

HISTORIC BURYING GROUNDS INITIATIVE NEWSLETTER

Preserving Boston's 16 Historic Burying Grounds



BOSTON PARKS & RECREATION DEPARTMENT

MARTIN J. WALSH, MAYOR

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TRACING SMALLPOX THROUGH THE BURYING GROUNDS

Most people are keenly aware of the giant leaps of progress that have been made in the field of medicine in the 20th and 21st centuries. In Boston's historic burying grounds we can see the many headstones of people who died at an early age. The regular occurrence of epidemics caused particular devastation and no disease was more fearsome than smallpox. At first glance the trace of smallpox is all but invisible in the burying grounds. There are only a few headstones where the epitaph mentions smallpox but we know thousands of people died of the disease and were buried in these historic burying grounds. But the story of smallpox is not confined to those who died from this disease. The outbreaks affected the daily lives of Bostonians in many ways. In the face of a direct threat to their well-being, these people took a variety of actions to safeguard their lives and community and to prevent the spread of the disease. These people are also buried in our historic burying grounds. By delving a little deeper into the history of the "speckled monster" we can begin to hear the quiet stories that our burial yards whisper to us.



A detail from the 1722 Bonner map of Boston listing smallpox epidemics. Map reproduction courtesy of the Norman B. Leventhal Map Center at the Boston Public Library

The first surviving printed map of Boston dates from 1722 and was created by Captain John Bonner, a navigator and a shipwright who died in 1726 and is buried in the Granary Burying Ground. Among the many interesting features on this map is a list of smallpox epidemics in Boston to that date: 1649, 1666, 1677, 1678, 1680, 1690, 1702, and 1721. The epidemic of 1721, which had just passed at the printing of the map, was particularly lethal and generated sig-



Letter from the Director

The Parks and Recreation Department was delighted to be the recipient of a large grant from the Massachusetts Executive Office of Energy and Environmental Affairs Signature Urban Parks Program. The grant was divided between the Historic Burying Grounds Initiative and the Boston Parks Department's Urban Wilds program. The goal of the Signature Urban Parks Program is to revitalize urban communities by opening up or upgrading green spaces for outdoor recreation and improving access to natural resources such as waterways and historic neighborhood landmarks. The renovation project in Eliot Burying Ground will definitely meet those goals. The new pathways and interpretive signage will be more inviting to visitors. Expanded opening hours for the burying ground will also play a big role in improving site access. The area where this burying ground is located is currently undergoing much investment, both in the restoration of historic properties and the development of new ones.

The article on smallpox in Boston was a difficult one to write. Initially I looked in the burying grounds for headstones mentioning smallpox but that yielded few results. When I saw the number of people who died in Boston during the 1600s and 1700s from this disease, I knew there had to be another story. The smallpox epidemic affected the community as a whole, not just the sick individuals and their families. Businesses and schools shut. Governmental bodies met in other towns. Families that could afford to leave for the countryside did so. Those who remained in town experienced fear and grief. No one was untouched by these epidemics. Since the sole focus of this newsletter is the historic burying grounds, I had to be very mindful not to give a general history of smallpox in Boston, but rather to link the history to the burying grounds. That turned out to be relatively easy. Due to the physical restrictions of the Shawmut Peninsula, which was the town limits of Boston at that time, bodies were usually not transported off the peninsula. In general, if you died here, you were buried here. The relentless nature of the unchecked disease gave me new appreciation for the persistence and dedication of the scientists, doctors, and ministers who doggedly pursued a halt to this plague.



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Historic Burying Grounds Initiative

Our mission is the comprehensive restoration, on-going conservation and heritage interpretation of Boston's historic burying grounds.

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FIELD NOTES: *LANDSCAPE RENOVATION AT ELIOT BURYING GROUND*

In 2014, the Historic Burying Grounds Initiative received a grant of \$157,000 from the Massachusetts Executive Office of Energy and Environmental Affairs Signature Urban Parks Program for restoration in Eliot Burying Ground in Roxbury. The scope of the work involves the renovation of the pathway through the site, restoration of the front iron fence, and repointing of the front puddingstone wall.

Starting in July 2015 we worked with our designer, Kyle Zick Landscape Architecture, Inc., to seek approvals from the Boston Landmarks Commission and the Massachusetts Historical Commission and then to develop full construction documents for public bidding of the project. The project advertisement first appeared on



The old asphalt pathway had many cracks. Grass was growing through the cracks and encroaching on the edges.

September 22, 2014, and the bids were due on October 9, 2014. The lowest-cost qualified bidder for the project was Folan Waterproofing and Construction, Inc., at a cost of \$138,000. The construction began in November 2014 with the goal of doing as much as possible before winter weather set in. Several feet of snow covered Boston during this unusually harsh winter and construction was stopped until April when the snow was (mostly) melted and the ground unfrozen.

The first work item to be tackled was the pathway. The footprint of the pathway was first created in 1857, although the surfacing has changed. We replaced the

existing asphalt surfacing with concrete pavers, such as are used in the burying grounds on the Freedom Trail. The pathways were cracked and uneven, with vegetation growing through the gaps. During construction, the contractor removed the pieces of asphalt with hand tools and carted them out of the site in wheelbarrows. In order to avoid the possibility of disturbing any human remains which may have shifted over the centuries, the base for the pathway was designed to be as shallow as possible. Underneath the 2 3/8-inches-deep pavers is a layer of 1 inch of compacted stone dust, 3 inches of compacted dense-graded crushed stone, and a layer of geotextile fabric. As per Massachusetts Historical Commission requirements, the contractor hired an archaeologist to monitor any excavation. A few pieces of



The iron fence on top of the puddingstone wall is being restored.

broken gravestones with no inscription were unearthed during the excavation, but thankfully no human remains were found.

The only access to the site is through the front gate and up several steps. In order to facilitate easier access for the construction, the contractor removed a section of steel picket fence along the side of the site. A driveway comes in from the street near this area and the abutting property owner allowed the construction vehicles to use the driveway. The terrain in the site near this fence section is an area with a gentle slope leading up to the pathway. Very few gravestones are located here.

LANDSCAPE RENOVATION AT ELIOT BURYING GROUND

The picket fence around the front perimeter of the site was in poor condition with significant amounts of rust. The exact date of installation of this fence is unknown, but it is certain that it was put up after World War II. This simple picket fence was a replacement for an ornate cast-iron fence that was melted for scrap during the war effort. The fence has been removed for restoration. Before removing the fence the contractor photographed and numbered the fence sections to make sure that after restoration they will be reset in the same position. The contractor will remove all rust and paint from the fence down to bare metal. The areas of the fence that are too corroded to repair will be replaced by new parts.



A workman installing the new concrete pavers in the pathway.

Any bent components such as pickets or the rails, will be straightened. The fence will be repainted with a three-part paint system, starting with a zinc-rich primer, then an epoxy or urethane coating, finishing with an aliphatic urethane coating. This coating system provides long-lasting protection against corrosion.

The front puddingstone wall is in good condition, but it will be repainted in order to ensure its continued struc-

tural stability. It is interesting to note that the family-owned construction company who won this contract also did significant structural repairs to the same wall in 1989!

We will also be adding four interpretive signs which will provide historical information about the site and the people buried there. The cost for the four interpretive signs is \$14,230 and is not included in the construction contract. Each sign consists of a graphic high-pressure laminate panel containing the text and images which is fitted into a steel pedestal. The pedestal is custom designed to require an excavation of only two inches for installation. Some of the topics that are addressed in the signs are the styles of gravestones and meanings of common carvings, notable people who were buried here, epidemics, the origin of local place names, and the site's connections to early Colonial wars and the American Revolution.

We encountered difficulties with the text on the signs because many people did not have headstones or were buried in a tomb where only the owner was listed on the gravestone, and we could not know for certain where



Individual fence panels are laid out in the contractor's shop for inspection before proceeding to sandblasting for paint removal.

they were interred. Although there is much information about the early history of Roxbury, the signs are specifically focused on individuals who were buried within the site. If someone was listed in the record of deaths compiled by the First Church of Roxbury for the period 1630-1689, the assumption was made that they were buried in Eliot Burying Ground. For people who lived in Roxbury but whose place of death we could not verify as being Roxbury we did not presume they were buried in the site. After 1680, other burying grounds began to open in Roxbury, so even if someone died in Roxbury, they could have been buried elsewhere.

TRACING SMALLPOX THROUGH THE BURYING GROUNDS (continued from first page)

nificant debate about the practice of inoculation. Other smallpox epidemics came to Boston throughout the 18th century. The death tolls from the disease declined throughout the 19th century. The last known case of smallpox in the United States occurred in 1949.

Since we are fortunate enough to live in a time and country where smallpox does not exist, let us quickly look at the characteristics of the disease. Smallpox is a highly contagious virus. After several days of severe illness a rash develops. The many lesions grow into fluid-filled pustules. If the person survives the illness, after about two weeks the pustules scab over and fall off, often leaving scars. The mortality rate of the disease is about 30%. Mortality rates for Native Americans affected by the disease were much higher and could attain 80-90%.

On September 25, 1690, the first edition of *Publick Occurrences*, one of the first English-language news publications in North America, was printed. It contrasted the concurrent 1690 epidemic with the deadlier 1677-78 smallpox outbreak in Boston:

The Small-pox which has been raging in Boston, after a manner very Extraordinary, is now very much abated. It is thought that far more have been sick of it then were visited with it, when it raged so much twelve years ago, nevertheless it has not been so Mortal, The number of them that have dyed in Boston by this last Visitation is about three hundred and twenty, which is not perhaps half so many as fell by the former [the epidemic of 1677-78].

It was also reported that on September 30, 1677, 30 people died of smallpox. So deep was the fear and suffering generated by the 1677-78 epidemic that the Massachusetts General Court issued three proclamations during this period, each calling for an official day of "humiliation" and prayer and prohibiting all labor on those days. The proclamation issued on January 3, 1677/78, specifically mentioned the death from smallpox of Thomas Shephard, a pastor to the First Church in Charlestown, who is buried in Phipps Street Burying Ground. The outbreak was also the catalyst for the first medical document to be published in the American colonies. Thomas Thacher was the author of a broadside entitled "A Brief Rule to guide the Common People of New England How to order themselves and theirs in the Small Pocks, or Measels," which offered advice to the public in dealing with the disease. Although first published in 1677, it was reprinted in 1702. Thomas Thacher was a minister at the Third Church of Boston (Old South Church). He died in 1678. It is believed that he is buried in a tomb at King's Chapel Burying Ground.

The gravestones in the burying grounds do not provide us with an accurate record of the number of people who died. If we look over three years, from 1677-1679, there are 47 headstones in the burying grounds in



The broadside entitled "A Brief Rule to guide the Common People of New England How to order themselves and theirs in the Small Pocks, or Measels," by Thomas Thacher in 1677.

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Boston Proper (King's Chapel, Copp's Hill, and Granary). The aforementioned *Publick Occurrences* paper estimated the number of deaths at 320. It is worth noting that that Granary Burying Ground was enlarged in 1677, perhaps because of the large numbers of deaths. In the neighboring town of Roxbury, the death records of the First Church of Roxbury state that a total of 26 people died, of which 18 people died of smallpox, all between September and December. There are no headstones from that year in Eliot Burying Ground.

Bostonians were aware of the contagious nature of smallpox without understanding the exact means of transmission. The town records of May 6, 1677, contain specific instructions for the airing out of any clothes or bedding of a person who had smallpox. There were four specific areas where linens could be laid out, during the "dead time" of the night. Three citizens were appointed to inspect that these rules were followed. Sick



This unusual porcelain bust of the Count of Mirabeau, dating from c. 1791, shows facial pock marks due to a childhood bout with smallpox. Photo © Museum of Fine Arts Boston

people were also under quarantine orders to remain in their homes until they were considered well enough to go out. A watch of twelve men was ordered to verify that the quarantine orders were followed.

The next great smallpox epidemic occurred in 1702. There is not much that is written about this epidemic in the town or selectmen's records. However there are some clues which attest to the frequency of funerals. The selectmen amended a previous law regarding bell tolling and funerals by restricting the amount of time a bell could be tolled to seven and one-half minutes and specifying that no more than two bell peals could be rung. Citizens were also urged to respect a current law mandating that the corpse be en route to the burying ground within one hour of the beginning of the second bell. Selectmen sought to protect the families of the deceased from being taken advantage of by unscrupulous service providers. Moderation in pricing was demanded of coffin makers, grave diggers, and porters (who

carried the coffin from the house to the burying ground). The town also provided several black cloths free of charge to lay over coffins during the funeral procession.

The two great diarists of this period, Cotton Mather and Samuel Sewell, both mentioned smallpox deaths in their journals. In October of 1702 Mr. Mather wrote "It becomes impossible for me to record...the vast Numbers of the Sick among my Neighbors..." Mr. Sewell cites the names of people he knows who have died such as John Adams, a maltster (gravestone in the Granary); Attorney General Anthony Checkley; John Drury, cooper; Robert Gibbs, merchant and ironmonger (gravestone in King's Chapel); and Edward Turfrey, a political aide. Cotton Mather gives us a much more intimate view of his personal suffering since his wife died of smallpox during that epidemic. His three children were also taken ill with smallpox. They survived the illness only to be stricken with scarlet fever, which was also running rampant at that time. His family tomb in Copp's Hill Burying Ground was built for him at this time by his congregation.

Boston death tolls from 1701-1703 were listed in the *Boston Newsletter* dated June 26-July 3, 1704. At that time the population of Boston was estimated to be 7,000. Both 1701 and 1703 had similar death rates of 146 and 159 persons respectively. We can see the dramatic difference from the smallpox epidemic year of 1702

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where 441 people died. The newspaper prefaces this count with the caveat that only the deaths of white people were recorded and also informs us that: "In that Mortal year, 1702. the Number of Negroes and Indians, which had a Singular Share in the Mortality, made the Number of the Buried arise to about, 500." Monthly burial statistics were also provided. The average number of monthly burials in 1701 and 1703 were 12 and 13 respectively. In 1702 that number tripled to almost 42 persons per month (taking the larger number of deaths). The worst months were November and December with 74 and 87 deaths per month respectively. Amongst the three burying grounds that were open in Boston Proper at this time, there are only 28 extant grave markers. We do not know the breakdown of how many people were buried in in-ground graves versus tomb structures. It is clear that on some days there were certainly multiple burials. Since all graves were hand dug and even tombs had to have their entrances dug out and opened by hand, the grave diggers must have been very busy. The selectmen assigned responsibility for grave digging as they did for other town functions such as cow keepers and night watchmen. The task of digging a grave was certainly complicated when the ground was frozen in winter. Receiving tombs, which were specifically designed to store a dead body until the ground was soft enough to excavate a regular grave, were one way of dealing with this. Purpose-built, sometimes ornate, receiving tombs were built in the garden cemeteries of the 19th century. There are no similar structures in the old burying grounds of Boston, however, it is possible that other plain, underground tombs were used in a similar manner.

In 1721, eighteen years after the last smallpox epidemic in Boston, signs of the disease reappeared. The ship *HMS Seahorse* arrived in Boston on April 22, 1721. On May 8 it was reported that a crew member of this ship was identified as having smallpox, as was another resident of Boston, who lived near the harbor. The



Rev. Cotton Mather spearheaded the smallpox inoculation movement in Boston. He is buried in Copp's Hill Burying Ground.

selectmen were sufficiently alarmed to take immediate action. The local resident was provided with a nurse and quarantined in his room. The *HMS Seahorse* was inspected and several members of the crew were found to be sick. The ship was ordered to anchor at Bird Island in Boston Harbor in an attempt to prevent the spread of infection in town, but infected members of the crew had already visited the town and these actions were not enough to halt the spread of the disease. Those that survived the 1702 epidemic had acquired a resistance to the disease. However children born since then had no immunity and the population of Boston had approximately doubled.

It was during the early months of this outbreak that a huge controversy developed over inoculation with the smallpox virus. The procedure involved the taking of fluid from the pustules of an infected person and rubbing it into scratches in the skin of an uninfected person. This procedure usually caused the inoculated person to get a mild case of smallpox from which they would recover and subsequently develop future immunity to the disease. Although it was a generally successful method, some people did die of the infection acquired from the inoculation. Cotton Mather was a leading proponent of this procedure. He learned about it in 1716 from his African slave Onesimus, who informed him that the procedure was commonly used in villages in Africa. Mather inquired about this procedure among other Africans in Boston, who confirmed their familiarity with inoculation. Mather had also read an article

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about similar methods of inoculation used in Turkey. In June 1721 he sent a letter to local physicians urging the use of inoculation to combat the ensuing epidemic. Only one doctor, Zabdiel Boylston, responded favorably to this letter. With the support of Cotton Mather, Dr. Boylston began inoculating those who wished to try the procedure, starting with his own son. Although inoculation against the virus eventually proved to be successful, it was initially met with great resistance. A lively debate played out in Boston newspapers. Mather suffered considerably from his position, being attacked in print, verbally, and even having a stone with a threatening note attached thrown into his house. The reasons for the opposition to inoculation were varied, including religious, medical, and racist reasons. One of the medical reasons was the fear that those inoculated with the virus would just serve to increase the chances of infection of the non-inoculated. Some of the original supporters of this treatment method are buried in Boston's burying grounds, including both Revs. Increase and Cotton Mather in Copp's Hill and Rev. Thomas Prince in the Granary. We do not know where Onesimus was buried, although it is believed he died in Boston.

Once it became clear that an infection was ramping up in Boston, many people, particularly those with economic means, simply left town. From a health standpoint, this was a good plan. Burial statistics for the year 1721 were published in the March 12, 1722, edition of the *Daily Courant*. The paper cited the number of deaths from smallpox to be 844, with approximately half of those burials taking place in October 1721. It is worth noting that there were only three burial grounds in the town of Boston in 1721, since Roxbury, Charlestown, and Dorchester were separate towns. However the epidemics also hit these towns hard. A poignant example of multiple burials occurred in Phipps Street Burying Ground in Charlestown in November of 1721 when the Rev. Joseph Stevens of the First Church of Charlestown was buried in the same tomb and on the same day as his only daughter and his sister-in-law. His son died ten days later and his widow died the following month. All died from smallpox.

THis is to give Notice, that in Consideration of the Small-pox being in Boston, the Justices of the Inferiour Court of Common Pleas, and the Justices of the Court of General Sessions of the Peace for the County of Suffolk, have determined after having met at the Court-House in Boston, upon the first Tuesday of April next in the forenoon, to Adjourn to the House of Mr. Simon Rogers, commonly called the George-Tavern upon Bolton-Neck at Three a-Clock in the Afternoon of the said day, there to hold the said Courts: where all Persons concerned are to give their Attendance accordingly.

By Order of the Justices of both Courts,
JOHN BALLANTINE, Clerk.

These may Notifie all Persons within the County of Suffolk, that in Consideration of the Small-Pox being now in Boston, and for the benefit and safety of those living in the Country, The Hon. Josiah Willard Esq; Judge of Probates of Wills, &c. for the said County intends to hold his Court at Mr. Rogers's the Sign of the George near Roxbury, the last Monday in the Month, from Half an Hour after Nine in the Morning to Half an Hour after Twelve.

By Order of his Honour the Judge,
John Boydell. Rez.

These two ads appeared in the *New England Weekly Journal*, March 30, 1730, to inform the public that court hearings would be moved due to smallpox.

Cases of smallpox occurred from time to time in Boston in the 1720s but the next large outbreak did not occur until 1730. By this time the practice of inoculation had been debated throughout the American colonies and back in England. One of the primary opponents of the procedure, Dr. William Douglass, had changed his mind about inoculation and now advocated for it. Although the practice was also becoming more accepted by the general population, residents petitioned the town government at a town meeting in February 1729/30 to lay out specific recommendations to avoid any contagion due to inoculation. It is estimated that in 1721 247 people were inoculated and in 1730 that number increased to 400. In total, out of approximately 4,000 cases of the disease that year, 500 people died, of which 488 were not inoculated and 12 were. In spite of the high number of illnesses, there is little information in the town records. Some articles were published in the newspaper informing people of the number of known cases in town. Some

governmental entities, such as the Inferior Court of Common Pleas, the Justices of the Court of General Sessions of the Peace for the County of Suffolk, and the Court of Probate and Wills also placed notices in the local papers informing the public they would not be heard in Boston but rather in Roxbury at the George Tavern. Simon Rogers, who owned the George Tavern, and Josiah Willard, a probate court judge who placed an ad, are both buried in Boston burying grounds although the specific sites are not known.

SMALLPOX THROUGH THE BURYING GROUNDS (continued from previous page)

It is perhaps proactive management by the Boston town government that prevented the next major outbreak of smallpox from occurring in Boston until 1752. A combination of vigilance and forced quarantine proved effective. In 1733 news of an epidemic in Jamaica caused the colonial governor to enact a law preventing vessels coming from Jamaica from entering Boston Harbor without being searched for signs of illness first. All sick sailors were quarantined on Spectacle Island in Boston Harbor. In 1736 and 1737 news of the sickness prevailing in Philadelphia and Martha's Vineyard caused similar laws to be enacted. The quarantine law was amended in 1738 when a new hospital was established on Rainsford Island. There were also incidents where sick people, and those who had contact with them, were quarantined within their residence, with a guard stationed in front of the house. In November of 1738 the selectmen "tho't it was necessary for the preservation of the Town" to use the house of Benjamin Clough (buried in King's Chapel Burying Ground) located in the sparsely populated westerly part of the town (on Beacon Hill, near the Charles River) as an in-town quarantine hospital. Those people known to have been exposed to the disease were forcibly removed by Sheriff Edward Winslow (buried in King's Chapel). The constable, John Savell (buried in the Granary), was frequently sent out by the selectmen to accomplish many tasks related to smallpox and public health such as: verifying the state of health of sailors quarantined on the island, disposing of their goods should they pass away, arranging for transportation of sick people to the hospital in the westerly part of the town, and procuring food and goods for those quarantined in the hospital. In February 1738/39, Mr. Savell was awarded 46 pounds by the selectmen for his "Extraordinary Services in the Year past Occasioned by the Small Pox in the Town with many long Journyings...."

In April 1752 the selectmen's records noted that "the small pox and a Malignant Fever now prevails in Town and several persons have died of the those distempers...." New burial procedures were ordered by the town to be carried out by the grave diggers. When someone died of the smallpox, the grave diggers were to go their house and inform the family or care givers that the body was to be put immediately into a tarred sheet and buried that night without a funeral. The grave diggers were also responsible to keep statistics of the number of people who died of the disease and whether or not they had been inoculated. Houses wherein a sick person lived were required to hang out a red flag. At the end of July 1752, the town tallied that 5,554 people got the disease, of which 514 died. It was determined that 2,109 people got the disease through inoculation, of which 31 died. In addition to more specific burial procedures, the town government started paying more attention to the financial burden of smallpox outbreaks. In 1753 the town asked the General Court of Massachusetts for an abatement for the taxes of those who fled to the country during the outbreak.

By 1764 the town government had acquired much experience in inspecting incoming ship crews for any signs of disease and managing isolated cases of smallpox within the town. Many sailors had been quarantined on Rainsford Island as needed since the 1730s. This expertise and attention to detail was a hallmark of the 1764 outbreak. In December 1763 Joseph Bulkley, a sailor whose father lived in the North End of Boston, got ill

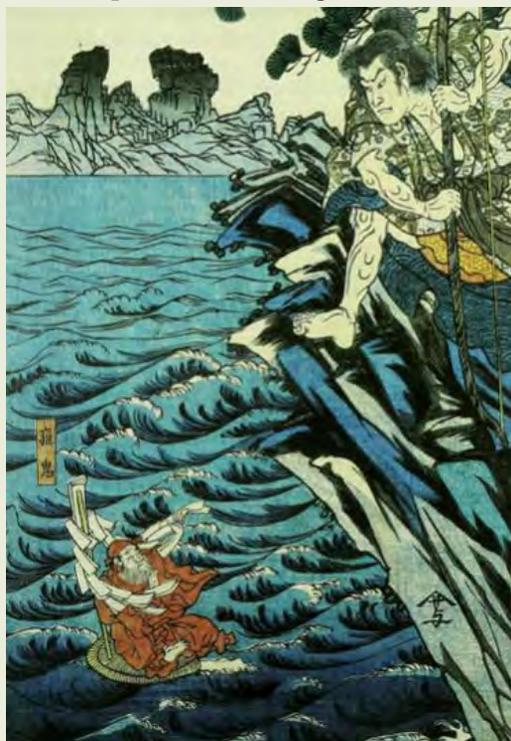


This painting of Rainsford Island, Boston Harbor, was painted by Robert Salmon in about 1840. The stone building depicted in the painting was built in 1832. The island's namesake, Edward Raynsford, is buried in King's Chapel Burying Ground.

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while staying at his father's house. When he died on January 2, 1764, the selectmen immediately issued burial instructions, including use of a tarred sheet as before, but this time they indicated that the grave digger had to use a specific route to transport the cadaver to Copp's Hill Burying Ground and that another person had to go in advance to warn anyone out at that hour that a smallpox victim would be coming that way. At that time, contagion of diseases was explained by the theory of miasma. It was believed that illness was caused by inhaling the "polluted air" caused by decomposing organic matter. A Mrs. Warren who fell ill and later died of smallpox claimed that she caught the disease by smelling it when the corpse of Mr. Bulkley was carried by.

In spite of the precautions taken, the virus spread throughout the town, with the North End being particularly hard hit. The same procedures initiated in the last outbreak were used, in a more vigorous manner: If the sick person (or their guardian) did not consent to being moved to a quarantine hospital, the house was



Smallpox has been a scourge to mankind for millenia. This illustration of a 12th-century Japanese legend depicts a legendary samurai casting the demon of smallpox out to sea. *Tametomo banishes the smallpox demon from the island of Oshima*. Colour woodcut by Yoshikazu Utagawa 1851/1853. Image courtesy of Wellcome Library, London.

ordered under a strict quarantine order, with a red flag in front of the house and a guard assigned to the house with strict orders to forbid entry. In some cases where the house was in an alley, the town ordered a carpenter to barricade the walkway to the house. Residents were required to report any incidence of the disease to the town government. Notices were regularly published informing residents of the number of families who had the disease. Every time someone died of smallpox, the town gave grave digger Thomas Williston a specific order to bury them. In addition to the use of a tarred sheet and permitting only specific hours of burial, the grave digger was required to send someone out ahead of the corpse to warn any passers-by that a smallpox burial was coming. Mr Williston died in 1773 and is buried at the Granary.

A curious case occurred at the end of January 1764. Earlier that month in the same North End neighborhood where this epidemic started, a Mrs. Abigail Adams contracted smallpox. The selectmen received a report of her illness and paid a visit to her house on Fish Street (now called North Street) to confirm if she actually had smallpox. When her illness was verified as smallpox, the selectmen tried to persuade her to go to the quarantine hospital, but she refused. Her house was therefore ordered to be shut up and any family members who might get the sickness were sent away. A watchman was assigned to the house from daybreak to 11:00 p.m. and a flag was hung out. No one could leave or enter the house except for the doctor. The watchman was to procure any necessary

supplies for the family. A few days later, Mr. Warren, who lived on the same street as the Adamses, declared to the selectmen that his wife had smallpox. Just like Mrs. Adams, the selectmen were unable to convince Mrs. Warren to go to the quarantine hospital and the same isolation procedures were followed. A few days later Mrs. Adams succumbed to her illness. It was discovered that on the night of her death, the watchman at the house of Mrs. Warren, Mr. John Gray, left his post, ostensibly to get some balm on the orders of Mr. Warren, and went to the Adams' house into the "infected chamber." A nurse testified that Mr. Gray had rubbed a paper on the arm of the deceased Mrs. Adams. After further investigation, the selectmen determined that Mr. Gray was guilty of a having a "malicious design to spread the Infection of the Small Pox" and was sent to

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jail awaiting trial. He was found guilty of the crime a month later and sentenced to a fine of 6 pounds, three months imprisonment, and the payment of all costs. Interestingly enough, the records of Dr. Joseph Warren (buried in the Granary Burying Ground before being moved elsewhere) indicate that he inoculated Mr. Gray in 1763 and Mr. Gray's wife in 1765. Mrs. Adams, her infant Eunice, and Mrs. Warren all died of smallpox and are buried in Copp's Hill Burying Ground.

As was common during other epidemics, those for whom it was economically feasible left town. During the 1764 epidemic merchants started publishing advertisements in the newspapers informing their customers that their wares had been moved to stores in the country and people who lived in areas where the disease was not



A detail from the painting *Baron Jean Louis Alibert performing the vaccination against smallpox in the Chateau of Liancourt*, c. 1820, by Constant Desbordes.

prevalent could safely buy goods which were not contaminated with smallpox. Mr. Thomas Hadafyd Peck (buried in the Granary) was one such merchant. He sold products used to make hats, such as linings and trimmings.

The epidemic of 1764 saw a much lower death rate than preceding epidemics, largely because the practice of inoculation became more popular. It is estimated that 5,546 people (about one-third of the population) got smallpox and 170 of those people died. However of this total number, only 669 people got the disease through natural infection and 124 of those people died. The vast majority, 4,977 people, got the illness through inoculation and only 46 of those people died. Future president John Adams was one of the people who received inoculation from Dr. Perkins and his colleague Dr. Joseph Warren at this time. In his letters to

future wife Abigail, Mr. Adams described the procedure of inoculation and also his three-week confinement in a private quarantine house in Boston.

Smallpox continued to visit Boston, particularly around the time of the American Revolution. But with inoculation and quarantine practices being followed, the death rates were not as high as in the earlier epidemics. At the end of the 18th century, an English physician, Dr. Edward Jenner, developed a smallpox vaccine, the first-ever vaccine in the world. This vaccine was brought to Boston in 1800 and the deaths from smallpox were significantly reduced thereafter.

When visiting early Boston burying grounds, it is common to look for well-known names, usually politicians or ministers, whose names have made it through the filter of time and are familiar to us. Although their deeds were great, it is also interesting to consider the stories of the "unknown." We read the epitaphs of random people and wonder what their lives were like. Their experiences, both good and bad, have affected our history. And then we consider the thousands of people who were buried with no grave marker, many of whom died of smallpox. The struggle against smallpox was a long one, fraught with fear and sadness. From the sailors quarantined on a harbor island to grave diggers burying numerous people everyday, from a watchman guarding a sick house to parents hoping the smallpox inoculation will save their child, there are countless stories that could be told. Although the voices of those who suffered through the wake of smallpox epidemics which afflicted Boston since the 1600s have long since gone quiet, their presence is not completely erased from our physical surroundings or mental awareness.

BEFORE & AFTER: CONSERVATION OF GRAVE MARKERS FROM THE FRAGMENT COLLECTION



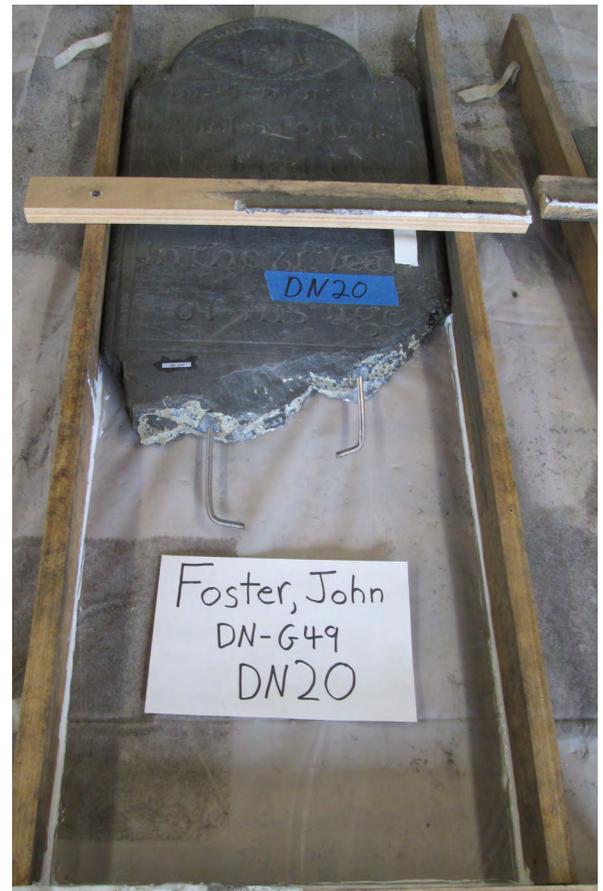
The John Foster headstone, before restoration. The bottom part of the headstone is missing. It cannot stand up in the ground without the addition of a lower section.

The gravestone fragment conservation and resetting project is completely finished. The project was conducted according to plans with no change orders. This is somewhat surprising (in a good way) for any project of a historical nature; there is usually some discovery of a previously unknown situation which requires additional work. The total cost of the contract was \$97,500. The contractor who did the work was Building & Monument Conservation (B & MC). In total 138 gravestones received conservation treatment and were reset and 38 gravestones were reset with no repair work needed.

Many of the headstones were broken off just below the inscription, where the stone goes into the ground. In those cases the remaining part of the stone was either in the ground, usually completely covered by grass, or else otherwise lost. In some cases we were able to find the second part of the stone, but in most cases we could not locate it and a new "base" had to be attached so that the marker could be reset in the ground. The project specifications permitted the base to be made of either stone or concrete, according to the

conservator's preference. In either case, the base had to be attached to the grave marker in a secure manner that did not harm the original part of the marker and was aesthetically compatible.

The headstone of John Foster, who died in 1786, was reset in Dorchester North Burying Ground. A review of the conservation treatment for this headstone illustrates the method B & MC used to address this type of problem. First the conservator drilled two holes into the gravestone fragment and then inserted stainless steel pins bent into an "L" into the holes with a little bit of epoxy. Next they built a wooden form at the bottom of the marker and cast the black tinted cement into the form. They carefully compressed it against the bottom of the slate and around the pins. The cement does not stick to slate very well especially if it is a thin slate. After the concrete fully cured, the stone could be reset in the site.



The John Foster headstone during restoration. The pins have been installed and the form for the concrete base has been built.

In total 42 headstones were reset in Dorchester North Burying Ground, of which 14 required no work other than resetting and 28

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The new concrete base has been attached to the headstone fragment. The completed headstone is over 3 feet tall.

required some form of conservation work. Other types of repairs were also done including reattaching broken fragments together, applying patches and mortar caps, and grouting cracks.

One of the headstones from Dorchester North Burying Ground that was retrieved from the fragment collection was in eight pieces. In addition to the difficulty of repairing the stone, determining the new location of the stone was challenging. The carving on the marker is shallow and incomplete, making it hard to even determine the name of the deceased.

Additionally the first letter of the last name "Jones" looks like an "I" instead of a "J." The fragments were found in



The eight pieces of the David Jones headstone before conservation.



The David Jones headstone after being conserved and reset.



The John Foster headstone after being reset in Dorchester North Burying Ground.

Dorchester North Burying Ground, but since I could not find the stone listed in the 1986 site survey, I did not know the location where it should be reset. In cases like these I try to put the grave marker near other family members' stones, if I can find them. I looked in the records of births, deaths, and marriages from Dorchester and confirmed there was a David Jones who died in Dorchester on June 19, 1691, that his wife was named Sarah, and that they had several children. I also found his date of birth which enabled me to calculate his age at death. I located the gravestones of Sarah and Thomas Jones, who I believe were his wife and father, and had his headstone set next to their stones. Although I cannot say with 100% certainty that this is the

BEFORE & AFTER: GRAVE MARKER CONSERVATION

correct relationship between these people, I believe the degree of accuracy is high enough to merit this placement.

Some of the fragments in this project were tomb plaques, which are sometimes mortared into a brick wall and sometimes set directly on the ground above an underground tomb. The tomb plaque in the photo below illustrates a common dilemma for pieces from the fragment collection: we know where the grave marker goes, but we only have part of the marker. Do we keep on storing it in hopes the matching piece will turn up and be matched to the fragment or do we find a way to reset the stone as is? For the plaque for tomb #69 in Central Burying Ground, the fragment measured less than half the size of the original



The tomb plaque fragment before treatment.

marker. In this area of the burying ground the tomb markers are set directly into the ground. It is easy to imagine that such a small fragment would get lost. We judged that the likelihood of finding the missing part(s) of the grave marker was slim and that it was better to put the fragment we had in the burying ground in its original position. The concrete addition indicates both the original size of the marker and helps to stabilize it once set in the ground.

The tomb owner, Henry Purkitt, obtained the right to build this tomb and hired a mason to do so in 1802. He was born in 1755, the son of a German immigrant, and died in 1846. He participated in the Boston Tea Party and was a soldier in the American Revolution. His discharge papers were signed by George Washington.



The tomb marker after treatment, reset in Central Burying Ground.

SITES INCLUDED IN THE HISTORIC BURYING GROUNDS INITIATIVE

Bennington Street Cemetery (1838)

Hawes Burying Ground (1816)

Bunker Hill Burying Ground (1816)

King's Chapel Burying Ground (1630)

Central Burying Ground (1754)

Market Street Burying Ground (1764)

Copp's Hill Burying Ground (1659)

Phipps Street Burying Ground (1630)

Dorchester North Burying Ground (1633)

South End Burying Ground (1810)

Dorchester South Burying Ground (1810)

Union Cemetery (1841)

Eliot Burying Ground (1630)

Walter Street Burying Ground (1711)

Granary Burying Ground (1660)

Westerly Burying Ground (1683)