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# ARCHEOLOGICAL TREASURES AT FORT McHENRY

## An Overview

Beneath the surface of the ground at Fort McHenry National Monument lay known and unknown archeological treasures of the past history of this unique site. Today over 600,000 visitors come to visit this national site, and many ask questions about how the Fort was constructed, why it was placed in this location, and how it was used by the military. The history of this fortification has a direct connection to the changes in military technology and the political climate of the times. The archeological resources at Fort McHenry reflect the complex interplay of factors. Technology, politics, economy, and geography are a few of the most important factors that impacted the evolution of the defense fortifications of Baltimore. This 43-acre parcel of land reveals a story in American history that spans from 1776 until the last military occupation as a U.S. Coast Guard Station during World War II.

Fort McHenry is composed of a number of interconnected parts. These include archeological features consisting of strata, artifacts, and the evidence of structures, which remain under the surface of the ground. To provide an accurate interpretation of the past, archeological records must be integrated with the historical and architectural records. Archeology adds to the preservation and understanding of the Fort's architecture, modifications associated with new technologies, social and economic position of the soldiers in the garrison, as well as military adaptations for a variety of uses.\*

## MILITARY HISTORY

Historical records indicate "Whetstone Point" was used as a defense position as early as 1776. The geographical location at the end of a peninsula of land, on the edge of the water leading into Baltimore's port, was a logical placement for a fortification to protect the harbor. Construction of a new masonry Star Fort, known as a unit of the First American System of Fortifications was undertaken between 1794-1806. The Second American System (1807-1814) brought redesign to strengthen the defenses. The size of the property was doubled in the early 1800s with the acquisition of additional land and new guns. Advances in military technology during and immediately after the Civil War prompted remodeling of Baltimore's primary defenses. Renewed emphasis on the Fort's role in defense led to further construction of a 60 foot high earthen water battery. Fort McHenry remained a military post until 1912 and then was even used for a brief time as a city park. The U.S. Army returned during World War I to construct an enormous hospital complex on the grounds surrounding the "old" Star Fort. Following the complete removal of the hospital complex, Fort McHenry was

designated a national park under the administration of the War Department and, in 1933, the site was transferred to the Department of Interior, National Park Service. Consequently, there are ten major periods of construction, activity, modification or rehabilitation. They are: Fort Whetstone (1776-1783), First American System of Fortifications (1794-1806), Second American System (1807-1814), Third American System (1817-1866), post Civil War (1866-1890), World War I hospital (1917-1925), War Department Restoration (1926-1933), National Park Service (1933-present), and World War II U.S. Coast Guard Station (1942-1945 by legislative authority superior to the National Park Service). Evidence of any or all of these periods of activity can still be found beneath the surface of the ground.

### PAST AND PRESENT ARCHEOLOGY WORK

In 1958, the National Park Service recognized the value of historical scholarship and took the lead in conducting archeological research at National Park sites of primary historical importance. A chronology of the work done by professional archeologists at Fort McHenry begins with Hubert Smith's excavations in 1958 and continues up to the present day. [A full chronology](#) is included on a separate page.

Since 1958, there have been over fifty archeological investigations to determine the location or use of earlier buildings or features of the site. In other areas, construction work for installation of utilities was monitored and revealed evidence of earlier structures and artifacts. If you view [the Site Map illustration](#) you will see the location of areas at the park that have been investigated in the past decades.



**1997 Fort Wall Excavation**

with stone slabs, surrounded by a roughly dressed fieldstone edging or footing. It has been speculated that this feature is the foundation of a bombproof or magazine dating to the Fort Whetstone earthworks pre-dating the Star Fort we see today!

In 1982 a different type of archeology project was undertaken. Archeologist William Stokinger was brought to the park during the routine installation of water main pipes for new restrooms. While digging the trench for the water main, Stokinger documented the discovery of the foundations of three 1843 stables used during the Civil War era. He also identified the foundations of a Civil War prison compound and remnants of the World War I military hospital complex mortuary!



**1958 Excavation - 1814 flagstaff cross brace timbers**

For example, in 1958 Hubert Smith directed an excavation to determine the alignment of the original northeast Boundary Wall that was noted on the [1819 plan showing the boundary wall](#). In 1837, when additional land was purchased the original brick Wall was dismantled and reconstructed at the perimeter of the grounds in its present location. Smith found the footing of the original wall 75 feet north of the Star Fort bastion #5. However, he also uncovered a small rectangular area paved

## FEDERAL LEGISLATION

With the passage of the Archeological Resources Protection Act of 1979, Congress mandated the “protection of archeological resources and sites which are on public lands.” Furthermore, this Act requires that all “archeological resources which are excavated or removed from public lands will remain the property of the United States, and such resources and copies of associated archeological records and data will be preserved.” Therefore, over 30,000 artifacts are stored and preserved at Fort McHenry for study and analysis.

## FORT McHENRY ARCHEOLOGY COLLECTION

The park museum collection of archeological artifacts includes a wide diversity of material that is cataloged by classification type. Metal, glass, textile, ceramics, paper, and bone, are just a few of the classification categories. Artifacts such as cannon balls, mortar fragments, kitchen cranes, horseshoes, leather shoes, buttons, ceramic containers, and beer bottles are identified in the museum collection. Material recovered from an excavation is cleaned, described, numbered, and stored in bags or boxes. All final reports and bibliography records are kept on file in the park. [A bibliography of archeology reports](#) is included here for your reference. Specific information about the artifacts is then entered on a database, called the Automated National Catalog System. Working directly with the park staff, researchers and scholars can access information by a variety of subject areas depending on the nature of their interest. For every computerized catalog record there are 75 entries of information ranging from the object date, measurements, and weight to a general description of appearance. Most artifacts relate to the construction activities or military occupation of the site. Each reveals a small part of the history of the site.



**Stone slab foundation - 1776 Powder Magazine**



Examination of the past revealed through archeological remains is integral to understanding, preserving and interpreting history! **Click on the images above** to see examples of the kind of material that have been recovered at Fort McHenry. Each of these items will give you a brief glimpse of the past!

\*Reference:

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Write: Superintendent, Fort McHenry National Monument and Historic Shrine, 2400 East Fort Avenue, Baltimore, Maryland 21230-5393

Phone: (410) 962-4290

or send [e-mail](#)

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## A Field of Stars

Anna von Lunz

Museum Specialist, served as project coordinator and principle writer.

Gene Towner

Park Volunteer, provided essential technical assistance with overall design, photography and computer applications.

Scott Sheads

Park Ranger and historian, assisted with content and historical information.

John Pousson

Archeologist, Eastern Applied Center, served as the Fort McHenry consultant and advisor.

Rachel Maines

Collections Management Contractor, cataloged over 30,000 artifacts at Fort McHenry in the past three years. She assisted with the selection of objects to be featured for this project.

Charlie Klein

Park Volunteer, gave assistance to the staff as a militaria collector and expert.

John C. Burns

Former Chief of Visitor Services, contributed by donating the aerial photograph of the park to the site.

Rick Nolan

Chief Of Visitor Services, provided input, review and approval of the project.

Kayci Cook

General Superintendent, provided input, review and approval of the project.

Toni Lee

Washington Office of the National Park Service, served as an advisor.

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**CHRONOLOGICAL LISTING OF REPORTED  
ARCHEOLOGICAL INVESTIGATIONS AND OBSERVATIONS**  
*Fort McHenry NM&HS*  
as of March 1997

Year	Report (Author/date)	Areas/Features Investigated	Park accession # - collection/records
1958	Smith 1958	Boundary Wall, Tavern, Upper and Lower Water Batteries, 1803 Flagstaff, Powder Mag., etc.	Acc 103 & Acc 150
1958	Cotter and Nelson 1958	Star Fort Residential Bldgs.	Acc 107
1961	Carson 1961	v. brief report on background/potential of 1814 Hospital, Gun Shed, Store House sites	no collection
1961	Cotter 1961	Brick Drain deep beneath Parade Ground	no collection
1963	Carson 1963	ca. {1776-1794}- {1811-1813} Barracks nr. Ravelin	Acc 116
1963	Campbell 1963	ca. {1776-1794} - {1811-1813} Barracks nr. Ravelin	Acc 116
1964	Campbell 1964a, 1964b	Boundary Wall, Gun Shed, Store House, Hospital	Acc 142
1964	Cotter 1964a, 1964b	1819 Entrance Road, Gun Shed, Store House	Acc 139
1964	Powell 1964	Boundary Wall, Gun Shed, Store House	no collection
1966	Cotter 1966a, 1966b	Tavern, Gun Shed, Store House, Hospital; Bldg. E Kitchen (Cellar) - Archeo. Observations	Acc 139

1968	Sarles 1968	Bldg. E Kitchen (Cellar) - HSR/ Historical Data Sec.	Acc 139
1974	Rutch 1974	Dry Moat, Postern Drain	no collection
1974-75	Stokinger and Blades 1979a	Parade/Terreplein Wall	Acc 358
1974-75	Stokinger 1976a	Detached (Civil War) Magazine	Acc 358
1975	Cotter 1975	Harbor Tunnel Test Borings Observations	no collection
1975?	Stokinger 1975a, 1975b	Battery Walkway, Scarp Wall French Drain Construction Monitoring	Acc 358
1975	Stokinger 1976b	Detached (Water) Battery Bombproof B, Monitoring of reconstruction of revetment wall	Acc 358
1975	Stokinger and Blades 1979b	July 3-4 Celebration Electrical Lines	Acc 358
1978	Aivazian 1978, 1982	Various locations - Star Fort, Ravelin	Acc 183-85, 199
1980	Stokinger, Rubertone, and Babits 1980, 1982	Various locations - Star Fort, Ravelin	Acc 190
1981- 1982	Stokinger 1982	Water Main Testing / Construction Monitoring	Acc 243 (and Acc 271)
1982	Orr, Blades and Campana 1982	Sally Port Paving Project	Acc 271
1983	Stokinger 1983a, 1983b, 1983c, 1983d, 1983e, 1983f	Various Construction Monitoring Projects	Acc 271 / Acc 295
1984	Cheek and Joseph 1984; Joseph and Cheek 1985	Star Fort - various historical construction and drainage features	Acc 235

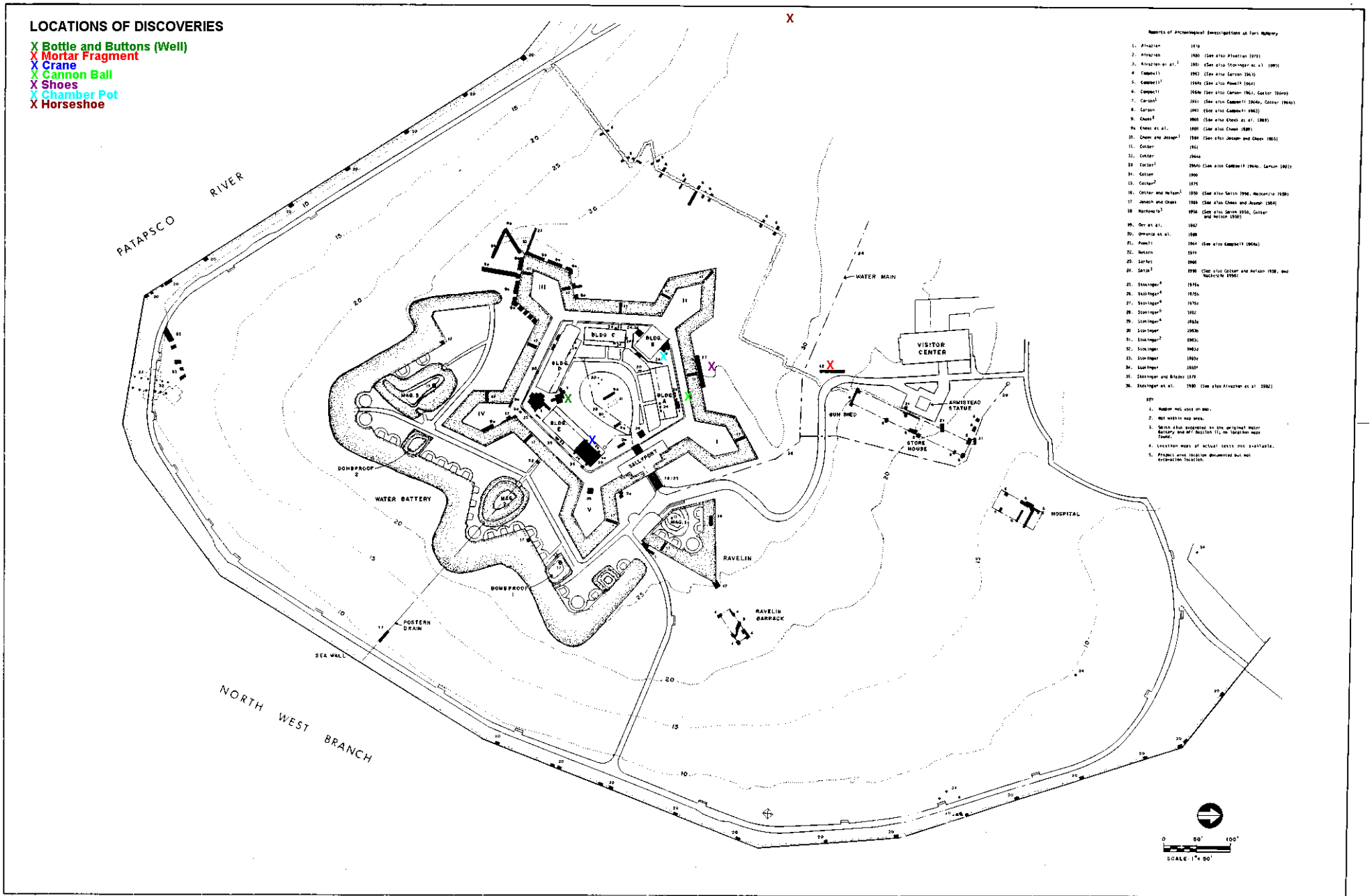


1986-87	Orrence, Zitzler, and Bouslog 1988	Seawall	Acc 298
1988	Cheek, Balicki, and Joseph 1989	Moat and Drainage Features (Star Fort)	Acc 297
1988	Kurtz 1989	Various Star Fort locations	Acc 363
1991-92	Cheek and Balicki 1993	Draft review and synthesis (overview) report	no collection
1993	Abel 1994	Various Star Fort locations - Archeo. Testing	Acc 340
1994	Abel and Cheek 1996	Various Star Fort locations - Archeo. Testing	Acc 350
1996	Pousson 1996	Archeo. Observations - new maintenance shop site	no collection

Research on specific objects or databases can only be done by appointment with the Park Curator. For further information, write to: Curator, Fort McHenry NMHS, 2400 East Fort Avenue, Baltimore, MD 21230 or send e-mail to: [fomc\\_Ranger/Curatorial\\_Services@nps.gov](mailto:fomc_Ranger/Curatorial_Services@nps.gov).

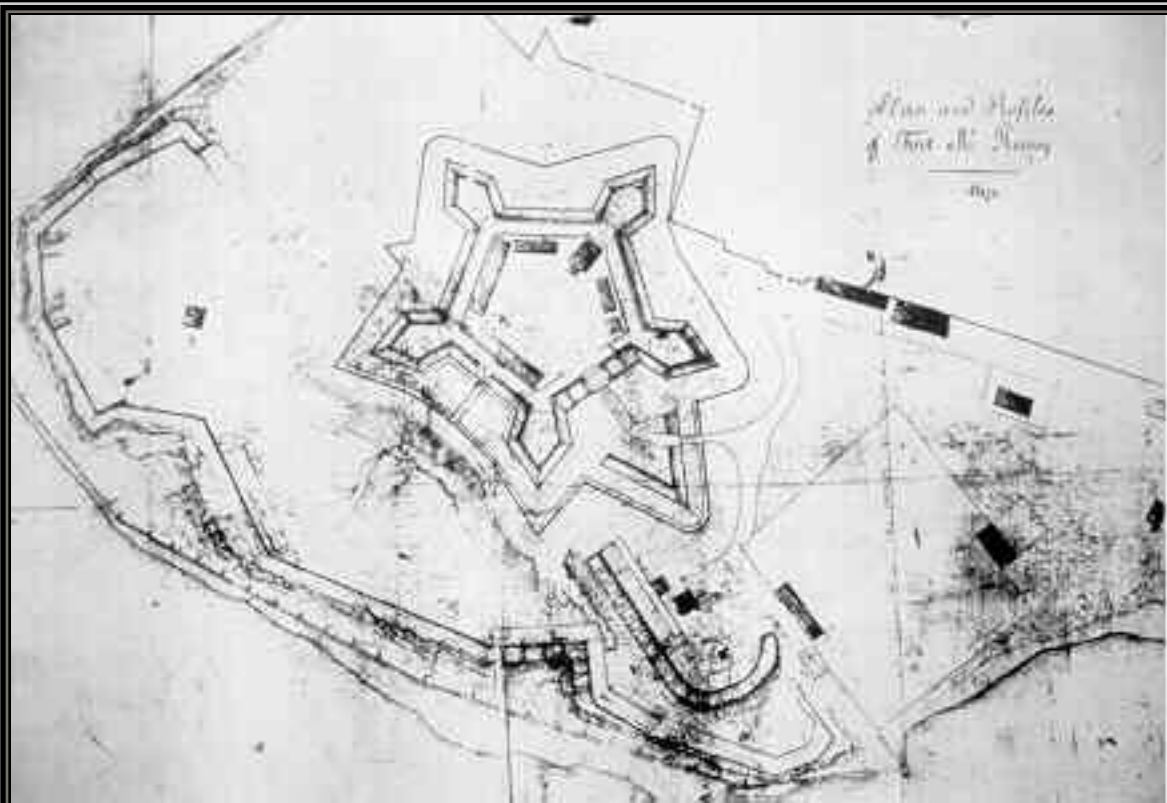
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The frame below shows a site map of Fort McHenry. Black patches are features of archeological interest. It is large (70K) so it will take a while to load. By scrolling the frame you may discover these features. [Return to Overview](#)



<p><b>JOHN MILNER ASSOCIATES</b> 309 N. Millack St., West Chester, Pennsylvania 19380 Tel: 215-638-1900</p>	<p><b>ARCHEOLOGICAL BASE MAP</b> FORT MCHENRY NATIONAL MONUMENT AND HISTORIC SHRINE BALTIMORE, MARYLAND MAP 1</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">No.</th> <th style="width: 10%;">Date</th> <th style="width: 80%;">Remark</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	No.	Date	Remark										<p><b>KEY</b></p> <ul style="list-style-type: none"> <li>■ Location of Archeological Excavations</li> <li>□□□□ Approximate Location of Archeological Excavations</li> <li>○ Report Describing Archeological Excavations</li> <li>..... Outline of Site</li> <li>--- Projected Wall Line</li> <li>• Shovel Test Marks</li> </ul>	<p><b>Date</b> Scale: 1" = 50' Drawn by: WILLIAM R. HENRY Checked by: CHARLES CREEK Status</p>	<p><b>Drawing Title</b> Drawing No.</p>
No.	Date	Remark															

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK.



This earliest known image of Fort McHenry dated 1819 shows the boundary wall above the fort, the sea wall surrounding the perimeter of the fort, the water batteries, and an overview of the star shaped fort structure. The "J" shaped structure identifies the location of the earliest waterfront cannon batteries. The black rectangles locate buildings which were on the fort grounds at that time, such as a tavern, barracks, and a hospital. These buildings no longer remain above ground, but archeologists have been able to find the foundations and relics remaining from the period. This map has been useful in determining the locations for archeological digs.

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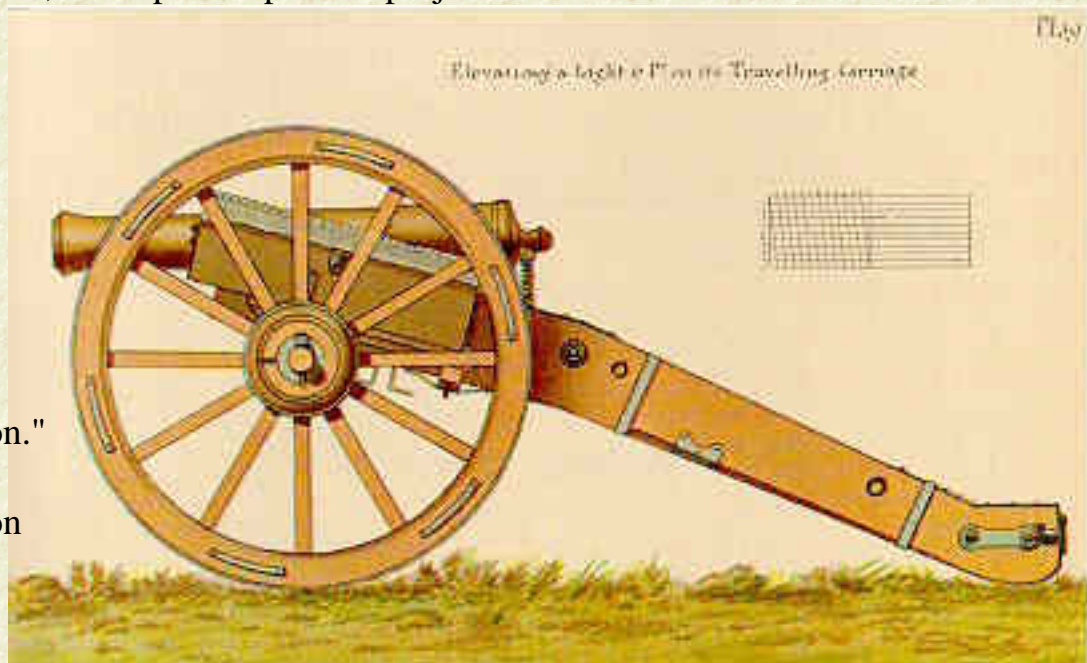


**Cannon Ball**  
**Weight: 3¼ Pounds**  
**Circumference: 9½"**  
**Material: Cast Iron**  
**Date: circa 1812**

This cannon ball was found embedded in a wall embankment in the Star Fort at Fort McHenry in the late 19th century as shown on the [site base plan](#). Baltimore District Engineer, Major William P. Craighill uncovered the cannon ball while he was supervising a project for the U.S. Army Corps of Engineers at the site when it was still a military garrison.

The ball is typical of the solid cast iron balls made by foundries during the War of 1812. Liquid iron was poured into molds and then cooled and hardened in the shape of round balls. This was the type of ammunition used by the 1st Regiment, Maryland Volunteer Artillery who served at Fort McHenry. The soldiers strapped the ball to a wooden bowl called a sabot. The wooden bowl was attached to a bag filled with gun powder and then the entire assembly was inserted into the tube of a cannon. When the artillerymen lit the gun powder from the rear of the cannon, the exploded powder projected the cannon ball into the air.

Attaching the ball to the sabot and bag of black powder was described as "fixed ammunition." This ammunition was placed in wooden



chests that were stored in structures called Powder Magazines. Cannon balls were fired out of field artillery cannons that were placed and aimed towards the Patapsco River to protect the Star Fort from attack.



During the attack on Fort McHenry in 1814, a British bomb landed on the Powder Magazine located in the Star Fort. Fortunately, the bomb merely crashed through the building but did not explode. If it had exploded all the fixed ammunition stored in the Powder Magazine would have blown up and the entire Fort could have been destroyed!

Nearly one hundred years after the attack on Fort McHenry, the U.S. Army Corps of Engineers were conducting repairs to the Star Fort walls and battery areas. Major William Craighill found the cannon ball and presented it to the War Department for safekeeping as a museum object. Over 30,000 archeological artifacts have been found at Fort McHenry and are now in the park's museum collection. Often such items are recovered when work crews are digging trenches for utilities or performing restoration work on the site. Cannon balls, such as the one shown above, are routinely found at military sites, and they continue to provide a visual glimpse of our past military history.



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Catalog number: FOMC 770, Accession number: FOMC 2



## Horseshoe

This horseshoe was once used on a large draft horse or mule at Fort McHenry. Notice there is still a nail on the right side of the shoe! This nail has a square head to hold it in place on the hoof of the horse or mule. These types of nails were used in the mid-1800's by the blacksmiths who worked in the stables located on the grounds just outside the Star Fort. It was found with cleats and a toe calk which were primarily used on heavy draft animals.



Length: 7", Width: 6", Depth: 1.6"

Material: Iron

Weight: 1¾ Pounds

Date: Mid - 1800's

Before the invention of the automobile and the truck, large draft horses and mules pulled the wagons and cannon carriages at Fort McHenry. Early maps and drawings show the locations of several stables on the property that were used for the care of these animals. This was also where the blacksmith forged the iron to make the horseshoes for the animals. Unfortunately, none of these 19th century structures located outside the Star Fort survive today.



In 1983, a project was undertaken at the western edge of the property at Fort McHenry. A septic system was being installed prior to the construction of public restrooms. Archeologist William Stokinger directed an investigation of the area to determine if there was any evidence of early structures. Maps and drawings made by the military in the 1800's identified a small structure in the area where the archeologists were working. The [site base map](#) indicates the approximate location where the shoe was found. Because the team uncovered a number of square headed nails and pieces of horseshoes, it is likely

that this area of the land was used for a small stable. It is also logical that the animals would have been cared for at some distance from the living quarters of the officers and the soldiers who lived inside the Star Fort. The land at the far west side of the property was not acquired by the military until 1836. So, this horseshoe would have been used after 1836 and before the military started using factory made nails in the late 1800's.



Many of the artifacts in the park's archeology collection reveal both the use of the area where they were found, as well as the particular function of the item itself. The size of this horseshoe also provides a visual image of the immense hooves of work animals which assisted with daily chores at Fort McHenry!

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Over 600,000 visitors tour Fort McHenry each year. Many of them ask questions about the everyday life of the soldiers who served their country here. People are very interested in knowing what people wore, what they ate, where they slept, and a frequently asked question is where they went to the bathroom!



**Chamber Pot**  
**Height: 4¼"**  
**Diameter: Inside - 6", Outside - 9"**  
**Date: Mid - 1800's**

The chamber pot shown here provides an example of the type of container used by people who lived in the Fort in the 1800's. Plumbing for indoor bathrooms was not installed in the Fort until the city water lines were installed in the 1890's. Prior to that time, the men who lived in the Fort used the privies during the day and the chamber pots during the night. Before the Civil War, slaves in service of the officers were responsible for removing the chamber pots each morning. After the abolition of slavery, the lower ranking servicemen would perform this task for the higher ranking officers.

In May, 1980, a team of archeologists under project manager, Bryan Aivazian, conducted an excavation at the site of the privies in the Star Fort. The researchers hoped to examine artifacts and material from the privies that would provide more information about the daily living habits of the soldiers. They excavated the privies used by the officers and the enlisted men to provide a comparison of living habits.

This chamber pot was recovered 100" below the surface of the ground where the officers' privy was located. For the location of the excavation, see the [site base map](#). It was found in 19 individual pieces. Researchers carefully mended the pieces back together. The main body of the bowl has a design of raised ridges with a flat projecting rim. The handle on the right side has a decorative leaf design. The ceramic material is an off-white color. There are no identification marks on the base, which means it was probably issued by the military.\* This pot was found in the privy used by the officers and decorative design indicates that it would have been used by the higher ranked soldier. The military issued completely simple, plain white pots to the enlisted men.

Life for a soldier in the military in the 1800's was anything but elegant and glamorous. Few artifacts remain to tell the story of the most basic aspects of everyday life. In many instances, only archeological

pieces that are mended together to form a whole object, remain to tell the rest of the story!

\* References:

Bragonier, Reginald .

*What's What, A Visual Glossary of the Physical World.* Maplewood, New Jersey:  
Hammond Publishing, Inc., 1981.

Catalog number: FOMC 12493, Accession number: FOMC 185.

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# Beer Bottle

Many visitors who come to Fort McHenry are very interested in the life of the soldiers who served at this nationally significant military installation. Long after the attack on the Fort in 1814, soldiers lived in the Star Fort barracks and trained in the military service. The last active military garrison departed from the site on July 21, 1912.

Between 1978 -1980, a team of archeologists was contracted to investigate eight areas at Fort McHenry to see what information they could uncover about the life of the soldiers who served at this military installation. Bryan Aivazian, employed as an archeologist by the regional office of the National Park Service, was director of this ambitious project. A team of archeologists from Brown University also participated as a research partnership. One of the goals of this work was to compare the type of objects retrieved from sites used by Commanding Officers with objects retrieved from other areas used by the Enlisted Men.

This beer bottle was recovered from the well site (shown on the [site base map](#)) that was located at the southwest corner of the Parade Ground in the Star Fort. On a detailed 1834 map, the well is shown with a bombproof brick vault constructed over top of it, supported by



concrete pillars 4.5 foot square. The well was 95 feet deep and yielded 18 gallons a minute. This was the primary source for the soldiers' drinking water until 1861. The well remained in use until about 1870. From that time until the 1978 investigation, the well site remained undisturbed. The abandoned pit became a popular disposal site for fort trash over the years - an archeological treasure trove!



Color: Aqua  
Height: 10"  
Diameter: 2½" at base  
Material: Glass  
Date: Ca. 1900

The bottle was recovered at a depth of over 105" below the surface, in six large pieces. Carefully pieced

together, the manufacturer's logo can be seen on the front of the bottle. The glass is a pale greenish color. The raised letters read, "Baltimore Monumental Brewing Company, Baltimore, MD" and appear in an oval circle. At the center of the oval circle is a raised image of the Battle Monument that was erected in Baltimore to commemorate those who defended the city of Baltimore in the War of 1812. The Monumental Brewing Company, formerly known as Monarch Brewing Company was owned by Frank Cahn. The plant was located in downtown Baltimore at 700 South Wolfe Street and in operation from 1900-1920. Numerous breweries in Baltimore in the early 19th century also featured city monuments as their company logo.\*

References:

Kelley, William J.

*Brewing In Maryland.* Baltimore, Maryland: Kelly Publishing, 1965.

Catalog number: FOMC 10916, Accession number: FOMC 185.

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## Leather Shoes



Length: 7"  
Width: 2¾"

Material: Leather  
Date: Civil War Issue



This illustration\* shows how recovered shoes would have looked when first manufactured

Look carefully at the image on the left and you will see the remains of a pair of leather shoes found during an archeological investigation at Fort McHenry in 1974. A team of archeologists under the direction of project leader Edward S. Rutsch were examining the original drainage systems of in and around the Star Fort walls. The experts believed water was trapped behind the brick structures and not draining properly. The freezing and thawing of moisture trapped in the wall was causing serious damage to the Fort. Rutsch dug out a section of earth at the foundations of a wall and water came pouring out!

The remnants of the Dry Moat are located at the base of the Fort Walls as may be seen on [the site base map](#). While the archeologists were examining the drainage system here, they discovered this pair of leather shoes.

Near where the shoes were discovered, the archeologists also found evidence of a stockade wall built in May 1861 that sealed the entrance to the Fort's gun batteries. The shoes were found in a four foot trench which lay on the exterior of the wall, identifying them as having belonged to a Confederate soldier. They were sent to the National Park Service Conservation Laboratory in Harpers Ferry, West Virginia for study and stabilization.

The conservation report indicates the leather was preserved under the soil because of the moist conditions. Identification of the type of leather and the stitching was made. It was determined that the shoes known as "brogan style" were standard military issue during the Civil War period. Army shoes, called "brogans" or "whangs," were large, heavy and roomy.\*

The War Department used Fort McHenry as a military prison during the Civil War. Over 15,000 captured Confederate soldiers were detained and processed at Fort McHenry during the war years. After a brief time at Fort McHenry, prisoners were moved to larger prisons at Fort Delaware and Point Lookout.

It would be impossible to imagine the hardship of the man who wore these shoes during the Civil War era when Fort McHenry was used as a military prison.

\*References:

Lord, Francis A.

*Uniforms of the Civil War.* Alexandria, Virginia: A.S. Barnes and Co., Inc., 1970.

Catalog Number: 5783, Accession number: FOMC 297.

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## *British Mortar Shell Fragment*

**Weight:**  
6½ Pounds  
**Width:** 6"  
**Thickness:**  
2½"



**Material:**  
**Date:**  
circa  
1812

The "... bombs bursting in air..." immortalized in our national anthem were not the creation of a poet's imagination. In the 18th and early 19th century the aerial bomb was the most powerful armament known to man.

During the bombardment on September 13 - 14, 1814, an estimated 1,500 bombs and rockets were fired upon Fort McHenry's defenders from His Majesty's bomb ships *Volcano*, *Devastation*, *Terror*, *Aetna*, and *Meteor*. These vessels were equipped with a 13-inch and a 10-inch mortar, capable of firing a shell every five minutes. This fragment is a remnant of a 200 pound British 13-inch mortar shell, fired at the Fort by one of the five British bomb ships.\*

In February and March of 1966, archeologist John L. Cotter conducted an extensive investigation at Fort McHenry. He was contracted by the National Park Service to research and locate the foundations of several structures dating to the 1812 period which were identified on maps and drawings as being located near the original entrance to the Fort. The goal of Cotter's project was to confirm the locations of these early 19th century structures. While excavating, the team of investigators found this 6½ pound bomb fragment in the remains of the footings of a Tavern that once stood just to the north of the Star Fort. [See the site base map.](#)

On this mortar fragment one of the shell's two lifting ears may be seen. Shell

tongs on rigging tackle were inserted into this opening in the shell to hoist the shell from the ship's ordnance room up to the gun deck. Here matrosses (artillerymen) prepared the shell and mortar for firing. It took 28 seconds for a bomb to take flight from the ship through the air and then end its fiery arc at Fort McHenry. While in flight it exploded, raining down fragments (like the one shown above) causing injury and destruction on impact.

\*References:

Sheads, Scott.

*Rockets Red Glare*. Baltimore, Maryland: Nautical Press Inc., 1986.

Catalog number: FOMC 2018, Accession number: FOMC 103.



# Buttons



**U. S. Corps of Artillery Button**  
**Weight: 3.4 grams**  
**Diameter: 14 mm.**  
**Date: 1814-1821**



Button - Civil War  
Obverse

Turn Button Over

In 1981, a team of archeologists investigated the original site of the 100' artesian well that was located in the Parade Ground of the Star Fort. This well, shown on the [site base map](#), was a principle source of drinking water for the troops until 1870. A number of buttons were recovered from this excavation and they can be identified to specific periods of military history at the site. It is not certain how the buttons got several feet below the ground level.

Frequently, the park presents educational programs for the public. Reproduction uniforms are worn by staff living history participants to explain the types of clothing worn by the soldiers who served at Fort McHenry. Buttons from the archeology collection are used as examples when copies are made for interpretive programs. The images shown above are just two historic period buttons. There are hundreds in the park's museum collection that have been recovered from various locations. **Click on the red bar below the Civil War button** and you can see the back of the button and the identification markings of the manufacturer.



Reproduction

Both of these historic buttons were made by the Scovill Company, which has been in operation since 1802 and is still making fasteners today. The company built their first mill in Waterbury, Connecticut and it was in full operation by 1811. By 1810, Scovill was producing buttons for the U.S. Military at a rate of 500 gross every 60 days. These early buttons were stamped from cast dyes. The United States mint provided the company with the cast for the eagle for buttons that were produced in 1812. \*





Scovill factory on the Mad River, Waterbury, Connecticut ca. 1830

The U.S. Corps of Artillery button above dates to the earliest period from 1814-1821. The First, Second and Third Regiments of the U.S. Artillery were reorganized and consolidated into a single U.S. Corps of Artillery on March 30, 1814. This consisted of twelve battalions with 48 companies of 123 men each. These units were assigned to coastal artillery posts from the Great Lakes to New Orleans. The companies in Maryland were stationed at Fort McHenry, Fort Washington below the Capital city on the Potomac and Fort Severn in Annapolis. On May 1, 1813, the U.S. Army authorized new uniform regulations that prescribed a plain, dark blue uniform. This change of regulations brought an end to the last remnants of 18th century colored ornamental cloth red trimmings and yellow facings on the soldier's coat. Along with the new color material, a new insignia was issued by the U.S. Army and stamped on all the new buttons and hat plates. Each enlisted man was issued a coat that had ten buttons. Archival records at Fort McHenry show a shipment invoice in May 1814 for the first delivery of these new uniforms. As with many buttons of the early period, there are minor variations. Some include images of a flag, the eagle, and cannon balls. Rare examples from Commanding Officer's uniforms have been found that are gold plated. The majority are made of brass or yellow metal.\*

These small symbolic images of power, strength and unity gave rise to the national pride that swept the country after the War of 1812.

\*References:

- Albert, Alphaeus.  
*Record of the American Uniform and Historical Buttons.* Alexandria, Virginia: O'Donnell Publications, Inc., 1976.
- McGuinn, William F.  
*American Military Button Makers and Dealers; Their Benchmarks and Dates.*, Washington, DC., 1984.
- Scovill Company.  
*The First 150 Years of the Scovill Company.*  
Clarksville, Georgia: Scovill Fasteners, Inc., 1950.
- Wyckoff, Martin A.  
*United States Military Buttons of the Land Services: A Guide and Classification System.* McLean, Virginia:

McLean County Historical Society, 1950.

Catalog number: FOMC 9881, Accession number: FOMC 183.

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# Kitchen Crane

**Material: Wrought Iron**

**Width: 36", Height: 43"**



Replica of 19th century kitchen crane

The daily life of soldiers at Fort McHenry included preparation of meals for nearly a hundred people. In the early 1800's, the kitchens were located in the cellars of the Star Fort Buildings. Military records indicate that these underground areas were damp and often filled with standing water. By 1836, the underground cellars were closed and filled with earth and rubble and food was prepared in the fireplaces located in the first floor rooms of the barracks.

In 1958, Hubert Smith and a team of archeologists excavated the underground cellar in E Building to locate the early kitchen space. The exact area of the E building cellar is [identified on the site base map](#).

The notes from the excavation indicate that groundwater constantly leaked into the excavation site. Over six feet of earth and rubble were removed before they located the original fireplace and several cooking implements. A kitchen crane, like the one seen in the image above, was found in the cellar. It was made of wrought iron and used to hold a kettle over the fire. This crane is attached to a hinge secured to the fireplace wall and the arm holding the kettle can be swiveled away from the fire.\*

Finding kitchen tools provided verification that the cellar area was used as a kitchen and that groundwater was still a serious problem. At the end of the project, the park intended to open this area to the public to demonstrate how meals were prepared for the soldiers in 1814. However, the water drainage problem proved to be complicated, and the cellar was once again filled in. The metal crane is stored in the archeology collection and was used as an example for replicas that have been made and placed on display in several fireplaces in the Fort. The original remains as the only visible evidence of early cooking practices at Fort McHenry.



\*Reference:

Fields, Rachel.

*Irons in the Fire*. Ramsbury, England:: Crowood Press, 1984.







Button - CivilWar  
Reverse

**Turn Button Over**



Button - Civil War  
Obverse

*Turn Button Over*