



SPECIAL POINTS OF INTEREST:

- Radiocarbon Dating of the Farmington/Pope Mastodon
- Midway Railroad Roundhouse
- Site of The Borden Condensed Milk Factory: A New Archaeological Preserve
- Volunteer Profile: Paul Scannell

FRIENDS OF THE OFFICE OF STATE ARCHAEOLOGY, INC.

Member Newsletter

President's Letter

FOSA Members:



Greetings

First, a big thank-you to all the fieldwork volunteers this summer! Dr. Brian has led some exciting excavations across the state and especially in Windsor this year. I appreciate all your dedication and careful archaeology work. I'm excited to hear more about Dr. Brian's exploration of 17th century Windsor. The season isn't over so if you're interested in getting your hands dirty contact Scott Brady, Volunteer Coordinator, at fosa.ct@gmail.com to get on the list. And as the weather cools we will begin lab/library/report/curation work at the UConn

lab. There are many ways you can volunteer and contribute this winter, whether it's processing artifacts from the field season, researching the history of a site, or writing a report. Please e-mail Scott with your interest!

We're wrapping up our Survey and Planning Grant, which resulted in the successful listing of five new State Archaeological Preserves! Watch for articles in this and upcoming Newsletters about these sites. Thanks to those of you who attended the site visits. This has been a great learning experience for FOSA.

October is CT Archaeology Awareness Month. Keep checking the FOSA website (www.fosa-ct.org) as the event list is updated and please attend an archaeology event (or several!). The 2015 CT Archaeology Fair is October 17th at Central Connecticut State University

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News from the Office of State Archaeology



The students are all just back on campus as I write this, so I know that summer is sadly over. It has been a busy Spring/Summer season for OSA and the FOSA support team. I managed to finish the flotation of the many bags of soil from the features excavated last fall at the Dug Road site in Glastonbury. The charred material recovered from the features permitted the identification of plant remains by Tonya Largy. Tonya noted that the most common identifiable plant fragments were from butternut shells. Interestingly, carbonized bark made up between 40% and 95% of the botanical

remains examined. Since then, Mike Raber and Marc Banks who have been working on the final site report have completed radiocarbon dating of five feature samples. These range in age from 4230 to 3880 radiocarbon years ago (ca. 2900 – 2300 cal BC).

In May, FOSA volunteers helped to excavate around the north and east foundation edges of the Long Society Meeting House in Preston. This National Register site is in need of repair to the rotting sills, and we were able to help lower the surrounding ground surface safely, while avoiding possible impacts to nearby burials.

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in New Britain! FOSA will have an exhibit, and we're looking for volunteers to help out. Please e-mail me at fosa-ct@archaeologist.com if you're interested in volunteering. And please spread the word to your friends and family. See you all at the Fair!

Mandy
FOSA President

News from the Office of State Archaeology

(continued from page 1)

In May and June FOSA members also helped out with a new Kids Dig for Bozrah Middle Schoolers. The community there was very supportive and I am hoping that this turns into another regular outreach program for us.

In June we began our investigation of a possible location of the Windsor Trading Post site with the help of Kevin McBride's Pequot War Battlefield metal detector specialists. Their survey identified a brass point and a small brass ring, as well as a strike-a-light and lead shot that could also date to the first half of the 17th century. The FOSA Field School continued the investigation of the site through standard Phase II shovel test pit sampling. While we identified possible Middle Woodland activity at the site, no additional traces of the Contact period component were found, suggesting that this was a short-term Native American satellite camp occupied at about the same time that the Windsor Trading Post was in operation.

Working with the Glastonbury Historical Society, we only had two days to investigate the late 17th century Lt. John Hollister lot in South Glastonbury, but FOSA members and other supporters found evidence of a substantial farming complex that consisted of a long "cross passage" style house with three cellars and an additional possible barn and cellar nearby, as well as a number of well features. These incredible results are mostly the work of UConn graduate student Peter Leach's GPR survey. This is truly one of the most significant sites I've had the privilege to work on in the State of Connecticut, and I look forward to working closely with the Glastonbury Historical Society and landowner Mark Packard at the site again next year.

The Connecticut State Museum of Natural History sponsored its own Kids Dig at the Farwell House and Barn site here on campus. Zac Singer and Lori Kessel organized and implemented the excavation with the help of other FOSA volunteers. The Natural History Museum's Adult Field School took place at two nearby locations in Windsor this year. I have been waiting patiently for about ten years to look for evidence of the Pequot War-era Windsor palisade and finally had my chance. The remnants of the palisade proved elusive to both GPR and standard archaeological testing methods. The stratigraphy documented in the lot investigated along Palisado Avenue indicated that the land surface had unfortunately been significantly altered in the historic period, probably erasing any trace of the palisade trench. A separate GPR survey and excavation within the bounds of John Mason's lot within the palisade did, however, uncover evidence of an undocumented filled cellar. Long forgotten to local memory, this late 17th to early 18th century house site contained an abundance of domestic artifacts including straight pins, buttons, coins, clay pipe fragments and ceramics, including English slipware, Rhenish and Westerwald German stoneware, porcelain, and English brown and white salt-glazed stoneware.

Finally, I want to especially thank FOSA this year for supporting the radiocarbon date of the Farmington Pope Mastodon (see article beginning on page 3 in this issue). The date represents very significant new data that helps us reconstruct the late Ice Age landscape of southern New England shortly before humans first arrived here. The Pope mastodon will be returning to an exhibit at the Institute for American Indian Studies this fall. "Old Longtooth" had previously been on display at the Institute between 1977 and 1989, and everyone should take the opportunity to see this old friend again.



Radiocarbon Date of the Farmington/ Pope Mastodon, Connecticut

Introduction

In August of 1913, workmen digging a ditch on the Hill-Stead estate of A.A. Pope uncovered the remains of an American mastodon (*Mammuth americanum*) toward the base of a peat bog, along what is now Mountain Road in Farmington, Connecticut (Figure 1).

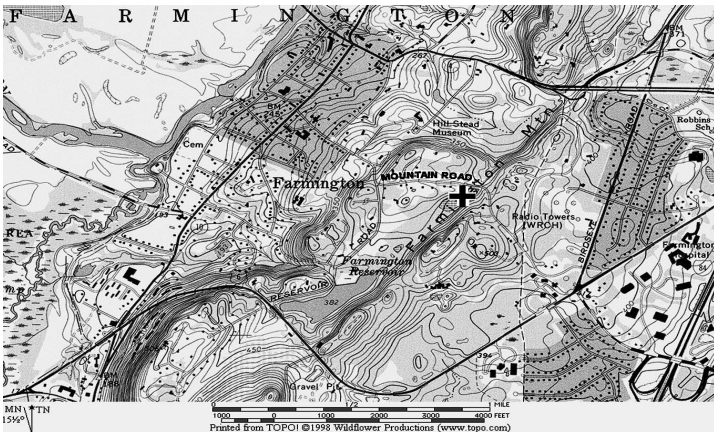


Figure 1. Location of the Farmington/Pope mastodon find.

The remains were excavated by a crew of experienced fossil preparators from the Yale Peabody Museum, and the mastodon was taken to the Peabody for conservation and study. Shortly thereafter it ended up in storage back in Farmington where it rested for decades. In the late 1970s, the American Indian Archaeological Institute (AIAI; now the Institute for American Indian Studies [IAIS]) took an interest in displaying a representative specimen of Pleistocene fauna from Connecticut (Davis 1977). Over the course of a year, the AIAI received the mastodon on loan, worked with the Yale Peabody to conserve and assemble it, and eventually placed it on exhibit (Turner 1977). The mastodon was eventually disassembled and transferred to the State of Connecticut, where it was placed in storage at the Connecticut State Museum of Natural History. Since its exhumation, the mastodon has variously been referred to as “Old Longtooth,” the Hill-Stead Mastodon, the Farmington Mastodon, and the Pope Mastodon. We refer to it throughout as the Farmington/Pope Mastodon. Here, we report for the first time the results of an accelerator mass spectrometry (AMS) assay on a portion of this mastodon in an attempt to directly estimate its age.

History and Description of the Find

The mastodon was encountered by an excavation crew in late August of 1913. The find was reported to their superintendent, A. B. Cook, who recognized the potential significance of the remains. Cook brought it to the attention of

his employer, Ms. Theodate Pope, who then directed her attorney C.T. Brooks to notify C. Schuchert at the Yale Peabody Museum. Schuchert visited the site of the find at some point shortly after discovery, and observed “a number of large bones of one of the fore limbs and the back part of the skull, which had unfortunately been greatly damaged before the [workmen] became aware that they were removing bone and not a prostrate tree” (Schuchert and Lull 1914: 323).

Schuchert directed a team of preparators, led by Hugh Gibb, from the Peabody Museum to excavate the remains, assisted by the original workmen from the Pope estate (Figure 2).



Figure 2. Excavation of the mastodon remains from the Hill-Stead Estate in 1913. Photograph by Mills (1913) in the State Archives of the Connecticut State Library, PG 180, Mills

The preparators excavated most of the remains by early September. Later that November, the excavation was expanded to create a reservoir, and a tusk of the mastodon was encountered roughly 6 meters northeast of the original finds (Schuchert and Lull 1914: 323).

The mastodon remains are reported to have been found “in a shallow trough directly on boulder-clay,” an early-twentieth-century term synonymous with glacial till. Six to eighteen inches of identical clay, without cobbles, encapsulated the mastodon remains above the till. Above this, another 30 inches of fine clay are reported, though with increased amounts of vegetation. Capping the stratigraphic sequence was approximately 18 inches of water-logged turf or peat. A plan view of the excavations (Schuchert and Lull 1914: Fig 1) was produced after the fact by Lull using descriptions, sketches, and photographs made during the excavations (Figure 3). Most of these photographs are presumed to remain either in the collections of the Hill-Stead or Yale Peabody museums; however, at least one of these

photographs was released by the Bain News Service (1913) and is available through the Library of Congress (Figure 4)

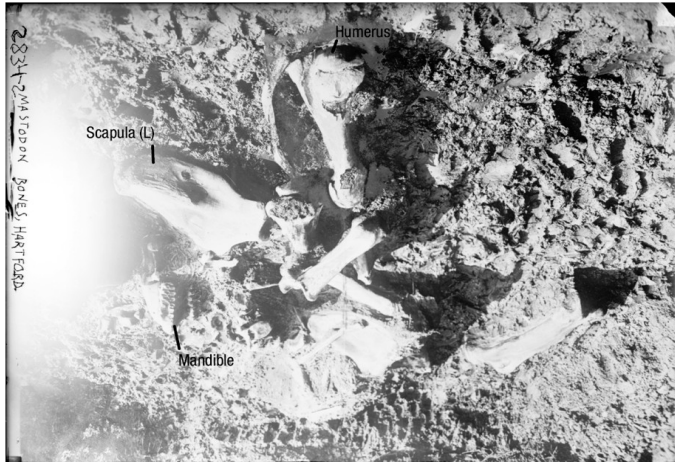


Figure 4. Photograph of a portion of the Farmington/Pope mastodon remains in situ. Major elements from the Lull planview (Figure 2) are labeled, and photograph is properly oriented with approximate north towards the top. Photograph by the Bain News Service, and publicly available through the Library of Congress, call no. LC-B2-2834-2 [P&P

During exhumation, major skeletal elements of the mastodon were wrapped in plaster of Paris to stabilize them for transport to the Yale Peabody Museum for conservation, presumably with the intent of exhibiting them (Cook 1978; Schuchert and Lull 1914). By November, 1913, it seems that Theodate Pope wished to have the mastodon returned to Farmington so that it could eventually be displayed locally. This desire was never realized, and the mastodon remained stored in crates at Hill-Stead until her death in 1946.



Figure 5. Tusk fragments from the Farmington/Pope mastodon. Note the presence of glue drippings on some fragments.

After this, the crates are believed to have been kept at Avon Old Farms School until June 1971 when they were transferred to the Connecticut Geological and Natural History Survey by Sid Quarrier (who had recently been closely involved with work at Dinosaur State Park).

That year, an effort was made by the Yale Peabody Museum to restore and repair the remains (McDonald 1971).

In 1977 the American Indian Archaeological Institute (now IAIS) sought out the mastodon remains with the intent of displaying them at their museum. At that time, the remains were in storage at the Peabody (Davis 1977). Several months later the AIAI reported having received the entirety of the mastodon skeleton save the left femur and one vertebra (Davis and Turner 1977). Volunteers from the AIAI and from the Peabody Museum worked to catalog the skeleton (assigning Peabody catalog numbers), take measurements, conserve degraded portions, and to prepare a scale model. The mastodon was on exhibit at the AIAI until 1989 when the remains were returned to the State of Connecticut, this time in care of the Connecticut State Museum of Natural History at UConn.

Radiocarbon Dating

Despite Connecticut's relatively rich Pleistocene faunal record (e.g., Lucas 1993; Schuchert and Lull 1914, though see Faux and Joyce 2008) only one other mastodon from the state has been radiocarbon dated (Boulanger 2014; Boulanger et al. 2015). Thus, questions about the timing and ultimate causes of Pleistocene extinctions in the state and in the broader region cannot yet be answered. With this in mind, the Friends of the Office of State Archaeology (FOSA) utilized the "Douglas Jordan Testing, Dating and Conservation Fund" to obtain an accelerator mass spectrometry (AMS) date on a fragment of tusk ivory from the Farmington/Pope mastodon. This fragment was selected for analysis because it was not part of the restoration/conservation effort performed at the AIAI during the 1970s, and therefore was unlikely to have been contaminated by adhesives or preservatives. Some drops of glue were present on the tusk fragment, but these do not appear to have penetrated the surface in any appreciable amount. As a precaution against contamination, however, the tusk fragment was carefully abraded to remove its outer surface and potential glue deposits.

Radiocarbon analysis of the tusk fragment was performed on extracted collagen following standard procedures at Beta Analytic. A pretreatment was performed to remove any remaining solvents that may have been applied to the ivory. The results indicate that the mastodon is $12,430 \pm 40$ radiocarbon years old. Using OxCal 4.2 and the IntCal13 curve, this date calibrates to 14,900–14,200 calBP,

Discussion

A lingering question in New England archaeology concerns the potential for the region's earliest inhabitants, Paleoindians, to have hunted now-extinct fauna such as mastodons, mammoths (*Mammuthus*), stag-moose (*Cervalces scotti*) and others. The radiocarbon date reported here indicates that the Farmington/Pope mastodon died roughly two-thousand years before the earliest radiocarbon date as-yet returned for a Paleoindian site in the broader region: 12,840–12720 calBP, at Shawnee-Minisink (36MR43) in Pennsylvania (Gingerich 2007; see also Miller and Gingerich 2013). We note that biases in preservation and sampling make it unlikely that this is the absolute first habitation in the region. That is, earlier sites may exist but have not yet been discovered, or they have potentially been either obscured or destroyed by changes of the landscape.

In the case of the Farmington/Pope mastodon, it might be argued that despite being significantly older than the currently known earliest Paleoindian site, that the mastodon itself may have been prey of as-yet undetected Paleoindians. Regarding this possibility, it is important to point out that the mastodon was excavated by a group of professional museum workers, at times under the watchful eyes of interested laypersons (e.g., Figure 2). We know of no first-hand accounts of the excavation of the mastodon; however, Charles Schuchert and Richard Lull—under whom Gibb and the other Yale preparators worked—published a brief account and description of the mastodon remains in 1914. Of the excavation, Schuchert states that “[s]o careful were these ‘bone diggers’ that all the clay immediately around the skeleton was dug out with their hands, as they felt their way through the sticky clay down to and around the bones” (Schuchert and Lull 1914: 323). At the time of discovery and writing, Schuchert was the head of the Sheffield Scientific School, chair of the geology department, and head administrator at the Yale Peabody. Lull was an Assistant Professor of vertebrate paleontology at Yale, as well as a curator of vertebrate paleontology at the Yale Peabody. Given their positions at Yale and the fact that both men were supervisors of the preparators who excavated the mastodon, we assume that their description of the techniques used to excavate the mastodon is accurate and informed by direct discussions with the excavators.

We find it compelling that the Farmington/Pope mastodon was excavated by hand—literally by hand if Schuchert and Lull's account is accurate—and that no artifacts were encountered during excavation. We also point out that the possibility of human agency was well in the minds of Schuchert and Lull, and presumably their subordinates who excavated the bones, given that they devote an entire section of their publication to evaluating “[i]f the prehistoric Indians knew and helped to exterminate these animals” (1914: 328). We also note that the mastodon skeleton was handled extensively by a group of professional and avocational ar-

chaeologists (as well as several additional preparators from Yale) during the conservation/exhibition at the AIAI (IAIS), and no evidence of butchery or cutting on the skeleton was noted at that time. This of course is not equivalent to a dedicated study by a vertebrate paleontologist or taphonomist; however, we find it curious that no evidence of human agency in the death of the mastodon has been found or observed despite at least two different independent groups of people having handled the remains.

The absence of any evidence suggesting that the death of the Farmington/Pope mastodon was directly related to human behavior does not diminish the mastodon's significance to the prehistory of Connecticut and of New England. Precious little data exist for archaeologists and paleobiologists to study how, when, and ultimately why large animals such as mastodons went extinct across North America towards the end of the Pleistocene. Obtaining precise chronological data, as well as potentially isotopic and genetic data on faunal remains such as the Farmington/Pope mastodon has the potential to provide answers to these questions.

Acknowledgments

Funding for the radiocarbon date was provided through the “Douglas Jordan Testing, Dating and Conservation Fund” from the Friends of the State Archaeologist (FOSA), and we are grateful for their support of this project. We thank Nick Bellantoni for his encouragement and for his helpful efforts. We also thank Laurie Lamarre, Lisa Pias-tuch, Lucianne Lavin and Roger Moeller for answering our inquiries and for providing information useful for the completion of this project.

Matthew T. Boulanger and Brian Jones

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Archaeology Fair 2015 Presentation Abstract

Inspiring Future Archaeologists: Secondary Education and the Role of Archaeology in the Classroom

Current educational pedagogy has continually emphasized the importance of students' ability to use learned content and skills in a variety of real world settings and applications. This can be challenging for teachers to provide as many practical constraints can interfere, including budgetary, logistical, federal/state mandated curricula and testing, and even confinement to the classroom setting. Nonetheless, teaching in the Social Studies naturally lends itself to authentic learning opportunities, particularly so in the fields of anthropology and archaeology. With a background in historical archaeology and a network of local and state supports (including the Office of State Archaeology in Connecticut, the Friends of the Office of State Archaeology, and the Farmington Public Schools Foundation), I set out to bring the field of archaeology to Farmington High School. While I continually look to expand this program, I have now taught Anthropology and Archaeology Hon-

ors to one hundred and forty students in Farmington over the 5 years the course has been offered. In addition, through communication with parents, the use of our Farmington High School "9:05 News" program, stories in local newspapers and student participation in archaeological events around the state, countless other students, members of the school community, and public, have learned about archaeology. With a renewed emphasis on students becoming "leaders of their own learning," archaeologists in Connecticut have a unique opportunity to reach out to local school districts to inform and inspire future generations.

*Jeremy S. Pilver, MA, RPA,
Farmington High School,
Graduate Student, UConn*

ONGOING WORK IN THE OSA LIBRARY

The FOSA volunteer efforts at the OSA Library continue. Volunteers Bonnie Beatrice, Brian Meyer and Carol West, with additional help from a work-study student each semester, helped with making individual cases for the Bulkeley tomb xrays, added much needed identifying labels to the various sections of the library and completed entering the Cultural Resource Management (CRM) Site Reports into the library catalog. Due to this work, the catalog more accurately reflects the CRM reports, the xrays are properly archived, and locating materials in the library is much easier.

For those of you who are unacquainted with the OSA Library, it is actually three. The OSA Library itself, the Douglas Jordan Library and the Gungywamp Library. A laptop computer holds the database. That data is transferred to a FOSA-purchased computer in the library so that anyone can come in and look up a reference and/or book that he/she is looking for.

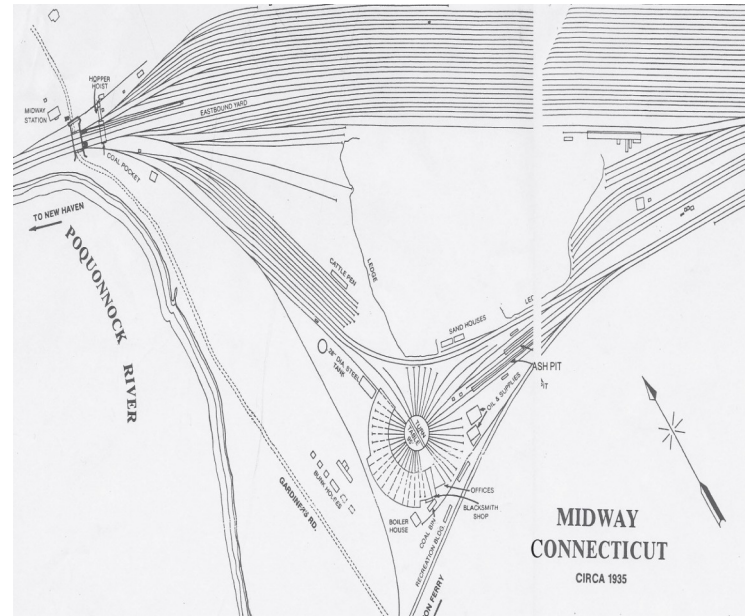
The final big job this school year is to literally look at every book on the shelves to ensure that it is in the database. If not, the information will be entered. Unfortunately, some material listed in the database no longer exists in the library, so those entries will have to be deleted. It will be time consuming, but with volunteer help we'll do it!

Cynthia Redman

(Note: This is the first of a series of articles written as part of our Survey and Planning Grant)

Midway Railroad Roundhouse Archaeological Complex Groton, Connecticut: A New Connecticut State Archaeological Preserve

In the woods and under the brambles at Bluff Point State Park in Groton rest the remains of an important transportation facility that was located approximately half-way between New York City and Boston. Given the name Midway, because of this central location on the Northeast rail corridor, the site once contained a massive railroad roundhouse and turntable, as well as a coal tower, sand houses, bunk houses, a hotel, ash pits, and an icing facility.

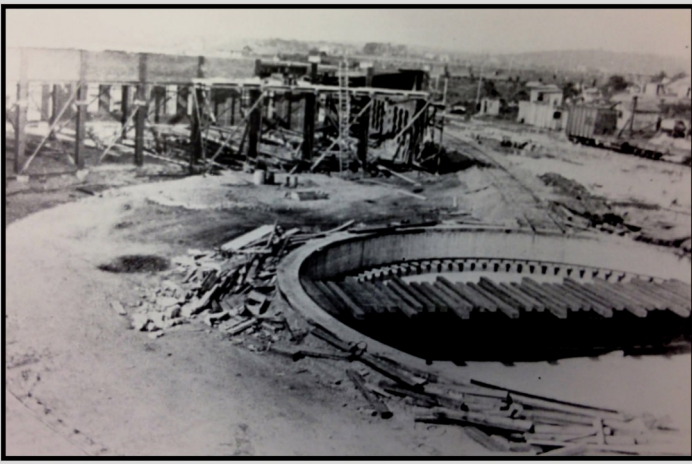


Midway Railroad Historic Site within Bluff Point State Park, Groton.

Map of Midway Railroad Yard ca. 1935 (Source: Shoreliner 1981)

The location of both New London and Groton on Connecticut's Atlantic coastline near the mouth of the Thames River, made them ideal transfer points for travelers and freight moving up and down the coast as well as from inland towns and cities. As early as the 1840s, citizens in Connecticut were calling for the extension of established rail lines to their communities. This was mirrored all across southern New England as evidenced by the creation of over 100 independent railroads in the decade between 1850 and 1860. By the end of the 19th century, many of these independent lines had combined into the New York, New Haven & Hartford Railroad under the powerful leadership of J. P. Morgan. The final consolidation of these lines prompted the construction of the new centralized Midway freight yard in 1904.

Built under the direction of George A. Demore, a Division Road Master for the railroad and T. A. Londregan, the general foreman during construction, Midway's roundhouse contained 20 service stalls, or pits and the surrounding yard had over 20 miles of track allowing room for up to 70 complete 40-car freight trains. One hundred and fifty men were hired to work at the facility. Once completed, the Vice President of the New Haven Railroad compared the Midway facility to the famous Altoona Shops on the Pennsylvania Railroad.



Midway Railroad Roundhouse and Turntable Under Construction (Facing Northwest), 1904

In 1912 the consolidated New Haven was operating over 2,000 miles of track. The Midway yard and specifically the turntable were upgraded in 1917 to accommodate all of the different types of engines that were used by the New Haven.



Midway Railroad Yard (Facing South), post 1905 (Kimball, Streeter, and Comrie 2004)

By 1926, as other yard facilities were constructed along the New Haven Line, Midway lost its status as the preeminent yard. For a few years, the yard was used for storage until the Great Depression made keeping the yard staffed unfeasible. In 1939, New London's newspaper, *The Day*, reported that after the railroad was unsuccessful at selling the property, the buildings in the Midway yard were to be razed and the tracks removed.

Today, scattered across the surface of the roundhouse, the service pits, and turntable foundations are piles of cinder, coal, sand, and a handful of historical artifacts that tell the story of this once bustling transportation facility. Looking at the remains of the former turntable and the individual stalls, one can almost hear the whistles of trains passing through.



FOSA members on tour of the Midway Railroad Roundhouse and Yard complex, 5/23/15.

Photo provided by Glenda Rose and Jack D. Morris.

It was local railroad enthusiast Greg Kent that brought the site to the attention of the Office of State Archaeology a few years ago. Through FOSA's foresight in recognizing the significance of the Midway complex, the site was researched, photographed, and successfully nominated to the State Register of Historic Places by Dr. Sara Mascia of Historical Perspectives. At the same meeting (6/3/15), the Connecticut Historic Preservation Council designated Midway as a State Archaeological Preserve.

Sara Mascia,

Vice President, Historical Perspectives

Volunteers Needed for FOSA Outreach and Outreach Committee

"Education is not the filling of a pail, but the lighting of a fire." - William Butler Yeats

FOSA is very active in public education outreach and we are very much in need of volunteers throughout the State for events. This is an opportunity to share your passion and curiosity for history and archaeology with the public and budding archaeologists. You do not need to be an expert, rather just a guide to incite curiosity and point someone's passion in the right direction. Mainly, we attend various events with a small exhibit, have a meet and greet with the public and hand out brochures and information about FOSA and the Office of the State Archaeologist; in essence we are local archaeology ambassadors. There is a danger that without new volunteers we cannot represent FOSA at these events and share our passion for Connecticut archaeology. Volunteering through FOSA Outreach is also a great opportunity to attend some amazing events that are centered around local archaeology and history.

(continued on page 11, bottom)

Volunteer Profile: Paul Scannell



Don't believe the "Grumpy" T-Shirt

Photo by Bonnie Beatrice

I met Paul during the excavation of an Historical Site in Hebron. It was Paul's first fieldwork. As usual for most everyone, the first time out he was very cautious. I kept looking over to see how he was doing. Paul looked up and asked, "Is this anything?" It was a complete Brewerton eared-notched point made of chert. "Is this an historical artifact? No, but it's a great find". Dave Cooke came over and stated with a smirk "Where did you find that? This is an historical site; you're not supposed to find Native American stuff." Thus began Paul's immersion into archaeology.

Since Paul's first experience in the field, he has been a dedicated volunteer for FOSA. Recently retired from the Board of Directors, he has contributed many articles for the FOSA Newsletter and participates in fieldwork and cataloging artifacts. Paul has also conducted research and was the principle investigator on several major projects.

Newgate Prison Cemetery ~ The location of the Newgate Prison Cemetery had been a mystery for many years. Several historians and researchers had spent hours and months trying to determine its location. Paul is a member of the East Granby Historical Society and had heard about this mystery. Armed with maps and notebook Paul, interviewed several of the local residents and coordinated field trips for

walkovers at perspective sites. After the conclusion of approximately two dig seasons Paul declared that he had found the right man. "He knows exactly where it is," having told Paul, "I used to hay that field when I was a kid." Now it is wooded, with heavy underbrush, poison ivy, briars and other sharp attacking plants. But soon came a shout: "Here It is!" There were five fieldstones placed in a row. The site was cleared and a trench was dug perpendicular to the line of stones. With the aid of a metal detector coffin nails were found at a depth of approximately 48 inches. The Newgate Prison cemetery had been found.

Search for Lt. Bradley Crash Site ~ This was a five-year project with untold dedicated hours of research and fieldwork. For those who do not know how Bradley International Airport got its name, it was named after an Army Air Corp pilot, Lt Eugene M. Bradley who was stationed at Windsor Locks Army Air Station, now Bradley International Airport. Many of the current Airports were Army Air Corp training stations such as Groton and Tweed Airports.

A book is presently in the works, with Lt. Bradley as one of its subjects. Therefore, I don't want to give away any of the exciting details. Paul is one of the several FOSA members who had worked together as a team on this project. It should be a good and interesting read.

Paul and family are from Boston. He worked at his father's florist shop and at Fenway Park. And "YES" Paul is a true and devoted Red Socks fan. He is a graduate of Boston College with a Masters Degree, and started his career at the Institute of Living in Hartford and Catholic Family Services. Paul is married to his wife Andrea for 51 years. They have four children and nine grandchildren. Andrea and two of their children also graduated from Boston College and all are addicted to the B.C. sports programs, especially football and hockey. And for those who don't know Paul, he is the one walking around a dig site or at Horsebarn Hill Lab wearing a maroon hat with the B.C. logo.

I asked Paul what his most enjoyable excavation or project was on which he had worked. "I have been involved in many projects, but particularly enjoyed the excavation of the Buckley Tomb in Colchester and the Native American burial site on Masons Island, Mystic. Of course, the discovery of the lost cemetery at Newgate Prison and locating the Bradley crash site, "those are the ones I enjoyed the most."

"My most memorable moment was Dave Cooke inviting me to look inside the Buckley Tomb and warning me that there would be eyes looking back at me."

"Most of all, it has been a great experience learning so much about archaeology and developing new friendships."

From all your FOSA dig buddies and office volunteers, Thank You for all the enthusiasm and dedication you have contributed to FOSA.

Ken Beatrice

Borden's Condensed Milk Factory Site, Burr Pond State Park, Torrington, Connecticut A New Connecticut Archaeological Preserve

The Friends of the Office of State Archaeology, Inc. (FOSA) led the way to have five sites located on lands administered by the Department of Energy and Environmental Protection (DEEP) surveyed, studied and nominated to the State Register of Historic Places (SR). Funded by grants from the Connecticut State Historic Preservation Office (SHPO), one of these significant industrial archaeological sites, the Gail Borden Condensed Milk Factory Site at what is now Burr Pond State Park, was nominated as an SR site and designated as a State Archaeological Preserve in May. The factory site was Borden's first successful milk condensing operation, occupying a building next to Burr Mountain Road between 1857 and ca. 1859/60. Built by Milo Burr in 1854, the structure burned down in 1874.

The Gail Borden Condensed Milk Factory site in Burr Pond State Park in Torrington is significant for its association with the entrepreneur and inventor, Gail Borden, Jr., who devised and patented a technique in 1856 for condensing liquids, most notably milk. The site is the first commercially successful condensed milk factory in the United States.

The site contains the remains of a tri-level stone factory foundation, originally built by Burr and a 7.2-foot-wide, dry-laid split fieldstone enclosed wheel pit at its north end where there was once an overshot wheel (photograph 1).



Photograph 1: The Borden's Condensed Milk Factory Site is situated between Burr Mountain Road to the east, and a stream from Burr Mountain Pond to the west. What remains is a terraced fieldstone foundation, a fieldstone wheel pit with a rusted turbine partially buried in it, and brick other artifacts scattered across the surface by the stream.

Photo by: Faline Schneiderman

There is currently a partially buried, rusted turbine in this location (photograph 2).



Photograph 2: Inside the wheel pit facing east with the partially buried and rusted turbine visible beneath a slab of cut fieldstone.

Photo by: Faline Schneiderman

The foundation is approximately 63 feet long north to the south, paralleling Burr Mountain Road, and 40 feet in width perpendicular to the road. Scattered brick on the surface and an 1855 drawing of the factory indicate that a destroyed portion of the foundation was once located immediately south of the extant fieldstone (Figure 1).

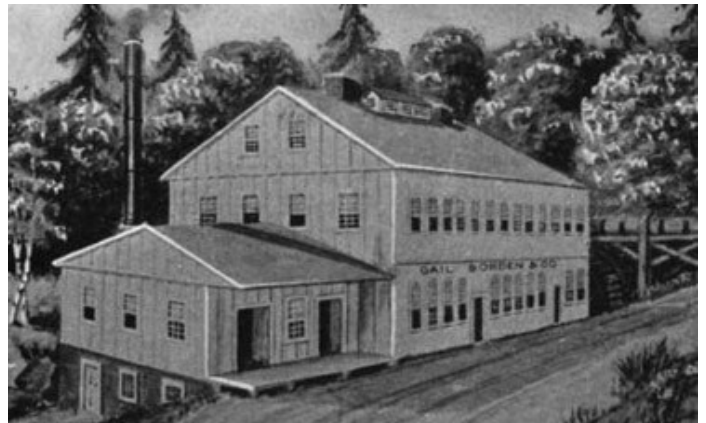


Figure 1: A drawing of the original Burr Mountain Road factory that housed the Gail Borden Condensed Milk Factory from ca. 1857-1859/60. Note the overshot wheel at right, and the brick foundation of the one-story addition at left.

A wooden State Park sign on the southwest side of Burr Mountain Road publicizes the location of the famous factory site. In the 1950s, a boulder-mounted bronze plaque

was placed to commemorate the site, but it has since been removed. The boulder is all that remains.

Scattered on the surface in the vicinity of the foundation are historical artifacts including metal pipes, unstamped bricks, architectural rubble, broken bottle glass, and a limited number of ceramic shards. In order to confirm subsurface conditions for the purposes of this nomination, one Shovel Test excavation was conducted about 10 feet southwest of the foundation (12/18/14). Located between the foundation and the stream, testing encountered a deep sandy clean level of fill from the surface down to 19 inches below surface (inbs), at which point a pocket of brick fragments, glass, and whiteware was encountered. This level continued down to 27inbs, where a second layer of sandy fill was encountered. This second level contained what appeared to be decomposing fragments of wood planks to a depth of 29inbs. Beneath this was a third sandy level devoid of artifacts to a depth of 35.5inbs.

The process Borden developed for condensing milk is considered a significant landmark in the history of the dairy industry, and made canned milk a pantry staple. After receiving a patent for his condensing pan, Borden made several attempts to produce condensed milk commercially, first in Wolcottville, elsewhere in Torrington. When this proved unsuccessful, he established his factory in a building on what is now Burr Mountain Road in 1857.

Borden's first product was unsweetened condensed milk (with no added sugar) that was delivered to cities, likely by rail, and served from forty quart cans on a pushcart at twenty five cents a quart. Two and a half quarts of water added to one quart of condensed milk made three and a half quarts of cream. More water made five quarts of rich milk or seven quarts of good milk. Although it was recognized that Borden's condensed milk was superior to any evaporated or condensed milk previously attempted, the company could not boost sales, and could not offset the cost of operating the factory in Burrville. Yielding to the monetary problems of that year, the company suspended operations for part of 1857, leaving Borden liable for debt for which he was sued. The factory reopened later that year.

His product ultimately proved to be a success. At one point, the Burrville factory was processing roughly 2000 gallons of milk per day. An 1859 article in the New Britain Times described the factory as follows:

The long and short of the process is that fresh milk is received night and morning, and condensed to one-fourth of its original bulk by evaporation....To anyone entering Mr. Borden's buildings, the great cleanliness, the smell of fresh milk and clean tins, the white floors and general absence of everything in the least doubtful, as if everything from the floor-boards to the ceiling challenged inspection – is quite overpowering....The milk is strained and put ...into ten gallon open-top cylinders; and after standing in a tank of ice-water till deprived of animal heat, it is heated up to 190

degrees, by setting these cylinders or heaters in a tank of water heated up to this point. A creamy scum rises, which is removed, and this is found to contain butter to the amount of one pound to 2000 quarts of milk. This unavoidable loss is the only deterioration which the milk suffers. A small portion of hard, indigestible viscid albumen attaches itself very firmly to the sides of the beaters. Freed from these, the milk is again strained, and at the temperature above stated, transferred to the condenser on the floor above This is a globe of iron fitted with a steam jacket for the lower half and provided with a steam-pipe coiling several times about within....the condenser is capable of holding about 1000 to 1200 quarts. Connected with the condenser or "vacuum pans" is a barometer to show the degree of exhaustion, and a thermometer to mark the temperature, which is kept at about 150 degrees. The exhaustion is effected by an air pump, and the exhaust pipes pass through cold water to condense the steam rising from the milk. The air which, when the exhaustion first begins, is thrown off from the milk, is strange as it appears of an exceedingly disagreeable smell, a sort of cow or cow yard odor, which is so offensive that special pains have been taken to conduct it away from the house; this notwithstanding the great pains taken to have the milk clean and pure...

The venture gained the attention of a serious financial investor who partnered with Borden and financed the 1860 relocation of the factory to Winsted, and a second in Wasaia, New York near the train line to New York City. An 1862 flood from the burst dam at Burr Pond damaged much of the foundations of the original factory structure, but left sections intact. Despite this, the structure was repaired and in use by John M. Burr in 1874 as a Woolen Mill. On May 12, 1877, what remained of the building was consumed by fire. The stone portion of the foundation was left largely intact.

*Faline Schneiderman, RPA
Historical Perspectives, Inc.*

Volunteers Needed for FOSA Outreach and Outreach Committee

(continued from page 8)

I am also looking for more members for the Outreach Committee, which would entail helping with coordinating volunteers and planning for events. So if you are interested in volunteering for either of these roles or both, please contact me at fosaoutreach@hotmail.com. Hope to hear from many more of you!

Heather Alexson, FOSA Outreach Committee Chair

What's New on the FOSA Web Site?

1. If you happened to bring up the FOSA web site on or after August 19, 2015 you'll have noticed something different: The presentation has changed. Instead of masses of links at the top of pages there are now icons, wherein related categories of subjects are grouped. And the letters are larger. And there's a copyright notice at the bottom of the pages. And text links are now all in bold rather than being presented like everything else.

And most importantly, if you try to use the site on a mobile device – particularly on a smart phone – you should have a pleasant surprise: You can actually use it without so much squinting and continually changing the display size and fumbling with trying to “touch” the link you want which might be lost amid a welter of other links on your small screen device.

This change was triggered by a message I received from Google earlier this year, basically stating that the site was not “mobile friendly.” Not owning a mobile device, this was disturbing news, since it was a problem that was essentially invisible to me: The web site worked fine on my desktop monitor.

With input from another (patient!) FOSA member early-on, and the purchase of a small tablet to test with, the problem was finally grasped and a viable approach devised, involving this use of icons to facilitate navigation. It was presented to the Board of Directors in May. During that meeting this Navigation-only approach was proposed, although a full-Redesign approach was also suggested as being worth looking into.

Ultimately, work on the Navigation approach was completed and implemented, as it could be done relatively quickly and would make the web site more usable to mobile users, yet would in no way prevent the Board from authorizing a Redesign if it felt it was appropriate. Board members had an opportunity to review the changes as they went along; some minor changes were requested, but no major problems were uncovered. What you see is the result.

Now What? Or, Your Ideas Wanted!

If you look beyond the obvious changes, you'll realize that the overall page content is pretty much the same as before; what's changed is how you get from one page to another, how you invoke links, and – especially -- how it appears on a small, mobile device such as an iPhone. This has required some format and alignment changes; and while everything looks acceptable to members of the Board and to me, that doesn't mean that changes you feel are appropriate won't be considered. Quite the contrary. As I've mentioned in previous “What's New on the Web” articles, and which I'll repeat at the end of this one: Your ideas and feedback are always welcome – indeed, necessary – to keep the web site effective, usable, and up-to-date. And, yes, this would include not only aesthetic changes and additional navigational changes ... it includes everything up to and including

going back to the drawing board and starting all over with a redesign.

2. There are a couple of new videos available in the “Selected YouTube Videos” off the “Special Features” group:

No. 14. “Description of Polynomial Texture Mapping and its use in analyzing the Antikythera Mechanism.”

While the Antikythera Mechanism is a fascinating subject in its own right, the use of Polynomial Texture Mapping (“PTM”) is even more so (to me, anyway) ... a way of seeing things such as inscriptions and other lines in the surface of an artifact that you might normally miss. It's a software package which – combined with images taken with varyingly-positioned illumination sources – allows the user to see these features by manipulating a virtual trackball. One heckuva piece of software.

No. 15. “Watch as a 17th-century ivory sundial compass is scanned using a 3D scanner and then reproduced using a 3D printer.”

3D printing is new and fascinating method of creating objects using specialized hardware and software which maps external and internal surfaces of an object -- either a real or a hypothetical one -- and then, using another specialized device, (re)creates them in a layer-by-layer fashion, in a process known as ‘additive manufacturing.’

The video shows one way of using it to create a reproduction of an artifact ... in this case a sundial that was found at the James Fort. 3D printing was also used by Dr. Owsley and his staff in their examination of the Kennewick Man skeleton, as noted in the 2015 Annual Meeting Overview. Gets one thinking...

3. During this past July, CT State Soil Scientist Debbie Surabian conducted Ground Penetrating Radar (GPR) analyses of several locations in Connecticut; and she's given us permission to reproduce the write-up done on one of those sites, the examination of the Whittlesey Museum at the Music Vale Seminary in Salem, CT. Included in this report are descriptions of the equipment used, how GPR works, the steps used in performing the analysis, and the results – including single and composite images of some of the features found which could merit further examination.

4. To reiterate from above and from previous “What's New...” articles: While the web site has many things on it, it's very possible that there are dozens of possible things which haven't crossed either my mind or that of the Board which might be included. This is where you come in: If you have ideas or suggestions on new features, or enhancements to existing ones, (or even some things we should drop), please let me know about them.

As with most such changes I'll check with Mandy Ranslow or the Board and, presuming they have no concerns, I'll keep you posted on their progress. So, please: Don't keep it a secret. Let me know! You can email me at jamesh52@comcast.net with your suggestions. Or if you prefer, contact Mandy at fosa-ct@archaeologist.com.

Jim Hall

FOSA Officers and Board

Mandy Ranslow - President
 Jeremy Pilver - Vice President
 Mike Cahill - Secretary
 Dreda Hendsey - Treasurer

Heather Alexson - Board Member
 Scott Brady - Board Member
 Richard Hughes - Board Member
 Mike Raber - Board Member
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 Glenda Rose - Board Member
 Zachary Singer - Board Member
 Jim Trocchi - Board Member
 Kathy Walburn - Board Member

Ex Officio Members:

Dr. Nicholas Bellantoni
 Leanne Kennedy Harty
 Dr. Brian D. Jones

Welcome New Members

(Since March 16, 2015)

Nancy Bolster
 Edson Bourn
 Sara Champion
 Elizabeth G. Chandler
 Douglas Cutler
 Julie Jones Erlandsen
 Corinne Gabriele
 William Gallagher
 Diane Hoover
 Michael J. Horan
 Chris & Cheryl Klemmer
 Rod McCauley
 John and Katie Meyer
 Paula Morris
 Derek Spitz
 Ellen Swayne

The Douglas Jordan Testing, Dating and Conservation Fund

FOSA established a fund for radiocarbon dating in 2004, for samples in the collections of the Office of State Archaeology (OSA) and the Connecticut State Museum of Natural History at UConn, including material from OSA excavations. The fund was named in honor of Douglas F. Jordan following his death in 2006. Dr. Jordan became Connecticut's first State Archaeologist in 1963 and taught anthropology at the University of Connecticut.

Beginning in 2013, FOSA has been approached by researchers with innovative projects seeking grants for dating. The first of these projects is discussed in the article in this newsletter about dating the Farmington/Pope Mastodon, proposed by Matthew T. Boulanger of the University of Missouri's Department of Anthropology as part of a larger study to refine chronologies of mega-fauna extinctions in the Middle Atlantic and Northeast. In 2014, FOSA's board of directors expanded the fund's potential uses beyond radiocarbon dating, to take advantage of other developing technologies for dating archaeological samples and to allow for special conservation measures needed for items in collections managed by OSA. The fund was renamed the Douglas Jordan Testing, Dating and Conservation Fund.

Current work supported by the fund includes a project by UConn graduate students David Leslie and Gabe Hrynich to establish the seasonality of archaeological sites by sampling terminal annual growth rings in soft-shelled clams. Their work, to be presented in the next FOSA newsletter, involves identifying stable isotope values in carefully prepared powdered marine shell using a mass spectrometer at the University of Arizona.

Your donations to the fund will allow for continued advances in dating and conserving Connecticut's past.

Mike Raber

FOSA MEMBERSHIP APPLICATION



- Individual.....\$25 Corporate/Institution.....\$100
- Family.....\$35 Patron Benefactor.....\$150
- Student.....\$5 Dr. Jordan Radiocarbon Fund Donation.\$_____
- Classroom.....\$20 General Fund Donation.....\$_____
- OSA Library Donation..... \$_____

Name: _____

Street: _____

Town: _____

Phone (W): _____

Phone (H): _____

E-mail address: _____

Please make your check payable to:
Friends of the Office of State Archaeology, Inc.
P.O. Box 380845
East Hartford, CT 06138-0845
FOSA has 501(c)(3) tax exempt status.

Interest Inventory

Please check areas of interest for volunteering:

- Archaeological Field Work
- Artifact Curation
- Education and Outreach
- Historical Research and Report Writing
- Fund Raising
- Newsletter
- OSA Library
- Web Site and Social Media
- Laboratory Analysis/Cataloging
- Board of Directors & Committees
- Exhibit Planning/Art Work
- Grant Writing
- Photography
- Writing Site Forms & Reports
- CT Archaeology Center/Museum



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

Friends Of the Office Of State Archaeology, Inc.

P.O. Box 380845, East Hartford, CT 06138-0845

<http://www.fosa-ct.org>

Newsletter Committee: Heather Alexson, Jerry Tolchin & Jim Trocchi