also go to the staff from the Connecticut Museum of Natural History for their expertise, guidance and assistance with all of the publicity and arrangements. Working together with members from the FOSA Board, these efforts resulted in a top-notch program.

Moving on to more current events, the FOSA Board held a regular meeting at the Connecticut Museum of Natural History and Archaeology Center building will be underway. Contractors are putting their bids together as I write, and, our starting date for construction is April 1, 2006!!

Renovations will include the second floor to our building for classrooms, workshop and program areas and new archaeology/natural history exhibits, with laboratory and collection spaces in the second phase of development. We certainly can’t wait to invite the FOSA members to our Grand Opening next year!

We are in the planning stages for our new exhibits. The themes will be to explore how the lives of people have been shaped, and continue to be shaped, by the natural history of southern New England. The way we feed, shelter and clothe ourselves, our social, political and economic structures, the way we recreate, meet our spiritual needs, and the advancement of our tech-

(Continued on page 3)
Volunteer News

“What is that, Mr. Nolf?” one of the Glastonbury High School students asks as she raises her hand. “Well, the Aztecs called it a throwing stick but today it is referred to as an Atlatl….” And so begins Gary Nolf’s explanation of atlatls.

A graduate of Central Connecticut State University, Gary’s interest in archaeology began as a young boy growing up in Westbrook. His grandfather, Oscar “Ty” Manstan, a long-time avocational archaeologist, would bring Gary, his brother and two cousins with their father along on “digs.” It became a family activity which continues to this day to be passed down to the next generations. Over the years, Gary was one of the founding members and past President of FOSA, where he still sits on the Board of Directors.

Gary has been an Atlatl enthusiast for approximately four years. He has conducted many experiments using modern and primitive techniques in the design and fabrication of atlatls and associated darts. One of the oldest questions that has not yet been answered is the use of a “banner stone” or Atlatl weight and how it plays or doesn’t play an integral part of the working system. Numerous “experimental archaeologists,” Gary being among them, have been trying to answer this question.

Gary is also a member of the World Atlatl Association and has participated in several ISAC competitions at the Rebecca Nurse Homestead in Danvers, Massachusetts, where he has won the Grand Championship for the past two years. His expertise has led him to present demonstrations and lectures about the designs and use of this ancient weapon.

This past December, Gary became a TV celebrity as he appeared on the David Letterman Show. Giving an atlatl demonstration, he hit the “bull’s eye” with his first shot.

For all those who may be interested, plans are in the works for an Atlatl competition or workshop under Gary’s guidance, to be sponsored by FOSA in conjunction with the Connecticut Archaeology Center. Watch for further information on this event.

Profile: Gary Nolf, FOSA volunteer

Below Ground

Field work for 2006 will cover a large area of Connecticut. So far we have projects lined up for Westbrook, East Windsor, Higganum, Southbury, Greenwich, Durham, Hamden, Somers, Thompson, Old Lyme and Manchester. This is just the tip of the iceberg. In May, GPR (Ground Penetrating Radar) tasks are scheduled for South Windsor, Westport, Greenwich and Old Saybrook.

The project in Westbrook will focus on the David Bushnell Homestead. Bushnell was the inventor of the first submarine called the “Turtle” in 1775. The submarine was used against the British in the Revolutionary War. There is hope that traces of the “Turtle” may still be located somewhere on the property.

In Greenwich we will try to locate two time capsules that were buried at the entrance to the Merritt Parkway when it was dedicated in 1937.

There are five field work projects that will deal with prehistoric periods and the remainder will be of a historic nature.

If we have an early Spring digs could begin in early April. For those who wish to participate in field work, contact Dave Cooke at junebug632@webtv.net. Keep those shovels and trowels handy!

Dave Cooke
In Memory of Irving Rouse

Irving (Benjamin) Rouse (b. 1914, d. 2006) began his career at Yale as an undergraduate in forestry and switched to archaeology while a student employee of the Peabody’s Anthropology Division. He completed his Ph.D. at Yale, and went on to become Charles J. MacCurdy Professor of Anthropology and Curator of Anthropology at the Yale Peabody Museum. At various times from 1938 through his retirement in 1984, Professor Rouse was curator, assistant curator, research associate and faculty affiliate. A pioneer in circum-Caribbean archaeology and a major contributor to the development of archaeological methods, particularly ceramic analysis, typology and chronology, Rouse has left the Peabody Museum with the world’s most comprehensive systematically excavated collections from the Caribbean region.

Rouse’s interest in the problems of classification was lifelong. Rouse published several books and articles, including his 1999 publication with colleague and long-time research collaborator Birgit Faber Morse, Excavations at the Indian Creek Site, Antigua, West Indies. He was a member of the National Academy of Sciences, held important roles in national anthropological and archaeological organizations, and helped found the Archaeological Society of Connecticut.

Rouse passed away in New Haven on February 4, 2006 at the age of 92.

President’s Letter

end of February. At that meeting, a proposal was introduced to re-establish a number of permanent committees. As FOSA membership has grown, there is a recognized need to distribute more equitably the existing workload and to involve a greater portion of the membership in the activities of the organization. To that end, five separate committees are being proposed. These committees include: Membership; Education/Events; Newsletter, Nomination; and Site Activity.

Additional information will be forthcoming on the functions associated with each of the committees, and how you, as a FOSA member, can become involved. We look forward to your active participation in one or more of these committees. In the meantime, feel free to contact me via e-mail at roger.thompson2905@sbcglobal.net with your suggestions and any interest you may have in serving.

This coming summer looks like it will be a busy time for archaeology digs and other activities. We hope that you will be able to join with us at one or more of these events.

Roger Thompson

Nick’s News

(Continued from page 1)

Technologies have all been influenced in unique and unexpected ways by the region’s climate, geology, hydrology, nutrient and energy cycling systems, and plant and animal life. The exhibit will explore how the choices people make in response to their environment shapes our evolving culture. As an archaeology center and a museum of natural history, we want to use modern scientific research to explore the dynamic relationship between natural and cultural history.

This promises to be a most exciting and eventful year for us, and, it is made possible because of your continued support. And, for that we will be forever grateful.

Nicholas Bellantoni, PhD
State Archaeologist
In Appreciation of Bonnie and Ken Beatrice

Beginning in 2004, FOSA has awarded certificates of appreciation to members who have made outstanding contributions to the organization’s mission. The most recent award recipients were Bonnie and Ken Beatrice. Bonnie Beatrice, a founding member, has contributed to many of FOSA’s archaeological projects, and has been a tireless promoter of our mission at numerous public events. A skilled artist, she has also contributed public displays, and donated graceful, archaeologically-themed ornaments for fundraising efforts.

Ken Beatrice, also a founding member, is FOSA’s most experienced researcher in underwater archaeological projects. He has served as a leader of laboratory operations since FOSA was first organized, and has attended countless public events with Bonnie where his educational work using displays has introduced the organization’s mission to hundreds of people.

Ken and Bonnie have also provided years of service to the FOSA board as directors and officers. We look forward to many more years of association with these gifted volunteers.

Mike Raber

Arthur Basto Archaeological Society

In the spring of 1992, two young housewives, one with her two-year-old daughter on her back, papoose-style, worked their way along the corn fields between the Shetucket River and the Central Vermont railroad tracks looking for arrowheads. From these small trips of discovery, the seeds of The Arthur Basto Archaeological Society were sown. After making contact with Dr. Bellantoni and working under the direction of Anthropologist Robert Gradie III, of the UConn staff, Deb LaBrie and Kathy Boushee submitted the necessary paperwork to incorporate The Arthur Basto Archaeological Society with the State of Connecticut on February 12, 1993. The mission statement was easy to put on paper because the members are all ordinary citizens who have joined together in a common commitment to protect and preserve the irreplaceable archaeological and cultural heritage of Northeastern Connecticut. The name of the Society was chosen to honor Arthur Basto and his excellence in archaeological research and preservation. The Society is dedicated to his memory.

Arthur Basto’s boyhood interest in arrowheads and other artifacts surfaced during cultivation activities on his family’s farm and resulted in his lifelong passion for archaeological research and preservation. Self-educated in the field of archaeology, Arthur Basto was a locally recognized authority on natives of Northeast Connecticut, and he was a popular speaker whose audiences included professional archaeologists as well as the general public.

In 1936, he began methodical excavation and record-keeping at a site on his family farm which was located along Little River. That site proved to be the location of a former native village. Arthur Basto supervised and taught the Yale archaeology students who assisted with excavation, recording of data and cataloging of artifacts from the site. Results were published in the Bulletin of the Archaeological Society of Connecticut in 1938 and 1939. Arthur Basto donated his entire collection of artifacts (about 4,000 items) to the Peabody Museum at Yale University.

The Arthur Basto Archaeological Society holds membership meetings four (4) times a year at the Sprague Town Hall at the corner of Routes 207 & 97. A meeting agenda may include a presentation by a speaker or an artifact display and identification session.

Editor’s note: Many of the Arthur Basto Archaeological Society members are also active FOSA members.
2005 FOSA Activities in Review

2005 brought FOSA many opportunities to promote the importance of the Office of State Archaeology and enhance public awareness of archaeology throughout the state of Connecticut.

FOSA presented a “hands-on” traveling exhibit consisting of a Time-Line with related artifacts found in Connecticut, dating from early Archaic era (approximately 12,000 years ago) to present day. Too often, people associate archaeology exclusively with Native American “arrowheads” and pottery. The intent of this exhibit was to illustrate examples from a range of archaeological sites, such as Colonial, Industrial and Marine, along with both prehistoric and historic Native American sites. It also provided the public the opportunity to handle and examine artifacts that normally may only be viewed through glass in museums.

Among the events which FOSA participated in were last April’s CPTV Family Science Exposition held at the CT Expo Center in Hartford and the CT Gravestone Network Symposium at the Middlefield Senior’s Center. In June, FOSA brought its exhibit to Two Rivers Magnet Middle School in East Hartford during the 2005 BioBlitz. During Clinton Historical Society’s annual Main Street event in August, FOSA’s display also included an added attraction of a “mock-dig” for children. And the exhibit’s final appearance was at the Connecticut Archaeology Expo 2005 in October at the Keeney Memorial Cultural Center in Wethersfield. At all these functions, the public is encouraged to bring their “treasures” for help with identification.

Work has already begun on a new and exciting “traveling exhibit” for 2006. However, there is a continuing need for new ideas. For those of you who may wish to participate at an event and/or may have a collection to possibly display, please contact Exhibit Coordinator Bonnie Beatrice at k.beat@att.net or 860-434-5114.

Watch your Newsletter for upcoming events. Hope to see you there!

Bonnie Beatrice

FOSA Officers and Board Members

Roger Thompson – President
Cynthia Redman – new Vice President
Dreda Hendsey - Treasurer
Paul Scannell – new Secretary
Frank Pearson – new Board Member

Bonnie Beatrice – Board Member
Ken Beatrice – Board Member
Gary Nolf – Board Member
Mike Raber – Board Member
Jim Trocchi – Board Member

Welcome New Members

Michael Bouchard – Derby
Thomas Burns – Suffield
Catherine Carter Hancock – Cromwell
Sharon Clapp – Wolcott
C. Scott DiNardo – Glastonbury
Dr. Tricia Gabany-Guerrero – Bozrah
Nicolas Kotula – Bloomfield

Bob, Nancy & Bobby LaPerla – Glastonbury
Nancy Lister – Manchester
Luc Litwinionek
Allen V. Polhemus – Uncasville
James P. Rosen, MD – Bloomfield
Brian & Sylvia Schaefer – Norwalk
Alan Sibley – South Meriden

Radiocarbon Dating

A charcoal sample from the Sullivan Site in Waterford, Connecticut has been sent to Beta Analytic Inc. in Florida to obtain a date for a Native American male burial that was removed by local police from a beach area.

The day after the police removal, Nick, assisted by a small FOSA task force, excavated a refuse pit adjacent to the burial feature and recovered a quartz Levanna projectile point, ceramic pottery shards, deer bone, scallop shells and charcoal. The charcoal is being used to date both features. We should have results within four weeks.

Dave Cooke
FOSA Annual Account of Income and Expenses for 2005

Beginning Balance 1/1/2005 $4,889.41

Income for 2005
  Membership, Donations, Annual Meeting 8,070.00

Expenses for 2005
  Reimbursements to OSA
    Nick’s cell phone $1,287.54
    Projector purchase 1,444.15
    Projector supplies 418.38
    $3,154.07
  2005 Annual Meeting expenses 955.65
  FOSA office expense 862.11
  Insurance 500.00
  Other expenses 477.00
  Total Expenses 2005 $5,948.83

Ending Balance 12/31/2005 $7,010.58

Annual Account of Income and Expenses for C-14 Account

Beginning Balance 1/1/2005 $ 710.75

Income for 2005
  C-14 Donations 1,645.00

Expenses for 2005
  C-14 Testing - 610.00

Ending Balance 12/31/2005 $1,745.75

“How Old Is It?”

“How old is it?” is frequently the first question raised following the discovery of any type of artifact at a prehistoric archaeological site. Prior to the introduction of radiocarbon dating, archaeologists frequently classified artifacts—particularly stone tools, spearheads and pottery—based on their style, shape and design. Those artifacts of a similar shape, design and other characteristics would be classified as belonging to a certain age. Of course, this method of classification and comparison failed to furnish an answer as to the specific age in terms of years of the artifact.

The archaeological revolution that served to alter this classification approach began in 1949 when nuclear physicist Willard Libby (University of Illinois) first developed radiocarbon dating. Carbon, the sixth most abundant element in the universe, has been known since ancient times. Carbon has three naturally occurring isotopes, that is, atoms of the same atomic number but different atomic weights. These isotopes are designated C-12, 13 and 14 respectively. There are also differences in terms of the frequency with which these isotopes occur. Carbon consists of 99 percent of C-12, less than 1 percent of C-13 and about one

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“How Old Is It?”

(Continued from page 6)

part per trillion (0.0000000001) of C-14. Unlike the other two carbon isotopes, C-14 is unstable and therefore radioactive. Hence, the term “radiocarbon” is applied when referring to the C-14 isotope.

Radiocarbon dating is based on the fact that all living organisms (plants and animals) maintain a constant amount of radiocarbon (C-14) that disintegrates at a known rate following the death of the organism. The rate of decay is determined by the half life of radiocarbon which is 5,730 years. This simply means that one-half of the radioactive carbon decays every 5,730 years after the death of the organism. Through the use of sophisticated measuring devices, by calculating how much radiocarbon remains in an organic specimen, it is possible to determine, within a range, an accurate age for the specimen. If one-fourth of the radiocarbon is still present, an object would be 11,460 years old; if one-eighth of the radiocarbon is present it would be 17,190 years old; and so forth.

After an object is dated, the results are reported in the following example format: $5000 \pm 100$ years B.P. The initials B.P. stand for “before present” with the “present” being measured from A.D. 1950, the year that radiocarbon dating was established. The date of $5000 \pm 100$ means that there is a 68 percent probability that the date will range between 4900 to 5100 B.P. if the same sample is rerun. To increase the probability to a higher percentage of confidence, the ± would be increased. For example, to increase the level of confidence to 95 percent, the specimen may be reported as $5000 \pm 200$ years B.P., or 4800-5200 B.P.

Some organic materials are better to use for radiocarbon dating than others: charcoal, plant remains, wood, bone, and shell, in descending order of confidence. The reason that charred plant remains are the most desirable for purposes of radiocarbon dating is that charcoal is chemically inert and because plants absorb radiocarbon directly from the atmosphere whereas animals derive radiocarbon from eating plants.

For his discovery of radiocarbon dating, Libby was awarded the Nobel Prize for chemistry in 1960. In a subsequent article, the discussion will address certain of the limitations associated with radiocarbon dating, and some of the other methods being used to date artifacts.

Roger Thompson

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**Thank You for Your Donations**

- **FOSA General Fund:** $850
  - David Bingham
  - William & Helen Ewald
  - Grace Goodrich
  - Bruce & Elizabeth Greene
  - George B. Kinsella
  - Robert Martinchek
  - Frank C. Pearson
  - Smith School

- **Radiocarbon Dating Fund:** $665
  - Meredith Vasta
  - Lee West
  - Ernie Wiegand

- **Grace Goodrich**
- **Laura Jensen**
- **Lella Landis**
- **Barbara Manstan**
- **Robert Martinchek**
- **Jeff Pudlinski**
- **Cynthia D. Redman**
- **Cecelia (Ceece) Saunders**
- **Deb & Harry Townshend**
- **Ernie Wiegand**

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**We would like to hear from YOU!** Please send your comments and ideas related to FOSA or the FOSA Newsletter to June Cooke at junebug632@webtv.net and/or Mae Johnson at mpijohnson@snet.net, or to FOSA President, Roger Thompson at roger.thompson@wipaw.org.
Meetings and Announcements