



Special points of interest:

- Bus Tour to Meadowcroft Rockshelter
- Connecticut's Iron Industry
- Rescue Excavation in Westbrook
- Farmington Students Excavate at Walpole Site

FRIENDS OF THE OFFICE OF STATE ARCHAEOLOGY, INC.

Member Newsletter

President's Letter

FOSA Members:



Spring is upon us, and I am sure you are all looking forward to another exciting season of archaeology! I am honored to be your new President, and I look forward to working with you all. But first I want to thank Cynthia Redman for her many years of strong leadership! Cynthia is a dedicated and enthusiastic volunteer and an inspiring role model. Thank you Cynthia for all you have done and all you will continue to do! These are big shoes to fill!

As the new President my primary goal will be to expand existing programs and to provide new volunteer opportunities for FOSA members.

Fieldwork, laboratory analysis, and public outreach have been, and will continue to be, the mainstay of FOSA volunteering; however, I am looking forward to FOSA participating in historic research and report writing. I am organizing a workshop on April 5th in Windsor Locks where we will discuss excavation strategies and methods, field paperwork, and site reporting. All interested FOSA members are welcome to attend. There is also a preliminary discussion in offering a workshop on historic document research. Stay tuned for details!

We also have an exciting new event this year, a bus trip to Meadowcroft, organized by Cynthia Redman and co-sponsored by the Connecticut State Museum of Natural History. Please join us; I look forward to vacationing with you all!

(Continued on page 2)



News from the Office of State Archaeology

As I begin to write this news report, it impresses me that

this will be the last issue of the FOSA Newsletter that I will participate in as the Connecticut State Archaeologist. As most of you are aware, I will be retiring this year in September, after almost three decades serving in my official capacity. So, writing this last article brings back a flood of memories.

Like my first day as state archaeologist in 1987 when I was given a small (and I mean, small) office in Beach Hall. The room was so small that a meeting with two people looked like the state-room scene in a Marx Brother's movie! A far cry from my current, spacious corner "suite" at the Museum of Natural History and Archaeology Center building.

We started our earliest projects

conducting rescue excavations with no field staff, but we did have a reliable and expert amateur archaeology community, led by Dave Cooke, ready to assist: These included the Walton Cemetery site with our own "vampire"; the exhumation and repatriation of Henry Opukaha'ia, historically referred to as the first Christianized Native Hawaiian; and the Chauncey Tomb vandalism at Indian Hill Cemetery, Middletown, to mention a few.

As the projects piled up and the demands of our office became greater, June Cooke came to me in 1997 with an idea of forming a "Friends" group to assist in volunteer efforts. I don't want to say I was skeptical, but I thanked her and told her to "go for it," not really expecting much to develop from the concept.

(Continued on page 2)

Inside this issue:

FOSA's Appreciation Award	2
Annual Financial Report	3
Officers and Board	3
New Members and Donations	3
Meetings and Announcements	4
Glass Workshop	5
FOSA Outreach	6
Farmington Student Work	7
Horton Farm	8
Connecticut's Iron Industry	9
Gurleyville Grist Mill Dig	12
Westbrook Field Survey & Dig	13
Membership Application	14

President's Letter

(Continued from page 1)

Finally, I want to encourage you all to share your ideas with me. The energy of FOSA volunteers always impresses

(Continued from page 1)

me, and I want to find ways to continue to involve you all in FOSA opportunities.

E-mail me anytime at fosa-ct@archaeologist.com!

*Mandy Ranslow
President, FOSA*

News from the Office of State Archaeology

Boy, was I in for a shocker!

Armed with an ever growing "army" of FOSA volunteers, we were able to assist on the Broteer Venture Smith burial excavations; the Bulkeley Tomb restoration in Colchester; the Samuel Huntington Tomb in Norwichtown; the Rogers Site in Lisbon; the Bradley (1941) airplane crash site in Windsor Locks; and, the exhumation and repatriation of Albert Afraid of Hawk, to again, mention a few.

One thing remains clear to me, and that is we could never have conducted any of these research and preservation investigations without FOSA volunteers throughout the years. You have given me an extraordinary "workforce" that could never have been paid for from any state coffers. I truly understand the importance of what you have given to me, however, we are sometimes at a loss in terms of what we have given back to you for your service. Hopefully, we have involved you in some interesting projects and meaningful volunteer work. Other than that, you all have given to me far more than I could ever give back.

To all that have sat on the FOSA Board of Directors, thank you for all your hard work and long hours dedicated to the success of this organization. To all of you that have volunteered your time and expertise in the field, laboratory, library, and on public outreach programs, thank you for all you have done, you are the backbone of FOSA. And, to all of you that simply pay your membership dues to support FOSA, thank you because you are the basic support of the organization.

I leave knowing that FOSA is in great hands. I am especially gratified to see so many young people like our new president, Mandy Ranslow, take on such an active role in directing FOSA into the future. My hope is that you will provide the next state archaeologist with the same support and dedication you have given me. I can't tell you how indebted I am to you, other than to say that I will cherish your friendships for as long as I can sing the Sinatra song: "The Best Is Yet To Come."

Nicholas Bellantoni, PhD, State Archaeologist

FOSA's Appreciation Award Goes to Paulette Buchanan

Long time FOSA member and OSA Library volunteer Paulette Buchanan received the 2014 FOSA Achievement Award in January at FOSA's 17th Annual Meeting.

This award is given each year to one or two members who have given extraordinarily of their time and talents. It is a small way of recognizing those members who work behind the scenes to support the OSA.

Paulette took on the responsibility of locating the call numbers for the hundreds of books that Douglas Jordan had left to the OSA. Although some of the books had the Library of Congress call number given in the book, most had to be looked up on the Library of Congress database. Paulette did this on her own time at home. When the Gungywamp Society dissolved, she repeated the process. The inscription on the award details what Paulette achieved: "The Friends of the Office of State Archaeology (FOSA) gratefully acknowledges the outstanding contribution of Paulette Buchanan. Paulette, a FOSA member, has contributed an extensive amount of

work in volunteering to catalog the Douglas Jordan Library that the OSA inherited. Paulette looked up the Library of Congress numbers for each book, typed up the numbers and placed them on the books and completed the project by shelving them in order. When the Gungywamp Society dissolved, their library, slides, pictures and files were transferred to the OSA. Again, Paulette duplicated the effort she had previously done with the OSA Library books. The service provided by Paulette was all done quietly, professionally, and behind the scenes. Thank you Paulette for your total dedication to the support of OSA and FOSA."

Unfortunately, Paulette was unable to attend the meeting to receive the award.

See Volunteer Profile, Newsletter, Fall, 2009 at fosa-ct.org.

FOSA Annual Financial Report

Calendar Year 2013

Beginning Balance 1/1/2013		12,687.10
Income	8560.59	
Expenses	9823.85	
Ending Balance 12/31/2013		11,423.84

FOSA's Newest Board Members

Heather Alexson and Brian Meyer were recently elected by the FOSA Board of Directors to serve as members of its Board.

Heather graduated from UConn with a degree in anthropology, with a concentration in archaeology; and a degree biology, with a concentration in ecology and evolutionary biology. She has professional experience in cultural resource management as a field archaeologist, lab supervisor, and archaeological illustrator. She has worked at the Pequot Museum & Research Center, and P.A.S.T, Inc. and A.H.S., Inc. She was also the Public Education Coordinator for P.A.S.T., Inc outreach programs. She is currently the Site File Manager at OSA and assists in the Dig Supervisor program for FOSA.

Brian graduated from UConn with a degree in art history and a concentration in archaeology. He has experience with library and curation arts, having worked at the Lewis Walpole and the Homer Babbidge Libraries. Brian is a regular at the lab and in the field, where he participated in the Dig Supervisor program.

FOSA Officers and Board

Mandy Ranslow - New President
 Jeremy Pilver - Vice-President
 Mike Cahill - Secretary
 Dreda Hendsey - Treasurer
 Heather Alexson - New Board Member
 Scott Brady -Board Member
 Dick Hughes - Board Member
 Brian Meyer - New Board Member
 Mike Raber - Board Member
 Cynthia Redman - Board Member
 Paul Scannell - Board Member
 Jim Trocchi - Board Member
 Kathy Walburn - Board Member

Welcome New Members (since September 27, 2013)

Stephen Beal
 Ralph Dukett
 Joan Della Pietra
 Benjamin Diebold
 Edward A. Fournier
 John Horan
 Dan Manstan
 Donovan McNally
 Myron Morgan
 John Neumuth
 A. Rachel O'Hazo
 Becky Rudolph
 Zachary Singer
 Patrick Whitney

Donations since September 27, 2013

FOSA General Fund:

Tom Burns
 Anne & Gabe Choquette
 Bob Martinchek
 Glenda Rose & Jack Morris
 Phillip & Marilyn Wilsey

Don Rankin was honored for his work with FOSA by a generous donation of 500.00 from Catherine and John Crawford.

Correction

In the Spring 2012 FOSA Newsletter article, *Cave Hill: Noises in Moodus*, directions were given on how one could get to the Caves. Recently it was brought to our attention that the site is on private property, and the owner has requested that the public not trespass. FOSA asks that the public honor their request and refrain from trespassing on their property.

Meetings and Announcements

Attention FOSA Members: Special Event

Bus Tour to Meadowcroft Rockshelter, Avella, PA; Guided Tour by Dr. James Adovasio

When: Friday October 10 thru Sunday October 12, 2014

Where: Avella, Pennsylvania; staying at Hilton Garden Inn

What: One of the first archaeological sites in the United States containing evidence of a pre-Clovis population with an age dating back 16,000 years. The site is located on a tributary of the Ohio River in western Pennsylvania.

The first prehistoric artifacts were discovered in a groundhog burrow at the site in 1955 by property owner and museum founder, Albert Miller. In 1973, the first professional excavation of the Rockshelter was conducted by the Cultural Resource Management Program (CRMP) of the University of Pittsburgh and directed by J. M. Adovasio, Ph.D. Subsequent University of Pittsburgh field school excavations took place from 1973-1989. More recent research and excavation has been directed by Dr. Adovasio through the Mercyhurst Archaeological Institute (MAI). The excavation protocols used at Meadowcroft are still considered state-of-the-art which is widely regarded as one of the most carefully excavated sites. **Cost:** \$325 per person double-occupancy, or \$420 for a single. The cost includes:

- ~ Round trip bus transportation, taxes and gratuities
- ~ Two nights' accommodations at Hilton Garden Inn
- ~ Welcome Reception at the hotel
- ~ Two upgraded full breakfast buffets
- ~ Entrance to the Meadowcroft Rockshelter and Historic Village
- ~ Boxed lunches at Meadowcroft

Accessibility: With rest platforms provided on the stairway, the viewing platform at the Meadowcroft Rockshelter is located at the top of 65 steps.

NOTE1: Advance registration with full payment is required by August 1, 2014.

NOTE2: Registration is limited to 40 people, and will be on a first-come/first-served basis.

NOTE3: Registration materials may be found at: <http://www.fosa-ct.org>

Sponsored by the Friends of the Office of State Archaeology, The Connecticut State Museum of Natural History and The Connecticut Archaeology Center at UConn.

Calendar of Events

April 5, 2014 11am-2pm – Site Report/Site Form/Excavation Workshop for FOSA members at the Windsor Locks Public Library

April 14, 2014 8pm – “Digitization, Digital Restoration, and Visualization of Antiquities: Medieval Manuscripts and Scrolls from Herculaneum” by W. Brent Seales, sponsored by the Archaeological Institute of America; Trinity College, Hartford, CT

April 17, 2014 8pm– “Drawing the Parthenon Sculptures” by Katherine Schwab, sponsored by the Archaeological Associates of Greenwich; Bruce Museum, Greenwich, CT

April 23-27, 2014 - Society for American Archaeology 79th Annual Meeting; Austin, TX

May 3, 2014 – Archaeological Society of Connecticut Spring Meeting; Barkhamsted, CT

May 11, 2014 10am-4pm – Bridgeport Archaeology Week; Beardsley Zoo, Bridgeport, CT

May 15, 2014 8pm – “Egyptomania: Our Three-Thousand Year Old Fascination with the Land of the Pharaohs” by Bob Brier, sponsored by the Archaeological Associates of Greenwich; Bruce Museum, Greenwich, CT

May 17, 2014 – Conference for New England Archaeology Annual Meeting; Phillips Academy, Andover, MA

June 19, 2014 8pm – “Women in Minoan Art and Society” by Karen Polinger Foster, sponsored by the Archaeological Associates of Greenwich; Bruce Museum, Greenwich, CT

October 4-5, 2014 – Hammonasset Festival; Hammonasset Beach State Park, Madison, CT

October 10-12, 2014 – Bus Tour to Meadowcroft Rockshelter sponsored by FOSA & CT State Museum of Natural History; Avella, PA

October 30-November 2, 2014 – Eastern States Archaeological Federation Annual Meeting; Solomons, MD

November 6-9, 2014 – Council for Northeast Historical Archaeology Annual Conference; Long Branch, NJ

Museum Exhibits

Ongoing - “Thinking Like An Archaeologist” exhibit featuring the photos by late FOSA member John Spaulding; Connecticut State Museum of Natural History, UConn, Storrs, CT

Through May 4, 2014 – “Lost Egypt: Ancient Secrets, Modern Science;” Connecticut Science Center, Hartford, CT

2014 Spring Meeting of the Archaeological Society of Connecticut

Saturday, May 3, 2014 (9am to 4pm)

Barkhamsted Historical Society, Barkhamsted, Connecticut

Admission: non-members (general public) - \$10, members (ASC/FOSA/BHS) - \$8, students - \$5

Any questions regarding meeting please contact: Dawn Brown - dawn.brown@aya.yale.edu

9:00 Registration begins (with coffee and doughnuts)

9:25 Welcome, announcements - Dan Cruson, President, Archaeological Society of Connecticut

Morning Session – Above Ground Archaeology: Quarrying in Connecticut

9:30-10:00 The “Stay-Put” of Soapstone Societies Part I: A Connection of the Past- The Making of the Walt Landgraf Complex, Bonnie Boychuck Plourde (Central Connecticut State University)

10:00-10:30 Burn it to Earn it: Procuring Quartzite at the Walt Landgraf Complex, Matthew J. Swieton (Central Connecticut State University)

10:30-11:00 Portland Brownstone Quarries, Alison Guinness

11:00-11:30 If You Don’t Dig – How Can You Call It Archeology? An Archeological Potpourri

Robert Stewart (Historical Technologies)

11:30 – 11:45 ASC Business Meeting

11:45- 1:00 Lunch - Restaurant choices are limited and it is suggested that you bring your own lunch.

Afternoon Tour - The Walt Landgraf Complex

1:00 – 3:30

This tour consists of about a 15 minute bus ride to the Walt Landgraf Complex. Lead by Dr. Ken Feder of Central Connecticut State University, the tour will visit the soapstone quarry, rockshelter and areas of quartzite caches.

The hike from the trailhead to the site is about 20 minutes along a trail that is partially well-maintained. This moderate hike does consist of a couple of steep inclines and is not handicap accessible.

3:30 Reception (Wine and cheese)

FOSA Workshop

Excavation Methods and Site Reporting

Saturday, April 5, 2014

We are pleased to announce the first in what we hope will be a continuing series of educational opportunities for FOSA members.

FOSA is pleased to offer an excavation methods/site reporting workshop on April 5th from 11am-2pm at the Windsor Locks Public Library (28 Main Street) for all interested FOSA members. FOSA members will work with Nick Bellantoni and experienced volunteers of the Dig Committee to better understand how an excavation is organized and executed, how to fill out site paperwork, and how to write site reports and complete State Archaeological Site Forms. Attendees are encouraged to come with questions.

Please RSVP to Mandy at fosa-ct@archaeologist.com.

FOSA Connecticut & American Glass Workshop

FOSA is pleased to announce an informational workshop on early Connecticut and American glass that is open to all members. The workshop will be presented by the staff of the Museum of Connecticut Glass on April 19th from 10 a.m. to noon. The Museum of Connecticut Glass is located in Coventry at the intersection of North River Road and Route 44.

The presentation will provide information on production methods as well as identification and dating tips for early glass. Connecticut's early factories provided a large share of the utilitarian glass bottles made for northeastern liquor, food and other businesses. Participants are encouraged to bring glass artifacts for identification and dating.

Besides being informative and interesting to all, the material presented will be invaluable to members who participate in excavation and cataloging activities.

Please RSVP to sbrady@hartfordfire.org

Touching the Past: Connecticut’s Indigenous Peoples

An Archaeological Field School in the Litchfield Hills

What is it like to find a stone tool last touched by someone over 4,000 years ago? Litchfield Hills Archaeology Club members, affiliated with the Institute for American Indian Studies in Washington, CT, have experienced this connection many times while working on a site in New Preston in recent years. The club is inviting members of the public to join them in their week-long Archeological Field School at this location -- July 14-18, 2014, 10am to 3pm.

(Continued on page 10)

Volunteer Opportunity!

FOSA is looking to provide mentoring opportunities for work with the FOSA Outreach Committee and the Office of State Archaeology Library. Mentoring opportunities with the Dig Committee and in the FOSA Lab. have been such a success we want to extend them to other FOSA programs. Volunteers will be expected to commit to learning about a particular type of job within FOSA with the goal of becoming the official back-up(s) to the current lead volunteers.

Ken and Bonnie Beatrice have led the Outreach Committee since FOSA was founded. They continue to create and display educational and engaging exhibits at events throughout the state. Mentees will be given the opportunity to learn how to share with the public the exciting work FOSA does and to teach the public about archaeology. Volunteers will ultimately be encouraged to organize exhibits and represent FOSA at events in the future. If you are already a member of the Outreach Team and you're looking to take on more responsibility you are especially encouraged to become a mentee!

Cynthia Redman has been diligently organizing and cataloging the library of the Office of State Archaeology located in the lab. at Horsebarn Hill Road at UConn, Storrs. She is looking to train a couple of volunteers who will become knowledgeable in how the library is organized, how to accession new materials, and to be able to assist researchers using the library.

For those of you interested in one of these opportunities please contact Scott Brady, Volunteer Coordinator, at sbrady@hartfordfire.org.

Additional Participation Opportunities

In an effort to provide opportunities to FOSA members, we are currently seeking volunteers for several positions.

FOSA Event Photographer(s) – Provide photographic documentation of FOSA events (i.e., workshops, outreach efforts, annual meeting, etc.).

FOSA Field Photographer(s) – Provide photographic documentation of FOSA excavations and other field activities. Responsibilities include photographing the site, excavation units, features and artifacts. No experience required as we will assist in training volunteers.

FOSA Field Assistant(s) – Provide organizational and administrative support of FOSA excavations and other field activities. Responsibilities include ensuring proper documentation of the site, units, and features, organizing collected artifacts and additional documentation and organizational tasks as required. No experience needed as we will assist in training volunteers. This position will be less physically demanding than most fieldwork and **does not** require extended kneeling or standing.

Please contact Scott Brady: sbrady@hartfordfire.org for additional information.

FOSA Outreach

FOSA's "Outreach Programs" participated in many exciting and diverse events in 2013.

Among these events, FOSA presented displays at the "CT Gravestone Network Symposium" and at Westbrook Historical Society's "Day on the Green".



FOSA Display at the CT Gravestone Network Symposium

Photo by: Ken Beatrice

October is Archaeology Awareness Month, during which FOSA exhibited at the "Archaeology Fair" in Wethersfield and at the "Native American Festival", Hammonasset State Park, Madison. In August the organizers of the Salem Farm Market invited FOSA to set up a display in order to help bring attention to the many Historical Societies, Civic groups and other organizations of interest in Connecticut.

These events are all wonderful opportunities to broaden awareness of the importance of archaeology and show what FOSA is all about including ways people can become involved with FOSA.



Bonnie Beatrice, Fred Rivard and Jerry Tolchin at the Westbrook Historical Society "Day on the Green"

Photo by: Ken Beatrice

2014 is going to be another active year with many programs already in the planning stages. Please stay tuned to your emails and the FOSA website for upcoming events.

For more information about FOSA's "Outreach Programs" and ways you can participate, contact Bonnie Beatrice at FOSAoutreach@hotmail.com.

Thank you to all past, present and future volunteers ~ your dedication and enthusiasm is what makes FOSA the success that it is!

Bonnie Beatrice

Farmington Students Excavate at Walpole Site

The Lewis Walpole Library, a department of Yale University Library, was founded by Yale graduate Wilmarth S. Lewis (1895-1979) and his wife Annie Burr Lewis (1902-1959) who bequeathed the property, buildings, and collections to the university. The Library is located on fourteen acres along the Pequabuck River in Farmington and has a history of archaeological exploration, first by Lewis' groundskeeper William Day and later by students in Yale-conducted field schools. Jeremy Pilver, an experienced and registered professional archaeologist, is a Social Studies teacher at Farmington High School. In June 2013, students enrolled in Pilver's Anthropology and Archaeology class, participated in an archaeological field school on the Walpole Library's property. This provided an excellent community outreach opportunity for the



Farmington Students Excavating at Lewis Walpole Site

Photo by Diana Letniowska

Library in a new and exciting way. This partnership helped to foster interest in archaeology through an interactive practical experience at a site offering the potential for discoveries spanning millennia.

For three days, students worked under the supervision of Pilver and volunteers from the Friends of the Office of State Archaeology. Identifying the datum point used during the Yale excavations proved impossible, therefore the southwestern corner of the property was chosen because it potentially avoided previous site work and its proximity to prior evidence of tool manufacturing. In preparation for the field work, students spent four weeks learning about the purposes, possibilities, methodologies, challenges, and ethical guidelines of archaeology, as well as the prehistory of North America. They also devised research questions in order to guide their investigation and focus on the trade networks and land-use patterns of indigenous people in Farmington. The students carefully bagged and labeled numerous prehistoric artifacts, including chert and flint debitage, a complete projectile point, scrapers, pieces of a steatite bowl, a hammer-stone, pestle, and an especially fine example of a Paleo-Indian tool called a graver. Also found and conserved were historic materials including nails, clay pipe stems, glass, and a small, metal toy soldier. They then meticulously documented



Lewis Walpole Site 35-40 cm Below Surface

Photo by Diana Letniowska

every stage of the project both photographically and in writing. This hands-on experience clearly made an impact on the students, who returned to the Library later in the month to discuss the project and present their findings to the public. Preliminary analysis of the data confirms some findings from the previous site report, written by David Starbuck of Yale, which identified a deep plow zone at the site, 40-50 cm below datum in some areas (Starbuck, 1992).

(Continued on page 11)

"Thank You Howard"

I recently had an opportunity to speak with Howard Horton, the owner of Horton Farm located in the town of Glastonbury, CT. The farm, which has been in the same family for five generations was originally purchased by Howard's Great Grandfather in 1860. Through the years it has been a vegetable and tobacco farm and during WWII helped out by supplying produce to local communities. Howard has always been active in community affairs and was a member of the Glastonbury Fire Department and the Fire Marshall for twenty years.

But the farm has an even more interesting history as it is also the site of a series of Native American occupations dating back at least 3500 years. When I spoke with Howard at his home he said: "I met Dr. Nick at our historical Society. He came to one of our meetings to give a talk... He was good and had a lot of enthusiasm. I told Dr. Nick about the artifacts that were found on the farm by my dad and that he could come down to the house to see them. Dr. Nick has been here several times since."

Howard and his family have generously made their farm available for archaeological study. Many of Glastonbury's Smith Middle School students know the Horton Farm as "the place where I did an archaeological dig." Students, teachers and invited parents have taken part in excavations, unearthing their first artifacts and possibly launching their own careers in archaeology. A frequent comment heard from students is: "It was cool to know we were touching real artifacts from thousands of years ago."

Student excavations continued over the course of several years at this site uncovering a wide range of stone tools dating from the early Archaic period to Late Woodland times including Brewerton Eared and Bifurcated points, as well as axes and hammer stones. Of special interest was the discovery of a fire-pit or hearth. Radio-carbon dating of charcoal removed from the hearth indicated an age of 3650 years BP, consistent with the types of artifacts found on the farm.

Other important archaeological work at the farm was conducted by Dr. Kevin McBride. As part of his doctoral research at UConn in the 1980s he catalogued many of the Horton Farm artifacts (McBride, 1984).

Thank you Howard, to you and your family for generously providing the location and opportunity for these young Glastonbury students to have this experience.

A quote from a student, "I will never forget how I got to be an archaeologist for a day."

Ken Beatrice

Reference:

McBride, Kevin Allen 1984 *Prehistory of the Lower Connecticut River Valley*. Doctoral Dissertation, The University of Connecticut



Howard Horton displaying artifacts from the Horton Farm

Photo by: Ken Beatrice



Howard and the FOSA Dig Team

Photo by: Ken Beatrice

Connecticut's Iron Industry

Connecticut has a rich history in the manufacture of iron and its finished products. Its presence can be relived in the beautiful northwest corner of the state where existing remains can be discovered by the secondary and back-road explorer. An enjoyable trip to towns such as Canaan and Salisbury, will open your eyes to some impressive structural remains of this industry that I assure will please the archaeologist and historian in you.

To make iron, three basic ingredients are needed; iron ore, charcoal and limestone. Connecticut's northwest hills have all these resources readily available. There were abundant forests for making charcoal, large limestone deposits to be mined, and high quality limonite and goethite iron ore (Kirby 1998:p1). Additionally, water power was available to drive the air bellows in the blast furnaces which will be described and discussed below.

The discovery of iron in the region began in 1731, when a large and rich deposit was found at Ore Hill in Salisbury. This Salisbury ore was of superior quality because of its high content of manganese and low content of phosphorous. This quality ore is found in a narrow belt along the MA, CT and NY border (Kirby, 1998:p2).

Smelting of iron began in Salisbury in 1735 and would continue for 188 years. In the early smelting process, iron ore was processed in a large, stone, bloomery forge that was heated with a charcoal fire assisted by forced air. Later, the impurities were hammered out. This made good iron but not large quantities of it. It took large blast furnaces to produce greater quantities. In 1762, the first blast furnace was built in the area. Its stone chimney stack stood 28 ft. high and the operation employed sixty men. With the start of the American Revolution and the need of iron for armament, this area became known, at least locally, as "The Arsenal of the Revolution" (Kirby 1995:p3).

There are several sites that still contain the ruins of the stone blast furnaces that were the center piece of the iron-making process. The wooden enclosures and attached buildings that surrounded the furnaces are long gone, but some of the stone furnaces and foundations remain. A sketch of the type of blast furnace that was used in northwest Connecticut is shown in Figure 1 (Chard 1995:p3).

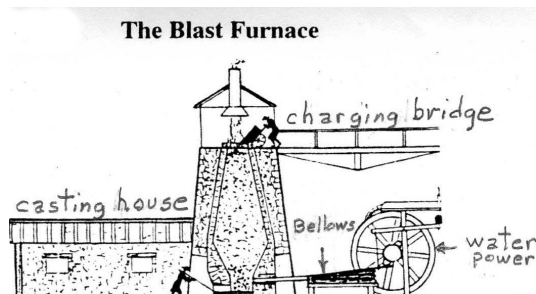


Figure 1: Drawing of Blast Furnace

The furnace is usually about 25 feet high, but some were even taller. Charcoal is first added to the furnace to get it up to the required temperature before all the ingredients are added. Figure 1 shows a worker charging up the furnace with iron ore, charcoal and limestone. He carries these ingredients in a wheelbarrow by way of the wooden charging bridge, running from an adjacent slope to the top of the furnace. The mixture is fired in the furnace with a blast of air from a bellows into nozzles called tuyeres at the base of the furnace to raise the temperature to over 2800 degrees Fahrenheit. In the process the carbon in the hot charcoal combines with the oxygen in the iron oxide ore, exhausting off carbon monoxide gas through the top of the furnace stack. This causes the iron to separate, resulting in a liquid state that flows to the bottom of the furnace's hearth and into a crucible. The iron liquid is poured from the crucible every twelve hours into channels formed in the sand floor of the casting house. A main channel with side channels forms, appearing to look like a sow with her suckling piglets, and thought to be the origin of the term *pig iron* (Chart 1995:p4-5).

In East Canaan, some of the most successful blast furnaces in the area were the Beckley furnaces #2 and #3, built in 1847 and 1872 respectively; with another built in Lime Rock in 1865 (Kirby 1998:p5). With the advent of the railroad, the demand for iron was great and northwest Connecticut quality iron was especially needed for train wheels which became a primary product for domestic and foreign markets. Finally in 1923, outdated furnaces and bankruptcy ended iron production in the area with the closing of the Beckley furnace



Photo 1: Beckley Furnace in East Canaan

Photo by Jim Trocchi

(Kirby 1995:p5).

Today, out of the original forty furnaces that were in the area only of six remain. The most substantial for public view is the Beckley stone furnace in East Canaan. In 1946, the state purchased it and designated it as a Connecticut Industrial Monument. During Gov. Rowland's administration, \$250,000 was bonded to preserve it (Kirby:p5). Another

substantial furnace is in Lime Rock but it is on private property. It was restored 1996 and I had the privilege of being invited to visit the site during an Ironmasters Conference in 1998.

Therefore, a good choice for a furnace to visit in one's travels to northwest Connecticut is the remains of the Beckley complex with its furnace shown in Photo 1 and its beautifully preserved waterpower dam on the Blackberry River, in Photo 2.



Photo 2: Dam on the Blackberry River that provided power for the Beckley Furnace.

Photo by Jim Trocchi

As can be seen in Photo 1, there are two arches in the furnace. One arch would face the casting room where iron would flow onto the sand-floor molds and be cast into sows and piglets. The other arch would house the tuyere or valve to blast air into the charge. Also notice to the very left, directly behind the "V" that the two trees make is a stone abutment. This abutment is one end of the charging bridge that spanned the top of the furnace. In Photo 2 are pipes from the dam that supplied water-power to the bellows or generator providing the force necessary for the furnace charge. On the right hand side of Photo 1, just below the smaller stone arch of the furnace, is what appears to be a large, flat stone. This object is called a salamander, which is the slag left in a cooled down furnace. This is an undesirable situation because it fuses to the inside of the furnace and is difficult to remove. The furnace and its grounds can be reached by following US Route 44 West to East Canaan and taking a left onto Lower Road. The site is within one mile on Lower Road.

A little farther to the west is the Mount Riga furnace complex. This is also off US Route 44 in Salisbury center, just after CT Route 41, near the town hall. Take a right on Mount Riga road to Cemetery Road. Mt. Riga was in operation until the 1850's.

I hope with the coming beautiful weather, you will enjoy a nice trip to the gorgeous northwest hills. As historian or archaeologist, I'm sure you will be impressed by the iron indus-

try remains and their surrounding environments.

In closing, I want to make you aware of the Saugus Iron Works National Historic Site, located in a quiet neighborhood in Saugus MA., just north of Boston. For those interested in seeing first-hand a recreation and restoration of the type of blast furnace operation described above, you'll find this a very interesting tour. It's complete with the stone furnace, the charging bridge, water power to operate the bellows, trip hammer (bring your ear plugs), slitting mill and other iron making machinery. I visited it many years ago and found it very educational and well worth the trip.

Jim Trocchi

References:

- Chard, Jack. *Making Iron and Steel, Historic Processes 1700-1900*. New Jersey Highlands Historical Society P.O. Box 248, Ringwood, N.J. 07456, 1995
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(Continued from page 5)

Touching the Past

The field school site has been excavated for the past several years under the leadership of archaeologist Dr. Lucianne Lavin (Director of Research and Collections at the IAIS Museum) and has yielded radiocarbon dates of over 4,000 years before present.

Dr. Lavin recently published *Connecticut's Indigenous Peoples*, the most comprehensive synthesis of archaeological, historical, and ethnohistorical accounts to date about Connecticut's native inhabitants. She has appeared on such shows as WNPR's *Where We Live* and at live lecture events to discuss our state's native past. Field school participants will each receive a copy of this important book and learn directly from Dr. Lavin herself.

For adults and students (children under 14 who are especially interested in archaeology are welcome to participate with adult supervision) with an interest in Connecticut's past, prehistoric Native America, and archaeology, this non-accredited field school will teach the basics of mapping, excavation techniques, artifact identification, and the documentation process.

Field school attendees will learn by doing and most of the school will be held outside, weather permitting. Equipment will be provided by the Club. This foray into the study of ancient Native American Culture with a respected local organization will leave participants with a deeper understanding of the history that lies beneath their feet. The field school costs \$225 per person and helps to fund lab testing (e.g., radiocarbon dating) of artifacts found at the site. A copy of Dr. Lavin's book will be given to each field school student. Call the IAIS Museum at 860-868-0518 to reserve your space. Registration is limited to 15 persons.

Continued from page 7)

In this stratigraphic profile, historic material mixed readily among the prehistoric, as well as charcoal and a few fire-cracked rocks. The site has been classified as Middle Archaic, since the majority of diagnostic artifacts in undisturbed layers of subsoil were typically from this period. Our excavation revealed archaeological components from the Paleo-Indian through the European contact period existed throughout and were limited to the plow zone. The quartzite graver, typically identified as part of the Paleo-Indian “tool-kit,” was discovered at 47.5cm below datum in context with a change in soil composition. No other artifacts were found in context with the graver. Interestingly, the size of the point on the graver matched precisely with the size of the hole on a small, deco-



Projectile Point, Possible Orient Fishtail Type (In Situ)

rative shell- pendant found in the Walpole’s collection from previous collection. All excavated artifacts were carefully processed and catalogued by Pilver into a digital database to be provided to the library. The materials for the excavation were provided through grants by the Farmington Public Schools Foundation and a donation from the Flaggstead Smokehouse in Farmington.

Significant assemblages of debitage, including one small piece of jasper likely sourced from the Lehigh Valley in Pennsylvania, provided evidence of a wide trade network. Other artifacts provided possible evidence of local and imported stone tool manufacturing, butchering, and tool re-fashioning. In Lucianne Lavin’s recent work, *Connecticut’s Indigenous People*, the site was described as consisting of “many recur-

ring seasonal camps where hunting and butchering occurred” (Lavin 2012: 80). Although we were unable to clearly identify seasonal patterns of settlement, evidence of industry was widespread. Despite numerous features having been discussed in Starbuck’s site report, no major hearths or roasting platforms were found during our excavation (Starbuck, 1992). This could be the result of the limited area in which we conducted our excavation, the location of our units, or the deep plow zone. Further excavation could provide evidence to each of these points, or suggest a distinction in how this region of the site was used in the past. Two, small pieces of likely Late Woodland period ceramics were found, but the fragments were too small to provide sufficient information for typing. In the deeper layers of most units, there were noticeably fewer artifacts and a complete absence of historic material. Besides the previous conclusions regarding prehistoric industry at the site, little in terms of interpretable patterns could be discerned from the distribution of artifacts, likely the result of numerous disturbances to the site. Plans for future investigations include a test-pit survey in the wooded areas along a cliff abutting the Pequabuck River, and to continue excavations in search of additional evidence of manufacturing, trade, and land-use patterns.

The Library looks forward to Jeremy Pilver’s return in June of 2014 with another class of Farmington students.

Jeremy S. Pilver, MA, RPA

Vice President, Friends of the Office of State Archaeology

Susan Odell Walker

Head of Public Services, Lewis Walpole Library

References:

Lavin, Lucianne *Connecticut’s Indigenous Peoples: What Archaeology, History and Oral Traditions Teach Us About Their Communities and Cultures*, Yale University Press, New Haven, 2012

Starbuck, David *The Lewis-Walpole Site (6-HT45)* *The New Hampshire Archaeologist* 33:73-86, 1992



Gurleyville Grist Mill Dig – Fall 2013

Under the guidance of professionals Nick Bellantoni and Bruce Clouette, several FOSA volunteers (Dick Hughes, Mike Cahill, Scott Brady) provided invaluable assistance on a brief exploration of two locations relating to the Gurleyville Gristmill in Mansfield. (Photo 1) This mill operated from the 1720's until the 1940's, and the machinery within the building is “as is” from the date the mill was last in operation. (Open Sundays 1-4 mid-May – mid-Oct, free docent tour)



Gurleyville Grist Mill

Photo by Joan Hill

A sawmill ran off the same power train and abutted the stone mill building on the north side. It was removed in the 1960's, and all that remains is a 20th century concrete foundation. As the owner of the property, Joshua's Trust (joshuaslandtrust.org), is planning to use the space within the foundation for public events, now was the time to see what if anything lay beneath this area. A particular goal was to see



Excavations at Gurleyville Grist Mill

Photo by Joan Hill

whether the 19th century turbine still was in place. About a week of digging revealed the end of the power shaft and showed that the turbine was no longer there.



End of Turbine Shaft

Photo by Joan Hill

With an enthusiastic crew and time remaining, the focus of work shifted across the street where early 20th century photos showed a small building reputed to be a blacksmith shop. This rumor was soon confirmed by the large quantity of slag, iron bar ends, metal working tools (especially files) and horseshoe nails that were found in the area. However, no indication of the building's underpinnings were evident and all artifacts were found in the upper 4" of soil, immediately below an existing lawn area. Nearby were found several artifacts relating to the grist mill - a miller's pick (used to sharpen the mill stones) and a series of small “buckets” once used on a leather conveyor belt to move grain from one area to another within the mill. To see more detail on these two dig areas, you may follow these links:

https://picasaweb.google.com/104263598902125774931/GurleyvilleSawmillSiteDig?authkey=Gv1sRgCLW_jOXrxb0CA

<https://picasaweb.google.com/104263598902125774931/GurleyvilleGristmillBlacksmithShopDig?authkey=Gv1sRgCKC4wbjA-YnhRg>

Joan Hill, Joshua's Trust volunteer



Westbrook Rescue Excavation Yields Lithics

Dr. Nick Bellantoni was invited to survey a residential property situated between the Boston Post Road (US Route 1) and the tidal wetlands in Westbrook, Connecticut. The site being well situated, with mild terrain and easy access to water, suggested to Dr. Nick the likelihood of finding evidence of Native use. Scheduled for redevelopment, excavation at the site was conducted under considerable time constraint. Dr. Nick, assisted by FOSA volunteers (for some, their first experience in the field), and this year's UCONN Mentor Connection students, were able to complete four days of excavations (totaling 300 man hours) between July 3rd and July 25th, 2013.

Judgmental test pits along the shoreline of the marsh area produced negligible results, but a grid established along the crest of the marsh's bank yielded a number of intriguing finds. The most interesting of the historic artifacts was a small gunflint. Based upon the honey-brown color it is thought to be of French origin. The overall dimensions suggest use with a flintlock pistol.

Lithic material was abundant across the grid, with knap-

occupation of the site. A quartz point with Squibnocket stemmed attributes, a quartz preform and a small chert scraper were recovered.



Quartz Stemmed Point

Photo by Brian Meyer

The stratigraphy and artifact dispersal indicated an area of considerable soil disturbance – most likely a plow zone – as modern era artifacts were found in context with deeper and older material. In an effort to date the site, volunteers sought



French Gun Flint

Photo by Brian



Quartz Preform

Photo by Brian Meyer

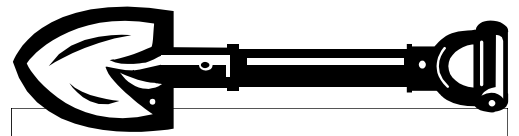
ping debitage from multiple materials, including: quartz, quartzite, chert, jasper, and “Rhode Island Green,” a green-hued argillite found in in the Narragansett Bay area. The latter material is slate-like, difficult to work and does not generally produce high quality tools. Though it can be knapped, it has a tendency to fracture along the plane of the original sediment deposit and to delaminate. Of the of the aforementioned debitage materials, only quartz and quartzite can be locally sourced in any significant quantities. The closest accessible deposits of chert and jasper are New York and Pennsylvania respectively. This collection of diverse materials hints at a complex and extensive trade network existing during the

to find a feature such as a hearth or other materials in context with the lithics that would have provided the means for chronometric (or *absolute*) dating.

Unfortunately, no such materials were uncovered. Since our time at the site, the area has been cleared and construction begun, but the four days FOSA spent in Westbrook produced another fascinating glimpse into Connecticut's early history.

By Brian Meyer and Scott Brady

FOSA MEMBERSHIP APPLICATION



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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 the Editor: Jerry Tolchin, at jerrytolchin@sbcglobal.net

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