



NCRI Report

NCRI Historian Helps Unravel Cannon Mystery

By NCRI Staff

This winter and spring, the NCRI became involved in one of the most exciting historical discoveries in recent memory...

It began in late February, after hurricane-force winds lashed the Oregon Coast, eroding sand from many beaches. A father and daughter, Mike and Miranda Petrone, walked among the ancient tree stumps revealed on the beach at Arch Cape, Oregon, and noticed something that looked very different. It turned out to be a carronade—a short smoothbore cannon—and another was found in the same area soon after. Oregon State Parks personnel soon recovered the carronades, and Nehalem Bay State Park became their temporary home as investigations began.

The story leapt to the region's newspaper headlines, with media speculating that the carronades may have belonged to the US Schooner *Shark*, wrecked at the mouth of the Columbia River in 1846. However, a detailed investigation was necessary to rule out the 200-odd ships that had also been lost in the area, known as the Graveyard of the Pacific.

This find was of particular interest to the NCRI's historian, Greg Shine. Four years ago, Shine began an NCRI research project on the history of the *Shark* and her connection to Fort Vancouver and the Pacific Northwest, in an effort to provide historical background and context for the Campfires and Candlelight special event held annually at Fort Vancouver National Historic Site. In 2006, the National Park Service published



Photograph of the carronade (a short smoothbore cannon) as discovered in the sand at Arch Cape on the Oregon Coast

Sympathy and Prompt Attention: *Fort Vancouver's Relief of the U.S. Schooner Shark*, Shine's study based on this research. [To access Shine's study, and many others, visit the park's website: <http://www.nps.gov/fova/historyculture/historical-studies.htm>.]

As the discovery of the carronades became more widely known, Shine began fielding scores of phone calls and e-mail queries regarding the USS *Shark*, its history, personnel, and armament. The Portland Oregonian dubbed him "an expert on the naval schooner," PBS's History Detectives television series quickly booked his services, and his *Shark* study became the most downloaded resource on the park's website. This attention caught everyone, including Shine, by surprise.

"I'm an optimistic guy," he explained, "but never in my wildest dreams did I imagine that my NCRI project research would be of such widespread public interest."

In April, the Oregon Parks and Recreation Department chartered a core working group known as the Arch Cape Cannon Advisory Team, Shine was tapped to become one of the team's fourteen core members. The group is tasked, in part, with crafting recommendations for the Oregon Parks and Recreation Department (OPRD) to protect and conserve the cannons and provide for their public display and interpretation. [For the latest on the cannons visit: <http://www.oregon.gov/OPRD/PARKS/cannon.shtml>.]

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Photograph courtesy of Oregon Parks and Recreation Department

Historical Fragment

Herbert Beaver was chaplain at Fort Vancouver from 1836-1838. His reports to the Governor and Committee of the Hudson's Bay Company in London, and letters to Benjamin Harrison, Deputy-Governor, provide valuable insight into the early years of Fort Vancouver. Beaver personally disliked both McLoughlin's dictatorial style of governance, and his Roman Catholicism. Beaver's reports and letters are full of complaint, but provide information about a period for which there is little contemporary narrative. The following fragment from a letter to Harrison addresses some of Beaver's issues with the distribution of food and spirits. The Reports and Letters of Herbert Beaver: 1836-1838.

But all this uncomfortableness arises, where every comfort is attainable, from a want of proper management; as with regards to the fresh butter, none of which we have had all winter, though nearly one hundred cows were in milk last summer; and likewise with regard to the wine, of which so little was imported by the last ship, that I received, on the twenty-fifth of September, four gallons of Port wine, and three dozen of a wine, brought from Oahu, the species of which would have been undiscoverable, had not the corks been stamped "Sherry," with an intimation that this scanty allowance was to last us until the arrival of the next English ship, be that when it may. ...I have scarcely been able to take a glass of wine all winter, lest there might not be sufficient for the use of my wife, who requires it. It is true that we can obtain spirits, but we do not like them, and latterly I have had some porter; neither would I desire any other liquor at all, if I could procure a constant supply of that, or of a good beer, which might easily be brewed, as there is an ample supply of barley and hops.

Vancouver Arsenal Uncovered

by Robert Cromwell, NPS Archaeologist

Currently, there are plans afoot to rehabilitate the current Fort Vancouver National Historic Site Visitor Center into a Vancouver National Historic Reserve (VNHR) Visitor Center, with the project to be completed by the end of 2011. The plans call for increasing the footprint of the current Visitor Center to create interpretive opportunities about all the venues throughout the Vancouver National Historic Reserve.

Basic analysis of late-19th century maps of Vancouver Barracks indicates that the area where the Visitor Center is currently located was within the boundaries of the little-known Vancouver Arsenal (ca. 1856-1884). As part of the process guiding the project, NCRI archaeologists have conducted an archaeological survey around the Visitor Center for the past three years. The 2005 and 2006 Public Archaeology Field Schools at the VNHR assisted in this survey, with the students excavating over sixty 50 x 50 cm shovel tests around the Visitor Center, as well as six 1 x 1 m test units. In addition, NCRI Archaeologists, Jacqueline Cheung, Eric Gleason, and Robert J. Cromwell completed subsidiary archaeological testing around the Visitor Center in the spring of 2008. The preliminary results of this survey indicate the presence of archaeological features and artifacts associated with



NCRI archaeological technician Jacqueline Cheung excavating outside the Visitor Center

an 1860s-era Ordnance Storehouse located near the southern edge of the Visitor Center.

The project has been guided by NCRI Archaeologists, Douglas C. Wilson, and Robert J. Cromwell, with assistance from NCRI Historian, Gregory P. Shine. Mr. Shine has recently completed a draft of a Historic Resource Study on the Vancouver Arsenal, actually making a trip to the National Archives in Washington D.C. to research through primary documents from the Army. Dr. Cromwell is currently synthesizing the archaeological data, and an archaeological survey report will be completed this Fall. The results of the survey will help guide the footprint of the rehabilitation, and the results of the Historic Resource Study will help guide interpretive opportunities on the Vancouver Arsenal for years to come.

NCRI Director's Letter

The 8th Annual Archaeological Field School is in full swing, but, alas, I am spending the summer writing reports. This year's field school is in the capable hands of National Park Service archaeologist, Dr. Robert Cromwell, assisted by senior Washington State University graduate student Elizabeth Horton. As I write this, I have just put the finishing touches on our draft report of excavations at Lewis and Clark's Station Camp, the Lower Chinook Indians' "Middle Village". The final report of this excavation at the mouth of the Columbia River will contribute greatly to the history of the contact period in the Pacific Northwest. This work represents an important academic collaboration between the National Park Service and Portland State University, continuing our partnership in research, education, and interpretation. It is just one example of how the NCRI is a vital force in cultural resources research, exploring the history and anthropology of the Pacific Northwest.

Doug Wilson

Cannon Mystery

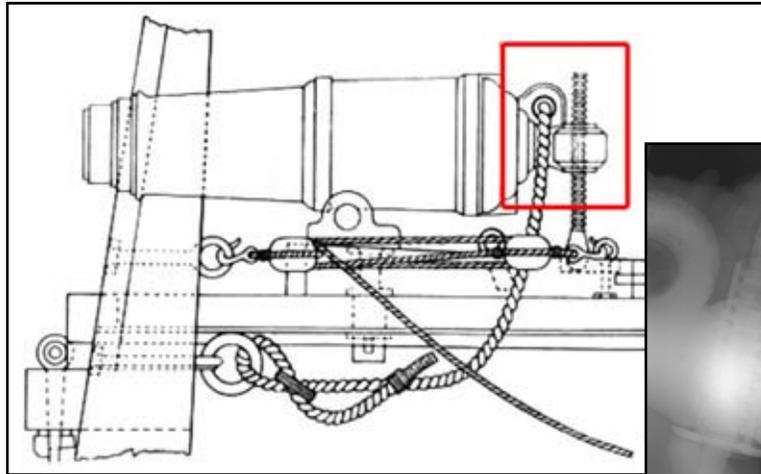
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Also in April, the cast and crew of the celebrated PBS television series *History Detectives* visited Arch Cape, Fort Vancouver, and other sites associated with the carronades' discovery. These detectives, led by Columbia University professor and historian Dr. Gwendolyn Wright, were looking for more information about the *USS Shark*.

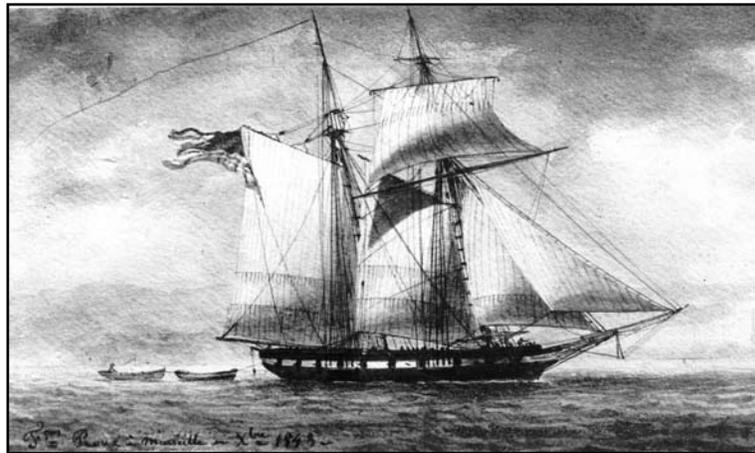
The *History Detectives* interviewed several people, including Mike and Miranda Petrone, the father and daughter who found the first carronade on the beach; Dr. Dennis Griffin, the Oregon State Archaeologist who investigated the find; Dr. Robert Neyland, an archaeologist with the U.S. Navy; and David Pearson, the curator at the Columbia River Maritime Museum. At Fort Vancouver, they spent the day with Greg Shine.

Shine opened his research files and provided the detectives with critical details, including first-hand accounts of the *Shark's* personnel locating debris and carronades from the schooner in the vicinity of Arch Cape, and descriptions of the *Shark's* armament. He also helped provide context: Why was the *Shark* in the Pacific Northwest? Why was a U.S. Navy vessel connected to this British HBC depot? In addition, the NCRI prepared images and maps from the park's collection to help illustrate the program.

"The *History Detectives* had a really fun time filming at one of our local treasures, the Fort Vancouver National Historic Site," noted Renato Rodriguez, the show's researcher and associate producer. "The staff at Fort Vancouver were very helpful to our investigation, allowing us the use of their facility as well as invaluable help locating maps and



Drawing of carronade (above), inset shows X-ray of the elevation screw (area outlined in red)



Copy of a painting of the U.S. Schooner Shark

archival images for our story. The show's host Gwen Wright had the privilege of interviewing the Chief Ranger and historian Greg Shine while on site, who provided us with very valuable information regarding the history of the *USS Shark* and its motives for being in the region at that specific time in our local history."

The *History Detectives* team also organized an examination of the carronades using cutting edge X-ray technology. The X-ray was provided courtesy of Fujifilm NDT Systems USA, Inc., and Professional Service Industries, Inc. The X-ray produced images that helped

experts identify the size and type of carronades hidden under thick concretions. Shine was one of several experts invited to this day-long examination at Nehalem Bay State Park, and he marveled at the process. "This was state-of-the-art historical archaeology," exclaimed Shine, "definitely a once-in-a-lifetime experience."

Was the *Shark* the source of the carronades? The *History Detectives* believe they have an answer, and it is partly based on information provided by the NPS and NCRI. To know for sure, we will have to wait until the episode airs.

Images courtesy of Oregon Parks and Recreation Department

Image courtesy of the Naval Historical Center

McLoughlin and Barclay Houses to get a New (Old) Look

by Tessa Langford, NPS Curator

This summer will bring great change to the McLoughlin and Barclay Houses, the historic homes at the Oregon City unit of Fort Vancouver National Historic Site. We have received National Park Service funding to reroof the McLoughlin House and repaint both structures.

The new roofs will be restoration quality cedar shakes, which will mimic the appearance of the original material.

The exteriors of the houses will be painted in their original mid-19th century colors. For the McLoughlin House, this will be cream for the body and trim, the window sashes and doors are still being researched. Figuring out the original colors was no easy task, since much of the McLoughlin House was modified both during its years as the Phoenix Hotel and after its 1909 move to its current location. Most of the roof structure had been removed, and many



The McLoughlin House

windows had been replaced (if you visit the house, you will notice that the windows have differing numbers of glass panes). The front door transom windows were even put on inside-out. Enough original material remained to ascertain the historic color scheme.

The Barclay House paint samples are still in the lab, but the body color also appears to be cream.

Sally Donovan, of Sally Donovan



The Barclay House

and Associates, performed the paint sampling and preliminary analysis, while in-depth analysis and color matching was done by Welsh's Color Conservations.

The new finishes will give visitors a sense of the houses' younger years, when Oregon City was an economic and social center of the Territory, and the McLoughlins and Barclays were at home.

Photographs courtesy of Heidi Pierson



National Park Service
U.S. Department of the Interior

The Vancouver National Historic Reserve is a partnership of the National Park Service, the City of Vancouver, the State of Washington, and the U.S. Army. It includes Fort Vancouver and its village, Vancouver Barracks and Officer's Row, Pearson Field and Air Museum, portions of the Columbia River waterfront, the Water Resources Education Center, and the McLoughlin House unit in Oregon City, Oregon.

Fort Vancouver National Historic Site & Vancouver National Historic Reserve
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The National Park Service cares for the special places saved by the American people so that all may experience our heritage.

Under the Microscope:

Dick Ballard has been a dedicated lab volunteer for many years. Dick was born in Iowa, and lived there on his grandparents' farm until his family moved to Vanport during WWII—so his mother could work at the Kaiser Shipyards. His family moved to the Rose City section of Portland after the Vanport flood of 1948.

Dick graduated from high school in 1958 and went into the Army, serving in the 82nd Airborne Division for three years. Though he was always interested in archaeology (Indiana Jones style!), Dick couldn't afford to attend college, and went into the workforce.

Dick worked at Freightliner for 29 years, and retired in 2001—at that point he joined the Oregon Archaeological Society (OAS). During an OAS training session he met Danielle Gembala, then Lab Director at Fort Vancouver, and she recruited him to come over and work in our lab. Dick has been a consistent volunteer in both the lab and the field since 2003, and has worked over 500 hours at the Fort!



The McLoughlin House Cannon: a New Identity

by Heidi Pierson, NPS Museum Technician

The 18 pound cannon at the McLoughlin House is certainly lovely, and aged, but there are some conflicting ideas about its origins. The cannon is 43.5 inches long, with a 5 inch bore, it has the letters “EB” cast into one end of the trunnion and the date 1789 cast into the other.

The cannon was recovered from the old channel of the Willamette River between Portland and Oregon City. Dr. Burt Brown Barker speculated that the cannon is the one sent by the HBC in Ft. Vancouver to Oregon City in 1847, to aid the follow-up to the Whitman Massacre. The cannon never made it because it fell into the water and was not recovered.

Early research done by Dr. Barker, a respected local historian, suggested that the cannon was: English, not English, or made by the Englishman Edward Bond—a number of opposing possibilities. Barker’s research in England in the 1930s led him to visit a Hudson’s Bay Company (HBC) archivist, who stated with confidence that the cannon was produced by Edward Bond, an arms “reviewer” employed by the HBC, who had also been paid for services as an armourer in 1788 (one year prior to the date on the trunnion). The archivist and Barker found Edward Bond listed as a private gun maker in London as late as 1790.

Nevertheless, there are doubts as to whether this Edward Bond actually made cannons. It is not obvious that a person listed as an armourer, gun maker, and gun “viewer” would also be a cannon maker. The HBC suppliers list for armory in 1776 listed gunmakers, iron cannon, and viewer. It is entirely possible that cannon were made by foundries rather than gun makers, as there were no listings in London during the period for “cannon maker.”

It should also be noted that Major Charles Ffoulkes, the Kings Armourer in the Tower of London in 1938, and at the time



Photographs courtesy of Heidi Pierson

This cannon resides on the lawn just west of the McLoughlin House, facing the Willamette River.



The trunnion, cast with the date 1789

the authority on British ordnance, thought that the gun was not British.

Fast-forward to the present, and we, through Jerry Ostermiller at the Columbia River Maritime Museum, were doing some supplemental research on the cannon, as a run-up to some conservation work. Photographs and background information were sent out to some experts at the Institute for Nautical Archaeology at Texas A & M. As it turns out, the

cannon was manufactured by a Swedish foundry called Ehredahls Bruk, which used the EB mark from 1779-1803. An older cannon of the same manufacture was found on the Queen Anne’s Revenge.

There are several other details which indicate the cannon was not English. First, English cannon are usually not dated, and any dating that was done was engraved after casting. The other distinguishing features are the base ring and base plate in a distinctive Swedish shape. An English gun would have had proof marks—either an engraved “P” or an engraved crowned “P.” We would expect an HBC gun to have these marks.

England and Sweden were the main manufacturers of cast iron guns for export during the 18th century. Following the American Revolution British guns were no longer imported to US, so the Americans had to find another source of cast iron guns. Given that the gun is of Swedish manufacture, along with the date (1789), it is unlikely that the gun belonged to the HBC. Therefore, it is most likely that the cannon belonged to an American ship of some sort.

Announcements

We are sad to announce the passing of former **Director George B. Hartzog**, 87. He died on the afternoon of Friday, June 27th. George Hartzog headed the National Park Service for nine years, from 1964 until 1972. In the last NCRI Report, Tracy Fortmann related excerpts from an interview she did with Hartzog regarding the early years of Fort Vancouver.

We were fortunate to recently receive a donation from Chief Factor John McLoughlin's great-great-great grandson, **Ronald Loomis**, and his wife **Betty**. The donation included sterling silver flatware, daguerreotypes of the McLoughlin granddaughters, and a Seth Thomas clock.



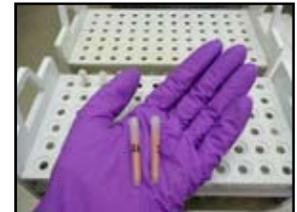
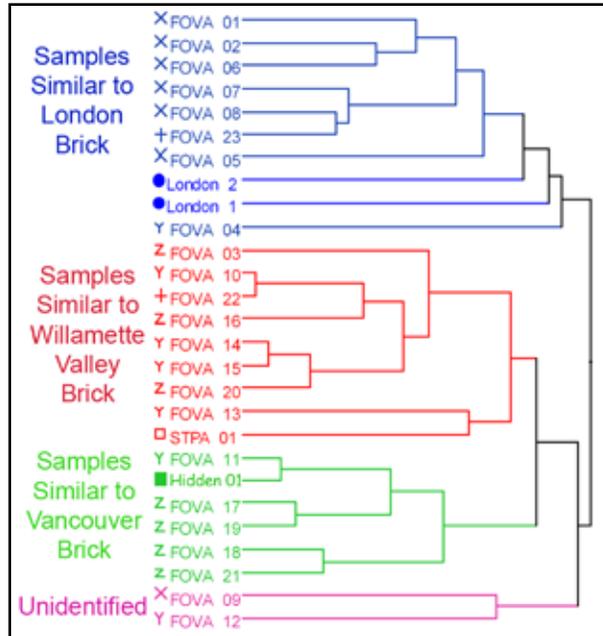
From left to right: Greg Shine, Betty Loomis, Heidi Pierson, Tessa Langford, and Ronald Loomis.

The **2008 Public Archaeology Field School** is in full swing! This year's excavations focus on soldiers barrack, mess hall and kitchen and the laundresses quarters at the Vancouver Barracks, and the site is yielding some significant finds. Please stop by and visit the excavations on the west end of the parade ground. Also visit our weekly field school weblog at: <http://www.nps.gov/fova/historyculture/2008-field-school-blog.htm>

The **Public Archaeology Lecture Series** is now being held at Pearson Air Museum the following Thursday nights at 7 pm: July 10, 17, and 24. For more information visit our website and download a special events calendar: <http://www.nps.gov/fova/planyourvisit/events.htm>

Tracing the Origins of Fort Vancouver Brick

by Kristin Converse, Sonoma State University Graduate Student



Images courtesy of Kristin Converse

Dendrogram of brick samples displaying hierarchical clustering (left). The nearer to the left samples join, the more similar they are. Crushing brick sample for analysis (above right), two vials ready for instrumental neutron activation analysis (INAA).

A vital building material during the nineteenth century, the humble brick has an interesting story to tell. It potentially contains information with regard to resource utilization, manufacturing technology, trade networks, construction techniques, the development of a regional industry, and even status.

In pursuit of more information about the Hudson's Bay Company's utilization of brick, I conducted a preliminary trace element investigation of archaeologically recovered brick from Fort Vancouver this past fall. With the help and guidance of Dr. Leah Minc of the Oregon State University Radiation Center, I submitted brick samples for instrumental neutron activation analysis (INAA).

This process, in which tiny quantities of crushed brick are irradiated in a nuclear reactor, identified the trace elements present in the samples. The geochemical signature of each brick sample was

then analyzed and statistically compared to samples from known sources.

I examined three types of Fort Vancouver brick and confirmed that brick was imported from London as well as coming from the Willamette Valley and Vancouver areas. For my master's thesis research, I will focus on the unbranded common bricks found at Fort Vancouver that are presumed to be of local origin and compare their elemental composition to regional clay deposits in an attempt to determine the precise locations of their manufacture.

I hope my research will add significantly to what little is known about the history of early brickmaking in the Pacific Northwest, as well as Hudson's Bay Company industrial activities and trade relations.

Material Culture Notes: Marbles

by Tessa Langford, NPS Curator

The earliest marbles in our collection are clay, small undecorated tan or orange spheres. Little is known about the origin of these toys. They may have been imported from Europe, like later decorated ones, or made from local clay deposits.

During the later fur trade or early military period (post-1840), marbles were imported from Germany. Though still unglazed ceramic, they are larger and feature hand-painted decoration. Geometric and floral designs were both popular. Though elsewhere marbles have been found with intricate scenes, the ones found during archaeological excavations at Fort Vancouver are fairly simple. The designs on marbles, like those on dishes and fabric, changed throughout the 19th century. A perfect chronology of marble designs has not yet been created, but the book *Chinas: Hand Painted Marbles of the Late 19th Century* goes a long way toward this sort of dating tool.

The marbles in our museum collection fall into the Early Period as described in this book (1846-1870). During this time, marbles were not glazed and the colors were applied by hand. Lines, either parallel or intersecting, and simple leaves were common decorations. The Fort Vancouver marbles are generally restricted to red, green, or black paint.

Given the late date of these “chinas” compared to the fur trading post and the various contexts from which they were recovered, we assume most of the marbles were the playthings of army officers’ children. The majority of marbles were found in the village area west of the fort,



Swirled beige and green marble, from the Bachelors' Quarters' privy inside the stockade.



Porcelain marble with hand painted red stripes and green leaves, from the employee village

which was later the site of the U.S. Army’s Quartermaster’s Depot and other military structures.

The collection also contains a variety of opaque, translucent, and transparent glass marbles, artifacts from later eras. Most of these have swirls of multi-colored glass, including the popular “cats-eye” decoration. Young players must have held on to their prizes pretty tightly; after over 120 years of use (plus 60 years as a national park) only 40 or so marbles have been found. Though a tiny part of the archaeological collection, they speak to an oft-forgotten aspect of the site: children, their possessions, and pastimes.



Porcelain marble, circa 1830-1860, excavated from the village area



Porcelain marble with hand painted red stripes and green leaves, found in the village area



Porcelain marble with hand painted red and green stripes, found in the village area



Glass marble, from the village area.

Photographs courtesy of John Edwards



National Park Service
U.S. Department of the Interior

Fort Vancouver National Historic Site
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Vancouver, WA 98661

A partner in the
Vancouver National Historic Reserve

EXPERIENCE YOUR AMERICA

The Northwest Cultural Resources Institute

is a cooperative partnership based at Fort Vancouver National Historic Site, dedicated to fostering cultural resources research, education, and stewardship in the Pacific Northwest. The NCRI brings together National Park Service staff, university professors, and subject matter experts to facilitate research and training, provide expertise, and support other innovative educational endeavors using national parks as laboratories.

Director of the NCRI, Archaeologist

Dr. Douglas Wilson

Archaeologist

Dr. Robert Cromwell

Curator

Theresa Langford, M.A.

Historian

Gregory Shine, M.A.

Museum Technician, Editor of the NCRI Report

Heidi Pierson

Archaeological Technicians

Eric Gleason, Jacqueline Cheung,
and Martin Adams

MYSTERY ARTIFACT

This mystery artifact was unearthed during the 2007 Public Archaeology Field School. It was recovered from the U.S. Army kitchen area, and measures ~1.6 cm in diameter.

The mystery artifact in the last issue was a tin dog. The tin dog is a noisemaker used to move sheep and cattle. Modern tin dogs are also used as bear deterrents.



Back



Front

Photographs courtesy of Jolm Edwards