MORE THAN MEETS THE EYE

The Archeology Of Bathhouse Row,
Hot Springs National Park, Arkansas

Prepared By
Author
William J. Hunt, Jr.

Midwest Archeological Center
Technichal Report 102

United States Department of the Interior
National Park Service
Midwest Archeological Center
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2008

Cover Caption Hot Springs National Sanitorium, Ark. Arlington Hotel, Central Ave. and Bath House Row in 1888 “Postcard printed by Eastern National based on a poster by J.R. Buckingham and printed in 1888 by Woodward and Tiernan Printing Co., St. Louis.

This report has been reviewed against the criteria contained in 43CFR Part 7, Subpart A, Section 7.18 (a) (1) and, upon recommendation of the Midwest Regional Office and the Midwest Archeological Center, has been classified as

Available

Making the report available meets the criteria of 43CFR Part 7, Subpart A, Section 7.18 (a) (1).

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HOT SPRINGS

ABSTRACT

For many, the oldest "park" managed by the federal government is not Yellowstone National Park (set aside in 1872) but Hot Springs National Park (HOSP) in Arkansas. Congress set aside the hot springs and adjoining mountains here as a federal reservation in 1832 to protect the resource and preserve it for public use. For centuries before this, the hot springs may have used by Native Americans, their occupations having little impact on the resource. But with EuroAmerican use, this began to change. At first, the area around springs saw little change but after the Civil War, development began in earnest. The hot waters from the springs were harnessed and forced to flow to a series of ever larger and more extravagant bathhouses built on the east side of Hot Springs Creek. Native American use and over 210 years of EuroAmerican occupation has created the potential for the existence of significant prehistoric and historic archeological resources at HOSP. Until recently, archeological exploration of the park has been sporadic and this is especially true for Bathhouse Row.

This report provides an overview and analysis of the 2003 to 2004 archeological investigations in Bathhouse Row, the Grand Balustrade, and the Promenade. These structures and facilities are located in Garland County at the heart of the City of Hot Springs, Arkansas. Hot Springs National Park is administered by the National Park Service. Bathhouse Row was listed on the National Register of Historic Places in 1974 and designated a National Historic Landmark in 1987. It is considered a threatened resource by the National Park Service. Initiation of stabilization and rehabilitation of six of the eight bathhouses on Bathhouse Row in 2003 set the stage for the Midwest Archeological Center (MWAC) to investigate areas of the park sealed off by decades of development.

Investigative goals were to: 1) create a historic, to-scale base map incorporating all known structures; 2) monitor ground disturbing construction actions inside and outside the six bathhouses (excluding the Fordyce and Buckstaff); 3) conduct test excavations as necessary to identify and evaluate buried cultural resources as they were encountered; 4) officially record discovered cultural resources as archeological sites with the Arkansas Archeological Survey. These goals were accomplished over six months of intermittent work. Subsequent to the recovery of 4621 artifacts from four locations and discovery of 19th century structural features in four of the bathhouses, five archeological sites were recorded with the Arkansas Archeological Survey. The sites' conditions, disturbance and threats were evaluated. All were determined to be eligible for listing on the National Register of Historic Places. A summary of findings is presented and is followed by recommendations to Park managers for future investigations focused on resource identification and actions designed to enhance archeological resource preservation, protection, and interpretation.

ACKNOWLEDGEMENTS

This project is the product of the labor of many individuals. Grateful appreciation is extended to Midwest Regional Director Ernest Quintana, HOSP Superintendent Josie Fernandez, and HOSP Assistant Superintendent Dale Moss for supporting this project. Thanks go to HOSP Facility Manager Leonard Lawson and his staff for their support while my crews and I were in the park. The Maintenance staff went far beyond the call of duty to make us feel welcome and provided every assistance to help us get our work done efficiently, safely, and as comfortably as possible in what were difficult working conditions. Among Larson's staff, I would particularly like to mention the assistance of HOSP Maintenance Mechanic Jack Thompson and his crew.

Thanks also to Lisa Garvin, HOSP Chief of Cultural Resources, and her dedicated staff with special appreciation noted for the assistance and hospitality of HOSP Park Ranger Mark Blaeuer and HOSP Museum Specialist Sharon Shugart. Blaeuer and Shugart were more than helpful throughout the planning and implementation of this project. They made themselves available throughout my numerous visits providing advice and information on park history and archeology whenever I came knocking on their doors. They have also provided much of the historic information and many of the illustrative materials used in this report.

At the Midwest Archeological Center, I want to thank Tom Thiessen who was at that time MWAC Parks Archeology Program Manager for his direction and leadership during this project. Finally, I must certainly acknowledge MWAC Manager Mark Lynott, MWAC Administrative Officer Bonnie Farkas, and the rest of MWAC's fine staff in Lincoln, Nebraska, for all their help without which this project would never have been completed.

Finally, it should be noted that Larich Inc., Bolin Enterprises Inc., and Power Lift Inc. management and personnel were extremely helpful throughout the course of the fieldwork. Larich was the primary contractor for the stabilization project. Bolin Enterprises Inc., and Power Lift Inc. were subcontractors for the initial stabilization of Maurice and Lamar Bathhouse foundations and structures. I was particularly grateful to be able to work closely with Bolin Enterprises and Power Lift owners and project supervisors. Their crews were often forced to work around the archeology crews. They did so without complaint and often provided assistance when needed to help complete the archeological tasks in a timely fashion.

William J. Hunt, Jr.
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TABLE OF CONTENTS

HOT SPRINGS

LIST OF TABLES

HOT SPRINGS

LIST OF FIGURES

LIST OF FIGURES

1. INTRODUCTION

For many, the oldest "park" managed by the federal government is not Yellowstone National Park but is really Hot Springs National Park (HOSP) located in west central Arkansas. The hot springs and adjoining mountains were set aside by Congress in 1832 as a federal reservation to protect the resource and preserve it for public use. This was 40 years before Yellowstone National Park was created. The reserve was designated a National Park by Congress on March 4, 1921. The park, located about 55 miles southwest of Little Rock (Figure 1), loops through and around the north side of the city of Hot Springs. Shaped somewhat like a flattened donut, it incorporates over 5500 acres of lush woodlands and has over 30 miles of well developed hiking trails. Another 672.69 acres within the park boundary are not federally owned. The city of Hot Springs, with an approximate population of 33,000, lies immediately outside the park and exerts a significant influence on it (Hot Springs National Park 2005).

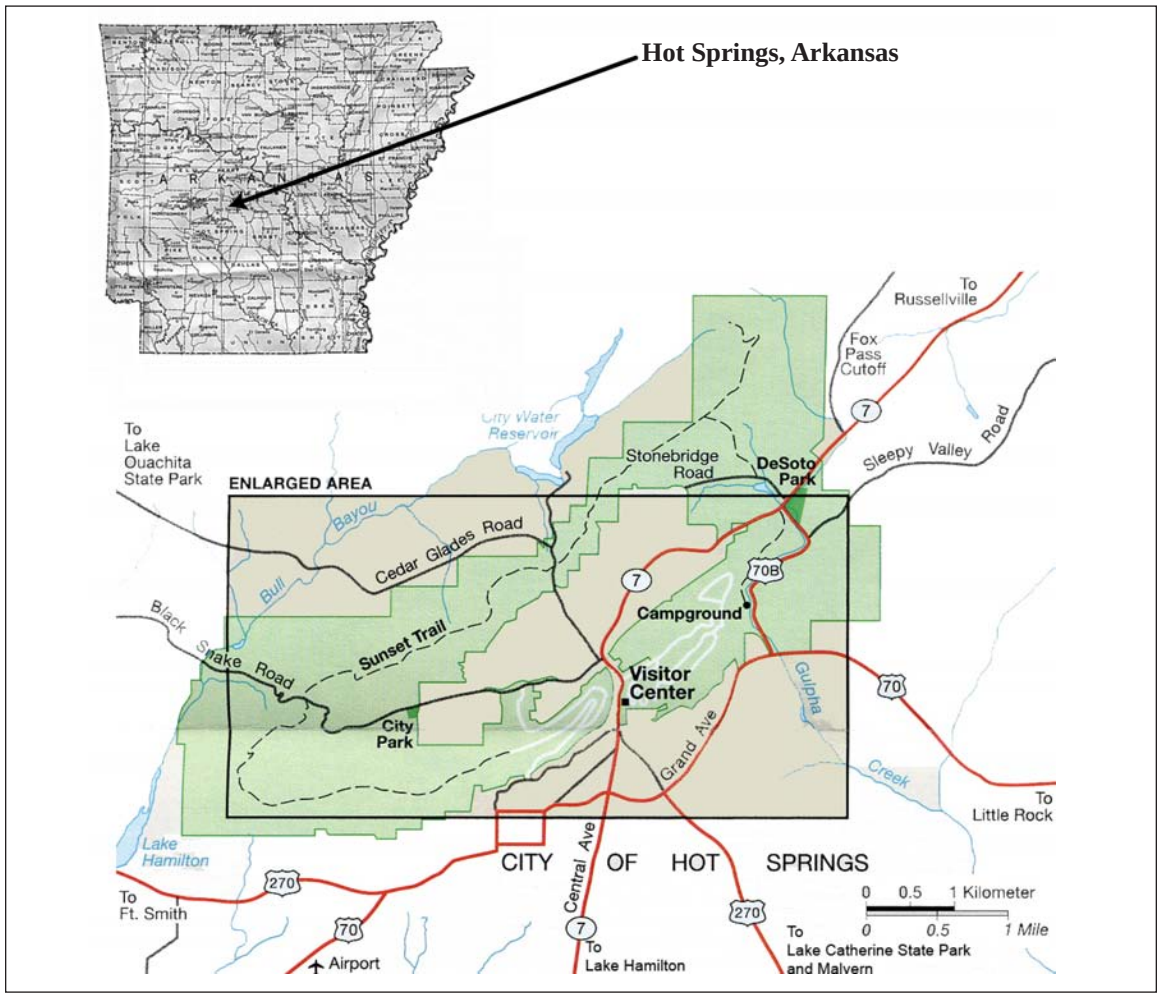

Figure 1. Location of Hot Springs National Park.

Visitation in 2003 was over 1½ million people with the rate of visitation declining slightly through 2006 to about 1¼ million. The primary attraction here, of course, has always been the natural hot water springs with over 47 of these springs flowing from the northwest face of Hot Springs Mountain. Their mineral waters average 143º F and flow from the ground at an average rate of 700,000 gallons per day. That's about 255 million gallons a year collected by the park in a series of spring houses and piped to the striking bathhouses on Bathhouse Row.

Environment

Hot Springs National Park lies within the southeast margin of the Zigzag Mountains, a small range of the Ouachita Mountain system in the Interior Highlands which form the only major topographic relief for a vast area of the midwestern and south-central United States. The topography was formed in late Paleozoic times (400 million years ago) by geological forces that uplifted, folded, faulted, fractured, and hardened inland seabed sediments. Subsequent erosion has led to the formation of the present ridge and valley landscape. Most of the narrow steep ridges of the Zigzag Mountains are capped with novaculite rock outcrops. Novaculite is a sedimentary rock largely composes of microcrystalline quartz and is a recrystalized version of chert. These outcrops are unique to the Ouachita Mountains and the finely grained structure of the novaculite is known for its superior quality as a natural whetstone. Novaculite was also used for hundreds, if not thousands of years for the manufacture of stone tools by prehistoric Native Americans although its use peaked circa 1000 B.C during the Late Archaic period (personal information, Mark Blaeuer 2/12/2007).

The climate of the Hot Springs National Park area is temperate with a mean annual temperature of 63° F. The average daily temperature range is 24° F. The coldest month is January when the normal daily maximum temperature is between 50° and 55° F and the normal daily minimum is 30° F. The warmest month of the year is July with a normal daily maximum temperature between 90-100° F and a normal daily minimum temperature around 70° F. Precipitation generally originates in the Gulf of Mexico and usually occurs in the form of rain with violent thunderstorms not uncommon. Mean annual rainfall is 61.8 inches with the wettest period in April and May.

The park and its surrounding mountains lie within of the south-central United States' pine-oak-hickory forest ecosystem. Wildlife within the park is typical of the region, consisting mostly of rodents, bats, and other small mammals. Historically, the area was occupied by bear, wolves, bobcats, gray fox, raccoons, opossums, striped skunks, fox squirrel, and white-tailed deer. Because of the region's mild climate, bird species are varied and plentiful. Larger species include turkey, ruffed grouse, owls, crows, and three species of hawk. Forest snakes include the copperhead, rough green snake, rat snake, coachwhip, speckled kingsnake and timber rattlesnake. Aquatic resources in the park may be found in portions of several small creeks, Rick's pond, and in the hot springs themselves. Non-thermally altered water sources are typically void of significant game fish. Thermally

altered water sources contain a number of unique life-forms that have adapted to the harsh environments of heated, highly mineralized water. These thermophiles include tiny microbes referred to as "nanobes," extremely small crustaceans called "ostracods," and blue-green algae. There are also specialized plant species associated with the hot springs. Among these are Arkansas bedstraw (*Galium arkansanum var. pubiflorum*), woodland stonecrop (*Sedum ternatum*), and spleenworts (Hot Springs National Park 2006). No endangered or threatened animal species are known to live in the park.

The most common topographic features of the park are the rocky mountain slopes with their novaculite outcrops and lush creek valleys. These areas support mixed stands of oak and hickory interspersed with shortleaf pine on the more exposed slopes and ridgetops. The forest understory contains flowering shrubs and the park supports a wide variety of wildflowers.

Hot Springs National Park is drained by Gulpha Creek, Hot Spring Creek, and Bull Bayou. All are tributaries of the Ouachita River. Gulpha Creek flows through the eastern portion of Hot Springs while Hot Springs Creek drains the central and western portions of the park. Bull Bayou drains the extreme western margin of the park (information for this section is derived from Baldwin 1974:52-53, 56-57; Hot Springs National Park 2005; Shelford 1974:14, 59-60; and U.S. Army Corps of Engineers 1974: 4).

Historic Background

Early historic accounts suggest that the hot springs were used by Native Americans centuries prior to Euroamerican arrival in this area. If quarries can be counted, up to fifteen Native American sites have been recorded in the park, a fairly high number given the lack of a systematic archeological survey, dense vegetation cover, and the extensive historical development in many areas of the park. The remnants of these occupations are hard to see and have generally left little visual impact on the land. The most obvious sites are extensive quarries, sometimes many acres in size, where various colored novaculite was mined for stone tool manufacture. Far fewer in number and much less noticeable are the small campsites in the park, several of which have been recorded on the lower reaches of Hot Springs Mountain and Bull Bayou. The presence of prehistoric sites in the park reinforces to some degree the early accounts of Native American use of the springs and artifacts recovered from these sites suggest their use for at least 3000 years and probably longer.

The first European to view the hot springs is reputed to have been Hernando de Soto. There are claims that he may have visited the hot springs in 1541 as he traversed the Southeast in his quest for gold, silver, and jewels (Brown 1982:10). Although this claim is unsubstantiated, it is likely that the springs were known by the French and Spanish during the 17th and 18th centuries but, again, there is little or no record of them in colonial documents.

HOT SPRINGS

With American acquisition of the area as a part of the Louisiana Purchase in 1803, however, President Thomas Jefferson was keen to learn as much about the territories as possible and decided to send men of science to explore the newly acquired lands. In 1804, the same year the Corps of Discovery left St. Louis to explore the northern region of Louisiana, Jefferson dispatched a second expedition whose goal was to explore the Ouachita River region to the source of the Red River. The expedition was led by amateur scientist William Dunbar, a friend of Jefferson's from Mississippi, and Pennsylvania chemist George Hunter selected by Dunbar. As with the Corps of Discovery, the expedition was manned by soldiers, this time from the New Orleans garrison. The Hunter-Dunbar expedition set out on October 16, 1804, traveling up the Ouachita River and on to the area of Hot Springs, Arkansas. Dunbar became the first man to give a scientific report of the hot springs (Brown 1982:10-11). The reports of Dunbar and Hunter eventually reached the public and Americans began moving into the area. In 1807, the first permanent white settler arrived in the area, and shortly thereafter a number of log cabins had been built in the vicinity (Harrison 1986) with some immigrants establishing crude hostelries and bathhouses (Figure 2).

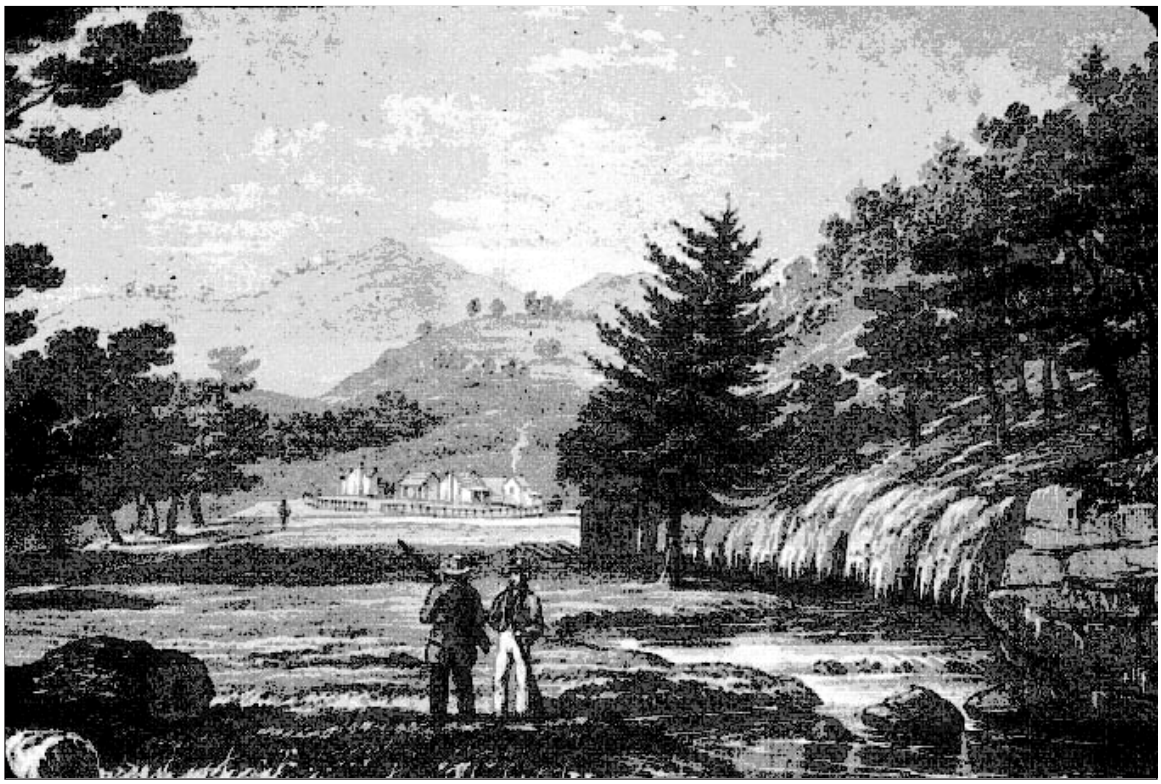

Figure 2. View of the Hot Springs valley in 1832.

In 1807, the first settler arrived. Jean Emanuel Prudhomme was led to the springs by a group of Natchitoches Indians, a division of the Caddo tribe, via a trail known as the Natchitoches Trace (Brown 1982:11). Prudhomme built a cabin at the springs living there off and on for several years finally selling the house to a fur trader by the name of John Percival. Visitation by Americans to the hot springs was on the rise and Percival built log cabins to provide them with accommodations. By 1816, thirteen families lived near

the springs. Over the next years, a few worked to turn the springs into a privately owned health resort while others petitioned the federal government to make them accessible for everyone. Among the petitioners was the Arkansas Territorial Legislature which appealed to the federal government to set aside the springs as a government reservation for use by the public. A bill to this effect was finally passed by Congress and signed by President Andrew Jackson in 1832. Unfortunately, this bill did not include instructions for for administering the site and people continued to settle and establish businesses at the springs. When the Department of the Interior was established in 1849, the reservation was placed under that department's control. Nevertheless it took another 28 years before the government was able to settle all the private claims to the springs and exert control over the area (Shugart 2002).

The community grew slowly until after the Civil War when the United States government finally exerted control over the reservation and development of the springs began in earnest. The hot waters were harnessed and directed to flow through wooden troughs and pipes to a series of ever larger and more extravagant bathhouses built on the east side of Hot Springs Creek under federal government leases. The pre-war, crude log shanties were quickly replaced with a row of simple frame structures until, by the 1870s, the town of Hot Springs had arisen around the reservation (Figure 3).

Figure 3. Bathhouse Row as it appeared in the 1870s (looking north).

Two events occurred in the late 1870s which brought about revolutionary changes to the town, one a blessing and the other seemingly a curse but transforming the community for the better. The first change had to do with transportation. Prior to 1875, visitors wanting to partake of the Hot Springs were required to make an arduous journey by stagecoach over rough and circuitous roads. After that date, however, tourists could arrive directly in Hot Springs via a narrow gauge railroad from Malvern. The railroad, converted to a standard-gauge track in 1889, was a huge improvement in public transportation and allowed many more visitors to come to Hot Springs. This increase in visitation in turn spawned a construction boom with ever larger and more luxurious hotels and bathhouses rising around the Reservation (Brown 1982:22-24; Shugart 2002: entry for 1875).

The second event that elevated Hot Springs from a sleepy southern town to a flourishing world class spa was a devastating fire. It apparently started in one of the lesser bathhouses (one that may have been a bordello as well) and burned its way north almost to the Arlington Hotel (located at that time across the street east from the modern hotel of the same name). Most of the larger bathhouses were spared but nearly the entire business district of the town, including four bathhouses and seven hotels, was destroyed (Brown 1982:82-83; Shugart 2002: entry for 1878). As Dee Brown has noted, "The old Spa was gone; its departure, however, only made room for the new American Spa which would be rebuilt in time for the Elegant Eighties" (Brown 1982:82).

The initial years of the 1880s saw a whole series of new elegant frame bathhouses erected along Bathhouse Row on the east side of Central Avenue. Among the first of this new generation of structures was the Ozark Bathhouse, established in 1880 (Figure 4). This was built on Bathhouse Site No. 4 at the location occupied by the former Weir and George's Iron and Magnesia Bathhouse. The Independence, Rammelsburg, and Palace bathhouses were completed that same year. In 1881, the Rector Bathhouse was opened and, sometime before 1882, the Hale Bathhouse was constructed on the site of the original facility of the same name (Bell 1990a:H8; Shugart 2002: entries for 1880s, 1880). Another round of construction took place just after the mid-decade with the first Lamar, the first Superior, Horse Shoe, and Magnesia bathhouses in place by the end of 1887 (Shugart 2002: entry for c1887). By the 1890s, Bathhouse Row was an assemblage of elegant structures, virtually all in the Queen Anne style popular in the 1880s and 1890s (see the cover illustration).

As Bathhouse Row was being transformed, movement was afoot to do something about Hot Springs Creek. During the 1870s and early 1880s, as the city of Hot Springs grew, the creek was transformed into little more than an odoriferous open sewer. Heavy rains occasionally transformed this "sewer" into a dangerous torrent. In 1884, the government initiated a project to enclose the Reservation's segment of Hot Springs Creek within a masonry arch. This created a 100 foot wide avenue which was landscaped with neat rows of trees. With the addition of a paved sidewalk and decorative fountains on the grounds of the adjoining hotels, Bathhouse Row was transformed into an eye-pleasing public park (Brown 1982:36-37; Shugart 2002:7).

Additional beautification of Bathhouse Row focused on the creation of a formal entrance for the park. Prior to 1892, the area now occupied by the Stevens Balustrade was a dirt and gravel service drive which led to a road behind the bathhouses. Initially, the government tried to acquire the assistance of famed landscapist Frederick Law Olmsted. Misunderstandings between the government and Olmsted's firm led to the Lt. Robert Stevens, U.S. Army Corps of Engineers, undertaking the beautification project. A pair of eagle-topped columns between today's Maurice and Fordyce bathhouses remain the only contribution to the formal entrance by the Olmsted company. Stevens completed a multi-level limestone balustrade which was named the Stevens Balustrade in his honor.

Figure 4. The Ozark Bathhouse as it appeared circa 1880 just after construction.

The balustrade was finished in 1895 and capped by a bandstand in 1896 (Shugart 2002: entries for 1892, 1894, 1895, 1896).

By the turn of the century, it was readily apparent that the frame structures built during the 1880s had to be replaced. In 1890, federal special investigator Thomas Musick came to Hot Springs to examine the conditions of the bathhouses. He found several buildings required immediate rebuilding and others would need to be replaced within the near future: "All agree that the vapor from the hot water rots all timber with which it comes in contact in remarkable short time. Therefore, rebuilding should be in brick and lower beams at least of iron and lower floors of concrete and marble. No more wooden buildings should be

allowed" (Musick 1890, in Paige and Harrison 1987:79). As well, fires continued to plague downtown Hot Springs businesses. In 1884, the Hotel Josephine was destroyed and two years later, the French Hotel burned to the ground (Shugart 2002: entries for 1884, 1886). A devastating fire in February 1905 destroyed 400 buildings on 104 acres of land (Paige and Harrison 1987:85). Among these were the Alhambra Bathhouse, the Moody Hotel, the Grand Central Hotel, the Plateau Hotel, and the Illinois Hotel (Shugart 2002: entry for 1905). It was clearly past time to build fireproof buildings of concrete, brick, stucco and steel. A final round of bathhouse construction was initiated in 1911 when the old Maurice Bathhouse was torn down and a new bathhouse of the same name constructed. Construction continued all along Bathhouse Row into the early 1920s by which time all the wooden Victorian-style bathhouses were replaced by more modern and elaborate architecture. With construction of the Lamar in 1923, the elaboration process was concluded and all the current structures on Bathhouse Row in place. Near the end of this process, in 1921, Congress declared the Hot Springs Reservation the country's 19th national park.

In the 1930s, another major beautification project was initiated behind Bathhouse Row. Until 1933, the area now occupied by the Grand Promenade was a wagon road leading, in part, to the Government Free Bathhouse. With the destruction of the government bathhouse in 1922, there was no obstacle to establishment of a formal walkway above and behind Bathhouse Row. Grading was initiated by the Civil Works Administration for the Grand Promenade in 1933 and was completed the following year. In 1937, the Imperial Bathhouse at the south end of the National Park was demolished for construction of an entrance to the Grand Promenade from Reserve Street. Gravel was laid down in 1938 for the walkway but it was not until 1941 that the first brickwork on the Grand Promenade was completed from the south entrance to the Stevens Balustrade. With the demolition of the Fountain Street Superintendent's residence, the Grand Promenade was extended northward to Fountain Street. The Reserve Street formal entrance was completed in 1957 and installation of lighting and plantings completing the Grand Promenade took place the following year (Shugart 2002:entries for 1933, 1934, 1935, 1937, 1938, 1942, 1956, 1957, 1958).

By the 1920s, the fame of Hot Springs had grown and it was often referred to as "the Baden Baden of the West." Thousands of visitors came to experience the therapeutic powers of the warm mineralized waters and, such was its popularity, visitation to the bathhouses increased to over a million baths per year during the late 1940s and early 1950s. The attraction of the baths' healthful affects was enhanced by the addition other forms of entertainment along Central Avenue. In fact, Hot Springs was a "Las Vegas" long before the desert city achieved its distinction as a tourist getaway. Big name entertainment along with illegal gambling were highlighted at several nightclubs on the west side of the street opposite the bathhouses. Horse racing was a huge draw, which it remains to this day, and a number of major league baseball clubs chose this site for spring training. Among these were the Chicago Cubs, Pittsburgh Pirates, Boston Red Sox, and St. Louis Perfectos (now the Cardinals). The elite of Hollywood, professional sports, and American politics, along with famous mobsters, all converged on Hot Springs. Famous visitors to the park included the

likes of Will Rogers, Helen Keller, Babe Ruth, Jack Dempsey, Dizzy Dean, Franklin and Eleanor Roosevelt, William Jennings Bryan, with infamous tourists including gangsters Al Capone and Joseph Valachi (Brown 1982; Paige and Harrison 1987).

The prosperity of Bathhouse Row was brought to a sudden halt when the illegal gambling was shut down almost overnight by Governor Winthrop Rockefeller in the late 1960s. As well, throughout the early 20th century, public and scientific attitudes about the efficacy of hot baths and consumption of mineral waters for preserving and promoting health and curing illness had been changing radically. The hot mineral baths were no longer seen to have curative powers. This combination had a devastating effect on bathhouse business and, one by one, they began to shut down. The Fordyce Bathhouse, the most elaborate on the row, initiated the collapse when it closed in 1962. The Maurice, Ozark, and Hale shut their doors in the following decade and, in 1984 and 1985, the Quapaw, Superior, and Lamar closed. This left the Buckstaff as the only operational bathhouse on the row, a status which it continues to hold today.

As the bathhouses remained empty, they began to deteriorate. The exceptions were the Fordyce Bathhouse which was converted to the park visitor center and museum and the Buckstaff which required only minor preservation actions to maintain its good condition. The other structures saw little more than exterior painting and repair until recently when park managers faced the serious possibility that the buildings might become irreparable in the not-too-distant future if something was not done quickly. This possibility plus a public interest in revitalization of the structures for some kind of adaptive reuse led to the park adopting a program of building repair and modernization.

Bathhouse Row was added to the National Register of Historic Places as a district on November 13, 1974 (National Park Service 2006a). It included the eight bathhouses, administration building, and associated fountains, brick promenade, and stairways as contributing structures. On May 28, 1987, Bathhouse Row was designated a National Historic Landmark (NHL). The NHL's nominating statement of significance described it as

> *the largest grouping of bathhouses in the country, illustrates the popularity of the spa movement in the U.S. during the 19th and 20th centuries. It is also an excellent collection of turn-of-the-century eclectic buildings in the Neoclassical, Renaissance Revival, Spanish, and Italianate styles. The hot springs are the resource for which the area was set aside as the first Federal recreational reserve in 1832* (National Park Service 2006b).

Project Background

By the turn of the 21st century, the buildings had physically degenerated to the point that in 2002 and again in 2004 the NHL was determined to be "Threatened."

Six of the bathhouses (Superior, Hale, Maurice, Quapaw, Ozark, and Lamar) remain vacant with little to no climate control. Each vacant bathhouse is classified in the threatened category. Fordyce Bathhouse, the park's visitor center, and Buckstaff require some preservation actions to maintain their good condition. Exterior and interior wall repairs & painting, new heating/air conditioning (Fordyce), porch repairs (Buckstaff), roof drain repairs (Fordyce), and other small construction/ maintenance items are some preservation actions that are needed. Substantial planning, design, & rehab projects including all vacant bathhouses and cyclic and daily operation projects for the Fordyce, park headquarters, two comfort stations, sidewalks, vegetative plantings, the Balustrade, the Grand Promenade, thermal display pools, water fountains, signs, exhibits, lamp posts, and other components of the National Historic Landmark have been submitted for approval (National Park Service 2006b).

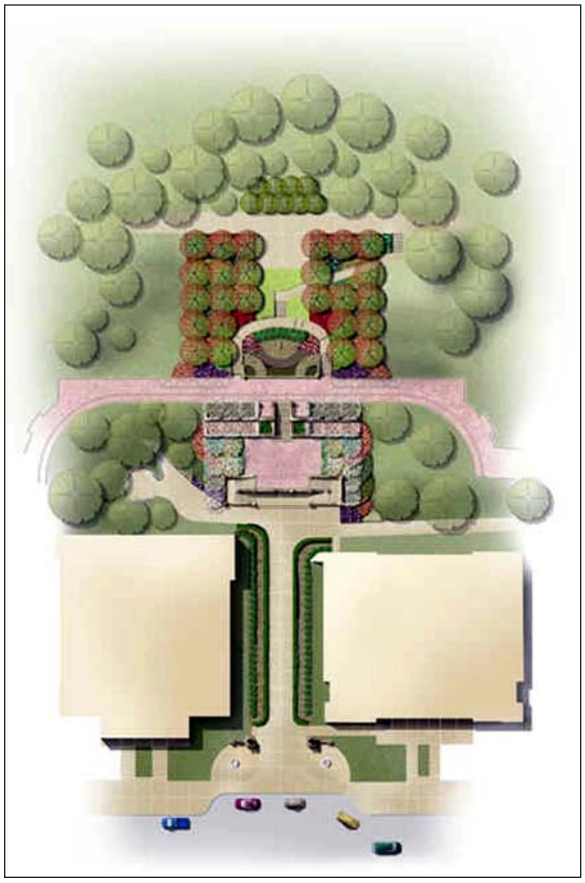

Figure 5. Landscape plan commissioned by the Friends of Fordyce for the Stevens Balustrade.

In 2003, two events at Hot Springs National Park brought about a series of archeological investigations over the following fall, winter and spring. The first event actually started 2002 with a landscape design focusing on the beautification of Stevens Balustrade and the Grand Promenade (Figure 5). This project was proposed by the Friends of the Fordyce Bathhouse and Hot Springs National Park, Inc. (hereafter to be referred to as the Friends or Friends of Fordyce). This non-profit organization was established to fund special programs and acquisitions for the park. In March 2003, the Friends provided financing for a construction project to meet these goals (Friends of the Fordyce Bathhouse and Hot Springs National Park 2003). The Park contracted this project out but unfortunately allowed construction to be initiated without following standard NPS planning review procedures. From a cultural resource perspective, the most important of these procedures is the Section 106 review which solicits comments and alternatives from cultural resource specialists in the National Park Service and State Historic Preservation Office. Such consultations are supposed to insure the best means of construction at the best cost and with the minimum of impact on cultural and natural resources. This is especially critical where, as in this

case, the potentially affected resource is part of a NHL. When this lack of compliance with federal statutes and regulations came to the attention of the Arkansas State Historic Preservation Office (SHPO) and NPS Midwest Regional Office (MWRO), construction at the Balustrade was halted but not before considerable damage had been done. Hot Springs National Park was notified by the SHPO that the large, crudely constructed walls that had been put in place were incompatible with and detracted from the historical character and integrity of the Stevens Balustrade (Shugart 2003a).

Subsequently, a Memorandum of Agreement (MOA) was signed by the park, SHPO, and president of the Friends of the Fordyce with the park agreeing to mitigate the impacts that had already occurred to the area of the Balustrade and to maintain the area's historical character and integrity (Hot Springs National Park 2003a). This was done in accordance with a treatment plan agreed upon by all parties (Hot Springs National Park 2003b). Part of this agreement required an archeological inventory of the area including swaths on each side of the brick promenade above and behind the bathhouses.

With the MOA completed and understanding that the Bathhouse Row stabilization would require considerable ground disturbance, MWRO requested an overview of potential archeological issues, actions, and costs from the Midwest Archeological Center(MWAC). The result was a brief document identifying: 1) construction projects' logistical, phasing, and scheduling issues that had the potential to affect any future required archeological actions; 2) the presence of known archeological features in the immediate vicinity of the bathhouses, Balustrade, and Grand Promenade; and 3) the presence of unexcavated fill and structural elements in several bathhouses and corresponding high potential for remnants of prehistoric and historical archeological resources to exist under and around the bathhouses (Hunt 2003). The overview concluded by proposing historic research and creation of to-scale Geographic Information System (GIS) mapping of historic bathhouse row. It also proposed that the documentary research take place simultaneously with monitoring construction ground disturbance, archeological testing, and shovel test inventories as necessary since construction at Bathhouse Row was imminent.

MWAC Historical Archeologist William Hunt was assigned to conduct the investigations. Hunt traveled to HOSP soon thereafter to gain familiarity with the construction projects' scope, scheduling, and potential impacts. Discussions with park and construction personnel and a tour of the developed portion of the park led to identification of structural elements and features pre-dating the modern bathhouses in four of six bathhouses targeted for stabilization.

As a result, extensive archeological investigations were undertaken intermittently by MWAC staff and crews from November 4, 2003, through May 18, 2004. The report that follows presents the historic background and archeology of each area investigated, details the type and methods of investigation in each location, descriptions of features and artifacts observed, an analysis and summation of the findings, and makes recommendations for further work, assesses resource significance, and recommendations for future management.

HOT SPRINGS

Upon completion of the project, artifacts and field records were transferred to Hot Springs National Park for curation. The park accession numbers for this material is HOSP 635 (Bathhouse Stabilization) and 651 (Stevens Balustrade/Grand Promenade). Contact HOSP Curation for further information.

2. INVESTIGATIONS AT STEVENS BALUSTRADE AND THE GRAND PROMENADE

Historic Background

Stevens Balustrade and the Grand Promenade are products of a park beautification effort that began at the end of the 19th century and finally concluded in the mid-20th century. The main landscape thrust of the program was to provide formal gardens in front of the bathhouses, and more "natural," tastefully landscaped areas behind. The range of landscaping thus would provide areas for restful walks with enough connection with nature and the outdoors to ensure a healthy atmosphere for recuperation. Frederick Law Olmsted's landscape architectural firm was hired to produce plans for the area, but those plans were rejected or left unfinished. The project development was then given to Lieutenant Robert Stevens, an Army engineer. Stevens designed the entrances to the reservation, including the historic main entrance. He also formalized the Magnolia Promenade in front of the bathhouses, designed the meandering upper terrace behind the bathhouses, and created a series of pathways, carriage roads, and vest-pocket parks.

The final phase of development that significantly defined landscape spaces began during the 1930s. Design and construction was confined to the upper terrace and involved creation of a brick-paved Grand Promenade with sitting areas, fountains, vista points, and three major architectural entrances—the main entrance, the Fountain Street entrance, and the Reserve Street entrance.

By the time Stevens' design and construction efforts commenced, three primary landscape spaces were already topographically and functionally determined. Stevens' plan embraced each of these landscape spaces, including all of Bathhouse Row, the upper terraced area immediately above and behind the bathhouses, and the wooded mountainside. Concerned with both form and function, Stevens divided the terrain into distinct landscape units, each with its own spatial arrangements and emphasis. Topography at the base of Hot Springs Mountain had been recontoured to form an upper terrace, and a lower terrace had been formed by containing Hot Springs Creek in a masonry arch and backfilling with soil. The lower terrace was at street level and was bounded on the west by Central Avenue for some 1,700 feet between Reserve Street and Fountain Street. This level functioned as the reservation's public front upon which Victorian-style bathhouses, walks, and entrances to the upper terrace had been built.

The second or upper level utilized, with some modification, a terraced natural area to accommodate roads and walking trails. This area was immediately behind the row of bathhouses and below the Army-Navy Hospital carriage drive. A third landscape space included all of the western slope and ridge area of Hot Springs Mountain above the upper terrace. Functionally, this space accommodated a system of recreational carriage roads and walking trails.

In the 1890s, Stevens adopted one of the Olmsted firm's concepts, employing a pair of limestone pillars topped with bronze eagles to define the original main entrance to the Reservation (Figure 6). The pillars flank a sidewalk running between the Maurice and Palace (later Fordyce) bathhouses at about the center of Bathhouse Row, leading directly to the Stevens Balustrade, a baroque double staircase constructed of limestone ashlar masonry. Its central bay houses a vaulted hemicycle niche containing a drinking fountain.

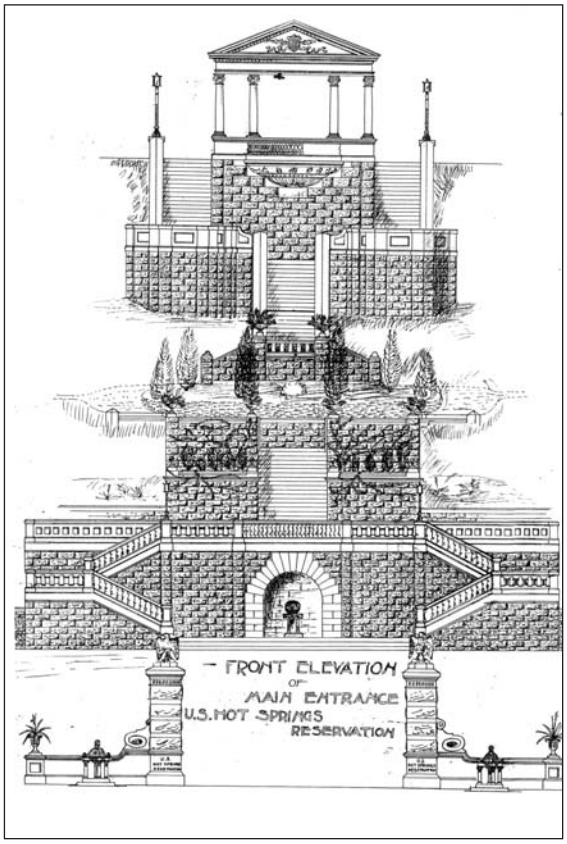

Figure 6. Capt. Robert Stevens' Balustrade design (as constructed).

The Balustrade originally opened out onto a walled service road (Figure 7), providing a strong visual and physical link between the bathhouses and the road (today, a grassy terrace). A stone staircase rose above the road, leading to a small formal garden on the next level. A final pair of staircases led up to a bandstand of Classical design, located on the carriage drive just north of its formal entrance into the Army-Navy Hospital grounds. This graceful feature provided a terminus to the view begun at the Balustrade and completed the connection between the Magnolia Promenade in front of the bathhouses and the Army-Navy carriage drive.

With the destruction of the Free Bathhouse in 1922, the stage was set to establish a formal walkway behind Bathhouse Row. Work began on the Grand Promenade in 1933 by the Civil Works Administration with grading completed the following year. In 1937, the Imperial Bathhouse at the south end of the National Park was demolished for construction of an entrance to the Grand Promenade from Reserve Street. Gravel was laid down in 1938 for the walkway and, in 1941, the first brickwork on the Grand Promenade was completed from the south entrance to the Formal Entrance (at the Balustrade). With the demolition of the Fountain Street Superintendent's residence, the Grand Promenade was extended northward to Fountain Street. The Reserve Street formal entrance was completed in 1957. With installation of lighting and plantings in 1958, the Grand Promenade attained its modern appearance (Shugart 2002:34-37, 42; Shugart 2003b) (Figure 8).

Minor alterations to the Grand Promenade was recently proposed as part of the Stevens Balustrade renovation by the park's Friends group, Friends of the Fordyce. They planned to install landscaping along the southern portion of the Grand Promenade from Stevens Balustrade to the stairway at the south end of the Grand Promenade. The plan

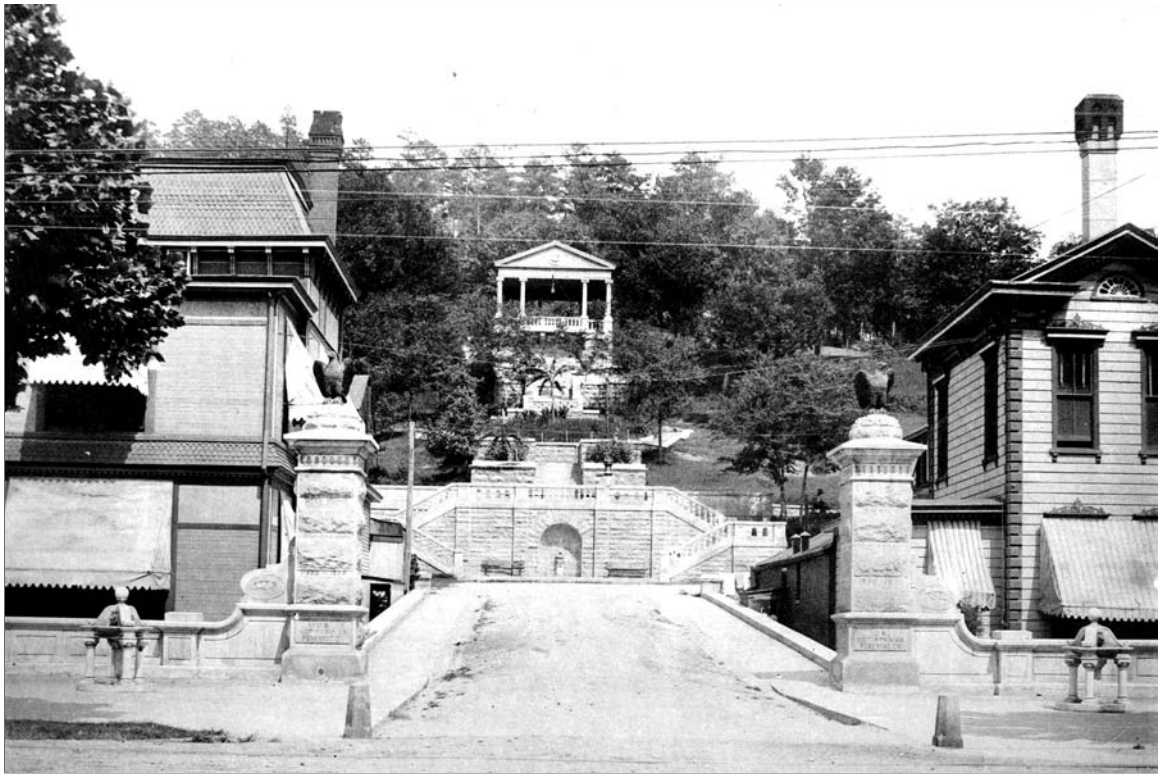

Figure 7. The park entrance and Stevens Balustrade after construction was completed in the late 1890s.

Figure 8. The south end of the Promenade as it appeared in 2004.

was to incorporate beds of native plants on the west side of the Grand Promenade between the brick walkway and the fence at the edge of the terrace with plantings accompanied by a park-installed irrigation system. The intention was to partially screen the bathhouses from view with the goal of preventing vandals from throwing rocks and bricks through the bathhouses' skylights below. While the planting beds had not been created at the time of the field investigation, the irrigation system had been partially installed.

The balustrade of the bandstand was removed in 1958 because of its deteriorated condition with the bandstand platform torn down in fiscal year 1962. Several other entrances located at various points along the linear development of Bathhouse Row during the 1890s have also been removed as a result of newer construction. None of the latter were as elaborate as the main entrance which still gives a sense of "high style" to Bathhouse Row. The varied architectural styles of the bathhouses are pulled together by the linear greenbelts of the Magnolia Promenade and the Grand Promenade and by plantings of smaller hedges and bushes that soften the edges of the spaces between the buildings. The main entrance and Balustrade provide a transition between the natural growth of Hot Springs Mountain and the formal hedges and plantings of the Magnolia Promenade.

GIS Mapping/Records Review

Prior to initiating archeological investigations, Hunt consulted with MWAC Cartographic Technician Molly Cannon who had created a series of to-scale map overlays of the Bathhouse Row area from historic maps curated at HOSP. Her documentation indicated no previously identified mapped structure other than a wagon road had occurred in the immediate vicinity of Stevens Balustrade.

Documentation did, however, suggest the possibility that the U.S. Free Bathhouse (also known as the Government Free Bathhouse) might partially lie within the Grand Promenade study area in addition to a very large number of water pipes dating to the early 1920s and before. The U.S. Free Bathhouse had its start in 1878, when the first superintendent of the Hot Springs Reservation (Gen. Benjamin F. Kelley) recognized that large numbers of indigent visitors were using a spring known as "Mud Hole" or "Ral Hole." Kelley had a wooden building erected over the spring, the building becoming known as the Free Bath House. In 1884, Kelley's successor, Col. Samuel Hamblen, had the building enlarged to allow female bathers to have a separate pool. Shortly after 1887, the building was torn down and replaced by a brick structure (Figure 9). Individual tubs were supplied to the building after the turn-of-the-century.

The new brick Government Free Bathhouse was opened to the public in 1891 with subsequent enlargements in 1893, 1898, and 1900 (Shugart 2002:12). The building appears in an 1880s painting used for the cover of the current HOSP brochure. By 1901, there were eight pools in operation, two each for black women, black men, white women, and white men (Shugart 2002:16). In 1902, the Government Free Bathhouse was rebuilt.

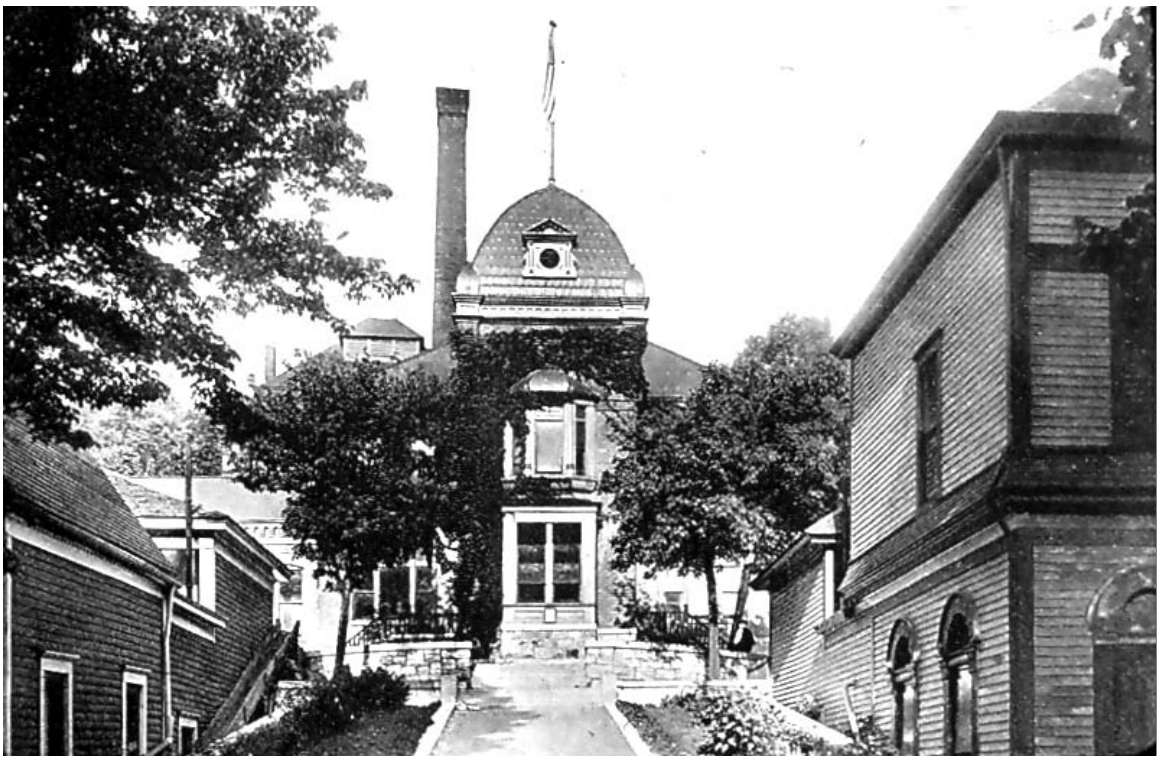

Figure 9. U.S. Government Free Bathhouse above Bathhouse Row circa 1900.

The facility was then closed for remodeling the following year with a temporary wooden structure raised in the interim. The bathhouse reopened in January 1903 with tubs, lockers, dressing rooms, cement floors and other amenities (Brown 1982:38-39). A small cooling reservoir was completed the same year behind the structure with a second cooling tower built in 1908 (Shugart 2002:17-19). Shugart indicates the masonry Free Bathhouse was demolished in 1922 and replaced by a new state-of-the-art bathhouse on Reserve and Spring Streets (Shugart 2002:26; 2003b).

The records review also revealed that elements of a building associated with the Army-Navy Hospital continue to exist on the east side of the south Grand Promenade. The hospital was built above Bathhouse Row in 1887 as the first permanent military hospital in the country. The remaining structural elements of this building, however, lie outside the boundaries of this particular project.

Finally, documents suggested the possibility that remnants of a 19th century wagon road could exist under much of the Grand Promenade although it is possible that this road and the Grand Promenade routes do not completely coincide.

Grand Promenade Project

While numerous archeological investigations have taken place in the park over the years, there have been no previous archeological investigations along the Grand Promenade south of the Stevens Balustrade. Further, only one investigation has been undertaken at the

Balustrade and this was more a descriptive report of damage to the site in response to the ground disturbance associated with the 2003 terrace wall construction (Shugart 2003a). That report documents the history of the Stevens Balustrade, the nature and extent of the ground disturbance, correspondence from HOSP Division of Interpretation and Cultural Resources to the Superintendent about the project, and objects recovered from the surface of the disturbed ground during construction. Most notable among these items were a harness buckle collected from the unpaved area north of the Balustrade Patio, a portion of a square brick and mortar support column, and fragments of stone from a buried late 19th to early 20th century service road retaining wall. The report also contains images of the Balustrade taken before and after the construction to illustrate the affects of that work and provided an excellent preface for the MWAC archeological testing which followed.

The work was to be undertaken by MWAC Archeologist William Hunt with the primary point of contact in the park being HOSP Facility Manager Leonard Lawson. The investigation took place April 28-May 15, 2003, with MWAC Archeological Technician Megan Young serving as crew.

Prior to initiating archeological investigations, Hunt visually examined the area to be tested while consulting the overlay maps of park historic features provided by Cannon. From this review, it became clear that any vestiges of the U.S. Government Free Bathhouse which may remain must occur underneath the wheelchair ramp leading up to the Grand Promenade from the west side of the Stevens Balustrade. This location is further marked by nearly vertical slopes or is covered with concrete and not suitable for shovel testing.

Shovel test (ST) locations were marked with pin flags prior to excavation, the initial, northern-most, pin flag being placed 10 m south of the south end of the wheelchair ramp (behind the Quapaw Bathhouse). A meter tape was used to place the remaining flags every 10 m from that northern-most point with the last shovel test, ST11, located 110 m from the wheelchair ramp's south margin. Flags were positioned parallel to and 3 m west of the Grand Promenade's west curb (Table 1, Figure 10) except where a tree or other obstacle interfered. In those instances, the flag was positioned as close to the original location as possible. A second row of tests west of the first row was not excavated due to the steep slope of the ground. Shovel tests were approximately 50 cm in diameter and dug to 60 cm sd unless some obstruction (such as a sewer pipe or bedrock) was encountered at which point excavation was halted. Fill from shovel tests was excavated in 20 cm levels and passed through ¼ in hardware cloth to effectuate artifact recovery. MWAC Shovel test forms which were completed for each tested location were used to identify soil characteristics, artifacts recovered, and other information as necessary for each 20 cm level dug.

While occasional objects of the modern era were recovered along the Grand Promenade, no significant archeological materials were retrieved during the course of the tests. Similarly, with two exceptions, tests at the Balustrade returned only occasional objects of the modern era.

Table 1. UTM coordinates for shovel tests along the south end of the Grand Promenade

Easting	Northing	Elevation	Shovel Test #	Depth (cm bs)	Horizontal Precision (± meters)
495105.815	3819032.244	191.02	PROM ST1	60	1.28
495105.057	3819023.182	196.304	PROM ST2	60	1.26
495103.041	3819013.994	193.531	PROM ST3	60	1.21
495099.944	3819002.17	201.531	PROM ST4	60	1.39
495105.635	3818996.675	196.912	PROM ST5	60	1.36
495102.764	3818987.835	189.182	PROM ST6	60	1.31
495111.088	3818971.222	186.513	PROM ST7	60	1.14
495104.081	3818962.254	196.138	PROM ST8	42	1.31
495107.526	3818956.34	192.81	PROM ST9	60	1.32
495109.709	3818943.162	192.179	PROM ST10	60	1.06
495113.142	3818929.439	204.457	PROM ST11	60	1.30

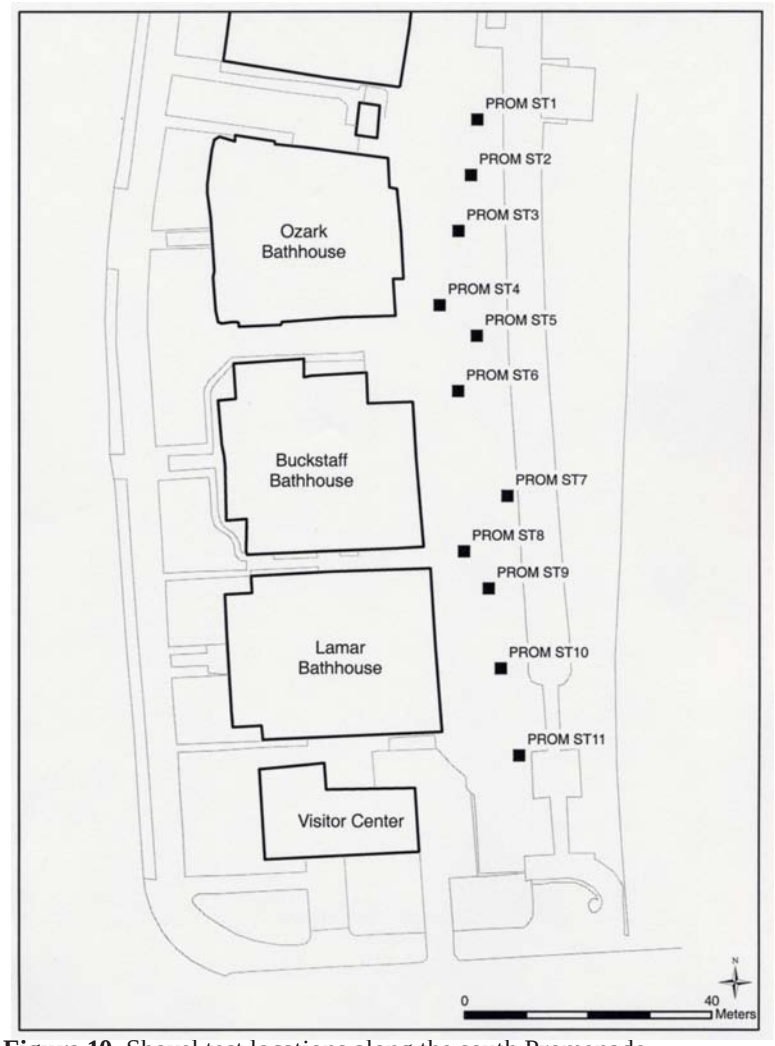

Figure 10. Shovel test locations along the south Promenade.

Stevens Balustrade Project

The Stevens Balustrade and associated Formal Entrance lies within the boundaries of the Bathhouse Row National Historic Landmark District (listed 5/28/87) and is considered a contributing element as well to the Row's National Register of Historic Places designation (11/13/74). Its Identifying List of Classified Structures (IDLCS) number is 64734, and under "Significance" on the List of Classified Structures entry for the Balustrade is the following: "Originally primary entrance to the Reservation/these features and the movement they invite [are] defined and are some very important components of the remains of the formal landscape design. Important feature of Bathhouse Row, NHL 5/28/87." In addition, the approved 1989 Landscape Management Plan for HOSP and the park's 1986 General Management Plan/Development Concept Plan classify the Balustrade and associated properties as Management Class I. Under this definition, while modifications of this class of properties are allowed, modifications may be seen but must not attract attention (Hot Springs National Park 2003a,b; Shugart 2003a).

As noted earlier, highly noticeable modifications were initiated on the Balustrade in March 2003, which were based on a landscape design commissioned by the Friends of the Fordyce (Figure 5). Five retaining walls of roughly shaped gray limestone were raised in north-south trenches on concrete footers to create four terraces. Two walls were built above (east of) the Balustrade's brick Patio and west of the Grand Promenade. Three additional walls were constructed between the west edge of the Patio level and the formal walkway/entrance west of the Balustrade (Figures 11-12).

According to the subsequent Case Report/Treatment Plan prepared for Stevens Balustrade, "The project was suspended in May 2003 after Hot Springs National Park was notified by the Arkansas State Historic Preservation Office (SHPO) that the large walls that had been constructed were incompatible and detracted from the historical character and integrity of the Stevens Balustrade" (Hot Springs National Park 2003b). In that document, the SHPO's recommended mitigation options for the park were to: 1) remove the walls, restore the slope to its natural incline and eliminate all formal plantings except in planters; or 2) significantly lower the walls and attempt to restore the slopes to a softer incline, without terraces. Subsequently, the park proposed a mitigation/treatment plan which involved: 1) removing the upper walls on the north and south sides of the balustrade to the concrete footings and adding fill to the slope to restore the incline; 2) reducing the height of the next lower walls; and 3) introduce informal plantings, shrubs, and ground cover to reduce shortcut trails and erosion of the restored slope.

Subsequently, a memorandum of agreement between the park, the Arkansas SHPO, and Friends of the Fordyce to this effect was subsequently drafted and accepted by the NPS-Midwest Region and SHPO historical architects (Hot Springs National Park 2003a). The SHPO further stipulated, however, that before the MOA could be formally reviewed, an archeological inventory was required to insure that no significant intact archeological deposits existed in association with the Balustrade. While the SHPO was willing to wait for

Figure 11. 2003 additions on the south side of the Stevens Balustrade. MWAC Archeological Technician Megan Young is excavating a test unit on the lowest of four newly created terraces.

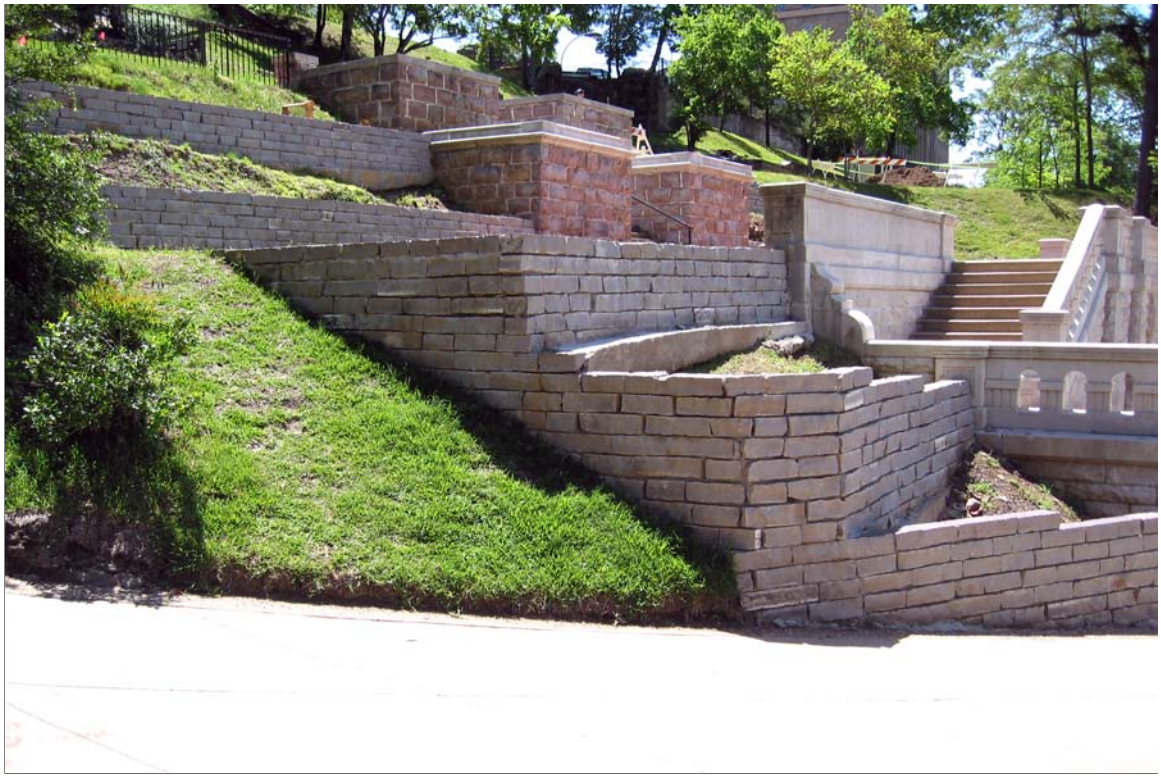

Figure 12. 2003 additions to the north side of Stevens Balustrade showing the five newly created terraces which existed at the time of MWAC's archeological investigations.

a formal report, they required the equivalent of a management summary of that report prior to initiating formal review of the MOA. After completion of the investigation, a trip report intended to serve as a management summary was prepared by the author (Hunt 2004) and submitted to the park to forward to the SHPO for that purpose.

After consultation with the park, MWAC Archeologist Hunt prepared a work plan for an archeological inventory of areas on the north and south sides of the historic Balustrade. The goal of this work was to determine whether archeological resources occur in the construction areas and, if so, assess the nature and significance of those resources.

As an aide to describing structural elements and test unit locations, terrace walls were referenced by number from top to bottom and by their location on the north or south side of the Balustrade (Figure 13). Test units were labeled by their location with regard to terrace or Balustrade structural element.

An examination of the Balustrade perimeter at initiation of fieldwork demonstrated that not all terraces created by the new walls had enough soil for testing. Nevertheless, eight hand-excavated test units of various sizes and a backhoe trench were utilized to conduct the Balustrade area investigation (Figure 14). Hand-excavated units included: a 1 m x 2 munit (Terrace 1 North Test) and a 1 m x 1 m unit (Terrace 1 South Test) at the top of the slope; a 1 m x 1 m unit (North Patio Test) and three shovel tests (North Patio ST1, South Patio ST1, South Patio ST2) on the Balustrade Patio level; one shovel test (Terrace 4 North ST) on the terrace immediately below the patio level on the north side of the Balustrade; and a shovel test on the south end of the lowest terrace (Terrace 5 South ST). A backhoe trench was excavated on flat ground south of the Balustrade terraces and west of the Grand Promenade. Terrace 1 North Test and North Patio Test were excavated to 1.0 m sd (surface depth) with fill removed in 10 cm levels. The fill was then passed through ¼ in hardware cloth to effect artifact recovery. MWAC Excavation forms were used to document the excavations in these units. The backhoe trench and Terrace 1 South Test, however, were dug primarily to investigate soil stratigraphy and the fill of those units was not screened. The backhoe trench was excavated to 1.7 m sd and Terrace 1 South Test was taken down to 1.0 m sd.

Terrace 1 North Test and Terrace 1 South Test lay on either side of Stevens Balustrade's Grand Promenade Stair and Planting Blocks at the south margin of the Grand Promenade. While neither of these units contained pre-modern artifacts, both had identical curious features. After removing the first soil stratum, a very dark grayish brown (2.5Y 3.2) loamy sand, excavators encountered a bright yellowish brown (10YR 5/6) sandy clay loam. In plan view, the yellow brown layers appear as a series of 36 cm (about 14 in) diameter circular forms with a 5-15 cm (2-6 in) space between each circle. When viewed in profile, the deposits appear to be lunate or cup-shaped features, the latter filled with soil from the upper stratum (Figure 15). About 11-22 cm (4-10 in) down slope from these were other cup-shaped depressions. At first, the author was at a loss to explain the curious features except as perhaps reflecting the former positions of decorative plantings.

Figure 13. Terms used in this report to reference 2003 wall additions.

A review of photographic images in the HOSP collection soon revealed that a series of small trees had been planted along the south margin of the Grand Promenade at the Balustrade (Figure 16). A photograph in a 1903 tourist brochure (Business Men's League of Hot Springs 1903) shows similar plantings on the slope at this position suggesting this has been a common practice to beautify the area around the general Balustrade/Grand Promenade location.

Significant archeological materials were also identified during excavation of the North Patio Test (see Figures 11 and 14). All test units on the Patio level encountered horizontal tufa bedrock between 40 and 60 cm sd. The tufa bedrock in North Patio Test differed, however, in that it resembled Swiss cheese rather than the plain smooth surface encountered elsewhere. The vertical columnar holes varied in size from 10 to 40 cm in diameter, appeared water worn (Figure 17), and contained large amounts of angular gravels mixed with highly organic black loamy fill. The holes were originally believed to be due to hot spring discharge but a site visit by Arkansas Geological Commission Chief Geologist John David McFarland suggested otherwise. He identified them as by-products of dripping water and noted that such features commonly occur in the Ozark region's limestone caves.

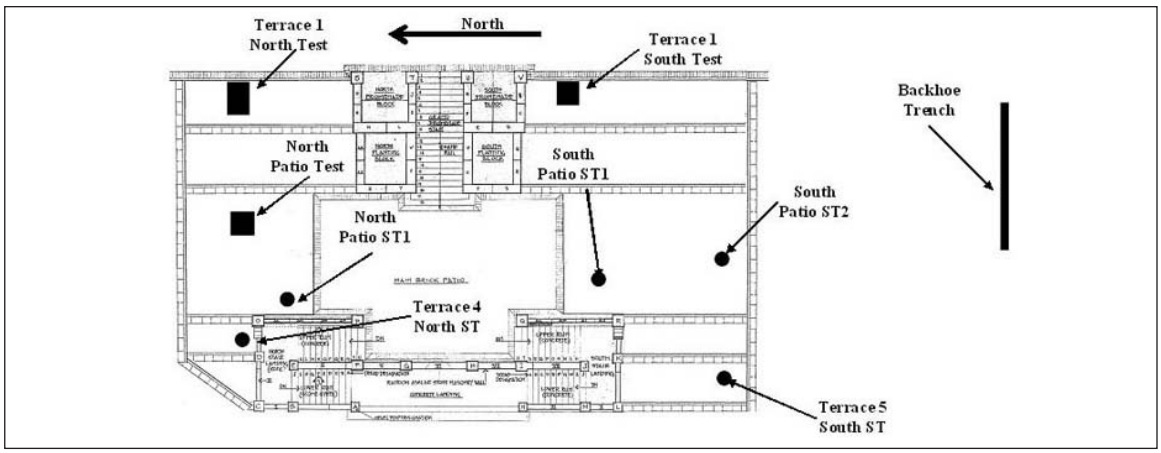

Figure 14. Schematic (not to scale) illustration of the Balustrade and appended terrace walls showing relative locations of test units (adapted from Hot Springs National Park 1986).

Figure 15. Profiles of east face (left) and south face (right) of Terrace 1 North Test showing lunate-shaped clay features and cup-shaped depressions down slope from the clay features.

Figure 16. 1930s planting of bushes in the vicinity of Terrace 1 North Test.

Figure 17. North Patio Test Unit after excavation.

This suggests that at some point in time, the location had an overhang from which slightly acidic water dripped for thousands of years.

One large opening in the central south side of North Patio Test contained a number of artifacts. Recovered from level 4 (30-40 cm sd) of the excavation within the dark organic

Figure 18. Artifacts retrieved from the North Patio Test Unit: glass ointment jar, cut nails and nail fragments, soft red brick fragments.

soil were a base and side of a glass ointment jar, three cut nails (one clenched), two cut nail fragments, two soft red brick fragments, and several amorphous ferrous metal items (Figure 18).

The presence of brick fragments and cut nails, especially the clenched nail, in this relatively small area suggests the former presence of a structure of some kind here, perhaps one of the more informal early structures such as the benches or elements of a small building. The soft red brick fragments suggest a 19th century time frame for the assemblage. This temporal estimate is reinforced by the total lack of wire nails in the assemblage, a situation which generally occurred prior to 1890 (Adams 2002). The most

telling item is a fragment of an extremely thin-rimmed ointment jar whose base bears a glass pontil mark. Pontil scars are usually found on American-made utilitarian bottles that date to or before the American Civil War (mid-1860s)**.** Pontil scars of all types became ever increasingly unusual as the 1860s progressed and largely disappeared by the late 1860s or early 1870s (Lindsey 2006a). If so, the small jar may be one of the oldest historic artifacts directly associated with the park's tourist activities.

As testing was winding down, Hunt was interested in determining the specific historic context for this assemblage. With that in mind, he consulted with HOSP Museum Specialist Sharon Shugart, an acknowledged expert in the park's history and historical development. Shugart indicated that a spring known as the "Corn Hole" once existed on the hillside at or near the recovery location. According to her history of the park, she had previously documented the Corn Hole as "an excavated spring with a pool about ten feet

Figure 19. Women soaking their feet in Corn Hole Spring, circa 1870s.

square situated behind the site of the current Maurice Bathhouse. Reportedly a chiropodist had the wooden seats built around it so that men in the morning and women in the afternoon could soak their feet ; he removed their corns for twenty-five cents each" (Shugart 2002: entry for 1878) (Figure 19).

This open area of benches around the spring was replaced at some time with a small but controversial wooden building. The Secretary of the Interior ordered this "shanty" removed along with those over two other dugout pools, the Ral Hole and Mud Hole. The reservation's first superintendent, Gen. Benjamin F. Kelley, carried out this order, but a mob confronted him the next day and threatened to hang him, then hauled lumber to the pools and rebuilt the shanties. When the U.S. Marshal was unable to stop the construction, Kelley sent for federal troops. On October 8 Company E of the 13th Infantry arrived to protect U.S. property and keep the peace. The disorder subsided at once, but in December more troops were brought in, and the troops remained until June, 1880. The Corn Hole apparently dried up in 1882, probably as a result of several years of blasting to make room for the larger high Victorian style bathhouses located immediately downhill (Shugart 2002: entries for 1878, 1880, and 1882).

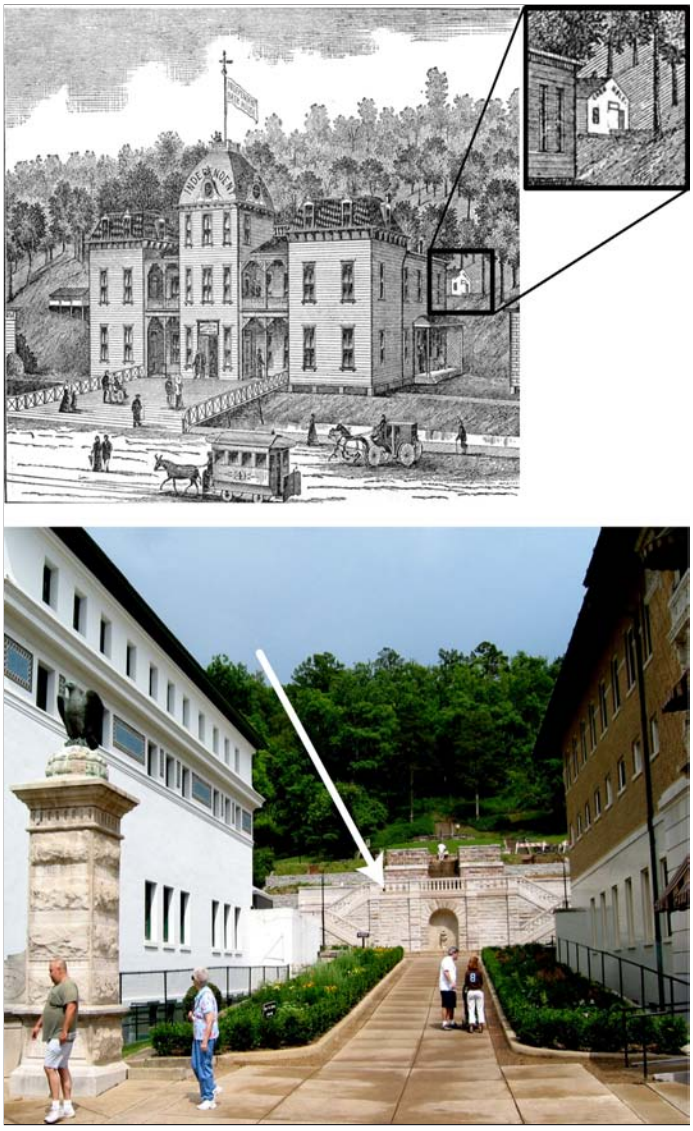

Figure 20. Comparison of the circa 1878 location illustrated for the Corn Hole shanty behind the Independent Bathhouse (later renamed the Maurice) and a modern view showing artifact recovery location (arrow) at North Patio Test excavation unit behind the modern Maurice Bathhouse built on the same location.

An early illustration of the Independent Bathhouse (built in 1880 and renamed the Maurice in 1892-1893) provided by Shugart shows the position of the Corn Hole shanty on the terrace (Figure 20). Its apparent location is the same as or just north of this investigation's North Patio Test unit on the modern Balustrade Patio.

Excavation was performed at a similar location, the Ral Spring historic site (3GA153) above the Upper Tufa Terrace Trail by Don Dickson in March 1983 (Dickson 1994). Dickson unfortunately confused the Ral (or Rhal) Hole or Spring with the Corn Hole suggesting its use by those who suffered from corns and rheumatism of the feet. His excavation at Ral

Spring was southeast of the Superior Bathhouse and above the Terrace Trail, a considerable distance from the location of Corn Hole Spring. Nevertheless, his excavation was much more extensive in area than the current investigation and he was able to identify a number of important features (seat supports and collection pool depression) associated with the Ral Hole. Similar features were not exposed at the Corn Hole location but should occur there as well. The artifact assemblage from the Ral Spring included largely cut nails, a brick and brick fragments, a medicine bottle fragment, whiteware cup fragment, and a fragment of cast iron. In general, this assemblage is much like that recovered from the Patio North Test, the only exceptions being the cast iron and whiteware.

Together, the historic information and archeological data provide a strong circumstantial case for associating the artifacts from the North Patio Test with the Corn Hole dugout spring. In consequence, this site was registered with the Arkansas Archeological Survey as the Corn Hole site, 3GA868.

HOT SPRINGS

3. BATHHOUSE ROW STABILIZATION: DEVELOPING A SCOPE OF WORK

In June of 2003, a $3.8 million contract for stabilization of six bathhouses (Superior, Hale, Maurice, Quapaw, Ozark, and Lamar) on Bathhouse Row was about to be let. The project was brought to the attention of the Midwest Archeological Center by the Midwest Regional Office for quick review to: a) determine whether there was a potential for archeological resources to exist at sites of proposed ground disturbance associated with the stabilization; and b) outline the archeological investigations required (if any) to identify potential resources.

After a review of construction drawings, Center staff determined that structural rehabilitation of the buildings would require ground disturbance both outside the structures as well as in basement interiors. While the exact scope and degree of this ground disturbance was not entirely clear (due to the generalized nature of the drawings), it was apparent that construction would include significant amounts of work around several building foundations, installation of new utility lines, installation of new HVAC (heating, ventilation and air conditioning) units and coolant lines, removal of interior walls and floors, installation of basement drain systems, and installation of vapor barriers over earthen basement interiors.

The review supported a conclusion that archeological resources were likely to occur in some form in and around these structures. This was based on:

a) several stabilization plan drawings for bathhouse basements had areas labeled "crawl spaces" and "unexcavated." If these areas had never been excavated it was possible that they could contain remnants of previous structures. It was not implausible that several generations of structures and features dating as early as the 1830s could occur under and around the bathhouses.

b) stabilization plans made it apparent that hot springs occur within some of the structures. The most obvious were in the Superior (n = 1); Hale (n = 1); Maurice (n = 1); Fordyce (n = 2); Quapaw (n = 3); and Ozark (n = 2). In addition, at least ten additional hot springs occurred at one time or another in the immediate vicinity of the bathhouses (Dickson 1994:Figure 2). These springs may have been important resources to historic and prehistoric Indians and one might expect remnants of prehistoric Native American occupation/use features to be associated with them.

c) by the time of the review, several features had already been identified by previous investigators. For example, an early 20th century well occurred between Fordyce and Quapaw Bathhouses (Dickson 1994:Figure 2; personal communication from Mark Blaeuer 2/12/2007).

d) stabilization plan drawings suggested elements of earlier structures may continue to exist as elements embedded within current structures. The drawing for the basement of Ozark Bathhouse, for example, illustrated an "existing rock wall" extending from one of the basement foundation elements and an apparent raised area which bears the legend "EXIST. SLAB-ON-GRADE." These elements lead one to believe that elements of the original Ozark Bathhouse (1880-1923) may be have been preserved within the basement of the current Ozark Bathhouse.

e) archival information available at MWAC indicated the possibility that archeological resources have already been identified within the Bathhouse Row area. 3GA153, Ral Spring, is located northeast of the Fordyce Bathhouse next to the Grand Promenade. This spring was also known as Spring 14. An excavation of this spring area by Dickson (1994) resulted in the recovery of several historic artifacts, elements of footrests, and a previously unidentified water reservoir. The reservoir was at least 10 ft deep and stored water from a spring higher on the hillside. A second site, 3GA588 or Sauna Cave, is a structure located in 1994 on the east side of Hale Bathhouse. This was discovered during the excavation of a trench intended to improve drainage for the bathhouse. It is associated with the "South Room" which may have been the access from the bathhouse from the men's room (Haecker 1994). Despite this, the structure and its sealed entry are not shown on the architectural drawings.

These observations led the Midwest Archeological Center to recommend three actions to address HOSP Section 106 issues created by the forthcoming ground disturbance:

a) a mapping project by the Center's Geographic Information System (GIS) staff incorporating overlaying historic maps to-scale with a modern map of the bathhouses. Such a map(s) would allow quicker and easier interpretation of any cultural features encountered during the course of the archeological investigations.

b) archeological monitoring of construction-related excavations and building element removal/modification requiring ground disturbance.

and

c) geophysical inventories of building interiors in areas marked "unexcavated" or "crawl space" in building drawings. It was suggested that these inventories be carried out using ground penetrating radar (GPR) and/or electrical resistance investigative methods, both of which are appropriate for locating buried foundations. Site visits later demonstrated that such inventories would be extremely difficult to impossible to carry out due to the restricted (and sometimes inaccessible) spaces involved. This archeological monitoring of

construction-related excavations and building element removal/modification requiring ground disturbance part of the plan was therefore abandoned.

In August, as this review was being completed by MWAC, the primary contract for bathhouse stabilization was let to Larich Inc., of Texarkana, Arkansas. Representatives of that company moved onsite that month and established an office in the Hale Bathhouse with site fencing and other minor pre-construction taking place in September. Once federal government travel restrictions had ended (the end of the fiscal year) Hunt traveled to the site to meet with park personnel, familiarize himself with the bathhouses and general park layout, and review construction plans with the contractors, park maintenance, cultural resources specialists, and management. This trip laid the foundation for determining whether archeological investigations or monitoring were necessary prior to or during construction.

On October 7, 2003, MWAC Archeologist William Hunt traveled to HOSP meeting with HOSP Asst. Superintendent Dale Moss (acting park Superintendent), HOSP Facility Manager Leonard Lawson, HOSP Supervisory Park Ranger (Chief of Cultural Resources) Lisa Garvin, HOSP Park Ranger (106 Compliance) Mark Blaeuer, HOSP Museum Specialist Sharon Shugart, Larich Inc. Site Supervisor Bill Ferguson, and representatives of subcontracting companies, Power Lift Inc. (Bill Bolin) and Bolin Enterprises (J.B. Bolin). These meetings provided Hunt with a broad brush picture of project scheduling, work planned for each structure, and extents of ground disturbance at each work location. The schedule established by Larich Inc. had foundation work on the Lamar Bathhouse being initiated first with work on the Maurice started shortly thereafter. Basement drains were to be installed in both those structures as well as at the Ozark and Quapaw. Virtually all this work overlapped in time, often with ground disturbance underway in two or more bathhouses concurrently. Ground disturbing actions scheduled for fall of 2003 through late spring of 2004 included stabilization of foundations, cutting drain openings in interior basement walls to enhance spring water flow, cutting drain lines and sump pits in basement floors, and trenching outside of structures for new HVAC systems.

Another facet of this trip which proved extremely useful was a tour of bathhouse basements with HOSP Park Ranger Mark Blaeuer (the Buckstaff was not included in this tour since it is still in operation and not within the purview of the stabilization contract). Hunt found that only the Fordyce Bathhouse has no obvious elements of a previous structure within it. This structure was refurbished in the late 1980s and early 1990s as the park's visitor center. Otherwise, all other structures were found to contain (sometime extensive) areas of unexcavated fill or actual structural remnants which predated the current structures.

Starting on the north end of Bathhouse Row, Hunt was informed that the Superior Bathhouse basement had been refurbished in the 1990s. For the most part, its newer elements (floors and wall treatments) obscure any original building materials which may still exist here. Nevertheless, areas of unexcavated fill continue to exist within an extension (approximately 24 ft north-south x 37 ft) of the basement at the northeast corner. This fill probably predates the building's 1916 construction date. As no further construction work

was planned, no potential archeological resources would be affected and no archeological investigations were recommended.

South of the Superior Bathhouse is the Hale, a bathhouse built in 1892. This structure was found to retain two extensive areas of fill on the east and west sides of its basement. The eastern portion is about 98 ft north-south x 10 ft east-west. Its only access, a doorway on its east wall, has been sealed. On the west side, an unexcavated area of similar size had no obvious means of access. It is expected, however, that the fill in these two areas may predate the current structure and could contain architectural elements or artifacts associated with previous structures built at this location. The first Hale Bathhouse was built in 1854 and the second was constructed sometime before 1882 (Shugart 2002). Both were known as "the Hale" or "Old Hale." In fact, remnants of a previous bathhouse's stone foundation were incorporated into the current building's concrete foundation built in 1892. It is of some interest to note that archeological resources were found during 1994 stabilization work at the Hale Bathhouse. As a drainage ditch was being excavated by construction workers along east foundation, buried architectural features, the "Hale Sauna Cave" and "South Room," were encountered. The documentation of these 1914-era structures, recorded with the Arkansas Archeological Survey as 3GA588, is detailed in a report by Charles Haecker (1994). Stabilization plans for the Hale Bathhouse, however, called for work only on above ground structural elements. As no potential archeological resources would be affected, no archeological investigations were required here.

A visit to the Maurice Bathhouse, located south of the Hale and constructed in 1912, proved it to retain structural elements associated with previous buildings and unexcavated fill in the east end of its basement. Most notable is an area in the eastern-most portion of the basement where an unexcavated 100 ft north-south x 24 ft area exists. Structural elements above this fill are dissimilar from those visible in the rest of the basement. Further, there is a stairway near the center of the wall bounding the east side of the fill area. This apparently represents a former exit from the basement since it now leads to nowhere. Another unexcavated area could not be accessed during this tour but is illustrated on building plans on the west side of the building. This area, under the bathhouse's entry, is about 42 ft north-south by 20 ft wide. Structures which precede the current structure were the Independent Bathhouse, constructed in 1880 and renamed the Maurice Bathhouse after it was remodeled in 1892-1893. The current structure, built in 1912, was remodeled in 1915 (Shugart 2002). The Maurice was scheduled for extensive excavations associated with foundation stabilization, replacement of the entryway porch, drain openings in the wall enclosing the unexcavated fill, and cutting and excavation of drain lines and a sump pit. Power Lift Inc. planned to remove sections of a concrete porch and install anchors under the northwest and southwest corners of the structure. The anchors were to be embedded in bedrock to keep the building from shifting further. Test excavations at the exterior portions of foundation and under the porch after its removal were planned. Archeological monitoring of the remaining excavations was anticipated.

Two structures south of the Maurice and immediately south of the Fordyce Visitors Center is the Quapaw Bathhouse. The Quapaw was built in 1922 on the former sites of the Horse Shoe and Magnesia bathhouses both of which were constructed around 1887 (Shugart 2002). The on-site tour of the Quapaw demonstrated this building has an extensive unexcavated crawl space which covers virtually half the basement. Travertine deposits and flowing water were observed in the northern portions of the fill. Further, and although site plans didn't indicate it, unexcavated fill occurs within a series of rooms which extend the full north-south width of the building on the structure's west side. Some of these rooms have window-like entries which are sealed. A rough vaulted structure composed of mortared brick and rock, a "re-creation" of the famous "Quapaw Cave" (Shugart 1997) occurs over a hot spring in the south-central portion of the basement (Figure 21). The interior of this structure is plastered with mortar and painted with crude pictographs to create a cave-

Figure 21. Brick and mortar "Indian cave" built over a hot spring in the south end of Quapaw Bathhouse.

like effect for spa visitors. The Quapaw Bathhouse was scheduled to have several drain openings cut in the wall enclosing the unexcavated fill in the northeast basement with drain lines and sump pit cut and excavated in the concrete floor. Archeological monitoring of these excavations was anticipated here.

The Ozark Bathhouse, on the south side of the Quapaw, was constructed in 1922 replacing another facility of the same name which had been built in 1880. The first Ozark had been, in turn, erected on the former site of the Weir and George Bathhouse which had burned in the great fire of 1878. As with the Quapaw, over half of the basement space incorporates unexcavated fill. On the east side of the basement, this unexcavated fill is at least 2 m deep. An active hot spring flows out of the northeast corner of the basement between parallel stone and concrete foundations. Additional parallel stone foundations were observed on the south end of the building, the space between them creating an east-west hallway. The latter stone foundations were obviously built before 1922 as the current structure's concrete foundation had been poured next to and south of the southern-most stone foundation.

During this visit, an attempt was made to get to a room at the center of the building which on building plans contained features labeled "EXIST. SLAB ON GRADE" and "EXIST. ROCK WALL." Unfortunately, the only access to this area was a door about 3 ft above the sunken floor of a boiler pit, and this was filled with several feet of hot spring water. Although Hunt was not able to verify their existence during this trip, these intriguing features nevertheless suggested an association with Victorian-era structures.

Construction plans called for the Ozark to have a drain opening cut in a concrete wall at the location of the active hot spring seep. Building plans indicated this wall also enclosed unexcavated fill in the northeast basement with drain lines and a sump pit cut and excavated in the concrete floor. Archeological monitoring of these excavations was anticipated here.

The Lamar was the last bathhouse constructed on Bathhouse Row, in 1923. It is located two structures south of the Ozark between the Buckstaff Bathhouse and the park administration building. The Lamar building replaced another bathhouse of the same name, the original structure having been built sometime around 1887 (Shugart 2002). Building plans and the site visit demonstrated that more than 50% of this bathhouse's basement area incorporates unexcavated fill varying in depth from a few centimeters to over 2 m. Stabilization plans here were largely directed toward the front (west) foundation of the building which was settling and subsequently cracking upper level walls. This damage was especially apparent in the murals on the north wall of the lobby. The goal of the subcontractor (Power Lift Inc.) was to raise the building slightly which would, in turn, close the cracks. Lifting was to be accomplished by encasing seven of the building's supporting basement concrete columns with steel plates and to which supporting steel anchors would be attached. Openings were to be cut through the concrete floor at each column and anchors pneumatically forced down through the underlying fill until bedrock was reached. The pneumatic lifts would then be used to raise the steel-clad columns slightly until the cracks in the structure were closed. This would also prevent the building from settling in the future. The time estimate to accomplish these tasks at the Maurice and Lamar was three weeks beginning November 3. A drainage collection trench and sump pit were also planned

for the north side of the basement. In addition, stabilization would see replacement of the entryway porch.

The tour through the Lamar identified no architectural elements that could be associated with earlier Victorian era structures. Unexpectedly, however, it resulted in the discovery of an intriguing exposed feature in the south center of the building in the unexcavated fill. This ash lens was at least 20 cm thick. It incorporated three layers, contained clinkers and bone, and supported the bases of short concrete columns underpinning the first floor. Speculation by Hunt and HOSP employees Mark Blaeuer and Sharon Shugart focused on the possibility that the layers of charcoal and ash cupped by bedrock might be associated with the fire which devastated bathhouse row in 1878. The archeological work plan, therefore, was to monitor excavations around basement columns and conduct a test excavation at the site of the ash feature. The construction work was scheduled to begin at the Lamar and Maurice the first week of November and a small crew would be required within three weeks of Hunt's site visit. Hunt planned to monitor Power Lift excavations and conduct test excavations beneath the floor where possible.

Aside from these actions, miscellaneous ground disturbance would occur all along Bathhouse Row with installation of new HVAC and electrical lines. Excavations associated with these installations were recommended for monitoring as well.

Hunt returned to Lincoln on October 9, reporting the following week to MWAC Park Archeology Program Manager Tom Thiessen and Great Plains Archeology Program Coordinator Douglas Scott familiarizing them with the scope of the task ahead. MWRO supported the proposed archeological work and provided funding to get it accomplished. Construction activities were to begin within weeks and this necessitated a rapid start-up response on MWAC's part.

Shortly after returning from Hot Springs, Hunt contacted Arkansas SHPO Archeologist George McCluskey to get his views about what was required to complete compliance for the project. Using his guidance and information from the site visit, a work plan was subsequently developed whose goals were both fairly simplistic and straightforward:

a) determine whether archeological resources existed inside the bathhouses and around their margins;

b) identify the cultural, temporal, and functional associations of the resources;

c) assess the significance of the resources and record the resources with the Arkansas Archeological Survey; and

d) prepare a report for the park to submit for review by the Arkansas SHPO.

These goals could be accomplished following Hunt's previous recommendations to MWRO with a couple of exceptions. A mapping project would be initiated by MWAC Cartographic Technician Molly Cannon. Hunt would undertake archeological monitoring and testing as needed at construction-related excavations and building element removal/ modification requiring ground disturbance at the Maurice, Quapaw, Ozark and Lamar. The October site visit demonstrated, however, that geophysical inventories of interior building spaces would be extremely difficult if not impossible. Further, the fill depths around the buildings were estimated to be up to 20 ft deep making geophysical inventories of marginal value in these areas as well. Finally, the discovery of the ash lens in Lamar Bathhouse suggested that a test excavation was in order at this location to identify the chronological and functional associations of the feature. Removal of large concrete porches at the Lamar and Maurice as well as extensive ground disturbance at the margins of the Maurice foundation led Hunt to consider testing at these locations as well. Stabilization plans called for no ground disturbance at the Superior and Hale bathhouses and no archeology was required.

This plan was almost immediately modified, however, with the discovery of additional archeological features in the Lamar Bathhouse before the MWAC crew could get on site. In mid-October, HOSP Facility Manager Lawson called Hunt to report that Power Lift Inc. had completed a test excavation at the base of one of the basement columns. The company was looking for a column footer which was expected immediately below the concrete floor. Instead, the column (numbered '8' by the company) was found to continue below the floor and sat on top of another slightly larger square concrete column. This column in turn continued below the floor for another 4 feet or so within a very wet, rocky soil matrix and sat on a concrete footer "floating" on a soft sandy fill. This meant that every column would have to have a large hole excavated around it with the steel cladding going below the current concrete floor for over a meter.

While the subfloor column was surprising in and of itself, the most startling discovery was at the south margin of the Power Lift excavation. Construction workers discovered east-west brick foundation or wall in the south wall of the pit. This brick structure extended to at least the depth of the excavation (3.3 m) from a point about 10 cm below the base of the concrete floor. The base of the brick structure was not identified as it was under hot spring water which saturated the fill below the floor. Digital photographs of the feature were sent to Hunt by HOSP Maintenance Mechanic Robert McKelvey. These images showed the feature to be a substantial and well-made wall of red brick and mortar. Consultation with HOSP Museum Specialist Shugart resulted in a review of HOSP archival drawings of the circa 1887-1922 Lamar Bathhouse. That bathhouse was a U-shaped structure constructed of red brick and thus was considered the most likely association for the newly discovered wall.

The archeological work that ensued along Bathhouse Row took place intermittently for periods of one or two weeks at a time over the next six months beginning in November 2003 and ending in April 2004.

4. INVESTIGATIONS AT HALE, MAURICE, QUAPAW, AND OZARK BATHHOUSES

Archeological work at Bathhouse Row took place intermittently for periods of one to three weeks over the next six months beginning November 3, 2003, and ending January 21, 2004. This work consisted of two elements: cartographic and field investigations.

Cartographic/GIS Investigation

MWAC Cartographic Technician Molly Cannon undertook the task of compiling historic maps of Hot Springs to create a series of to-scale and geo-referenced overlay maps which together illustrate the historic development of the park at Bathhouse Row (Cannon 2003). This required the following tasks:

a) retrieve catalogs of existing maps from the park and Denver Service Center (DSC) to identify which maps would be useful for this work;

b) visit the park to assess which maps to use and borrow;

c) scan and/or digitize selected maps;

d) geo-reference all information to the existing base data;

e) create printed and digital maps and metadata for all data created; and

f) provide digital and printed data to the park.

Since HOSP has an excellent catalog of historic maps, Cannon traveled to the park in late November of 2003. Twenty-eight maps in the park collection were identified for the project. While many have similar features, such as the bathhouses on Bathhouse Row or Central Avenue, each map also contains unique information such that data from 28 maps were required to most accurately represent the historic structures and features at the park. Copies of these maps were subsequently ordered from NPS-Denver Service Center (DSC) and digitized at MWAC's GIS laboratory using ArcInfo and ArcMap software. The maps were then geo-referenced and rectified using Global Positioning System (GPS) points Cannon recorded at the park during her visit. This resulted in the production of a document which had the potential for allowing correlation of architectural features of archeological derivation with historic structures.

Hale Bathhouse Investigation

History

The Hale Bathhouse, built in 1892, is the oldest visible structure on Bathhouse Row (Shugart 2003b). At least four bathhouses, including the present one, have operated under this name. The first Hale Bathhouse, built in 1854, was located south of the present structure and was probably burned along with most of the town during the Civil War. After the war, the second Hale Bathhouse was built on the present site. A circa 1875 photograph of the "Old Hale" Bathhouse shows it to be a frame structure composed of two elements: an elongated gabled shed on the west side of Hot Springs Creek that was connected by a broad bridge to a low bathhouse which extended over the creek from the east bank (Figure 22).

Figure 22. The "Old Hale" Bathhouse as it appeared circa 1867.

Elevated wooden troughs brought hot water to the building's southeast corner. This second bathhouse apparently survived the 1878 fire and it may have improved its water supply in 1879 after the Superintendent authorized its use of a gravity thermal water system (Paige and Harrison 1987:77, 110; Shugart 2003b).

Shortly thereafter, but prior to 1882, a third Hale Bathhouse was constructed. This Second Empire or Mansard style building was raised by William Nelson, an entrepreneur who had obtained a hot water lease from 1878 through 1883. The structure and its contents were valued at $5000. The building site, on the east side of Hot Springs Creek, was

broadened and excavated using explosives (Craven 2006; McAlester and McAlester 1986; Shugart 2003b).

To improve competition, federal statutes of 1891 prohibited economic pooling among the Hot Springs bathhouses and competition among bathhouse owners began in earnest with the construction of the Hale in 1892-1893. The fourth and final Hale Bathhouse was of fireproof materials, the building constructed with iron and steel reinforcing the brick and concrete structure. After twenty years of use, though, the Hale needed major structural work. In 1914, George Mann and Eugene John Stern were chosen as architects to develop plans for remodeling and updating the Hale. The building was essentially gutted with portions of walls rebuilt. The cupola was removed and the exterior was remodeled to a formal neoclassical style. In the 1930s, the Hale was redesigned again to more of a Mission Revival or Spanish Revival style to better conform with new bathhouses (Quapaw and Ozark) raised in the early 1920s along the row (Paige and Harrison 1987:79, 189-191, 193; Shugart 2003b).

GIS Mapping

Digitized and georeferenced map overlays for the Hale Bathhouse location indicate that the pre-1882-1892 Hale Bathhouse footprint is almost wholly contained within the current structure (Figure 23). Only its northwest corner may have extended beyond the present bathhouse's northwest corner. The previous bathhouse's exact position remains uncertain although it is known to have been built on the same lot spanning Hot Springs Creek. Remnants of the bathhouse portion of that structure, on the east side of the creek, may also exist within the current building. Other frame structures which have yet to be identified also occurred on this site in the 1870s.

Archeological Investigation

All construction work proposed for the Hale Bathhouse was entirely above ground so no subsurface archeological resources would be affected. As a consequence, the only investigation here was a "quick and dirty" documentation of architectural elements in the basement which related to predecessor structures.

Inventory of the building's basement on December 3, 2003, quickly demonstrated that abundant remnants of at least one previous bathhouse had been incorporated into the current building's 1892 concrete foundation. At the time of the current building's construction, stone foundations were left in place at the center of the building to create a north-south hallway used as a "Fan Room" and storage space. Aside from these north-south stone-and-mortar foundations, the inventory identified another segment of stone foundation on west side of the basement.

Figure 23. Digitized and georeferenced map overlays for the Hale Bathhouse location.

The association of these foundations with a previous structure is suggested by several things. First, the stone foundations are in stark contrast to the 1892 structure's concrete and brick-and-mortar structural elements. Second, the stone foundations retain evidence for arched window and door openings. All of these openings have been sealed with concrete blocks.

The building has three visible north-south stone and mortar walls which will be referred to as Wall #1, #2, and #3 from front (west side) to back (east side) (Figure 24). Foundation walls at the rear of the building are not accessible from the interior and were not examined. Evidence for windows was noted in Wall #1 (at the front of the building) and Wall #3 which divides an inaccessible unexcavated crawl space from the open basement. In Wall #3, the windows' upper elevations are of arched brickwork (Figure 25). The openings themselves are sealed with brick and spaced about 2 m apart. Window openings do not occur in Wall #2 suggesting this was the interior portion of the former Hale Bathhouse's basement. Former brick-arched doorways, now sealed with brick, were also noted at the north and south ends of Wall #3 (Figure 25).

The east face of Wall #2 exhibits a groove and plaster ridges which represent the former locations of walls. One of these "ghost" walls (Figure 26) occurs directly above a transition line on the floor where the latter turns from concrete (north end of hall) to dirt (south end). Whitewash occurs on this wall north of the plaster ridge but not on the south side. At this floor transition, a corresponding change in wall treatment is apparent on Wall #3. Here again, the portion of wall above the concrete floor is whitewashed while that above the dirt floor is not. A second ghost wall is suggested on Wall #2 about 2 m south of the first but there is no whitewash here or on the opposite wall nor is there a change in the flooring material at this point which could be used to clarify its former extent. On the other hand, Wall #3 is founded on tufa which projects slightly from the base of the stone foundation. The tufa bears quarrying marks and may be seen from the north end of the hallway to about 8 ft south of the concrete floor edge. This is directly across from the second ghost wall on Wall #2 and may suggest that an east-west wall extended completely across the hallway opening.

While an east-west concrete wall abuts the north end of Wall #3, the south end of Wall #3 joins an east-west stone and mortar foundation. A large, dirt and rubble-filled opening may represent the former location of a doorway to the building exterior or a coal room (Figure 27). The end of a massive stone slab, visible just above the foot of the opening at the base of the rubble, may be a sidewalk or step remnant. Building rubble on the south side of this wall is probably derived from the Hale Bathhouse built in 1882 as are the walls themselves.

Finally, engineering drawings of the building indicated that a substantial segment of the basement exists as an unexcavated crawlspace (Figure 24). This space is approximately 12 ft wide (east-west) and 100 ft long. Unfortunately, there was no access to this area since all door and window openings in the extant stone foundations have been sealed. There may

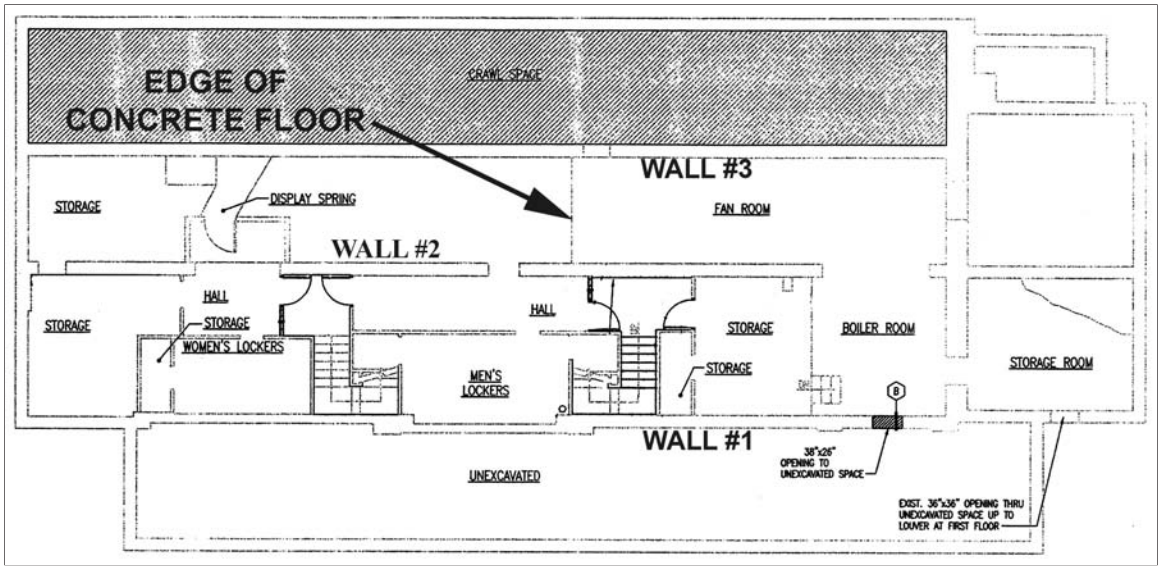

Figure 24. Plan of the Hale Bathhouse basement showing walls #1-3 (adapted from National Park Service 2002a:Sheet AS1.H).

Figure 25. A sealed arched brick window (left) and sealed arched brick doorway (right) in Wall #3 of the Hale Bathhouse basement is associated with the bathhouse's 1882 predecessor structure.

Figure 26. "Ghost wall" on the east face of Wall #2 is marked by a vertical cut in the stone foundation bordered on the north side by whitewash and a change from concrete to earthen floor immediately below.

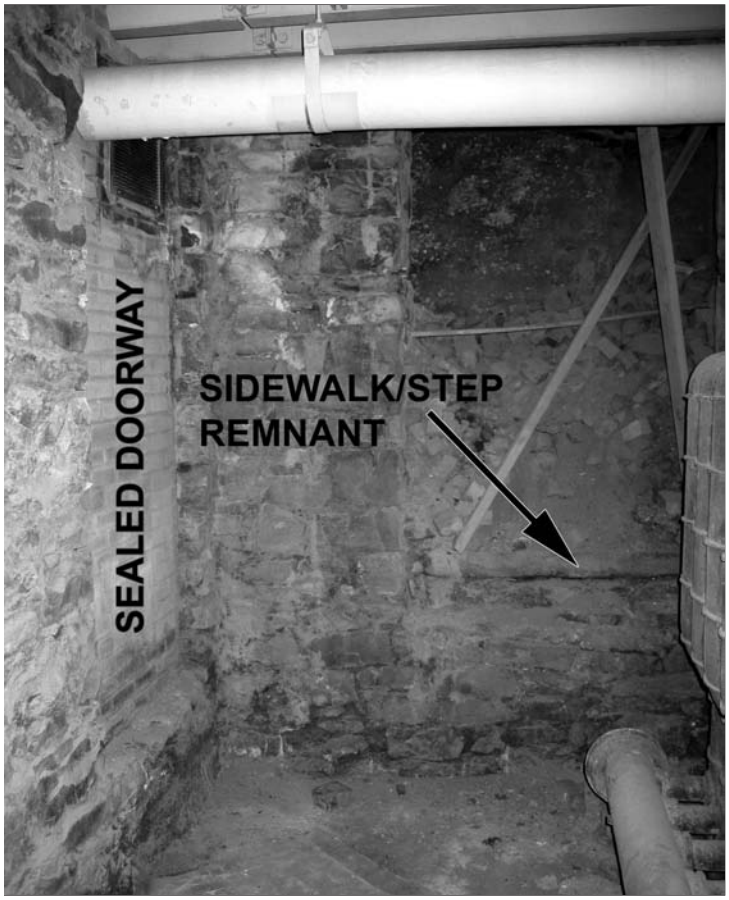

Figure 27. Rubble-filled opening at the south end of the Hale Bathhouse basement that may be associated with the 1882 structure. Stone slab at the base of the opening may be a sidewalk or step remnant.

be additional remnants of the 1882 building in this portion of the basement and, while no artifacts were recovered during this inventory relating to the current or previous structures, it is possible that artifacts related to earlier buildings and the activities that took place in them may continue to exist here as well.

Miscellaneous Monitoring

On January 19, 2004, the author monitored excavation of a trench for an electrical line from the Maurice Bathhouse north to a transformer box next to the Hale Bathhouse (Figure 28). Excavation was accomplished with a small Kubota tractor-backhoe equipped

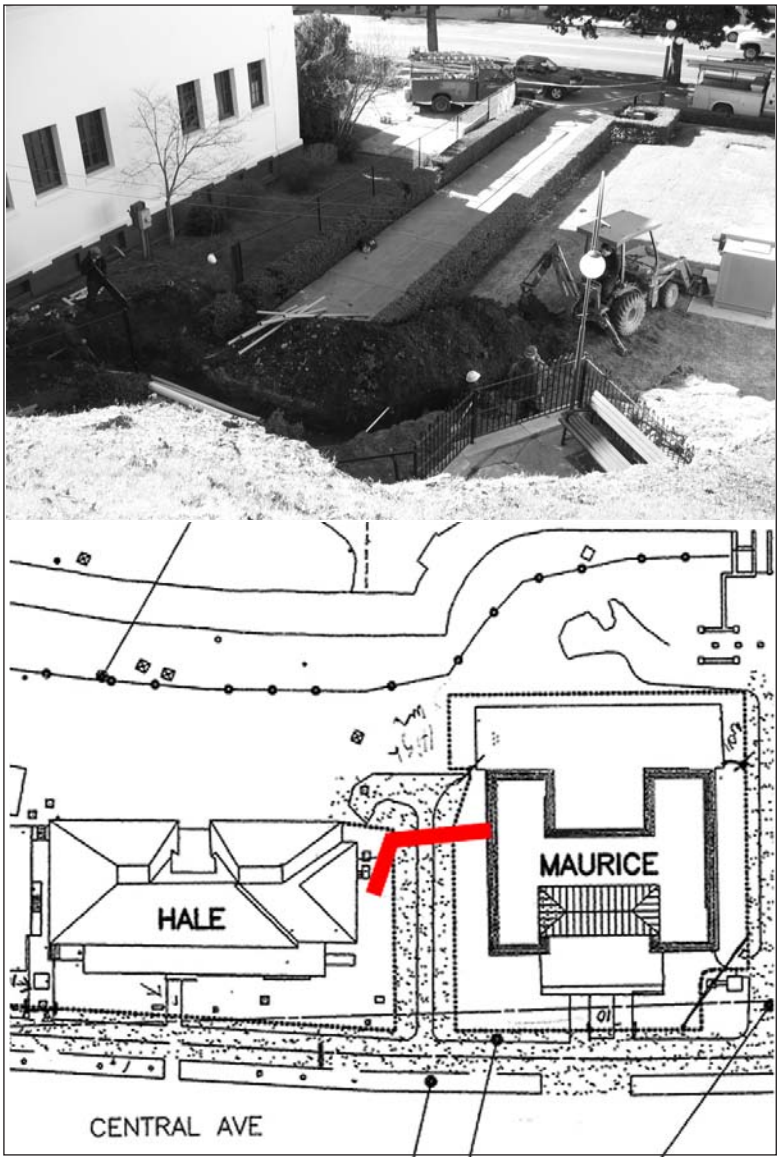

Figure 28. Trenching on January 19, 2004, to install an electrical line from the Maurice Bathhouse north to a transformer box next to the Hale Bathhouse. Top: view southwest toward trench excavation. Bottom: map of approximate trench locations (adapted from National Park Service 2002a:Sheet C1).

with a 1 ft bucket. The trench was about 40 m long and there was some form of pipe or pipe-bearing trench in virtually the entire length of it. In fact, the entire space between Maurice and Hale is disturbed to a depth of at least 3 ft (approximately 1 m) by these previous installations (at least seven pipelines of various type). Most of these older pipeline trenches are oriented north-south but a few are oriented southwest to northeast. Their dates of installation remain uncertain. The fill observed in the trench was mixed throughout bearing only small amounts of building material such as brick, rock, and occasional wood fragments. No significant archeological resources were observed.

Maurice Bathhouse Investigation

History

The Maurice Bathhouse stands on Bathhouse Site No. 8. At least two generations of bathhouses preceded the current structure; the Independent Bathhouse built in 1880 and that same structure greatly remodeled, rebuilt, and renamed the Maurice Bathhouse in the early 1890s (Shugart 2003b).

The original lease for site No. 8 was assigned to Michael McKeogh and ran from 16 December 1878 to 15 December 1888. At some point, McKeogh initiated construction of a new bathhouse on the site. The Independent Bathhouse was completed and open for business in 1880 (Figure 29). D. W. Hashal built the structure in the Second Empire or Mansard style for about $8,800; total cost for construction and furnishings was around $12,000. The building was founded on the east bank of Hot Springs Creek and connected to Central Avenue by a broad wooden bridge (Bell 1990b:H8; Craven 2006; Shugart 2002:entry for 1880; Shugart 2003b).

Figure 29. Independent and Palace Bathhouses under construction, 1880.

In the fall of 1881, McKeogh sold the business to George G. Latta, Sam W. Fordyce, and Col. Howard of St. Louis who soon sold his interest to Col. Rugg although a new lease reflecting this change of ownership was not drawn up until July 18, 1887. An 1880s era tourist guide describes the Independent as having 22 tubs, “in good condition, [with] many alterations and betterments having been made recently” (Anonymous 1894:41). In January 1892, Charles Maurice and Charles Converse obtained the lease for the

Independent Bathhouse, remodeled the building and renamed it the Maurice (Bell 1990b: H8; Shugart 2002:entries for 1881, 1887, 1892).

In 1895, William G. "Billy" Maurice, son of bathhouse operator-owner Charles Maurice, was assigned one-third interest of The Maurice Bath Company. With the death of his father in 1904, Billy Maurice acquired control of the company and assumed its management. Six years later, he and his partners announced their intention to raze the old bathhouse and construct a new and more lavish facility. The new Maurice Bathhouse rose from the ashes of the old, the work financed by an issue of 700 new shares of stock and a broader based ownership. The structure, completed in 1911 at a cost of $150,000 and with a capacity of 30 tubs, reopened for business January 1, 1912. The new bathhouse featured Mott's Celebrated Victoria roll rim tubs (Brown 1982:43). In 1915, the interior of the Maurice Bathhouse was updated by architects Mann and Stern. A large enclosed porch or sun parlor was added to the front of the building (Figure 30) and interior improvements

Figure 30. The Maurice Bathhouse as it appeared in 2004.

followed the popular Arts-and-Crafts style. In 1931, 10 tubs were added and a revolutionary new concrete pool was built in the basement to provide therapeutic treatment for patients with arthritis and infantile paralysis.

With the death of Billy Maurice in 1927, the family stock was sold to M.T. Relyea who had served for years as manager of the business. Bathhouse business and receipts continued to increase year after year through World War II. In January of 1947, about 6000 baths had been given and monthly receipts were well over $14,000. Relyea retired in 1952

and day-to-day operation of the Maurice was undertaken by Van Smith. Unfortunately for Smith, his management and eventual ownership (in 1963) coincided with a general decline in public use of the bathhouses. The 1960s saw an even more precipitous decline in bathhouse business and it became apparent that, without some radical change in operation, the industry as a whole would cease to exist. By 1973, the number of baths given annually had dropped to less than 12,000 and revenues were in the red. The following year, management of the Maurice Bathhouse Co. announced its decision to ceased operation with closure of the bathhouse doors in November 1974 (Bell 1990b:H9-13, H17; Paige and Harrison 1987:191; Shugart 2002: entries for 1911, 1912, 1974; Shugart 2003b).

GIS Mapping

Cannon's GIS map overlays for the Maurice Bathhouse indicate that footprints of the 1880 Independent Bathhouse and its remodeled version, the first Maurice Bathhouse coincide with the current building (Figure 31). This spatial overlap provides plenty of opportunity for remnants of earlier structures to remain within the current building, either under its concrete basement floor or as foundation elements. Earlier structures, possibly crude bathhouses and cooling tanks, occurred on this site as well at the front and rear of the present building near or in the same location as the proposed construction.

Archeological Investigation

In the first week of November, archeological investigations were initiated at the Maurice Bathhouse. The initial plan was to excavate at least two 1 x 2 m test units on the north side of the Maurice lobby foundation (the south side proved to be extensively disturbed) and the northern portion of the west foundation after a section of a massive concrete porch was removed. Power Lift excavations inside the building would be monitored. Hunt had been told by the contractor that interior excavations were to be fairly shallow, no more than 40 cm in depth.

Removal of bushes from the north side of the Maurice lobby foundation and demolition of north and south concrete porch extensions at the west side of the lobby allowed the ground surface to be clearly seen for the first time. Building materials and subsidence at these locations suggested the fill in these locations was highly disturbed. Based on this information, Hunt dropped plans to have the field crew excavate test pits in these areas and informed HOSP Facilities Manager Leonard Larson and Power Lift project managers that excavations at these two locations would be monitored instead. Subsequent excavations by Power Lift demonstrated that no intact cultural resources existed at those locations. In addition, Power Lift excavations at the interior northwest basement corner went as planned and no intact resources were noted in that area either. In the southwest interior basement corner, the company's excavation went unexpectedly deep, extending to at least 2 m below the basement floor. As this excavation progressed, the backdirt, foundations, and base of the holes were examined for archeological resources. The only feature identified was a

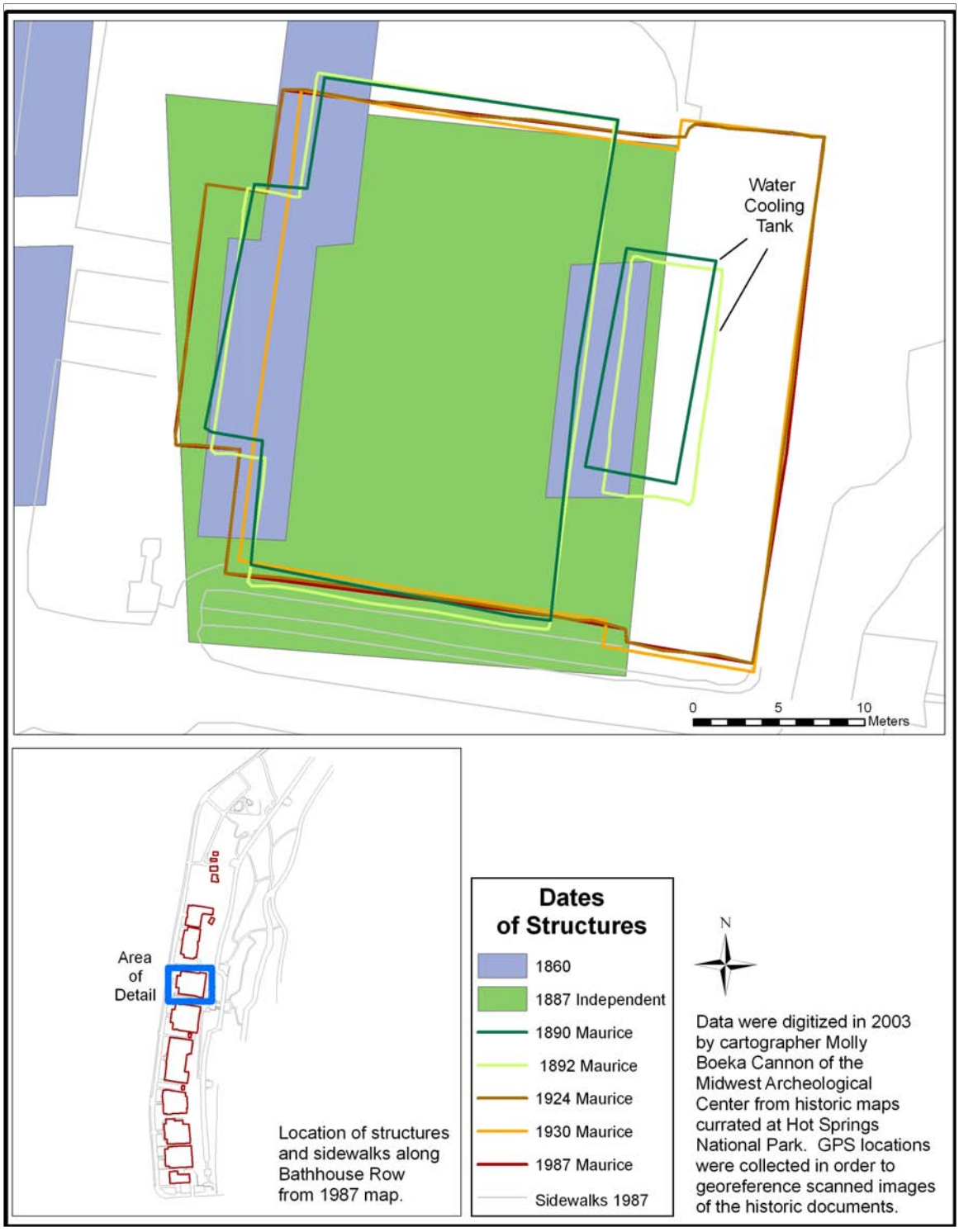

Figure 31. GIS map overlays for the Maurice Bathhouse.

north-south tile drain located 1.45 m from the east wall of the southeast room. In sum, nothing was noted of significance in or around the Maurice Bathhouse at this time.

Ground disturbing construction resumed in December at the Maurice and this work focused on the problem of hot spring flow through the basement. Work was directed toward controlling the water flow and channeling it out of the building to reduce the humidity in the structure and allow installation of a vapor barrier over the unexcavated fill on the east side of the basement. In conjunction with this, archeological monitoring took place as sections of concrete basement floor were removed to create four water collection pits/catchment basins next to the wall bounding the unexcavated crawl space (Figures 32-34). Holes were cut through the wall above the pits/basins and a series of connecting shallow linear trenches were cut for installation of drain lines and a sump pit.

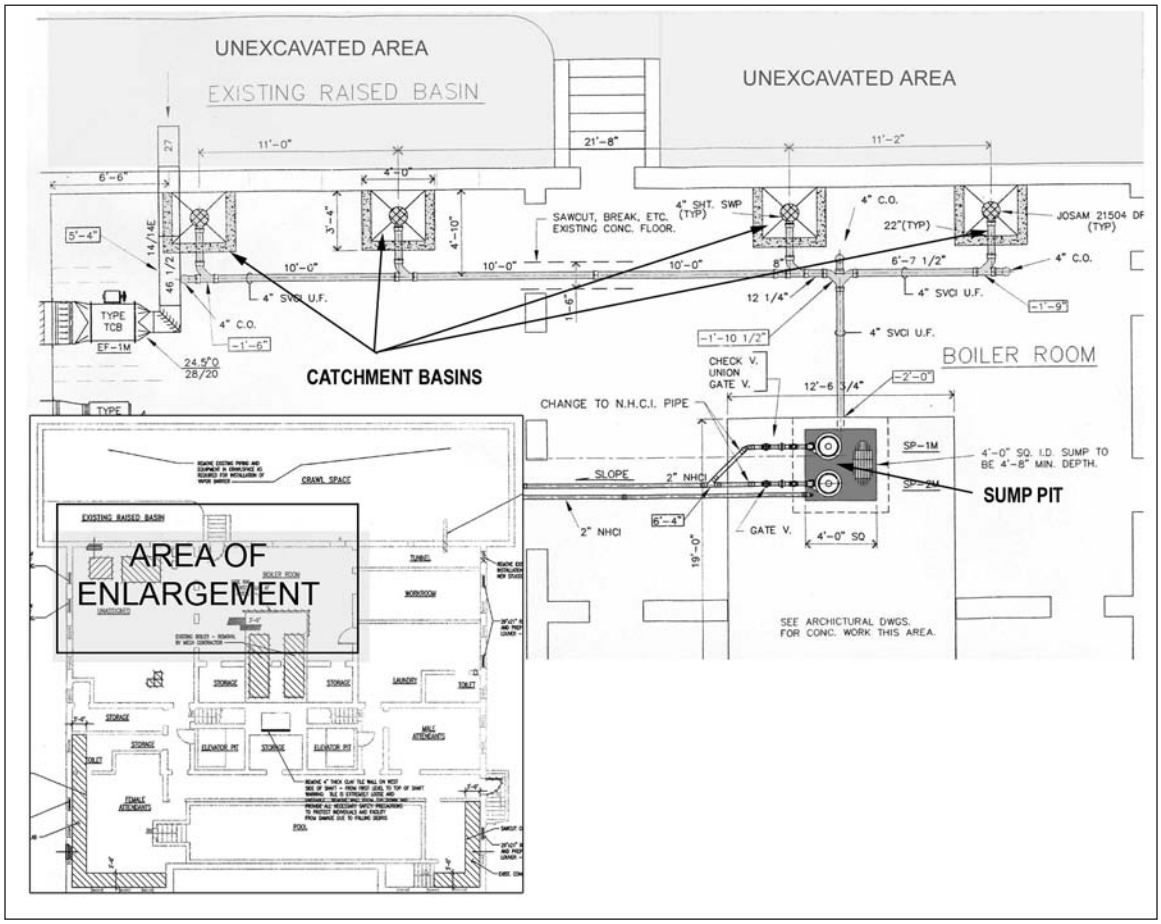

Figure 32. Maurice Bathhouse basement plan and water collection pit construction area.

Two objects were recovered as sections of the concrete floor were removed. A large ceramic bathtub foot (Cat. #14595; Figure 33) was found 5.1 m from the north basement wall and immediately next to the east wall. A rectangular marble slab (Cat. #14595), a sill for a doorway or wall baseboard, was collected 12 m from the basement's north wall and 1.5 m from the east wall. The foot is very similar to those shown supporting a

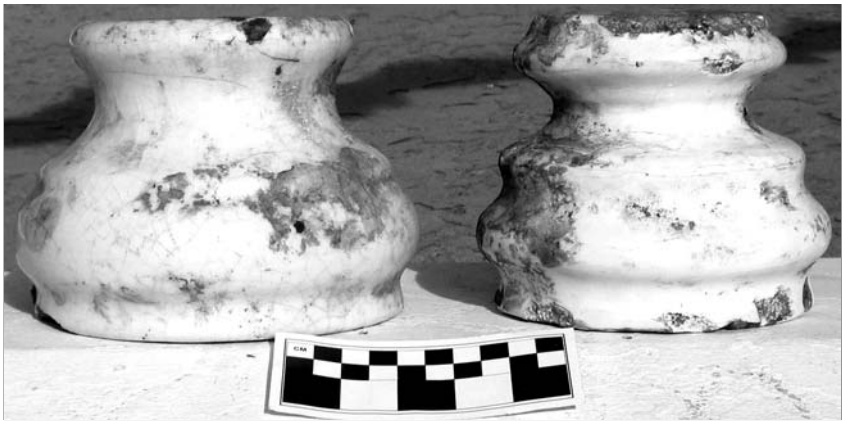

Figure 33. Field photo of ceramic bathtub legs from the Maurice Bathhouse (left) and south end of Arlington Park.

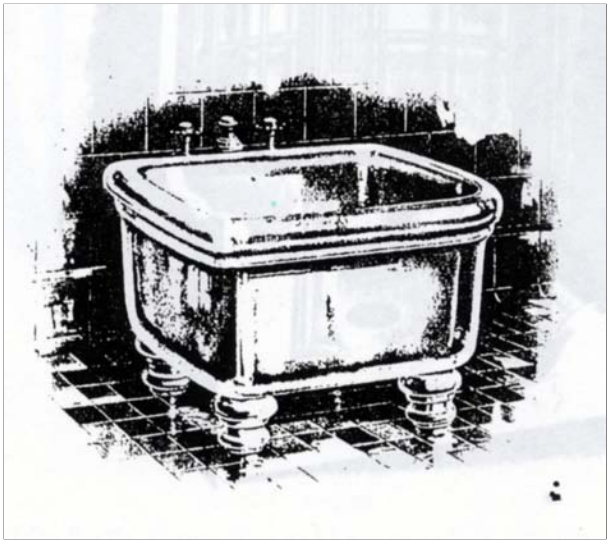

Figure 34. White porcelain foot bath (Crane Co. 1910:121).

Figure 35. Porcelain tub at the Maurice Bathhouse.

white porcelain foot bath in a 1910 plumbing catalog (Crane Co. 1910:121) (Figure 34). The Maurice's bathtubs and other appliances were installed with coverings to hide their feet. Nevertheless, during stabilization of the building a section of interior wall had been removed exposing the foot of an existing bathtub on the second floor (Figure 35). This foot is virtually identical to the specimen recovered from the basement floor and suggests that tubs with this type of foot were available for at least a couple of decades or that the tubs from the "Old Maurice"/Independent Bathhouse were recycled into the new facility rather than replaced wholesale.

Due to the shale and tufa below the concrete floor, construction excavation at the Maurice Bathhouse often progressed slowly and the author found he had an opportunity to examine architectural elements that appeared to be different or out of place in the basement. Several features were readily apparent. One was a series of six small openings or "windows" of various size which allowed access into a crawl space under the east side of the building. All but one of these openings were set fairly high in the wall in a manner suggesting former basement windows. The "window" at the north end, however, is much larger than the others and may have originally been a doorway whose lower half had been sealed with concrete (Figure 36). The crawlspace on the east side of the wall at this doorway, identified on construction plans as "EXISTING RAISED BASIN," is roughly rectangular in shape, about 3 ft wide and about 12 ft long (see Figures 32 and 37). The space may have been excavated to a much greater depth than is now apparent, the current shallow basin created as the space was filled with dirt, debris, and a thick layer of calcite deposits. This rectangular and spacious area on the east side of the wall may represent the location of a former stairwell/exit from the building. An even more obvious candidate as a former basement exit is an abandoned stairway which rises to the east (Figure 38). The top of this structure is only a couple of feet below the first floor supporting structures. Finally, the structures supporting the first floor in the crawl space are obviously constructed quite differently from those in the rest of the basement. Stylized gothic-style arches (see Figure 37) between closely spaced (about 3 ft apart) columns were used in this space in contrast to horizontal beams and widely spaced massive columns throughout the remainder of the building.

Quapaw Bathhouse Investigation

History

Prior to the construction of the Quapaw Bathhouse, the lot on which it sits was a much sought after bathhouse site chiefly because of its proximity to the high-volume Magnesia Spring, the waters of which were reputed to have superior therapeutic effects (Shugart 1997). The first known occupant of the site was Dr. P. H. Ellsworth. A graduate of Rush Medical College, Chicago, Major Prosper Harvey Ellsworth was a surgeon in the 106th Illinois Volunteer Infantry before moving to Hot Springs in 1866. After his arrival, he became an organizer and the first Secretary of Hot Springs Medical Society. Sometime before 1877, Dr. Ellsworth had a two-story residence and office over the Magnesia Spring.

Figure 36. Partially sealed door on north end of Maurice Bathhouse's east basement wall.

Figure 37. The north end of a crawlspace on the east side Maurice Bathhouse basement. Door and window openings on left same as in Figure 36. Photo taken from stairway in Figure 38.

Figure 38. Abandoned and sealed exit rising from the basement to the east. The top of this structure is only a couple of feet below the first floor supporting structures

This was located just south of the bridge to the Mud Hole on ground now occupied by the north half of the Quapaw Bathhouse. Later, Dr. Ellsworth and his family moved away from this site after building a new house, the "Wildwood," which is now operated as a Park Avenue bed and breakfast (Series 5. Ellsworth family papers, 1872-1911. Box 67. Special Collections, University of Arkansas Libraries. On the internet at <http://libinfo.uark.edu/SpecialCollections/findingaids/hudgins/hudgins6aid.html>, last modified on January 17, 2006 and accessed on February 13, 2006).

With the relocation of Dr. Ellsworth's business, the site became open for construction. The Horseshoe Bathhouse (Figure 39) was built during the 1880s in the Eastlake style on

Figure 39. The Horseshoe Bathhouse.

the former location of Dr. Ellsworth's home and office and shortly thereafter (sometime around 1887) the Magnesia Bathhouse was built next door in the Romanesque architectural style. Between these two buildings was a sloping, landscaped path leading up to the Government Free Bathhouse entryway (see Figure 9). Both the Horseshoe and Magnesia were owned in large part by the same group of investors headed by Charles B. Platt of Englewood, New Jersey. Upon his death around 1905, his heir Daniel F. Platt assumed control of both bathhouses (Bell 1990d:H8; Craven 2006; McAlester and McAlester 1986; Shugart 2003b).

Over the course of the next thirty or so years, the moisture of the baths and the hot springs that flowed beneath the bathhouses took their toll. This was documented in 1913 by Park Supt. Charles Trowbridge who advised the Secretary of Interior in his annual report that "the Horseshoe Bathhouse building is in very poor condition, in fact in the worst condition of any bathhouse in Hot Springs, and is in my opinion, beyond repair, being at present in no condition for use as a bathhouse" (Trowbridge 1914). He further suggested that both the Horseshoe and the Magnesia Bathhouses be ordered closed at an early date. In 1915, the

Horseshoe Bathhouse closed and two years later it was torn down. The Magnesia, on the other hand, was allowed to stay open for a short while longer with its exterior receiving a new coat of paint to make the building less of an eyesore. The Magnesia was finally razed by December 1920 to make way for construction of the new Platt Bathhouse, eventually named the Quapaw (Shugart 2002: entries for 1877, 1917, 1920, 1921; Shugart 2003b).

Architect Max F. Meyer, working for Little Rock architects George Mann and Eugene Stern, designed the new bathhouse in the Spanish Mission style with stucco and architectural terra cotta on the exterior (Figure 40). The interior was decorated with white tile, white porcelain enamel, and wainscoted with white marble. Roofing tile was

Figure 40. The Quapaw Bathhouse as it appeared in 2004.

provided by Ludowici Celadon Co., a company which remains in operation to this day. The architect's plan to build a single bathhouse on two lots (Bathhouse sites #5 and #6) proved to be controversial because: a) the expanded frontage was much more than that of any other bathhouse and b) it eliminated the front entrance to the Government Free Bathhouse. Nevertheless, the government approved construction and the entry to the Free Bathhouse was moved off Bathhouse Row (Bell 1990d: H20-21; Shugart 2003b).

One of the more interesting aspects of the Quapaw's construction has to do with an "Indian cave" discovered by workers as the site was being cleared. This was actually a tufa cavity which, reportedly, had prehistoric tools littering its floor. The owners used

this discovery as a means of enhancing public attention to the bathhouse. A number of ceramic figures were obtained from a Southwest artisan and "legend" was created for the small Native American "gods of the bath" supposedly found in the cave. The tufa cavity was enclosed in the bathhouse basement with a brick dome (see Figure 21) and its brick and concrete-plastered walls painted with stick figures to approximate the owners' idea of prehistoric pictographs. The Quapaw Cave was cited as proof that Native Americans bathed here and was used as a device to bring people into the bathhouse as an attraction over and above the therapeutic baths. The name "Platt" was changed to "Quapaw" to commemorate the Native Americans who lived in the region and supposedly used the hot spring now encased in the bathhouse (Bell 1990d: H20-21; Shugart 1997, 2003b).

When the Quapaw opened in 1922, its forty tubs established the business as the largest on Bathhouse Row. Nevertheless, the facility was not designed to compete with Bathhouse Row's luxury establishments. It had "no elevator, rest room, beauty parlor, manicure, chiropody, music room, parlor, etc., in fact no luxuries whatever" (Bell 1990d: H22). The only amenities were a mercury room for the men and a writing or lounging room for the women. To overcome this to some degree, the Quapaw management offered morning violin and piano musical programs for its patrons (Shugart 2002: entry for 1924; Shugart 2003b).

A number of modifications to the building and its operation took place over the years. In 1928, a new cooling tank was built and sometime around 1929, the open patio of Quapaw Bathhouse was closed with windows. In 1946, due to continuing problems with laundry service and rising laundry rates, the bathhouse became the first to install laundry equipment in its basement. Ten years later and following a recommendation in the Environmental Health Survey Report, business owners enclosed the display springs with half-inch plate glass without venting (Bell 1990d: H25; Shugart 2002: entries for 1928, 1929, 1946, 1956-1957).

With declining business and the building in deteriorating condition the Quapaw Bathhouse closed its doors to the public in 1968. The building was reopened a year later as Health Services Inc. and offered physical therapy and rehabilitation services as a satellite operation to the Libbey Physical Medicine Center. Despite this, poor business caused Health Services Inc. to close in 1984 with the government purchasing "possessory interest" in January 1985 (Bell 1990d: H17-25; Shugart 2002: entries for 1968, 1984).

GIS Mapping

Map data digitized for the modern location of the Quapaw Bathhouse serves as an excellent source for identifying previous structural locations at Bathhouse Sites #5 and #6 (Figure 41). The southern two-thirds of the ca. 1880 Horseshoe Bathhouse footprint overlaps and lies within the Quapaw's north basement. There is no map showing the position of Dr. Ellsworth's office and residence in this general area, however. About 80% of the Magnesia Bathhouse's footprint overlaps with the southern half of the Quapaw.

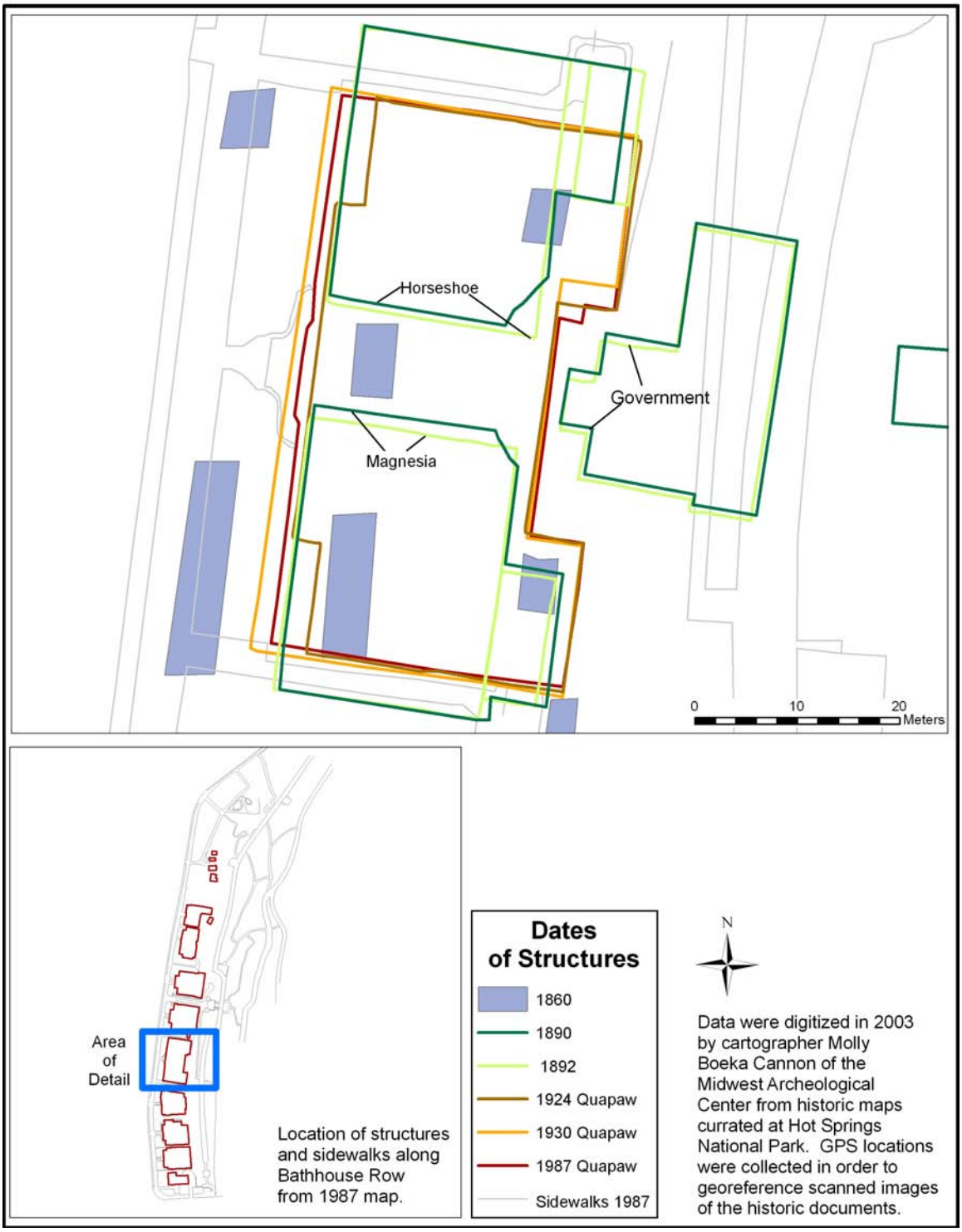

Figure 41. GIS map overlays for the Quapaw Bathhouse.

Between the two buildings was a wide corridor which once incorporated the walkway to the Free Government Bathhouse. Clearly, there is some potential for remnant foundations to occur within the Quapaw. Data from 1860 is restricted to blue rectangles and these have been interpreted as possible crude bathhouse structures built over hot springs. Four such structures lie within the modern footprint of the Quapaw.

Archeological Monitoring

The large space on the east side of the Quapaw Bathhouse basement is more-or-less inaccessible. This area is identified as a crawl space on drawing plans (Figure 42). The east side of the northern portion of the basement was covered with hot waters flowing

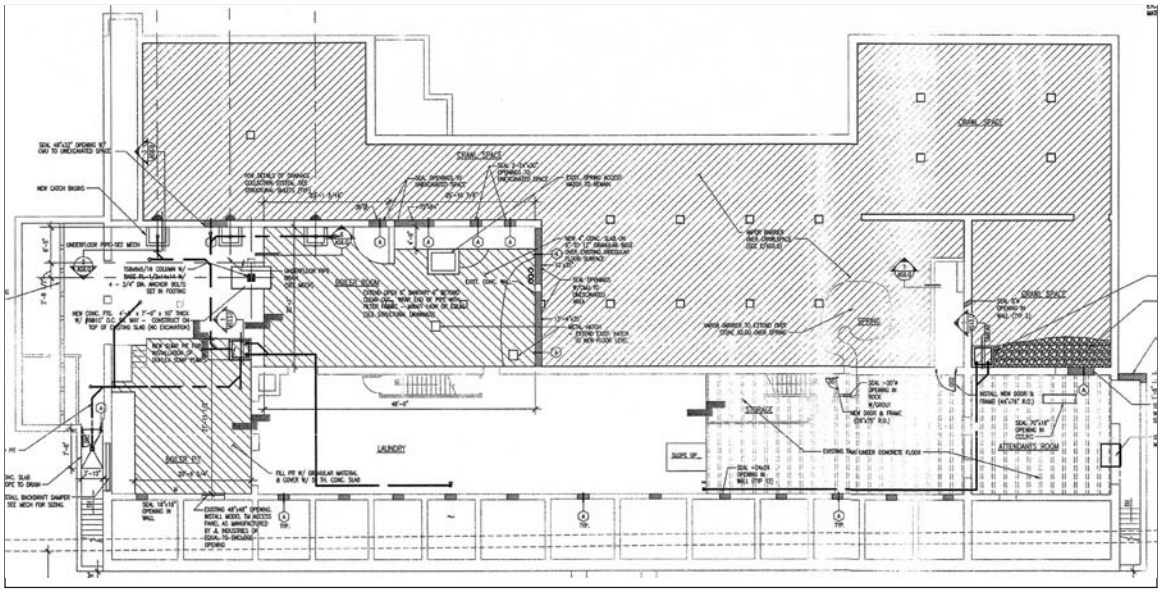

Figure 42. Basement floor plans for the Quapaw Bathhouse (adapted from National Park Service 2002a: Sheet M4.Q).

from at least three and perhaps four locations along the length of the basement [a very hot and voluminous hot spring, Magnesia Spring, occurs in the south end of the building encapsulated in the so-called “Indian Cave”]. Construction plans called for drain lines to be restricted to the north half of the building. In order to direct as much water as possible to the future location of the sump pump (as always, to be placed in the old boiler pit), the drain lines were arranged in the rough configuration of a fork, the “tines” to the east at or near the water sources and the “handle” leading to the boiler pit (Figure 43). The GIS map overlays (Figure 41) suggest these features lie in the same general area as the Horseshoe Bathhouse’s basement. That building’s east foundation would occur in the crawlspace east of where construction took place. The Horseshoe’s south foundation, however, probably occurred in the same general location as the construction excavations.

On January 19, 2004, Larich Inc. began cutting the basement floors and walls in the Quapaw Bathhouse. After cutting the concrete floor, the cut sections were broken out

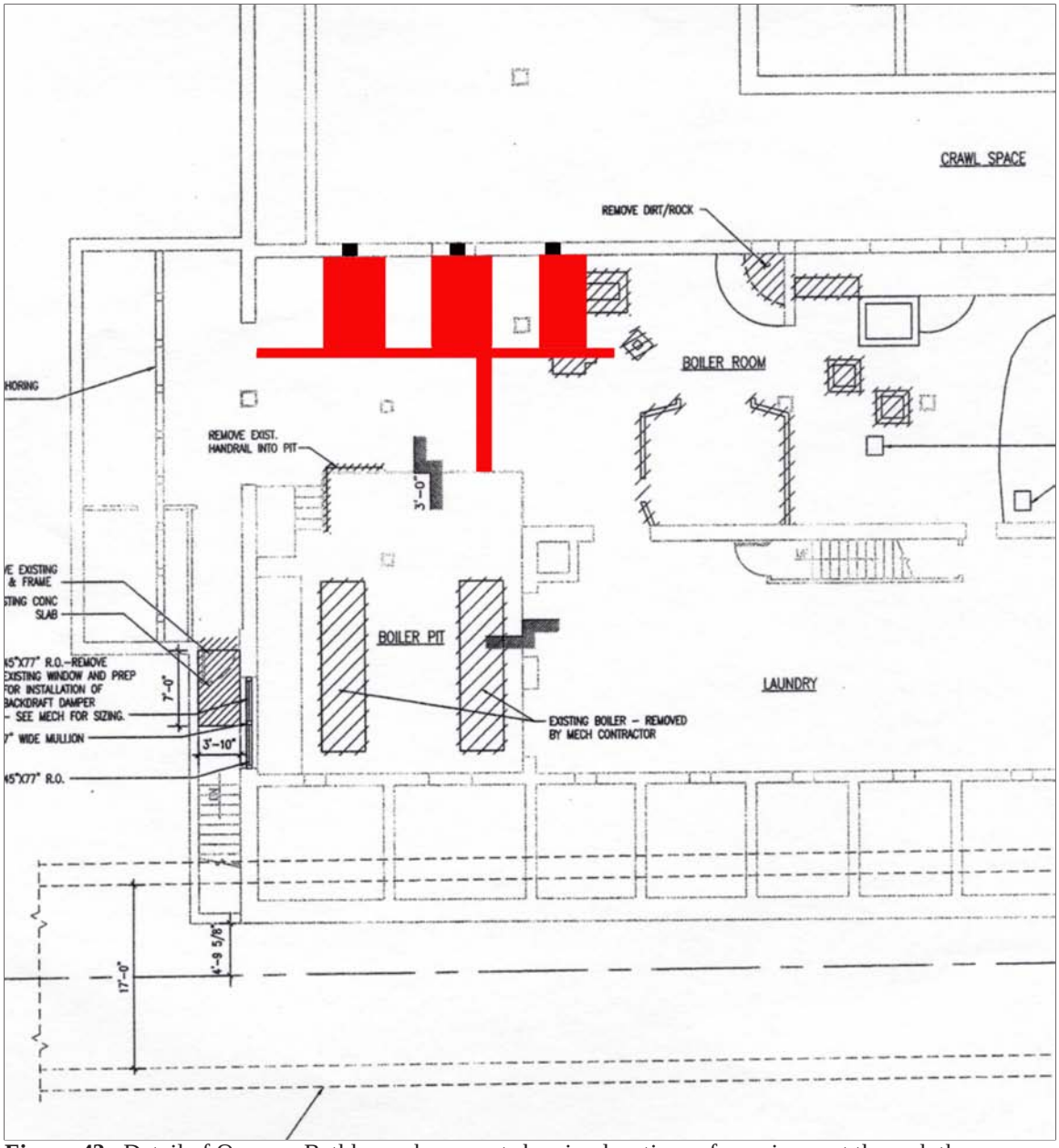

Figure 43. Detail of Quapaw Bathhouse basement showing locations of openings cut through the concrete wall (black rectangles) and floor (red) to enable installation of hot spring drains (adapted from National Park Service 2002a:Sheet AS1.Q).

with a jackhammer. The plan was for the construction crew to hand excavate fill from these cuts up to a depth of 24 inches below the concrete floor after which a plumber would install drains and pipes to move the water to the sump location. Once the concrete floor was lifted, however, the subfloor was found to consist almost wholly of concrete and stone. At this point, the compressor powering the jackhammer broke down, excavation came to a halt, and the crew was moved to the Lamar for unrelated work. Subsequently, the Larich Inc. Project Supervisor told me his company was seeking additional funds for the work and, since a contract modification review by the NPS required time to complete, he

didn't expect to start up work in the Quapaw for another 30-45 days and the author returned to MWAC.

No artifacts were observed through the course of these excavations. Further, it appeared the entire excavation corridor below the concrete was essentially bedrock. Excavation would have to be with jackhammer, not shovel and the likelihood of archeological resources occurring in the area of the proposed drains was virtually nil. Given this and the lack of visible pre-Quapaw architectural elements in the building, it was decided that no further monitoring was required.

Ozark Bathhouse Investigation

History

During the 1870s, the current site of the Ozark Bathhouse was occupied by the Weir and George's Iron and Magnesia Bathhouse and the Hot Springs Hotel (Figures 44-45). Very little is known about either of these business and both were destroyed in the disastrous 1878 Hot Springs fire. The first Ozark Bathhouse rose from their ashes two years later as a spindled and towered frame structure on Bathhouse Site No. 4 (Figure 46). After remodeling and painting in the early 1890s, the building acquired the nickname "White House" (Bell 1990c:H8; Shugart 2002: entries for 1878, 1880; Shugart 2003b). Additional remodeling in 1904 updated its bathing department with a new tile floor and rolled rim porcelain-lined tubs. The management was particularly proud of the Hitchcock Automatic [steam?] Disinfecting Machines (Brown 1982:43).

Arkansas native Major George C. Latta was the original lessee of the Ozark and owned the bathhouse with William G. Maurice and Samuel W. Fordyce. Later his partner was Lewis Carhart who, in 1895, transferred his interest in the business to Isaac Carhart. Latta deeded his interest to his wife Fannie in 1898 and Carhart sold his interest four years later to Fannie P. Sorrels, wife of drug store proprietor W.S. Sorrells. With Mrs. Sorrells' death in 1913, her shares passed to her husband. Negotiations for extending the lease took place at this time with the understanding that the owners would build a new bathhouse to replace the aging and decrepit frame building.

Plans for the new structure were developed by Little Rock architect George R. Mann of Mann and Stern. Four complete design plans were submitted to the NPS between 1915 and 1921 each more modest than the previous. The NPS granted extensions on the lease until the end of 1921. The Ozark Bathhouse Co. was established in November of 1921 with a capitalization in stock to the amount of $124,000. The major shareholder was W.S. Sorrells with Fannie Latta and nineteen others holding the remaining shares. A construction contract was let in December of 1921 and the new Ozark Bathhouse was built in the Spanish Revival style (Figure 47). The business opened in July 1922 with the owners applying for and receiving a 20-year lease from the Department of the Interior. Subsequently, the building was intermittently modified. In 1928, the porch was enclosed

Figure 44. Weir and George's Iron and Magnesia Bathhouse circa 1875.

Figure 45. The Hot Springs Hotel in the 1870s.

Figure 46. The first Ozark Bathhouse shortly after construction circa 1880.

Figure 47. The Ozark Bathhouse, completed in 1922, as it appeared in 2004.

for use as a "Sun Parlor." Massage rooms were added to the front of the building at its north and south ends in the winter of 1941-1942 and a complete laundry operation was installed in the basement in 1958. That action required removal of a small section of the original basement floor and some excavation to make room for a heavier concrete base and floor drain (Bell 1990c: H8-12, H21, H25-29; Shugart 2003b).

In the late 1960s and early 1970s, as the NPS ended its practice of long-term leases. The Ozarks' business manager claimed this prevented him from planning ahead and he stopped investing in capital improvements. The physical condition of the building quickly declined and the bathhouse finally ceased operations in 1977 as its owners allowed its lease to expire (Bell 1990c:H15; Shugart 2002:entry for 1977).

In 1987, the park entered into a 50-year lease with Little Rock investor Melvyn Bell to rehabilitate the building and adapt it into a fishing museum (Bell 1990c:AD1). Acting Superintendent Dale Moss has indicated this lease was cancelled in the early 1990s for nonperformance.

GIS Mapping

The GIS map overlays suggest that, while the first and current Ozark Bathhouses lie at the same location, their foundation outlines are different (Figure 48). Given the great amount of footprint overlap for these two structures, GIS mapping suggested a potential for structural elements of the first Ozark to be extant under the floors or in the foundations of the current structure. None of the earlier ground plans identifies buildings pre-dating the first Ozark on this lot.

Archeological Investigation

In the first week of January, Larich Inc. was prepared to begin cutting the basement floors and walls in the Ozark, the first step in the installation of floor drain lines and sump pumps. Afterwards, the fill below these cuts were to be excavated up to a depth of 24 inches below the concrete floor with drains and pipes installed to move the water to the sump location. At the time of the author's arrival on site, the basement floor had been cut in an elongated 'L' shape, the north end of the 'L' terminating at an opening in the wall from which a strong flow of hot water was pouring (Figure 49). The south end of the trench terminated at the north end of a boiler pit where a sump pit would be installed.

As construction excavation progressed over the next week, it was apparent that the fill contained a small amount of building materials including wood fragments, shaped boards, brick and mortar, and building stone (see 'Ozark Artifacts' below and Appendix A). Of this material, only one or two bricks were collected. Shaped boards were photographed and notes on their dimensions were taken. A small number of other artifacts were also recovered. Most were derived from concentrations at the north end of the 'L' and near the south end of the trench in front of the south stairway leading to the first floor. The recovery

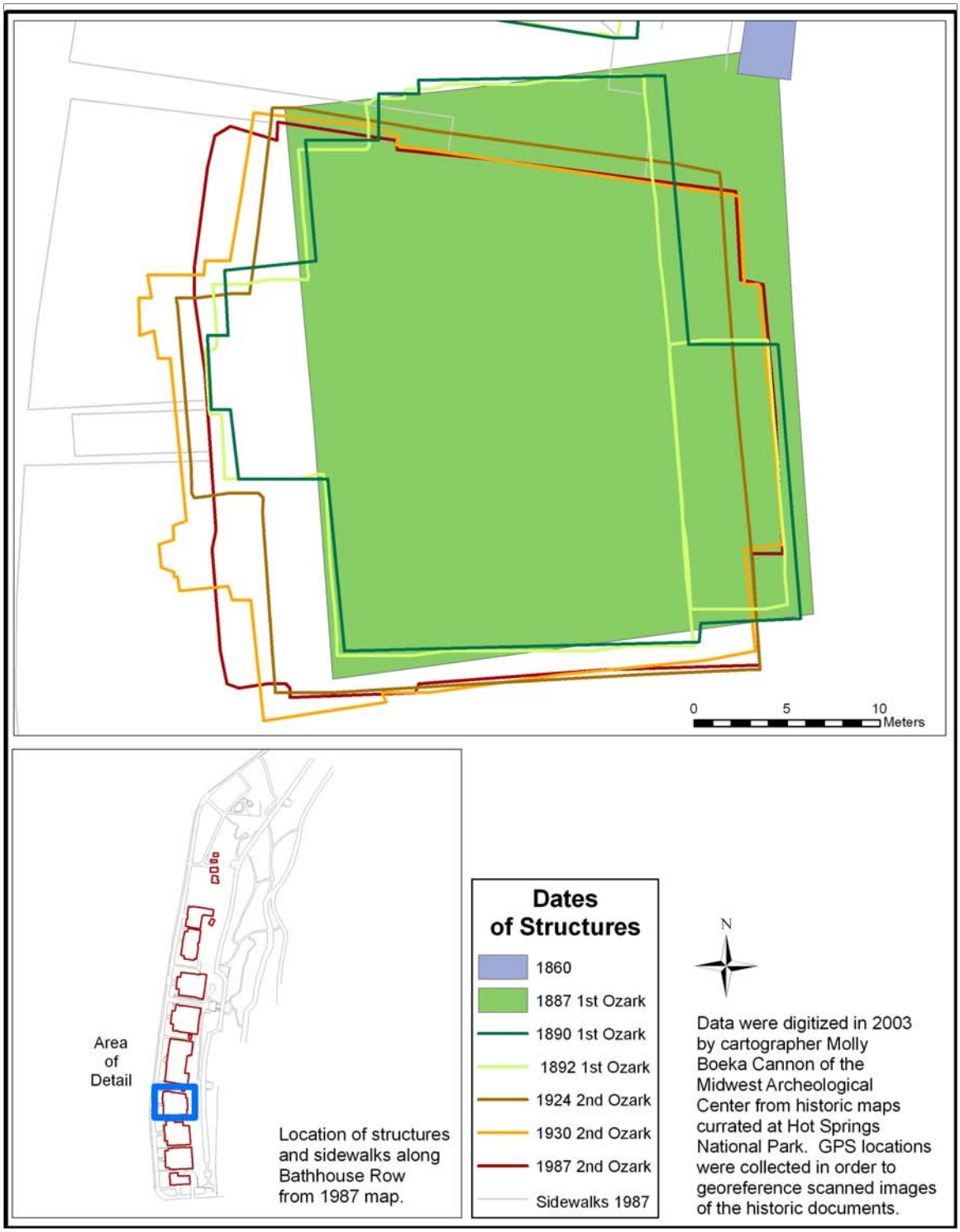

Figure 48. GIS map overlays for the Ozark Bathhouse.

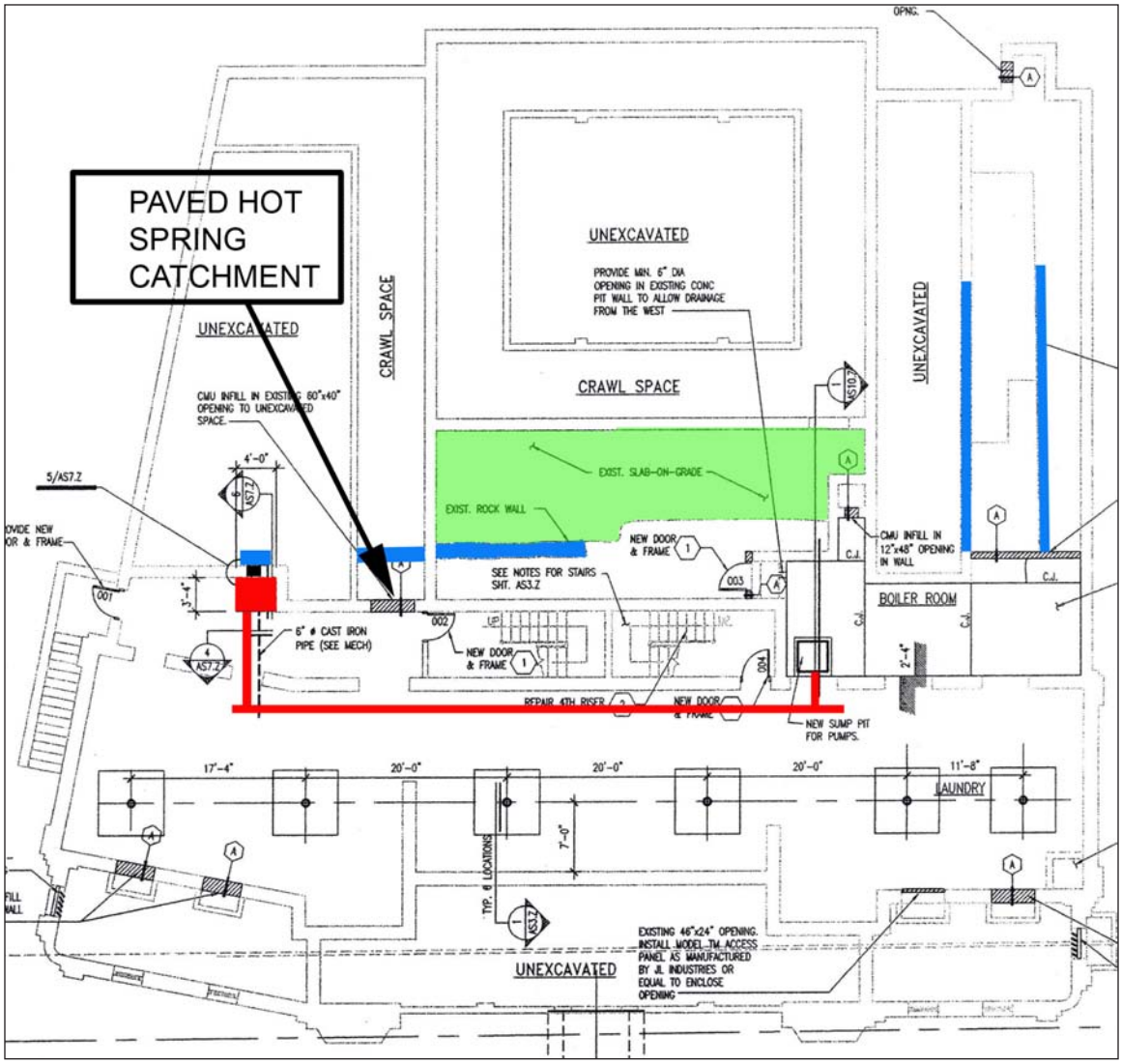

Figure 49. Ozark Bathhouse basement plan showing location of wall cut (black), catchment box and drain line (red) into sump pit (adapted from National Park Service 2002a:Sheet AS2.Z). "Fossil" tile floor (green) and stone walls (blue) may be from the Weir and George's Iron and Magnesia Bathhouse.

of floor tiles in the southern-most concentration demonstrated that this deposit represents, as expected, remains of the Victorian (1880) bathhouse structure that preceded the current building, also known as the Ozark Bathhouse or the White House (Bell 1990c:H8; Shugart 2003). A "fossil" remnant of that floor exists today in an almost completely walled off area at the center of the building.

This floor remnant was suggested on construction plans for the Ozark Bathhouse basement (see Figure 48) which illustrated a room at the center of the building having a rectangular area labeled "EXIST. SLAB-ON-GRADE" (National Park Service 2002a: Sheet AS1.Z). This portion of the basement can only be accessed through a doorway on the south end of the room. In November 2003, HOSP Maintenance Mechanic Jack Thompson

helped the author get into this area whereupon they found a "fossil" floor remnant (Figure 50). The existing slab-on-grade, located about 50 cm below the concrete floor joists of modern structure's first floor, proved to be a remnant of an earlier concrete floor which had been tiled in two decorative patterns (Figure 51). About two-thirds of the floor remnant is decorated with white octagonal tiles with smaller light blue diamonds. The other pattern, on the northern third of the floor, is more complex in design and utilizes orange, tan, and maroon tiles to create a somewhat southwestern-looking motif. The tiled concrete floor is probably associated with the first Ozark Bathhouse and likely dates to that building's construction in 1880 or the addition of tile floors in the baths (and possibly other areas?) in 1904.

The concrete slab lies on about a meter of rocky fill the upper margin of which is composed of a 20 cm thick reddened layer of rubble surmounted by a blackened layer about 10 cm thick. These two layers appear to be the result of a fire which had considerable heat. The construction date of the first Ozark Bathhouse (1880) suggests this layer is likely a product of the 1878 fire. The burned fill upon which the first Ozark Bathhouse was constructed appears to have been simply leveled and the concrete floor poured directly on the leveled rocky debris.

Stabilization plans for the Ozark also show a feature labeled "EXIST. ROCK WALL" in the northeast corner of this same room (Figure 48). The feature was examined during the November visit and interpreted as a rough stone and mortar foundation. A window or door topped with a brick arch occurs in the north end of the foundation in this room, the opening sealed with brick (Figure 52). The north edge of this former opening is located 64 cm from the north wall of the room and is 64 cm wide. The top of the stone foundation structure is buried in 40-50 cm of fill which is surmounted in turn by the first Ozark Bathhouse's "fossil" floor. The stratigraphic position of the foundation indicates that it is associated with a structure older than the first Ozark Bathhouse and predating the 1878 conflagration. In subsequent discussions with HOSP Museum Specialist Sharon Shugart, it was concluded that the stone wall is probably a remnant of the Weir and George's Iron and Magnesia Bathhouse which stood on this site in the late 1870s. That structure burned down in the 1878 fire that destroyed the entire Bathhouse Row.

Similar stone walls which are also likely associated with the Iron and Magnesia Bathhouse were re-utilized as elements of the 1922 Ozark Bathhouse. Remnants of at least three of the 1870s-era building's stone foundations were identified in the modern building's basement (see Figure 48). A stone wall at the south end of the basement lies a few inches inside and parallels the Ozark Bathhouse's south concrete foundation. That wall exhibits two narrow bricked spaces and a third opening bridged by a section of railroad rail (possibly another bricked space) which are identical to the opening observed at the center of the building. About 8 ft (2.44 m) north of and parallel to this stone wall is another. This section has no openings and was likely an internal wall of the older structure. A third, north-south stone wall element is likely a segment of the Iron and Magnesia Bathhouse's west (external) foundation and is visible in three locations. The first, at the center of the basement under

Figure 50. HOSP Maintenance Mechanic Jack Thompson in the Ozark Bathhouse basement examining "fossil" tile floor associated with the first (circa 1880-1921)

Figure 51. Washed section of the north end of the "fossil" tile floor which retains both observed tile patterns.

Figure 52. A foundation in the Ozark Bathhouse under the "fossil" tile floor is probably associated with the Iron and Magnesia Bathhouse and exhibits a sealed arched opening in its north end.

the "fossil" tile floor, has already been mentioned. The second element with another narrow bricked-in space may be seen just south of the north basement entrance after climbing into a high opening accessing a crawl space. This stone wall and the concrete wall of the 1922 Ozark Bathhouse create an open catchment area for a hot spring which flows from the center of the stone foundation's base onto a stone pavement. The third segment of this north-south stone wall was exposed immediately next to and on the east side of the 1922 concrete foundation when the construction crew cut and removed a block from the concrete foundation. At the center of the opening was the northern margin of another narrow bricked space. The narrow bricked-in spaces on the north-south stone foundation at the center of the basement and the east-west foundation at the south end of the basement are located approximately 10 ft apart center-to-center.

A photograph of the Weir and George Bathhouse (see Figure 44) suggests that Hot Springs Creek flowed along the exterior face of the building's west stone foundation. The author examined as much of the Ozark's crawl space as he could access to examine additional foundation elements in the northeast side of the Ozark basement. This review suggested that the back (east foundation) of the Weir and George Bathhouse may have been constructed of brick rather than stone.

Ozark Artifacts

As noted earlier, fill excavated from the floor drain openings contained a small amount of building materials including wood fragments, shaped boards, brick and mortar, floor tiles and building stone. Intact portions of a tiled concrete floor were also noted in the central room of the basement along with chunks of that floor. A total of 75 objects were collected (Appendix A) and classified according to their functional associations as per Sprague (1980-1981).

Architectural Items (n = 35)

Architectural items from the Ozark Bathhouse were subdivided into three subcategories: construction hardware, construction materials, and plumbing.

Construction hardware (n = 8)

This functional category is represented solely by cut nails (n = 8) in the smaller size range (4d-20d) represented. The pennyweight (d) is the standard means of referring to nail size, the smaller the pennyweight the smaller the nail length. William Lees, as a part of a nail analysis for a Kansas farmstead site, examined two 19th-century standing structures to ascertain the functions of various-sized nails used in their construction (Lees 1986:95-96). He notes the following correlations:

2d	wall and ceiling lath;
3d	shingling, ceiling lath, thin tongue and groove paneling;
4d	clapboard siding and shingling;
5d	light framing of 1" to 1¾ " boards;
6d	clapboard siding, 1" thick exterior trim, 1" flooring;
8d	flooring, sheathing, boarding, and exterior trim using 1" thick boards;
10d	sheathing and window trim using 1" thick boards;
12d	studding; and
16d+	heavy framing.

Sizes represented in the collection include one 4d (1½") embedded in a wood fragment; one 6d (2"), two 8d (2½"), two 10d (3"), and two 20d (4"). The lack of wire nails in the collection suggests a date pre-1890 (Adams 2002) which agrees with the assessment that these materials are derived from the first Ozark Bathhouse.

Architectural construction materials (n = 26)

This functional category is represented in the collection by 24 yellow ware floor tiles or tile fragments, 1 flat (window) glass fragment, and one complete, unmarked standard brick. In addition, a number of board fragments were removed from fill under the Ozark basement floor but were not collected.

The tile fragments are not only the most prevalent collected object type in this category but the most interesting as well. Collected tiles (Cat. 14605, 14606) include 15 6" octagonal specimens, 8 2" blue squares, and one 6" x 2" rectangular brown attached to a 1" x 3.6" red rectangular tile. The large octagonal tiles exhibit 0.6" wide ribs on their bases to enhance adhesion to the floor and "A. E. TILE CO." in raised letters (Figure 53). The mark identifies the manufacturer as the American Encaustic Tiling Company (A.E.T.). This company was a major manufacturer of interior and exterior building tiles beginning in 1875 and continuing to do so under the A.E.T. name through 1935. The production of encaustic tiles involves a complicated process where powdered clays of different colors are pressed together to form a pattern or design. In 1877, George Stanberry became the company's superintendent, and produced a machine that mass produced tiles like never before in America. Production increased, and the factory moved to a bigger building. In 1880, A.E.T. began making glazed tiles with embossed tiles coming shortly thereafter in 1881 (Karlson 1998). All of the tiles recovered from below the Ozark Bathhouse's concrete basement floor occur as elements of the "fossil" floor remnant described earlier in this report. The recovery of additional tiles in loose fill above a stone wall remnant north of and outside the room where the intact floor occurs, suggests the possibility that additional intact floor elements may occur elsewhere in the basement's unexcavated areas.

Plumbing (n = 1)

This functional category is represented by a single object (Cat. 14608), one that is almost ubiquitous on urban sites; i.e., clay drain pipe. The fragment recovered from beneath the Ozark's basement floor is a salt glazed rim from one of these pipes. In the United States, vitrified clay pipe with a salt glazing applied to both interior and exterior surfaces was the material of choice for sewers by the 1880s-1900s and was used into at least the 1930s (Sewerhistory.org 2006).

Commerce and Industry (n = 4)

Objects assigned to this functional category are associated with animal husbandry and commercial medical and health.

Animal husbandry (n = 1)

The only object associated with this function is a single, highly corroded horseshoe (Cat. 14606) recovered from below the floor at the sump drain cut. A number of horseshoe nails remain in the shoe.

Commercial medical and health (n = 3)

This functional category is integrally related to the bathhouse business with artifacts including elements of two black, hard rubber syringes and a ceramic foot from a bathtub. The two hard rubber syringes (Cat. 14339, 14620) (Figure 54) are similar but not identical

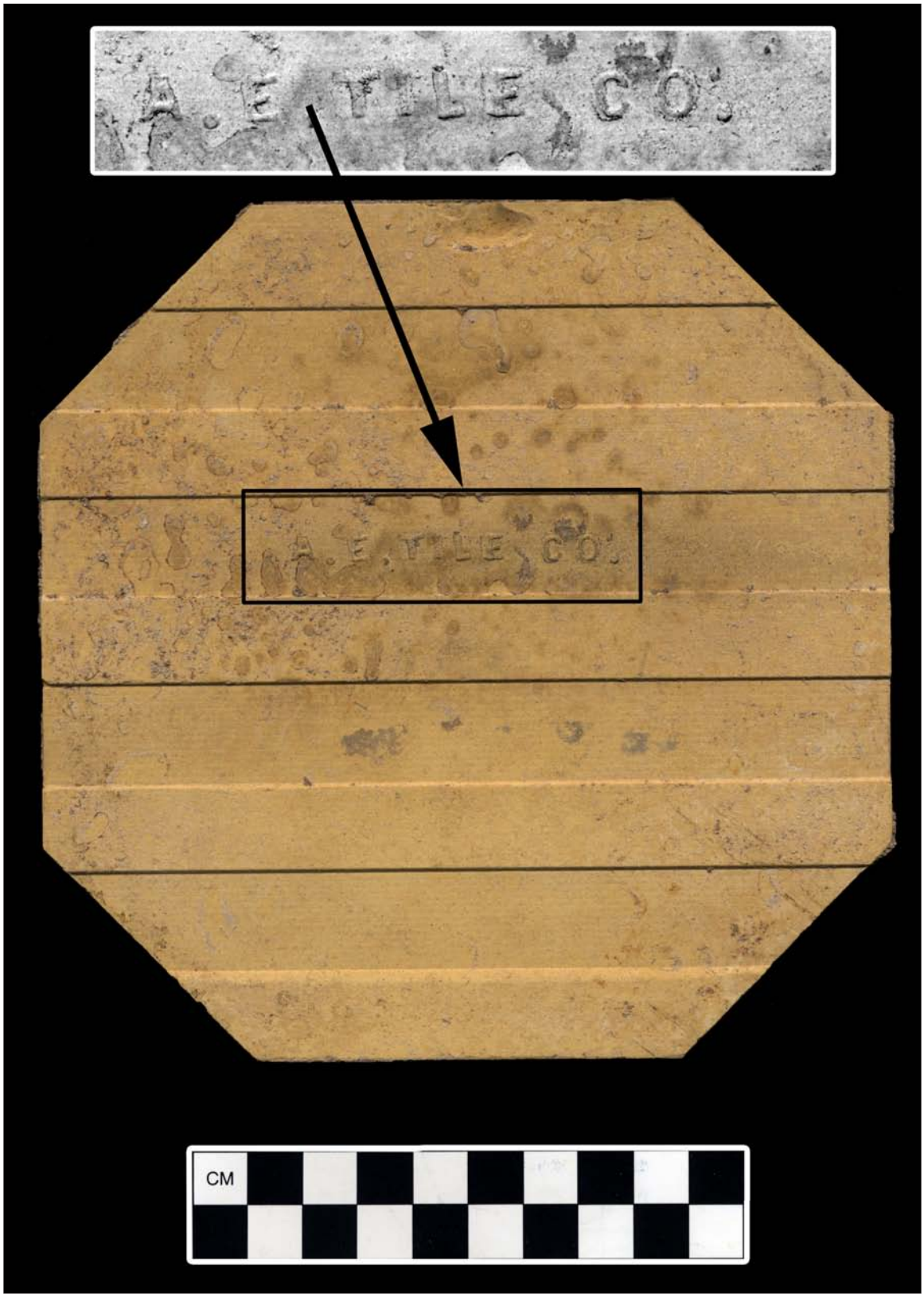

Figure 53. Tile (Cat. 14606) manufactured by "A. E. TILE CO." recovered from beneath the Ozark Bathhouse basement floor.

to "P" syringes offered in Harold Surgical Corporation catalogs during the 1920s (Harold Surgical Corporation 1927:32). Harold Surgical Corp. syringes came in 3/8 and ½ oz. sizes and priced at $2.50 the dozen. They appear on the same page as urethral syringes and with arsphenamine and neo-arsphenamine, both of which were remedies for the treatment of syphilis. A syringe nearly identical to that in the Harold Surgical Corp. catalog is in the Medical Museum Collection at Oregon Health and Science University. That specimen was manufactured by I.R. Comb & Co. under a patent by Goodyear. Its manufacture is attributed to between 1851 when Goodyear patented the process for manufacturing hard rubber (Kemp and Malm 1935) and 1890 (Oregon Health and Sciences University 2005). Similar objects are also found in early 20th century Sears, Roebuck and Co. catalogs and are suggested for use as urethral and vaginal syringes (Sears, Roebuck and Co. 1969a, 1969b, 1970, 1973).

Due to their similarity in shape, ceramic tub feet such as those used by generations of bathhouses in Hot Springs may often be mistaken for large ceramic insulators. The foot (Cat. 14600) found embedded in the base of the Ozark Bathhouse's concrete basement

Figure 54. Hard rubber syringe (Cat. 14339) recovered from under the Ozark Bathhouse basement floor.

floor resembles those illustrated in early 20th century plumbing catalogs. It is of smaller diameter, however, than examples recovered and observed at the Maurice Bathhouse (see Figure 33) and narrower than examples illustrated in a 1910 plumbing supply catalog (Crane Co. 1910:121; see Figure 34 this report). It is much more like a ceramic foot recovered by HOSP Museum Specialist Sharon Shugart from a disturbed area in the approximate area of the old Arlington Hotel (see Figure 33). That hotel, the second of that name, opened for business in 1893 and burned down in 1923. The earlier hotel and a predecessor of the same

name were located at the present-day Arlington Lawn (across Fountain St. from the present Arlington Hotel) and both businesses had bathing facilities (Shugart 2002). This suggests the foot is associated with an earlier period than the Maurice specimens and likely acquired for the 1880 Ozark Bathhouse.

Domestic Items (n = 16)

Objects associated with this functional category are associated with food, food processing, dining, and furnishings.

Food (n = 6)

This category includes a food container, bone, and clamshell. Four shell fragments from two oyster (*Crassostrea virginica*) shells were recovered from the Ozark Bathhouse sump drain out. A femur (Cat.# 14337.1) recovered from the basement drainline was identified to the sheep/goat (*Ovis aries*/*Capra hircus*) group (see Appendix C).

The other item assigned to this group is a ball neck bottle finish (Cat. 14334). Its shape and constricted finish, suitable for a stopper type closure, suggests it may have held a condiment. The light violet color, a result of exposure to the sun's ultraviolet rays, occurs only with glass made prior to World War I (Munsey 1970:55).

Culinary (n = 1)

A single basal stoneware fragment (Cat. 14607) is from a 7½" diameter vessel, probably a small crock. It exhibits a dark brown, almost black glaze on both interior and exterior surfaces.

Gustatory (n = 8)

Activities associated with this function are indicated by ceramic sherds and curved glass. Thick, plain whiteware or hotelware sherds are derived from a plate of uncertain size (Cat. 14609, n =2 fragments), a 10" plate (Cat. 14611), and some form of hollowware (Cat. 14609). A small plain whiteware saucer is represented by a rim (Cat. 14610). A blue transfer printed plate or platter is suggested by one sherd (Cat. 14610) printed in the ubiquitous Willow pattern. The vessel form represented by another hotelware sherd (Cat. 14610) could not be determined. An everted hotelware rim (Cat. 14331) recovered from fill immediately above a Weir and George Bathhouse stone foundation is also from an unidentified vessel form. A clear glass foot (Cat. 14613), 3½" in diameter, is from a wine glass or goblet.

Furniture (n = 1)

A single piece of clear plate glass (Cat. 14607) was probably used to protect a desk or counter top from damage.

Personal Items (n = 12)

All objects in this category are curved glass fragments which, by the color, appear to be largely derived from beverage bottles. Green, aqua, and clear fragments may be from soft drink or medicine bottles. Olive, dark olive, and black glass fragments probably from alcoholic beverages, most likely wine and/or champagne.

Unknown and Non-cultural (n = 7)

This category includes objects of indeterminate function. Among these are five curved glass fragments (3 specimens Cat. 14334; 1 specimen 14335; and 1 specimen 14614), a piece of cast iron (Cat. 14604), and an intriguing object made from a piece of automobile exhaust pipe (Cat. 14604). One small stone was cataloged but is of non-cultural derivation.

HOT SPRINGS

5. INVESTIGATIONS AT THE LAMAR BATHHOUSE

History

The history of the Lamar Bathhouse site has not been researched by historians to the depth of aforementioned bathhouses. Nevertheless, it is known that the first bathhouse to be named "Lamar" was raised on the current site in 1887-1888 and named after time Lucius Q.C. Lamar, the Secretary of the Interior at that time. Period photographs (Figure 55) indicate the first Lamar Bathhouse was a frame structure embellished with Romanesque and Eastlake or Stick style architectural details (McAlester and McAlester 1986). Its front (west) foundation may have occurred just a few feet east of the creek arch which had been built in 1882-1883 to enclose Hot Springs Creek. The building's south foundations were of stone and had at least four windows or openings to the exterior (Shugart 2002: entry for 1887; Shugart 2003b).

The present structure (Figure 56) was built in the California or Bay Region School style at a cost of $130,000 and opened for business in 1923. The design was by Harry Schwebke of Claremore, Oklahoma, and its amenities included tubs in a variety of lengths to accommodate people of various heights, a small coed gym, and a lounging area for women. In the mid-1940s, the building was remodeled with decorative details featuring marble, ornamental iron balustrades, silvered glass, and red panel wainscots. The Lamar closed for business in 1985 (Paige and Harrison 1987:193; Shugart 2002: entry for 1923; Shugart 2003b).

GIS Mapping

The GIS overlay map for the Lamar Bathhouse location indicates at least three previous structures or portions thereof occupied the current site (Figure 57). The oldest of these was the Hot Springs Hotel (see Figure 45) whose southeast corner may have overlapped the current structure's northwest quarter. Little is known about this frame building other than it was built around 1870 and burned down in 1878 (Shugart 2002: entries for 1870 and 1878).

Contemporary with the Hot Springs Hotel and contiguous to its southern wall was a smaller structure. Remnants of the north half of this structure may exist under the current building. Nothing is known about this building except that it was owned by William H. Gaines. His wife Maria is listed as the owner of the Hot springs Hotel (French and Douglas 1875).

The third structure on this site was the first Lamar Bathhouse. Its overall footprint was virtually identical with that of the present structure. GIS mapping data suggests a possibility that this earlier Lamar and the current building have the potential to share north and south exterior walls. In addition, mapping data indicates the first Lamar Bathhouse's central opening (courtyard?) occurred wholly within the modern structure. These features,

Figure 55. The first Lamar Bathhouse, constructed in 1887-1888 and razed in 1922.

Figure 56. The current Lamar Bathhouse as it appeared in 2004.

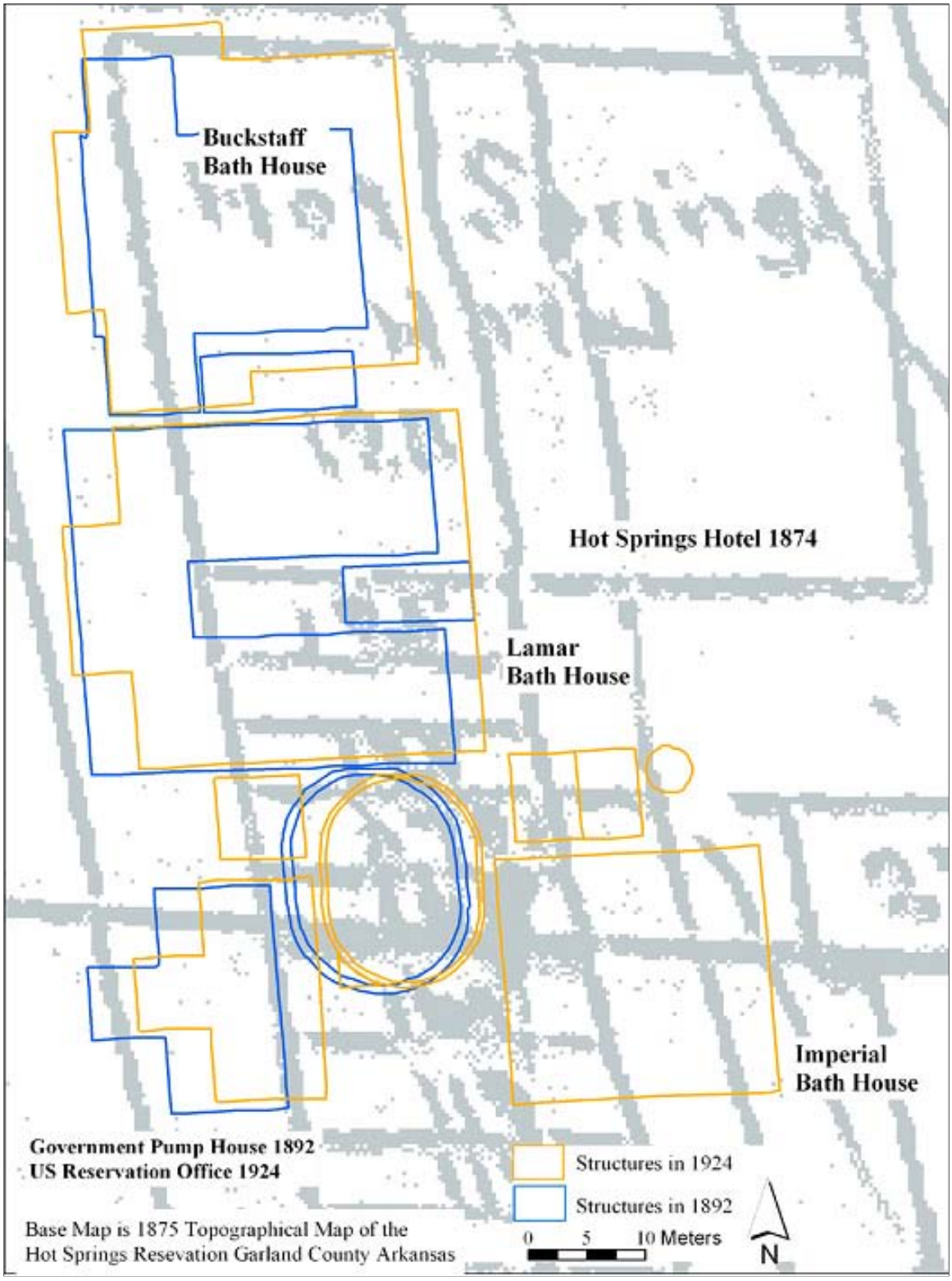

Figure 57. GIS map overlays for the Lamar Bathhouse.

along with the fact that at least half of the basement is unexcavated fill, establish a situation where numerous building elements and possibly artifacts may occur within the present Lamar Bathhouse.

Archeological Investigation

Archeological investigations were initiated at the Lamar Bathhouse on November 3 and continued through November 14, 2003. MWAC Archeologist William Hunt directed the investigations and was supported by a small crew consisting of MWAC Intern John Gapp and MWAC Archeological Technicians Monica Zsigmond and Gary Akers. As noted earlier in this report, a previous visit to this building by Hunt resulted in the identification of a stratified deposit of artifact-bearing fill within which occurred an ash and clinker-filled feature.

By the time this team had arrived on site, the floors around two columns in the Lamar basement had already been excavated by the contractor. Columns had been numbered with red spray paint with the excavated columns being #1 and #8. The necessity of extensive excavation by Power Lift and the discovery of a brick foundation below the concrete floor at Column #8 (Figure 58) suggested that additional subfloor archeological

Figure 58. Contractor's excavation around Column 8 showing 1887-1888 basal column with offset 1922 column poured on top. The brick foundation (Feature 2) exposed by the construction crew is at the back of the hole behind the concrete column.

resources were likely to be encountered. As noted earlier, work goals were to document and test the stratified deposit at the south end of the basement, excavate one of the floor columns, and monitor Power Lift excavations of eight others. This plan was modified, however, as events unfolded.

Power Lift excavation of the floor and fill around Column #8 discovered the column rested on sandy gravel fill which, in turn, suggested it was very unlikely that any of the Lamar's other columns in the west half of the basement were resting on solid footing. Further, the bases of the concrete columns sat on horizontal slabs of wood which the construction crew estimated had been used for tamping surfaces. The company's on-site project managers concluded that the only thing holding the columns in place was the concrete floor which had been poured around them. Consequently, the plan to open all the floors around eight or nine columns was abandoned since this would likely create a very unstable situation for the building. Columns were therefore excavated one at a time.

Power Lift crews immediately began work throughout most of the Lamar Bathhouse basement grinding, shaping, drilling steel plates and concrete columns, welding massive steel plates to the columns, and jack hammering away portions of the concrete floor from around selected columns. As column bases were exposed, they were found to be composed of two elements: a more massive subfloor concrete column below the floor and a narrower concrete column above the floor. The upper elements generally sat off-center with respect to the lower portions columns. This suggests two things: 1) lower elements may have been structural supports associated with the first Lamar Bathhouse; and 2) the first Lamar's supporting columns, built in 1887-1888, were incorporated into the building that replaced it in 1922-1923 serving as footers for the columns of the new building. The original Lamar's supporting columns may have sat on a concrete floor. Exposure of the base of Column #8 by Power Lift indicated it rested on a sandy layer. It is likely that this sand layer is all that remains of the first Lamar's basement floor and acidic hot waters flowing under the modern basement floor had completely eroded the former floor's cement mortar.

The necessity for both the construction and archeological teams to work together and at the same time stay out of each other's way more-or-less focused initial archeological investigation on the stratified deposit and ash and clinker featuare, hereafter referred to as Feature 1. This work was begun with documentation of the stratigraphy of the soil exposure which included Feature 1 (Figure 59).

Aside from the steeply sloping stratified deposit, a large accumulation of fill similar in appearance to the charcoal/ash deposit in the now-vertical face was identified on the basement floor in front of (at the north margin) of the unexcavated fill. It wasn't possible to visually determine whether this was an intact deposit or debris that had slumped from the steep face of the fill. After some consideration, a test unit was placed here to clarify the nature of this fill area.

Figure 59. HOSP Park Ranger Mark Blaeuer standing next to Feature 1 in the south end of the Lamar Bathhouse basement at the time of its discovery.

T.U. 1.

This unit was established over the fill at the base of the exposed stratigraphy (Figure 60). This rectangular unit measured 2 m east-west by 1 m north-south and was excavated in arbitrary 10 cm levels. Altogether, six levels were excavated with bedrock encountered at 1.20 m below a string datum (bd). The zero point for this datum was the head of a nail pounded into a still-intact wooden concrete form around Column 4. The nail head was 1.54 m below the basement's concrete ceiling and the first level excavated was 2.14 m below the concrete ceiling. As each level was excavated, the fill was passed through ¼" hardware cloth mounted on a shaker screen to effectuate artifact recovery. Artifacts were sorted from the gravel fill remaining in the screen and a field catalog (using temporary catalog numbers) was utilized to track recovery locations. By the time excavation was completed, it was clear that the fill at the base of the stratified deposits represented slumped deposition with relatively modern (circa 1940s and later) debris throughout and older material on top of the deposit.

T.U. 2.

As excavation at T.U. 1 was underway, and at Hunt's request, the Power Lift crew opened up the concrete floor on the east side of Column 5 (Figure 60), a location directly in line with the projected path of the brick foundation discovered by the construction crew

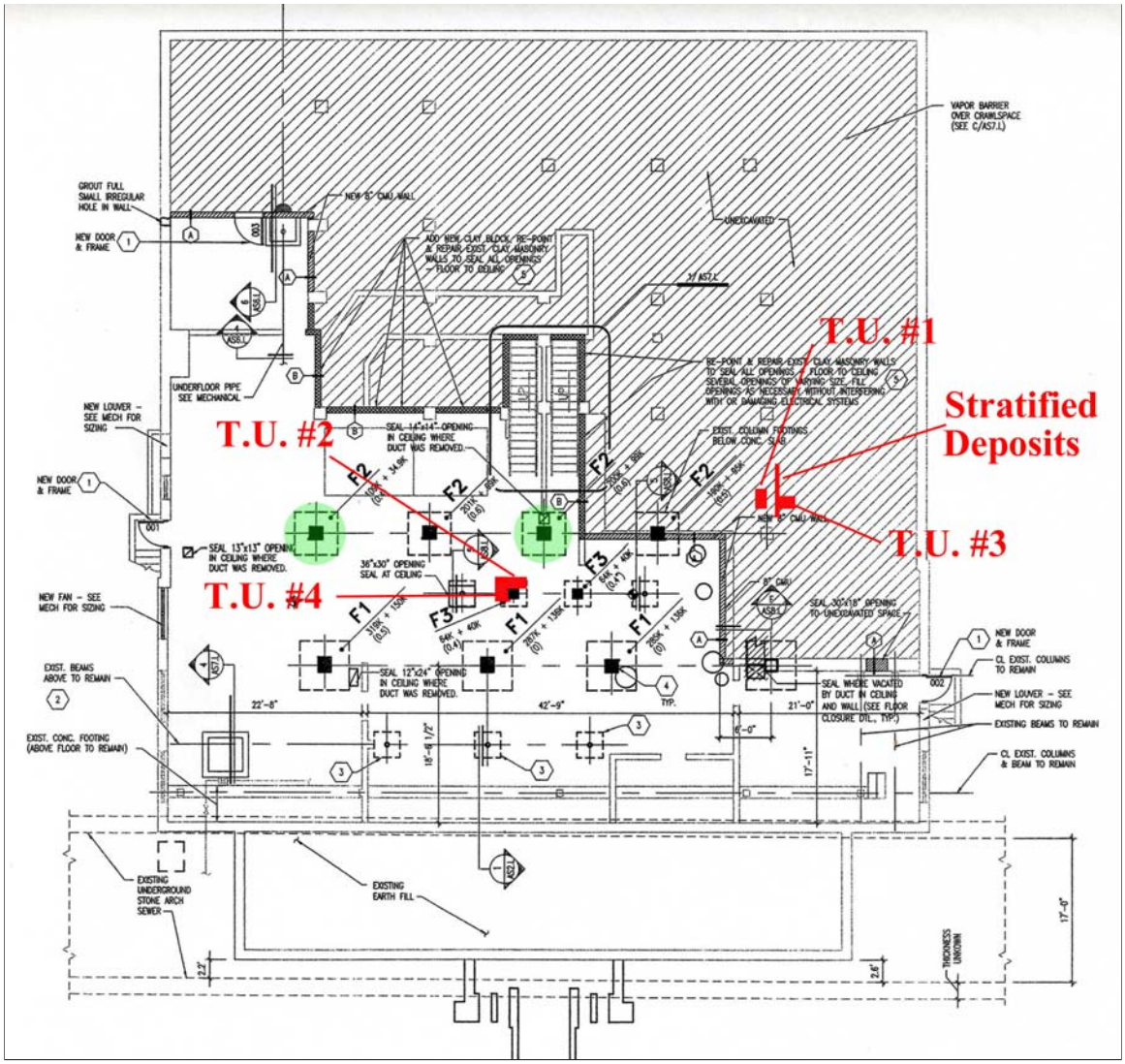

Figure 60. Approximate locations of archeological excavations (red) and artifact find spots (green) in the Lamar Bathhouse basement (adapted from National Park Service 2002a:Sheet AS2.L).

a couple of weeks earlier. This hole was roughly rectangular in shape (2 m north-south x 1 m wide). The object of excavation at this location was to determine whether the brick foundation (Feature 2) exposed at Column 8 continued past (east of) Column 5 into the interior of the Lamar Bathhouse. Excavation utilized arbitrary 10 cm levels with the upper surface of the concrete floor serving as datum. Fill from the first seven levels (0-70 cm bs) was passed through ¼" hardware cloth to recover any artifacts they may have contained and, indeed, an abundance of objects were collected including glass, nails, coal, tile, brick, and concrete mortar. As this excavation proceeded, however, the fill became increasingly saturated with water and it became progressively more difficult and time consuming to screen. At -70 cm excavation by levels was halted due to the amount of warm water pouring into the hole from the surrounding fill. This, despite the recovery of significant quantities of artifacts (curved, flat, pressed, and milk glass; porcelain, whiteware, and stoneware

ceramics; ferrous and cuprous metal objects; shell buttons, a 1905 coin, etc.). Artifacts were becoming increasingly common with depth, however, and it was apparent that additional cultural materials existed below the water table.

Some days later, Hunt monitored Power Lift excavation of the hole. Just below the level where archeological excavation had stopped, the contractor began pulling up a large number of complete and broken bottles and small quantities of various kinds of ceramics. Most bottle shapes appeared to be associated with medicines and cosmetics. A small number had raised labels and Hunt noted cold cream, malted milk, milk of magnesia, and hair dye containers. Excavation continued to 1.25 m below the surface of the concrete floor. Altogether, about 2.5 m^3 of fill was removed from this unit.

Numerous board fragments were encountered at the base of the excavation as well. These included several 1" x 6" planks which suggest the possibility a wooden floor once existed at or near this level (-1.25 m bs) in the original structure. Later Power Lift excavation of a hole at Column 3 and the recovery of a few objects in that location suggest the deposit extends eastward under the unbroken concrete floor at least 15 feet (about 5 m) further to the base of the stairs. While brick fragments suggested the foundation may have once existed east of Column 5, construction of the column and installation of a 6" diameter drain line east of the column may have destroyed the structure at this point. Whether the brick foundation occurs east of T.U. 2 remains uncertain.

Excavation in this unit also identified an east-west stone wall/foundation (Feature 3) at the north margin of T.U. 2 (Figure 61). After full exposure it was found to have a maximum width of 60 cm (2 ft). Over 1 m (3+ ft) of the remnant wall exposed. The base of the feature, however, was not located. Feature 3 was constructed of roughly shaped and unshaped stones about 30-40 x 50 x 40 cm in size in two side-by-side courses. Soft mortar was used to bind the rock together. The west end of the feature extended 14 cm beyond the west face of Column 5. While the feature's east end was not located (it continued below the concrete floor on the east side of T.U. 2. The north face of the feature was rough and unshaped with spaces between the rocks left unmortared. The south face, however, was roughly dressed with spaces between the rocks filled with mortar to form a more finished surface. This suggests the south face was exposed to view.

T.U. 3.

This test unit was 1 x 1 m in size and placed into the stratified deposits at the south end of the basement immediately south of T.U. 1 (see Figure 60). Prior to the excavation of T.U. 3, the steep east-west face of the deposits was "faced off" (made vertical) and the stratigraphic profile of the fill was documented. This demonstrated the north face of T.U. 3 incorporated five stratigraphic units (S.U.) above bedrock (Figure 62). S.U. 1, at the top of the sequence, was a light brown loamy sandy gravel and had a maximum thickness of 76 cm. This was underlain by S.U. 2, a loamy charcoal layer with a maximum thickness of 5 cm. S.U. 3, located immediately below S.U. 2, was a gravelly ash layer which had

Figure 61. South face of stone and mortar foundation (Feature 3) exposed between T.U.s 2 and 4 (note intrusion of cast-iron pipe at right partially destroyed Feature 3).

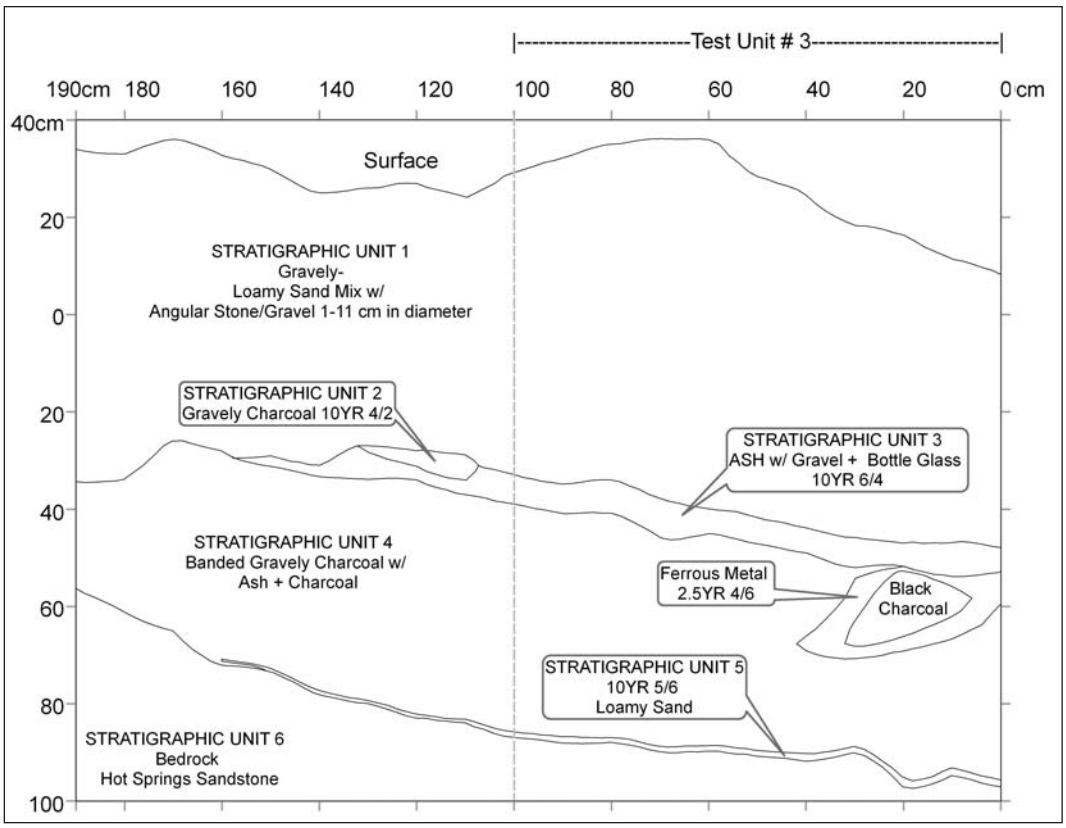

Figure 62. Profile drawing of stratified deposits at the south end of the Lamar Bathhouse basement.

a maximum thickness of 8 cm. Below that was S.U. 4, an ash and charcoal layer with a maximum thickness of 48 cm. At the base of the fill and lying immediately on top of Hot Springs Sandstone bedrock was S.U. 5, a 1 cm thick layer of brown loamy clay. The sandstone bedrock at the base of the sequence tips from southeast to northwest here and is somewhat bowl-shaped when examined from east to west. Altogether, about 1.4 m^3 of fill was removed from T.U. 3.

The excavation goal for this unit was to identify the origins and temporal associations of each stratum. The unit was therefore excavated stratigraphically with fill from each stratum passed through ¼" hardware cloth to effectuate artifact recovery. Artifacts recovered from S.U. 1 included wood, bone, curved glass, fabric, cut nails, and a white Bristol slipped stoneware ink bottle. The bulk of the materials recovered from this stratum occurred on the surface of the test unit with recovery of objects below the upper 20 cm of this stratum being quite rare. S.U. 2 was found to be composed of three lenses alternating from darker fill, to lighter, and back to darker. An effort was made to excavate these separately but boundaries between each of the lenses were very diffuse. In the end, difficulty in differentiating between these layers resulted in artifacts from the three layers being combined for analysis. S.U. 2 was found to contain ferrous and nonferrous metal scrap, bone fragments, buttons, curved and flat glass fragments, thermometer fragments, wood fragments, walnut shell, brick fragments, cut nails, and ceramics. Similar materials were recovered from S.U.s 3, 4, and 5.

By the time excavation was completed, the working hypothesis that the charcoal/ash layers might relate to the 1878 fire had been dashed. Artifacts from all strata had been deposited between circa 1890 and the 1920s and probably relate to the behaviors of employees working at the first Lamar Bathhouse.

T.U. 4

This test unit was placed on the north side of Column 5 to clarify the nature of the stone wall/foundation (Feature 3) discovered at the north margin of T.U. 2. The unit was doubly important as construction excavations to anchor the steel-clad column to bedrock later destroyed the feature. Power Lift raised the concrete floor from the position and in the dimensions requested by Hunt. The resulting opening was approximately 1 x 2 m in size with its long axis oriented east-west (Figure 60). This unit was excavated to 1.00 m bs using 10 cm levels and approximately 2 m^3 of fill was removed.

In contrast to the gravelly mud fill in T.U. 2, fill on the north side of the stone wall was largely gravelly sand and much drier than that in T.U. 2. The fill in T.U. 4 also differed from that in T.U. 2 in that it contained far fewer artifacts. Apparently, the dense deposit of artifacts in T.U. 2 was prevented from extending further to the north by the stone and/or brick foundations. The range of artifacts recovered from this unit were very similar to those recovered in T.U. 2, however, and include architectural materials (hinge, brick fragments,

stone), buttons, curved and flat glass, bone, thermometer fragments, a syringe, ceramics, and ferrous metal.

As this work was completed, T.U. 4 was extended by opening up an irregularly-shaped area of the floor on the west side of Column 5 to allow exposure of the terminus of the east-west brick foundation (Feature 2) first noted further west in Power Lift's hole around Column 8. Overall, about 3 m (about 9.8 ft) of Feature 2 was exposed between the west end of the opening around Column 8 and the north side of Column 5. The irregularly shaped concrete base of Column 5 had been poured on top of the brick foundation's east end (Figure 63). Brick rubble east of Column 5 suggested that Feature 2 may have continued

Figure 63. North face of brick foundation (Feature 2) west of Column 5.

beyond that column but may have been destroyed when a northwest-southeast oriented cast-iron pipe was installed (see Figure 61) in 1922-23 at the time of the second Lamar Bathhouse's construction. The north face of Feature 2 occurred 58 cm south of Column 8. The brick foundation was constructed of 2½ x 4 x 8 3/4 inch (6 x 10 x 22 cm) hard-fired bricks. The width of the foundation was about 36 cm (14.2 inches). A mass of brick rubble laying against on the south face of this structure suggests that much of the original structure was destroyed in 1922-23. A steel probe was used to feel for the base of the wall below the water level in the construction company's hole around Column 8. This suggested the brick foundation is 1.4 m (4 ft 6 in) high, the base of Feature 2 possibly resting on a concrete footer. The top of the feature occurred 5 cm below the base of the concrete basement floor;

i.e., 14.5 cm from the upper surface of the floor). A 1" (2.54 cm) diameter ferrous pipe was observed to protrude through the third brick layer.

After completing the documentation of the Feature 2, Power Lift's crew had broken concrete away from all the columns they were expecting to lift. The excavations around the columns were checked intermittently through the last two days of fieldwork to determine whether Hunt needed to stay longer but no new information was forthcoming from their work. Unfortunately, it appears that Hunt left too soon as artifacts were pulled from excavations at the base of Column 3 by the construction crew on the day he returned to Lincoln. This column is immediately east of Column 5 (see Figure 60) where the large cache of artifacts were recovered from T.U. 2. It is assumed both sets of materials are part and parcel of the same accumulation. Objects recovered at Column 3 were delivered to Sharon Shugart, HOSP Museum Specialist, who forwarded the materials to MWAC for analysis.

Artifacts

Excluding modern materials, a total of 4534 objects (fragments and complete specimens) were recovered from the test excavations in the Lamar Bathhouse basement. Artifacts were first sorted into groups by material class: ceramic (n = 158), glass (n = 2630), metal (n = 1091), organic materials (n = 354), rubber and plastics (n = 41), and stone and brick (n = 259). Each of these large groups of diverse objects were then sorted once more by material subclass. For example, ceramics were reduced into smaller categories by considering their paste (e.g., stoneware, yellow ware, whiteware, porcelain). Metal objects as a group was reduced into smaller categories by determining whether they were ferrous (magnetic) or non-ferrous and, if the latter, sorted once again into cuprous and non-cuprous (e.g., aluminum, zinc, lead) metals.

Once these groupings had been established, further reduction was done according to morphology which considered such characteristics as shape, size, decoration and surface treatment, and color where applicable. The bottle codification system presented in Fike (1987:6-12) was used to describe Hot Springs archeological specimens. This system presents the physical attributes in a particular order (color, bottle dimensions, neck finish, base profile, sides or panels, manufacturing method, and references). While Fike's codes for finishes and basal profiles were used, in some instances a particular finish may have been first identified using illustrations and descriptions from Dale R. Berge (1980:55-58) and then coded as per Fike. Putnam (1965) was also very useful for identifying possible bottle contents based on bottle shape.

Finally, each object in the resulting subgroups was classified according to probable function following an outline provided by Sprague (1980-1991). The combination of morphological and functional classifications provides the investigator with clues to manufacturing locale, temporal associations, and cultural context by determining how an object was actually *used*. For example, markings and other characteristics of a number of

cuprous thimbles may suggest the items were manufactured in northeastern United States prior to the Civil War. Ordinarily, one would interpret them to be part of a sewing kit. However, their recovery at a fur trade post and punched holes in the tops of the thimbles might indicate they were intended for use as a "tinklers" attached to clothing rather than in the manufacture of clothing.

Artifact descriptions that follow are presented according to functional classification and then by formal characteristics to clarify the similarities and differences within each artifact group. A listing of all artifacts from the Lamar may be found in Appendix B.

Architecture (n = 856 specimens)

Building Maintenance (n = 2)

Tools (n = 2). A pair of highly corroded 8" long pliers (Cat. 14387) has one arm missing. A wooden handle (Cat. 14306) has its broken neck wrapped with electricians tape. Fractures of wooden handled hammers the neck location are not uncommon when in the hands of a novice carpenter.

Construction hardware (n = 515 specimens).

Construction hardware from Lamar includes door hardware, a rain downspout hook, pipe, and fasteners of various kinds.

Door hardware (n = 5) includes a doorknob, a door pull, hinges, and a door plate number. A white porcelain doorknob (Cat. 14512) is 2¼" in diameter and has been removed from its shaft (Figure 64A). This type of pull was in common use from mid-19th century through the early 20th century. A massive ferrous metal U-shaped pull (Cat. 14344) is 8" long and has a 2" deep grip. It is of heavily corroded cast iron, the corrosion incorporating a mass of pebbles. It may have been used on a heavy or sliding barn-type door. The two ferrous metal hinges recovered in the Lamar basement are heavy duty and utilitarian in nature. One is a 8" strap hinge (Cat. 14380) and the other is a cast iron 6" T-hinge (Cat. 14391). Both would have been suitable for use on the same kind of door as the barn-type pull. A brass room number plate (Cat. 14507) recovered from T.U. 2 has a white porcelain face marked "18" (Figure 64B). The plate is rectangular with rounded "ears" on each end. Its overall length is 3" and it is 1.5" wide. Holes in each ear allowed attachment to a door. A dark floral design is visible on the intact porcelain around the right hole.

Fasteners (n = 503) include bolts (one with a nut attached), screws, and nails. A cuprous bolt fragment (Cat. 14435) has a flat head and ¼" diameter shaft. A ferrous metal bolt and nut (Cat. 14329) are so corroded that no measurements could be made. Screws (n = 3) include two heavily corroded ferrous wood screws (Cat. 14329) and a similarly corroded 2" long round head screw (Cat. 14310). A single 1" long ferrous wire roofing tack (Cat. 14318) was also collected.

Figure 64. Artifacts associated with architecture and business record keeping recovered from the Lamar Bathhouse basement excavations: A) ceramic ink bottle (Cat. 14496); B) doorknob (Cat. 14512); C) door number plate (Cat. 14507); D) Carters Ink bottle (Cat. 14065); Sanford Ink bottle (Cat. 14063).

Nails are by far the largest single category of fasteners with 497 specimens in the Lamar collection incorporating both cut and wire nails (Table 2). The presence of both types of nails is typical of circa 1880-1890 construction with repairs in the standing structure usually completed with wire nails, the nail of choice after 1890. Unfortunately, due to the substantial corrosive powers of the hot spring waters, the overwhelming majority (n = 363 specimens; 73.0%) are so severely corroded that their original form (cut or wire) can not be determined. Cut nails make up 19.9% (n = 99 specimens) of the nail sample and wire nails are only 7.0% (n = 35 specimens) of the nail collection. An examination of sizes frequencies by nail type produced the following table.

Using Lees (1986:95-96) correlations between nail size and 19th century construction task as a guide (see p. 70, this report), one may conclude that the measurable cut nails from the Lamar Bathhouse excavations were more commonly used for intermediate tasks using 6-12d nails. Measurable wire nails, on the other hand were more commonly utilized for light tasks (2-5d). Both nail types were used for heavy tasks at about the same low rates.

Gutters and downspouts (n = 1). A ferrous metal conductor hook (Cat. 14394) is a curved/tapered strap with a spike for driving it into the mortar of a brick wall. The specimen from Lamar is 16" long and was used to hold a downspout or "conductor pipe" in place. Its size, over three times the size of the largest standard conductor hook for the home, suggests it was used to fix a fairly massive pipe in place.

Tie rods (n = 3). Ferrous metal tie rods (Cat. 14389, 14394) are massive bolts which would have been suitable for building construction or to hold large equipment in place. These could also have been used with wagons. One (Cat. 14389) has its threaded end cut off, a loop at opposite end; and made of 0.37" diameter stock. The other is L-shaped, about 16" long overall with a 5½" short arm. It was made of ½" diameter round stock and has both ends threaded. A large tie rod nut (Cat. 14351) is 1¾" x 1½" x ½," has a rounded face and a ½" diameter hole.

Wire (n = 1). A 5" segment of heavy gauge (0.2" diameter) ferrous wire (Cat. 14323) was recovered from the Lamar. This probably represents waste material from a variety of tasks including constructing pipe hangers.

Construction materials (n = 286 specimens)

Bricks and brick fragments (n = 78 specimens) in the Lamar collection actually represent only a sample of the fragments observed as only specimens larger than 2 cm were generally collected. Bricks included soft red fragments and harder bricks in a range of colors from yellow brown, tan, brown, dark brown, and brownish red. Some specimens exhibit temper that appears to be ground slag or black clinkers. All appear to be from standard bricks.

Table 2. Frequency of nail sizes by nail type (excludes broken and unidentifiable type specimens).

Nail Size (d)	Cut Nails		Wire Nails		All Nails	
	#	%	#	%	#	%
2	0	0.0	2	5.9	2	1.9
3	1	1.4	7	20.6	8	7.6
4	3	4.2	2	5.9	5	4.8
5	1	1.4	5	14.7	6	5.7
6	10	14.1	1	2.9	11	10.5
7	4	5.6	0	0.	4	3.8
8	19	26.7	3	8.8	22	21.0
9	10	14.1	0	0.0	10	9.5
10	8	11.3	3	8.8	11	10.5
12	7	9.9	1	2.9	8	7.6
16	3	4.2	2	5.9	5	4.8
18	1	1.4	4	11.8	5	4.8
20	2	2.8	2	5.9	4	3.8
25	1	1.4	0	0.0	1	0.9
30	1	1.4	1	2.9	2	1.9
70	0	0.0	1	2.9	1	0.9
Total	71	99.9	34	99.9	105	100.0

Six brick fragments from the excavations were impressed with manufacturers marks including various elements of “LACLEDE/ST LOUIS” (Cat. 14472, 14473 14474), “LACLEDE/KING/ST LOUIS” (Cat. 14475, 14479, 14480), “LACLEDE/...XXX” (Cat. 14476), and “MISSOURI” (Cat. 14515) (Figures 65A-B). An additional three complete specimens recovered from the contractor’s basement sump pit excavation by construction workers for the archeologist were photographed and turned over to the HOSP Museum for curation. These were marked “LACLEDE/ST LOUIS,” “EVENS & HOWARD/ACME DP” [in lozenge-shaped cartouche], and “MABCO” [in rectangular cartouche] (Figure 65C).

According to the Laclede-Christy Clay Products Company:

> *The Laclede Fire Brick Manufacturing Company was founded in 1844 as one of the earliest manufacturers of fireclay brick in the United States. The plant was located in St. Louis because of the abundance of Cheltenham fireclay which has later proven one of the most desirable raw materials for the manufacture of fireclay refractories. In 1856 the Christy Fireclay Company was founded in St. Louis, and from the beginning specialized in the manufacture of fireclay refractories for the*

glass industry. In 1907 the Laclede Fire Brick Manufacturing Company and the Christy Fireclay Company were consolidated and incorporated under the laws of the state of Missouri as the Laclede-Christy Clay Products Company. (Laclede-Christy Clay Products Company 1947:6).

This factory closed in 1947. In 1904, the company secretary was J. Muhhall King.

Karl Gurcke (1987:258) indicates that bricks marked "LACLEDE KING" but without "ST LOUIS" were manufactured 1904-1942.

Figure 65. Bricks recovered from the Lamar Bathhouse basement excavations: A) "LACLEDE/ST LOUIS" (Cat. 14473) and B) "MISSOURI" (Cat. 14515); and bricks in HOSP curation from Lamar: and C) (top to bottom) "LACLEDE/ST LOUIS", "MAPCO"; [in rectangular cartouche], "EVENS & HOWARD/ ACME DP" [in lozenge-shaped cartouche].

HOT SPRINGS

The brick marked "MABCO" in round-ended cartouche was probably manufactured by Laclede-Christy Firebrick Co. as well as specimens marked "LACLEDE MABCO" are known for this company (Corbett n.d.).

The company that eventually became the Evens & Howard Fire Brick Co. was initially operated as the Cheltenham Fire-Brick Works. That company was in operation since at least 1855. In 1875, it listed its products as "fire-brick, of all sizes and shapes, for iron works, gas houses, glass works, lead furnaces, lime kilns, grate tile, boiler settings, bake ovens, sugar houses, tanneries, green houses, etc., sewer and water pipe, from one to thirty inches calibre, with branches, elbows, and traps for all sizes of pipe, fire-clay chimney tops, chimney flues, hot air flues, floor tiles, etc." (Corbett 2000). By 1904, the company impressed "Evens and Howard" on its bricks and products included sewer pipe, wall coping, drain tile and fireproofing, and brick (Corbett 2000). The company was in operation at least into the 1920s if not later (Anonymous n.d.)

Bricks marked with variants of "MISSOURI" are known to be associated with Mexico Refractories Co. dated to 1935, Wellsville Fire Brick Co. which operated 1927-1942, and Missouri Fire Brick Co. in business 1921-1930 (Gurcke 1987:256). This suggests that the specimen recovered from the Lamar must be associated with construction of the current building.

Concrete/mortar (n = 90 fragments) in the collection is largely concrete with some concrete specimens exhibiting thin coats of wall plaster. One specimen (Cat. 14463) has dark red paint on its finished surface and another is a dark reddish brown painted (floor?) fragment (Cat. 14477).

Roofing (n = 2). A 1.4" diameter roofing disk (Cat. 14312) was recovered which retains a severely corroded segment of the nail which had once attached it to the roofing material. A small fragment of slate (Cat. 14497) may be derived from a shingle.

Tile (n = 2) is represented by a small fragment of a single white porcelain tile (Cat. 14517). It has a clear glaze. A very small fragment of white and blue glaze (Cat. 14529) in an unidentified pattern may be from a tile as well.

Window glass (n = 74) is represented by fragments of clear and colored thin flat glass fragments. Clear fragments (n = 73) are elements of common window panes. Excluding the 6 specimens from mixed deposits in T.U. 1, the overwhelming majority of these objects are from T.U. 2 (n = 22) and T.U. 3 (n = 37). One blue glass fragment (Cat. 14235) with a straight, rounded (molded) edge may have been an element of a stained glass window or stained glass used in a door. The glass has a 0.6" wide smooth edge with the remaining surface textured to allow light in but prevent one from looking through the glass.

Wood (n = 31). While a great many small fragments of wood were noted in the screens, only 31 were collected. Several from T.U. 3 were partially burned. Appendix B provides a complete list of these materials.

Paint (n = 9). Fragments of light green (Munsell color 5 GY9/2 - pale yellow green) puddled pigment (Cat. 14520) were recovered. These elements had a form similar to a quart can base and rim and are the residue of paint which dried inside the container.

Fixed heating and cooling (n = 32 specimens)

Mica disks (n = 2) 1¼" in diameter, also known as "Isinglass," are probably elements of furnace windows (Cat. 14508, 14509). This was used as a heat-resistant substitute for glass and was installed on furnaces and heaters of all sizes to allow a viewer to determine whether a fire was burning properly or not.

Coal and slag (n = 30). A coal-fired furnace is suggested by the recovery of small pieces of coal (n = 10) from T.U.s 2 and 3. Slag, probably derived from the building's furnace, was also recovered in small quantities (n = 20 fragments). This vitrified mineral matter is produced when coal is burned and incorporates the coal impurities and unconverted carbon.

Fixed illumination and power (n = 7 specimens)

Electrical wiring materials (n = 2). A porcelain insulator cleat fragment (Cat. 14555) is white, exhibits a clear glaze on three of its four surfaces, and has a recessed hole for screw or bolt attachment. The terminal end of a bisque ceramic tube was probably an element of a wire guide (Cat. 14505).

Lightbulbs (n = 5). Four bulb fragments (Cat. 14432, 14433, 14434, 14437) are from T.U. 2 and are the screw-in type. One of these fragments (Cat. 14434) is composed of the screw threads, a cardboard liner, and a portion of the socket. The fifth bulb fragment (Cat. 14420) utilized a snap-in receptacle.

Plumbing and sanitation (n = 16 specimens)

Bathroom fixtures (n = 4) are represented by ceramic tub and toilet fragments. Two bathtub rims (Cat. 14551a, 14551b) from one or more tubs are of massive clear-glazed whiteware ceramic. The fragments curve over on themselves to produce rounded 2" wide rims, the terminus of the rims being pointed, and the underside being unglazed. Another piece of bath furniture is suggested by a massive, somewhat rectangular ceramic fragment (Cat. 14499). The flat face of the object bears the mark "TRADE/DEEP S…/MARK" printed in black (Figure 66A). This may have been a fragment of a toilet, bath, or pedestal sink foot. A toilet rim fragment (Cat. 14500) is suggested by a thick rounded rim with oblong holes every 1½ inches for the discharge of water into the toilet bowl.

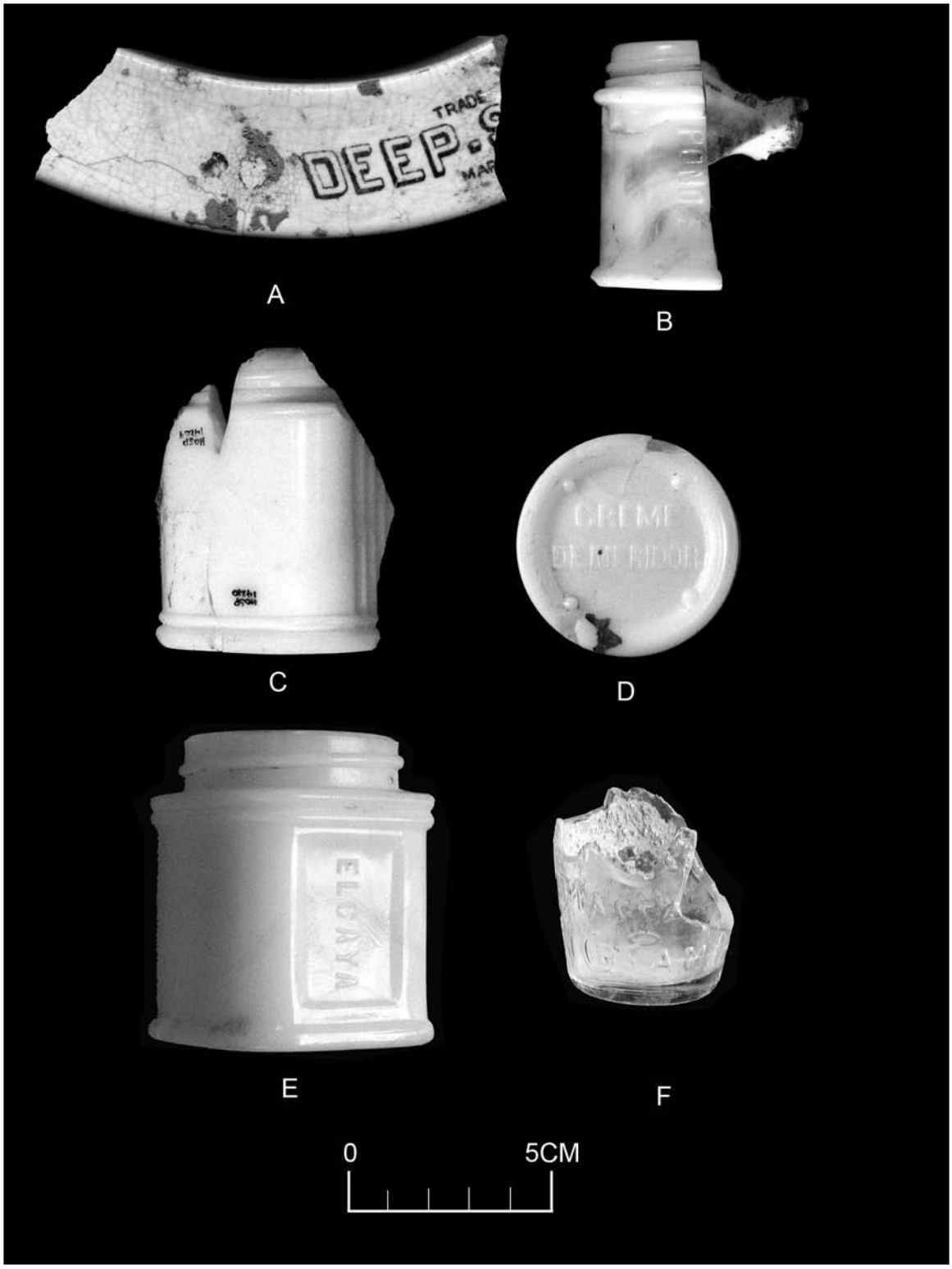

Figure 66. Artifacts associated with plumbing/sanitation and commercial grooming: A) toilet base (Cat. 14499); B) Ponds jar (Cat. 14200/14216); C) cold cream jar (Cat. 14209/14210); D) Creme de Meridor jar (Cat. 14205); E) Creme Elcaya jar (Cat. 14204); and F) Pompeian Massage Cream bottle(Cat. 14140).

Water supply pipe (n = 7 specimens) is represented by cast iron pipe fragments. These include a 0.38" diameter x 1½" long male threaded segment (Cat. 14312), a 4½" diameter interior female end (Cat. 14350), a 4" diameter pipe fragment (Cat. 14360), a collar for 2" pipe and unmeasureable fragment of larger diameter pipe (Cat. 14382), and a sleeve for a 2" or larger pipe (Cat. 14369).

Waste pipe (n = 5) is reflected by fragments of salt-glazed or dark brown Albany slipped stoneware pipe (Cat. 14519, 14590, 14591, 14592). In the early years of American clay pipe manufacture, pipe was of salt-glazed vitrified clay pipe, and slip-glazed pipe. "Salt glazing" was used on vitrified (hard, non-porous) clay pipe, the largest producer in the country at the end of the 19th century being the Akron Sewer Pipe Company of Akron, Ohio. "Slip glazing" was used where clays were of a type that would not vitrify, i.e., the pipe's surface remained open/porous. They were manufactured by dipping unfired pipe into a pool of "slip clay" such as Albany glaze and firing the pipe in a kiln (Sewerhistory.org 2006). This type of sewer pipe continued to be in common use to World War II after which pipes of other material were used.

Commerce and Industry (n = 366 specimens)

Business - record keeping (n = 36 specimens)

Ink bottles and bottle fragments (n = 27) recovered from Lamar include one stoneware bottle, 3 stoneware bottle fragments and 23 glass bottles and bottle fragments. The complete stoneware ink bottle (Cat. 14496) is 6" high and 2.4" in diameter. It bears a cream-colored Bristol slip, a ball neck, and a pouring spout (Figure 64C). Three additional stoneware sherds (Cat. 14452) may have come from a similar bottle. Bristol glaze was developed in England in the 1830s as a substitute for lead glazes but was not used extensively until after 1860 when it became popular with a public that was concerned with sanitation. The glaze was widely applied to stoneware forms during the late 19th and early 20th century (Derven 1980:123). Byers (2003:18) describes Bristol glaze as a thick, creamy white glaze that was used on the exterior and interior of stoneware vessels that was introduced into the United States in the 1880s and became popular around 1900 and continued to be used well into the 20th century.

Glass ink bottles from the Lamar Bathhouse were of a size one would use at the desk and contained products from at least two manufacturers. Where they can be positively identified, the bulk of the glass containers are Carter's Ink bottles or fragments thereof. Three of the specimens are associated with Sanford ink and two (unidentified clear round base Cat. 14144a and unidentified light aqua square base 14126/14164) are fragments of bottles of unknown brand (see Appendix B). All appear to have recessed spaces for paper labels.

Carter's ink bottles in the collection are clear, wide-mouth vessels similar to round stand shape containers illustrated by Putnam (1965:59). Complete specimens are 2½" high

and about 2" in diameter(Figure 64D). They originally were closed by a cork. Most, if not all were manufactured using automatic bottling machines. Four specimens exhibit an Owen's cut-off scar and two have valve marks. According to Jones et al. (1985:39), Owens machines were used to produce glass containers from 1905 through the late 1940s or early 1950s. Rough round basal scars (Owens scars) typical of early machines indicate a date range of 1905-1920 or so (Lindsey 2006a). Valve marks are typical of bottles produced in automatic bottle-making machines possibly as early as 1898 through the late 1940s or early 1950s (Lindsey 2006a, b). Bases exhibit various marks including "CARTER'S/U.S.A.," "CAR[TER'S]/3/]," "CAR[TER'S]/MAD[E IN/]U[.S.A.]," "CARTER'S/7½/MADE IN/ U.S.A.," "CARTER'S/No 257[/MADE IN U.S.A.]," "[CAR]TER'S/No 5/MADE IN U.S.A.," and "CAR[TER'S]/10/N[o. 5?]." These variations may reflect some small differences in time of manufacture. The numbers after "CARTER" and prior to "U.S.A." or "MADE IN U.S.A." may identify the color or type of ink once contained in the bottle.

Sanford bottles (Figure 64E) are clear or very light green, 2.4" high, about 2" square, and manufactured using an automatic bottling machine. Putnam (1965:60) describes the vessel form as the squat square shape. The bases are marked "SANDFORD/0/INK" and "SA[NFORD]...S."

Pencil (n = 1). A small carbon cylinder (Cat. 14506) is interpreted to be a pencil lead fragment.

Photographic records (n = 8). The possible use of photography to document business practices is indicated by the recovery of eight tinned film canisters (Cat. 14396), seven of which have attached lids. The canisters are olive green, 1.75" high, and 1.3" in diameter. The canisters probably held 35 mm film, the format introduced by Thomas Edison in 1889 and originally called "Edison size." The film format was introduced into still photography as early as 1913 (the Tourist Multiple) but first became popular with the launch of the Leica camera in 1914 but not introduced to the general public until 1925 (Wikipedia 2006a, b). Since these objects were recovered from the surface of the earthen fill at the southeast corner of the basement, it is possible they are associated with the current Lamar Bathhouse rather than its predecessor.

Commercial services - grooming (n = 61 specimens)

This business activity at the first Lamar Bathhouse is suggested by bottles and bottle fragments, a ferrous metal cap, and non-ferrous metal container elements. Products assigned to this functional category include face creams, hair dye and grooming products, perfumes and toilet water, and shoe polish containers. These correspond with a beauty parlor, a possible barber shop, and shoe shine services which may have been offered at the first Lamar Bathhouse.

Beauty cream milk glass jars (n = 41 jars, jar fragments, and lids) are the most numerous containers represented within this functional category. The contents of a number

of these vessels can be determined from their molded labels and by comparison with examples in other collections. Nine specimens are from square, round-cornered jars which once held Pond's Extract Vanishing Cream or Pond's Cold Cream. Two (Cat. 14200/14216 and 14205) exhibit elements of the embossed mark "POND'S/POND'S" in indented panels (Figure 66B). Opposing plain sides bore paper labels identifying their contents. Another specimen (Cat. 14209/14210) appears to be a plain-sided version of that product container and probably had a paper label (Figure 66C).

Markings on the bases of two round jars (Cat. 14205, 14213) identify their former contents as Crème De Meridor. The basal mark is "CREME/DE MERIDOR" with one example having one raised dot on its basal rim and the other with four raised dots spaced at equal distances around the margin of the base (Figure 66D). Pages from magazines bearing advertisements for this product dating to the early 1900s through the 1920s are offered for sale on various Internet web sites (e.g., *Ladies Home Journal* 1918). These indicate the product was manufactured by Lazell Perfumer, a cosmetics company operating out of New York City and Newburgh, N.Y.

A third brand of beauty cream represented by a single square vessel with rounded corners (Cat. 14204) is Crême Elcaya (Figure 66E). The opposing indented panels on the body are marked "ELCAYA//ELCAYA" with a basal mark "JAMES C. CRANE/1/NEW YORK." James Crane was the sole agent of this product and advertised it widely through the first decades of the 20th century. The company was purchased in 1925 by Chesebrough-Ponds Inc. (United States Patent and Trademark Office n.d.).

One clear base and lower body fragment (Cat. 14140) somewhat similar to Jersey Milk shape bottles (Putnam 1965:232) is marked "MASSA…/CREAM" (Figure 66F). A bottle identification guide (Hunt 1995) on the MWAC web site suggests the complete label is "POMPEIAN/MASSAGE/CREAM." This identification was confirmed by comparing the Lamar specimen with bottles offered for sale on the Internet. The soothing aftershave massage cream was created by Pharmacist Fred W. Stecher in a small drugstore on the outskirts of Cleveland, Ohio, in the late 19th century. The cream was made and distributed by the Stecher's Pompeian Manufacturing Company and was a favorite with barbers and hairdressers serving both men and women. Early 19th century advertisements sold on the Internet suggest the product was used much in the same way as beauty or cold cream. In 1927, the Pompeian Manufacturing Company was sold to Colgate Palmolive Peet for $1 million. Six months later the entire Pompeian line of products was discontinued (Calvert 2005).

Distinctive jars with no product labels having the same general shape and of the same approximate sizes as the beauty cream jars were assigned to this category as well. One specimen retains its aluminum screw cap and exhibits four raised bars spaced at equal distances around the basal margin and one with an impressed yin-yang symbol. A second round jar (Cat. 14205) was sealed with a snap-on cap. A third round jar (Cat. 14214) exhibits a molded makers mark "W. T. & CO./C/693/PAT JUNE 7TH, 1892" on its base.

This identifies the manufacturer as Whitall Tatum & Company of Millville, New Jersey, which operated between 1857 and 1901. This company made glass containers in a very large variety of shapes and sizes. After the firm name was changed to "Whitall Tatum Company" in 1901, the marking then became "W.T.CO." (Whitten n.d.). One round jar (Cat. 14212) has raised circular areas on four sides bounded by raised corded columns (Figure 67A). It retains its aluminum screw cap closure.

Two additional screw-on caps of aluminum (Cat. 14405, 14409) were recovered which may have served as closures for beauty cream jars. Only one of these (Cat. 14405) is complete enough to determine its original overall form and size. It is 2.6" in diameter and appears quite similar to closures illustrated for Crême Elcaya jars.

Hair products (n = 4) used at Lamar include fragments of two bottles that once contained hair dye and two bottles which held hair dressing. A clear, round extract shape bottle (Putnam 1965:106) is embossed "WALNUTTA" across its shoulder (Figure 67B). Walnutta was a hair "stain" or dye made by the St. Louis-based Pacific Trading Co. The product was sold in the first decades of the 20th century as a "purely vegetable hair restorer free from all injurious drugs and chemicals" and cost "60 cents for a full size bottle" (Fike 1987:185; *The Haute Magazine* 1904). The second hair dye bottle is a small aqua paneled container (Cat. 14055) labeled "C.DAMSCHINSKY/LIQUID HAIR DYE/NEW YORK" in raised molded letters (Figure 67C). Carl Damschinsky marketed his hair dye from at least 1890 and continued in operation through 1948 (Fike 1987:122-3; Reynolds 1983:197). Both Walnutta and Damschinsky dyes contained pyrogallol (pyrogallic acid) a poisonous compound commonly used in printing and in photographic development.

One aqua, paneled prescription shape bottle fragment (Cat. 14112) is embossed "... XILI..." Comparison with embossed labels in Hunt (1995) found one match; e.g., "PAUL WESTPHAL/AU*X*ILIATOR/FOR/THE/HAIR/NEW YORK." Fike (1987:126) cites advertisements for this product from 1875 through 1948. Early 20th century advertisements by that company with images of beautiful young women declare it "A Perfect Hair Dressing" and "For Preservation of the Hair." This fragrant tonic was widely used by barbers and considered a perfect hair dressing for ladies and gentlemen.

A fourth jar (Cat. 14105) is small (2.4" diameter x 1.7" high) and of cobalt glass (Figure 67D). It was assigned to this functional category due to its shape; i.e., a round pomade shape bottle with screw top (Putnam 1965:44). It is possible, however, that it held seltzer or some other medicinal product. The base is marked with a symbol consisting of a molded triangle within triangle which has been altered slightly by an Owens scar from the automatic bottling machine which created it. This mark has not been identified.

Perfume and Florida Water (n = 8). Perfume is a fragrant liquid produced by blending certain odoriferous substances in appropriate proportions. Raw materials used in perfumery include natural products of plant or animal origin and synthetic materials. Essential oils are most often obtained from plant materials by steam distillation. Certain delicate oils may

Figure 67. Artifacts associated with commercial grooming: A) cold cream jar (Cat. 14212); B) Walnutta hair dye bottle (Cat. 14061); C) C. Damschinsky's Liquid Hair Dye bottle (Cat. 14055); and D,E) Pomeade bottle and base (Cat. 14105).

be obtained by solvent extraction. Perfumes are usually alcoholic solutions. The solutions, generally known as perfumes but also called extraits, extracts, or handkerchief perfumes, contain about 10-25 percent perfume concentrates. The terms toilet water and cologne, on the other hand, are commonly used interchangeably and include products containing about 2-6 percent perfume concentrate.

Two small bottles and one bottle fragment were interpreted as perfume bottles (Figure 68A-B) although it is possible that one (Cat. 14103) may have contained medicine or hair dye. None have product labels identifying their contents although two (Cat. 14103, 14135) have molded labels identifying content volume (½ and 1¼ ounces). One vessel (Cat. 14097) was closed with a screw cap and another (Cat. 14103) with a stopper or cork. One bottle (Cat. 14097) has a molded makers mark "O (in square) 60" on its base identifying its manufacturer as the Owens Bottle Co. which operated 1911-1929 (Toulouse 1971:393).

Another specimen (Cat. 14078) is a clear bottle of the Chicago Toilet Water shape (Putnam 1965:80). The front panel bears a molded monogram "C & Co" within two concentric circles (Figure 68C). Although Fike (1987:54) identifies a similar monogram used by Colgate for Colgate's Violet Water in 1877 and 1935, it is possible the monogram on the Lamar specimen represents a different product. In 1806, William Colgate opened up a soapmaking concern in New York called Colgate & Company and the business continued to operate under this name until 1928 when it merged with the Palmolive-Peet Co.

One aqua bottle body/neck fragment and another neck sherd (Cat. 14093, 14147) are part of a single elongated vessel of the Florida Water shape (Putnam 1967:81). The body fragment bears the molded letters "DRUGGI…/NEW-Y**…**" (Figure 68D). Comparison with embossed labels in Hunt (1995) and references found four matches with the words "druggist" and "New York." A review of references for the four labels and comparisons with the Lamar bottle color and shape resulted in the most likely identification of the complete label on the Lamar specimen as "FLORIDA WATER/MURRAY & LANMAN/DRUGGISTS/NEW-YORK" (see Fike 1987:112, 244; Herskovitz 1978:19; Munsey 1970:157; Wilson 1981:70). Murray and Lanman Florida Water Cologne was first manufactured in 1808 by Robert I. Murray in New York City. In 1835, Murray was joined by D.T. Lanman and the name of the business was changed to Murray & Lanman. In 1835 the firm name was changed once again to David T. Lanman and Co., and once more in 1861 to Lanman & Kemp. That company continues to manufacture Murray and Lanman Florida Water to this day and offers its product as an astringent and skin lotion, personal deodorant, sickroom deodorant, rubdown for the sick, perfume and many other uses (Lanman & Kemp-Barclay & Co., Inc. 2005).

Two long necked finishes (Cat. 14136, 14145) made with a lipping tool may be from a Florida Water bottle. One specimen (Cat. 14136) is aqua and the other is of clear glass.

Figure 68. Artifacts associated with commercial grooming: A) perfume bottle (Cat. 14097); B) perfume bottle (Cat. 14103); C) possible Colgate's Violet Water bottle (Cat. 14078); D) Florida Water bottle (Cat. 14093); E) shoe polish bottle (Cat. 14139); and F) Talcolette body powder bottle cap (Cat. 14160).

Shaving soap or face powder (n = 1) may have been the contents of a circular (3.75" diameter) white glass jar represented only by its base (Cat. 14205/14216). At the center of the base is a molded mark in the form of a "water drop." This mark remains unidentified.

Shoe polish (n = 3). One bottle may be represented by light aqua finish, body, and basal fragments (Cat. 14139, Figure 68E). While this may be an ink or glue bottle, it is believed to most favorably compare with the square polish bottle shape (Putnam 1967:64). A tinned ferrous base and slip-on cap (Cat. 14429) is from at least one 3½" diameter x 3/4" deep can. Like modern shoe polish cans, the base of this container has a recessed face. Similar tins, however, were utilized to package rouge, face powder and other cosmetic treatments throughout the late 19th and 20th centuries.

Talcum/body powder (n = 4). Containers for this product are represented by two clear glass vessels, a tinned cap, and a non-ferrous can fragment. One of the glass vessels (Cat. 14076) is assigned to this functional category due to its Round Talcum shape (Putnam 1967:40). It is a small (2.9" high x 1.7" diameter) jar threaded for a screw cap and bears a band of raised molded circles around the outer margins of its base. A valve mark in its base indicates it is of machine-made bottle manufacture. Valve marks are commonly seen on wide mouth bottles and jars made between the mid 1910s through the 1940s. It is also very common on canning jars produced as early as 1898 (Lindsey 2006a, b).

The second glass vessel is eight-sided and represented only by the upper shoulders of the vessel and a cuprous metal cap embossed with the word "Talcolette" in script (Figure 68F). Vessels pictured on the Internet have bases marked "H B G CO/TALCOLETTE/ BALTIMORE." This identifies its manufacturer as the Baltimore firm Henry B. Gilpin Company. This company was founded in 1845 and was an early importer of drugs, chemicals, and essential oils. Originally, it operated primarily as a distributor which packaged drugs under the Gilpin label. Later, it manufactured its own products including cosmetics, insecticides, and hospital and surgical supplies. The Gilpin company was the first firm in America to manufacture a tinted face powder and this was distributed under the name Talcolette (Allen 1977).

The tinned ferrous metal cap (Cat. 14357) is a friction-type cap. Its internal diameter is 1" and it is ½" high. Three small dispenser holes are in the top to shake out the talcum powder. A related container is represented by a non-ferrous can fragment (Cat. 14409). This is oval in shape and has a shoulder and neck for snap-on lid.

<u>Commercial services - medical/pharmaceutical</u> (n = 193 specimens)

This functional class contains the largest category of curved glass in the Lamar Bathhouse collection. Bottles assigned to this functional category include those which contained an identified pharmaceutical or brand of medicine and specimens identified as a pharmaceutical ware shape with volume identified in ounces using the symbol ℥ and/or having graduation marks on one or more corners.

Analgesic (n = 2) or pain medication containers are represented by an amber bottle base and a finish fragment (Cat. 14147) and probably derived from the same Half Pint (Split) shape vessel (Putnam 1965:251). Embossed on the base is "RED RAV…/18/SPL.." with "77 4" embossed on the basal edge (Figure 69A). Hunt's medicine bottle identification index (Hunt 1995) identifies the complete mark as "RED RAVEN/18/SPLIT." This phosphate based soda was manufactured by the Duquesne Distributing Company of Harmarville, (formerly Red Raven) Pennsylvania, and advertised in the early 1900s for headache, constipation, stomach, and liver troubles (Duquesne Distributing Company n.d.). Red Raven Split was also used as a laxative as indicated by an early 1900s trading card (Red Raven n.d.).

Analgesics and antacids (n = 6) are represented in the collection by an amber bottle finish (Cat. 14136), cobalt blue bottles and cobalt bottle fragments representing at least six vessels of the "Tablet Bottle - Bromo-Seltzer" shape (Putnam 1965:37). One round body fragment (Cat. 14154) is embossed "….EME…/DRUG …/BALT…." The full label of the original bottle would have been "BROMO-SELTZER/EMERSON/DRUG CO./ BALTIMORE, MD."). The other four bottles have no embossing and probably had paper labels. This and similar products are in the form of effervescent granules that are mixed with water and taken orally to relieve discomfort from heartburn, sour stomach, or acid indigestion. The product was developed as a headache remedy in 1888 in Baltimore by pharmacist Isaac E. Emerson. He named this granular effervescent salt "Bromo-Seltzer." Its success was such that Emerson incorporated the Emerson Drug Company in Maryland in 1891. Bromo-Seltzer was sold in dark blue glass bottles that were initially manufactured by the Cumberland Glass Company, of Bridgeton, New Jersey, although Hazel-Atlas may have also produced this bottle. The demand for Bromo-Seltzer was so great that the company built a glass factory to make its own bottles. In 1956, Emerson Drug Co. merged with Warner-Lambert Pharmaceutical Company, of Morris Plains, New Jersey. The Warner-Lambert Pharmaceutical Company is now part of Pfizer (Scripophilly.com n.d.). Today, the product contains acetaminophen, sodium bicarbonate, and citric acid. The acetaminophen is the pain reliever while the sodium bicarbonate is an antacid which neutralizes stomach acid (Drugs.com 2005).

Antiseptics (n = 13). Two bottle fragments are clearly from antiseptic bottles with the remaining 11 specimens placed in this category on the basis of form (round extract shape) and glass color (amber). One amber body/shoulder fragment (Cat. 14134) is marked "Diox…" in script. A search through Hunt's medicine bottle finder identified the product as Dioxogen, a brand of hydrogen peroxide advertised by the The Oakland Chemical Company of New York, as an antiseptic and mouthwash. Hydrogen peroxide may have been used in the beauty parlor as well for bleaching the hair. Six finishes made with a lipping tool, two body fragments, and two base fragment marked "P.M./F. S. CO" (Cat. 14147) and "N" (both Cat. 14147) were included in this functional category as possible remnants from hydrogen peroxide bottles. Neither basal mark could be identified. This brand was sold from circa 1900 to at least 1948 (Fike 1987:160; Oakland Chemical Company 1907; Putnam 1965:42).

Figure 69. Medical/pharmaceutical artifacts: A) Red Raven bottle base (Cat. 14147); B) Whitehurst Juniper-Tar Compound bottle (Cat. 14080); C) front and side views of Piso's Cure for Consumption bottle (Cat. 14102); D) Iosaline bottle (Cat. 14108); and E) homeopathic vials (Cat. 14058, 14099, 14104, 14098, 14145).

A second brand used at the first Lamar was indicated by an aqua glass fragment (Cat. 14136) bearing the molded letters "…TICH…." A search through the medicine bottle index resulted in the most likely identification of the complete label as "DR. TICHENOR'S// ANTISEPTIC." This product was composed of alcohol, oil of peppermint and arnica, and originally marketed for a wide variety of internal and external problems for both humans and animals. The Dr. G.H. Tichenor Antiseptic Co., New Orleans, Louisiana, was incorporated in 1905 and is still in existence. Recommended uses for its products are now as mouthwash and topical antiseptic (Dr. G.H. Tichenor Antiseptic Co. n.d.; Wikipedia n.d. b).

Cold, croup, and consumption medications (n = 6) for illnesses of the respiratory system were used in some degree at the bathhouse as suggested by fragments from at least three bottles. The cold medication came in a small ginger oval - flint shape (Putnam 1965:39) aqua bottle (Cat. 14080) marked "WHITEHURST//[base:] 528 [in diamond] 10" (Figure 69B). According to Richard Fike, the paper label on these bottles reads "JUNIPER-TAR COMPOUND, J. Harrison Whitehurst Compound, Baltimore, Md. For Spasmodic Croup, Bronchitis, Ordinary Sore Throats, Colds." He further indicates that Baltimore directories listed Mrs. A. L. Whitehurst as the manufacturer of Juniper Tar in 1877 and in 1920, five Whitehursts were affiliated with the firm although Jesse Harrison Whitehurst was apparently in control of the business by the end of that decade. Fike found additional advertisements for the medication as late as 1941-1942 (Fike 1987:186). The manufacturers mark with a three-digit number inside a diamond most likely indicates production by the Owens Illinois Glass Company between 1873 and 1929 (Whitten n.d.).

A small, partially melted amber bottle (Cat. 14102) bears the label "PISO CO., WARREN, PA. U.S.A.// //TRADE PISO'S MARK" (Figure 69C). Piso's Cure for Consumption was introduced by Hazeltine & Co., Warren, Pennsylvania in 1864 as Piso's for Cough's and Colds. In 1906, the name was changed to the longer variant (Fike 1987:104). According to a web site for medicinal marijuana,

> *Piso's has the distinction of being the only brand name cannabis medicine named in Sam Adam's book on quackery "The Great American Fraud," though the company has its defenders. The company voluntarily gave up the use of opium by-products before the 1880's. It took the 1906 Pure Food & Drug Act, before Piso's was forced to change its name* (Garrett 2001-2003).

Four clear glass fragments (Cat. 14127/14129) are probably from one vessel. One fragment bears a partial molded label "[R]EMEDY" and an embossed label on the other reads "DR DRAKE S…." Dr. Drake's Croup Remedy was a children's cough syrup manufactured by The Glessner Medicine Company, of Findlay, Ohio. The company was established in 1889 by Lernard C. Glessner and continued to operate under the same name until it went out of business in 1962. Dr. Drake's German Croup Remedy, possibly an earlier manifestation of the cough syrup, contained opium (Fike 1987:206-207; Wilson and Wilson 1971:112).

Goiter medication (n = 27). Goiter was a common, disfiguring condition in the United States during the late 19th and early 20th centuries. This condition could be prevented or alleviated simply by getting enough iodine in the diet. Twenty-seven deep aqua and emerald green bottles, bottle fragments, and stoppers (MNI = 9 bottles) includes two bottle sizes: 2 - 1oz. and 1 - 2 oz. emerald green bottles and 6 - 2 oz dark aqua bottles of the Salt Mouth shape (Putnam 1965:97). The interior necks of the bottles are ground for glass stoppers. Bottle bases are embossed "IOSALINE CO./N. Y." and "IOSALINE CO./2/N. Y." (Figure 69D). The "2" does not appear to correspond with the larger size and may be a bottle manufacturer mold number. Although no information could be found for the Iosaline Company, the bottles may have contained iodized salt.

David Marine (1880-1976) is the "father" of iodized salt in the United States; fortifying salt pioneered the approach of adding nutrients to foods. As the result of research on endemic goiter and iodine deficiency by Marine and co-workers research, the Michigan State Medical Society, in 1924, launched a goiter prevention program using iodized salt. Both potassium iodide and potassium iodate are used to add iodine to salt. The U.S. Food and Drug Administration approves both potassium iodide and cuprous iodide for use in table salt (Salt Institute n.d.). Iodized table salt for home use wasn't introduced until 1924 by the Morton Salt Co. (2002-2006).

Homeopathic medicine (n = 6) practice is expressed by the recovery of clear glass homeopathic vials (Cat. 14058, 14059, 14098, 14099, 14104, 14145), each of unique size (Figure 69E). According to Webster's dictionary, homeopathy is

> *"the art of curing, founded on resemblances; the theory and its practice that disease is cured by remedies which produce on a healthy person effects similar to the symptoms of the complaint under which the patient suffers, the remedies being usually administered in minute doses. This system was founded by Dr. Samuel Hahnemann"* (Project Gutenberg and Webster 1996).

The contents of the vials remain unknown.

Laxatives (n = 5) were dispensed and/or used occasionally at the Lamar. This category of medicine is represented by specimens from at least two bottles.

One light green Appolinaris shape body/base fragment (Cat. 14101) and a finish (Cat. 14170) may represent a single mineral water bottle. Its base exhibits a molded image of a devil with the legend "9/PLUTO" below (Figure 70A). "Pluto Water" was put out by the French Lick Springs Hotel Company, in French Lick, Indiana. The company operated a resort promoting the mineral water as having healthful benefits with visitors to the hotel taking the waters both internally and externally as a bath. In 1905, Pluto Water was advertised as being available from Henry Drug Company, Louisville, Kentucky (Digger Odell Publications 1999). Advertised as a purgative or a purging medicine for stimulating the evacuation of the bowels, Pluto water naturally contained Epsom salts and glauber salts.

Figure 70. Medical/pharmaceutical artifacts: A) Pluto Water bottle and base (Cat. 14101); B) Dr Hayden's Viburnum Compound bottle (Cat. 14112); C) Mentholatum jar (Cat. 14206); D) Musterole jar (Cat. 14547); and E) Van Vleet Mansfield Drug Co. can and interior (Cat. 14404).

Nevertheless, additional quantities of Epsom and glauber salts were added to the water to fortify the effects of the water (Haupt 1953).

Three aqua bottle fragments (Cat. 14142, 14143) including a lightning (stopper) finish, base, and neck/shoulder are from a vessel similar in form to bottles of the Citrate of Magnesia shape with porcelain or lightning stoppers (Putnam 1965:61). Magnesium citrate is an orally administered saline laxative used commonly today before diagnostic procedures or surgery of the colon.

Menstrual discomfort medications (n = 1) were intended to treat menstrual cramping and heavy menstrual bleeding. A complete clear bottle (Cat. 14112) is marked "HAYDEN'S" across the shoulder and "VIBURNUM COMPOUND (19 OR 61 off center)" on the base (Figure 70B). An Owens scar on the base indicates it was manufactured by an automatic bottling machine. According to Fike (1987: 85) this product was manufactured by the New York Pharmaceutical Co. of Bedford, Massachusetts. The firm was established in the 1870s and described its product as "The only Reliable Remedy Known for Dysmenorrhea and Menorrhagia."

Pediculicide (n = 1) is a pesticide used to eliminate head lice (Headliceinfo.com 2000). A mended amber bottle fragment (Cat. 14134/14141) is similar to Round Prescription shape (Putnam 1965:38). The fragment is embossed "…USE ONLY//…ERNAL US…." A search using Hunt's medicine bottle identification guide (Hunt 1995) finds the only bottle with repetitive embossing "EXTERNAL USE ONLY//EXTERNAL USE ONLY" is Nyal's Compound Larkspur Lotion. According to Richard Fike, a label on these bottles reads "Recommended as a convenient lotion for destroying Parasites which Infest the Hair. Nyal Company, Distributors, Detroit, Mich." Frederick Stearns and Co. owned the Nyal Company in 1906 but by 1948 the company had been transferred to the ownership of the Jamieson Pharmacal Co. (Fike 1987:161). Larkspur lotions utilize the alkaloid delphinine obtained by processing Delphinium, a floral species common in flower gardens (Lloyd and Lloyd 1931).

Salves and liniments (n = 25) were also commonly used at the first Lamar, perhaps during massage or in concurrence with hot packs and heat wraps. Vessel fragments suggest at least six glass and aluminum containers are represented in the collection.

An aqua panel fragment (Cat. 14164) is embossed "NATION…/CO…/NE…." Using Hunt's medicine bottle identification guide, the full label for this vessel was "NATIONAL REMEDY/COMPANY/NEW YORK." Fike (1987:210) identifies the product as En-Ar-Co. Fike found a bottle manufactured around 1910 that has a paper label reading "EN-AR-CO (Formerly Japanese Oil). A Cure for Man or Beast. For Bunions, Lock Jaw, Snake Bite .... National Remedy Co. New York." The National Remedy Co. was established in 1884 and continued to produce the remedy through the 20th century. In 1974, it was a product of Universal Drug Products, Ridgefield, New Jersey. Japanese oil, also known as "Po-ho-yo" is a type of oil of peppermint.

> *Oil of peppermint is an aromatic stimulant, and carminative to the gastro-intestinal tract. It relieves gastric and intestinal flatulence and colic, and is employed with purgatives to prevent griping. The oil may be given on sugar, or as peppermint water or spirit of peppermint in mixtures. It is also added to pills, 1/4 to 1 minim in each, a little soap being used to facilitate massing, if necessary. The oil acts as a local anaesthetic; Japanese oil (Po-ho-yo) is employed to relieve toothache and to paint over neuralgic areas. Oil of peppermint has mildly antiseptic properties, and is used to flavor dentifrice pastes, powders, and washes* (Council of the Pharmaceutical Society of Great Britain 1911).

Five milk glass fragments from at least four small jars contained salve or a plaster, four specimens representing one product and one specimen representing another. The base of two jars are embossed "MENTH…UM/REG/TRADE/MARK" (Cat. 14206; Figure 70C) and "[MEN]THO[LAT]M/REG/TRADE/MARK" (Cat. 14215) which allows the identification of the product as Mentholatum. Two rim/body fragments (Cat. 14205) may also belong to these vessels. This product was first produced in 1889 by the Wichita, Kansas, based Yucca Co. In 1906, the business was incorporated as the Mentholatum Company and moved a few years later to Buffalo, New York (Fike 1987:83). The product was and still is used as a topical analgesic containing camphor and menthol. It is generally applied to the chest to help relieve minor muscle aches and pains associated with colds (The Mentholatum Co., Inc., n.d.).

One milk glass jar fragment (Cat. 14547) is embossed "MUSTEROLE/ CLEVELAND" on its base (Figure 70D). The original jar had an aluminum screw-on cap. An analysis of this products contents in 1916 found it to contain "oil of mustard, menthol and camphor in a lard-like base (about 89%.) [and further, it] Will not 'prevent pneumonia' as claimed" (Wright 1916). Mustard compounds MUSTARINE and MUSTEROLE bridged the gap between mustard plasters and the more modern ointments (such as Vicks' "Vap-o Rub"). They contained little mustard but their names gave confidence to consumers wary of giving up their traditional mustard remedies" (Mustard Museum n.d.). It was advertised through at least 1968 but doesn't appear to be marketed today. A label from one bottle read "MUSTEROLE -- More than a Mustard Plaster, A Counter-Irritant. Try it for colds, congestion …" (Fike 1987:174).

Twenty-one white sheet metal fragments are from at least five small containers of similar pattern. Two nearly complete containers (Cat. 14404), a canister with intact top and another with an intact base, suggest 2½" diameter and 1.1" high vessels. Both artifacts contain coiled metal strips (Figure 70E). The base is marked but mineral deposits prevent reading it. The top displays a stamped "COMPLIMENTS/VAN VLEET/MANSFIELD/ DRUG CO/MEMPHIS" whose lettering may only properly be read from the container's interior. The Van Vleet Mansfield Drug Co. was originally established as Van Vleet and Co. in 1884 in Memphis, Tennessee, as a wholesale house by Peter P. Van Vleet. In 1894, the S. Mansfield Drug Co. was purchased and the company's name was changed to Van Vleet Mansfield Drug Co. In 1902, the W. N. Wilkerson Company and the S. W. Jones

Company were acquired. With these additions, Van Vleet Mansfield Drug Co. became the largest company of its kind in the South (Digger Odell Publications 2001). This company later became incorporated into the McKesson Drug Co., later renamed the McKesson Corporation. Fifteen can fragments and sheet metal strips (Cat. 14400, 14402, 14409, 14421, 14405) are similar to exterior and interior strips used with the Van Vleet Mansfield container.

A similar white metal can (Cat. 14437) is 2½" diameter and 3/4" deep. It is represented by a reeded-edged cap impressed "REG[ISTERED?]… PAT. OFF./PATENTED/ FEBRUARY 18, [19]08/TRADE MARK" and interior strips similar to that exhibited by the Van Vleet Mansfield container. Unfortunately the manufacturer of this container's product has not been identified.

A fourth white metal container (Cat. 14406) is complete. It is 2 1/8" in diameter and approximately 1" high. The lid is embossed "SOUVENIR OF/[flowery sprig]/ COLUMBUS/[flowery sprig]/OHIO" inside a raised beaded border.

The fifth white metal container (Cat. 14427) is represented by a 2" diameter basal fragment. It bears no markings to identify its contents or manufacturer.

Unidentified medicines (n = 102) incorporate two generalized bottle shapes: "standard prescription" (n = 74) and "round prescription" (n = 28).

Standard prescription specimens represent a minimum of forty bottles. According to Fike (1987:14), the vessels in this shape category were "manufactured exclusively for prescription use" during the late 19th and early 20th centuries. These bottles commonly

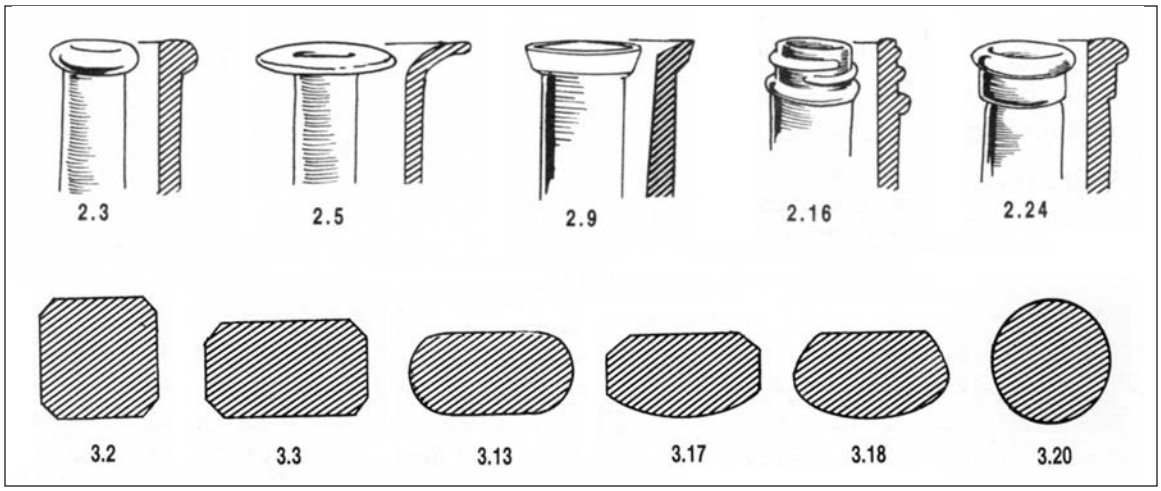

Figure 71. Common standard prescription bottle finish and base shapes in the Lamar Bathhouse collection (after Fike 1987:8, 10). Finish shapes (top) = 2.3 - bead, 2.5 - wide prescription, 2.9 - prescription, 2.16 - small mouth external thread, and 2.24 - collared ring. Base shapes = 3.2 - French square, 3.3 - Blake, 3.13 - elixir or handy, 3.17 - hub or Golden Gate, 3.18 - buffalo or Philadelphia oval, and 3.20 - round.

bear Fike's finish shapes 3, 5, 9, 16, and 24 with the most common basal profiles being Fike's shapes 2, 3, 13, 17, 18, and 20 (Figure 71). Complete bottles assigned to this shape category vary slightly from the pattern described by Fike. They most commonly exhibit variations of prescription finishes (shape 9n or 9sp; n = 11) followed by various kinds of reinforced extract finishes (shape 10; n = 7). Individual bottles bear bead (shape 3), flat or patent (shape 7), and flared ring (shape 22) finishes. In addition, 27 finishes were included in this category based on similarity of form and/or forms most commonly associated with bottles containing medicine. Finishes include 2 wide prescription (shape 5) and 3 flat or patent (shape 7) with the most common being 11 prescription finishes (shape 9n or variants) and 11 reinforced extract finishes (shape 10 or variants). Complete bottles most commonly incorporate the Hub or Golden Gate basal profile (shape 17; n = 12) which Putnam (1965:32) refers to as Golden Gate Ovals. The remainder display Blake (shape 3; n = 2) (Short or Tall Blake in Putnam 1965:31), Excelsior/Windsor Oval/Round Cornered Blake (shape 6; n = 1) (Round Cornered Blake in Putnam 1965:34), Crown Oval (shape 9; n = 1)(Crown Oval or Crowns Oval - Paneled in Putnam 1965:28, 55), Monarch or Erie Oval (shape 11; n = 2) (Monarch Oval in Putnam 1965:26), Elixir or Handy (shape 13; n = 1) (Elixir in Putnam 1965:39), Buffalo or Philadelphia Oval (shape 18; n = 1) (Buffalo and Philadelphia Ovals in Putnam 1965:24, 30), and Fluted Oblong (shape 24; n = 1) (Royal Oblong in Putnam 1965:24) basal profiles. The two basal/body fragments are basal profiles 11 and 17.

All but one of these specimens are clear glass with the exception being a pale aqua finish fragment (Cat. 14092). In addition, only a minority (n = 11; 22.9%) of the 48 bottles suggested by whole bottles and finishes were manufactured using an automatic bottle machine (ABM), most such bottles bearing an Owens scar on the base. The remaining bottles appear to have been produced in a post mold and have tooled finishes. This type of finish, also known as "wiped" or "improved tooled," was produced in a mold and blown with the rest of the bottle. The finish was then re-shaped slightly after the bottle had been removed from the mold but while the glass was still hot and pliable (Lindsey 2006b).

Embossed on the upper shoulder of many bottles is a ℥ or ounce symbol followed by a roman numeral identifying the volume of that particular bottle. At least eight bottle sizes were recovered: 1 - 1 oz., 2 - 2 oz., 5 - 3 oz.; 6 - 4 oz; 1 - 6 oz.; 1 - 8 oz.; 1 - 12 oz.; and 2 - 16 oz. Graduation marks, usually in ounces on the left side and cc's on the right side, appear on most body elements. Many vessel shoulders and shoulder fragments are scalloped.

Partial embossed product labels on bodies include "...[EL]MIRA, N.Y." (Cat. 14166). "...K & S.../...S.." (Cat. 14137), "..E & Co./[NE]W YORK" (Cat. 14163), "..IG.../[HOT SPRI]NGS, A[R?]" (Cat. 14137), " ...RE/...[HOT SPRING]S, ARK" (Cat. 14155), ".[I?]NE A. OULVE[Y?]./[DR]UGGIST/...& LAWTON AVES" (Cat. 14145/14166), and "QUALITY" (shoulder juncture) and "PURITY" (basal juncture) (Cat. 14068). One embossed bottle base reads "Red Cross" in a stylized script (Cat. 14148) (Figure 72A). Multiples of searches have failed to find any information relating to the product manufacturers or the products themselves. A number of the QUALITY and PURITY bottles have been found on the Internet but no information was available on the bottles other than most, if not all, were

Figure 72. Miscellaneous pharmaceutical and medical/technical artifacts: A) standard prescription medicine bottle with Red Cross base mark (Cat. 14148); B) round prescription medicine bottle (Cat. 14045); and C, D) yellow ware bedpan spout (Cat. 14498) from Lamar Bathhouse and a similar bedpan.

sun-altered violet meaning they dated circa 1880 to circa 1916 (Munsey 1970:55). All that can be said about these containers is that they held products manufactured in Elmira, New York, New York City, and Hot Springs, Arkansas. The nearest cities with a Lawton Avenue to Hot Springs are Lawton and Tulsa, Oklahoma.

The Hot Springs bottles may have contained products packaged by the Hot Springs Medical Company which used mineral water from the springs in the manufacture of its product. The only reference known for this company is the 1915 *Hot Springs City Directory* which lists James L. Graham as the proprietor and the business address as 827-1/2 Central Avenue (personal communication, Bobbie Jones McLane, Executive Director, Garland County Historical Society, March 24, 2006). This is located about three blocks south of the Lamar Bathhouse.

Many of the standard prescription bottles bear embossed marks on their bases which identify the bottle manufacturer. One bottle (Cat. 14071) is marked "C" within a basal Owens scar. According to Toulouse (1971:99) some have claimed this to be the mark of Cunninghams and Co. of Pittsburgh although the claims have not been documented. If so, the bottle would date to 1879-1909. The most common mark is an "I" in a diamond (Cat. 14084, 14087, 14145, 14146) which identifies the manufacturer as the Illinois Glass Co. of Alton, Illinois. According to Toulouse (1971:264), this mark was in use from 1916 through 1929 although at least one of the specimens is slightly sun-altered violet which would indicate a date of 1916 or before. An "**N**" inside a circle (Cat. 14192) identifies the manufacturer as the Obnear-Nester Glass Co. of East St. Louis, Illinois. This company was founded in 1894 and used this mark up to 1915 on hand operations (Toulouse 1971:373-374). "PD CO/38" may be the mark of Parke Davis and Co., Detroit, Michigan, although the company usually used "P.D. & CO" as its mark. Whitten (n.d.) indicates that the latter mark probably dates before 1930. "W.B.M. Co." (Cat. 14100) may be a mark used between 1880 and 1910 by an unknown company (Toulouse 1971:535). Whitten (n.d.), however, identifies the manufacturer as the Western Bottle Manufacturing Company of Chicago which operated from 1901 to the 1930s. No manufacturer could be determined for a bottle (Cat. 14137) marked "669" or "966."

Round prescription shape (Putnam 1965:38) bottle fragments from vessels whose contents remain unidentified occur with less frequency than the standard prescription shapes. Initially, these were divided into six groups based on similarities in size and shape but in actuality, they fall more into one large group which is fairly cohesive in form and size and one miscellaneous group. The first group includes clear bottles marked "8 FLUID OZ" across their shoulders and having bases variously marked "2," "10," and "13," possibly representing the number of the glass factory where they were manufactured. One aqua bottle (Cat. 14067) has an embossed "2" on its base. The other aqua bottle (Cat. 14109) exhibits no embossments. This group of vessels is 5.8" x 2.2" diameter, and exhibit bead finishes. All but one were manufactured by an automatic bottle machine, the exception being an aqua bottle (Cat. 14067) which exhibits an applied finish, and were probably sealed with a cork and/or foil cap.

The remaining round prescription bottle group includes three bottles and one bottle fragment. One (Cat. 14094) is clear and has a tooled flat or patent finish. It is 5.25" high and 2.1" in diameter. A second vessel fragment (Cat. 14117) is light green in color. Its flat or patent finish is 2.1" in diameter and manufactured in an automatic bottle machine. A clear bottle (Cat. 14045/14171) exhibits a modified form of a flared ring finish, is 7.4" tall, 2.8" in diameter, and manufactured by an automatic bottle machine (Figure 72B). One clear fragment (Cat. 14125) is clearly from a round prescription bottle but is not complete enough to determine the physical details of that vessel. None of these bottles or fragments bear embossing.

Commercial services - medical/technical (n = 59 specimens)

This functional category includes medical equipment and supplies other than pharmaceuticals. Included here are ceramic, glass, non-ferrous and ferrous medical objects.

Bedpan (n = 9). A single yellow ware ceramic *bedpan* is likely represented by nine fragments exhibiting clear glazing on interior and exterior surfaces. The largest and most complete element is a 2½" diameter urine spout (Cat. 14498) for male users (Figure 72C). The remaining sherds appear to be from the bedpan's flat base. China bed pans (Figure 72D) were offered by catalog companies during the 1890s along with rubber and enameled metal pans (Montgomery Ward 1969a:108, 438, 536). By the 1920s, the ceramic pans were no longer available (Montgomery Ward 1969b:385, 527).

Crutch/cane (n = 1). A white rubber end cap (Cat. 14518) may have been used with a crutch or cane. Its also possible it was used on a chair leg. The base is embossed with "**19 7/8**," the latter probably referring to the cap's size.

Douche (n = 1). A 5" long vaginal pipe (Cat. 14513) for a douche syringe appears to be manufactured of brown Bakelite. One end is shaped to insert into a rubber bag opening. Five small circular holes are spaced around the margin of the other end. In 1909, Leo Hendrik Baekeland, a Belgian émigré to America, announced his invention of Bakelite, the first important synthetic plastic. He formed the Bakelite Corporation and served as its president from 1910 to 1939 (Columbia Encyclopedia 2006).

Electrical equipment (n = 3) is suggested by a glass tube and two dry cell battery elements. In the last half of the 19th c. as electricity became available to power devices in the home and business, electrical energy was promoted as a therapeutic tool to promote and maintain health (Figure 80). Devices utilized batteries to product electrical shock, cauterizing heat and other uses. During the early part of the 20th century, violet ray devices were introduced and incorporated into alternative medical apparatuses claimed to heal many ailments. Different shapes and lengths of low vacuum annealed glass tubes were produced for use as glass electrodes for different uses and built into violet ray device sets. The tubes were filled with different noble gasses which, when excited by electricity, glowed

in different colors depending upon the gas used. The most popular gas was argon which glowed a brilliant purple. The next most popular gas was neon which glows bright red, just as it does for neon signs. The high frequency of the output of the electrical charge (400-500KHZ, just under the range of radio very high frequencies) can not be felt as it passes through the body. The devices also emitted a small amount of ultraviolet light at the point of spark and a quantity of ozone. The combination of high frequency electrical energy, magnetic field, small amount of ultraviolet and quantity of ozone, led to the many claims of medical cures. Small violet ray sets, while expensive became very popular for home use, while huge sets with up to 2 dozen different electrodes were utilized by physicians (Rutecki 2002).

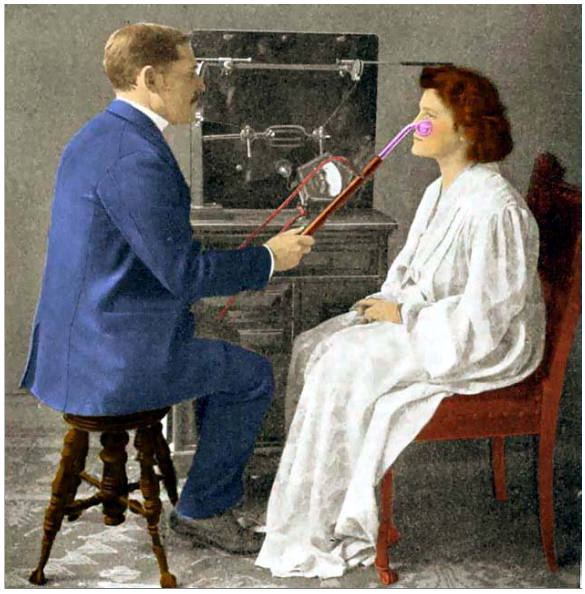

Figure 73. In the last half of the 19th century, electrical energy was promoted as a therapeutic tool to promote and maintain health. (Image courtesy Jeff Behary, The turn of the Century Electrotherapy Museum, West Palm Beach, Florida.)

A glass tube, broken on each end (Cat. 14251) may be a component of a static electric machine. The tube is aqua, 0.6" outside diameter; 0.4" inside diameter, and 11.2" long although it was certainly longer before it was broken. Similar but shorter and thinner tubes of this sort were commonly used as elements of a glass vacuum high frequency electrodes. Jeff Behary, curator of the Electrotherapy Museum in Florida, suggested the possibility that the tube from Lamar may have been used as part of some static electricity or as an insulating handle (personal communication March 3, 2006).

Two dry cell batteries are represented in the collection (Figure 74A). One nearly complete battery (Cat. 14390) is 2.40 in diameter and 6" high. This has zinc case remnant over a solidified carbon paste and a carbon rod core. Another battery is indicated by a 9¼" long graphite rod (Cat. 14430) which is coated in one area with carbon electrolyte paste protected by the deteriorating zinc case fragment. The upper, tapered end of rod retains a cuprous screw for wire attachment. These batteries are quite similar to the largest size dry cells offered by Montgomery Ward and Co. (Montgomery Ward 1969a:214) and Sears, Roebuck and Co. (Sears, Roebuck and Co. 1969a: 151; 1969b: 205, 206) at the turn-of-the-20th-century with and without medical devices.

Hoses (n = 27). Two fragments of rubber tubing (Cat. 14284, 14497) may be hose segments and are probably associated with the baths.

Syringe (n = 2). A clear glass and slightly bent (probably from heating) plunger fragment (Cat. 14249) was recovered (Figure 74C). The type of syringe it was associated

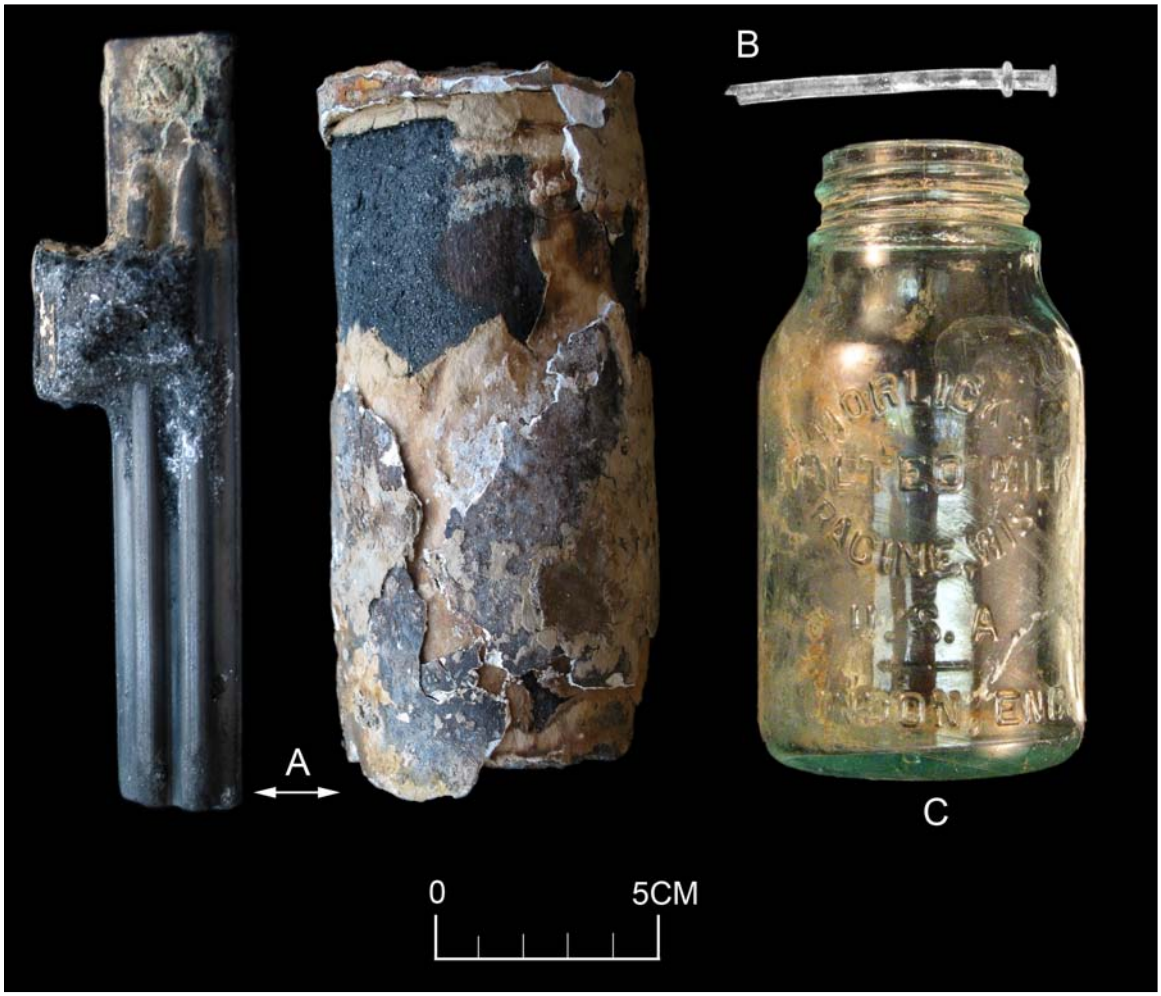

Figure 74. Artifacts associated with medical/technical and food containers: A) battery core (Cat. 14430); B) glass syringe plunger (Cat. 14249); and C) Horlicks Malted Milk bottle (Cat. 14072).

with is uncertain although it is identical with plungers seen in a variety of late 19th c. glass ear syringes found on the Internet. A vial or syringe fragment (Cat. 14130) is of clear glass. Little additional can be said of this small object.

Thermometers (n = 16) are the most abundant item in this functional category with 12 glass fragments and four cuprous metal back plates in the collection. The thermometer fragments are somewhat triangular in cross-section and 3.5 mm (n = 1) or 5.5 mm (n = 12) thick. One specimen (Cat. 14596) is an incomplete thermometer of the larger size mounted on a cuprous sheet metal plate. Four additional cuprous plates (Cat. 14403, 14411, 14416, 14422) are missing their thermometers. A more-or-less complete specimen (Cat. 14416) is rectangular, about 10½" long and 1.85" wide. The corners on one end are beveled, that end having a ½" diameter hole. The opposite end has squared corners and exhibits three small holes for wiring a thermometer in place. All of these items were probably used to measure and control the temperatures of the baths. These may represent fragments of bathwater thermometers.

Commercial services - repair and maintenance (n = 13 specimens)

This category incorporates items necessary to the repair and maintenance of a building as well as its plumbing, heating, and electrical systems.

Lead solder (n = 12) is suggested by ten small irregularly-shaped lumps of lead and two pieces of sheet lead. One of the sheet lead fragments (Cat. 14397) is a 5½" long x 1½" wide triangular piece of lead sheeting. This and a lead strip (Cat. 14426) may be by-products from cutting shims from lead sheeting for heavy furniture (see leveling shims pg. 123). Lead, both in the form of sheet lead and solder, was commonly used for plumbing installation and repair in buildings.

Lubricant (n = 1) is represented by a single aqua glass bottle (Cat. 14077) similar in form to the St. Louis Flat Extract shape (Putnam 1965:50). Embossed on the body's paneled sides are "3-IN-ONE OIL CO."//"THREE IN ONE" and the base is embossed "837 (in diamond) 0." Mold marks indicate the bottle was manufactured in an automatic bottle making machine. The bottle originally had a paper label and used a cork closure. The lubricant 3-In-One was developed in 1894 by George W. Cole in Asbury Park, New Jersey, for bicycle maintenance. Business success led to incorporation of the George W. Cole. Co. in 1899. The corporate charter was amended in 1905 and the name of the company changed to 3-In-One Oil Company. By this time, the product was packaged in green glass bottles having the name "3-IN-ONE" in raised letters and stoppered with corks. Around 1910, metal screw-top caps made their appearance. During the Depression, the company was acquired first by Drug Incorporated, then by Sterling Products Inc. In 1936, it was purchased by A.S. Boyle Company, a subsidiary of American Home Products Corporation, and the packaging changed from glass bottles to small tin cans (WD-40 Company n.d.). Based on the manufacturing marks and the information provided in the company history, the Lamar bottle must date between 1894 and 1910.

Commercial services - transactions (n = 2 specimens)

Coins (n = 2). Heavily corroded coins, both nickels, were recovered during the Lamar tests. One (Cat. 14597) is a Liberty Head "V" nickel which bears a 1905 date. This was recovered in T.U. 2, Lev. 4. The second coin is a shield nickel with a date of 1887. The shield nickel was the first nickel five-cent piece minted in the United States.

Domestic Items (n = 497 objects)

Cleaning and maintenance (n = 3 specimens)

A broken wooden handle (Cat. 14306) is from a small hand tool, possibly from a duster or dusting brush. The lightweight wood is painted black, slightly tapered from the 3/4" diameter base, and has regularly spaced constrictions to provide a better grip. A tinned rim and base fragments (Cat. 14402) of non-ferrous metal are from a 3"

diameter container. Their forms are similar to those seen on cardboard containers holding household cleansers.

Food (n = 296 objects)

This category of objects is represented by materials relating to faunal and floral foods as well as processed foods.

Faunal food materials (n = 287). A description and list of animal bones from the Lamar is provided in a report by Kenneth Cannon in Appendix C. These elements represent meat foods consumed at the Lamar, probably by its employees. Most prominent among these are chicken with at least 11 individuals represented in the collection. Leg portions were most common with occasional breast/rib portions represented as well. Other meats eaten at the Lamar include pork, beef, and sheep or goat. Most of the pork consumed was in the form of pig's feet, probably pickled although a bone (lumbar vertebra) from a possible tenderloin from a young animal was also recovered. Fauna elements also suggest beef cuts included bottom blade, chuck, and shank roasts. If elements identified as "large indeterminate mammal" are from beef, then round roasts may also be represented. The sheep or goat specimens are most likely from lamb and represent much of the animal from the radius up.

Only two possible wild animal foods were identified. Breast and leg portions of two geese are represented, although these could be domestic rather than wild geese. The meat from one cottontail rabbit leg may have been consumed as well.

Mollusk shell (n = 1). One unidentified species mollusk shell (Cat. 14495) suggests the possibility of occasional consumption of oysters.

Floral food materials (n = 1). One pecan shell (Cat. 14277) was recovered from the first level of T.U. 2.

Beverages containers (n = 6 specimens) recovered from Lamar contained juice, dairy, and soft drink beverages. Juice drinks are represented by one clear Appolinaris bottle (Cat. 14140) bearing the legend "Welch's" on its side. This is the remains of a Welch's Junior Juice bottle. The 4oz. bottle of grape juice was introduced to children all over the U.S. in 1907 and it quickly became known as the "Welch Junior." The juice was also promoted as a temperance beverage and healing tonic and would therefore be a drink more than suitable for a business promoting public health (Ohio SBDC at Youngstown State University 2001; Trucano 2001). The use of dairy products is suggested by the recovery of three finishes. At least two cream bottles and one milk bottle in the Common Sense Milk shape are represented (Putnam 1965:232). All the finishes were equipped with recesses for a paper cap. A single soft drink bottle is represented by one specimen (Cat. 14145). It is of clear glass and bears an embossed oval label containing the legend "[LEDGE]RWOOD/ (straight) [BR]OS/ (arc) [HOT SP]RINGS ARK." During the 1890s, this local company

bottled cider, ginger ale, Red Lithia mineral water, etc., and later purchased the Coca-Cola bottling franchise (Allbritton 2003:25). A crown cap (Cat. 14364) may have been a closure for this or a similar soft drink bottle.

Malted milk (n = 2) was consumed at the Lamar Bathhouse as indicated by the recovery of a Horlicks Malted Milk jar and a jar fragment (Cat. 14072, 14145). This pale aqua jar was closed with a screw cap. Empossing on the body reads "HORLICK'S/MALTED MILK/RACINE, WIS./U.S.A./—/LONDON, ENG." (Figure 74D). The maker mark on the base, "I. G. Co./24/E," may be that of the Illinois Glass Company, Alton, Illinois (1873-1929) (Whitten n.d.). James and William Horlick created the idea and formula for malted milk, in England in the late 19th century. The brothers moved to Racine, Wisconsin, and by 1875 were producing large quantities of their product using a patented method of combining malted barley and wheat flour mixed with whole milk evaporated into a powder. In the beginning, the product was developed as an easy to digest high protein and carbohydrate powdered baby formula and was originally called "Diastoid." Soon, the name was changed to "Horlick's Malted Milk" reflecting a much broader use by the public as a confection and by explorers as survival food (Food Reference Website 2005; Price 2005).

Furnishings (n = 38 objects)

Clock (n = 1). A mechanism (Cat. 14349) incorporating three gears and two springs (Figure 75A) a likely from a clock with chimes, the separate springs powering the clock movement and chimes.

Clothes hooks (n = 3) occur in three varieties and are of ferrous metal. One (Cat. 14348) is a simple 3" long wire screw hook. This utilitarian hook could be used for hanging tools or clothing. The other two hooks were probably used as clothing or coat hooks. A wire hook (Cat. 14346; Figure 75B) is identical to "coppered hooks" in the 1922 Montgomery Ward Catalogue (Montgomery Ward & Co. 1969b:596) which sold for 10 cents per dozen. A heavier cast iron hook (Cat. 14347) is identical to the "Japanned Iron" in the same catalog which sold for 35 cents per dozen.

Flower pots/vases (n = 10). Ten fragments of redware may be derived from at least two vessels. One of these is represented by an everted, unglazed rim fragment (Cat. 14557). Another fragment (Cat. 14593) is from the neck of a vessel. It has a clear glazed interior surface and its exterior has been painted pink. Eight very small fragments of unglazed redware (Cat. 14546) may be from either of these vessels or another vessel entirely.

Furniture protectors (n = 7). This category includes thick pieces of flat glass and angular pieces of metal. Five thick glass fragments were probably elements of desk, table, or counter tops. Two fragments are of clear glass. One (Cat. 14224) is 0.38" thick and has a mold mark. The other (Cat. 14225) is 0.25" thick. Two fragments (Cat. 14147, 14231) are light green and about 0.33" thick. One (Cat. 14147) is a corner fragment exhibiting a 1" wide beveled edge, and a ¼" diameter hole drilled through the corner about 1" from the

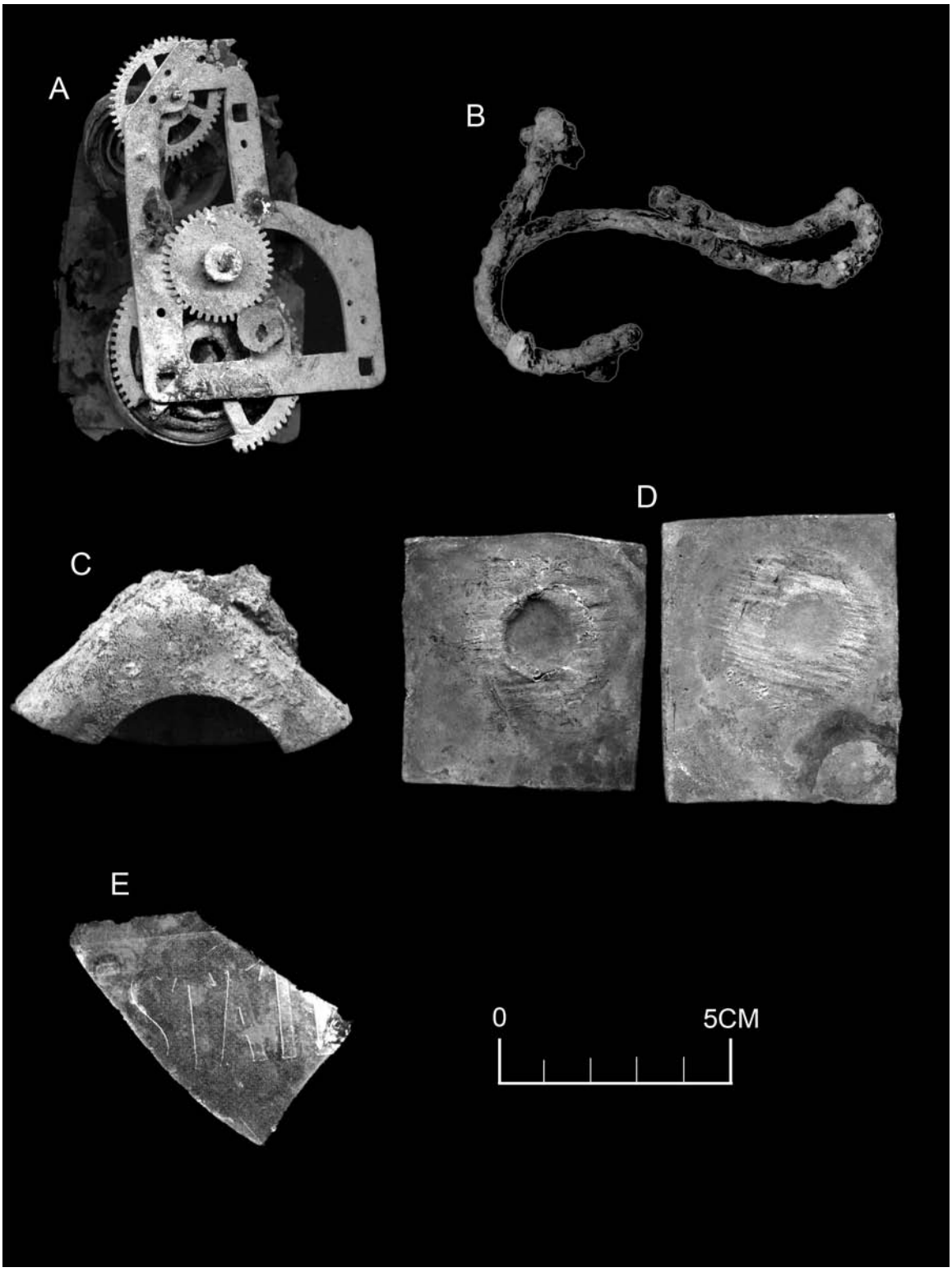

Figure 75. Artifacts associated with domestic furnishings: A) clockwork (Cat. 14349); B) wire coat hook (Cat. 14346); C) furniture corner guard (Cat. 14428); D) lead furniture shims (Cat. 14424); and E) "STATE" mirror fragment (Cat. 14230).

edge for attachment. The last specimen (Cat. 14246) is a yellow-stained, green glass fragment. It is 0.31" thick and has a 0.14" diameter hole drilled 1" from the edge for attachment to a surface.

Metal edge protectors include corner and edge guards. A corner guard is suggested by a triangular piece of cuprous metal (Cat. 14428) which has been shaped to fit and protect the corner of a desk, table or counter (Figure 75C). It is about 1 3/8" deep, 2 3/4" wide, and shaped to encompass a 7/8" thick counter or desk top. Small holes on each end allowed attachment using brads. An edge guard of aluminum (Cat. 14395) is curved in cross-section. It is 1½" wide, has screw holes for attachment along one edge and a rounded terminus.

Leveling Shims (n = 7). Shims recovered from T.U. 3, Stratum 4 were made from sheets of lead and hand cut to square or slightly rectangular forms (Cat. 14424) ranging from 1.95" to 2.2" on a side (Figure 75D). The shims are indented with circular, 1½" diameter impressions with two specimens also having an additional ½" diameter indentation in the center of the larger impression. These are the marks of a heavy piece of furniture which, based upon the utilitarian character of the pieces, are likely to have been a bathtub or similar massive piece.

Light globe (n = 2). A milk glass light fixture cover is represented by two fragments (Cat. 14205/14216, 14210). The shade would have been about 8" in diameter and had an everted rim.

Mirror (n = 1). A clear glass mirror fragment (Cat. 14230; Figure 75E) is 0.1" thick and has a 0.2" wide beveled edge. Molded into the back of the glass and parallel to the beveled mirror edge is "STAT[E?]" suggesting this was some sort of advertising mirror.

Pressed glass, covered bowls (n =2). Two clear, pressed glass containers are indicated by two lid/finial and finial fragments (Cat. 14221 and 14222). The finials are from covered glass dishes of unidentified pattern.

Window shade pull (n = 1). A steel ring window shade pull (Cat. 14356) is 1.6" outside diameter, 1.0" inside diameter and incorporates a 3/4" eye-screw for attachment to the terminal slat. This may have been used on a cabinet or, less likely, a utilitarian piece of furniture or equipment. Similar pulls are illustrated in 1895 and 1922 Montgomery Ward catalogs (Montgomery Ward and Co. 1969a:352; 1969b:478).

Housewares and appliances - culinary (n = 16 specimens)

Food preparation is suggested by yellow ware and stoneware sherds and a ferrous metal fragment that may be from a pot.

Yellow ware (n = 7 sherds) includes at least one and perhaps two small yellow ware bowls. Five sherds (Cat. 14498, 14564, 14569) are from a partially mended bowl decorated

with a mocha glaze. Another sherd (Cat. 14545) has a similarly mottled surface in blue. Two plain yellow ware sherds (Cat. 14540, 14552) may be from one or two similar utilitarian vessels.

Stoneware (n = 8). The vessel form for all but two sherds is uncertain, the exception being mended sherds (Cat. 14533) from the upper shoulder and lower neck of a jug with Albany slip on interior and exterior surfaces. The other specimens are bodysherds exhibiting Albany slip inside and out (n = 3; Cat. 14522, 14540, 14559); red-brown glaze inside and salt glazed exterior (n = 2; Cat. 14522, 14578), and 1 fragment with no extant surfaces (Cat. 14522).

Ferrous metal cookware (n 1) is suggested by a hollow handle and rim fragments (Cat. 14361) which were manufactured from lightweight ferrous sheet metal. It is composed of two pieces of sheet metal and is hollow. The end is rounded and has a hole to hang the utensil. The rim fragments suggest a 12" diameter vessel. Although the handle and fragments are heavily corroded, they may have been japanned or enameled when the cookware was new.

Housewares and appliances -gustatory (n = 139 specimens)

This functional class of objects includes tea ware, tableware, as well as bottles, jars, and closures used to contain pre-prepared food or objects in food service.

Ceramic table and tea service (n = 101) occurs in undecorated and variously decorated forms of porcelain and whiteware.

Porcelain (n = 4) fragments in the collection represent elements of two saucers. One of the saucers (represented by 3 fragments; Cat. 14544/14547) is undecorated with the mended elements too small to determine size. Another saucer fragment (Cat. 14521/14547, 14527, 14527/14567) has a gray paste and its well is decorated with a floral decalcomania design. The rim of the 5½ in diameter vessel is painted with green and gold washes. On the back is a red rectangular manufacturer's mark with "HAND PAINTED/JAPAN" (Figure 76A).

Undecorated whiteware (n = 70) is the most common form in the collection and incorporates both the thick hotel ware and thinner "standard" ware. Table 3 provides information on the relative frequency of these sherds according to the vessel shape. Of some interest here is that no dinner plates are in the collection although serving pieces (other than large platters) do occur. This suggests that snacks or hor'devours were occasionally offered as were coffee and tea.

At least two manufacturers are indicated by printed marks on the bases of two sherds. A black printed mark on a partially mended saucer (Cat. 14542/14550/14565) reads "ROYAL IRONSTONE CHINA/[lion, shield, unicorn]/ALFRED [M]EAKI[N]/ENGLAND" (Figure

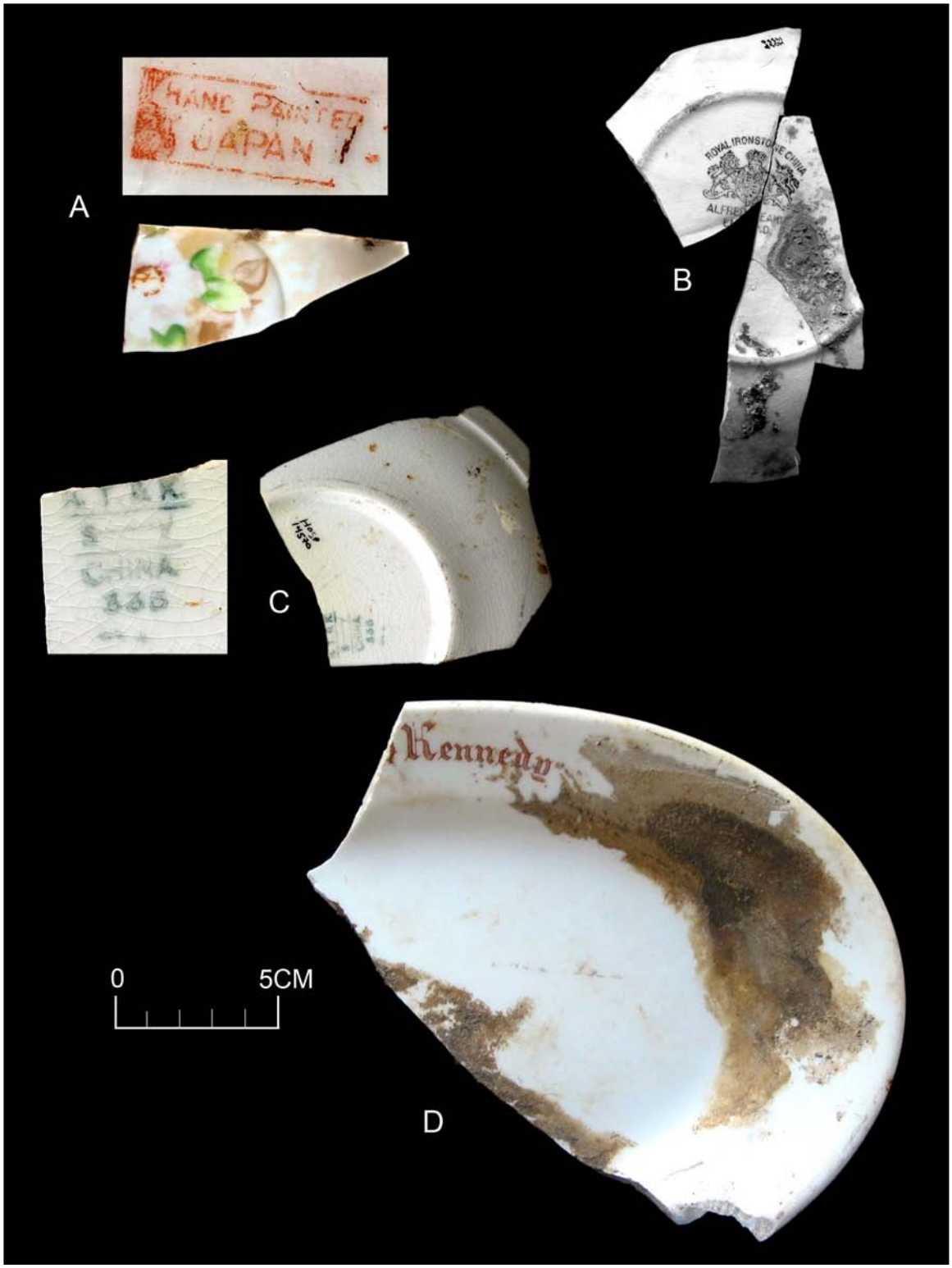

Figure 76. Artifacts associated with housewares and appliances (gustatory): A) decalcomania decorated Japanese porcelain fragment and back mark (Cat. 14527); B) base of plain whiteware saucer bearing the mark of Staffordshire potter Alfred Meakin (Cat. 14542/14550/14565); C) base of plain white hotelware saucer bearing the mark of East Liverpool, Ohio, pottery Knowles, Taylor, Knowles. (Cat. 14570); and D) hotelware platter with " Kennedy"(Cat. 14584).

Table 3. Frequency of undecorated whiteware fragments from the Lamar Bathhouse by vessel form and sizes.

Vessel Form	Hotel Ware Frag. #	Remarks	Standard Ware Frag. #	Remarks
Saucer	1	6” diameter	9	6” and 6½” diameter
Platter	1	14” x 7”	0	
Nappie	2	8” x 5”	0	
Tea Plate	3	8” diameter	0	
Saucer/bowl	0		4	5½” diameter
Coffee cup	1		0	
Tea cup	0		1	
Large hollowware	0		1	serving bowl(?) handle
Bowl	2	5” and 10” diameter	0	
Pitcher or vase	0		10	probably 1 vessel
Unid. hollowware	0		2	5” diameter
Unidentified	10		23	
TOTAL	20		50	

76B). Godden (1964:425) identifies this manufacturer as Alfred Meakin, a company which operated two Staffordshire Potteries: the Royal Albert, in Victoria, England, and Highgate Pottery in Tunstall, England. The mark, used after 1875, is similar to another Godden illustrated as mark 2584 except that “LTD.” is deleted and “ENGLAND” added below company name. Godden suggests the lack of “Ltd.” is indicative of a date earlier than 1897. A second mark, “K.T. & K./[bar]/S[line]V/[bar]/CHINA/335,” is printed in green on the base of a partially mended 6” diameter hotel ware saucer (Cat. 14570; Figure 76C). This is the mark of Knowles, Taylor, Knowles of East Liverpool, Ohio. Although the company was in operation from 1854 through 1931, this particular mark was registered on August 9, 1919, for “table pottery” at which time it was claimed to have been in use since 1905 (Lehner 1988:238-239). A third mark “…ANTE…” printed in black appears on a fragment (Cat. 14521) of flatware (plate, platter, or saucer). This is most likely an element of “WARRANTED,” a word commonly appearing on marks by many makers.

One of the more interesting marks appearing in this group of ceramics is on the front side of a vessel. A large fragment of a plain hotel ware platter (Cat. 14585) has “**…** KENNEDY” printed in brown Gothic-style letters on its marli (Figure 76D). This suggests the platter was ultimately derived from a hotel or restaurant near the Lamar. Unfortunately a review of the 1900 Hot Springs City and Business Directory and 1912, 1917, or 1920 Business Directories for Arkansas failed to find a listing for this enterprise (personal

communication, January 14, 2006, from Bobbie McLane, Executive Director of the Garland County Historical Society).

Repoussé whiteware (n = 12) has raised designs molded into the ceramic vessel. Twelve fragments with raised designs around the exterior rims represent at least 6 vessels in at least two repoussé patterns. One pattern appears on two 6½" saucers (Cat. 14524/14530,

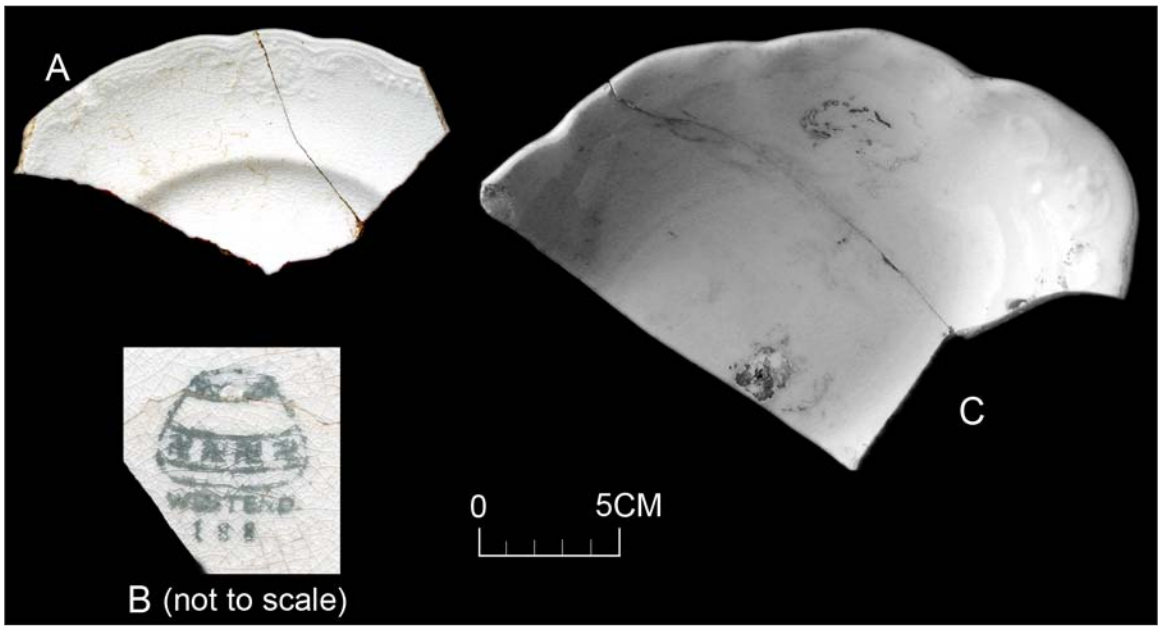

Figure 77. Repoussé whiteware: A) West End Pottery Co. repoussé saucer with shallow scalloped rim and a faint raised vine (Cat. 14530); B) West End Pottery Co. mark (Cat. 14537); and C) Onondaga Pottery Co. repoussé nappie with deeply scalloped rim decorated with vines and a five-petal flower (Cat. 14550)

14531/14541/14542) and a 5½" fruit saucer or sauce dish (Cat. 14550) represented by at least 10 sherds. These vessels have a thin, slightly scalloped rim with a faint raised vine below the rim paralleling the rim scallops (Figure 77A). In some locations on the vessel the vine has been reduced to a series of faint dots. A similarly faint raised shell cartouche occurs at intervals along the vine. The fruit saucer/sauce dish, and two other basal sherds (Cat. 14550, 14537, 14573) bear a printed green makers mark which incorporates the figure of an olla-shaped pot with a band of reverse swastikas (Figure 77B). Below the pot is "WESTEND/1 5 10" (Cat. 14537), "WESTEND/1 7 13" (Cat. 14537), or "WESTEND/1 8 8." This is the mark of the West End Pottery, a company which operated in East Liverpool, Ohio, from 1893 until 1938. West End Pottery made ironstone and semi-porcelain dinnerware (Lehner 1980: 166; 1988:512). The numbers below the company name may represent dates of manufacture; e.g., January 5, 1910; January 7, 1913; and January 8, 1908.

The second repoussé pattern appears on a nappie or small oval serving dish fragment (Cat. 14550; Figure 77C). The rim of this vessel is more deeply scalloped than the previously described repoussé vessels. Vine segments parallel each excurved rim margin with a five-petal flower at the tip of the nappie. The base of the vessel exhibits

the mark "O.P.CO./SYRACUSE/CHINA," identifying its manufacturer as the Onondaga Pottery Co. of Syracuse, New York. In 1871, the Empire Pottery Co. was bought out by a group of businessmen who changed the company name to Onondaga Pottery Company. This name continued to be used to 1966 when the company name became the Syracuse China Company. Onondaga was organized to manufacture white graniteware. The initials O.P. Co. were filed for registration in December 1914, claiming use since the year 1892 although in 1978 the company claimed use of the mark since 1885. O.P.Co's fine decorated translucent china for home use also became a national best seller. Made of the same durable Syracuse China body as hotel ware, it was jiggered into thinner, stylish shapes (Lehner 1988:454-456; Libbey 1998-2003).

Decalcomania whiteware (n = 7) sherds appear to represent elements of tea sets. Daphne Derven defines "decalcomania" as

> *a decorative technique utilizing a decal applied directly to the ceramic vessel. It is almost always polychrome and overglaze. Unlike transfer printing, it can be felt. It was developed in about 1845 and came into extensive use after 1860. This technique is still in use today* (Derven 1980:123).

Majewski and O'Brien (1984:36) describe the period of popularity for decalcomania as circa 1880 through present. Seven sherds are from 2 teacups, 2 saucers, a bowl, and a saucer or bowl. None are of the same pattern (Figures 78A-D). In addition to the floral decals, these vessels variously exhibit repoussé vines at rim margins, handpainted gilt highlights, and printed gilt floral motif.

Miscellaneous whiteware (n = 5) decorative techniques on Lamar whiteware include sherds exhibiting combinations of the above decorations or a technique observed on an individual specimen. Four vessels are represented by 5 specimens. A teacup represented by two sherds (Cat. 14535, 14548) has a flow blue exterior with an overglaze printed floral luster and beaded ceramic appliqués (Figure 78E). These ceramics were predominantly manufactured in the 1890s and early 1900s (Majewski 1994; Derven 1980:125). Raised appliqué dots of yellow and white pigments were used to fill the flower petals and a gold luster band was painted on the rim lip. A 7½" diameter pie plate fragment (Cat. 14549) exhibits a brown transfer print design (Figure 78G). The artifact is stained by water-born minerals. Two small diameter tankard-style cups may be chocolate cups. One, represented by a small annularware rim fragment (Cat.14575), is decorated with bright blue broad and narrow horizontal bands alternating with narrow white bands (Figure 78F). The other is a partially mended cup (Cat. 14585/14586/14587) which is decorated with both repoussé and annular rings (Figure 78G). The cup is 2 7/16" diameter and 3 1/8" high. It has vertical sides and had a handle which is now missing. It is decorated in a brickwork pattern with bright blue raised rectangles alternating with white recessed rectangles and bears bright blue broad and narrow bands at the rim and basal edge.

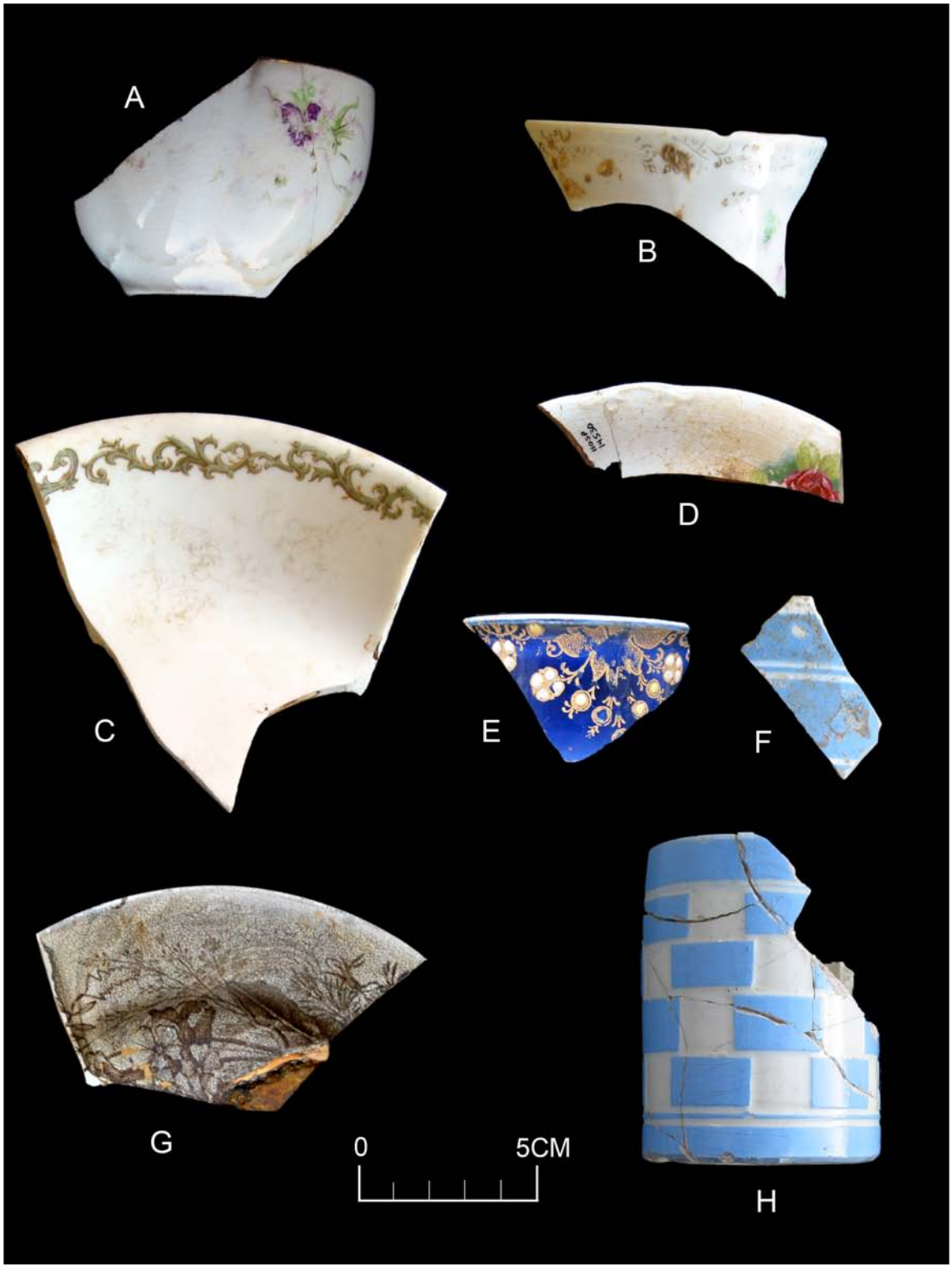

Figure 78. Decalcomania and miscellaneous whiteware: A) cup with repoussé, decal, and gilt lip (Cat. 14532); B) cup with repoussé, decal, and printed overglaze gilt pattern (Cat. 14543); C) bowl with decal vines (Cat. 14577); D) saucer with repoussé and decal (Cat. 14528/14530); E) flow blue cup with gilded floral overglaze print and beaded ceramic appliqués (Cat. 14548); F) annularware rim (Cat.14575); G) brown transfer printed pie plate (Cat. 14549); and H) tankard-style (chocolate?) cup (Cat. 14585/14586/14587).

Condiment containers (n = 13) are represented by two bottles, four bottle fragments from at least three additional vessels, three glass stoppers, and four cuprous cap fragments. All bottles and fragments are of clear glass.

Durkee's Famous Sauce and/or Durkee's Celery Salt (n = 2) were product(s) once contained in two complete bottles (Figure 79A). Although both are of the post-1877 variety which were made for screw caps (Tolouse 1971:182-184), they are marked differently. One

Figure 79. Condiment bottle and glass stoppers: A) Durkee's bottle (Cat. 14100); and B) stoppers (Cat. 14135, 14137, 14140).

(Cat. 14100) exhibits "E. R. DURKEE/& CO./NEW YORK" on its side with the base marked "BOTTLE PATENTED/[registry mark]/APRIL 17 1877." The other specimen (Cat. 14107/14197) has no markings on the body but bears similar base marks. This latter specimen has an Owen's cut-off scar on the base and may have had a paper label.

Salt shaker (n = 4). Two caps (Cat. 14415) of cuprous metal are represented by four fragments: two 1" diameter disks with a circle of small holes and two rim elements.

Miscellaneous containers and closures (n = 7). One fragment (Cat. 14096) is from a Tall Condiment, Screw Cap shape bottle and two others (Cat. 14145, 14162) are similar to University Condiment or Tall Condiment shapes (Putnam 1965:225). One shoulder/finish

fragment (Cat. 14131) is slightly sun-altered purple in color and has a paper-lined non-ferrous metal screw cap attached. The shoulder form suggests it is derived from a condiment jar similar to pickle bottles illustrated in Putnam (1965:191).

The three bottle stoppers (Cat. 14135, 14137, 14140) are of clear glass with one (Cat. 14137) being lightly sun-altered violet (Figure 79B). All are round (0.9" diameter) with two (Cat. 14135, 14140) having thicker somewhat domed-shaped upper faces. Their forms are typical of plain "Club Sauce" type stoppers used with a variety of perfume and condiment bottles (Putnam 1965:87-90, 214; 226).

Canning jars (n = 3) are represented by two jar fragments (Cat. 14142, 14169) and a fragment of an opal glass cap liner (Cat. 14547). The two jar fragments are of aqua glass but their sizes suggest they are derived from different vessels. Both bear elements of the word "MASON" as part of their embossed labels.

The cap liner exhibits "[BOYD'S G]ENUINE PORCELAIN."

> *Boyd's most famous patent was granted on March 30, 1869, for an Improved Mode of Preventing Corrosion in Metallic Caps. The patent text called for a glass lining-plate to be inserted in the "well-known cap used with the so called "Mason Jar," for the purpose of preventing the disagreeable flavor imparted to the jar contents if the food came into contact with the zinc cap. Boyd's porcelain lining patent of Mar 30, 1869, was reissued on Oct 25, 1881, to the Consolidated Fruit Jar Company, assignee of the late Lewis R. Boyd, deceased. Boyd never produced any jars, but, rather his name was so synonymous with the fruit jar industry that after his patents ran out, other jar makers put his name on their jars just because they knew they would sell very well* (Clan Boyd Society International web site n.d.).

Boyd's cap liners were manufactured well into the 1950s.

Drinking vessels (n = 22) include glass tumblers and cups of glass or metal.

Tumblers (n = 19 fragments and partially mended specimens; Appendix B come in a variety of decorative forms incorporating: a paneled body with raised, narrow ribs draping across panels (Figure 80A); a plain body with a narrow ribbed band located below the rim; a plain body with a wide ribbed band below the rim; a plain body with narrow and wide ribbed bands below the rim; a plain body with a fine ribbed zig-zag pattern at base and ribbed band below rim (Figure 80B); a clear rim and base; paneled body, a wide ribbed band 0.4" below lip and an impressed "starburst" pattern on base; a plain body with a frosted floral design (Figure 80C); and decorated with three narrow bands below the rim.

One of the more interesting of the tumblers (Cat. 14138/14145) exhibits a horseshoe molded into its base (Figure 80D). This motif occurs on the base of jelly glasses & tumblers, the majority of which were probably made circa 1900-1930. Glass manufacturers who

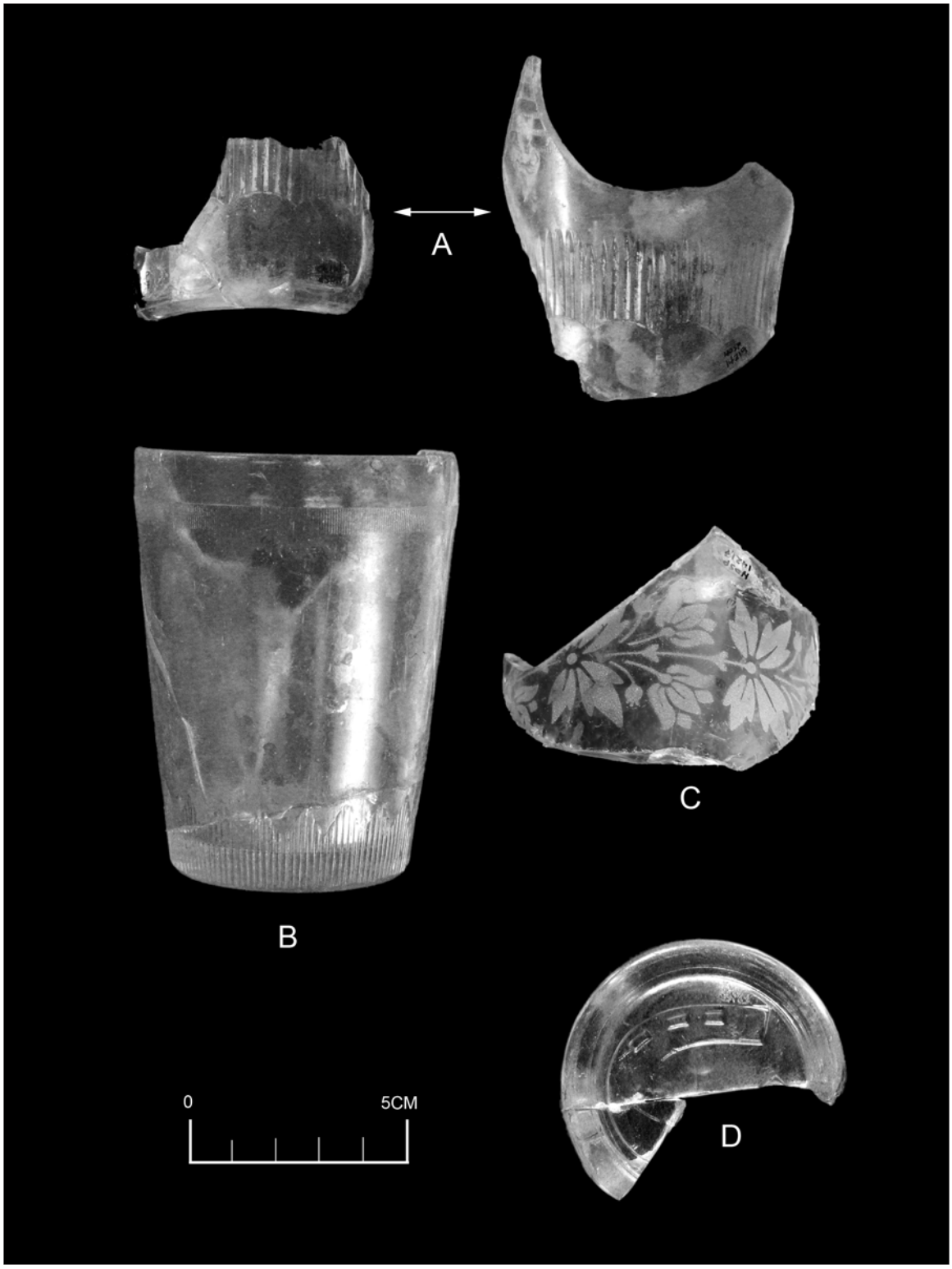

Figure 80. Miscellaneous clear glass tumblers from the Lamar Bathhouse basement: A) paneled and ribbed tumbler (Cat. 14130/14137); B) plain tumbler with ribbed base and fine band at rim (Cat. 14140/14218/14219); C) frosted tumbler (Cat. 14217);and D) Lucky Horseshoe Jelly tumbler base (Cat. 14145).

reportedly produced items with this type of design on the base include: Indiana Tumbler & Goblet Company, Greentown, Indiana (1894-1903); Ball Bros Glass Company, Muncie, Indiana (1888-1992); Fostoria Glass Company, Fostoria, Ohio (1887-1891), and Moundsville, West Virginia (1891-1986); Monongah Glass Company, Fairmont, West Virgina (1903-c.1929); and Hazel-Atlas Glass Company, Washington, Pennsylvania, Wheeling, West Virginia, and other plant locations (1902-1964) (Whitten n.d.). There actually was a product called "Lucky Horseshoe Jelly" which was packaged in a jelly jar and sealed with a tin cap (Kovels.com 2005). Another candidate may be Horse Shoe Pickle Works, a company operating out of New Orleans and listed in that city's 1913 directory (New Orleans City Directory 1913).

Cups (n = 3) from the Lamar basement include one glass and two metal vessels. The glass cup is represented by a single fragment of a tan opaque glass vessel (Cat. 14523; Figure 81A). A raised floral(?) design occurs just below the rim.

Metal cups were likely used by bathers at the Old Lamar to drink mineral waters or by employees simply to quench their thirst. One of these (Cat. 14431) is a white enameled cup of ferrous metal (Figure 81B). It is 3¼" diameter at the mouth and about 3.2" high. The handle is attached to the body with rivets. The cup body bears a polychrome print of the Eddy Hotel with "Frispy's" Cafe in the background. The building which housed the Eddy Hotel still stands in downtown Hot Springs at 520 Central Avenue. It is known as the Rix-Adamson Building and was built by Charles H. Rix and Ida Adamson in 1886 (Hot Springs Convention and Visitor's Bureau 2002-2005). "Frispy's Café" probably refers to "Frisby's Café" which was in operation in the early 1900s at 522 Central Avenue. According to a postcard offered on the eBay web site and dated by the sender "10-26-12," the restaurant was owned by J.M. Frisby. The menu on the face of the card indicates the business served food of high quality. A third cup (Cat. 14401) is of aluminum (Figure 81C). It has a rolled rim and a sheet metal handle but, while the vessel is intact, it has been flattened and measurements could not be made. It has no distinguishing makers marks.

Portable waste disposal and sanitation (n = 4 specimens)

Enamel ware (n = 2). A cup and wash basin are represented by fragments of white enameled ferrous metal ware. The containers are not complete enough to measure. The wash basin, however, has an everted rim and the cup is mug-shaped. White enameled ware occurs in the 1908 and later catalogs of Montgomery Ward and Sears, Roebuck and Co. (Montgomery Ward 1969b:527; Sears Roebuck and Co. 1969b:461) but not in 1902 and 1895 catalogs.

Ceramic wash set (n = 2). Pitcher and wash basin components of one or more wash sets are suggested by two fragments of thick whiteware commonly used by commercial establishments and referred to as "hotel ware." One fragment is an undecorated hotel ware pitcher rim (Cat. 14582). The other (Cat. 14583) is the base and 7½" diameter foot of a wash basin. This bears a black printed mark (Figure 81D) "IRON STONE CHINA" over a

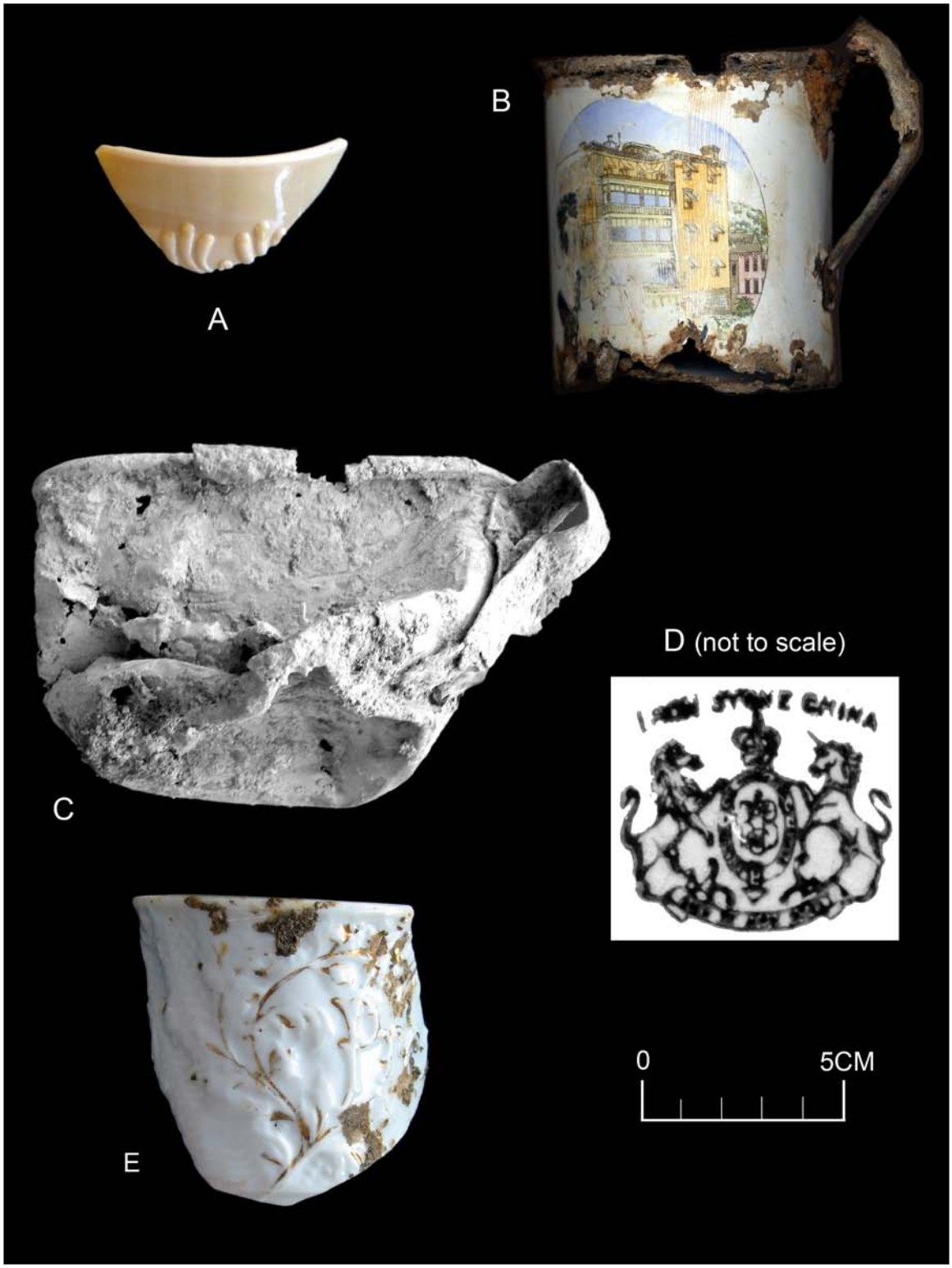

Figure 81. Miscellaneous cups and toiletry items from the Lamar Bathhouse basement: A) glass coffee cup rim (Cat. 14523); B) white enameled cup showing Eddy's Hotel and Frisby's Cafe (Cat. 14431); C) crushed aluminum cup (Cat. 14401); D) B&B Co. makers mark on wash basin (Cat. 14583); E) porcelain shaving cup (Cat. 14526).

stylized British "royal" coat of arms with rampant horse (on left) and unicorn (on right) on each side of a central shield. Inside the shield is "B&B Co" as a monogram. A similar mark is illustrated by DeBolt (1994:27) which he attributes to the 1880s. The texts in the shield border and the ribbon underneath are nearly illegible but are in keeping with the mark's resemblance to the coat of arms, the ribbon text reads "DIEU ET MON DROIT" and the shield text is "HONNI SOIT QUI MAL Y PENSE." The first is the motto of the British monarchy (in French) and translates "God and my right." The shield text is Old French for, "shame upon him who thinks evil of it" and is the motto of the Order of the Garter among whose membership is the British monarchy. The ware was produced by Burford Brothers Pottery Co. which operated out of East Liverpool, Ohio, from 1879 to 1904. In 1902, this company listed hotel ware and toilet sets among its products (Lehner 1988:67).

Group Services (n = 5 specimens)

Public forum and entertainment is suggested by five newspaper fragments. These have not been analyzed and, as they occurred on the surface of the unexcavated basement deposits, may relate to the present Lamar Bathhouse.

Personal Items (n = 101 specimens)

Adornment (n = 2 specimens)

An elliptical, light blue glass appliqué (Cat. 14511) has a rounded face and flat back. The piece is 0.45" long , 0.2" wide, and 0.15" thick and was probably attached to a piece of cosmetic jewelry by glue. The second object (Cat. 14423) in this category is a cuprous stick pin. It is about 1" in length and is missing its stone.

Body ritual and grooming (n = 1 specimen)

Porcelain fragments are from a shaving mug (Cat. 14526, 14527; Figure 81E) exhibiting a repoussé floral design on its body over a diamond weave pattern. Handpainted gold highlights accentuate the stems and leaves. Like many shaving mugs, this example has the owner's name on it. The body is embossed with stylized stick-like letters "Pres...," perhaps for Prescott or Preston?

Clothing and Footwear (n = 23 specimens)

Buttons (n =20). Two white china buttons have four sew-thru's in a recessed facial well. One (Cat. 14299) is 0.60" in diameter and the other (Cat. 14300) is 0.41" in diameter. This type of button in the smaller size was typically used on shirts and shirtwaists with the larger size suitable for shirtwaists and dresses (Hunt 1986:43). Two ferrous metal buttons are in the collection. One (Cat. 14289) is 0.66" in diameter and has four sew-thru holes. This size and type of button was commonly used for suspender attachments on pants. Another button fragment (Cat. 14357) is the face from a two-piece button. It is 0.90" in

diameter and may have been used on a coat (Hunt 1986:41). One bone button fragment (Cat. 14301) originally had four sew-thrus and was 0.75" in diameter. This may have served as a large suspender attachment button or a small coat button (Hunt 1986:37-38). One specimen (Cat. 14293) appears to be made of cardboard and has a non-ferrous metal rivet or shank remnant for attachment. This may have served as the filling material for a more elaborate 2-piece button. Its size, 0.78" in diameter, is suitable for use on a coat. Shell buttons are the largest group of objects (n = 14 specimens) in this functional category. Sizes include a 0.38" diameter (Cat. 14297) to 0.61" diameter (Cat. 14303, 14304) and in 2-hole and 4-hole versions. Two 4-hole buttons (Cat. 14297) are of a size (0.38-0.41" diameter) commonly used for shirts or shirtwaist closures. Three 2-hole buttons (Cat. 14294, 2-14297) and three 4-hole buttons (Cat. 14294, 14298, 14302) are 0.45-0.50" in diameter and were probably attached to a shirtwaist or dress. An additional button fragment (Cat. 14292) is in this size range as well. Two 4-hole buttons (Cat. 14303, 14304) are 0.61" in diameter and would have been suitable for use on a vest (Hunt 1986:39). Three specimens (Cat. 14294, 14297, 14302) were so fragmented, their size and means of attachment could not be determined.

Fabric tie (n = 1). A small piece of plain, undyed fabric (Cat. 14279) has been stitched into a small rectangle (0.6" wide x 3½" long). It has been tentatively identified as an element of a tie closure. Similar ties were typically used on women's muslin underwear in the 1890s (Montgomery Ward and Co. 1969a:284) and early 1900s (Sears, Roebuck and Co. 1969b:1105).

Snap (n = 1). A snap closure (Cat. 14305) for clothing is flat-faced and ½" in diameter. Both the front and back are present.

Shoe eyelet (n = 1). A cuprous metal ring (Cat. 14269) was recovered from the interior of an ink bottle. It is of a size typically used as an eyelet on shoes.

Indulgences (n = 71 objects)

Indulgences are represented in the collection by objects associated with smoking and alcohol. HOSP Museum Specialist Sharon Shugart, an authority on park history, indicates that food and beverages were not available in the bathhouses. Surprisingly, most of the bottles and fragments represented in this category held some form of alcoholic beverage and, while it is possible these materials were from personal use by bathhouse employees, there are enough present in the collection to suggest a considerable amount of beer, wine, and hard liquor use.

Tobacco tins (n = 6) are suggested by six oval, ferrous metal can base fragments (Cat. 14360, 14364) and one oval can body fragment (Cat. 14360). These are all severely corroded. Flat, upright pocket type cans such as these were introduced circa 1905 and continued in production until well into the 1960s (Busch 1981:99; Rock 1987:62-63, 75).

Apollinaris bottles (n = 20) are a standard shape commonly used as containers for mineral water, juice, and beer. According to Lindsey (2006c), the Apollinaris style was commonly used between the 1880s and 1910s (mouth-blown) and 1910s and likely 1930s (machine-made). It is named after a famous German mineral spring. Specimens occur in amber (n = 7), light aqua (n = 2), cobalt blue (n = 2), olive green (n = 1), dark green (n = 1), emerald green (n = 4), and clear (n = 3, one sun-altered violet). The amber specimens probably held beer and the specimens in various shades of green are probably derived from wine containers. Six specimens have raised marks on their bodies or bases. A cobalt blue bottle (Cat. 14136) bears "A.B.G.M.CO." on its base. A similar mark "A.B.G.M.CO./K28 (center)" appears on the base of a lt. aqua bottle (Cat. 14111). Both are marks of the Adolphus Busch Glass Manufacturing Co. and the bottles date to ca. 1886-1928 (Toulouse 1971:26). An olive green bottle which probably once held wine has "B B 5" on its base. This exhibits an applied finish and is in the half pint size. The mark may be that of the Berney-Bond Glass Company (1905-1930). That company was organized in 1897 and continued to operate under that name until 1930 when it was acquired by the Owens-Illinois Glass Company (Toulouse 1971:70-73). An amber bottle with an applied finish bears "OO" or "00" on its base. No maker has been identified for this mark. Finally, a clear (sun-altered purple) base and body (Cat. 14171) bears "[TRADE]MARK/[REFILLING P]ROHIBITED." The prohibition against refilling is a by-product of the 1906 Pure Food and Drug Act and so the (wine?) bottle would date after that law was passed by Congress.

Bottle closure (n = 1). A porcelain lightning stopper (Cat. 14536) is the only bottle closure in the collection. It is semi-conical in shape with a horizontal triangular hole which retains a fragment of the ferrous metal spring (Figure 82A). The stopper also retains a white rubber washer which sealed the stopper to the bottle finish.

Alcoholic beverages (n = 40), hard alcohol, wine, and beer, are represented by several bottle shapes. Three specimens are derived from one or more Imperial Flasks (double screw cap) shape bottles (Figure 82B). Another fragment (Cat. 14132) is a clear glass fluted shoulder (Figure 82C) characteristic of a Victoria Flask shape bottle. Some of the brandy-type finishes assigned to this functional category are also distinctive of a particular bottle form. These include 8 generic whiskey flasks, 6 Ring Dandy shape flasks, and 2 probable quart or fifth-sized bottles one of which appears to be of the Crown Prince shape (Putnam 1965:150, 167, 170, 172). Only one amber bottle fragment (Cat. 14136) identifies its contents. This flat body element bears an open loop or cartouche above "[PUR?]E RYE." The remainder of the objects assigned to this category were done so according to their bottle or finish form. One clear glass half pint bottle (Cat. 14115) with an attached ferrous screw-on cap bears the embossed legend around its base "FEDERAL LAW FORBIDS SALE/>>>>>HALF PINT>>>>>/OR REUSE OF THIS BOTTLE/>>>>>HALF PINT>>>>>." This embossing was required on all liquor bottles from 1933 through 1964 (Munsey 1970:126) and so the bottle post-dates the construction of the current Lamar Bathhouse.

Wine splits (n = 5) are bottles containing half the usual amount. Five fragments of splits in the collection are light aqua (n = 1; Figure 82D), aqua (n = 1) and emerald green (n

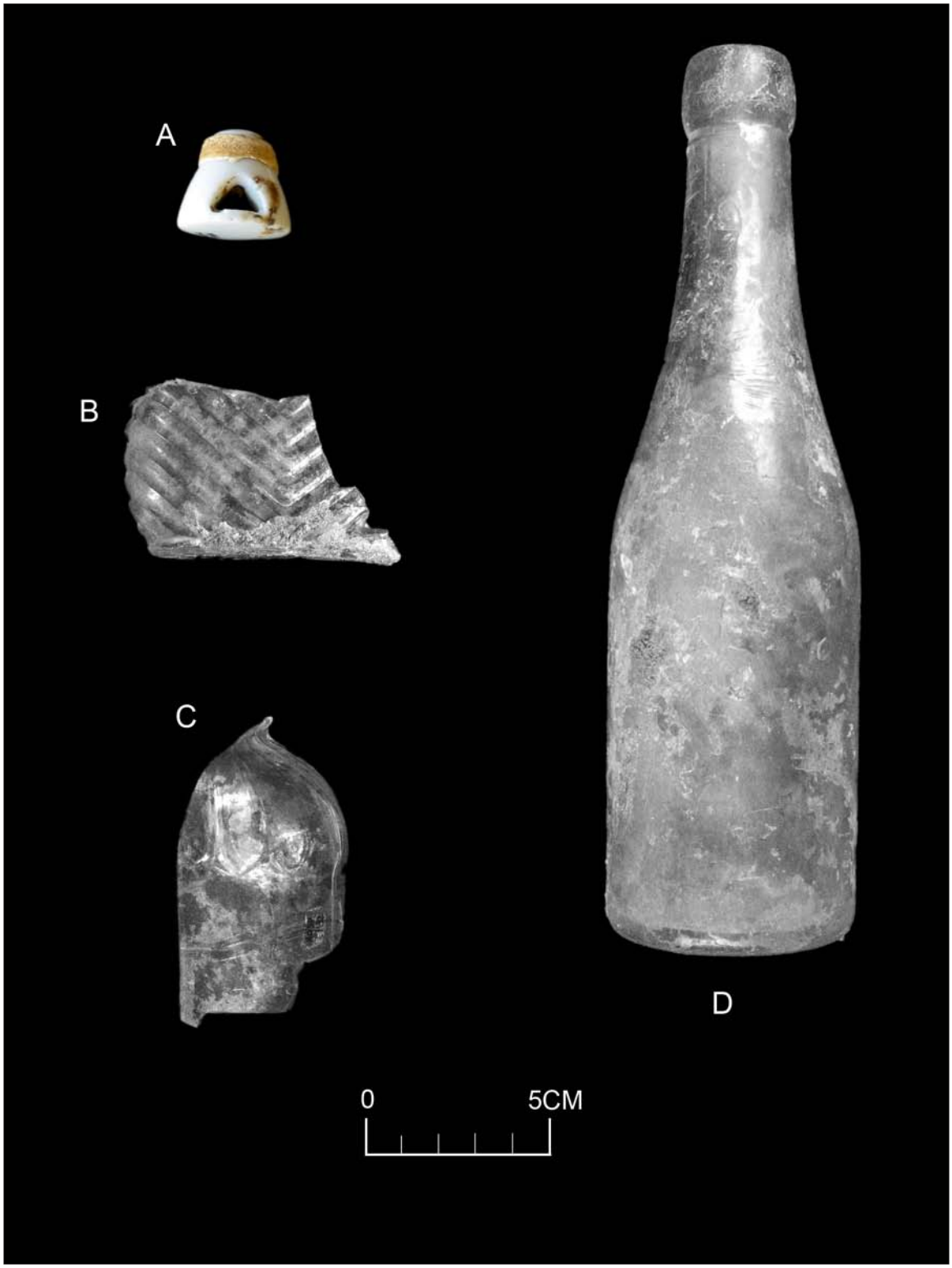

Figure 82. Artifacts from the Lamar Bathhouse basement that are associated with personal indulgences: A) lightning bottle stopper (Cat. 14536); B) basal fragment of an Imperial Flask (double screw cap) shape whiskey bottle (Cat. 14129); C) shoulder of a Victoria Flask shape whiskey bottle (Cat. 14132); D) wine split (Cat, 14110).

= 3). The green fragments are from one or more bottles polished in a turn mold and most likely contained some type of wine. The other two bottles probably contained beer. Only one of these (Cat. 14336) exhibits a molded mark but there is too little of the mark to allow identification of the bottle's original contents.

A variety of manufacturers marks were observed. These include:

a) [Base:] BB - the mark of Berney-Bond Glass Company (1905-1930) whose plants were located in Bradford, Hazel Hurst, Smethport, Clarion, and Knox, all in the state of Pennsylvania; the Winslow Glass Co. plant at Columbus, Ohio was purchased in 1927. Berney-Bond was bought by Owens-Illinois in 1930 (Whitten n.d.).

b) [Body above basal juncture:] B [Base:] B; possibly the Buck Glass Co. of Baltimore, Maryland, 1909-1961 (Toulouse 1971:57-58).

c) [Base:] HALF PINT/A/3, a mark which could stand for Agnew & Company, Pittsburgh, Pennsylvania (ca. 1860s-1894+) (Whitten n.d.).

d) and unidentified basal marks: S[BD?], O 3, 10, E[?] or F[?], and 16.

Medical and health (n = 1 specimen)

Objects in this functional class are differentiated from those in the Commerce and Industry in that they are of a personal nature. Only one such item occurs in the collection. This is a clear; oval eyeglass lens (Cat. 14250). It is 1.6" wide, 1.25" high, and 0.08" thick.

Pastimes and recreation (n = 2 objects)

This category of objects includes such things as toys, musical instruments, games, etc. A clay marble (Cat. 14510) is ½" in diameter, unglazed, and light brown in color. This type of marble, often referred to as "clays" or "commies," are of low-fired brown or red clay. Depending on clay impurities, this porous clay marble can be red, brown, gray, or tan. Although manufactured by hand for centuries, American mass production in factories began in Akron, Ohio, in 1889, where they were first made by S.C. Dyke and Company, and shortly thereafter by that company's co-owner's brother, Acton L. Dyke. In 1890, Acton Dyke applied for a patent for machinery that could produce 300 marbles per hour (Marblealan.com 2000).

Another artifact which may be associated with this function is a small piece of porcelain (Cat. 14539) which may be a fragment of a doll. It has a pink exterior upon which is a raised black, handpainted line. A portion of a small molded hole is on one broken margin.

HOT SPRINGS

Transportation (n = 2 objects)

The only items related to this functional category are associated with horse transport. These include a horseshoe (Cat. 14388) and a roller buckle fragment (Cat. 14345) which may have been used with a 2" wide harness belt (Figure 83A).

Unknown Function (n = 2705 objects)

Ceramics (n = 2 object)

One yellow ware fragment (Cat. 14552) has a clear glaze on its interior surface. A stoneware sherd (Cat. 14593) has an Albany slip on both surfaces.

Curved Glass (n = 2160 objects)

Forty-seven finishes could not be sorted into one of the function classes. Finish colors included 1 amber, 2 aqua, 3 sun-altered violet, and 41 clear. Basal fragments (n = 107) are derived from a variety of bottles of differing color including 1 amber, 3 light aqua, 7 aqua, 11 sun-altered violet, 83 clear, 1 light green and 1 light yellow green, and 1 milk glass. Unidentified body fragments (n = 2006) include 200 amber, 98 aqua, 70 light aqua, 9 blue or blue green, 1557 clear, 2 sun-altered violet, 14 cobalt blue, 7 green or emerald green, 3 light green, 43 olive (includes olive brown and olive green), and 2 light yellow specimens. More details for this group of objects are available in Appendix B.

Ferrous Metal (n = 433 objects)

An *axle or shaft* (n = 1) may be a machine part (Figure 83B). The shaft (Cat. 14363) is 3/4" in diameter, 14½" long, and has two sets of sprockets on each end. Raised rings on the shaft are 10" apart and may have served as a belt guide.

Axle caps (n = 3) are suggested by three small hat-shaped artifacts. These would have snapped over the end of ½" (Cat. 14308), 5/8" (Cat. 14364), and 3/4" (Cat. 14367) diameter shafts to hold a wheel in place.

Bolt (n = 1). A sheared off bolt fragment (Cat. 14308) has a 3/4" square head and a ½" diameter shaft.

Can fragments (n = 3) include one 3" diameter specimen (Cat. 14405) which may have been utilized with a cardboard rather than tin container. Two specimens (Cat. 14405, 14354) are end caps for small oval cans.

Springs (n = 3). A heavy duty conical spring (Cat. 14352) may be an anti-vibration foot element for an appliance or other machine. This is 1½" high, 1 3/4" diameter at one end,

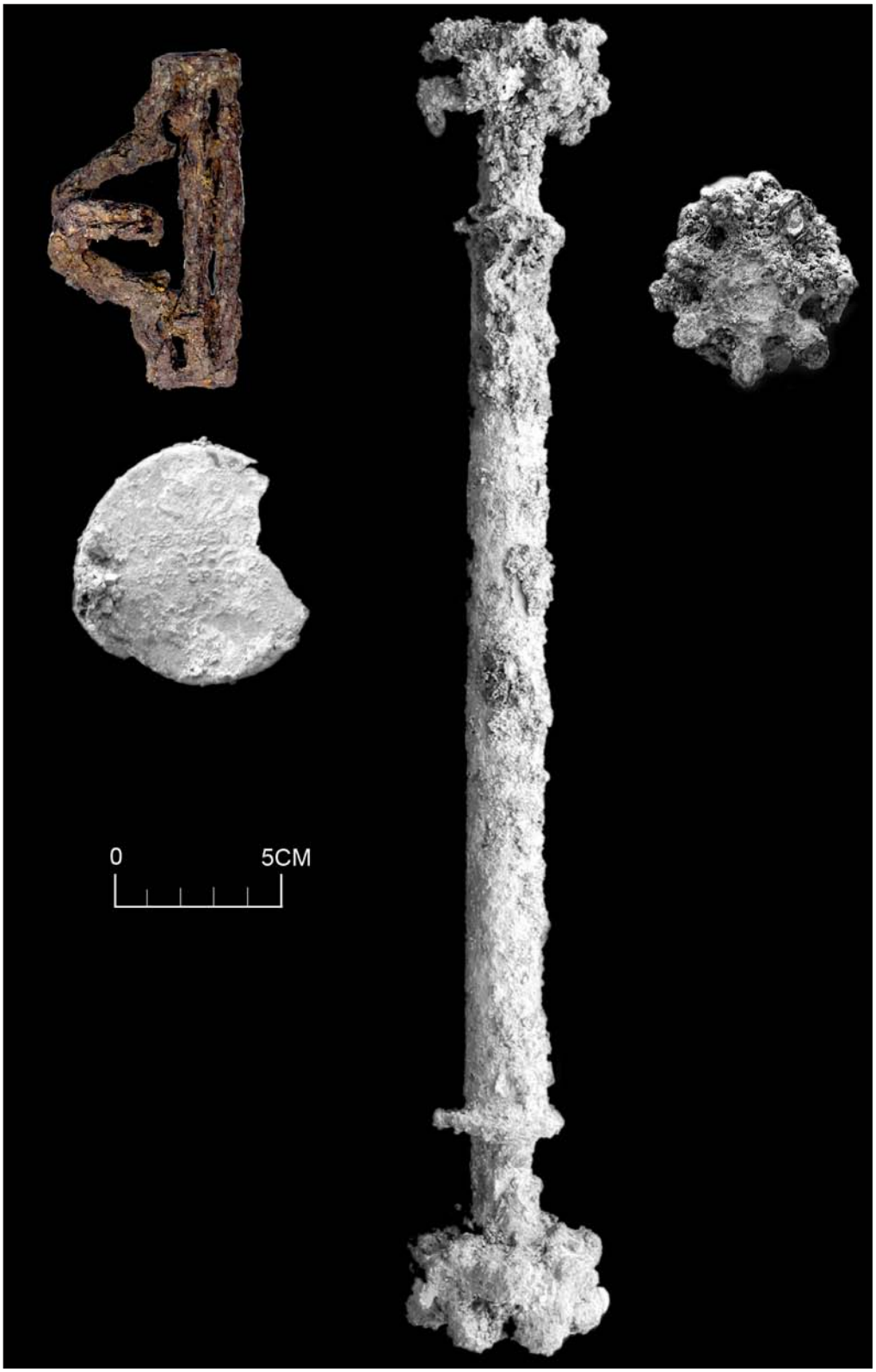

Figure 83. Objects associated with transportation and of unidentified function from the Lamar Bathhouse basement: A) horse harness roller buckle (Cat. 14345); B) axle or drive shaft (Cat. 14363) and end-on view of sprockets (inset); C) collapsible cup souvenir lid (Cat. 14416).

and 1" diameter at the other. Two other springs are of uniform diameter. One (Cat. 14364) is 1½" diameter and 0.6" long. The other (Cat. 14385) is 0.3" diameter and 2¼" long.

Wire (n = 10). Eight fragments and two coils of 0.1" diameter were recovered.

Miscellaneous metal (n = 412 fragments). Heavily corroded ferrous metal lumps, cast iron, ferrous sheet metal and strap made up the bulk of unknown function ferrous metal.

Non-Ferrous Metal (43 objects)

Aluminum (n = 30). This category was largely friction caps and these may be associated with beauty creams and salves.

Cuprous metal (n = 13). This category includes 8 small pieces of sheet metal, a chromed ring, a threaded cap for a vial or perfume bottle, 2 pieces of wire, and a cuprous friction cap. The latter (Cat. 14416) is marked "[flowers inside heart] /SOUVENIR/OF/HOT SPRINGS/ARK." is about 2½" diameter and 0.7" high (Figure 83C). It was most likely a closure for a souvenir collapsible cup. Several similar artifacts occur in the artifact collection at HOSP (personal communication from HOSP Sharon Shugart March 26, 2007).

Prehistoric Materials (n = 1 object)

One secondary lithic flake (Cat. 14466) was collected from T.U. 3 in historic deposits. Although this object was clearly redeposited, it does suggest the possibility of an intact prehistoric deposit along Hot Springs Creek under or between the standing bathhouses.

Artifact Function and Distribution

All Undisturbed Deposits

This discussion does not include the objects recovered from the obviously disturbed deposits of T.U. 1. Among the artifacts recovered from T.U.s 2-4 were 1683 artifacts which could be identified according to function (Table 4).

The most common functional category represented is "Architecture" which incorporates 814 objects or 48.37% of the items from controlled excavations. Of secondary importance are "Domestic Items" and "Commerce and Industry" with 454 items (26.98%) and 327 items (19.43%) respectively. "Personal Items" are of much less significance, incorporating only 87 artifacts or 5.17% of the objects from controlled excavations. "Transportation" was barely represented with only one object (a roller buckle) from a controlled excavation context.

Within "Architecture," the most important functional categories are construction-associated with hardware (primarily nails but also including screws, bolts, a doorknob, and a downspout hook) represented by the largest number of objects (n = 498). Construction materials (bricks, tile, window glass, paint, concrete, etc.) were represented by 265 objects. Objects associated with fixed heating (coal and mica disks), plumbing (ceramic tub and toilet elements, cast iron and ceramic pipe, etc.), and fixed illumination and power (light bulbs, ceramic insulators) were relatively rare.

Table 4. Distribution of artifacts in Test Units 2-4 by function.

ARTIFACT FUNCTION	T.U. 2		T.U. 3		T.U. 4		Row Total	% Column Totals
	#	%	#	%	#	%		
ARCHITECTURE	**265**	**30.42**	**367**	**74.29**	**182**	**57.23**	**814**	**48.37**
Construction - materials	83	9.53	171	34.62	11	3.46	265	15.75
Construction - hardware	169	19.40	161	32.59	168	52.83	498	29.59
Fixed heating	5	0.57	26	5.26	1	0.31	32	1.90
Fixed illumination & power	5	0.57	0	0.00	2	0.63	7	0.42
Plumbing	3	0.34	9	1.82	0	0.00	12	0.71
COMMERCE & INDUSTRY	**225**	**25.83**	**44**	**8.91**	**58**	**18.24**	**327**	**19.43**
Grooming	40	4.59	0	0.00	15	4.72	55	3.27
Repair & maintenance services	2	0.23	7	1.42	2	0.63	11	0.65
Medical - pharmaceutical services	146	16.76	6	1.21	28	8.81	180	10.70
Medical - technical services	18	2.07	26	5.26	7	2.20	51	3.03
Record keeping	18	2.07	4	0.81	6	1.89	28	1.66
Transactions	1	0.11	1	0.20	0	0.00	2	0.12
DOMESTIC ITEMS	**313**	**35.94**	**76**	**15.38**	**65**	**20.44**	**454**	**26.98**
Cleaning & maintenance	2	0.23	0	0.00	0	0.00	2	0.12
Furnishings	21	2.42	9	1.82	4	1.26	34	2.02
Housewares & appliances -culinary	9	1.03	1	0.20	5	1.57	14	0.83
Housewares & appliances -gustatory	80	9.18	22	4.45	32	10.06	134	7.96
Food	199	22.85	44	8.91	23	7.23	266	15.81
Portable waste disposal & sanitation	2	0.23	0	0.00	1	0.31	3	0.18
PERSONAL ITEMS	**68**	**7.81**	**6**	**1.21**	**13**	**4.09**	**87**	**5.17**
Adornment	1	0.11	1	0.20	0	0.00	2	0.12
Body ritual & grooming	1	0.11	0	0.00	0	0.00	1	0.06
Clothing and Shoes	14	1.61	4	0.81	3	0.94	21	1.25
Indulgences - alcoholic beverages	43	4.93	1	0.20	10	3.14	54	3.21
Indulgences - tobacco	6	0.69	0	0.00	0	0.00	6	0.36
Medical & health	1	0.11	0	0.00	0	0.00	1	0.06
Pastimes & recreation	2	0.23	0	0.00	0	0.00	2	0.12
TRANSPORTATION	**0**	**0.00**	**1**	**0.20**	**0**	**0.00**	**1**	**0.06**
Total Objects w/Function IDs	**871**	**99.99**	**494**	**99.99**	**318**	**100.00**	**1683**	**100.01**

"Domestic Items" included (in order of artifact frequency) food, gustatory objects, furnishings with almost negligible numbers of cleaning/maintenance and portable waste disposal/sanitation objects. About half of the domestic items were associated with food (n = 266). This category incorporated faunal elements, a small number of glass containers (dairy and juice bottles), and one pecan shell. Gustatory objects (n = 134) are composed of glassware (tumblers), ceramic coffee cups, and small ceramic serving pieces. The table service at the first Lamar Bathhouse included both thick, sturdy hotel ware and lighter, more refined, decorative serving pieces. Hotel ware vessels which have been identified include plain 5" diameter bowls (fruit or sauce dishes), 10" serving bowls, coffee cups, 8" pie or breakfast plates, oval nappies, a handled serving dish (probably covered), 6" saucers, and an oval platter.

The more refined wares include: decalcomania decorated porcelain (5½" saucers); undecorated whiteware (5" diameter bowls, pitcher, 6½" saucers, 5½" saucers or shallow bowls, and teacups); repoussé-decorated whiteware (6¼" saucers, nappies, and fruit saucers/sauce dishes); decalcomania whiteware (saucers, teacups, and 8" bowls); and a mix of vessels including a flow blue teacup, a 7½" diameter transfer-printed pie or breakfast plate, and annular ware coffee or chocolate cups. Notable is the absence of dinner plates in the ceramic assemblage.

It shouldn't be much of a surprise that commercial activities are fairly common at the Lamar Bathhouse with 327 artifacts associated with this functional class. As should be expected for an institution promoting health, well over half of the artifacts within this class are connected with medical services. Pharmaceutical services, largely represented by a massive array of medicinal bottles and vials, account for over half (n = 180) of the "Commerce and Industry" artifacts. This is rather surprising since the bathhouses were prohibited from dispensing medications (Sharon Shugart, personal communication). Medical equipment (technical services), such as thermometers, syringes, douche syringe, bedpans, hoses, and perhaps dry cell batteries, accounts for another 58 objects. Grooming services, via barbers and beauticians, is represented by 53 artifacts associated with cold cream, salves, hair dye and dressings, perfumes and Florida Water, and shaving cups. Maintenance of business records ("Record Keeping"; n = 28) is indicated by the recovery of pencil lead and numerous ink bottles, primarily those manufactured by the Carter Ink Co. Small numbers of objects represent "Repair and Maintenance Services" (n = 12 objects) and commercial "Transactions" (2 coins) are of least importance within this functional class.

"Personal Items" are of minor importance overall as this function is represented by only 87 objects. The most significant activity within this functional class are indulgences (n = 54 objects), particularly consumption of alcoholic beverages such as whiskey, wine, champagne and beers. Since these were not provided as a formal element of the bathhouse experience, it is most likely that they were consumed by employees "on the sly" as it were or by guests either secretively or at the invitation of bathhouse management in non-public areas of the building. Fragments of clothing and shoes (primarily buttons, snaps, and shoe

eyelets) represent about one-third of the "Personal Items" recovered (n = 21). Negligible numbers of objects representing adornment (jewelry), personal grooming (shaving cup), medical & health (eyeglass lens) were recovered. Of some interest are two toys suggesting that at least a boy (marble) and a girl (doll fragment) may have played in the bathhouse at one time or another.

When one examines each of the three test areas with undisturbed deposits (T.U.s 2, 3, and 4), it appears they exhibit the same approximate range of activities in about the same frequencies of artifacts (Table 4). In other words, it can be said the same general range of activities were undertaken in both the center of the building and at its southern margin with two minor exceptions. T.U. 3, in the south end of the basement, tended to have a somewhat greater frequency of architectural items (74.29%) than the other two units in general (T.U. 2 = 30.42%; T.U. 4 = 57.237%) and higher than for the site as a whole (48.37%). Specifically, this area of the old Lamar had more construction materials. These objects occurred about 3¼ times more commonly in T.U. 3 than in T.U. 2, over 8¾ times more commonly than T.U. 4, and over twice as high as for the site as a whole. As well, objects associated with "Fixed Heating," though generally rare, are somewhat more common in this portion of the basement. These objects are six to ten times more common in the southern portion of the basement than in the central portion and three times more common than for the collection as a whole. These variations suggest that the first Lamar may have had its heating units in the southern area of the building and the same approximate area may have served as the building maintenance supply and disposal area.

Another minor variation in suggested activities may be seen in "Personal Items." Objects associated with clothing and shoes were somewhat more common percentage-wise in T.U. 4 than in the other two units while items associated with alcoholic beverages were more commonly discarded in T.U. 2. These two categories suggest the central portion of the building was more commonly occupied than the southern area of the basement and, given the higher loss of buttons (common in working situations) here, this may have been an area where bathhouse employees commonly labored.

T.U. 2

A total of 2776 artifacts were recovered from approximately 2.5 m^3 of fill removed from T.U. 2. This represents a whopping recovery rate of 1110 objects per cubic meter! Actually, the rate of recovery would have been much higher except that only diagnostic items, largely curved glass, were collected from the muck below Level 5 (60-70 cm bs). This is by far the highest artifact recovery rate this investigator has ever encountered in an archeological site.

Only about one-third of T.U. 2 artifacts (n = 871), however, could be identified according to a specific functional category, the bulk of the unidentifiable objects being curved glass (Table 5). Objects of identifiable function were used to determine whether functional differences or variations in activities took place over time in this unit. A simple

approach was taken in this analysis; e.g., the relative frequencies of objects in each functional class from each level were determined and departures from frequencies for the unit as a whole were noted. Strong positive relationships were inferred where a functional class (represented by 10 or more artifacts within the test unit as a whole) occurs at a frequency of two or more times than for the test unit as a whole.

When this test was applied, activities (as suggested by rates of artifacts with specific functions) were found to remain generally the same from one level to another. Excluding materials from below Level 5 (due to sampling biases), only minor differences may be seen from one level to another. Objects associated with "Architecture" remain more or less constant in frequency from one level to another, construction materials occur somewhat more frequently in Level 5 than in higher levels. The same consistency is seen in "Commerce and Industry" artifacts as a whole. Level 2 (30-40 cm bs), however, exhibits a noticeably higher relative frequency (over 3½ times higher than for the test unit as a whole) for objects associated with "Medical - technical services." Again, "Domestic" activity artifacts show little variation in relative frequency from one level to another. Within that functional class, only objects associated with "Furnishings" exhibit a higher relative frequency in Level 5; i.e., at a rate about 2⅓ higher than for the test unit as a whole. Similarly, with regard to "Personal Items," no differences between levels is seen when the total overall category is examined. Within that group of items, however, Level 4 stands out for having a higher relative frequency of objects associated with clothing and shoes.

T.U. 3

Excavation of T.U. 3 resulted in the recovery of 723 objects, 229 of unknown function; i.e., an overall artifact density of about 522 objects/m^3. While this is about half the density noted for T.U. 2, it is still very high. When examining the individual strata, the highest recovery rate at first glance would appear to be from S.U. 4 with 211 objects recovered. This is at least twice the frequency of recovery from other stratigraphic units in T.U. 3. When the density of artifact recovery by stratification unit is considered, however, S.U. 4 has about the same artifact density as for the test unit as a whole (700 objects/m^3). The highest rate of recovery was actually from the S.U.s having the least fill with S.U. 2 having almost 6½ times and S.U. 5 having over seven times the artifact density of the overall unit. S.U. 1, the uppermost stratum and the stratum with the largest volume, had the least number of artifacts recovered per cubic meter of fill. This stratigraphic unit's artifact density amounted to only about 33% of that for the test unit as a whole. In short, it is clear that neither the cultural strata nor the artifacts were deposited uniformly

A review of artifacts by functional association (Table 6) suggests three functional categories are represented by sufficient numbers of objects to compare artifact densities by stratum and comparison of strata functions with those for the test unit as a whole. These include architecture (n = 367), domestic items (n = 76), and items related to commerce and industry (n = 43). Personal Items (n = 6 artifacts) and Transportation artifacts (n = 1)

Table 5. Distribution of artifacts in T.U. 2 by excavation level and function.

FUNCTION	Level 1 (15-30 cm bs)		Level 2 (30-40 cm bs)		Level 3 (40-50 cm bs)		Level 4 (50-60 cm bs)		Level 5 (60-70 cm bs)		Level 6 (70+ cm)		ROW TOTAL		Row Total - Mtls. above Lev. 6	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
ARCHITECTURE	13	32.50	36	37.89	107	40.38	35	19.77	64	44.14	10	6.71	265	30.42	255	35.32
Construction - materials	4	10.00	5	5.26	37	13.96	2	1.13	27	18.62	8	5.37	83	9.53	75	10.39
Construction - hardware	8	20.00	29	30.53	68	25.66	30	16.95	32	22.07	2	1.34	169	19.40	167	23.13
Fixed heating	0	0.00	1	1.05	1	0.38	1	0.56	2	1.38	0	0.00	5	0.57	5	0.69
Fixed illumination & power	1	2.50	0	0.00	0	0.00	2	1.13	2	1.38	0	0.00	5	0.57	5	0.69
Plumbing	0	0.00	1	1.05	1	0.38	0	0.00	1	0.69	0	0.00	3	0.34	3	0.42
COMMERCE & INDUSTRY	9	22.50	24	25.26	41	15.47	42	23.73	21	14.48	88	59.06	225	25.83	137	18.98
Grooming	1	2.50	1	1.05	4	1.51	6	3.39	5	3.45	23	15.44	40	4.59	17	2.35
Repair & maintenance services	0	0.00	0	0.00	0	0.00	2	1.13	0	0.00	0	0.00	2	0.23	2	0.28
Medical - pharmaceutical services	8	20.00	14	14.74	27	10.19	24	13.56	14	9.66	59	39.60	146	16.76	87	12.05
Medical - technical services	0	0.00	8	8.42	4	1.51	4	2.26	1	0.69	1	0.67	18	2.07	17	2.35
Record keeping	0	0.00	1	1.05	6	2.26	5	2.82	1	0.69	5	3.36	18	2.07	13	1.80
Transactions	0	0.00	0	0.00	0	0.00	1	0.56	0	0.00	0	0.00	1	0.11	1	0.14
DOMESTIC ITEMS	14	35.00	26	27.37	97	36.60	82	46.33	51	35.17	43	28.86	313	35.94	270	37.40
Cleaning & maintenance	0	0.00	2	2.10	0	0.00	0	0.00	0	0.00	0	0.00	2	0.23	2	0.28
Furnishings	1	2.50	1	1.05	7	2.64	0	0.00	8	5.52	4	2.68	21	2.42	17	2.35
Housewares & appliances -culinary	3	7.50	0	0.00	4	1.51	1	0.56	1	0.69	0	0.00	9	1.03	9	1.25
Housewares & appliances -gustatory	2	5.00	12	12.63	16	6.04	16	9.04	12	8.28	22	14.76	80	9.18	58	8.03
Food	8	20.00	11	11.58	70	26.42	65	36.72	30	20.69	15	10.07	199	22.85	184	25.48
Portable waste disposal & sanitation	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	1.34	2	0.23	0	0.00
PERSONAL ITEMS	4	10.00	9	9.47	20	7.55	18	10.17	9	6.21	8	5.37	68	7.81	60	8.31

Table 5. Concluded.

FUNCTION	Level 1 (15-30 cm bs)		Level 2 (30-40 cm bs)		Level 3 (40-50 cm bs)		Level 4 (50-60 cm bs)		Level 5 (60-70 cm bs)		Level 6 (70+ cm)		ROW TOTAL		Row Total - Mtls. above Lev. 6	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Adornment	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.67	1	0.11	0	0.00
Body ritual & grooming	0	0.00	1	1.05	0	0.00	0	0.00	0	0.00	0	0.00	1	0.11	1	0.14
Clothing and Shoes	1	2.50	1	1.05	3	1.13	7	3.95	0	0.00	2	1.34	14	1.61	12	1.66
Indulgences - alcoholic beverages	3	7.50	7	7.37	11	4.15	8	4.52	9	6.21	5	3.36	43	4.93	38	5.26
Indulgences - tobacco	0	0.00	0	0.00	4	1.51	2	1.13	0	0.00	0	0.00	6	0.69	6	0.83
Medical & health	0	0.00	0	0.00	1	0.38	0	0.00	0	0.00	0	0.00	1	0.11	1	0.14
Pastimes & recreation	0	0.00	0	0.00	1	0.38	1	0.56	0	0.00	0	0.00	2	0.23	2	0.28
COLUMN TOTAL	40	100.00	95	99.99	265	100.01	177	99.99	145	100.01	149	100.00	871	99.99	722	100.00

occurred in such small numbers that such activities may be considered negligible at this location.

Examination of functional variation between strata was undertaken in the same manner as with T.U. 2. When reviewing the contents of this test unit, "Architecture" is found to incorporate the overwhelming majority (74.59%) of artifacts. There appears to be no significant variation in this class of materials from one level to another. Construction materials and hardware are preponderant with very minor frequencies of objects associated with fixed heating and plumbing. With one exception, relative frequencies of objects representing each function remain approximately the same from one stratum to the next. The exception is S.U. 3 which has a high relative frequency (68.09%) of objects associated with construction materials; i.e., about twice that for the unit as a whole (34.76%).

Objects associated with "Domestic Items" were a distant second in importance (15.45%) in the deposits at T.U. 3. In general, no strong positive relationships between this general functional class and any of the strata are present. The bulk of the domestic items from T.U. 3, however, are food-related. One would normally expect strata with high positive relationships would be suggestive of locations where food was commonly eaten (gustatory items) and prepared (culinary items). In fact, there does seem to be some activity of this sort in S.U. 3 (largely bone) where the relative frequency of food-related objects (27.66%) is more than three times higher than for the unit as a whole (8.94%). In addition, while virtually no culinary objects (n = 1) are from T.U. 3, 22 gustatory objects were noted. The highest number of gustatory objects are derived from S.U. 5 which had a relative frequency (12.12%) almost three times as high as that for the test unit as a whole (4.47%).

Artifacts associated with "Commerce and Industry" are the third most common in T.U. 3 (n = 43, 8.74%). In contrast to the fairly stable relative frequencies demonstrated by architectural objects from one stratum to another, Commerce and Industry artifacts are extremely scarce except for S.U. 1. This strong showing is predominantly a factor of the large numbers of artifacts associated with "Medical - technical services." Upon close examination, however, this strong showing proves to be illusory as the 26 specimens may actually be fragments from a single rubber hose.

"Personal Items" are the least common objects from T.U. 3. The low overall relative frequency for these artifacts (1.37%, n = 6) suggests that personal activities had virtually no importance in this portion of the first Lamar Bathhouse.

Two functional categories, "Commerce & Industry - Transactions" and "Transportation," not seen in other controlled excavations are represented by a single object each.

Table 6. Distribution of artifacts in T.U. 3 by stratigraphic unit and function.

FUNCTION	S.U. 1		S.U. 2		S.U. 3		S.U. 4		S.U. 5		ROW TOTAL	% COLUMN TOTALS
	#	%	#	%	#	%	#	%	#	%		
ARCHITECTURE	**54**	**60.00**	**95**	**85.59**	**34**	**72.34**	**161**	**76.30**	**23**	**69.70**	**367**	**74.59**
Construction - materials	24	26.67	61	54.95	32	68.09	45	21.33	9	27.27	171	34.76
Construction - hardware	25	27.78	20	18.02	0	0.00	102	48.34	14	42.42	161	32.77
Fixed heating	1	1.11	12	10.81	1	2.13	12	5.69	0	0.00	26	5.28
Plumbing	4	4.44	2	1.80	1	2.13	2	0.95	0	0.00	9	1.83
COMMERCE & INDUSTRY	**31**	**34.44**	**3**	**2.70**	**0**	**0.00**	**5**	**2.37**	**4**	**12.12**	**43**	**8.74**
Commercial services - repair & maintenance	0	0.00	3	2.70	0	0.00	3	1.42	1	3.03	7	1.42
Commercial services - medical/pharmaceutical	4	4.44	0	0.00	0	0.00	2	0.95	0	0.00	6	1.22
Medical - technical services	26	28.89	0	0.00	0	0.00	0	0.00	0	0.00	26	5.28
Record keeping	1	1.11	0	0.00	0	0.00	0	0.00	3	9.09	4	0.81
DOMESTIC ITEMS	**4**	**4.44**	**12**	**10.81**	**13**	**27.66**	**41**	**19.43**	**6**	**18.18**	**76**	**15.45**
Furnishings	1	1.11	0	0.00	0	0.00	8	3.79	0	0.00	9	1.83
Housewares & appliances -culinary	0	0.00	1	0.90	0	0.00	0	0.00	0	0.00	1	0.20
Housewares & appliances -gustatory	3	3.33	4	3.60	0	0.00	11	5.21	4	12.12	22	4.47
Food	0	0.00	7	6.31	13	27.66	22	10.43	2	6.06	44	8.94
PERSONAL ITEMS	**1**	**1.11**	**1**	**0.90**	**0**	**0.00**	**4**	**1.90**	**0**	**0.00**	**6**	**1.22**
Adornment	0	0.00	0	0.00	0	0.00	1	0.47	0	0.00	1	0.20
Clothing and Shoes	0	0.00	1	0.90	0	0.00	3	1.42	0	0.00	4	0.81
Indulgences - alcoholic beverages	1	1.11	0	0.00	0	0.00	0	0.00	0	0.00	1	0.20
TOTAL # OBJECTS	**90**	**99.99**	**111**	**100.00**	**47**	**100.01**	**211**	**100.00**	**33**	**100.00**	**492**	**100.01**
Total Unid. Function Objects	41		56		3		125		4		229	
Approx. vol. (m^3)	0.76		.05		.08		.48		.01		1.38	
Artifact density/m^3	**172.37**		**3340.00**		**625**		**700**		**3700**		**522.46**	

Note: Two items were not included in this table: a) a coin, normally assigned to Commerce & Industry - Transactions, that was recovered from the S.U.4/5 interface; b) a harness buckle which would be assigned to horse-powered Transportation was derived from S.U. 4.

T.U. 4

T.U. 4 was situated on the north side of the brick and stone foundations (Features 2 and 3) and was contiguous to the north margin of T.U. 2. Despite its proximity to the latter test unit, far fewer artifacts were recovered (n = 832) from T.U. 4. With approximately 2 m^3 of fill removed from this unit, the rate of recovery (416/m^3) still remains higher in the author's experience than for most other historic sites at which he has worked. Artifact deposition was fairly constant in this location with slightly higher frequencies of artifacts deposited in the upper three 10 cm levels.

Somewhat less than half of the objects (n = 318) recovered in this unit could be identified as to specific function (Table 7). As was the case with the other test units, artifacts associated with "Architecture" compose the single largest functional category (n = 182, 57.23%). An interesting trend was noted within this functional category as artifacts associated with architecture tend to increase in relative frequency from the upper excavated levels to the base of the unit. While construction materials reflect this in a small way, the overall increase is primarily due to the large numbers of construction hardware items.

"Domestic Items" are second in importance incorporating only about a fifth of the artifacts from T.U. 4 whose function could be identified (n = 66, 20.44%). Domestic activity artifacts show an inverse trend when compared to architecture-related objects; i.e., there tends to be lower relative frequencies with depth. Here, the trend is associated with food and its consumption. The highest relative frequencies of food-related objects (primarily bone) occur in Levels 3 and 5 while the highest rate of gustatory objects (primarily ceramics and glassware) occurs in Level 1.

"Commerce and Industry" artifacts are only somewhat fewer in number (n = 54, 17.14%) than those associated with domestic activities. None of the levels has a noticeably higher relative frequency of artifacts associated with this functional class. Within the class, however, higher than expected rates of recovery were noted for artifacts associated with medical-pharmaceutical services. A somewhat greater positive association is demonstrated in Level 3 (30-40 cm bs) than for other levels with a relative frequency of 15.87%. This is almost twice as high as for the test unit as a whole.

In short, deposits in T.U. 4 appear to reflect changes in function through time. This is unlike T.U. 2 whose deposits reflected a rather uniform range of functions from its upper deposits to its basal deposits.

Artifacts From Non-Controlled Excavations

Although the overwhelming majority of artifacts were recovered from controlled excavations, 73 objects are derived from the surface of unexcavated fill in the basement's southeast corner, construction holes around basement columns, and backdirt associated with those construction excavations. A review of provenience data indicate that virtually

Table 7. Distribution of artifacts in T.U. 4 by excavation level and function.

FUNCTION	Level 1 (0-20 cm bs)		Level 2 (20-30 cm bs)		Level 3 (30-40 cm bs)		Level 4 (40-50 cm bs)		Level 5 (50-60 cm bs)		Lev. 6 (60-70 cm bs)		Lev. 7 (70-80 cm bs)		Lev. 8 (80+ cm bs)		ROW TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
ARCHITECTURE	**19**	**39.58**	**21**	**44.68**	**26**	**39.40**	**17**	**65.38**	**13**	**56.52**	**32**	**71.11**	**25**	**75.76**	**29**	**96.67**	**182**	**57.23**
Construction - materials	2	4.17	0	0.00	0	0.00	0	0.00	3	13.04	1	2.22	2	6.06	3	10.00	11	3.46
Construction - hardware	16	33.33	20	42.55	26	39.40	17	65.38	10	43.48	30	66.67	23	69.70	26	86.67	168	52.83
Fixed heating	0	0.00	1	2.13	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.31
Fixed illumination & power	1	2.08	0	0.00	0	0.00	0	0.00	0	0.00	1	2.22	0	0.00	0	0.00	2	0.63
COMMERCE & INDUSTRY	**8**	**16.67**	**11**	**23.40**	**18**	**27.27**	**5**	**19.23**	**3**	**13.04**	**9**	**20.00**	**4**	**12.12**	**0**	**0.00**	**58**	**18.24**
Grooming	1	2.08	3	6.38	4	6.06	3	11.45	2	8.70	1	2.22	1	3.03	0	0.00	15	4.72
Repair & maintenance services	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	4.44	0	0.00	0	0.00	2	0.63
Medical - pharmaceutical services	4	8.33	5	10.64	11	16.67	2	7.69	1	4.35	3	6.67	2	6.06	0	0.00	28	8.81
Medical - technical services	1	2.08	1	2.13	2	3.03	0	0.00	0	0.00	2	4.44	1	3.03	0	0.00	7	2.20
Record keeping	2	4.17	2	4.25	1	1.52	0	0.00	0	0.00	1	2.22	0	0.00	0	0.00	6	1.89
DOMESTIC ITEMS	**20**	**41.67**	**12**	**25.53**	**14**	**21.21**	**4**	**15.38**	**6**	**26.09**	**4**	**8.89**	**4**	**12.12**	**1**	**3.33**	**65**	**20.44**
Furnishings	1	2.08	0	0.00	0	0.00	0	0.00	2	8.70	1	2.22	0	0.00	0	0.00	4	1.26
Housewares & appliances -culinary	0	0.00	4	8.51	0	0.00	0	0.00	0	0.00	0	0.00	1	3.03	0	0.00	5	1.57
Housewares & appliances -gustatory	16	33.33	5	10.64	3	4.55	3	11.54	1	4.35	2	4.44	2	06.06	0	0.00	32	10.06
Food	3	6.25	3	06.38	11	16.67	1	3.85	3	13.04	1	2.22	1	3.03	0	0.00	23	7.23
Portable waste disposal & sanitation	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	3.33	1	0.31
PERSONAL ITEMS	**1**	**2.08**	**3**	**6.38**	**8**	**12.12**	**0**	**0.00**	**1**	**4.35**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**13**	**4.09**

Table 7. Concluded.

FUNCTION	Level 1 (0-20 cm bs)		Level 2 (20-30 cm bs)		Level 3 (30-40 cm bs)		Level 4 (40-50 cm bs)		Level 5 (50-60 cm bs)		Lev. 6 (60-70 cm bs)		Lev. 7 (70-80 cm bs)		Lev. 8 (80+ cm bs)		ROW TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Clothing and Shoes	0	0.00	0	0.00	3	4.55	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	0.94
Indulgences - alcoholic beverages	1	2.08	3	6.38	5	7.58	0	0.00	1	4.35	0	0.00	0	0.00	0	0.00	10	3.14
COLUMN TOTAL	**48**	**99.99**	**47**	**99.99**	**66**	**100.02**	**26**	**99.99**	**23**	**100.00**	**45**	**99.99**	**33**	**100.00**	**30**	**100.00**	**318**	**100.00**
Unknown Function	**79**		**141**		**99**		**54**		**55**		**36**		**32**		**18**		**514**	

all locations opened in the floor produced artifacts. Only openings around Columns #2 and #4 failed to produce an artifact. Artifacts were also recovered from the surface of the unexcavated fill in the southeast corner of the basement and between that fill and the Lamar's concrete foundation. Artifact collection was non-random and focused on objects with manufacturer marks, embossed labels, and markings which had technological/ chronological implications.

Eight objects are associated with "Architecture." Building hardware includes a cut nail fragment (Cat. 14343), a T-hinge (Cat. 14391), and a tie-rod (Cat. 14389). A brick fragment (building materials) collected by the archeological crew and three bricks collected by the park's curatorial staff bore makers marks "EVENS & HOWARD/ACME DP," "MAPCO" within an impressed lozenge-shaped cartouche, and "LACLEDE/ST LOUIS" within an impressed rectangular cartouche (n = 1 complete, 1 fragment Cat. 14473). A broken pair of pliers (Cat. 14387)is associated with building maintenance.

Thirty artifacts associated with "Commerce and Industry" represent grooming services (n = 6), medical/pharmaceutical services (n = 13), medical/technical services (n = 2), commercial repair and maintenance (n = 1), and photography (n = 8). Objects associated with grooming include a shoe polish can (Cat. 14429), hair dye bottle (Cat. 14055), hair dressing bottle (Cat. 14112), and two cream or salve jar fragments (Cat. 14214, 14215). The contents and manufacturer of two of these products can be identified by their embossed labels. The hair dye bottle bears the molded label "C.DAMSCHINSKY/LIQUID HAIR DYE/NEW YORK." Richard Fike (1987:122-123) notes the Carl Damschinsky company advertised the product in 1890 and was in operation through 1948. Damschinsky's hair dye was offered by Montgomery Ward & Co. in its 1922 catalog ((Don Fadely n.d.a; Montgomery Ward & Co. 1969b:391). There, it is described as "Non-injurious liquid Hair Dye, blonde, brown and black" and was sold as a 2 oz bottle for $ .52. Fadely (n.d.a) indicates it was also sold in a 10 oz bottle.

A hair dressing bottle is embossed "PAUL WESTPHAL, AUXILIATOR FOR THE HAIR." Fike (1987:126) notes this company advertised its product from 1875 through 1948 and was based in New York. Fadely (n.d.b) notes that a label was registered for the product as "Auxiliator" in 1883 and the brand name was registered as a trademark in 1903. At that time, it was claimed to have been sold by that name since 1882.

Medical/pharmaceutical services are represented by 13 complete specimens or elements of bottled medications. Most bottles were generic and probably had paper labels at one time. Four products, however, could be identified from their embossed labels. Five bottle fragments (Cat. 14108, two of 14188, 14190) were marked "IOSALINE CO/N.Y." on their bases. Iosaline may have been an iodized salt used for goiter treatment although no information has been forthcoming on this product. One of the more interesting products was contained in a bottle (Cat. 14102) marked "PISO CO., WARREN, PA. U.S.A.// //TRADE PISO'S MARK." This identifies the bottle as the container for "Piso's Cure For Consumption" which, according to Andrew Garret (2001-2003), has "the distinction

of being the only brand name cannabis medicine." Fike (1987:104) describes this product as introduced in 1864 by Hazeltine and Co. of Warren, Pennsylvania. In 1906, the product name was changed to "Piso's Cure" and was recommended as a medication for coughs and colds. Another bottle (Cat. 14112) contained "Dr. Hayden's Viburnum Compound," a remedy for "women's ailments" marketed by the New York Pharmaceutical Co. of Bedford, Massachusetts. Moore (1995) recommends this particularly for cramps and provides a recipe for the compound. A third product is "Mentholatum" and this is packaged in a milk glass jar (Cat. 14215). This product, an aromatic salve used for treatment of colds and congestion, was first manufactured in Wichita, Kansas, by the Yucca Co. in 1889. The company incorporated under the name Mentholatum Company in 1906 and the offices were moved to Buffalo, New York, shortly afterward (Fike 1987:83).

Items associated with medical-technical services include a possible glass electrode (Cat. 14251) and large dry cell battery (Cat. 14430) which may have been used with electrical stimulation therapies. Building repair and maintenance is indicated by the recovery of a broken and repaired hammer handle (Cat. 14306). Photography, perhaps the documentation of therapies or the photographic portraiture of guests, is suggested in the recovery of 8 tinned 35 mm film canisters (Cat. 14396).

Four "Domestic" items were recovered. These were associated with cleaning and maintenance (handle, Cat. 14306), furnishings (coat hook, Cat. 14347), food consumption (condiment bottle, Cat. 14107/14197), and home information (clock works, Cat. 14349). The only product which could be identified was the condiment produced by Durkee and Co. The sauce was formulated in 1875 and continues to be sold to this day (Zumwalt 1980:129).

The only "Group Services" items were recovered from the surface of unexcavated fill in the southeast corner of the basement. These consist of a number of fragments of newspapers (Cat. 14278), too small to determine their content or age.

Eleven objects are "Personal Items." All but one of these are associated with indulgences (alcoholic beverage bottles), the remaining object being associated with clothing (shell button, Cat. 14292). Alcoholic beverages represented are beer, wine, and whiskey. The only product that could be identified was "Budweiser" beer. This was indicated embossed "A.B.G.M.CO." on a bottle base (Cat. 14111), the letters standing for Adolphus Busch Glass Manufacturing Co. Consumption of whiskey took place during the operation of the present Lamar Bathhouse as well as indicated by a bottle (Cat. 14115) embossed with "FEDERAL LAW FORBIDS SALE/>>>>>HALF PINT>>>>>/OR REUSE OF THIS BOTTLE/>>>>>HALF PINT>>>>>." Lindsey (2006d) indicates use of the phrase "*Federal Law Forbids Sale or Reuse Of This Bottle*" dates a container to ca. 1934-1964.

One of the rare objects associated with "Transportation" was found in a hole next to the south staircase. This was a horseshoe (Cat. 14388) and may actually be a good luck item hung over a doorway rather than associated with horse transport.

Fourteen objects could not be assigned a function. These include fragments of bottles (n = 9), a piece of ferrous wire, and 3 cast iron fragments.

Chronological Implications

Artifact chronology is of some interest to this study since it can provide a better understanding of events and their sequences. The artifacts examined to determine when deposits were created include brick manufacturer's marks, wire and cut nails, coins, ceramic decorative techniques and makers marks, as well as curved glass mold and manufacturer's marks and product labels. Each of the excavation units (excluding T.U. 1 which had disturbed deposits) will be examined in turn.

T.U. 2

Mended items from the upper and lower levels of this test unit indicate a single or rapidly occurring deposition event rather than an accrual of cultural material over a long time period. Mended items from T.U. 2 are:

Pond's cold cream jar fragments from Level 1 (Cat. 14200, 15-30 cm bs) and below Level 5 (Cat. 14216, 70+ cm bs).

Milk glass lid fragments from Level 4 (Cat. 14199, 50-60 cm bs) and below Level 5 (Cat. 14205, 70+ cm bs).

Nyal's Compound Larkspur Lotion bottle fragments from Level 3 (Cat. 14134, 40-50 cm bs) and Level 5 (Cat. 14141, 60-70 cm bs).

Given this deposition represents a single event, the *terminus post quem* ("the date after which") for that unit will be indicated by the group of objects having the most recent introduction point. The approximate "life span" of all datable objects from T.U. 2 is presented in (Table 8). [1]

[1] Dates for all artifacts but nails are based on manufacturing records. The dates for nails were by-products of applying information derived from William Adam's study of machine cut and wire nails (Adams 2002). According to Adams (2002:70), the relative proportion of wire to cut nails is an important temporal marker during the late 19th century. He notes that structures built before 1883 were constructed using machine cut nails or earlier types. After 1897, on the other hand, buildings were almost entirely constructed using wire nails. Referring to charts and tables for machine cut nail production in the United States (Adams 2002:72), one sees the manufacture of cut nails declining precipitously from 1880, when the government reported no wire nails manufactured, through 1898 at which time 85% of all nails produced were wire.

At T.U. 2, 166 nails were recovered from all levels. Unfortunately, 145 of these were corroded to the extent that one could not determine whether individual specimens were of wire or cut varieties. Of the remaining, 4 were cut and 17 were wire. Assuming these frequencies reflect the true ratio of cut (19%) to wire nails (81%) and using the percentage ranges provided by Adams (2002:85), one may estimate that this unit, as a whole, was created between 1890 and 1915. These dates must be used with great caution for a number

of reasons. First, the sample size is very small. Second, Adams indicated that actual construction periods are often one to two decades later than suggested by the nails due to factors of craftsman conservatism, building repairs with newer types of nails, and product shelf life (Adams 2002:72-74). This investigator would add one more caution and that is there may be a differential preservation of iron cut nails versus steel wire nails, especially within the highly corrosive soil and water environments at Hot Springs.

In T.U. 3, nails were recovered from S.U.s 1, 2, 4 and 5. When corroded nail fragments and brads are excluded from consideration, one finds the nail recovery was 12 nails (11 cut, 1 wire) from S.U. 1, no identifiable nails from S.U. 2, 26 nails (19 cut, 7 wire) from S.U. 4, and 7 nails (6 cut nails, 1 wire) from S.U. 5. Percentages of machine cut nails for each stratum are 91.7% for S.U. 1, 73.1% for S.U. 4, and 100% for S.U. 5 (wire brads were excluded from consideration as these may have been in U.S. production prior to the Civil War). When these frequencies are compared with those presented by Adams (2002: Table 6), dates of pre-1890, 1880-1899, and pre-1889 are indicated. In other words, the data suggests that nails may have been acquired for use sometime prior to 1890.

In T.U. 4, 165 nails were recovered. When corroded nail fragments and brads are excluded from consideration, these sample from T.U 4 includes 50 cut and 3 wire nails. In other words, 94.34% of the identifiable nails from T.U. 4 are cut nails. Using the table provided by Adams (2002: Table 6), this percentage correlates with a date of pre-1889.

When all the T.U. 2 datable objects are reviewed, the artifact with the most recent introduction date is the manufacturer's mark on the base of a perfume bottle (Cat. 14097). Toulouse (1971:393) identifies the manufacturer as the Owens Bottle Co. with the mark (O within a square) in use from 1911 through 1929. The *terminus post quem*, therefore, must be 1911. The *terminus ante quem*, or the date before which an artifact or feature must have been deposited must be 1922 when the first Lamar Bathhouse was destroyed and the resulting debris capped by the second Lamar's concrete floor.

T.U. 3

Unlike T.U. 2, deposition in T.U. 3 appears to be sequential rather than a single event. This is supported by visually obvious and differentiated stratigraphy and by the lack of artifacts whose mendable components are derived from more than one stratum. Also unlike T.U. 2, T.U. 3 contained very few artifacts which have datable elements (Table 9).

Dates suggested by cut vs wire nail frequencies are is supported to some extent by other artifacts which have datable markings and elements. A heavily corroded shield nickel (Cat. 14598) recovered from the interface between S.U.s 4 and 5 is marked with a date of 1887. This indicates the *terminus post quem* for deposition of S.U. 4 is 1887. A bottle base (Cat. 14192) recovered from S.U. 4 bears a capital N within a circle and refines the date this stratum was produced. This is the mark of the Obnear-Nester Glass Co. of East St. Louis, Illinois. That company was in operation from 1895-1915 (Toulouse 1971:373-374) and therefore suggests the stratum must have been created after 1895. A stoneware ink bottle (Cat. 14496) from S.U. 1 bears a Bristol slip. As previously noted, Bristol glaze was introduced into the United States in the 1880s and became popular around 1900 and continued to be used well into the 20th century. Finally, a ceramic sherd (Cat. 14551) from S.U. 1 bears a floral decalcomania decoration. It was noted earlier in this report that decal

Table 8. Chronological information derived from T.U. 2 artifacts.

ARTIFACT CATEGORY		DISTINGUISHING CHARACTERISTIC	INFERRED DATE	SOURCE
FERROUS METAL		Cut nails	ca. 1890- 1915	Adams 2002
BRICK		"LACLEDE KING" and LACLEDE variants	1904-1942	Gurcke 1987:258
		"MISSOURI"	1921-1942	Gurcke 1987:256
COIN		Liberty Head "V" nickel	1905	
PRODUCT BRAND NAMES		C & Co [monogram]	1877-1935	Fike 1987:54
		Pompeian Massage Cream	late 19th c. - 1927	Calvert 2005
		Talcolette	late 19th c. to early 20th c.	Allen 1977
		Walnutta	circa 1890 - 1948	Fike 1987:185; *The Haute Magazine* 1904
		Nyal's Compound Larkspur Lotion	ca 1906-1950	Fike 1987:161; Lloyd and Lloyd 1931
		Dioxogen	circa 1900-1948	Fike 1987:160; Oakland Chemical Company 1907
		Van Vleet/Mansfield	1882-1929	Digger Odell Publications 2001
		Dr. Drake's German Croup Remedy	1889-1962	Fike 1987:206-207; Wilson and Wilson 1971:112
		Dr. Tichenor's Antiseptic	post-1905	Dr. G.H. Tichenor Antiseptic Co. n.d.; Wikipedia n.d.b
		Musterole	1906 - 1968	Fike 1987:174; Wright 1916
		Red Raven	late 19th c.-early 20th c.	Duquesne Distributing Company n.d.
		Carter's Ink Co.	circa 1895-1970s	Carvalho 1999; Faulkner, Ed and Lucy Faulkner 2003
		Sanford Ink	post-1909 to circa 1940	Sanford Manufacturing Co. 1914:3; 1936:11
		Boyd's Genuine Porcelain Lined Cap	1871 - ca. 1950s	Clan Boyd Society International n.d.
		Horlick's Malted Milk; makers mark [base] "I. G. Co./24/E"	1873-1929	Whitten n.d.
		Pluto Water	circa 1900-1930s	Haupt 1953; Digger Odell Publications 1999
		Welch's Junior Juice	post-1907	Ohio SBDC at Youngstown State University 2001; Trucano 2001
		Busch beer (A.B.G.M.CO. [base])	ca. 1886-1928	Toulouse 1971:26
CURVED GLASS	**Manufacturing Technology**	Sun-altered violet glass	circa 1880 to circa 1916	Munsey 1970:55
		Finishing tooled finish	ca. 1885-1920s	Lindsey 2006
		Rough ABM (Owens scar)	1905 to 1920	Lindsey 2006
		Valve mark	1898 to 1940s	Lindsey 2006
	Closures	Crown cap	post-1892	Lindsey 2006
		Lightning stopper	post-1870s	Lindsey 2006

Table 8. Concluded.

ARTIFACT CATEGORY		DISTINGUISHING CHARACTERISTIC	INFERRED DATE	SOURCE
CURVED GLASS (continued)	**Maker's Marks**	Patent date	February 18, 1908	Mark on white metal salve can
		O (in square) [base:]	1911-1929	Toulouse 1971:393
		I[in diamond] [base:]	1916-1929	Toulouse 1971:264
		528 [in diamond] [base:]	1902-1930	Whitten n.d.
		[Symbol: horseshoe] [base:]	ca. 1887-1964	Whitten n.d.
		W.B.M.Co. [base]	1901-1930s	Whitten n.d.
		BB [base:]	1905-1930	Toulouse 1971:70-73
		B [body above basal edge:] B [base:]	1909-1961	Toulouse 1971:57-58
CERAMIC	**Decorative Technology**	Transfer print (brown) - later variant	1880s-1890s	Majewski 1994
		Transfer print (flow blue with luster highlights)	1890s to early 1900s	Majewski 1994; Derven 1980:125
		Decalcomania	1880-present	Majewski and O'Brien 1984:36
	Maker's Marks	O.P.CO./SYRACUSE	1885-1978	Lehner 1988:454-456; Libbey 1998-2003
		West End Pottery	1893-1938	Lehner 1980: 166; 1988:512
TIN CAN	**Container Form**	tobacco can	circa 1906-1960s	Busch 1981:99; Rock 1987:62-63, 75

decoration on ceramics was first used in 1845 although its period of greatest popularity has been from circa 1880 through present.

In summary, artifact data suggest the following strata temporal associations for T.U. 3 strata from top to bottom:

S.U. 1, post-1906.
S.U. 2, post-1914
S.U. 3, pre-1904?
S.U. 4, post-1895
S.U. 4/5 Interface, post-1888
S.U. 5, pre-1889

In other words, S.U.s 5 and the 4/5 interface are chronologically associated with the approximate time of the first Lamar Bathhouse's construction. The upper four strata clearly post-date that construction and are related to the period of bathhouse operation.

T.U. 4

T.U. 4 was located immediately north of T.U. 2 and its cultural deposits are similar in that they appear to have accumulated rapidly or as a single event rather than accrued slowly. This is suggested by two mended artifacts whose components are derived from two non-adjacent levels. Mended items from T.U. 2 are:

Pond's cold cream jar fragments from Level 3 (Cat. 14209, 30-40 cm bs) and Level 5 (Cat. 14210, 50-60 cm bs).

Round prescription bottle fragments from Level 3 (Cat. 14163, 30-40 cm bs) and Level 7 (Cat. 14179, 70-80 cm bs).

There is also a slight indication that deposits in T.U.s 2 and 4 are linked despite the fact that stone and brick walls (Features 2 and 3) separate them. Elements of a gray porcelain saucer with decalcomania and hand painted decoration were recovered form T.U. 2 Level 1 (Cat. 14521, 15-30 cm bs), T.U. 2 Level 3 (Cat. 14527, 50-50 cm bs), and T.U. 2 below Level 5 (Cat. 14547, 70+ cm bs), and T.U. 4, Level 3 (Cat. , 30-40 cm bs). One should therefore expect deposits from T.U. 2 and T.U. 4 to be of a similar time period.

The approximate "life span" of all datable objects from T.U. 4 is presented in (Table 10). When all the T.U.4 datable objects are examined, the artifact with the most recent introduction date is 1910, the introductory date for Pond's Extract Vanishing Cream, one year earlier than the *terminus post quem* date for T.U. 2. As with all other subfloor deposits, the *terminus ante quem* must be 1922 when the first Lamar Bathhouse was destroyed and the deposit capped by the second Lamar's concrete floor.

Table 9. Chronological information derived from T.U. 3 artifacts.

ARTIFACT CATEGORY		DISTINGUISHING CHARACTERISTIC	S.U.	INFERRED DATE	SOURCE
FERROUS METAL		Cut nails	1	pre-1890	Adams 2002
			4	1880-1899	
			5	pre-1889	
BRICK		Soft red, hand-made brick	2, 3, 4	pre-1904?	No St. Louis hard bricks in this collection
COIN		Shield nickel	4/5 interface	1888	
PRODUCT BRAND NAMES		Mentholatum	1	post-1906	Fike 1987:83
CURVED GLASS	**Manufacturing Technology**	Very lt. yellow (selenium) glass	2	1914-1940	Lindsey 2006e
	Maker's Marks	**[base:] N inside circle**	4	1895-1915	Toulouse 1971:373-374
CERAMICS	**Decorative Technology**	Bristol slip	1	1880s-1940	Byers 2003:18
		Decalcomania	1	1880-present	Majewski and O'Brien (1984:36

Table 10. Chronological information derived from T.U. 4 artifacts.

ARTIFACT CATEGORY		DISTINGUISHING CHARACTERISTIC	INFERRED DATE	SOURCE
FERROUS METAL		Cut nails	ca. 1890- 1915	Adams 2002
PRODUCT BRAND NAMES		Bromo-Seltzer	1891-present	Scripophilly.com n.d
		Dioxogen	circa 1900-1948	Fike 1987:160; Oakland Chemical Company 1907
		Van Vleet/Mansfield	1882-1929	Digger Odell Publications 2001
		Carter's Ink Co.	circa 1895-1970s	Carvalho 1999; Faulkner, Ed and Lucy Faulkner 2003
		Pond's Extract Vanishing Cream or Pond's Cold Cream	1910-1925	John W. Hartman Center for Sales, Advertising and Marketing History, Rare Book, Manuscript and Special Collections Library, Duke University
		En-Ar-Co	1884 to late 1970s	Fike 1987:210
		Crème De Meridor	circa 1900-1930s	On-line sales of advertisements and collector's products
CURVED GLASS	**Manu-facturing Technology and Marks**	Sun-altered violet glass	circa 1880 to circa 1916	Munsey 1970:55
		Very lt. yellow (selenium) glass	1914-1940	Lindsey 2006
		"REFILLING PROHIBITED" (sun-altered violet)	post-1906 to circa 1916	Pure Food & Drug Act of 1906; Munsey 1970:55
		Rough ABM (Owens scar)	1905 to 1920	Lindsey 2006
		Valve mark	1898 to 1940s	Lindsey 2006
	Maker's Marks	BB [base:]	1905-1930	Toulouse 1971:70-73
CERAMICS	**Decorative Technology**	Decalcomania	1880-present	Majewski and O'Brien (1984:36
	Maker's Marks	K.T. & K./ [bar] /S[line]V /[bar]/ CHINA/335	1905-1931	Lehner 1988:238-239
		West End Pottery	1893-1938	Lehner 1980: 166; 1988:512

6. ASSESSING SITE CONDITION, DISTURBANCE, THREATS, AND DETERMINATIONS OF ELIGIBILITY (DOE)

During the course of this project, six locations were investigated with various degrees of intensity. Five archeological sites were subsequently recorded. The only bathhouse site not recorded as an archeological site, the Quapaw, continues to have physical characteristics such as dirt-filled crawl spaces suggesting a high probability archeological resources may exist within the structure. To assist the park in its cultural resource management planning, each of the identified archeological resources and the potential archeological resource (Quapaw Bathhouse) have been reviewed with regard to site condition, disturbances to the resource, future threats to the resource, and whether the resource has the qualities that make it eligible for listing on the National Register of Historic Places. Each of these issues are considered in turn in this chapter.

Site Conditions

Site condition refers to the physical state of the site and is defined in terms of deterioration (National Park Service 2002b). When conducting site condition assessments, an archeologist will select from six categories ranging from "Destroyed" to "Good." The definitions of the six site condition categories are:

Good: The site, at the first condition assessment or during the time interval since its last condition assessment, shows no evidence of noticeable deterioration by natural forces and/or human activities. The site is considered currently stable and its present archeological values are not threatened. No adjustments to the currently prescribed site treatments are required in the near future to maintain the site's present condition.

Fair: The site, at the first condition assessment or during the time interval since its last condition assessment, shows evidence of deterioration by natural forces and/or human activities. If the identified impacts continue without the appropriate corrective treatment, the site will degrade to a poor condition and the site's data potential for historical or scientific research will be lowered.

Poor: The site, at the first condition assessment or during the time interval since its last condition assessment, shows evidence of severe deterioration by natural forces and/or human activities. If the identified impacts continue without the appropriate corrective treatment, the site is likely to undergo further degradation and the site's data potential for historical or scientific research will be lost.

Inundated/Uncertain: The deposits and condition of an inundated site, formerly in a terrestrial setting, are obscured and cannot be accurately assessed due to factors such as water turbidity or natural lack of clarity, wave action, growth of aquatic

vegetation, and other conditions. Application of standard methods to assess the condition of an inundated site is not possible in these circumstances.

Not Relocated/Unknown: The location where the site was last documented was visited, but the site could not be relocated. Based on best professional judgment that considers standard site types in the park, geography, topography, site documentation, and other pertinent factors, the area is deemed to most likely be the location of the site. Further testing may be required to determine the site location.

Destroyed: The site's formal condition assessment resulted in a professional determination that the site was destroyed or so severely damaged that the data potential/scientific research value was deemed insufficient to warrant further archeological monitoring or investigation. A destroyed site is excluded from Government Performance and Results Act (GPRA) and other national level reporting requirements and is recorded in ASMIS in the Local Resource Type field.

All resources at HOSP which have been identified in this study and recorded as archeological sites or components of those sites have been found to be in good condition (Table 11).

Resource Disturbance and Threats

There is a clear difference between the concepts of disturbance and threats. A disturbance is an impact on a resource caused by natural forces or human activities which has had a negative effect on the integrity or data potential/scientific research value of the site. It is an observed harmful effect. A threat, on the other hand, is a detectable condition that predicts future disturbances or harmful effect. A threat can become a disturbance (Midwest Archeological Center 2006).

Assessment of Disturbance Effects

Five levels of disturbance effect are recognized when a site's condition is evaluated (Midwest Archeological Center 2006). These are:

Destroyed: The harmful effect has destroyed the site.

Severe: The harmful effect is so great that the site is in danger of soon being totally destroyed. A limited portion of the site remains intact. For an impact to be considered severe, it must meet at least one of the following criteria: the resource(s) will be significantly damaged or irretrievably lost if action is not taken within 2 years; and/or there is an immediate and severe threat to visitor or staff safety.

Moderate: The harmful effect is significant and the site is in danger of being destroyed. For an impact to be considered moderate, it must meet at least one of

Table 11. Evaluations of recorded (identified) and potential (unverified) archeological resources in the study areas of Bathhouse Row and Stevens Balustrade/Grand Promenade.

Site	Disturbance Level	Threats	Component	Temporal Association	Status	Evidence	Condition	Integrity	Significance	DOE
Ozark Bathhouse (3GA867)	Low to Moderate	1) Park and concessionaire sponsored construction and building improvements 2) hot mineral water 3) vapor barriers	Unidentified frame(?) structure	ca. 1870-1878	Un-verified	GIS mapping	Unknown	Unknown	Unknown	Un-known
			Weir and George's Iron and Magnesia Bathhouse	ca. 1870-1878	Identified	Stone foundation	Good	Exceptional	High	Eligible
			(First) Ozark Bathhouse	1880-1922	Identified	Tile floor, artifacts	Good	Substantial to Well Preserved	Exceptional	Eligible
Corn Hole Spring (3GA868)	Low	None	Corn Hole (foot bath) spring	1860s-1882	Identified	Artifacts	Good	Moderate to Substantial	High	Eligible
Lamar Bathhouse (3GA869)	Low	1) Park and concessionaire sponsored construction and building improvements 2) hot mineral water 3) vapor barriers	Unidentified frame(?) structure	ca. 1870-1878	Un-verified	GIS mapping	Unknown	Unknown	Unknown	Un-known
			Hot Springs Hotel	ca. 1870-1878	Identified	Stone foun-dation?	Good	Moderate to Substantial	High	Eligible
			(First) Lamar Bathhouse	1888-1922	Identified	Brick foundation, artifacts	Good	Exceptional	Exceptional	Eligible
Hale Bathhouse (3GA904)	Not Applicable	1) Park and concessionaire sponsored construction and building improvements 2) hot mineral water 3) vapor barriers	Unidentified frame structures	1870s	Un-verified	GIS mapping	Unknown	Unknown	Unknown	Un-known
			Second (Old) Hale Bathhouse	pre-1882-1892	Identfied	Stone founda-tions	Good	Substantial to Well Preserved	High	Eligible
Maurice Bathhouse (3GA905)	Not Applicable	1) Park and concessionaire sponsored construction and building improvements 2) hot mineral water 3) vapor barriers	Unidentified frame structures	1870s	Un-verified	GIS mapping	Unknown	Unknown	Unknown	Un-known
			Independent Bathhouse	1880-1912	Un-verified	GIS mapping	Good	Unknown	Unknown	Un-known
			Maurice Bathhouse	1912-present	Identified	Founda-tions, artifacts	Good	Moderate to Substantial	High	Eligible

Table 11. Concluded.

Site	Disturbance Level	Threats	Component	Temporal Association	Status	Evidence	Condition	Integrity	Significance	DOE
Quapaw Bathhouse (NA)	Not Applicable	1) Park and concessionaire sponsored construction and building improvements 2) hot mineral water 3) vapor barriers	Horseshoe Bathhouse	ca. 1887-1922	Un-verfied	GIS mapping	Unknown	Unknown	Unknown	Un-known
			Magnesia Bathhouse	ca. 1887-1922	Un-verfied	GIS mapping	Unknown	Unknown	Unknown	Un-known

the following criteria: the resource(s) will be significantly damaged or irretrievably lost if action is not taken within 5 years; and/or the situation caused by the impact is potentially threatening to visitor or staff safety.

Low: The harmful effect is minimal and the site is in the early stages of being destroyed. For an impact to be considered low, it must meet at least one of the following criteria: the continuing effect of the impact is known, and will not result in significant damage to the resource(s); and/or the impact and its effects are not a direct threat to visitor or staff safety.

One of the five sites recorded during this investigation, the Corn Hole site (3GA868), is in an open hillside setting but is surrounded by 19th and 20th century structures (the Stevens Balustrade, the Grand Promenade, and a display spring north of the Balustrade). This site was certainly disturbed in the past when the Balustrade was constructed. More recently, archeological and geological resources associated with the Corn Hole spring may have been affected when the decorative walls were constructed and then removed in 2003 and 2004. Park management has acknowledged this area may be particularly prone to slumping due to the high and extremely steep slope. This threat may be particularly high during rainy periods and consequent soil saturation (Hot Springs National Park 2003b). The disturbance effect level for the Corn Hole site has been determined to be low. Potential future threats to this resource would seem to be primarily from poorly planned maintenance or slumping of the steep ground slopes above and south of the display spring if and when maintenance or other construction occurs here.

The remaining four archeological sites identified and recorded during this study occur wholly within the confines of structures. As has been noted earlier in this report, some archeological elements are fully exposed, some are enclosed below the concrete floors, and others undoubtedly exist but have not been identified in areas of the buildings which have not been archeologically explored. Disturbance to these resources occurred during the stabilization contract and may be on-going as further construction takes place to ready the buildings for re-use and potential concessions. The 2003-2004 stabilization work in bathhouse basements was positive from an archeological perspective, however, as they allowed for identification and clarification of the nature of those resources. The disturbance effect level for the Hale, Maurice and Quapaw Bathhouse sites is determined to be “not applicable” as no known archeological resources have been impacted by human or natural actions to date. The effect levels for the Ozark Bathhouse site’s subfloor components, unexcavated fills, and stone foundations associated with the 1870s Weir and George Bathhouse are judged to be “low.” The effect level for the Ozark Bathhouse site’s “fossil” tile floor (associated with the first Ozark Bathhouse) is judged to be “moderate” since it appears to have been damaged during the 1990 flood as waterlogged fill in the enclosed room slumped and portions of the floor collapsed. The disturbance effect level for the Lamar is judged to be low, a factor of minor subfloor excavations during stabilization.

Assessment of Threats

Threats to these resources are from both natural forces and human activity. Perhaps the greatest on-going natural threat to archeological resources, particularly artifacts, is from the acidic mineralized waters of the hot springs. These waters threaten both subfloor archeological resources and similar, more exposed, resources confined between foundations. The combination of heat and acidic water takes a heavy toll on metals, ferrous metals in particular, increasing oxidation. It also stains objects made from other materials such as ceramics and glass. It may even cause a type of severe weathering of stone transforming a hard, relatively non-porous stone over a long period of time into a chalky, porous, crumbly or granular stone. This can be particularly true for such materials as mortars, plaster, cements, limestone, alabaster, and marble. Acidic water will also directly effect a highly polished surface through etching (Podany n.d.).

Drain systems installed in bathhouse basements in 2004 will ameliorate, to some extent, the effects of hot mineralized waters above concrete floors. There is no mitigation of its affects on subfloor artifacts, however. One might consider routing water around the buildings except for the fact that most of the hot springs generating the waters originate within the confines of the foundations. The only way to prevent additional negative effects is to remove the artifacts from the water-logged fill via excavation and following this with proper conservation treatment, an unlikely scenario given the cost of such a venture.

While natural forces have considerable long term effects, major and more immediate threats to the archeological resources at HOSP are via human actions. At the moment, the only access to Bathhouse Row archeological resources, either in unexcavated and unenclosed basement fills or below basement floors, is by park staff and contractors to the park. The public has no access to these areas. Without proper planning, these resources may be threatened by on-going construction and future improvements to make them suitable for new uses and lessees/occupants. Future excavations below bathhouse basement floors or in unexcavated basement fills, however, have the potential to have negative affects, particularly if they are not preceded by archeological investigations or, at a minimum, monitored by an archeologist as the excavations take place. Open air sites, however, make up the majority of known archeological resources at HOSP and many of these are in locations rarely visited by park staff. These sites may be endangered by illicit artifact collection, digging, and other forms of vandalism.

A potential threat to archeological features and artifacts in basement earthen fills and deposits beyond the periphery of concrete floors may be brought about by vapor barriers installed in 2004. These barriers were put in place to prevent movement of moisture from the ground through the foundations, floors, and walls of the bathhouses. Again, this is likely a very positive action for building preservation but it may have negative effects on strata, features, and artifacts incorporated in the unexcavated basement fills. At the Lamar Bathhouse, for instance, fill excavated from T.U. 3 was found to be very warm and relatively dry. This will certainly change as the vapor barriers increase the fill's relative moisture level over time. It

could affect artifacts by increasing their deterioration as they move from a relatively dry to a wet environment. It is also conceivable that, as the fill's water content increases, exposed faces such as those seen in the Lamar may be subject to slumping.

Once new uses for the bathhouses are identified and lessee employees have access to the basements, it is conceivable that illicit excavation could occur or exposed artifacts (particularly whole bottles) would be collected and removed from the site.

Determination of Eligibility

The buildings on Bathhouse Row, the Grand Promenade, Stevens Balustrade and other associated walkways, fountains, and stairways have been listed on the National Register of Historic Places (NRHP) since 1974 as a district and became a National Historic Landmark (NHL) in 1987 (National Park Service 2006a, b). Among the critical components for a Determination of Eligibility (DOE) assessment for listing a resource on the NRHP are: a) delineation of the age of deposits/remains; b) determination of site integrity; and c) determination of site significance. HOSP properties currently listed as part of the NRHP district and as components of the NHL were evaluated for eligibility from the perspective of two of the four criterion used by the NRHP (National Park Service 2006c):

> Criterion A - associated with events that have made a significant contribution to the broad patterns of our history; and
>
> Criterion C - embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction and the historical significance of the place.

No previous evaluations have been made which consider eligibility of properties on the basis of Criteria B (associated with the lives of persons significant in our past) or D (have yielded or may be likely to yield, information important in prehistory or history). Archeological sites are most commonly evaluated from the perspective of Criterion D but until now the significance of Bathhouse Row's archeological resources has been difficult if not impossible to determine due to a general lack of information about those resources. With five sites defined as by-products of the archeological investigations described in this report, this is no longer the case. Date ranges for sites and their components are presented in Table 11. Clearly, all these resources meet the DOE age requirement of being 50 years old or more.

The second critical factor which must be considered in any DOE is an assessment of physical integrity. The NPS' Cultural Resource Management Guideline clarifies that

> *Integrity is not the same as condition. The condition of a resource is defined in terms of deterioration; integrity is defined in terms of correspondence with associations*

> *in the past. Condition is a matter of rot and rust; integrity is a matter of age and authenticity. All physical things have a condition; they do not all have historical integrity* (National Park Service 2002b).

Determination of integrity at an archeological site usually requires both surface and subsurface site documentation and assessments of integrity utilize terminology which recognizes degrees of depositional integrity ranging from "Exceptional" to "Unevaluated". These degrees of integrity are defined as:

> Exceptional: Virtually all archeological deposits are completely intact and retain all of their original archeological integrity. Preservation is exceptional and all indications are that the archeological deposits are entirely in situ and unaltered.
>
> Well preserved: The archeological deposits have suffered some minor degradation due to natural forces and/or human activities, but this has not appreciably reduced the overall integrity of the extant archeological deposits. The existing archeological deposits are mostly intact and complete.
>
> Substantial: The archeological deposits have clearly suffered as a result of natural forces and/or human activities, but only a minor portion of their original archeological value has been significantly compromised. Despite the loss, the majority of the archeological deposits remain relatively intact and complete.
>
> Moderate: The archeological deposits have clearly suffered as a result of natural forces and/or human activities and a majority has been compromised. Despite the loss, a sizable portion of the remaining archeological deposits are relatively intact and complete.
>
> Poor: The greater majority of archeological deposits have been severely disturbed by natural forces and/or human forces, but a small portion remains relatively intact.
>
> Lacking: All of the archeological deposits, as a result of natural and/or human impacts, have lost all archeological integrity and have been determined, through professional evaluation, to be insufficiently intact to address any currently conceptualized spheres of archeological research that would warrant further investigation.
>
> Unevaluated: The archeological deposits have not been sufficiently assessed to evaluate their archeological integrity.

All HOSP resources identified in this study and recorded as archeological sites or components of those sites have been found to vary in integrity from moderate to exceptional (Table 11).

ASSESSING SITE CONDITION

Assessment of significance, the third critical element in a determination of eligibility, requires one to ascertain the informational content of a site, the historic context, and appropriate National Register Criterion under which the site can potentially be listed. Addressing the last requirement first, as it is the most elementary, archeological sites are almost always assessed under Criterion D. That is, they are judged with regard to their potential for providing important information about prehistory or history. Data potential assessments (an estimate of the data potential or scientific research value degrees of an archeological resource) range from "Exceptional" to "Unevaluated" and are defined as follows:

Exceptional: Based on a preliminary, professional and documented field assessment, the data/scientific research potential at this site is considered outstanding and able to address research questions of prominent archeological interest at the national level of importance. Alternatively, the site has been evaluated as possessing data/scientific research value that is believed to merit nomination as a National Register site (or revision of existing National Register documentation) at the national level of significance. The site might also merit nomination as a National Historic Landmark or World Heritage site.

High: Based on a preliminary, professional and documented field assessment, the site contains a wealth of information that has substantial scientific data potential and compelling research value of regional or state interest or importance. Alternatively, the site, on its own merits, has been evaluated as possessing data/scientific research potential qualifying it for nomination to the National Register of Historic Places (or revision of existing National Register documentation) at the state level of significance.

Medium: Based on a preliminary, professional and documented field assessment, the site is evaluated as possessing data/scientific research potential for addressing a number of research questions of state or park interest or importance. Alternatively, the site, on its own merits, has been evaluated as possessing data/scientific research potential qualifying it for nomination to the National Register of Historic Places (or revision of existing National Register documentation) at the local level of significance.

Modest: Based on a preliminary, professional and documented field assessment, the site is evaluated as possessing data/scientific research potential for addressing a number of research questions of local interest or importance. Alternatively, although the site may not possess data/scientific research value potentially qualifying it for nomination to the National Register of Historic Places on its own merits, it may potentially do so as a contributor with other sites within a National Register district.

Low: Based on a preliminary, professional and documented field assessment, the data potential/scientific research value of the site is evaluated as having little potential to address research questions of national, regional, or state interest, but would likely yield some useful scientific data for addressing a limited number of research questions of lesser (local) importance.

None: Based on a preliminary, professional and documented field assessment, the site was judged insufficient to address any currently conceptualized spheres of archeological research that would warrant further investigation.

Unevaluated: The site has not been professionally assessed in order to determine its data potential/scientific research value; or the assessment is undocumented.

The significance of all HOSP resources identified in this study and recorded as archeological sites or components of those sites is high to exceptional (Table 11).

Based on the aforementioned factors, it is concluded that all five archeological sites are eligible for nomination to the NRHP and as contributing properties to the NRHP and NHL districts.

7. CONCLUSIONS AND RECOMMENDATIONS

In 2003 through early 2004, archeologists from the NPS' Midwest Archeological Center (MWAC) conducted investigations at Hot Springs National Park in response to and anticipation of improvements and stabilization of the Grand Promenade, Stevens Balustrade, and structures along Bathhouse Row. A review of the history of this area suggested the possibility that prehistoric and/or historic archeological resources may exist in these locations despite 170+ years of increasingly intensive development. Archeological excavation at the former location of Ral Spring along the Grand Promenade and archeological documentation of a "sauna cave" at Hale Bathhouse demonstrated that such resources continue to exist in the project area. The Geographic Information Systems (GIS) branch of MWAC's Archeological Information Management Team brought together information from a number of historic maps in the HOSP archives to create a to-scale and georeferenced overlay map of the park. As a result it was determined that locations along Bathhouse Row could retain evidence of three and possibly more generations of structures dating back to the 1870s or perhaps even earlier. Finally, on-site project scoping of bathhouse interiors by the author demonstrated that structural elements of 19th century bathhouses exist in some of the current structures along Bathhouse Row. A number of these structures retain unexcavated soils in their basements and fill in one of these buildings, the Lamar Bathhouse, was observed to contain stratified deposits incorporating ash lenses, ferrous metal, and faunal materials.

Summary of Findings

Based on these observations and after consultation with HOSP staff and representatives of the construction company on site, the author undertook a series of field investigations beginning in October 2003 and ending in April 2004. The following is a summary of the findings from each study locale.

Stevens Balustrade and the Grand Promenade

While occasional objects of the modern era were recovered along the Grand Promenade, no significant archeological materials were retrieved during the course of the tests at that location. Similarly, but with one striking exception, tests at the Balustrade returned only occasional objects of the modern era. Significant archeological materials were recovered, however, from the northern portion of the Balustrade patio. The presence of brick fragments and several cut nails, especially the clenched nail, in this relatively small area suggests the presence of a structure of some kind here. This could represent the location of one of the more informal early structures such as the benches or perhaps be elements of a small building at the site. The soft red brick fragments suggest a 19th century time frame for the assemblage. This temporal estimate is reinforced by the total lack of wire nails in the assemblage, a situation which generally occurred prior to 1890. The most telling item is a fragment of an extremely thin-rimmed ointment jar whose base bears a glass pontil mark. While no manufacturer marks are present, the jar appears quite

old. Conversations with other historical archeologists at the Center suggest that similar materials recovered in Midwest Region parks are usually associated with the mid-19th century, usually pre-1860. If so, the small jar may be one of the oldest historic artifacts directly associated with the park's tourist activities. Comparison of artifacts with those recovered at the Ral Spring site and examination of photographs and illustrations dating to the late 1870s and 1880s suggested the association of the patio materials with the Corn Hole, a hot spring used to soak and soften corns (localized cone-shaped calluses) on bathers' feet. The discovery location was recorded with the Arkansas Archeological Survey as the Corn Hole site, 3GA868.

Hale Bathhouse

Archeological monitoring of construction excavations on the south side of the Hale identified no significant archeological resources between the Hale and the Maurice. Nevertheless, and as suggested by the GIS mapping exercise, major structural elements of the circa 1882 "Old Hale" Bathhouse were identified within the current structure's basement. Stone foundations exhibit windows, doorways, and "ghost" walls. These structural remnants and unexcavated portions of the basement suggest there may be more archeological resources in the Hale Bathhouse in the form of additional building elements and/or artifacts that can lend detail to the history of that business and structure. It is also possible that artifacts and features associated with the predecessor to the circa 1882 structure may exist. Together, this information led to recordation with the Arkansas Archeological Survey as the Hale Bathhouse site, 3GA904.

Maurice Bathhouse

While the GIS mapping overlays suggested the possibility for remnant elements of earlier structures to exist beneath the Maurice Bathhouse's concrete basement floor or as foundation elements, none were observed that could be said to predate the present structure. Structural elements at the east side of the Maurice Bathhouse basement appear to be an addition to the bathhouse. It is known that the Maurice was refurbished in 1916, only five years after it was constructed, to better compete with the newer and more elaborate Fordyce Bathhouse. This is the most likely period of expansion with addition of men's and women's bath halls on the east side of the building resulting in nonfunctional basement windows and stairwell on the former outer wall being "buried" within the interior of the structure. Artifacts recovered from under the basement's concrete floor suggest the possibility that other artifacts and possibly artifact concentrations may exist in other locations. If so, these may be associated with the 1880-1911 Independent/Maurice Bathhouse. The Maurice Bathhouse site was recorded with the Arkansas Archeological Survey as site 3GA905.

Quapaw Bathhouse

Archeological monitoring of linear excavations in the Quapaw's northeast basement resulted in the identification of no archeological resources. The Quapaw's concrete basement

floor in this area appears to have been poured directly over bedrock and it seems unlikely that archeological resources will occur in unexcavated areas in this portion of the building. Significant elements of two previous bathhouses, the Horseshoe and the Magnesia, may continue to exist within the extensive crawlspace on the east side of the basement. This area was generally inaccessible at the time of the author's visit, however, preventing confirmation of this hypothesis.

Ozark Bathhouse

GIS mapping of the Ozark Bathhouse location suggested the possibility for continued existence of remnants of an 1880 building either under the concrete floor or as foundation elements. Engineering drawings of the building reinforced this potential, identifying a number of walls as "rock walls" on the perimeter and at the center of the basement and a "slab on grade" at the center. Archeological inventory of the basement was able to confirm the presence of structural elements for the 1880-1921 Ozark Bathhouse, the first bathhouse of that name. Of considerable significance is an intact tile floor which would have been near the center of the former building. The investigation also identified structural elements that appear to precede the first Ozark, lying as they do under a burned rubble fill that occurs, in turn, below the tile floor. If so, extensive portions of the 1870s Weir and George Bathhouse's stone foundations were utilized to support both the first and the current Ozark Bathhouse's floors and outer walls.

Archeological monitoring of construction excavations also resulted in recovery of 75 objects all of which appear to be associated with the 1880-1921 Ozark Bathhouse. Food and beverage items may be associated with bathhouse employees as bathhouses were restricted from providing meals. The syringes suggest treatment for syphilis at this facility and a ceramic tub foot is of a style associated with the late 19th century.

The significant recovery of artifacts and structural features associated with 19th century buildings led to recording the bathhouse with the Arkansas Archeological Survey as the Ozark Bathhouse site, 3GA867.

Lamar Bathhouse

GIS mapping for the Lamar suggested the possibility that elements of at least three and perhaps four structures dating to 1875-1878 and one 1888 to 1922 structure may continue to exist below the current Lamar Bathhouse building. Unlike bathhouses to the north, none of these structures' elements were utilized in the construction of the present building.

Stabilization drawings prepared for the Lamar Bathhouse indicated that at least half of the building's basement contained unexcavated fill. A visit to the site prior to the onset of archeological investigations indicated that this fill is stratified and contains artifacts. A small test excavation at the south end of the basement resulted in the recovery of artifacts

from five strata. Artifacts within the fill suggest the artifacts are associated with the activities of people employed at the first Lamar Bathhouse.

Test excavations under the concrete basement floor near the center of the building and archeological monitoring of construction openings in the basement floor revealed the existence of remnant elements of two structures dating prior to 1922. Parallel east-west foundations, one stone and one brick, were exposed in the west-central portion of the basement. The stone foundation is estimated to be an element of the 1870s Hot Springs Hotel and a small structure sharing the hotel's southern wall/foundation. The overall extent of this feature remains uncertain but it is possible the feature may continue east across the full depth of the current Lamar Bathhouse. A massive brick foundation was located a few cm south of the stone foundation. Although it was disrupted by the construction of a column associated with the current building, it appears likely this foundation extends further to the east and could be revealed in future subfloor excavations. Subfloor concrete columns appear to be older than the 1922-1923 construction of the current building and are likely components of the first Lamar Bathhouse. Many, if not all, were reutilized in the construction of the current building as footers with new, smaller concrete columns sitting on top of the old ones.

Artifacts were discovered in abundance in the Lamar basement with 4534 objects recovered. In fact, the density of artifacts at the Lamar, ranging from 416-1110/m^3 was higher than for any other historical site where the author has worked. About half of these are associated with architecture and primarily consist of construction materials and hardware. At least some of these materials were imported to the construction site as illustrated by a variety of bricks manufactured in St. Louis.

A smaller but very significant number of objects are associated with commercial activities, especially those related to use of pharmaceuticals and medical supplies. All undisturbed deposits appear to be associated with the first Lamar. The unexcavated fills in the south and east sides of the basement appear to have materials representing the full history of the building (ca. 1890 to 1922) while excavations below the concrete floor in the west central appear to represent only the last ten or fifteen years of that business' operation.

Some of the artifacts provide at least a vague sense of how the interior of the bathhouse was furnished and the business supplies that were used most commonly. Bright blue and white tiles were used on at least one of the floors and walls at one time were painted pale yellow green. Wooden locker or room doors were labeled with white porcelain numbered plates and door knobs were in matching white porcelain. Wire and heavier japanned iron clothes hooks provided places for customers and employees to hang their coats and clothes. Countertops and desks tops were protected from damage with sheets of plate glass while the furniture edges were shielded with metal strips and corners. Rooms were lighted electrically with the glare of light bulbs reduced with milk glass globes. Bathrooms were equipped with enamel wash basins and utilitarian white ceramic wash sets most likely

purchased from American manufacturers. Decorative touches include advertising mirrors on the walls, pressed glass containers on tables as well as seasonal flowers in plain and painted redware pots. The building had central heating and probably used coal as fuel.

A variety of commercially manufactured merchandise was used during the operation of the first Lamar Bathhouse with at least 41 different products identified during the course of this study, many by brand name. These and other artifacts suggest that, in addition to baths and massage, normal business operations included providing customers with a variety of services. Ceramic plates, saucers, and cups, and glass tumblers suggest snacks and beverages were served. It is likely the more delicate porcelains and decalcomania vessels were provided to women customers with the men served on plain, heavy whiteware. Food preparation was rare but perhaps sandwiches were served, sometimes with condiments such as Durkee's Famous Sauce and Lucky Horseshoe Jelly. Beverages other than spring water were occasionally offered as demonstrated by containers which once held Horlick's Malted Milk, Ledgerwood Brothers (Hot Springs) soft drinks, and Welch's Grape Juice. It is also possible that upon rare occasions alcoholic beverages such as Busch and other beers, wine, and whiskey were served although it is equally likely these products were consumed by bathhouse employees with meals or "on the sly."

Obviously, the first Lamar Bathhouse was a place espousing health and healthful practices so it should be of no surprise that a few artifacts reflect the use of electrical equipment (batteries and glass tube) to treat physical conditions and ailments. Surprisingly, however, it appears that a variety of medicines were used at the bathhouse. Whether these were administered by bathhouse employees to customers or self-administered by the customers or employees remains uncertain. At any rate, it appears that common conditions and illnesses treated in this fashion include indigestion (Bromo-Seltzer), headache and hangover (Red Raven Splits), constipation (citrate of magnesia, Ledgerwood Brothers mineral water, Pluto Water, Red Raven Splits), head colds and respiratory diseases (Dr. Drake's Croup Remedy, En-Ar-Co or Japanese Oil used as a vapor, Mentholatum, Musterole, Piso's Cure For Consumption, J. Harrison Whitehurst [Juniper-Tar] Compound), goiter (Iosaline), minor wounds (Dioxogen, Dr. Tichenor's Antiseptic), headlice (Nyal's Compound Larkspur Lotion), venereal disease (urethral syringes), muscular stiffness (En-Ar-Co or Japanese Oil used as a liniment), "women's ailments" (Dr. Hayden's Viburnum Compound), and other unidentified conditions (homeopathic medications, Red Cross). Canes, crutches, and bedpans were provided as needed to the infirm and metal cups of various kinds were provided for bathers to sip the warm mineral waters.

The first Lamar Bathhouse may have provided services of barbers and beauticians to its customers. Hair dressing and hair coloring were done on site as demonstrated by the recovery of a personalized shaving mug and bottle fragments which once contained C. Damschinsky's Liquid Hair Dye, Dioxogen (hydrogen peroxide), Paul Westphal's Auxiliator For The Hair, and Walnutta hair dye. Hair treatments were followed with a splash of Colgate Violet Water and Murray & Lanman's Celebrated Florida Water. Facial massage and application of cosmetics is reflected by containers which once held a wide variety of

beauty creams. Among these were Crême De Meridor, Crême Elcaya, Pompeian Massage Cream, Pond's Extract Vanishing and Cold Creams, and a variety of jars whose paper labels disintegrated over time but contained additional varieties of creams. The massage was probably completed with a light application of Talcolette powder.

In addition, we see possible occasional distribution of free samples. Van Vleet-Mansfield Drug Co., a manufacturer of medicines and cosmetics, is represented by a number of containers which held products of unidentified use.

While the first Lamar was primarily an adult establishment, it appears that children played in the bathhouse at some point. This is suggested by the recovery of a clay marble and fragment of a porcelain doll's head.

Business supplies included Carter's and, less often, Sandford inks in glass bottles. Sometimes these were refilled from stoneware bottles which held ink in bulk.

Taken altogether, archeological data may provide more details about the everyday operation of the first Lamar Bathhouse, its employees, and its customers than at any other bathhouse in Hot Springs. This data was acquired from only three tiny excavations which together covered less than 1% of the total horizontal basement space!

The significant recovery of artifacts and structural features associated with 19th century buildings led to recording the bathhouse with the Arkansas Archeological Survey as the Lamar Bathhouse site, 3GA869.

Recommendations

This study has demonstrated that considerable archeological data resides in the Lamar Bathhouse basement, both above and below the basement floor, and that vestigial structures and artifacts related to 19th century bathhouses and hotels exist in the other buildings on Bathhouse Row. Given this, it is recommended that park management carefully consider: a) additional investigations to clarify the locations and nature of its archeological resources; and b) the best actions to carefully preserve and protect these remnants of its historical past.

According to the NPS Cultural Resource Management Guideline,

> *Park managers are responsible for ensuring that archeological resources under their jurisdiction are identified, protected, preserved, and interpreted. This is done through a systematic program of inventory, evaluation, documentation, curation of collections and associated records, nomination of eligible resources to the National Register of Historic Places, monitoring, protection, treatment, and interpretation* (National Park Service 2002c).

Resource Identification

Without basic data regarding the locations and characteristics of its archeological resources, however, park managers are unable to adequately address these responsibilities. With this in mind, and to meet the issue of resource identification, several areas of investigation are recommended:

1. An historical architectural survey of bathhouse basements should be undertaken by an historical architect and historical archeologist to identify and describe structural components associated with earlier structures.

2. Archeological testing of unexcavated fill should be undertaken in several places in each bathhouse to ascertain locations of extant archeological resources, identify temporal and historic contexts of those resources, and assess resource conditions. Such work would be particularly useful for planning maintenance and construction in anticipation of planning new building uses.

3. Conduct a parkwide inventory to provide maximal data about prehistoric and historic archeological resources beyond the boundaries of Bathhouse Row.

4. Conduct ground penetrating radar (GPR) inventories within all bathhouse basements in an attempt to identify locations of subfloor features potentially associated with 19th century structures. GPR signals tend to be affected by soil moisture and this is probably a common problem below all the basement floors. GPR would therefore not be very useful in locating individual artifacts or distinguishing between different stratigraphic layers (Clark 1996:118; Conyers 2004:100-101). The method may still be useful in identifying gross features such as foundations, columns, and possibly older floor levels. It might even be useful for identification of large artifact masses such as the one encountered in the Lamar.

Note that the inventory recommended in item 3 above is currently scheduled to be funded under CRPP, SAIP, beginning in FY2008. It is conceivable that items 2 and 4 above could be a part of that inventory under SAIP as well.

For prehistoric sites, archeological investigations should take place while keeping in mind possible application of research topics listed in the *State Plan for Conservation of Archeological Resources in Arkansas* (Davis 1994). More specifically, investigations should consider research topics specifically identified for the Ouachita Mountains Region of the Southwest Section of Arkansas (Schambach et al. 1994). To the author's knowledge, no research topics have been developed but investigators should consider topics related to settlement, cultural and gender diversity, commercial development (including mining), settlement patterns, and development of the health and tourist industries. Broad descriptions of these and additional prehistoric and historical archeological topics have been provided by the Arkansas Archeological Survey (Jeter et al. 1989).

HOT SPRINGS

Preservation and Protection

Preservation and protection of archeological sites has been provided to date by recording of known resources with the Arkansas Archaeological Survey, making condition assessments, determining eligibility for listing on the National Register of Historic Places, and maintaining archeological data records for the park at the NPS Midwest Archeological Center. Additional actions recommended are:

1. Insuring Section 106 compliance procedures are followed during the planning stages of Park projects potentially involving ground disturbance.

2. Regularly monitoring sites which have public access and archeological assessment of sites' conditions.

3. Use the information from site monitoring and condition assessment as a baseline to update the park's Resources Management Plan (National Park Service 1997) by revising the cultural resource preservation element. The plan and a regular monitoring schedule can then assist managers to evaluate the viability of HOSP's resource management plans and the health of its archeological resources.

4. Stabilize the fill underlying the "fossil" tile floor at the center of the Ozark Bathhouse basement to prevent further collapse.

5. Involve the visiting public, at least initially through interpretive means (see below), to raise awareness of Park resources and contribute in a positive way to public monitoring of sites and reporting of site vandalism.

Resource Interpretation

A number of significant archeological resources have been identified within the park both during and prior to this particular investigation. Among the 26 sites in the park are fourteen with prehistoric components, one with prehistoric and historic components, and 16 with historic components. To address resource interpretation, the following suggestions are offered:

1. Produce pamphlets which overview the prehistoric and historic archeological resources within the park. These overviews should be general but place the resources within suitable local, state, and national contexts.

2. Amend the HOSP website to provide information about the archeology of the park.

3. Install trail wayside signage presenting information about early historic hot spring use along the Grand Promenade.

4. Install trail wayside signage at or near one of the prehistoric quarries describing prehistoric and historic mining and uses of novaculite.

5. Make the "fossil" tile floor and foundation of the Weir and George Bathhouse foundations at the center of the Ozark Bathhouse visible to the public through small glass or Plexiglas-covered openings and lighting the enclosure.

6. Develop an interpretive tour of Hale, Ozark, and Lamar Bathhouse basements focusing on the remnant structures and archeological deposits. Exhibit artifacts from the Lamar.

7. Develop a trailside tour focusing on the prehistory of the park as indicated by both camp and quarry sites.

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APPENDIX A.
ARTIFACTS COLLECTED FROM THE OZARK BATHHOUSE

Functional Category	Cat.#	Provenience	Object	#	Description
Architecture: Construction - hardware	14330	Loose fill over top of stone wall with bricked-in slot over hot spring	Cut nail	1	2” (6d)
Architecture: Construction - hardware	14601	S. edge of Foundation A	Cut nail	1	3” (10d)
Architecture: Construction - hardware	14602	Sump drain cut	Cut nails	6	2- 4” (20d), 1 - 3” (10d), 2 - 2½” (8d), 1½” (4d) with wood
Architecture: Construction - materials	14333	Loose fill over top of stone wall with bricked-in slot over hot spring	Floor tile	2	Yellowware tile fragments with shallow 0.6” wide ridges on base; no apparent glaze on smooth upper surface
Architecture: Construction - materials	14335	South edge of foundation A	Window glass	1	Flat glass fragment
Architecture: Construction - materials	14599	South edge of foundation A	Brick	1	Complete; black slag temper; 2.3” x 3.8” x 8.1”
Architecture: Construction - materials	14605	Basement drain line in trench fill 2.45m from S. end of line	Floor tile	19	7 square (2.1”) blue; 12 octagonal (6” across) yellow floor tiles and fragments with maker’s mark “A. E. TILE CO.” Some of yellow tile have blue stains; same as 14333 above
Architecture: Construction - materials	14606	Slump at base of fill below tile floor in basement	Floor tile	3	6” octagonal yellow with “A. E. TILE CO.” on reverse side; 2.1” square blue; 6” x 2” rectangular brown attached to 1” x 3.6” red
Architecture: Plumbing	14608	Basement drain line in trench fill 2.45m from S. end of line	Drain pipe	1	Stoneware, salt glazed rim
Commerce and Industry: Agriculture and husbandry	14604	Sump drain cut	Horse-shoe	1	Bent, highly corroded retaining a number of shoe nails

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical, technical	14339	Basement drain line, in trench fill 2.45 m from south end of line	Syringe	1	Black, hard rubber
Commerce and Industry: Commercial services - medical, technical	14600	Basement drain line in trench fill 2.45m from S. end of line	Bathtub foot	1	Blackened (burned?) whiteware ceramic fragment buried in and retrieved from current Ozark Bathhouse basement concrete floor
Commerce and Industry: Commercial services - medical, technical services	14620	Basement drain line in trench fill 2.45m from S. end of line	Syringe	1	incomplete, rubber (n=3 pieces)
Domestic Items: Food	14338	Sump drain out	Mus-selshell	2	Fragments
Domestic Items: Food	14618	Basement drain line in trench fill 2.45m from S. end of line	Bone	1	Fragment; sheep/goat (*Ovis aries*/*Capra hircus*)
Domestic Items: Food	14619	Sump drain cut	Mollusk shell	2	Fragments; oysters (*Crassostrea virginica*)
Domestic Items: Food (sauce?)	14334	Sump drain cut	Bottle	1	Lt. violet (sun-altered) ball neck-finish fragment; neck constricted for stopper?
Domestic Items: Furnishings - furniture	14612	Basement drain line in trench fill 2.45m from S. end of line	Plate glass	1	0.28” thick clear fragment; desk or counter top?
Domestic Items: Housewares and appliances - culinary	14607	S. edge of Foundation A	Crock?	1	Basal sherd from 7½” diameter vessel; brown glaze inside and out
Domestic Items: Housewares and appliances - gustatory	14609	S. edge of Foundation A	Dinner service	2	Hotel ware whiteware; plate(?) rim and large hollowware bodysherd
Domestic Items: Housewares and appliances - gustatory	14610	Sump drain cut	Saucer	1	Rim
Domestic Items: Housewares and appliances - gustatory	14610	Sump drain cut	?	1	Hotelware sherd

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Items: Housewares and appliances - gustatory	14610	Sump drain cut	Plate or platter	1	Blue transfer printed sherd in Willow pattern
Domestic Items: Housewares and appliances - gustatory	14611	Sump drain cut 6.45m from S. end of drain line	Plate	1	Plain hotelware; 10" diameter
Domestic Items: Housewares and appliances - gustatory	14613	basement drain line in trench fill 2.45m from S. end of line	Goblet	1	Clear glass 3½" diameter foot fragment
Domestic Items: Housewares and appliances - gustatory?	14331	Loose fill over top of stone wall with bricked-in slot over hot spring	Ceramic	1	Whiteware, hotelware, hollowware vessel represented by everted rim
Personal Item: Indulgences	14615	Sump drain cut	Bottles	7	1 green, 4 aqua, 1 clear, and 1 olive shards
Personal Item: Indulgences	14616	S. edge of Foundation A	Bottles	2	1 clear and 1 olive shards
Personal Item: Indulgences	14617	NW corner of basement	Bottle	1	incomplete dark aqua (n=4, mend); missing neck and finish
Personal Items: Indulgences	14334	Sump drain cut	Bottles	2	Black glass body fragment (ale?) and 1 applied brandy finish
Unknown	14334	Sump drain cut	Bottles	3	Body fragments; 2 from clear panel; 1 lt. green (soft drink?) bottle
Unknown	14335	South edge of foundation A	Bottle	1	Green
Unknown	14604	Sump drain cut	?	1	Cast iron plate
Unknown	14604	Sump drain cut	?	1	Modified automobile tailpipe section; 6½" long x 2" diameter; one end sealed by folding in edges; other end has 10 rectangular tabs, 5 of which are pierced with 1½" (4d) wire nails
Unknown	14614	Basement drain line in trench fill 2.45m from S. end of line	?	1	Clear curved glass

HOT SPRINGS

Functional Category	Cat.#	Provenience	Object	#	Description
Non-cultural	14332	Loose fill over top of stone wall with bricked-in slot over hot spring	Pebble	1	

APPENDIX B.
ARTIFACTS COLLECTED FROM THE LAMAR BATHHOUSE

Table B1. Domestic Artifacts.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Cleaning and Maintenance	14306	surface, SW corner of building	Duster Handle	1	Wood; painted black; 0.75" diameter at base tapered to 0.68 at break 3" above base; undulating sides to enhance grip
Domestic Item: Cleaning and maintenance	14399	T.U. 1, Lev. 5, 100-110cm	Canister	1	Aluminum base to canister 14398; ink-stamp "2444" Modern. Not described in text.
Domestic Item: Cleaning and maintenance	14398	T.U. 1, Lev. 4, 90-100cm	Cleanser canister	1	Aluminum lid with 6 holes in center for dispensing product; 3" diameter; "AJAX CLEANSER/ WIPES OFF STAINS"; Modern. Not described in text.
Domestic Item: Cleaning and maintenance?	14402	T.U. 2, Lev. 2, 30-40cm	Non-ferrous metal scrap	2	Tinned rim and base from 3" diameter (cardboard?) container
Domestic Item: Food	14338	Sump drain out	Bone	1	Unidentified
Domestic Item: Food	14276	Column 9, pit, Below 50	Bone	1	Bos taurus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Bos taurus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Bos taurus
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Branta canadensis
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Branta canadensis
Domestic Item: Food	14260	T.U. 2, Lev. 1, 15-30	Bone	1	Gallus gallus
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Gallus gallus
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Gallus gallus
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Gallus gallus
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Gallus gallus
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Gallus gallus
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Gallus gallus
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Gallus gallus
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Gallus gallus
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Gallus gallus

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Food	14272	T.U. 3, SU5	Bone	1	Gallus gallus
Domestic Item: Food	14272	T.U. 3, SU5	Bone	1	Gallus gallus
Domestic Item: Food	14267	T.U. 4, Lev. 3, 30-40	Bone	1	Gallus gallus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Gallus gallus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Gallus gallus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Gallus gallus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Gallus gallus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Gallus gallus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Gallus gallus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Gallus gallus
Domestic Item: Food	14253	T.U. 2, Lev. 1, 15-30	Bone	1	Indeterminate bird
Domestic Item: Food	14254	T.U. 2, Lev. 2, 30-40	Bone	1	Indeterminate bird
Domestic Item: Food	14254	T.U. 2, Lev. 2, 30-40	Bone	1	Indeterminate bird
Domestic Item: Food	14254	T.U. 2, Lev. 2, 30-40	Bone	1	Indeterminate bird
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate bird
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate bird
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate bird
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate bird
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate bird
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate bird
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate bird
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate bird
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate bird

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate bird
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate bird
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate bird
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate bird
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate bird
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate bird
Domestic Item: Food	14266	T.U. 4, Lev. 2, 20-30	Bone	1	Indeterminate bird
Domestic Item: Food	14267	T.U. 4, Lev. 3, 30-40	Bone	1	Indeterminate bird
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Indeterminate bird
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Indeterminate bird
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate fish
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate large bird
Domestic Item: Food	14260	T.U. 2, Lev. 1, 15-30	Bone	1	Indeterminate large mammal
Domestic Item: Food	14260	T.U. 2, Lev. 1, 15-30	Bone	1	Indeterminate large mammal
Domestic Item: Food	14260	T.U. 2, Lev. 1, 15-30	Bone	1	Indeterminate large mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate large mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate large mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate large mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate large mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate large mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate large mammal
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate large mammal
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate large mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate large mammal
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Indeterminate large mammal
Domestic Item: Food	14252	T.U. 1, Lev. 6, 110-120	Bone	1	Indeterminate mammal
Domestic Item: Food	14260	T.U. 2, Lev. 1, 15-30	Bone	1	Indeterminate mammal

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Food	14260	T.U. 2, Lev. 1, 15-30	Bone	1	Indeterminate mammal
Domestic Item: Food	14254	T.U. 2, Lev. 2, 30-40	Bone	1	Indeterminate mammal
Domestic Item: Food	14254	T.U. 2, Lev. 2, 30-40	Bone	1	Indeterminate mammal
Domestic Item: Food	14254	T.U. 2, Lev. 2, 30-40	Bone	1	Indeterminate mammal
Domestic Item: Food	14254	T.U. 2, Lev. 2, 30-40	Bone	1	Indeterminate mammal
Domestic Item: Food	14254	T.U. 2, Lev. 2, 30-40	Bone	1	Indeterminate mammal
Domestic Item: Food	14254	T.U. 2, Lev. 2, 30-40	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate mammal
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate mammal
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate mammal
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate mammal
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate mammal
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate mammal
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate mammal
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate mammal
Domestic Item: Food	14273	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate mammal
Domestic Item: Food	14262	T.U. 3, S.U. 2	Bone	1	Indeterminate mammal
Domestic Item: Food	14264	T.U. 3, S.U. 2B,	Bone	1	Indeterminate mammal
Domestic Item: Food	14264	T.U. 3, S.U. 2B,	Bone	1	Indeterminate mammal
Domestic Item: Food	14264	T.U. 3, S.U. 2B,	Bone	1	Indeterminate mammal
Domestic Item: Food	14264	T.U. 3, S.U. 2B,	Bone	1	Indeterminate mammal
Domestic Item: Food	14264	T.U. 3, S.U. 2B,	Bone	1	Indeterminate mammal
Domestic Item: Food	14265	T.U. 3, S.U. 2B-C	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14261	T.U. 3, S.U. 3	Bone	1	Indeterminate mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal
Domestic Item: Food	14271	T.U. 3, S.U. 4	Bone	1	Indeterminate mammal
Domestic Item: Food	14270	T.U. 3, SU4, near base	Bone	1	Indeterminate mammal
Domestic Item: Food	14270	T.U. 3, SU4, near base	Bone	1	Indeterminate mammal
Domestic Item: Food	14270	T.U. 3, SU4, near base	Bone	1	Indeterminate mammal
Domestic Item: Food	14270	T.U. 3, SU4, near base	Bone	1	Indeterminate mammal
Domestic Item: Food	14270	T.U. 3, SU4, near base	Bone	1	Indeterminate mammal
Domestic Item: Food	14263	T.U. 4, Lev. 1, 0-20	Bone	1	Indeterminate mammal
Domestic Item: Food	14263	T.U. 4, Lev. 1, 0-20	Bone	1	Indeterminate mammal
Domestic Item: Food	14263	T.U. 4, Lev. 1, 0-20	Bone	1	Indeterminate mammal
Domestic Item: Food	14266	T.U. 4, Lev. 2, 20-30	Bone	1	Indeterminate mammal
Domestic Item: Food	14266	T.U. 4, Lev. 2, 20-30	Bone	1	Indeterminate mammal
Domestic Item: Food	14267	T.U. 4, Lev. 3, 30-40	Bone	1	Indeterminate mammal
Domestic Item: Food	14267	T.U. 4, Lev. 3, 30-40	Bone	1	Indeterminate mammal
Domestic Item: Food	14267	T.U. 4, Lev. 3, 30-40	Bone	1	Indeterminate mammal
Domestic Item: Food	14267	T.U. 4, Lev. 3, 30-40	Bone	1	Indeterminate mammal
Domestic Item: Food	14267	T.U. 4, Lev. 3, 30-40	Bone	1	Indeterminate mammal
Domestic Item: Food	14268	T.U. 4, Lev. 4, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14269	T.U. 4, Lev. 5, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14269	T.U. 4, Lev. 5, 50-60	Bone	1	Indeterminate mammal
Domestic Item: Food	14274	T.U. 4, Lev., 6, 70-80	Bone	1	Indeterminate mammal

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Food	14275	T.U. 4, , Lev. 7, 80-90	Bone	1	Indeterminate mammal
Domestic Item: Food	14275	T.U. 4, Lev. 7, 80-90	Bone	1	Indeterminate mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14267	T.U. 4, Lev. 3, 30-40	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14267	T.U. 4, Lev. 3, 30-40	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14267	T.U. 4, Lev. 3, 30-40	Bone	1	Indeterminate medium mammal
Domestic Item: Food	14259	T.U. 2, Lev. 6, 70+	Bone	1	Indeterminate small mammal
Domestic Item: Food	14267	T.U. 4, Lev. 3, 30-40	Bone	1	Indeterminate small mammal
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Indeterminate small mammal

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Indeterminate small mammal
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Indeterminate small mammal
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Indeterminate small mammal
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Indeterminate small mammal
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Ovis aries/Capra hircus
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Ovis aries/Capra hircus
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Ovis aries/Capra hircus
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Ovis aries/Capra hircus
Domestic Item: Food	14257	T.U. 2, Lev. 4, 50-60	Bone	1	Ovis aries/Capra hircus
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Ovis aries/Capra hircus
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Ovis aries/Capra hircus
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Ovis aries/Capra hircus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Ovis aries/Capra hircus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Ovis aries/Capra hircus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Ovis aries/Capra hircus
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Ovis aries/Capra hircus
Domestic Item: Food	14254	T.U. 2, Lev. 2, 30-40	Bone	1	Sus scrofa
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Sus scrofa
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Sus scrofa
Domestic Item: Food	14256	T.U. 2, Lev. 4, 50-60	Bone	1	Sus scrofa
Domestic Item: Food	14258	T.U. 2, Lev. 5, 60-70	Bone	1	Sus scrofa
Domestic Item: Food	14267	T.U. 4, Lev. 3, 30-40	Bone	1	Sus scrofa

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Sus scrofa
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Sus scrofa
Domestic Item: Food	14603	Under north stairway to first floor	Bone	1	Sylvilagus sp.
Domestic Item: Food	14255	T.U. 2, Lev. 3, 40-50	Bone	1	Indeterminate mammal
Domestic Item: Food	14364	T.U. 2, 50-60cm	Soft drink bottle - Crown cap	1	
Domestic Item: Food	14277	T.U. 2, Lev. 1, 15-30cm	Pecan shell	1	Fragment
Domestic Item: Food	14495	T.U. 2, Lev. 4, 50-60 cm	Mollusk shell	2	Fragment
Domestic Item: Food	14072	T.U. 2, 70+ cm	Food bottle	1	**HORLICK'S/MALTED MILK/ RACINE, WIS./U.S.A./—/ LONDON, ENG.** [Base:] **I. G. Co./24/E;** pale aqua; 4.9" x 2.6" diameter; 17n; 20b; fh, base h.; ABM (valve mark); bottle maker = ; .Illinois Glass Company, Alton, IL (1873-1929) (Whitten n.d.) or Ihmsen Glass Co. (ca. 1870-1895) (Toulouse 1971:261)
Domestic Item: Food - beverages	14140	T.U. 2, 60-70cm	Appolinaris Bottle	1	**Welch's**; clear; 19n(?); 20b(?); h (upper body); 2 mendable fragments; Welch's Junior Juice bottle
Domestic Item: Food - beverages	14129	T.U. 2, Lev. 2, 30-40cm	Dairy bottle	1	clear finish; 1" outer diameter; inset lip for paper cap; cream bottle?
Domestic Item: Food	14145	T.U. 2, 70+ cm	Soft drink bottle	1	(arc) **[LEDGE]RWOOD**/ (straight) **[BR]OS/** (arc) **[HOT SP]RINGS ARK.**; clear; 20b; label in oval; soft drink
Domestic Item: Food - beverages	14144	T.U. 2, Lev. 4, 50-60cm	Dairy bottle	1	clear (slightly SA) finish and neck; 20b; ABM; inset lip for paper cap; Common Sense Milk shape (Putnam 1965:232)
Domestic Item: Food - beverages	14171	T.U. 4, 50-60cm	Dairy bottle	1	clear finish; 2" outer diameter; inset lip for paper cap; cream bottle?
Domestic Item: Furnishings	14349	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Clock	1	Clock mechanism with four gears and a spring

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Furnishings - furniture	14346	T.U. 4, 50-60cm	Coat hook	1	Wire
Domestic Item: Furnishings - furniture	14347	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Coat hook	1	Cast iron
Domestic Item: Furnishings	14348	T.U. 3, S.U. 4	Coat hook/ Screw hook	1	3”
Domestic Item: Furnishings	14221	T.U. 4, 60-70cm	Pressed glass - Dish/bowl cover	1	clear (stained yellow) pressed glass cover/finial juncture
Domestic Item: Furnishings	14222	T.U. 3, S.U. 4	Pressed glass - Dish/bowl cover	1	clear pressed glass lid with finial (separate vessel from 14221)
Domestic Item: Furnishings - decorative	14546	T.U. 2, 60-70 cm	Flower pot/vase?	8	Small redware fragments
Domestic Item: Furnishings - decorative	14557	T.U. 4, 0-20 cm	Flower pot/vase?	1	Everted redware rim fragment
Domestic Item: Furnishings - decorative	14593	T.U. 3, Lev. 1	Flower pot/vase?	1	Redware vessel neck; clear glaze interior; pink painted exterior
Domestic Item: Furnishings - furniture	14395	T.U. 2, Lev. 3, 40-50cm	Furniture protector -	5	Aluminum sheet metal guard for table or desk top; curved in X-section; 1½” wide; screw holes for attachment along one edge; rounded terminus
Domestic Item: Furnishings	14428	T.U. 2, 70-100cm	Furniture protector - Corner guard	1	Cuprous guard for table or desk top; 1 3/8” deep, 2 3/4” wide, and shaped to encompass a 7/8” thick counter or desk top. Small holes on each end allowed attachment using brads
Domestic Item: Furnishings?	14501	T.U. 2, Lev. 3, 80-90cm	Furniture protector - Counter trim(?)	1	White; marked “US P...”; very fragile; plastic or celluloid; modern; not described in text
Domestic Item: Furnishings	14147	T.U. 2, 70+ cm	Furniture protector - glass frag.	1	lt green corner fragment; 0.33” thick; 0.2” diameter hole drilled 1” from edge (probably for attachment); beveled edge 1” wide
Domestic Item: Furnishings	14224	T.U. 1, 64-70 cm	Furniture protector - glass frag.	1	clear edge with mold mark; 0.38” thick
Domestic Item: Furnishings	14225	T.U. 1, Lev. 3, 80-90 cm	Furniture protector - glass frag.	1	clear; 0.25” thick

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Furnishings	14231	T.U. 2, Lev. 3, 40-50 cm	Furniture protector - glass frag.	1	lt. green edge; 0.32 in thick
Domestic Item: Furnishings	14246	T.U. 2, 70-80 cm	Furniture protector - glass frag.	1	yellow-stained green edge fragment; 0.31" thick; 0.14" diameter hole drilled 1" from edge.
Domestic Item: Furnishings	14424	T.U. 3, S.U. 4	Leveling shims	7	Sheet lead rectangles: 2½" x 2", 2" x 2.2", 2.1" x 1.95", 2.1" x 1.95"; 2 nested = 2.1" square, 1 = 2" square; 1½" diameter leg impressions; 2 larger specimens also show ½" diameter impressing in center of leg mark; the two smaller pieces nest together
Domestic Item: Furnishings	14205/ 14216	T.U. 2, 70+ cm/ T.U. 2, 70-100cm, pulled from mud	Light globe?	1	milk glass (mended); possibly same as Cat. 14210
Domestic Item: Furnishings	14210	T.U. 4, 50-60cm	Light globe?	1	milk glass everted rim; ca. 8" diameter
Domestic Item: Furnishings	14230	T.U. 2, Lev. 2, 30-40cm	Mirror frag.?	1	clear; 0.1" thick; "**STAT[E?]**" molded into back parallel with 0.2" wide beveled edge
Domestic Item: Furnishings	14356	T.U. 2, Lev. 1, 15-30cm	Window shade pull	1	1.6" outside & 1" inside diameters; 3/4" eye screw attached
Domestic Item: Housewares & appliances - culinary	14540	T.U. 2, Lev. 3, 50-60 cm	?	1	Yellow ware; bodysherd
Domestic Item: Housewares & appliances - culinary	14498	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Bowl	1	Yellow ware; mocha decorated bodysherd; same as 14564?
Domestic Item: Housewares & appliances - culinary	14564, 14569	T.U. 4, 20-30 cm, 30-40 cm	Bowl	4	Yellow ware; small mocha mixing bowl; 1 mended base-body, 2 mended rims, 1 bodysherd
Domestic Item: Housewares & appliances - culinary	14545	T.U. 2, 60-70 cm	Bowl?	1	Yellow ware; bodysherd with exterior blue mottled glaze
Domestic Item: Housewares & appliances - culinary	14522	T.U. 2, Lev. 1, 15-30 cm	?	3	Stoneware bodysherds; 1 dk. brown glaze inside and out; 1 red-brown glaze inside, clear salt glaze exterior; 1 fragment
Domestic Item: Housewares & appliances - culinary	14540	T.U. 2, Lev. 3, 50-60 cm	?	1	Stoneware bodysherd; dark gray-brown sherd with brown-black glaze inside and out
Domestic Item: Housewares & appliances - culinary	14533	T.U. 2, Lev. 3, 50-60	Jug	2	Stoneware shoulder/neck fragment and bodysherd with dark brown glaze inside and out

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Housewares & appliances - culinary	14559	T.U. 3, Lev. 2B-C	?	1	Stoneware bodysherd; dark brown glaze inside and out
Domestic Item: Housewares & appliances - culinary	14578	T.U. 4, 70-80 cm	?	1	Stoneware bodysherd; red-brown glaze inside; clear salt glaze exterior
Domestic Item: Housewares & appliances - culinary	14361	T.U. 2, Lev. 4, 50-60cm	Pot?	1	Ferrous sheet metal handle rim fragments; Handle is hollow; rounded end with hole for hanging; slightly tapered toward end. Rim is 12" diameter
Domestic Item: Housewares & appliances - gustatory	14096	T.U. 2, 70+ cm	Condiment bottle	1	[Base:] **8**; clear; 3.1" x 2.1" diameter; 17n; 20b; ABM (Owens scar); Tall Condiment, Screw Cap shape (Putnam 1965:225).
Domestic Item: Housewares & appliances - gustatory	14106	T.U. 2, 70-100cm, pulled from mud	Condiment bottle	1	**E. R. DURKEE/& CO./NEW YORK** [Base:] **BOTTLE PATENTED/[registry mark]/ APRIL 17 1877**; clear; 6.7' x 2.7" diameter; 17n; 20b; v, h (base); ABM
Domestic Item: Housewares & appliances - gustatory	14107/ 14197	Brick wall foundation exposed east of Column 5/ Brick foundation exposure west of Column 5	Condiment bottle	1	[Base:] **BOTTLE PATENTED/ [registry mark]/APRIL 17 1877**; clear; 6.7' x 2.7" diameter; 17n; 20b; h (base); ABM (Owens scar); E.R. Durkee and Co. Aluminum threaded cap.
Domestic Item: Housewares & appliances - gustatory	14130/ 14137	T.U. 2, Lev. 2, 30-40cm /T.U. 2, Lev. 3, 40-50cm	Tumbler	3	clear; 21b; 2 mended, 1 body fragment, 1 rim. Body above base is paneled with raised, narrow ribs draping across panels
Domestic Item: Housewares & appliances - gustatory	14131	T.U. 2, Lev. 2, 30-40cm	Condiment bottle	1	clear (slightly SA) finish and cap; 17n; 1b; 4 panels; paper-lined non-ferrous metal cap attached. Condiment jar?
Domestic Item: Housewares & appliances - gustatory	14135	T.U. 2, Lev. 3, 40-50cm	Condiment bottle stopper	1	clear; 0.95" diameter; peg style; flat cap; a variety of perfume and condiment bottles utilized these plain stoppers (Putnam 1965:87-90, 214; 226). Identical to Club Sauce Stopper (Putnam 1965:214)
Domestic Item: Housewares & appliances - gustatory	14137	T.U. 2, Lev. 3, 40-50cm	Condiment bottle stopper	1	clear; 1.15" x 0.9" diameter; peg style; domed cap; a variety of perfume and condiment bottles utilized these plain stoppers (Putnam 1965:87-90, 214; 226). Identical to Club Sauce Stopper (Putnam 1965:214)

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Housewares & appliances - gustatory	14138	T.U. 2, 50-60cm	Tumbler	1	clear rim; narrow ribbed band 0.35" below rim
Domestic Item: Housewares & appliances - gustatory	14138/ 14145	T.U. 2, 70+ cm	Tumbler	1	[Base:] [Symbol: horseshoe]; mended clear base; 20b; probably a jelly glass/tumbler. This motif is seen on the base of jelly glasses & tumblers, the majority of which were probably made from c.1900-1930. Sometimes a star is present in the center of the horseshoe. Glass manufacturers who reportedly produced items with this type of design on the base include: Indiana Tumbler & Goblet Company, Greentown, IN (1894-1903); Ball Bros Glass Company, Muncie, IN (1888-1992); Fostoria Glass Company, Fostoria, OH (1887-1891) & Moundsville, WV (1891-1986); Monongah Glass Company, Fairmont, WV (1903-c.1929); and Hazel-Atlas Glass Company, Washington, PA, Wheeling, WV and other plant locations (1902-1964) (Whitten n.d.).
Domestic Item: Housewares & appliances - gustatory	14140	T.U. 2, 60-70cm	Condiment bottle stopper	1	clear; 1.15" x 0.9" diameter; peg style; domed cap; a variety of perfume and condiment bottles utilized these plain stoppers (Putnam 1965:87-90, 214; 226). Identical to Club Sauce Stopper (Putnam 1965:214)
Domestic Item: Housewares & appliances - gustatory	14140	T.U. 2, 60-70cm	Tumbler	1	clear rim with paneled body
Domestic Item: Housewares & appliances - gustatory	14140	T.U. 2, 60-70cm	Tumbler	1	clear rim; wide ribbed band 0.4" below rim
Domestic Item: Housewares & appliances - gustatory	14140/ 14218/ 14219	T.U. 2, 60-70cm	Tumbler	1	clear mended; 20b; 3.5"; 2.75" diameter rim; 2.05" diameter base; fine ribbed zig-zag pattern at base; ribbed band below rim.
Domestic Item: Housewares & appliances - gustatory	14142	T.U. 2, Lev. 3, 40-50cm	Canning Jar	2	**MA[SON]**; aqua body fragment and base; 20b; h
Domestic Item: Housewares & appliances - gustatory	14144	T.U. 2, Lev. 4, 50-60cm	Tumbler	3	clear rim and base; wide ribbed band 0.4" below lip; impressed "starburst" pattern on base; rim may be same vessel as Cat. #14140.

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Housewares & appliances - gustatory	14145	T.U. 2, 70+ cm	Condiment bottle	1	clear finish/neck; 7sp variant with raised no-drip lip and inset for paper cap; ABM; similar to pickle bottles illustrated in Putnam (1965:191)
Domestic Item: Housewares & appliances - gustatory	14145	T.U. 2, 70+ cm	Condiment bottle	1	clear finish/shoulder; 17n; 20b; ABM; mended; condiment? similar to University Condiment or Tall Condiment shapes (Putnam 1965:225).
Domestic Item: Housewares & appliances - gustatory	14145	T.U. 2, 70+ cm	Food/ Beverage bottle	1	clear finish/shoulder; 17n; 20b; finishing tool; mustard or malted milk container? Similar in form to the Horlick's jar, Cat. 14072.
Domestic Item: Housewares & appliances - gustatory	14155	T.U. 4, 0-20cm	Tumbler	3	clear (2 rims); 1 lt. yellow fragment with narrow and wide ribbed bands
Domestic Item: Housewares & appliances - gustatory	14162	T.U. 4, 20-30cm	Condiment bottle	1	clear finish/shoulder; 17n; 20b; ABM; mended; condiment? similar to University Condiment or Tall Condiment shapes (Putnam 1965:225).
Domestic Item: Housewares & appliances - gustatory	14169	T.U. 4, 40-50cm	Canning Jar	1	**[MAS]ON**; aqua body fragment; 20b; h; letters smaller than Cat. #14142
Domestic Item: Housewares & appliances - gustatory	14217	T.U. 2, Lev. 3, 40-50 cm	Tumbler/ Goblet	1	clear; frosted floral design
Domestic Item: Housewares & appliances - gustatory	14219	T.U. 2, 60-70cm	Tumbler.	3	clear; 2 probably from same vessel as 14130/14137; 1 plain band rim - probably from the same vessel as 14137
Domestic Item: Housewares & appliances - gustatory	14220	T.U. 2, 70-100 cm pulled from mud	Tumbler	1	clear; decorated with three narrow bands below rim
Domestic Item: Housewares & appliances - gustatory	14401	T.U. 2, Lev. 2, 30-40cm	Cup	1	Ferrous metal; crushed
Domestic Item: Housewares & appliances - gustatory	14415	T.U. 4, 20-30cm	Salt shaker cap	4	Fragments of one cuprous metal cap incorporating 2 1" diameter disks with a circle of small holes and 2 rim fragments
Domestic Item: Housewares & appliances - gustatory	14431	Hole next to Column 3	Cup	1	Ferrous metal; white enameled, handled cup; 3¼" diameter mouth x 3.2" high; polychrome print of Eddy Hotel and Frispy's Cafe on body; handle attached with rivets; Frisby is misspelled
Domestic Item: Housewares & appliances - gustatory	14516	T.U. 1, rubble layer, surface	Cup	1	Whiteware; thick, heavy hotelware cup with footed base.

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Housewares & appliances - gustatory	14516	T.U. 1, rubble layer, surface	Flatware rim	1	Whiteware; Hotelware rim from 8” diameter vessel
Domestic Item: Housewares & appliances - gustatory	14516	T.U. 1, rubble layer, surface	Unid. bodysherd	1	Whiteware; Thick, heavy hotelware
Domestic Item: Housewares & appliances - gustatory	14521	T.U. 2, Lev. 1, 15-30 cm	Unid. flatware	1	Whiteware; Base with fragment of makers’ mark “**…ANTE…**”
Domestic Item: Housewares & appliances - gustatory	14521/ 14547, 14527, 14527/ 14567	T.U. 2, Lev. 1, 15-30 cm; T.U. 4, 30-40cm	Saucer	1	Porcelain; grey; plain rim; floral decalcomania design in well from 5½ in diameter vessel; rim painted with green and gold washes; 6 frags. = 2 mended rim portions (4 pcs.), 1 rim, 1 well; makers mark in red on base = “HAND PAINTED/JAPAN” within open rectangle
Domestic Item: Housewares & appliances - gustatory	14523	T.U. 2, Lev. 2, 30-40 cm	Food/ Beverage cup	1	tan cup rim , 3” diameter with raised stylized (floral?) design
Domestic Item: Housewares & appliances - gustatory	14524	T.U. 2, Lev. 2, 30-40cm	Bodysherd	1	Whiteware; Thin
Domestic Item: Housewares & appliances - gustatory	14524	T.U. 2, Lev. 2, 30-40cm	Saucer	1	Rim; scalloped; diameter uncertain; green leaf with gold outline
Domestic Item: Housewares & appliances - gustatory	14524/ 14530	T.U. 2, Lev. 2, 30-40cm; Lev. 3, 40-50 cm	Saucer	4	2 mended rims of 2 fragments each, 1 saucer well, 1 foot. Thin rim with faint trace of raised dotted line on marli face following scalloped rim. Faint raised shell cartouche at intervals along dotted line
Domestic Item: Housewares & appliances - gustatory	14528/ 14530	T.U. 2, Lev. 3, 40-50cm	Saucer	1	slightly scalloped rim with polychrome rose decal and floral “rope” inside rim edge
Domestic Item: Housewares & appliances - gustatory	14530	T.U. 2, Lev. 3, 40-50 cm	Bodysherd	1	Whiteware; Thick
Domestic Item: Housewares & appliances - gustatory	14530	T.U. 2, Lev. 3, 40-50 cm	Pitcher or vase	1	Whiteware; 1 mended rim, 1 very thin bodysherd;
Domestic Item: Housewares & appliances - gustatory	14530	T.U. 2, Lev. 3, 40-50 cm	Bodysherd	1	Whiteware; Thick raised foot or rim
Domestic Item: Housewares & appliances - gustatory	14530/ 14568	T.U. 2, Lev. 3, 40-50 cm; T.U. 4, 30-40	Saucer	1	Whiteware; 6 mended pieces ; thin, 6 in diameter; portion from T.U. 4 cracked and discolored
Domestic Item: Housewares & appliances - gustatory	14531	T.U. 2, Lev. 4, 50-60 cm	Bodysherd	2	Thin hollowware base and thick bodysherd

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Housewares & appliances - gustatory	14531/ 14541/ 14542	T.U. 2, Lev. 4, 50-60cm	Saucer	1	5 mended fragments; 6.25" diameter; same pattern as 14524/14530 above but fainter. Indecipherable makers mark element on base
Domestic Item: Housewares & appliances - gustatory	14532	T.U. 2, Lev. 3, 40-50 cm	Teacup	1	Ropes of violets and green foliage looped across body mirrored by inverted repoussé scallops just above scalloped foot. Gold line on lip
Domestic Item: Housewares & appliances - gustatory	14535	T.U. 2, Lev. 4, 50-60 cm	Bodysherd	1	nail fused into gravels attached to interior surface; same vessel as 14548 below
Domestic Item: Housewares & appliances - gustatory	14537	T.U. 2, Lev. 3, 50-60 cm	Saucer	1	Thin well with raised foot; makers mark = olla-shaped pot with band of reverse swastikas above "WESTEND/1 5 10"
Domestic Item: Housewares & appliances - gustatory	14538	T.U. 2, 50-60 cm	Nappie	1	Whiteware; Thick flat-bottomed Hotelware. 5" wide, 1" high; original length about 8"
Domestic Item: Housewares & appliances - gustatory	14540	T.U. 2, Lev. 3, 50-60 cm	Pitcher/ vase?	3	Whiteware; bodysherds, possibly the same vessel as 14530/ pitcher or vase above
Domestic Item: Housewares & appliances - gustatory	14542	T.U. 2, Lev. 4, 50-60cm	Nappie	1	Whiteware; thick flat-bottomed Hotelware. 5" wide, 1" high; original length about 8"
Domestic Item: Housewares & appliances - gustatory	14542	T.U. 2, Lev. 4, 50-60cm	Pitcher/ vase?	6	Whiteware; bodysherds, possibly the same vessel as 14530/ pitcher or vase above
Domestic Item: Housewares & appliances - gustatory	14542/ 14550/ 14565	T.U. 2, 60-70cm	Saucer	1	Whiteware; 5 mended fragments; makers mark = "**ROYAL IRONSTONE CHINA/[lion and unicorn shield]/ALFRED [M]EAKI[N]/ENGLAND**"
Domestic Item: Housewares & appliances - gustatory	14543	T.U. 2,60-70 cm	Teacup	1	Everted rim with pink flower and green floral decals inside and out. Printed gold, stylized floral design on exterior rim below lip.
Domestic Item: Housewares & appliances - gustatory	14544/ 14547	T.U. 2, 60-70 cm, 70+ cm	Saucer	3	Porcelain; 1 mended rim, 1 rim; 1 foot fragment; undecorated
Domestic Item: Housewares & appliances - gustatory	14547	T.U. 2, 70+ cm	Canning jar lid liner	1	**[BOYD'S G]ENUINE PORCELAIN**; round
Domestic Item: Housewares & appliances - gustatory	14548	T.U. 2, 70+ cm	Teacup	1	Everted rim with flow blue exterior with gold floral decal over glaze. Raised dots of yellow and white used to fill flower petals. Gold band on lip
Domestic Item: Housewares & appliances - gustatory	14549	T.U. 2, 70+ cm	Small plate	1	Brown transfer printed rim; 7½" diameter. Unidentified floral design. Ceramic badly discolored.

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Housewares & appliances - gustatory	14549	T.U. 2, 70+ cm	Teacup?	1	Whiteware; Thin plain rimsherd
Domestic Item: Housewares & appliances - gustatory	14550	T.U. 2, 70+ cm	Bowl	1	Thick hotel ware bowl; 5" diameter at rim.2½" high. 1 partial vessel, 2 fragments mended to 1 rim
Domestic Item: Housewares & appliances - gustatory	14550	T.U. 2, 70+ cm	Fruit saucer or sauce dish	3	5 fragments mended to 1 partial vessel, 2 mended to rim, and 1 rim, no well for cup; 5½" diameter; faint raised pattern as 14524/14530 above. Makers mark = olla-shaped pot with band of reverse swastikas above "WESTEND/1 8 8"
Domestic Item: Housewares & appliances - gustatory	14550	T.U. 2, 70+ cm	Hollowware	1	Base with 5" diameter, flat-bottomed, wide foot ring and vertical body
Domestic Item: Housewares & appliances - gustatory	14550	T.U. 2, 70+ cm	Nappie	2	4 fragments mended to 1 rim and 1 partial vessel. Scalloped rim with raised vine motif just below interior rim. Flat bottom. Makers mark = "O.P.CO./SYRACUSE/ CHINA"
Domestic Item: Housewares & appliances - gustatory	14550	T.U. 2, 70+ cm	Saucer	1	2 fragments mended to partial vessel. 6" diameter.
Domestic Item: Housewares & appliances - gustatory	14551	T.U. 3, Lev. 1	Bodysherds	2	
Domestic Item: Housewares & appliances - gustatory	14551	T.U. 3, Lev. 1	Saucer/ bowl?	1	Pink and green floral.
Domestic Item: Housewares & appliances - gustatory	14553	T.U. 3, Lev. 2	Bodysherd	1	Thick
Domestic Item: Housewares & appliances - gustatory	14556	T.U. 4, 0-20cm	Bodysherds	2	Thick hotelware; 1 basal sherd, 1 bodysherd
Domestic Item: Housewares & appliances - gustatory	14556	T.U. 4, 0-20cm	Bodysherds	2	Thin
Domestic Item: Housewares & appliances - gustatory	14556	T.U. 4, 0-20cm	Bowl	1	Thick hotelware rim of 10" diameter bowl
Domestic Item: Housewares & appliances - gustatory	14556	T.U. 4, 0-20cm	Rimsherd	1	Thin
Domestic Item: Housewares & appliances - gustatory	14556	T.U. 4, 0-20cm	Saucer	6	2 fragments mended to make 1 partial vessel, 1 foot ring fragment, and 3 rim fragments cemented with mineralized gravels. 6½" diameter

Table B1. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Housewares & appliances - gustatory	14556	T.U. 4, 0-20cm	Teacup	1	Body fragment
Domestic Item: Housewares & appliances - gustatory	14558	T.U. 3, Lev. 2B-C	Flatware	1	Hotelware marli fragment
Domestic Item: Housewares & appliances - gustatory	14560	T.U. 3, Level 2B	Bodysherd	2	hotelware
Domestic Item: Housewares & appliances - gustatory	14570	T.U. 4, 30-40 cm	Saucer	1	Hotelware; about 6" diameter; makers mark "**K.T. & K./[bar]/ S[line]V/[bar]/CHINA/335**"
Domestic Item: Housewares & appliances - gustatory	14570	T.U. 4, 30-40 cm	Bodysherd	1	
Domestic Item: Housewares & appliances - gustatory	14571	T.U. 4, 40-50 cm	Saucer/ bowl	2	1 rim from 5½" diameter vessel; 1 bodysherd
Domestic Item: Housewares & appliances - gustatory	14572	T.U. 4, 50-60 cm	Saucer/ bowl	1	Rim
Domestic Item: Housewares & appliances - gustatory	14573	T.U. 4, 60-70 cm	Saucer	1	Well; makers mark olla-shaped pot with band of reverse swastikas above "WESTEND/1 7 13"
Domestic Item: Housewares & appliances - gustatory	14573	T.U. 4, 60-70 cm	Saucer/ bowl	1	Rim
Domestic Item: Housewares & appliances - gustatory	14575	T.U. 3, S.U. 4	Bodysherd	9	
Domestic Item: Housewares & appliances - gustatory	14575	T.U. 3, S.U. 5	Bodysherd	4	
Domestic Item: Housewares & appliances - gustatory	14575	T.U. 3, S.U. 4	Cup	1	Annularware rim; bright blue broad and narrow horizontal bands alternating with narrow white bands
Domestic Item: Housewares & appliances - gustatory	14575	T.U. 3, S.U. 4	Rim	1	
Domestic Item: Housewares & appliances - gustatory	14577	T.U. 2, 70-100 cm	Bowl	1	Rim-base fragment; 8" diameter at rim; reinforced lip; interior rim margin decorated with gold and green stylized vine rope; "12" in circle stamped into base
Domestic Item: Housewares & appliances - gustatory	14579	T.U. 4, 70-80 cm	Bodysherd	2	
Domestic Item: Housewares & appliances - gustatory	14580	Brick foundation west of Column 5	Bodysherd	1	Hotelware

Table B1. Concluded.

Functional Category	Cat.#	Provenience	Object	#	Description
Domestic Item: Housewares & appliances - gustatory	14581	Brick foundation west of Column 5	Handle	1	Whiteware; large hollowware handle
Domestic Item: Housewares & appliances - gustatory	14584	Construction hole next to Column 3	Platter	1	Hotelware; oval with flat bottom (no footer); probably about 14" long x 7" wide. Rim marked "**... Kennedy**" in brown gothic letters
Domestic Item: Housewares & appliances - gustatory	14585/ 14586/ 14587	T.U. 2, Lev. 3, 40-50cm	Cup	1	Repoussé and annularware chocolate(?) cup; 2 7/16" diameter, 3 1/8" high; vertical sides and handle (missing); bright blue raised rectangles alternating with white recessed rectangles in brickwork pattern; bright blue broad and narrow bands at rim and basal edge
Domestic Item: Housewares & appliances - portable sanitation	14582	Hole next to column south of south staircase.	Pitcher?	1	Hotelware; everted elliptical rim
Domestic Item: Housewares & appliances - portable sanitation	14583	T.U. 4, 100+0 cm	Wash basin?	1	Hotelware; massive base with 7½" diameter foot ring; makers mark = "IRON STONE CHINA" over royal coat of arms with maned horse on left, unicorn on right, "B&B" inside central shield
Domestic Item: portable waste disposal and sanitation	14407	T.U. 2, 70+ cm	Basin	1	White enameled basin rolled rim
Domestic Item: portable waste disposal and sanitation	14407	T.U. 2, 70+ cm	Cup	1	White enameled cup body

Table B2. Architectural Artifacts.

Functional Category	Cat.#	Provenience	Object	#	Description
Architecture: Building maintenance	14387	Brick foundation exposure west of Column 5	Pliers	1	Broken pair 8” long
Architecture: Construction - hardware	14351	T.U. 3, Lev. 2B-C	Nut	1	1.75” x 1½” x ½”; rounded face; ½” hole; of a size suitable for fastening tie rod (see Cat.# 14389)
Architecture: Construction - materials	14225	T.U. 1, Lev. 3, 80-90cm	Flat (window) glass	1	
Architecture: Construction - materials	14226	T.U. 1, Lev. 5, 100-110cm	Flat (window) glass	2	
Architecture: Construction - materials	14227	T.U. 1, Lev. 6, 110-120cm	Flat (window) glass	1	
Architecture: Construction - materials	14223	T.U. 1, surface, rubble layer	Flat (window) glass	2	
Architecture: Construction - materials	14232	T.U. 2, 60-70cm	Flat (window) glass	4	
Architecture: Construction - materials	14228	T.U. 2, Lev. 1, 15-30cm	Flat (window) glass	3	
Architecture: Construction - materials	14229	T.U. 2, Lev. 2, 30-40cm	Flat (window) glass	5	
Architecture: Construction - materials	14231	T.U. 2, Lev. 3, 40-50cm	Flat (window) glass	10	
Architecture: Construction - materials	14233	T.U. 3, Lev. 1	Flat (window) glass	5	
Architecture: Construction - materials	14234	T.U. 3, Lev. 1-4	Flat (window) glass	1	
Architecture: Construction - materials	14237	T.U. 3, Lev. 2	Flat (window) glass	2	
Architecture: Construction - materials	14239	T.U. 3, Lev. 2B	Flat (window) glass	1	
Architecture: Construction - materials	14240	T.U. 3, Lev. 2B-C	Flat (window) glass	2	
Architecture: Construction - materials	14236	T.U. 3, Lev. 3	Flat (window) glass	18	
Architecture: Construction - materials	14241	T.U. 3, S.U. 3	Flat (window) glass	7	

Table B2. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Architecture: Construction - materials	14244	T.U. 3, S.U. 4	Flat (window) glass	1	
Architecture: Construction - materials	14238	T.U. 4, 0-20cm	Flat (window) glass	2	
Architecture: Construction - materials	14242	T.U. 4, 50-60cm	Flat (window) glass	3	
Architecture: Construction - materials	14243	T.U. 4, 60-70cm	Flat (window) glass	1	
Architecture: Construction - materials	14245	T.U. 4, 70-80cm	Flat (window) glass	1	
Architecture: Construction - materials	14247	T.U. 4, Column 1 S. edge, 80-90cm, also lists 100+ cm	Flat (window) glass	1	
Architecture: Construction - materials	14235	T.U. 2, 70+ cm	Flat (window) glass	1	blue fragment; 0.17” thick; straight, rounded edge; 0.6” wide smooth band at edge on one side with remaining surface stippled.
Architecture: Construction - hardware	14344	T.U. 4, 40-50cm	Door pull	1	Cast iron; 8” long with 2” deep grip
Architecture: Construction - hardware	14356	T.U. 2, Lev. 1, 15-30cm	Shade pull	1	1.6” outside & 1” inside diameters; 3/4” eye screw attached
Architecture: Construction - hardware	14392	T.U. 1, surface, rubble layer	Downspout hook	1	Curved/tapered strap with spike for driving into brick wall; 16” long; for holding downspout in place
Architecture: Construction - hardware	14357	T.U. 2, Lev. 2, 30-40cm	Roofing disc	1	1.4” diameter; nail fragment in center
Architecture: Construction - hardware	14380	T.U. 4, 60-70cm	Strap hinge	1	8”
Architecture: Construction - hardware	14391	Hole next to Column 3	T-hinge	1	6” cast iron
Architecture: Construction - hardware	14389	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Tie rod/bolt	1	Threaded end cut off; loop at opposite end; 0.37” diameter stock
Architecture: Construction - hardware	14394	T.U. 4, 40cm	Tie rod/bolt	1	L-shaped; about 16” long overall with 5½” short arm; ½” diameter rod with both ends threaded

Table B2. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Architecture: Construction - hardware	14323	T.U. 3, Lev. 2B	Wire	1	5” long x 0.2” diameter
Architecture: Construction - hardware	14318	T.U. 3, Lev. 1	Fastener, Roofing tack	1	1” tack
Architecture: Construction - hardware	14307	T.U. 1, surface, rubble layer	Fastener, Nail - cut	1	2.75” (9d)
Architecture: Construction - hardware	14309	T.U. 1, Lev. 3, 80-90cm	Fastener, Nail - cut	2	2¼” (7d) and nail fragment.
Architecture: Construction - hardware	14353	T.U. 1, Lev. 4, 90-100cm	Fastener, Nail - cut	1	3” (10d)
Architecture: Construction - hardware	14310	T.U. 1, Lev. 5, 100-110cm	Fastener, Nail - cut	1	2.75” (9d)
Architecture: Construction - hardware	14311	T.U. 2, Lev. 1, 15-30cm	Fastener, Nail - cut	1	3” (10d)
Architecture: Construction - hardware	14312	T.U. 2, Lev. 2, 30-40cm	Fastener, Nail - cut	1	2½” (9d)
Architecture: Construction - hardware	14314	T.U. 2, Lev. 4, 50-60cm	Fastener, Nail - cut	1	2½” (8d)
Architecture: Construction - hardware	14318	T.U. 3, Lev. 1	Fastener, Nail - cut	11	4” (20d), 3” (10d), 7 - 2½ (8d), 2” (6d), 1½” (4d)
Architecture: Construction - hardware	14321	T.U. 4, 0-20cm	Fastener, Nail - cut	4	2- 3¼” (12d), 2 - 2½” (8d)
Architecture: Construction - hardware	14324	T.U. 4, 20-30cm	Fastener, Nail - cut	8	1 - 4½” (30d), 1 - 3.75” (18d), 2 - 3” (10d), 3 - 2¼” (7d), 1 - 1¼” (3d)
Architecture: Construction - hardware	14325	T.U. 4, 30-40cm	Fastener, Nail - cut	13	5 - 2” (6d), 2 - 2½” (8d), 4 - 2.75 (9d), 1 - 3” (10d), 1 - 3½” (16d)
Architecture: Construction - hardware	14326	T.U. 4, 40-50cm	Fastener, Nail - cut	3	3 - 3¼” (12d)
Architecture: Construction - hardware	14327	T.U. 4, 50-60cm	Fastener, Nail - cut	7	Corroded fragments
Architecture: Construction - hardware	14328	T.U. 4, 60-70cm	Fastener, Nail - cut	12	4 - 3¼” (12d), 1 - 2.75 (9d), 2 - 2” (6d), 1 - 1½” (4d), 6 - corroded fragments
Architecture: Construction - hardware	14329	T.U. 3, S.U. 4	Fastener, Nail - cut	19	2 - 3” (10d), 1 - 2.75” (9d), 4 - 2½” (8d), 1 - 1.75” (5d), 1 - 1½” (4d), 10 fragments

Table B2. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Architecture: Construction - hardware	14340	T.U. 3, S.U. 5	Fastener, Nail - cut	6	1 - 4” (20d), 2-3½” (16d), 2 - 2½” (8d), 1 unid. fragment
Architecture: Construction - hardware	14343	Brick foundation exposure west of Column 5	Fastener, Nail - cut	1	Fragment
Architecture: Construction - hardware	14359	T.U. 2, Lev. 2, 30-40cm	Fastener, Nail - cut	1	Shaft fragment
Architecture: Construction - hardware	14308	T.U. 1, 64-70cm	Fastener, Nail - cut	2	2” (6d); 2.75” (9d)
Architecture: Construction - hardware	14342	T.U. 4, Column 1 S. edge, 80-90cm, also lists 100+ cm	Fastener, Nail - cut	3	4¼” (25d), 2½” (8d), 2” (6d)
Architecture: Construction - hardware	14355	T.U. 1, Lev. 6, 110-120cm	Fastener, Nail - cut”	1	Shaft fragment
Architecture: Construction - hardware	14309	T.U. 1, Lev. 3, 80-90cm	Fastener, Nail - unid.	1	2” (6d)
Architecture: Construction - hardware	14311	T.U. 2, Lev. 1, 15-30cm	Fastener, Nail - unid.	4	Severely corroded
Architecture: Construction - hardware	14312	T.U. 2, Lev. 2, 30-40cm	Fastener, Nail - unid.	22	Corroded fragments
Architecture: Construction - hardware	14313	T.U. 2, Lev. 3, 40-50cm	Fastener, Nail - unid.	59	Corroded fragments
Architecture: Construction - hardware	14314	T.U. 2, Lev. 4, 50-60cm	Fastener, Nail - unid.	20	Corroded fragments
Architecture: Construction - hardware	14315	T.U. 2, 50-60cm	Fastener, Nail - unid.	8	Corroded; 4¼” (25d), 4” (20d), 3 - 3” (10d), 2½ (8d), 2 fragments
Architecture: Construction - hardware	14316	T.U. 2, 60-70cm	Fastener, Nail - unid.	31	Corroded; 4” (20d), 3¼ (12d), 2¼ (7d), 2” (6d), 1¼” (3d); 26 fragments
Architecture: Construction - hardware	14320	T.U. 3, Lev. 2	Fastener, Nail - unid.	5	Corroded fragments
Architecture: Construction - hardware	14322	T.U. 3, Lev. 2B-C	Fastener, Nail - unid.	2	Corroded fragments
Architecture: Construction - hardware	14323	T.U. 3, Lev. 2B	Fastener, Nail - unid.	4	2 - 1.75” (5d), 1- 2¼” (7d), 1- 3” (10d)
Architecture: Construction - hardware	14340	T.U. 3, S.U. 5	Fastener, Nail - unid.	7	Fragments

Table B2. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Architecture: Construction - hardware	14341	T.U. 4, 70-80cm	Fastener, Nail - unid.	23	Corroded
Architecture: Construction - hardware	14342	T.U. 4, Column 1 S. edge, 80-90cm, also lists 100+ cm	Fastener, Nail - unid.	21	Corroded
Architecture: Construction - hardware	14318	T.U. 3, Lev. 1	Fastener, Nail - unid.	8	Corroded fragments
Architecture: Construction - hardware	14319	T.U. 3, Lev. 1-4	Fastener, Nail - unid.	2	Corroded fragments
Architecture: Construction - hardware	14321	T.U. 4, 0-20cm	Fastener, Nail - unid.	11	Corroded fragments
Architecture: Construction - hardware	14323	T.U. 3, Lev. 2B	Fastener, Nail - unid.	7	Corroded fragments
Architecture: Construction - hardware	14324	T.U. 4, 20-30cm	Fastener, Nail - unid.	12	Corroded fragments
Architecture: Construction - hardware	14325	T.U. 4, 30-40cm	Fastener, Nail - unid.	13	Corroded fragments
Architecture: Construction - hardware	14326	T.U. 4, 40-50cm	Fastener, Nail - unid.	11	Corroded fragments
Architecture: Construction - hardware	14327	T.U. 4, 50-60cm	Fastener, Nail - unid.	2	Corroded fragments
Architecture: Construction - hardware	14328	T.U. 4, 60-70cm	Fastener, Nail - unid.	16	Corroded fragments
Architecture: Construction - hardware	14329	T.U. 3, S.U. 4	Fastener, Nail - unid.	72	Corroded fragments
Architecture: Construction - hardware	14386	T.U. 4, 80-90cm	Fastener, Nail - unid.	1	
Architecture: Construction - hardware	14361	T.U. 2, Lev. 4, 50-60cm	Fastener, Nail - unid.	1	Shaft
Architecture: Construction - hardware	14307	T.U. 1, surface, rubble layer	Fastener, Nail - wire	1	4” (20d)
Architecture: Construction - hardware	14311	T.U. 2, Lev. 1, 15-30cm	Fastener, Nail - wire	3	1.75” (5), 1¼” (3d), 1½” (4d)
Architecture: Construction - hardware	14312	T.U. 2, Lev. 2, 30-40cm	Fastener, Nail - wire	4	5” (30d), 3” (10d), 2” (6d), 1.75” (5d)

Table B2. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Architecture: Construction - hardware	14313	T.U. 2, Lev. 3, 40-50cm	Fastener, Nail - wire	9	2- 3.75” (18d), 1 - 3¼” (12d), 2 - 3” (10d), 2 - 1.75” (5d), 2 - 1¼” (3d)
Architecture: Construction - hardware	14317	T.U. 2, 70+ cm	Fastener, Nail - wire	1	4” (20d)
Architecture: Construction - hardware	14318	T.U. 3, Lev. 1	Fastener, Nail - wire	1	1¼” (3d)
Architecture: Construction - hardware	14319	T.U. 3, Lev. 1-4	Fastener, Nail - wire	2	2½” (8d)
Architecture: Construction - hardware	14327	T.U. 4, 50-60cm	Fastener, Nail - wire	1	2½’ (8d)
Architecture: Construction - hardware	14328	T.U. 4, 60-70cm	Fastener, Nail - wire	1	Corroded fragment
Architecture: Construction - hardware	14329	T.U. 3, S.U. 4	Fastener, Nail - wire	7	2 - 3.75” (18d), 1 - 3½” (16d), 1 - 1.75” (5d), 3 - 1¼” (3d)
Architecture: Construction - hardware	14340	T.U. 3, S.U. 5	Fastener, Nail - wire	1	1” (2d) brad
Architecture: Construction - hardware	14342	T.U. 4, Column 1 S. edge, 80-90cm, also lists 100+ cm	Fastener, Nail - wire	1	Brad head
Architecture: Construction - hardware	14321	T.U. 4, 0-20cm	Fastener, Nail - wire	1	6½” (70d)
Architecture: Construction - hardware	14326	T.U. 4, 40-50cm	Fastener, Nail - wire brad	1	1½” (4d),
Architecture: Construction - hardware	14310	T.U. 1, Lev. 5, 100-110cm	Fastener, Nail - wire duplex	1	3½” (16d)
Architecture: Construction - hardware	14329	T.U. 3, S.U. 4	Fastener, Nut & bolt	1	Corroded
Architecture: Construction - hardware	14310	T.U. 1, Lev. 5, 100-110cm	Fastener, Screw	1	2” long, round head
Architecture: Construction - hardware	14329	T.U. 3, S.U. 4	Fastener, Screw - wood	2	Corroded fragments
Architecture: Construction - materials	14441	T.U. 2, 70+ cm	Brick	1	Fragment fused to ferrous metal
Architecture: Construction - materials	14465	T.U. 2, Lev. 3, 40-50cm	Brick	17	Fragments

Table B2. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Architecture: Construction - materials	14467	T.U. 3, Lev. 2B	Brick	5	Soft red/orange fragments
Architecture: Construction - materials	14469	T.U. 3, S.U. 4	Brick	12	Soft red/orange fragments
Architecture: Construction - materials	14470	T.U. 4, 100+ cm	Brick	1	Corroded ferrous bolt or spike fused to surface
Architecture: Construction - materials	14471	T.U. 2, 60-70cm	Brick	8	Red and yellow fragments; 2 with fused with ferrous metal.
Architecture: Construction - materials	14472	T.U. 2, 60-70cm	Brick	1	Light tan fragment painted red on one face under concrete slopped onto surface; impressed mark “[LACLE]DE/?/[ST. LOUI]S”; 2,5” thick x 4.4” wide
Architecture: Construction - materials	14473	Column 8, construction excavation backdirt	Brick	1	Light red fragment; indented rectangle on one face with “LACLE[DE]/ST LOUIS]”; 2.4” thick x 4.3” wide
Architecture: Construction - materials	14474	T.U. 2, 60-70cm	Brick	1	Red fragment; plain face with “[L]ACL[EDE]/[ST] LOUIS”; 2.4” thick x 4.3” wide
Architecture: Construction - materials	14475	T.U. 2, 70+ cm	Brick	1	Red to brown fragment; plain face with “LACLE[DE]/ KING/[?]”; 2.4” thick
Architecture: Construction - materials	14476	T.U. 2, 60-70cm	Brick	1	Yellow tan fragment; plain face with “[LACLE]DE/... XXX”
Architecture: Construction - materials	14478	T.U. 2, 60-70cm	Brick	1	Soft red/orange fragment; one blackened face; 4” wide x 2.6” thick
Architecture: Construction - materials	14479	T.U. 2, 70+ cm	Brick	1	Yellow to tan fragment; plain face with “LACLED[E]/ KIN[G]/ST LO[UIS]”; small piece ferrous metal fused to end; 4.3” wide x 2.5” thick
Architecture: Construction - materials	14480	T.U. 2, 70+ cm	Brick	1	Light tan, coarse fragment marked “[LACL]EDE/ [KI]NG/[ST L]OUIS”. 2½” thick x 4½” wide
Architecture: Construction - materials	14481	T.U. 3, Lev. 3	Brick	1	Red fragment. No makers mark. Large brick fragment included in paste. Wet molded soft-mud brick? 4.0” wide x 2.6” thick

Table B2. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Architecture: Construction - materials	14482	T.U. 3, Lev. 2	Brick	1	Brown fragment red bearing mortar on four faces. Massive amounts of black clinker(?) mixed in clay. No makers mark visible. 3.6" wide x 2.4" thick
Architecture: Construction - materials	14483	T.U. 3, Lev. 2B	Brick	1	Red fragment with gravel and clinker(?) temper; no makers mark; mortar on 4 faces, 3.9" wide x 2.7" thick; wet molded soft-mud
Architecture: Construction - materials	14484	T.U. 3, Lev. 2B	Brick	1	Brown fragment with gravel and clinker temper; mortar on 3 faces; no makers mark; 3.5" wide x 2.6" thick; soft-mud
Architecture: Construction - materials	14485	T.U. 3, Lev. 2B	Brick	1	Red fragment with gravel, clinker and brick temper; no makers mark; soft-mud; 3.8" wide x 2.6" thick
Architecture: Construction - materials	14486	T.U. 3, S.U. 4	Brick	2	Brown fragments; similar to 14485; 3.9" wide x 2.5" thick
Architecture: Construction - materials	14487	T.U. 3, S.U. 4	Brick	1	Red fragment with gravel temper; no makers mark; 3.9" wide x 2.5" thick
Architecture: Construction - materials	14514	T.U. 4, 70-80cm	Brick	1	Dark brown fragment
Architecture: Construction - materials	14515	T.U. 2, 70+ cm	Brick	1	Tan fragment marked "MISSO(URI)"; 7.3" thick
Architecture: Construction - materials	Not collected	From contractor's basement sump pit excavation	Brick	3	Complete bricks marked "EVENS & HOWARD/ ACME DP"; [in lozenge-shaped cartouche] "MAPCO"; [in rectangular cartouche] "LACLEDE/ST LOUIS"
Architecture: Construction - materials	14441	T.U. 2, 70+ cm	Concrete	2	Fragments
Architecture: Construction - materials	14455	T.U. 2, 60-70cm	Concrete	11	1 large fragment with finished face and brick impression on reverse side
Architecture: Construction - materials	14456	T.U. 3, Lev. 2	Concrete	14	Fragments
Architecture: Construction - materials	14458	T.U. 3, Lev. 2B	Concrete	6	

Table B2. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Architecture: Construction - materials	14459	T.U. 3, S.U. 3	Concrete	6	
Architecture: Construction - materials	14460	T.U. 3, S.U. 4	Concrete	29	Many fragments with finished wall faces with thin plaster coat
Architecture: Construction - materials	14461	T.U. 3, S.U. 5	Concrete	7	Many fragments with finished wall faces with thin plaster coat
Architecture: Construction - materials	14462	T.U. 3, S.U. 5	Concrete	2	
Architecture: Construction - materials	14463	T.U. 3, Lev. 2B	Concrete	1	Dark red painted(?) cement with finished face
Architecture: Construction - materials	14464	T.U. 4, Column 1 S. edge, 80-90cm, also lists 100+ cm	Concrete	1	
Architecture: Construction - materials	14477	T.U. 3, Lev. 2B	Concrete	1	Reddish brown painted floor fragment
Architecture: Construction - materials	14494	T.U. 2, Lev. 3, 40-50cm	Concrete	9	Fragments
Architecture: Construction - materials	14497	T.U. 2, 50-60cm	Concrete	1	Fragment; burned on one side.
Architecture: Construction - materials	14497	T.U. 2, 50-60cm	Slate shingle	1	Fragment
Architecture: Construction hardware	14435	T.U. 3, S.U. 4	Bolt	1	Cuprous flat head ¼" diameter
Architecture: Construction hardware	14507	T.U. 2, 60-70cm	Room number plate	1	Brass plate with porcelain face marked "18"; 3" long x1.5" wide
Architecture: Construction hardware	14512	T.U. 2, 70+ cm	Doorknob	1	White; 2¼" diameter x 1" thick; 0.65" diameter shaft hole on back
Architecture: Construction materials	14554	T.U. 3, Lev. 2	Brick	13	Small fragments of soft red brick
Architecture: Construction materials	14520	T.U. 1, Lev. 4, 90-100 cm	Paint	9	Dried light green fragments shaped like a can base and rim; Munsell color 5 GY9/2 (pale yellow green)
Architecture: Construction materials	14517	T.U. 1, Lev. 4, 90-100 cm	Tile	1	Plain white; clear glaze
Architecture: Fixed heating	14508	T.U. 2, Lev. 2, 30-40cm	Mica disk	1	Furnace window; 1¼" diameter
Architecture: Fixed heating	14509	T.U. 4, 20-30cm	Mica disk	1	Furnace window; 1¼" diameter

Table B2. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Architecture: Fixed heating	14281	T.U. 2, Lev. 3, 40-50cm	Coal	1	
Architecture: Fixed heating	14282	T.U. 2, 50-60cm	Coal	1	
Architecture: Fixed heating	14283	T.U. 2, 60-70cm	Coal	2	
Architecture: Fixed heating	14288	T.U. 3, S.U. 1	Coal	1	
Architecture: Fixed heating	14290	T.U. 3, S.U. 4	Coal	4	
Architecture: Fixed heating	14291	T.U. 3, S.U. 4	Coal	1	
Architecture: Fixed heating	14372	T.U. 3, Lev. 2B	Slag	12	
Architecture: Fixed heating	14376	T.U. 3, S.U. 3/4 interface	Slag	1	
Architecture: Fixed heating	14383	T.U. 3, S.U. 4	Slag	7	
Architecture: Fixed illumination	14420	T.U. 4, 60-70cm	Light bulb	1	Cuprous snap-in base containing glass tube with base of filaments
Architecture: Fixed illumination	14432	T.U. 2, 50-60cm	Light bulb	1	Cuprous threaded metal base with glass lining
Architecture: Fixed illumination	14433	T.U. 2, 60-70cm	Light bulb	1	Cuprous threaded base and glass filament
Architecture: Fixed illumination	14434	T.U. 2, Lev. 1, 15-30cm	Light bulb	1	Cuprous metal base and socket; cardboard insulation lining; square hole at base of socket
Architecture: Fixed illumination	14437	T.U. 2, 60-70cm	Light bulb	1	Cuprous metal threaded base fragment
Architecture: fixed illumination & power	14555	T.U. 4, 0-20 cm	Insulator	1	Fragment of rectangular (11/16” x 3/8” in cross-section) cleat, white with clear glaze on three sides; recessed 3/8” screw(?) hole on top
Architecture: Fixed illumination and power	14505	T.U. 2, Lev. 4, 50-60cm	Electrical insulator	1	Bisque wire guide fragment
Architecture: Plumbing	14312	T.U. 2, Lev. 2, 30-40cm	Pipe	1	External threads; 0.38” diameter x 1½” long
Architecture: Plumbing	14350	T.U. 3, Lev. 1	Pipe	2	Cast iron fragments; female end; 4½” diameter interior
Architecture: Plumbing	14360	T.U. 2, Lev. 3, 40-50cm	Pipe	1	Cast iron 4” diameter pipe fragment
Architecture: Plumbing	14382	T.U. 3, S.U. 4	Pipe	2	Cast iron collar for 2” pipe and unmeasureable fragment of larger diameter pipe
Architecture: Plumbing	14369	T.U. 3, Lev. 3	Sleeve	1	Cast iron; for 2” or larger pipe

Table B2. Concluded.

Functional Category	Cat.#	Provenience	Object	#	Description
Architecture: Plumbing	14519	T.U. 1, Lev. 4, 90-100 cm	Sanitary pipe	1	Exterior brown glaze; rim
Architecture: Plumbing	14590	Brick foundation exposure west of Column 5	Sanitary pipe	1	Dark brown glaze inside and out; rim
Architecture: Plumbing	14591	T.U. 3, Lev. 2	Sanitary pipe	2	Dark brown glazed exterior; bodysherd spall; interior surface missing
Architecture: Plumbing	14592	T.U. 2, 60-70 cm	Sanitary pipe	1	Saltglazed interior and exterior; bodysherd
Architecture: Plumbing - sanitation	14551a	T.U. 3, Lev. 1	Tub rim?	1	Massive ceramic rim curved over on itself to create a 2” wide rim
Architecture: Plumbing -sanitation	14499	Hole next to first column south of south staircase	Toilet foot?	1	Rim marked “TRADE/DEEP S…/MARK”
Architecture: Plumbing -sanitation	14500	Construction hole next to Column 3	Toilet bowl	1	Thick rounded rim with holes every 1.5” for water discharge
Architecture: Plumbing -sanitation	14551b	T.U. 3, Lev. 1	Bathtub	1	Rolled rim from bathtub

Table B3. Commerce and industry artifacts.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Business - Record Keeping	14130	T.U. 2, Lev. 2, 30-40cm	Ink Bottle	1	[Base:] **CAR[TER'S]/10/N[o. 5?]**; clear base; 20b; ABM (Owens scar)
Commerce and Industry: Business - Record Keeping	14137	T.U. 2, Lev. 3, 40-50cm	Ink Bottle	2	clear; shoulders; same form as 14065 Carter's.
Commerce and Industry: Business - Record Keeping	14137	T.U. 2, Lev. 3, 40-50cm	Ink Bottle	1	[Base:] **[CAR]TER'S/No 5/MADE IN U.S.A.;** clear; base; 20b; ABM (Owens scar)
Commerce and Industry: Business - Record Keeping	14137	T.U. 2, Lev. 3, 40-50cm	Ink Bottle	1	[Base:] **CARTER'S/No 257[/ MADE IN U.S.A.];** clear; base; 20b.
Commerce and Industry: Business - Record Keeping	14140	T.U. 2, Lev. 3, 40-50cm	Ink Bottle	1	clear; 1 body w/finish, 1 finish; 1 shoulder; same form as 14065 Carter's.
Commerce and Industry: Business - Record Keeping	14140	T.U. 2, 60-70cm	Ink Bottle	1	**CARTER'S/7½/MADE IN/ U.S.A.**; clear base; 20b; ABM (valve mark)
Commerce and Industry: Business - Record Keeping	14142	T.U. 2, Lev. 3, 40-50cm	Ink Bottle	1	[Base:] **SA[NFORD?]...S**; light green base fragment; 1b or 2b
Commerce and Industry: Business - Record Keeping	14144a	T.U. 2, Lev. 4, 50-60cm	Ink Bottle	1	clear base fragment; 2b; possible ink bottle
Commerce and Industry: Business - Record Keeping	14144b	T.U. 2, Lev. 4, 50-60cm	Ink Bottle	1	**[CARTER'S]/MAD[E IN]/ U.S.A.**; clear base fragment; 2b
Commerce and Industry: Business - Record Keeping	14144c	T.U. 2, Lev. 4, 50-60cm	Ink Bottle	1	clear finish/shoulder; 3n; 20b; similar to round stand shape (Putnam 1965:59); Carter's bottle
Commerce and Industry: Business - Record Keeping	14145	T.U. 2, 70+ cm	Ink Bottle	1	clear body and finish; 3n; 20b; similar to round stand shape (Putnam 1965:59); Carter's bottle.
Commerce and Industry: Business - Record Keeping	14145	T.U. 2, 70+ cm	Ink Bottle	1	**CAR[TER'S]/MAD[E IN/]U[. S.A.]**; clear base fragment; 20b; ABM (valve mark)
Commerce and Industry: Business - Record Keeping	14145	T.U. 2, 70+ cm	Ink Bottle	1	**2½ FLUID OUNCES;** clear body and finish; 3n; 20b; h neck; similar to round stand shape (Putnam 1965:59); Carter's bottle.
Commerce and Industry: Business - Record Keeping	14145	T.U. 2, 70+ cm	Ink Bottle	1	**CART[ER'S]**; clear base; 20b; ABM (Owens scar); probably same as Cat. 14145 marked "2½ FLUID OUNCES"
Commerce and Industry: Business - Record Keeping	14147	T.U. 2, 70+ cm	Ink Bottle	1	lt. yellow green finish and shoulder; 3n; 3b; squat square ink? Identical form to Sandford cat. 14063.

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Business - Record Keeping	14155	T.U. 4, 0-20cm	Ink Bottle	2	shoulder fragments; Carter's ink
Commerce and Industry: Business - Record Keeping	14162	T.U. 4, 20-30cm	Ink Bottle	2	[Base:] **CAR[TER'S]/3/]**; clear base, shoulder; 20b; ABM (Owens scar)
Commerce and Industry: Business - Record Keeping	14163	T.U. 4, 30-40cm	Ink Bottle	1	clear; shoulder; Carter's
Commerce and Industry: Business - Record Keeping	14063	T.U. 2, 50-60cm	Ink Bottle	1	[Base:] **SANDFORD/0/INK;** clear; 2.4" X 1.95" x 1.95"; 3n; 2b; 4pl; squat square shape (Putnam 1965:60); ABM
Commerce and Industry: Business - Record Keeping	14065	T.U. 2, 50-60cm	Ink Bottle	1	[Base:] **CARTER'S/U.S.A.;** clear; 2.5" x 1.95 diameter; 3n; 20b; similar to round stand shape (Putnam 1965:59); ABM
Commerce and Industry: Business record keeping	14496	T.U. 3, Lev. 1	Ink bottle	1	White glaze; 6" high x 2.4" diameter; ball neck; chipped pouring spout
Commerce and Industry: Business record keeping	14452	T.U. 3, S.U. 5	Ink bottle?	3	Stoneware bottle fragments
Commerce and Industry: Business record keeping	14506	T.U. 4, 60-70cm	Pencil lead	1	Carbon rod
Commerce and Industry: Business - Record Keeping	14396	Surface, SW corner of building	Photographic records - Film canister	8	Tinned; 7 with attached lids; 1.75" high, 1.3" diameter
Commerce and Industry: Commercial Services - grooming	14405	T.U. 2, Lev. 3, 40-50cm	Cream/salve jar	1	Aluminum threaded fragment; 2.6" diameter; Crême Elcaya jar lid?
Commerce and Industry: Commercial Services - grooming	14409	T.U. 4, 20-30cm	Cream/salve jar	1	Aluminum threaded lid fragment
Commerce and Industry: Commercial Services - grooming	14199	T.U. 2, Lev. 4, 50-60cm	Cream/salve jar	1	milk glass rim; 17n; ca. 2" diameter
Commerce and Industry: Commercial Services - grooming	14199/ 14205	T.U. 2, Lev. 4, 50-60cm/ T.U. 2, 70+ cm	Cream/salve jar	1	milk glass lid or base (frags. mended); 3 concentric raised rings on one face
Commerce and Industry: Commercial Services - grooming	14200/ 14216	T.U. 2, Lev. 1, 15-30cm/ T.U. 2, 70-100cm, pulled from mud	Cream/salve jar	1	**PO[ND'S]/POND'S**; milk glass; 2.3" x 2.1" x 2.1"; 17n; 1b; 2ip; v; large bottle
Commerce and Industry: Commercial Services - grooming	14140	T.U. 2, 60-70cm	Cream/salve jar	1	**[POMPEIAN]/MASSA[GE]/ CREAM**; clear base & lower body ; 20b; h; ABM (valve mark) somewhat similar to Jersey Milk shape (Putnam 1965:232).

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial Services - grooming	14201	T.U. 2, 50-60cm	Cream/salve jar	2	milk glass; 1 threaded rim (17n)
Commerce and Industry: Commercial Services - grooming	14202	T.U. 2, 60-70cm	Cream/salve jar	1	milk glass lid; 1.7" (with non-ferrous metal lid) x 2.1" diameter; 17n; 20b; complete vessel; 4 raised bars around margin of base
Commerce and Industry: Commercial Services - grooming	14203	T.U. 2, 60-70cm	Cream/salve jar	1	Pond's; milk glass rim; 1b
Commerce and Industry: Commercial Services - grooming	14203	T.U. 2, 60-70cm	Cream/salve jar	1	milk glass footed base frag; base= 2.1" diameter; body = 1.8" wide; base = 20b; body = 21b
Commerce and Industry: Commercial Services - grooming	14204	T.U. 2, 70+ cm	Cream/salve jar	1	**ELCAYA//ELCAYA** [Base:] **JAMES C. CRANE/1/NEW YORK**; milk glass; 2.65" x 2.15" x 2.15"; 17n; 1b; 2ip; v, h
Commerce and Industry: Commercial Services - grooming	14205	T.U. 2, 70+ cm	Cream/salve jar	1	[Base:]**CREME/DE MERIDOR;** milk glass base; 1.9" diameter; 20b; 4 raised dots around margin of base
Commerce and Industry: Commercial Services - grooming	14205	T.U. 2, 70+ cm	Cream/salve jar	2	**[PON]D'S/[POND'S]**; milk glass; 1.9" x ca. 1.9" x ca. 1.9"; 17n; 1b; 2ip; v; small bottle
Commerce and Industry: Commercial Services - grooming	14205	T.U. 2, 70+ cm	Cream/salve jar	1	milk glass foot fragment; probably from Pond's jar
Commerce and Industry: Commercial Services - grooming	14205	T.U. 2, 70+ cm	Cream/salve jar	7	milk glass; 2 rims; 3 partially melted
Commerce and Industry: Commercial Services - grooming	14205	T.U. 2, 70+ cm	Cream/salve jar	1	milk glass rim & body; ca. 2.5" diameter; 17n; 20b; plain body
Commerce and Industry: Commercial Services - grooming	14205	T.U. 2, 70+ cm	Cream/salve jar	1	milk glass rim/upper body; rim -= circa 1.5" diameter; body = ca. 1.75" diameter; used a slide on cap; 20b
Commerce and Industry: Commercial Services - grooming	14205	T.U. 2, 70+ cm	Cream/salve jar	1	milk glass base (mended); ca. 3.5" diameter; rounded-foot shaving mug or face powder container? Base marked with drop symbol
Commerce and Industry: Commercial Services - grooming	14209/ 14210	T.U. 4, 30-40cm/ T.U. 4, 50-60cm	Cream/salve jar	3	Pond's (probably paper label); milk glass; mended frags.; 2.7" x ca. 2.7" x ca. 2.7"; 17n; 1b; panel with vertical bars alternating with plain panel
Commerce and Industry: Commercial Services - grooming	14210	T.U. 4, 50-60cm	Cream/salve jar	1	milk glass; threaded rim (17n)

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial Services - grooming	14211	T.U. 4, 40-50cm	Cream/salve jar	2	milk glass; 1 threaded rim (17n), 1 very thin body frag.
Commerce and Industry: Commercial Services - grooming	14212	T.U. 4, 60-70cm	Cream/salve jar	1	milk glass jar with aluminum lid; 2.0" x 2.35" diameter; 17n; 20b; four columns at quarters on the body
Commerce and Industry: Commercial Services - grooming	14213	T.U. 4, 70-80cm	Cream/salve jar	1	[Base:]**[CRE]ME[/DE MERIDOR];** milk glass base 20b; raised dot at margin of base
Commerce and Industry: Commercial Services - grooming	14214	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Cream/salve jar	1	[Base:] **W. T. & CO./C/693/PAT JUNE 7TH, 1892;** milk glass base; 2.0" diameter; 20b;
Commerce and Industry: Commercial Services - grooming	14215	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Cream/salve jar	1	milk glass base; 20b no markings
Commerce and Industry: Commercial Services - grooming	14589	T.U. 2, Lev. 3, 40-50 cm	Cream/salve jar	2	Rectangular milk glass base; 1 thinner rim with raised ridge for screw cap
Commerce and Industry: Commercial Services - grooming	14207	T.U. 4, 0-20cm	Cream/salve jar	1	milk glass; foot fragment (probably from Pond's jar)
Commerce and Industry: Commercial Services - grooming	14208	T.U. 4, 20-30cm	Cream/salve jar	1	milk glass; 1.5" x circa 2" diameter; 17n; 20b; raised bars on basal margin similar to Cat. 14202.
Commerce and Industry: Commercial Services - grooming	14209	T.U. 4, 30-40cm	Cream/salve jar	1	milk glass; 20b; 1.5" x circa 2" diameter; 17n; 20b; raised bars on basal margin similar to Cat. 14202
Commerce and Industry: Commercial Services - grooming?	14112	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Hair dressing bottle	1	**[PAUL WESTPHAL/ AU]XILI[ATOR/FOR/THE/ HAIR/NEW YORK];** aqua paneled body; Prescription shape; Fike 1987:126
Commerce and Industry: Commercial Services - grooming	14105	T.U. 4, 50-60cm	Hair dressing jar	1	[Base;} [triangle within triangle]; cobalt; 2.4" x 1.7" diameter; 17n; 20b; ABM (Owens scar); similar to Round Pomeade shape with screw top (Putnam 1965:44).
Commerce and Industry: Commercial Services - grooming	14061	T.U. 2, 50-60cm	Hair dye bottle	1	**WALNUTTA**; clear; 4.0" x 1.55" diameter; 7n; 20b; shoulder embossed; ABM round extract shape

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial Services - grooming	14055	Surface, SW building corner	Hair dye bottle	1	**"C.DAMSCHINSKY/LIQUID HAIR DYE/NEW YORK";** Aqua; 3.4" x 1.3" x 1.0"; 9n; 3b; 1ip; v, f; (Fisk 1987: 122-123; Reynolds 1983: 197)
Commerce and Industry: Commercial Services - grooming	14097	T.U. 2, 70+ cm	Perfume bottle	1	[Base:] **O** (in square) **60;** clear; 2.55" x 1.45 x 0.7"; 17n; 12b; ABM (Owens scar); makers mark = Owens Bottle Co. (1911-1929) (Toulouse 1971:393). Perfume.
Commerce and Industry: Commercial Services - grooming?	14103	T.U. 4, 40cm, S. wall	Perfume bottle	1	**1/2 OZ.;** Clear; 3.1" x 1.2" x 0.7"; 9n; 13b; pl; h, f. Perfume bottle?
Commerce and Industry: Commercial Services - grooming? food?	14135	T.U. 2, Lev. 3, 40-50cm	Perfume Bottle	1	**1¼ OZ.;** clear - Prescription shape
Commerce and Industry: Commercial Services - grooming	14093	T.U. 2, 70+ cm	Perfume bottle -Florida Water	1	**[FLORIDA WATER/MURRAY & LANMAN]/DRUGGI[STS]/ NEW-Y[ORK]**; aqua neck/body fragment; 2.22" diameter; 20b; h. 2 opposite mold seams through extant bottle. Florida Water shape (Putnam 1965:81).
Commerce and Industry: Commercial Services - grooming	14147	T.U. 2, 70+ cm	Perfume bottle -Florida Water	1	aqua neck; same shape as 14039
Commerce and Industry: Commercial services - grooming	14136/ 14142	T.U. 2, 50-60cm/ T.U. 2, Lev. 3, 40-50cm	Perfume bottle? -Florida Water?	1	aqua neck/finish fragment; 11n; finishing tool; Florida Water or Alabama Panel (extract) Bottle
Commerce and Industry: Commercial services - grooming	14145	T.U. 2, 70+ cm	Perfume bottle? -Florida Water?	1	clear (slightly SA); 11n; finishing tool; Florida Water or Alabama Panel (extract) Bottle
Commerce and Industry: Commercial Services -grooming	14078	T.U. 2, 70+ cm	Perfume - Toilet water bottle	1	[monogram: two concentric circles around] **C & Co;** Clear; 4.8" x 2.0" x 1.1"; 7n; 24b; 1pl; f; Chicago Toilet Water shape (Putnam 1965:80). Fike (1985:54) suggests a similar monogram was used by Colgate for Colgates Violet Water in 1877 and 1935.
Commerce and Industry: Commercial Services - grooming?	14205/ 14216	T.U. 2, 70+ cm/ T.U. 2, 70-100cm, pulled from mud	Shaving soap or face powder jar	1	milk glass base (mended); 3.75" diameter; flat foot; shaving mug or face powder container? Base marked with drop symbol
Commerce and Industry: Commercial Services - grooming	14139	T.U. 2, 60-70cm	Shoe Polish Bottle	1	aqua body/finish and base fragments. 3n; 2b; 4pl; collar at neck/shoulder juncture. Shoe polish? ink/mucilage shape

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial Services - grooming	14429	Brick foundation exposure west of Column 5	Shoe polish can	2	Tinned ferrous base and slip-on cap; can was 3½" diameter x 3/4" deep; base has recessed face
Commerce and Industry: Commercial Services - grooming	14357	T.U. 2, Lev. 2, 30-40cm	Talcum/body powder can cap	1	Friction cap; 1" internal diameter; x ½" high; 3 small dispenser holes in top
Commerce and Industry: Commercial Services - grooming	14409	T.U. 4, 20-30cm	Talcum /body powder can?	1	Oval non-ferrous metal can fragment with shoulder and neck for snap-on lid
Commerce and Industry: Commercial Services - grooming	14160	T.U. 2, 70+ cm	Talcum/body powder bottle	1	[Cuprous cap:] [script:] **Talcolette**; clear finish with cap attached; photos on the internet show the bottle to be 5" diameter and 21b.
Commerce and Industry: Commercial Services - grooming	14076	T.U. 2, 70+ cm	Talcum/body powder jar	1	[Base:] [beaded band around base]; clear; 2.9" x 1.7" diameter; 17n; 20b; ABM (valve mark); Round Talcum, Screw Cap (Putnam 1965:40).?
				61	
Commerce and Industry: Commercial services - medical/ pharmaceutical	14147	T.U. 2, 70+ cm	Analgesic - bottle	1	**77·4** [Base:] **RED RAV[EN]/18/ SPLI[T]**; amber base/body; 2.3" diameter; 20b; h (basal edge), h; Half Pint (Split) shape (Putnam 1965:251).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14147	T.U. 2, 70+ cm	Analgesic - bottle	1	amber finish; 19n; finishing tool; Appolinaris shape; Red Raven?
Commerce and Industry: Commercial services - medical/ pharmaceutical	14088	T.U. 2, 70+ cm	Analgesics and antacid bottle	1	cobalt blue; 7.2" x 2.9" diameter; 3n; 20b; tooled finish; Bromo-Seltzer bottle shape (blue glass) (Putnam 1965:37)
Commerce and Industry: Commercial services - medical/ pharmaceutical	14128	T.U. 2, Lev. 2, 30-40cm	Analgesics and antacid bottle	1	cobalt blue base; 1.65" diameter; ABM (Owens)
Commerce and Industry: Commercial services - medical/ pharmaceutical	14082/ 14147	T.U. 2, 70+ cm	Analgesics and antacid bottle	1	cobalt blue (mended); 3.3" x 1.2 in diameter; 3n; 20b; ABM (valve mark?) Bromo-Seltzer?
Commerce and Industry: Commercial services - medical/ pharmaceutical	14136	T.U. 2, 50-60cm	Analgesics and antacid bottle	1	amber finish; 3n; tooled finish
Commerce and Industry: Commercial services - medical/ pharmaceutical	14154	T.U. 4, 0-20cm	Analgesics and antacid bottle	1	cobalt blue base; 20b; ABM (valve mark?)

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical	14154	T.U. 4, 0-20cm	Analgesics and antacid bottle	1	**[BROMO-SELTZER/]EME[RSON]/DRUG [CO.]/ BALT[IMORE, MD.]**; cobalt blue body fragment; 20b
Commerce and Industry: Commercial services - medical/ pharmaceutical	14136	T.U. 2, 50-60cm	Antiseptic - bottle	1	**[DR.] TICH[ENOR'S// ANTISEPTIC];** aqua; v, ss
Commerce and Industry: Commercial services - medical/ pharmaceutical	14134	T.U. 2, Lev. 3, 40-50cm	Antiseptic - Hydrogen peroxide bottle	1	**Diox[ogen];** amber body fragment; 20b; h (shoulder); hydrogen peroxide
Commerce and Industry: Commercial services - medical/ pharmaceutical	14121	T.U. 1, Lev. 4, 90-100cm	Antiseptic - Hydrogen peroxide bottle?	3	amber finish/neck/shoulder & 2 body fragments; 9n; 20b; lipping tool
Commerce and Industry: Commercial services - medical/ pharmaceutical	14143	T.U. 2, Lev. 4, 50-60cm	Antiseptic - Hydrogen peroxide bottle?	1	amber finish/neck/shoulder; 9n; 20b; lipping tool
Commerce and Industry: Commercial services - medical/ pharmaceutical	14147	T.U. 2, 70+ cm	Antiseptic - Hydrogen peroxide bottle?	1	amber finish/neck; 9n; ABM
Commerce and Industry: Commercial services - medical/ pharmaceutical	14147	T.U. 2, 70+ cm	Antiseptic - Hydrogen peroxide bottle?	1	[Base;] **P.M./F. S. CO;** amber base; 6b?
Commerce and Industry: Commercial services - medical/ pharmaceutical	14195	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Antiseptic - Hydrogen peroxide bottle?	1	amber finish/neck; 9n; lipping tool
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14070	T.U. 2, 60-70cm	Antiseptic - Hydrogen peroxide bottle?	1	amber (missing finish); 1.9" diameter; 20b; post mold?; round extract shape
Commerce and Industry: Commercial services - medical/ pharmaceutical	14147	T.U. 2, 70+ cm	Antiseptic - Hydrogen Peroxide(?) bottle -	2	[Base:] **N**; amber (base & upper body/finish); 2.9" diameter; 7n; 20b; ABM (Owens scar); round extract shape
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14147	T.U. 2, 70+ cm	Antiseptic - Hydrogen Peroxide(?) bottle -	1	amber finish; 7n; ABM; round extract shape

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical	14080	T.U. 2, 70+ cm	Cold medicine bottle	1	**WHITEHURST//[base:] 528[in diamond] 10;** Aqua; 3.4" x 1.7" x 0.8"; 3n; 12b; pl; v, f. ABM (Owens cut-off scar); Base marked "528" inside diamond, "10" to right of diamond. Ginger ovals - flint shape (Putnam 1965:39). Juniper-tar compound? (Fisk 1987: 186)
Commerce and Industry: Commercial services - medical/ pharmaceutical	14102	Column 9, approx. 90cm, immediately next to Column	Consumption medicine bottle	1	**PISO CO., WARREN, PA. U.S.A.// //TRADE PISO'S MARK;** Amber; 5.4" x 1.9" x 1.1"; [modified] 22n; 3b; 4ip; v, ss; ABM; partially melted (Fisk 1987: 74, 240).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14127/ 14129	T.U. 2, Lev. 1, 15-30cm/ T.U. 2, Lev. 2, 30-40cm	Croup medicine bottle	4	fragments; clear; 2 mend embossed with **[R]EMEDY**; one with **DR DRAKE S;** vs
Commerce and Industry: Commercial services - medical/ pharmaceutical	14108	Brick foundation exposure west of Column 5	Goiter treatment?	1	Group 5 - Iosaline; [Base:] **IOSALINE CO./N. Y.;** emerald bottle (n=2 mendable fragments); 4.55" x 1.9" diameter; 3n; 20b; h (base); tooled finish; neck interior ground for stopper; Salt Mouth shape (Putnam 1965:97).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14126	T.U. 2, Lev. 1, 15-30cm	Goiter treatment?	4	Group 5 - Iosaline; [Base:] **IOSALINE CO./2/N. Y.;** Emerald green base, 3 body frags.; 20b; h (base); 1 oz size Salt Mouth shape (Putnam 1965:97).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14128	T.U. 2, Lev. 2, 30-40cm	Goiter treatment?	6	Group 5 - Iosaline; emerald green finish, 5 body frags.; 3n; 20b; 1 oz size Salt Mouth shape (Putnam 1965:97).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14134	T.U. 2, Lev. 3, 40-50cm	Goiter treatment?	2	Group 5 - Iosaline; aqua finish and upper body; 3n; 20b; tooled finish
Commerce and Industry: Commercial services - medical/ pharmaceutical	14136	T.U. 2, 50-60cm	Goiter treatment?	1	Group 5 - Iosaline; aqua glass stopper; 1.3" x 4.7" diameter; ground
Commerce and Industry: Commercial services - medical/ pharmaceutical	14147	T.U. 2, 70+ cm	Goiter treatment?	1	Group 5 - Iosaline; emerald shoulder frag.
Commerce and Industry: Commercial services - medical/ pharmaceutical	14149	T.U. 2, 70+ cm	Goiter treatment?	1	Group 5 - Iosaline; Emerald glass bottle stopper. 1.45" x 1.55" diameter; ground

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical	14164	T.U. 4, 30-40cm	Goiter treatment?	5	Group 5 - Iosaline; aqua finish, shoulder, upper body, and 2 body frags.; 3n; 20b; tooled finish
Commerce and Industry: Commercial services - medical/ pharmaceutical	14172	T.U. 4, 60-70cm	Goiter treatment?	1	Group 5 - Iosaline; [Base:] **IO[SALINE CO./2/N. Y.];** aqua basal fragment
Commerce and Industry: Commercial services - medical/ pharmaceutical	14147/ 14177	T.U. 2, 70+ cm/ T.U.2, 70-100cm, pulled from mud	Goiter treatment?	1	Group 5 - Iosaline; [Base:] **IOSALINE CO./··/N. Y.;** Emerald green finish/shoulder and base; 3n; 20b; h (base); tooled finish; neck interior ground for stopper; surface slightly melted; 2 oz size Salt Mouth shape (Putnam 1965:97); 3 mended frags.
Commerce and Industry: Commercial services - medical/ pharmaceutical	14188	Brick foundation exposure west of Column 5	Goiter treatment?	2	Group 5 - Iosaline; [Base:] **IOSALINE CO./N. Y.;** Emerald green base and body; 1.9" diameter; 3n; 20b; h (base); 1 oz size Salt Mouth shape (Putnam 1965:97).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14190	Brick foundation exposure west of Column 5	Goiter treatment?	1	Group 5 - Iosaline; [Base:] **IOSALINE CO./N. Y.;** emerald bottle (n=2 mendable fragments); 4.55" x 1.9" diameter; 3n; 20b; h (base); tooled finish; neck interior ground for stopper
Commerce and Industry: Commercial services - medical/ pharmaceutical	14193	T.U. 4, 20-30cm	Goiter treatment?	1	Group 5 - Iosaline; [Base:] **IOSALINE CO./··/[N. Y.]**; aqua basal fragment
Commerce and Industry: Commercial services - medical/ pharmaceutical	14058	T.U. 2, 60-70cm	Homeopathic vial/tube	1	clear (yellowish); 2.65" x 0.65" diameter; similar to Patent Lip Short shape (Putnam 1965:120); slightly melted
Commerce and Industry: Commercial services - medical/ pharmaceutical	14059	T.U. 4, 20-30cm	Homeopathic vial/tube	1	clear; 1.6" x 0.3" diameter; similar to Patent Lip Short shape (Putnam 1965:120); misshapen by heat
Commerce and Industry: Commercial services - medical/ pharmaceutical	14098	T.U. 2, 70+ cm	Homeopathic vial/tube	1	clear; 3.0" x 0.35" diameter; similar to Patent Lip Long shape (Putnam 1965:120)
Commerce and Industry: Commercial services - medical/ pharmaceutical	14099	T.U. 2, 70+ cm	Homeopathic vial/tube	1	clear; 2.5" x 0.75" diameter; similar to Patent Lip Short shape (Putnam 1965:120)

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical	14104	T.U. 4, 30-40 cm	Homeopathic vial/tube	1	clear; 2.2" x 0.55" diameter; partially melted; similar to Patent Lip Short shape (Putnam 1965:120)
Commerce and Industry: Commercial services - medical/ pharmaceutical	14145	T.U. 2, 70+ cm	Homeopathic vial/tube	1	clear
Commerce and Industry: Commercial services - medical/ pharmaceutical	14142/ 14143	T.U. 2, Lev. 3, 40-50cm/ Lev. 4, 50-60cm	Laxative - Citrate of Magnesia(?) bottle	3	aqua base, shoulder/neck, lightning finish; ca. 4.5" diameter; 11n?; 20b; applied finish; probably one vessel; Citrate of Magnesia shape with porcelain or lightning stoppers (Putnam 1965:61).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14101	T.U. 2, 70-100cm, pulled from mud	Laxative - Mineral water bottle	1	[Base:] [embossed devil] **9/PLUTO**; lt. green base, body and lower neck; 2.4" diameter; 20b
Commerce and Industry: Commercial services - medical/ pharmaceutical	14170	T.U. 4, 50-60cm	Laxative - Mineral water bottle	1	lt green finish; 19n; finishing tool; may belong with Cat. #14101; Appolinaris shape
Commerce and Industry: Commercial services - medical/ pharmaceutical	14112	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Menstrual discomfort - medicine bottle	1	**DR. HAYDEN'S** [Base:] **VIBURNUM COMPOUND** (19 OR 61 off center); clear; 7.25" x 2.9" diameter; 9n; 20b; h (shoulder)**;** ABM (Owens scar)
Commerce and Industry: Commercial services - medical/ pharmaceutical	14134/ 14141	T.U. 2, Lev. 3, 40-50cm/ T.U. 2, 60-70cm	Pediculicide bottle	2	**[EXTERNAL] USE ONLY// [EXT]ERNAL US[E ONLY]**; amber; description after Fike (1985:161) = 6.6" x 2.1" x 1.1"; 1n, sp; 3b; 4ip; v, ss. Contained Nyal's Compound Larkspur Lotion; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14164	T.U. 4, 30-40cm	Salve/Liniment bottle	1	**NATION[AL REMEDY]/ CO[MPANY]/NE[W YORK];** aqua panel fragment; description after Fike (1985:210) - 5.4" x 5.4" x 1.0"; 8n or 16n; 3b; 3ip; v. Contained En-Ar-Co
Commerce and Industry: Commercial services - medical/ pharmaceutical	14206	T.U. 3, Lev. 1-4	Salve jar	1	[Base:] **MENTH[OLAT]UM/ REG/TRADE/MARK**; milk glass footed base; base = 1.6" diameter; body = 1.5" diameter; 20b;

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical	14205	T.U. 2, 70+ cm	Salve jar	2	milk glass rim/body & rim frag; ca. 1.5" diameter; 17n; 20b; plain body; same size as Mentholatum jar
Commerce and Industry: Commercial services - medical/ pharmaceutical	14215	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Salve jar	1	[Base:] **[MEN]THO[LAT]M/ REG/TRADE/MARK**; milk glass footed base; 1.1" diameter; 20b;
Commerce and Industry: Commercial services - medical/ pharmaceutical	14547	T.U. 2, 70+ cm	Salve jar	1	[Base:] **MUSTEROLE/ CLEVELAND**; milk glass footed base; 1.75" diameter; 20b. Advertisements list height as 2.25"
Commerce and Industry: Commercial Services - medical/ pharmaceutical	14427	T.U. 2, 70-100cm, pulled from mud	Salve(?) canister	1	White metal container, basal fragment; 2" diameter
Commerce and Industry: Commercial Services - medical/ pharmaceutical	14409	T.U. 4, 20-30cm	Salve(?) canister	2	White metal strips and fragments similar to those used in construction of Van Vleet-Mansfield can (Cat.# 14404)
Commerce and Industry: Commercial Services - medical/ pharmaceutical	14421	T.U. 4, 60-70cm	Salve(?) canister	1	White metal basal portion of Van Vleet-Mansfield can
Commerce and Industry: Commercial Services - medical/ pharmaceutical	14404	T.U. 2, Lev. 3, 40-50cm	Salve(?) canister	2	White metal top and base of two canisters(?); 2½" diameter; 1.1" high; coiled metal strip inside each; base plain; top displays inversely stamped lettering **"COMPLIMENTS/VAN VLEET/MANSFIELD/DRUG CO/MEMPHIS"**
Commerce and Industry: Commercial Services - medical/ pharmaceutical	14405	T.U. 2, Lev. 3, 40-50cm	Salve(?) canister	10	White metal strips and fragments similar to those used in construction of Van Vleet-Mansfield can (Cat.# 14404)
Commerce and Industry: Commercial Services - medical/ pharmaceutical	14437	T.U. 2, 60-70cm	Salve(?) canister	2	White metal can and strips; 2½" diameter x 3/4" deep; reed-edged cap marked **"REG[ISTERED?]….PAT. OFF./PATENTED/FEBRUARY 18, [19]08/TRADE MARK"**
Commerce and Industry: Commercial Services - medical/ pharmaceutical	14406	T.U. 2, 50-60cm	Salve(?) canister	1	White metal can with snap-on lid non-ferrous metal can. 2 1/8" in diameter X approximately 1" high; Embossed lid with **"SOUVENIR OF/[flowery sprig]/COLUMBUS/[flowery sprig]/OHIO"** inside raised beaded border

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical	14179	T.U. 4, 70-80cm	Unidentified contents - round prescription -	1	Group 1; **[8 F]LUID 0Z;** clear shoulder; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14166	T.U. 4, 40-50cm	Unidentified contents - round prescription -	1	Group 1; **[8 FLUI]D OZ**; shoulder; clear; mends; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14069	T.U. 2, 60-70cm	Unidentified contents - round prescription -	1	Group 1; **8 FLUID OZ** [Base:] **10;** clear; 5.8" x 2.2" diameter; 3n; 20b; h (shoulder); ABM (Owens scar); similar to Round Prescription shape (Putnam 1965:38)
Commerce and Industry: Commercial services - medical/ pharmaceutical	14145	T.U. 2, 70+ cm	Unidentified contents - round prescription -	5	Group 1;**8 FL[UID OZ];** finishes; clear; 3n; 20b; same as 14073, 1 with "8 FL..." on shoulder fragment; ABM; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14138	T.U. 2, 50-60cm	Unidentified contents - round prescription -	1	Group 1;**8 FLU[ID OZ];** Group 1;shoulder; clear; ABM; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14114	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Unidentified contents - round prescription -	1	Group 1;**8 FLUID OZ** [Base:] **10;** body and base; clear; 2.2 " diameter; 3n; 20b; h (shoulder); ABM (Owens scar); similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14073	T.U. 2, 70+ cm	Unidentified contents - round prescription -	1	Group 1;**8 FLUID OZ** [Base:] **10;** clear; 5.8" x 2.2 " diameter; 3n; 20b; h (shoulder); ABM (Owens scar); similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14089	T.U. 2, 70+ cm	Unidentified contents - round prescription -	1	Group 1;**8 FLUID OZ** [Base:] **13;** clear; 5.8" x 2.2 " diameter; 3n; 20b; h (shoulder); ABM (Owens scar); similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14090	T.U. 2, 70+ cm	Unidentified contents - round prescription -	1	Group 1;**8 FLUID OZ** [Base:] **2;** clear; 5.8" x 2.2 " diameter; 3n; 20b; h (shoulder); ABM (Owens scar); similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14168	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Unidentified contents - round prescription -	1	Group 1;**8 FLUID OZ;** body and finish (same shape as 14069); clear; 2.2 " diameter; 3n; 20b; h (shoulder); ABM (Owens scar); similar to Round Prescription shape (Putnam 1965:38).

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical	14163/ 14179	T.U. 4, 30-40cm/ T.U. 4, 70-80cm	Unidentified contents - round prescription -	1	Group 1;**8 FLUID OZ;** shoulder; clear; mends; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14109	Hole next to Column 3	Unidentified contents - round prescription -	1	Group 1;aqua; 5.75” x 2.25” diameter; 3n; 20b; ABM (Owens scar); similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14130	T.U. 2, Lev. 2, 30-40cm	Unidentified contents - round prescription -	1	Group 1;finish; clear; 3n; 20b; ABM; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14140	T.U. 2, 60-70cm	Unidentified contents - round prescription -	1	Group 1;finish; clear; 3n; 20b; ABM; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14144	T.U. 2, Lev. 4, 50-60cm	Unidentified contents - round prescription -	1	Group 1;finish; clear; 3n; 20b; ABM; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14161	Column 7, Backdirt	Unidentified contents - round prescription -	1	Group 1;finish; clear; 3n; 20b; ABM; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14173	T.U. 4, 60-70cm	Unidentified contents - round prescription -	1	Group 1;finish; clear; 3n; 20b; ABM; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14178	T.U. 2, 70-100cm, pulled from mud	Unidentified contents - round prescription -	1	Group 1;finish; clear; 3n; 20b; ABM; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14141	T.U. 2, 60-70cm	Unidentified contents - round prescription -	1	Group 1;lt. aqua finish fragment; 3n; ABM; similar to Round Prescription shape (Putnam 1965:38)
Commerce and Industry: Commercial services - medical/ pharmaceutical	14094	T.U. 2, 70+ cm	Unidentified contents - round prescription -	1	Group 2; clear; 5.25” x 2.1” diameter; 7n; 20b; tooled finish; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14117	T.U. 2, 70-100cm, pulled from mud	Unidentified contents - round prescription -	1	Group 3; light green body and finish; 2.21” diameter; 7n; 20b; ABM; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14067	T.U. 2, 50-60cm	Unidentified contents - round prescription -	1	Group 1; [Base:] **2;** lt. aqua; 5.6” x 2.3” diameter; 3n; 20b; applied lip/finishing tool;. Prominent mold seams similar to Round Prescription shape (Putnam 1965:38).

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical	14125	T.U. 1, Lev. 6, 110-120cm	Unidentified contents - round prescription -	1	Group 4; clear bottle glass fragment; similar to Round Prescription shape (Putnam 1965:38).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14095/ 14171	T.U. 2, 70+ cm/ T.U. 4, 50-60cm	Unidentified contents - round prescription -	1	Group 6; clear mended bottle body and finish; 7.4" x 2.8" diameter; [modified] 22n; 20b; ABM (Owens scar); round
Commerce and Industry: Commercial services - medical/ pharmaceutical	14163	T.U. 4, 30-40cm	Unidentified contents - standard prescription	1	finish; clear; double reinforced 10n; ABM.
Commerce and Industry: Commercial services - medical/ pharmaceutical	14178	T.U. 2, 70-100cm, pulled from mud	Unidentified contents - standard prescription	1	finish; clear; 10n; scalloped shoulder similar to 14078
Commerce and Industry: Commercial services - medical/ pharmaceutical	14192	Test Unit 3, S.U. 4, near base	Unidentified contents - standard prescription	1	finish; clear; 5n.
Commerce and Industry: Commercial services - medical/ pharmaceutical	14166	T.U. 4, 40-50cm	Unidentified contents - standard prescription -	1	**....[EL]MIRA, N.Y.;** clear body fragment
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14137	T.U. 2, Lev. 3, 40-50cm	Unidentified contents - standard prescription -	1	**....K & S.../...S...;** body fragment; clear; beveled corners; pl, vf
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14163	T.U. 4, 30-40cm	Unidentified contents - standard prescription -	1	**...E & Co./[NE]W YORK;** body frag.; clear; ip
Commerce and Industry: Commercial services - medical/ pharmaceutical	14137	T.U. 2, Lev. 3, 40-50cm	Unidentified contents - standard prescription -	1	**...IG.../[HOT SPRI]NGS, A[R?];** body fragment; clear; beveled corner with graduation marks
Commerce and Industry: Commercial services - medical/ pharmaceutical	14155	T.U. 4, 0-20cm	Unidentified contents - standard prescription -	1	clear; ...**RE/**...**[HOT SPRING]S, ARK.** on plain (unindented) front panel
Commerce and Industry: Commercial services - medical/ pharmaceutical	14145/ 14166	T.U. 2, 70+ cm/ T.U. 4, 40-50cm	Unidentified contents - standard prescription -	1	**..[I?]NE A. OULVE[Y?]./ [DR]UGGIST/...& LAWTON AVES;** clear; 1 pl body panel, beveled corner, vf; mended fragments
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14137	T.U. 2, Lev. 3, 40-50cm	Unidentified contents - standard prescription -	1	**[base:] · 669 ·, or · 996 ·;** base; clear; 11b

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14145	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	**[base:] I [in diamond]**; clear base; 17b with diamond makers mark; ABM (Owens scar).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14192	T.U. 3, S.U. 4, near base	Unidentified contents - standard prescription -	1	**[base:] N inside circle**; base; clear; 17b? Makers mark of Obnear-Nester Glass Co., East St. Louis, Ill. , 1895-1915 (Toulouse 1972:373-374).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14145	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	[Base:] **PD CO/38;** clear; 1.5" diameter; 20b; thin glass; same as P.D.& CO? Is so, this is Parke Davis & Company, Detroit, MI (1875-to date), known for it's extensive line of pharmaceutical products. Most of the bottles with the P.D.& Co. marking probably date before 1930 (Whitten n.d.).
Commerce and Industry: Commercial services - medical/ pharmaceutical	14145	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	**[base:] W.B.M.Co;** base; clear; 17b
Commerce and Industry: Commercial services - medical/ pharmaceutical	14064	T.U. 2, 50-60cm	Unidentified contents - standard prescription -	1	**[Graduated Marks]// [oz symbol] iii// [Graduated Marks];** Clear; 5.3" x 2.0" x 1.2"; reinforced 10n; 18b; 1pl; h, f; v, cc.; "ʒiii" above panel. Left front corner marked (top to base): "ʒ,, 2, , 1, " (left corner), Right front corner marked. "80,cc, , 60, , 40, , 20, ".
Commerce and Industry: Commercial services - medical/ pharmaceutical	14060	T.U. 2, 50-60cm	Unidentified contents - standard prescription -	1	**[Graduated Marks]// [oz symbol] iii// [Graduated Marks];** Clear; 5.3" x 1.8" x 1.2"; reinforced 10n; 17b; 1pl; h, f; v, cc; "ʒiii" above panel. Left front corner marked (top to base) "ʒ/, 2, , 1, ". Right front corner marked "cc, , 80, , 60, , 40, , 20, ".
Commerce and Industry: Commercial services - medical/ pharmaceutical	14075	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	**[Graduated Marks]//[oz symbol] i//[Graduated Marks];** Clear; 3.8" x 1.25" x 0.8"; reinforced 9n; 17b; 1pl; h, f; v, cc.; scalloped shoulders; "ʒi" at top of panel. Graduation marks on corners: "ʒ, 6, , 4, , 2, " (left corner) and . "cc, , 20, , 10, ". (right corner).

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical	14116	T.U. 2, 70-100cm, pulled from mud	Unidentified contents - standard prescription -	1	**[Graduated Marks]//[oz symbol] ii//[Graduated Marks]//[base:] I[in diamond]/2;** Clear; 4.6" x 1.7" x 1.0"; double reinforced 10n; 17b; 1ip; h, shoulder; v, cc; scalloped neck; ABM (Owens scar). Upper indented face mark "ʒii". Left front corner marked (top to base) "[missing], , 1, ʒ,". Right front corner marked "40, , 20, , cc". Appearance identical to larger bottle 14146.
Commerce and Industry: Commercial services - medical/ pharmaceutical	14084	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	**[Graduated Marks]//[oz symbol] iv//[Graduated Marks]//[base:] I [in diamond] 9;** Clear; 5.8" x 2.1" x 1.3"; 10n; 17b; pl; h, f; v, cc. ABM (Owens scar); scalloped shoulders; base mark = Illinois Glass Co., 1916-1929 (Toulouse 1971:264). "ʒiv" at top of slightly indented body side. Left front corner marked (top to base) "3, , 2, , 1, , ʒ". Right front corner marked " 100, , 80, , 60, , 40, , 20, , cc,".
Commerce and Industry: Commercial services - medical/ pharmaceutical	14085	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	**[Graduated Marks]//[oz symbol] iv//[Graduated Marks];** Clear; 5.8" x 2.0" x 1.25"; double reinforced 8n; 17b; 1pl; h, f; v, cc, scalloped shoulders; "ʒiv" at top of flat body side. Left front corner marked (top to base) "ʒ/ 3, , 2, , 1, ". Right front corner marked "cc, 100, , 80, , 60, , 40, , 20, ".
Commerce and Industry: Commercial services - medical/ pharmaceutical	14146	T.U. 2, 60-70cm	Unidentified contents - standard prescription -	1	**[Graduated Marks]//[oz symbol] xii//[Graduated Marks]//[base:] I[in diamond];** Clear (slightly suncolored); 7.9" x 2.9" x 1.8"; double reinforced 10n; 17b; pl; h, shoulder; v, cc; scalloped shoulders; ABM (Owens scar); upper flat body side marked "ʒxii"; graduated flat corners. Left front corner marked (top to base) "10, , 8, , 6, , 4, , 2, , ʒ". Right front corner marked "300, , 200, , 100" (lower portion missing). Base mark = Illinois Glass Co. mark 1916-1929 (Toulouse 1971:264).

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical	14071	T.U. 2, 60-70cm	Unidentified contents - standard prescription -	1	**[Graduated Marks]//6// [Graduated Marks]//[base:] C;** Clear; 6.3" x 2.3" x 1.5"; 9sp; 6b; 1pl; h, f; v, cc; ABM (Owens scar with "C" in center); upper panel marked "6"; left front corner marked (top to base): ", 5, , 4, , 3, , 2, , 1" (left side, basal missing). Right front corner marked ", cc, 140, , 120, , 100, , 80, , 60, 40, , 20, , CC".
Commerce and Industry: Commercial services - medical/ pharmaceutical	14068	T.U. 2, 60-70cm	Unidentified contents - standard prescription -	1	**[Graduated Marks]//QUALITY/ PURITY//[Graduated Marks];** Clear; 4.6" x 1.7" x 1.1"; double reinforced 9n; 11b; 1pl; h, b; v, cc; ABM (Owens scar); "QUALITY" (shoulder juncture) and "PURITY" (basal juncture) on back. Left front corner marked (top to base): (? , 1,). Right front corner marked. "cc, 40, , 20" on the other
Commerce and Industry: Commercial services - medical/ pharmaceutical	14148	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	**[graduated marks]/ [graduated marks]/[base:] [script:] Red Cross;** Clear (slightly sun-altered); ? x 2.2" x 1.4"; 17b; pl; v, cc; left front corner marked (top to base) (upper corner missing) ", 1, ". Right front corner marked (upper corner missing) "80, , 60, , 40, , 20, ". of base
Commerce and Industry: Commercial services - medical/ pharmaceutical	14057	T.U. 2, Lev. 2, 30-40cm	Unidentified contents - standard prescription -	1	**[Graduated Marks];** Clear; 4.7" x 1.6" x 1.0"; reinforced 9n; 17b; pl; v, cc; scalloped shoulders; "ʒii" above panel. Left front corner marked (top to base) "ʒ, , 1, ,". Right front corner marked "cc, 40, , 20, ".
Commerce and Industry: Commercial services - medical/ pharmaceutical	14062	T.U. 2, 50-60cm	Unidentified contents - standard prescription -	1	**[oz symbol] iii;** Clear; 5.0" x 1.8" x 1.2"; 9n; 11b; 1pl; h, f; "ʒiii" above panel.
Commerce and Industry: Commercial services - medical/ pharmaceutical	14066	T.U. 2, 50-60cm	Unidentified contents - standard prescription -	1	**[oz symbol] iii//[base:] W.B.M.Co.;** Clear; 5.0" x 2.0" x 1.2"; 9n; 17b; 1ip; h, f; "ʒiii" above panel. Base mark = 1880-1910 unknown maker (Toulouse 1971:535). Identical to 14100 OF BASE
Commerce and Industry: Commercial services - medical/ pharmaceutical	14100	T.U. 2, 70-100cm, pulled from mud	Unidentified contents - standard prescription -	1	**[oz symbol] iii//[base:] W.B.M.Co.;** Clear; 5.0" x 2.0" x 1.2"; 9n; 17b; 1ip; h, shoulder. Identical to 14066.

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical	14079	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	**[oz symbol] iv;** Clear; 2.7" x 1.1" x 0.8"; 3n; 17b; pl; h, shoulder; grooved band at body/shoulder junction "ʒiv" above flat body face; very small version of 14086.
Commerce and Industry: Commercial services - medical/ pharmaceutical	14083	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	**[oz symbol] iv;** Clear; 5.6" x 2.1" x 1.25"; 10n; 17b; pl; h, shoulder; "ʒiv" above incurving body face.
Commerce and Industry: Commercial services - medical/ pharmaceutical	14086	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	**[oz symbol] vi;** Clear; 5.4" x 2.3" x 1.8"; 9n; 17b; pl; h, shoulder; "ʒvi" at base of neck; Paris Square Prescription shape.
Commerce and Industry: Commercial services - medical/ pharmaceutical	14087	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	**[oz symbol] xvi//[base:] I[in diamond];** Clear (slightly suncolored); 8.9" x 3.2" x 1.9"; double reinforced 9n; 9b; pl; h, f; "ʒxvi" upper panel; base mark = Illinois Glass Co., 1916-1929 (Toulouse 1971:264). Color suggests pre-WWI.
Commerce and Industry: Commercial services - medical/ pharmaceutical	14092	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	aqua (most of base missing); 5.5" x 2.4" x 1.8"; 4n; 12b; ABM (Owens scar); Plain oval shap
Commerce and Industry: Commercial services - medical/ pharmaceutical	14163	T.U. 4, 30-40cm	Unidentified contents - standard prescription -	1	body fragment; clear; "ʒiv"
Commerce and Industry: Commercial services - medical/ pharmaceutical	14144	T.U. 2, Lev. 4, 50-60cm	Unidentified contents - standard prescription -	1	body fragment; clear; 4b; 7 oz.; graduation marks on beveled corner
Commerce and Industry: Commercial services - medical/ pharmaceutical	14130	T.U. 2, Lev. 2, 30-40cm	Unidentified contents - standard prescription -	1	body fragment; clear; graduated
Commerce and Industry: Commercial services - medical/ pharmaceutical	14179	T.U. 4, 70-80cm	Unidentified contents - standard prescription -	1	body fragment; clear; graduated
Commerce and Industry: Commercial services - medical/ pharmaceutical	14140	T.U. 2, 60-70cm	Unidentified contents - standard prescription -	3	body fragment; clear; graduated cc marks
Commerce and Industry: Commercial services - medical/ pharmaceutical	14144	T.U. 2, Lev. 4, 50-60cm	Unidentified contents - standard prescription -	3	body fragment; clear; graduation marks on rounded corner

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14138	T.U. 2, 50-60cm	Unidentified contents - standard prescription -	1	body fragment; clear; ip with " "ʒiv"
Commerce and Industry: Commercial services - medical/ pharmaceutical	14150	T.U. 3, Lev. 1	Unidentified contents - standard prescription -	2	body fragment; clear; pl; beveled corner with graduation marks
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14137	T.U. 2, Lev. 3, 40-50cm	Unidentified contents - standard prescription -	1	body fragment; clear; rounded corner with graduation marks.
Commerce and Industry: Commercial services - medical/ pharmaceutical	14145	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	body panel/base fragment, ip, beveled corners, indented base
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14145	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	clear base; 11b with diamond makers mark.
Commerce and Industry: Commercial services - medical/ pharmaceutical	14137	T.U. 2, Lev. 3, 40-50cm	Unidentified contents - standard prescription -	1	clear body; graduation marks
Commerce and Industry: Commercial services - medical/ pharmaceutical	14140	T.U. 2, 60-70cm	Unidentified contents - standard prescription -	1	clear body; graduation marks
Commerce and Industry: Commercial services - medical/ pharmaceutical	14155	T.U. 4, 0-20cm	Unidentified contents - standard prescription -	1	clear body; graduation marks
Commerce and Industry: Commercial services - medical/ pharmaceutical	14162	T.U. 4, 20-30cm	Unidentified contents - standard prescription -	1	clear body; graduation marks
Commerce and Industry: Commercial services - medical/ pharmaceutical	14138	T.U. 2, 50-60cm	Unidentified contents - standard prescription -	1	clear finish/neck/shoulder; 9n; 20b; lipping tool
Commerce and Industry: Commercial services - medical/ pharmaceutical	14143	T.U. 2, Lev. 4, 50-60cm	Unidentified contents - standard prescription -	1	clear; graduation marks.
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14138	T.U. 2, 50-60cm	Unidentified contents - standard prescription -	1	finish/shoulder; clear; 9n.

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial services - medical/ pharmaceutical	14145	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	1	finish; clear (slightly sun-altered); 5n; "ʒxvi" on shoulder.
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14183	surface, SW corner of building	Unidentified contents - standard prescription -	1	finish; clear; 10n
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14137	T.U. 2, Lev. 3, 40-50cm	Unidentified contents - standard prescription -	1	finish; clear; 10n; scalloped shoulder similar to 14138.
Commerce and Industry: Commercial services - medical/ pharmaceutical, grooming	14123	T.U. 1, Lev. 5, 100-110cm	Unidentified contents - standard prescription -	1	finish; clear; 7n.
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14133	T.U. 2, Lev. 3, 40-50cm	Unidentified contents - standard prescription -	1	finish; clear; 7n; ABM.
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14152	T.U. 3, Lev. 1-4	Unidentified contents - standard prescription -	1	finish; clear; 9n (3 mended frags.).
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14130	T.U. 2, Lev. 2, 30-40cm	Unidentified contents - standard prescription -	3	finishes; clear: 1 9n, 1 sun-altered reinforced 9n with scalloped shoulders similar to 14078; 1 reinforced 9n.
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14145	T.U. 2, 70+ cm	Unidentified contents - standard prescription -	4	finishes; clear; 1 10 n ABM; 2 9n; 1 10n (slightly sun-altered).
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14138	T.U. 2, 50-60cm	Unidentified contents - standard prescription -	2	finishes; clear; 1 10n; 1 10n ABM with scalloped shoulder similar to, but larger than 14075.
Commerce and Industry: Commercial services - medical/ pharmaceutical or grooming	14144	T.U. 2, Lev. 4, 50-60cm	Unidentified contents - standard prescription -	2	finishes; clear; 9n (1 is of 2 mended frags.)
Commerce and Industry: Commercial services - medical/ pharmaceutical	14130	T.U. 2, Lev. 2, 30-40cm	Unidentified contents - standard prescription -	1	shoulder; clear; "ʒ viii

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Medical - technical services	14498	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Bedpan	3	Fragments include 2½" diameter spout
Commerce and Industry: Medical - technical services	14525, 14534	T.U. 2, Lev. 2, 30-40 cm	Bedpan	5	5 basal fragments; undecorated
Commerce and Industry: Medical - technical services	14540	T.U. 2, Lev. 3, 50-60 cm	Bedpan?	1	Bodysherd
Commerce and Industry: Medical - technical services	14518	T.U. 1, Lev. 4, 90-100 cm	Crutch end cap	1	White rubber end cap possibly to a crutch, cane, or chair. "19 7/8" on base
Commerce and Industry: Medical - technical services	14513	T.U. 2, 70+ cm	Douche syringe - vaginal pipe	1	5" long; brown Bakelite(?); 5 small holes around margin of pipe head
Commerce and Industry: Medical - technical services	14390	T.U. 2, 70+ cm	Electrical - Dry cell battery	1	2 3/8" diameter x about 6"
Commerce and Industry: Medical - technical services	14430	Hole next to Column 3	Electrical - Dry cell battery	1	Graphite rod (9¼" long) and fragments of carbon electrolyte paste from dry cell battery. Upper, tapered end of rod retains cuprous screw for wire attachment
Commerce and Industry: Medical - technical services	14251	Brick foundation exposure west of Column 5	Electrical - Electrode	1	aqua; broken on each end; 0.6" outside diameter; 0.4" inside diameter; remnant is 11.2" long; Possibly and element of a glass vacuum; electrode
Commerce and Industry: Medical - technical services	14497	T.U. 2, 50-60cm	Hose frag. -	1	1 brittle rubber hose frag.
Commerce and Industry: Medical - technical services	14284	T.U. 3, Lev. 1	Hose?	26	Rubber on fabric backing; ridged tube fragments
Commerce and Industry: Medical - technical services	14130	T.U. 2, Lev. 2, 30-40cm	Syringe or vial frag.	1	clear
Commerce and Industry: Medical - technical services	14249	T.U. 4, 20-30cm	Syringe - plunger?	1	clear glass; bent slightly via post-use heating?
Commerce and Industry: Medical - technical services	14489	T.U. 2, 50-60cm	Thermometer	3	Fragments; all = 5.5 mm thick & trianguloid in X-section; 1 is heat-sealed upper end; 1 is slightly curved
Commerce and Industry: Medical - technical services	14490	T.U. 4, 0-20cm	Thermometer	1	Fragment; 5.5 mm thick & trianguloid in X-section

Table B3. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Medical - technical services	14491	T.U. 4, 30-40cm	Thermometer	1	Fragment; 5.5 mm thick & trianguloid in X-section
Commerce and Industry: Medical - technical services	14492	T.U. 4, 70-80cm	Thermometer	1	Fragment; 5.5 mm thick & trianguloid in X-section
Commerce and Industry: Medical - technical services	14493	T.U. 2, Lev. 2, 30-40cm	Thermometer	2	Fragments; all = 5.5 mm thick & trianguloid in X-section
Commerce and Industry: Medical - technical services	14588	T.U. 2, 60-70cm	Thermometer	1	Fragment; 5.5 mm thick & trianguloid in X-section
Commerce and Industry: Medical - technical services	14596	T.U. 4, 60-70cm	Thermometer	1	Incomplete thermometer and plate. Mercury ball still extant. Poisonous.
Commerce and Industry: Medical - technical services	14403	T.U. 2, Lev. 3, 40-50cm	Thermometer	1	Cuprous backplate (7" x 1.9") with base of thermometer glass rod inserted into metal loop
Commerce and Industry: Medical - technical services	14411	T.U. 2, 70+ cm	Thermometer backplate	1	Chromed cuprous rectangular plate fragment; 1.85" wide; beveled corners; ½" diameter opening near intact end
Commerce and Industry: Medical - technical services	14422	T.U. 4, 60-70cm	Thermometer backplate	1	Cuprous rectangular plate fragment
Commerce and Industry: Medical - technical services	14416	T.U. 4, 30-40cm	Thermometer backplate	1	Cuprous sheet metal thermometer plate; rectangular - about 10½" long x 1.85" wide; beveled corners near ½" diameter hole; opposite corners squared; three small holes at end with squared corners for flashing to hold thermometer
Commerce and Industry: Medical - technical services	14488	T.U. 2, Lev. 3, 40-50cm	Thermometers	2	Fragments; 1 = 5.6 mm thick; 2 = 3.5 mm thick (green glass); trianguloid in X-section
Commerce and Industry: Commercial Services - repair and maintenance	14436	T.U. 4, 60-70cm	Lead - solder	2	Lead fragments
Commerce and Industry: Commercial Services - repair and maintenance	14438	T.U. 3, S.U. 4	Lead - solder	3	Lead fragments
Commerce and Industry: Commercial Services - repair and maintenance	14439	T.U. 3, Lev. 2	Lead - solder	3	Lead fragments
Commerce and Industry: Commercial Services - repair and maintenance	14362	T.U. 2, 50-60cm	Lead - solder?	2	Large lumps of lead

Table B3. Concluded.

Functional Category	Cat.#	Provenience	Object	#	Description
Commerce and Industry: Commercial Services - repair and maintenance	14397	T.U. 1, Lev. 3, 80-90cm	Lead - sheet metal	1	Triangular; 5½" long x 1½" wide.
Commerce and Industry: Commercial Services - repair and maintenance	14426	T.U. 3, S.U. 5	Lead - sheet metal	1	Lead strip
Commerce and Industry: Commercial Services - repair and maintenance	14077	T.U. 2, 70+ cm	Lubrication oil bottle	1	**3-IN-ONE OIL CO."//"THREE IN ONE" [Base:] 837 (in diamond) 0**; aqua; 3.8" x 1.5" x 0.75"; 8n; 3b; 2pl, 2ip; v, ss; ABM (Owens scar); similar to St. Louis Flat Extract shape (Putnam 1965:50).
Commerce and Industry: Transactions	14597	T.U. 2, Lev. 4, 50-60cm	Coin	1	Liberty Head "V" nickel dated 1905; heavily corroded
Commerce and Industry: Transactions	14598	T.U. 3, S.U. 4/5 interface	Coin	1	Shield nickel with a date of 1887; heavily corroded

Table B4. Personal Items.

Functional Category	Cat.#	Provenience	Object	#	Description
Personal Items: Clothing	14293	T.U. 2, Lev. 1, 15-30cm	Button	1	Cardboard?; 0.78" diameter; non-ferrous rivet for attachment to clothing
Personal Items: Clothing	14301	T.U. 3, S.U. 2	Button	1	Bone fragment; well; 4-hole; 0.75" diameter.
Personal Items: Clothing	14292	surface, SW corner of building	Button	1	Shell fragments; originally about ½" diameter
Personal Items: Clothing	14294	T.U. 2, Lev. 3, 40-50cm	Button	2	Shell; 1 complete 4-hole in well, 0.50" diameter ; 6 fragments from another button
Personal Items: Clothing	14295	T.U. 2, Lev. 3, 40-50cm	Button	1	Shell; 4-hole, 0.46" diameter fragment
Personal Items: Clothing	14297	T.U. 2, Lev. 4, 50-60cm	Button	5	Shell; 2-hole = 0.49" diameter with well; 2-hole = 0.49" diameter with well; 4-hole = well, gray, 0.38" diameter; 1 gray 4-hole 0.41" diameter; 1fragment
Personal Items: Clothing	14298	T.U. 2, Lev. 4, 50-60cm	Button	1	Shell; 2-hole, gray, well; 0.45" diameter
Personal Items: Clothing	14302	T.U. 4, 30-40cm	Button	2	Shell; 1 with well, 4-hole, 0.45: diameter; 1 shell button frag
Personal Items: Clothing	14303	T.U. 3, S.U. 4	Button	1	Shell fragment; 4-hole; well; 0.61" diameter;
Personal Items: Clothing	14304	T.U. 4, 30-40cm	Button	1	Shell; 4-hole, well; 0.61" diameter;
Personal Items: Clothing	14279	T.U. 1, Lev. 5, 100-110 cm	Canvas tie	1	Undyed; 0.6" wide x 3½" long
Personal Items: Adornment	14423	T.U. 3, S.U. 4	Stick pin	1	Cuprous pin; stone missing
Personal Items: Clothing	14305	T.U. 3, S.U. 4	Snap	1	Flat faced, cuprous; front and back present; 0.53" diameter
Personal Items: Footwear	14296	T.U. 2, 50-60cm	Shoe eyelet	1	Cuprous; recovered from inside small square ink bottle of same provenience
Personal Items: Clothing	14289	T.U. 3, S.U. 4	Button	1	4-hole ferrous metal button; 0.66" diameter
Personal Items: Indulgences	14364	T.U. 2, 50-60cm	Tobacco can?	2	Ferrous fragments oval can base
Personal Items: Clothing	14357	T.U. 2, Lev. 2, 30-40cm	Button	1	Ferrous face; 0.9" diameter; 2 piece; back missing
Personal Items: Indulgences	14360	T.U. 2, Lev. 3, 40-50cm	Tobacco cans	4	Ferrous fragments; 3 oval bases, 1 body

Table B4. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Personal Item: Clothing	14299	T.U. 2, 70+ cm	Button	1	White china; well; 4-hole; 0.60" diameter
Personal Item: Clothing	14300	T.U. 2, 70+ cm	Button	1	White china; well; 4-hole; 0.41" diameter.
Personal Item: Medical and Health	14250	T.U. 2, Lev. 3, 40-50cm	Eyeglass lens	1	clear; oval; 1.6" x 1.25" x 0.08"
Personal Items: Adornment	14511	T.U. 2, 70+ cm	Jewelry	1	Glass appliqué; light blue; elliptical with rounded upper face and flat back; 0.45" long x 0.2" wide x 0.15 thick
Personal Items: Indulgences - alcoholic beverages	14074	T.U. 2, 70+ cm	Appolinaris Bottle	1	amber; 7.9" x 2.2" diameter; 19n; 20b; AMB (Owens scar); half pint size; beer?
Personal Items: Indulgences - alcoholic beverages	14091/ 14147	T.U. 2, 60-70cm/ T.U. 2, 70+ cm	Appolinaris Bottle	1	[Base:] **00**; amber; ca. 9.3" x 2.6" diameter; 19n (lip missing); 20b; h (base); finishing tool and post mold; beer?
Personal Items: Indulgences - alcoholic beverages	14111	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Appolinaris Bottle	2	[Base:] **A.B.G.M.CO./ K28 (center)**; lt. aqua finish/neck and body/ base; 19n; 20b; applied finish; Adolphus Busch Glass Manufacturing Co., ca. 1886-1928 (Toulouse 1971:26); beer.
Personal Items: Indulgences - alcoholic beverages	14113	Hole next to Column 5	Appolinaris Bottle	1	[Base:] **B B 5**; olive green; 7.65" x 2.1" diameter; 19n; 20b; applied finish; half pint size; Berney-Bond Glass Company (1905-1930)?
Personal Items: Indulgences - alcoholic beverages	14124	T.U. 1, Lev. 6, 110-120cm	Appolinaris Bottle	2	emerald green finish; 20n; fire polished wine?
Personal Items: Indulgences - alcoholic beverages	14127	T.U. 2, Lev. 1, 15-30cm	Appolinaris Bottle	1	clear finish; 19n
Personal Items: Indulgences - alcoholic beverages	14128	T.U. 2, Lev. 2, 30-40cm	Appolinaris Bottle	1	deep cobalt blue finish; 12n; probably same vessel as Cat. #14136
Personal Items: Indulgences - alcoholic beverages	14128	T.U. 2, Lev. 2, 30-40cm	Appolinaris Bottle	1	dark green shoulder (wine bottle)
Personal Items: Indulgences - alcoholic beverages	14136	T.U. 2, 50-60cm	Appolinaris Bottle	1	**A.B.G.M.CO.**; deep cobalt blue base; 20b; Adolphus Busch Glass Manufacturing Co., ca. 1886-1928 (Toulouse 1971:26); beer.

Table B4. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Personal Items: Indulgences - alcoholic beverages	14139	T.U. 2, 60-70cm	Appolinaris Bottle	1	amber finish; 19n; finishing tool; beer?
Personal Items: Indulgences - alcoholic beverages	14141	T.U. 2, 60-70cm	Appolinaris Bottle	1	amber finish; 19n; ABM; beer?
Personal Items: Indulgences - alcoholic beverages	14154	T.U. 4, 0-20cm	Appolinaris Bottle	1	amber finish; 19n; ABM; beer?
Personal Items: Indulgences - alcoholic beverages	14163	T.U. 4, 30-40cm	Appolinaris Bottle	1	clear finish; 19n; ABM; beer?
Personal Items: Indulgences - alcoholic beverages	14164	T.U. 4, 30-40cm	Appolinaris Bottle	1	amber base; 2.3" diameter; 20b; half pint (split) size; beer?
Personal Items: Indulgences - alcoholic beverages	14171	T.U. 4, 50-60cm	Appolinaris Bottle	1	**...[TRADE]MARK/ [REFILLING P]ROHIBITED**; clear base (sun altered purple); ca. 2.7" diameter; 20b; h (lower body); wine?
Personal Items: Indulgences - alcoholic beverages	14193	T.U. 4, 20-30cm	Appolinaris Bottle	1	amber finish; 19n; ABM; beer?
Personal Items: Indulgences - alcoholic beverages	14198	Column 1, East Edge, Fill 70+ cm	Appolinaris Bottle	2	emerald green finish/ neck and base/body; 2.6" diameter; 20n; 20b; fire polished wine?
Personal Items: Indulgences - alcoholic beverages	14110	Hole next to Column 3	Split Bottle	1	lt aqua ; 20n; 20b; 5.25" x 2.35" diameter; finishing tool; shape after Putnam (1965:256); beer?
Personal Items: Indulgences - alcoholic beverages	14134	T.U. 2, Lev. 3, 40-50cm	Split Bottle	1	emerald green finish; 19n;
Personal Items: Indulgences - alcoholic beverages	14136	T.U. 2, 50-60cm	Split Bottle	1	emerald green base fragment; 20b; turn mold; wine?
Personal Items: Indulgences - alcoholic beverages	14143	T.U. 2, Lev. 4, 50-60cm	Split Bottle	1	emerald green base; 20b; turn mold; wine?
Personal Items: Indulgences - alcoholic beverages	14336	Sump pit in NW corner of basement	Split Bottle	1	**S** [? script]; [base:] **X**; aqua body and base; 3.5" diameter; 20b; h, mid-body; beer?

Table B4. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Personal Items: Indulgences - alcoholic beverages	14115	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Liquor - Bottle, lid	1	**FEDERAL LAW FORBIDS SALE/ >>>>>HALF PINT>>>>>/OR REUSE OF THIS BOTTLE/>>>>>HALF PINT>>>>>** [Base:] **19 DI/56-52** (in Owens scar) [symbol: ovelapping diamond O] clear; 6.8” x 3.25” x 1.3”;17n; 15b; attached ferrous metal lid; 1933-1964 (Munsey 1970:126).
Personal Items: Indulgences - alcoholic beverages	14129	T.U. 2, Lev. 2, 30-40cm	Liquor - Bottle	1	clear base; 14b; ABM (Owens scar); Imperial Flask (double screw cap) shape (Putnam 1965:167)
Personal Items: Indulgences - alcoholic beverages	14130	T.U. 2, Lev. 2, 30-40cm	Liquor - Bottle	1	clear body panel; Imperial Flask (double screw cap) shape (Putnam 1965:167); probably same vessel as Cat. 14129
Personal Items: Indulgences - alcoholic beverages	14132	T.U. 2, Lev. 3, 40-50cm	Liquor - Bottle	2	clear fluted shoulder; Victoria Flask shape (Putnam 1965:170)
Personal Items: Indulgences - alcoholic beverages	14138	T.U. 2, 50-60cm	Liquor - Bottle	1	clear body panel; Imperial Flask (double screw cap) shape (Putnam 1965:167); probably same vessel as Cat. 14129
Personal Items: Indulgences - alcoholic beverages	14145	T.U. 2, 70+ cm	Liquor - Bottle	1	clear finish frag.; 14b
Personal Items: Indulgences - alcoholic beverages	14150	T.U. 3, Lev. 1	Liquor - Bottle	1	Ribbed body consistent with larger size Imperial Flask shape (Putnam 9165:167). Not the same vessel as Cat. 14129.

Table B4. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Personal Items: Indulgences - alcoholic beverages	14127	T.U. 2, Lev. 1, 15-30cm	Liquor - Bottle	1	[Base:] **BB;** clear; 13b; probably whiskey flask; mark of Berney-Bond Glass Company (1905-1930). A merger of the Bond Glass and Berney Glass companies, plants were located in Bradford, Hazel Hurst, Smethport, Clarion, and Knox, all in the state of Pennsylvania; the Winslow Glass Co. plant at Columbus, OH was purchased in 1927. Berney-Bond was bought by Owens-Illinois in 1930. Most of these plants were closed down in later years, until by the early 1970s only the Clarion plant (O-I plant #17) was still making bottles (Whitten n.d.)
Personal Items: Indulgences - alcoholic beverages	14130	T.U. 2, Lev. 2, 30-40cm	Liquor - Bottle	1	[Body above basal juncture:] **B** [Base:] **B**; clear; 13b; h; ABM (Owens scar); probably whiskey flask; possibly Buck Glass Co., Baltimore, MD, 1909-1961 (Toulouse 1971:57-58).
Personal Items: Indulgences - alcoholic beverages	14135	T.U. 2, Lev. 3, 40-50cm	Liquor - Bottle	1	[Base:] **S[BD?];** clear (slightly SA); 13b; h; probably whiskey flask
Personal Items: Indulgences - alcoholic beverages	14135	T.U. 2, Lev. 3, 40-50cm	Liquor - Bottle	1	clear; 13b?
Personal Items: Indulgences - alcoholic beverages	14136	T.U. 2, 50-60cm	Liquor - Bottle	1	(open loop symbol)**/ [PUR?]E RYE**; amber; vertical?; whiskey?
Personal Items: Indulgences - alcoholic beverages	14138 14144	T.U. 2, Lev. 4, 50-60cm	Liquor - Bottle	1	[Base:] **O 3**; clear; 13b; probably whiskey flask; mended fragments
Personal Items: Indulgences - alcoholic beverages	14139	T.U. 2, 60-70cm	Liquor - Bottle	1	[Base:] **10;** clear; 13b; probably whiskey flask
Personal Items: Indulgences - alcoholic beverages	14140	T.U. 2, 60-70cm	Liquor - Bottle	1	clear; 13b;

Table B4. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Personal Items: Indulgences - alcoholic beverages	14162	T.U. 4, 20-30cm	Liquor - Bottle	1	[Base:] **E[?]** or **F[?];** clear; 13b; h; ABM (Owens scar); probably whiskey flask
Personal Items: Indulgences - alcoholic beverages	14162	T.U. 4, 20-30cm	Liquor - Bottle	1	[Base:] **16;** clear; 13b; h; probably whiskey flask
Personal Items: Indulgences - alcoholic beverages	14164	T.U. 4, 30-40cm	Liquor - Bottle	1	[Base:] **HALF PINT/ A/3;** clear; 13b; h, v, v; ABM (Owens scar); probably whiskey flask; May stand for several companies. One possibility: Agnew & Company, Pittsburgh, PA (c.1860s-1894+). See "A & Co." mark. If the bottle is machine made, the letter would indicate a more recent factory source, perhaps Arkansas Glass Container Corporation, Jonesboro, AR (1958-to date) (Toulouse 1971:57-58; Whitten n.d.).
Personal Items: Indulgences - alcoholic beverages	14187	Brick foundation exposure west of Column 5	Liquor - Bottle	1	clear; 13b; partially melted
Personal Items: Indulgences - alcoholic beverages	14127	T.U. 2, Lev. 1, 15-30cm	Liquor -Bottle	1	Brandy finish; Brandy finish; clear; 12n; ABM; probably whiskey flask
Personal Items: Indulgences - alcoholic beverages	14129	T.U. 2, Lev. 2, 30-40cm	Liquor - Bottle	2	Brandy finishes; clear; 12n finishing tool and 25n finishing tool; probably whiskey flask
Personal Items: Indulgences - alcoholic beverages	14135 & 14137	T.U. 2, Lev. 3, 40-50cm	Liquor - Bottle	1	Brandy finish; clear; 12n; finishing tool; probably whiskey flask; mended fragments.
Personal Items: Indulgences - alcoholic beverages	14137	T.U. 2, Lev. 3, 40-50cm	Liquor - Bottle	2	Brandy finishes; clear; 12n; finishing tool; probably whiskey flask; similar to Ring Dandy shape (Putnam 1965:172).

Table B4. Continued.

Functional Category	Cat.#	Provenience	Object	#	Description
Personal Items: Indulgences - alcoholic beverages	14137	T.U. 2, Lev. 3, 40-50cm	Liquor - Bottle	3	Fragments including a brandy finish; clear; 12n; finishing tool?; quart or fifth size bottle; neck is similar to Crown Prince shape (Putnam 1965:150); fragments do not mend but appear to be from the same vessel
Personal Items: Indulgences - alcoholic beverages	14139	T.U. 2, 60-70cm	Liquor - Bottle	1	Brandy finish; clear; 11sp with indented collar immediately below; finishing tool; probably whiskey flask
Personal Items: Indulgences - alcoholic beverages	14140	T.U. 2, 60-70cm	Liquor - Bottle	1	Brandy finish; clear, 23n; ABM; probably whiskey flask
Personal Items: Indulgences - alcoholic beverages	14140	T.U. 2, 60-70cm	Liquor - Bottle	1	Brandy finish; clear (slightly SA); 23n; finishing tool; probably whiskey flask
Personal Items: Indulgences - alcoholic beverages	14140	T.U. 2, 60-70cm	Liquor - Bottle	1	Brandy finish; clear (slightly yellow), 23n; finishing tool; probably whiskey flask
Personal Items: Indulgences - alcoholic beverages	14144	T.U. 2, Lev. 4, 50-60cm	Liquor - Bottle	1	Brandy finish; clear (slightly SA); 12n; finishing tool; probably whiskey flask; similar to Ring Dandy shape (Putnam 1965:172).
Personal Items: Indulgences - alcoholic beverages	14145	T.U. 2, 70+ cm	Liquor - Bottle	2	Brandy finishes; clear; 12n; 1 ABM and 1 finishing tool; probably whiskey flask; similar to Ring Dandy shape (Putnam 1965:172).
Personal Items: Indulgences - alcoholic beverages	14145	T.U. 2, 70+ cm	Liquor - Bottle	1	Brandy finish; clear; 12n; finishing tool; quart or fifth-size whiskey bottle
Personal Items: Indulgences - alcoholic beverages	14163	T.U. 4, 30-40cm	Liquor - Bottle	2	Brandy finishes; clear; 12n; finishing tool
Personal Items: Indulgences - alcoholic beverages	14182	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Liquor - Bottle	1	Brandy finish; clear; 12n; ABM; probably whiskey flask; similar to Ring Dandy shape (Putnam 1965:172).

Table B4. Concluded.

Functional Category	Cat.#	Provenience	Object	#	Description
Personal Items -Indulgences	14536	T.U. 2, Lev. 4, 50-60	Lightning stopper	1	Porcelain; Conical; white rubber washer (seal), horizontal triangular hole with tube-shaped ferrous metal in hole
Personal Items: Body ritual and grooming	14526, 14547	T.U. 2, Lev. 2, 30-40 cm	Shaving cup	1	Porcelain; Repoussé floral design with handpainted gold highlights over diamond weave pattern and “Pres[cott?].” around body; 4 fragments
Personal Items: Pastimes and Recreation	14539	T.U. 2, Lev. 4, 50-60 cm	Toy or doll part?	1	Porcelain; Pink exterior with raised black, handpainted line; partial, small molded hole
Personal Items: Pastimes and recreation	14510	T.U. 2, Lev. 3, 40-50 cm	Marble	1	Ceramic; Brown; unglazed; ½” diameter

Table B5. Transportation artifacts.

Functional Category	Cat.#	Provenience	Object	#	Description
Transportation	14345	T.U. 3, S.U. 4	Roller buckle	1	For use with 2” wide canvas or leather belt; 3.75” long x 2¼” wide
Transportation	14388	Hole next to first left Column (S. column) of S. staircase, north of Hunt 2003 excavation	Horseshoe	1	

Table B6. Artifacts of unknown function.

Cat.#	Provenience	Object	#	Description
14308	T.U. 1, 64-70cm	Bolt	1	Ferrous metal; Sheared off; 3/4" square head; ½" diameter bolt shaft
14118	T.U. 1, 64-70cm	Body	2	Glass; clear
14119	T.U. 1, Lev. 3, 80-90cm	Body	1	Glass; clear
14353	T.U. 1, Lev. 4, 90-100cm	?	1	Ferrous metal; 2.4" wide strap; edges folded over
14120	T.U. 1, Lev. 4, 90-100cm	Finish	1	Glass; clear; 17n; ABM
14120	T.U. 1, Lev. 4, 90-100cm	Body	8	Glass; clear
14354	T.U. 1, Lev. 5, 100-110cm	Can end	1	Ferrous metal; base portion of a small oval canister
14354	T.U. 1, Lev. 5, 100-110cm	?	1	Ferrous metal; amorphous lump of metal.
14122	T.U. 1, Lev. 5, 100-110cm	Body	1	Glass; amber
14123	T.U. 1, Lev. 5, 100-110cm	Finish	1	Glass; clear; 17n
14123	T.U. 1, Lev. 5, 100-110cm	Body	1	Glass; light green (1)
14123	T.U. 1, Lev. 5, 100-110cm	Body	12	Glass; clear
14355	T.U. 1, Lev. 6, 110-120cm	Wire	1	Ferrous metal; 0.1" diameter
14125	T.U. 1, Lev. 6, 110-120cm	Body	1	Glass; clear
14503	T.U. 1, Lev. 6, 110-120cm	Paint?	1	Silver gray plastic; modern; not described in text
14352	T.U. 1, surface, rubble layer	Equipment foot?	1	Ferrous metal; Heavy duty conical spring' 1½" high x 1 3/4" diameter base x 1" diameter top
14184	T.U. 1, surface, rubble layer	Base	1	Glass; clear; 10b; ABM (Owens scar)
14184	T.U. 1, surface, rubble layer	Body	1	Glass; amber
14184	T.U. 1, surface, rubble layer	Body	2	Glass; clear
14136/ 14141	T.U. 2, 50-60 cm/60-70cm	Base	1	Glass; aqua; 3 mended fragments; 2.3" diameter; 20b; post mold?
14364	T.U. 2, 50-60cm	Spring	1	Ferrous metal; 1½" diameter x 0.6" long
14364	T.U. 2, 50-60cm	Axle cap?	1	Ferrous metal; Hat-shaped; 1¼" diameter for ½" diameter axle; Fastener, Nail - cut hole in center
14364	T.U. 2, 50-60cm	Axle cap	1	Ferrous metal; 0.6" diameter x 0.2" deep; snap-on
14393	T.U. 2, 50-60cm	?	1	Ferrous metal; 1" wide x ¼" thick curved strap; possible tire from wooden wheel?
14362	T.U. 2, 50-60cm	?	37	Ferrous metal; Corroded fragments
14136	T.U. 2, 50-60cm	Base	1	Glass; aqua; 20b; ABM (valve mark)
14136	T.U. 2, 50-60cm	Body	1	Glass; blue
14136	T.U. 2, 50-60cm	Body	19	Glass; amber; some partially melted
14136	T.U. 2, 50-60cm	Body	19	Glass; light aqua, some partially melted

Table B6. Continued.

Cat.#	Provenience	Object	#	Description
14136	T.U. 2, 50-60cm	Body	2	Glass; yellow green
14136	T.U. 2, 50-60cm	Body	3	Glass; olive green
14138	T.U. 2, 50-60cm	Base	1	Glass; clear (slightly SA); [Base:] **3;**; 2.3" diameter; 20b; ABM (Owens scar)
14138	T.U. 2, 50-60cm	Body	157	Glass; clear; 2 with raised unid. marks; 1 melted
14138	T.U. 2, 50-60cm	Base	2	Glass; clear (slightly SA);
14138	T.U. 2, 50-60cm	Base	2	Glass; clear; 1 20b, 1.9" diameter and ABM (Owens scar); 1 unid.
14138	T.U. 2, 50-60cm	Finish	3	Glass; clear; 1- 17n ABM; 2 unid.
14138	T.U. 2, 50-60cm	Base	3	Glass; clear; 1 with **62**
14410	T.U. 2, 50-60cm	Canister cap	1	Aluminum slip-on cap fragment; about 2" diameter x 0.9" high
14410	T.U. 2, 50-60cm	Hole-in-cap can rim	1	Aluminum; 2¼" diameter with 1¼" opening
14410	T.U. 2, 50-60cm	Sheet metal	2	Cuprous; rectangular strips 1" and 1.3" wide
14497	T.U. 2, 50-60cm	Rubble	1	Non-cultural - not described in text
14363	T.U. 2, 60-70cm	Axle?	1	Ferrous metal; 3/4" shaft with double sprocketed ends; 14½" long overall; raised rings on shaft 10" apart probably used as a belt guide
14146	T.U. 2, 60-70cm	?	1	Lump ferrous metal
14365	T.U. 2, 60-70cm	?	4	Cast iron fragments fused to ceramics, glass, and other objects
14366	T.U. 2, 60-70cm	?	70	Sheet metal fragments
14139	T.U. 2, 60-70cm	Base	1	Glass; light aqua base and body; 20b; ABM (valve mark)
14139	T.U. 2, 60-70cm	Body	1	Glass; amber
14140	T.U. 2, 60-70cm	Base.	1	Glass; clear; **[base:]** ***PEA[RL?]...;*** 11b
14140	T.U. 2, 60-70cm	Body	1	Glass; light aqua
14140	T.U. 2, 60-70cm	Body	209	Glass; clear; 1 with raised **So..**
14140	T.U. 2, 60-70cm	Base.	3	Glass; clear; 20b
14140	T.U. 2, 60-70cm	Finish.	6	Glass; clear; 2 - 3n; 1- 10n; 2 - 17n; 1 - 20n
14140	T.U. 2, 60-70cm	Base.	8	Glass; clear; 1 with ...**4** inside diamond makers mark & Owens scar
14141	T.U. 2, 60-70cm	Base	1	Glass; aqua; [Base:] **1244;** 17b
14141	T.U. 2, 60-70cm	Body	21	Glass; light aqua
14141	T.U. 2, 60-70cm	Body	3	Glass; green
14141	T.U. 2, 60-70cm	Body	31	Glass; amber
14141	T.U. 2, 60-70cm	Body	4	Glass; cobalt blue
14203	T.U. 2, 60-70cm	Base	1	Milk glass; valve mark
14437	T.U. 2, 60-70cm	Cap	1	Aluminum friction (slip-on) cap fragment
14437	T.U. 2, 60-70cm	Cap	2	Aluminum friction (slip-on) cap fragments
14437	T.U. 2, 60-70cm	Cap	1	Aluminum hole-in-top type can rim fragment
14440	T.U. 2, 60-70cm	Rubble	16	Non-cultural - not described in text
14367	T.U. 2, 70+ cm	Wire	1	Ferrous metal; 0.1" diameter
14367	T.U. 2, 70+ cm	Axle cap?	7	Ferrous metal; Hat-shaped; 1 3/4" diameter for 3/4" diameter axle
14081	T.U. 2, 70+ cm	Base	1	Glass; clear; 1.8" diameter; 20b; ABM (valve mark)
14145	T.U. 2, 70+ cm	Finish	1	Glass; clear; 16n; ABM

Table B6. Continued.

Cat.#	Provenience	Object	#	Description
14145	T.U. 2, 70+ cm	Finish	1	Glass; clear; 17n
14145	T.U. 2, 70+ cm	Base	1	Glass; clear; **NO. 77/[P]AT IN U.S./[??];** 20b; h; marks read correctly from inside vessel; similar to Cat.#14129.
14145	T.U. 2, 70+ cm	Base	1	Glass; clear; [Base:] **2;** 20b
14145	T.U. 2, 70+ cm	Body	12	Glass; clear
14147	T.U. 2, 70+ cm	Body	1	Glass; aqua
14147	T.U. 2, 70+ cm	Body	2	cobalt blue; 1 with panel
14147	T.U. 2, 70+ cm	Body	3	Glass; amber
14194	T.U. 2, 70+ cm	Body	1	Glass; clear
14414	T.U. 2, 70+ cm	Lid	1	Aluminum cap fragment; threaded; about 1 3/4" diameter
14411	T.U. 2, 70+ cm	Can cap?	1	Aluminum rim
14411	T.U. 2, 70+ cm	Ring	1	Cuprous; chromed ring; 1¼" diameter with 1" diameter opening
14441	T.U. 2, 70+ cm	Rubble	1	Non-cultural - not described in text
14177	T.U. 2, 70-100cm, pulled from mud	Body"	1	Glass; aqua
14178	T.U. 2, 70-100cm, pulled from mud	Base	1	Glass; clear; 1.8" diameter; 20b; ABM (valve mark)
14356	T.U. 2, Lev. 1, 15-30cm	?	1	Ferrous metal; Sheet metal disc; 0.8" diameter
14126	T.U. 2, Lev. 1, 15-30cm	Body	1	Glass; cobalt blue
14126	T.U. 2, Lev. 1, 15-30cm	Body	3	Glass; light aqua
14126	T.U. 2, Lev. 1, 15-30cm	Body	4	Glass; amber
14127	T.U. 2, Lev. 1, 15-30cm	Finish	1	Glass; clear
14127	T.U. 2, Lev. 1, 15-30cm	Base	1	Glass; clear; 17b
14127	T.U. 2, Lev. 1, 15-30cm	Body	1	Glass; SA clear
14127	T.U. 2, Lev. 1, 15-30cm	Body	29	Glass; clear; 1 with unid. raised marks
14127	T.U. 2, Lev. 1, 15-30cm	Base	5	Glass; clear; 1 with Owens scar
14400	T.U. 2, Lev. 1, 15-30cm	Salve(?) canister	1	Aluminum; 3/4" wide with one rolled edge; from side of Van Vleet canister?
14358	T.U. 2, Lev. 2, 30-40cm	Wire	2	Ferrous metal; coils; 0.1" diameter
14359	T.U. 2, Lev. 2, 30-40cm	?	20	Ferrous metal; Sheet metal fragments
14128	T.U. 2, Lev. 2, 30-40cm	Finish	1	Glass; cobalt blue
14128	T.U. 2, Lev. 2, 30-40cm	Base	1	Glass; light green
14128	T.U. 2, Lev. 2, 30-40cm	Base	1	Glass; aqua; 2.35" diameter; 20b
14128	T.U. 2, Lev. 2, 30-40cm	Body	1	Glass; aqua; melted
14128	T.U. 2, Lev. 2, 30-40cm	Body	12	Glass; amber
14128	T.U. 2, Lev. 2, 30-40cm	Body	13	Glass; light aqua
14128	T.U. 2, Lev. 2, 30-40cm	Base	2	Glass; light aqua; 20b
14128	T.U. 2, Lev. 2, 30-40cm	Body	3	Glass; cobalt blue
14129	T.U. 2, Lev. 2, 30-40cm	Base	1	Glass; clear; **NO. 72/[PAT] IN U.S./[??]**; 20b; h; marks read correctly from inside vessel
14129	T.U. 2, Lev. 2, 30-40cm	Base	2	Glass; clear; 1 with **2**
14129	T.U. 2, Lev. 2, 30-40cm	Body	39	Glass; clear
14130	T.U. 2, Lev. 2, 30-40cm	Base	1	Glass; clear (slightly SA);
14130	T.U. 2, Lev. 2, 30-40cm	Finish	2	Glass; clear (SA)
14130	T.U. 2, Lev. 2, 30-40cm	Base	2	Glass; clear; 20b; 1- partially melted.

Table B6. Continued.

Cat.#	Provenience	Object	#	Description
14130	T.U. 2, Lev. 2, 30-40cm	Body	2	Glass; light green
14130	T.U. 2, Lev. 2, 30-40cm	Base	3	Glass; clear;
14130	T.U. 2, Lev. 2, 30-40cm	Body	86	Glass; clear
14402	T.U. 2, Lev. 2, 30-40cm	Salve(?) canister	1	Aluminum; 3/4" wide with one rolled edge; from side of Van Vleet canister?
14360	T.U. 2, Lev. 3, 40-50cm	Wire	1	Ferrous metal; 0.1" diameter
14405	T.U. 2, Lev. 3, 40-50cm	Can end	1	Ferrous end cap fragment, 3" diameter; for cardboard canister?
14405	T.U. 2, Lev. 3, 40-50cm	Can end	1	Ferrous end cap fragment for small oval can
14360	T.U. 2, Lev. 3, 40-50cm	?	110	Ferrous metal; Sheet metal fragments
14134	T.U. 2, Lev. 3, 40-50cm	Finish	1	Glass; amber; 3n
14134	T.U. 2, Lev. 3, 40-50cm	Base	1	Glass; amber; 20b
14134	T.U. 2, Lev. 3, 40-50cm	Body	1	Glass; olive brown
14134	T.U. 2, Lev. 3, 40-50cm	Body	13	Glass; olive green
14134	T.U. 2, Lev. 3, 40-50cm	Body	2	Glass; blue green
14134	T.U. 2, Lev. 3, 40-50cm	Body	2	Glass; green
14134	T.U. 2, Lev. 3, 40-50cm	Body	5	Glass; blue
14134	T.U. 2, Lev. 3, 40-50cm	Body	50	Glass; amber; 1 - raised **R D**
14135	T.U. 2, Lev. 3, 40-50cm	Finish	1	Glass; clear (SA) unid.
14135	T.U. 2, Lev. 3, 40-50cm	Finish	1	Glass; clear; finish for snap-on or friction lid jar; narrow rim above raised 0.28" wide band
14135	T.U. 2, Lev. 3, 40-50cm	Finish	1	Glass; clear; for snap-on or friction lid jar; lip has rounded face above 0.17" wide groove; ABM
14135	T.U. 2, Lev. 3, 40-50cm	Base	1	Glass; clear; 20b
14135	T.U. 2, Lev. 3, 40-50cm	Body	1	Glass; amber
14135	T.U. 2, Lev. 3, 40-50cm	Body	1	Glass; light aqua
14135	T.U. 2, Lev. 3, 40-50cm	Base	2	Glass; clear (slightly SA); 1 20b
14135	T.U. 2, Lev. 3, 40-50cm	Body	230	Glass; clear; 1 with raised **PA**
14135	T.U. 2, Lev. 3, 40-50cm	Finish	3	Glass; clear; 1- 3n; 1 - 17n; 1- melted
14135	T.U. 2, Lev. 3, 40-50cm	Base	9	Glass; clear; 1 - 20b; 1 - raised **M**
14137	T.U. 2, Lev. 3, 40-50cm	Finish	1	Glass; clear (SA) unid.
14137	T.U. 2, Lev. 3, 40-50cm	Finish	1	Glass; clear; for snap-on or friction lid jar; "stepped' rim; 2 plain bands stepped in from body; body constricts toward base. Probably from same vessel as Cat. 14162
14137	T.U. 2, Lev. 3, 40-50cm	Base	1	Glass; clear; [Base:] **I;** 20b; ABM (Owens scar)
14137	T.U. 2, Lev. 3, 40-50cm	Base	1	Glass; clear; [Base:] **II** or **11;** 20b?; ABM (Owens scar)
14137	T.U. 2, Lev. 3, 40-50cm	Body	182	Glass; clear;; 1 with raised **CU[?] R**) **SA;** 1 with raised **T**; 1 - raised **W[?]O**; 1 - raised **AR**
14137	T.U. 2, Lev. 3, 40-50cm	Body	2	Glass; light aqua (2)
14137	T.U. 2, Lev. 3, 40-50cm	Finish	3	Glass; clear; 2 - 17n; 1 unid.
14137	T.U. 2, Lev. 3, 40-50cm	Base	4	Glass; clear (slightly SA); 1 - 20b
14137	T.U. 2, Lev. 3, 40-50cm	Base	6	Glass; clear; 1 - 20b
14142	T.U. 2, Lev. 3, 40-50cm	Base	1	Glass; aqua; [Base:] **G/–/C/16**; 20b; v; ABM (valve mark)
14142	T.U. 2, Lev. 3, 40-50cm	Body	37	Glass; aqua
14248	T.U. 2, Lev. 3, 40-50cm	Body?	1	Glass; clear; melted lump

Table B6. Continued.

Cat.#	Provenience	Object	#	Description
14405	T.U. 2, Lev. 3, 40-50cm	Cap	2	Aluminum end cap fragments for can or jar; about 2½" diameter
14405	T.U. 2, Lev. 3, 40-50cm	?	14	Aluminum sheet metal fragments
14405	T.U. 2, Lev. 3, 40-50cm	?	1	Cuprous sheet metal fragment with rolled edge
14405	T.U. 2, Lev. 3, 40-50cm	Flashing	1	Cuprous U-shaped sheet metal strip; 9" long, 2" wide with 1" wide slot. Black (rubber?) fabric fragment on one face
14405	T.U. 2, Lev. 3, 40-50cm	Wire tie?	1	Cuprous; 0.04" diameter x about 7" long copper wire
14361	T.U. 2, Lev. 4, 50-60cm	?	17	Ferrous metal; Corroded fragments
14143	T.U. 2, Lev. 4, 50-60cm	Base	1	Glass; aqua
14143	T.U. 2, Lev. 4, 50-60cm	Base	1	lt. yellow green; 20b; ABM (valve mark)
14143	T.U. 2, Lev. 4, 50-60cm	Body	1	Glass; cobalt blue
14143	T.U. 2, Lev. 4, 50-60cm	Body	29	Glass; amber
14143	T.U. 2, Lev. 4, 50-60cm	Body	3	Glass; olive green
14143	T.U. 2, Lev. 4, 50-60cm	Body	31	Glass; aqua; 1 panel frag. with raised **O** and unidentified symbol, 1 panel frag. with raised **RIN** [SPRINGS?]
14144	T.U. 2, Lev. 4, 50-60cm	Body	182	Glass; clear, some melted; 1 with raised arch-top flutes
14144	T.U. 2, Lev. 4, 50-60cm	Finish.	4	Glass; clear; 2 - 3n; 1 - 7n; 1 melted
14144	T.U. 2, Lev. 4, 50-60cm	Base	7	Glass; clear; 2 - 20b
14408	T.U. 2, Lev. 4, 50-60cm	Threaded cap	1	Aluminum fragment
14408	T.U. 2, Lev. 4, 50-60cm	?	2	Cuprous sheet metal strip fragments; similar in form to Cat. 14405 flashing
14408	T.U. 2, Lev. 4, 50-60cm	Threaded cap	1	Cuprous threaded vial cap; ½" diameter X 0.3" high
14552	T.U. 3, S.U. 1-4	Yellow ware	1	Fragment; clear glaze on interior surface
14150	T.U. 3, S.U. 1	Body	6	Glass; clear
14151	T.U. 3, S.U. 1	Body	2	Glass; aqua
14151	T.U. 3, S.U. 1	Body	2	Glass; olive green
14151	T.U. 3, S.U. 1	Body	4	Glass; amber
14350	T.U. 3, S.U. 1	?	1	Ferrous metal; Hollow, cone-shaped sheet metal; 6" long
14412	T.U. 3, S.U. 1	?	1	Cuprous metal strip with molded spikes protruding along one edge from opposite sides
14442	T.U. 3, S.U. 1	Rubble	2	Non-cultural - not described in text
14593	T.U. 3, S.U. 1	Stoneware	1	Bodysherd; dark brown glaze inside and out
14152	T.U. 3, S.U. 1-4	Body	14	Glass; clear
14368	T.U. 3, S.U. 1-4	?	3	Ferrous metal; Fragments
14443	T.U. 3, S.U. 1-4	Rubble	3	Non-cultural - not described in text
14466	T.U. 3, S.U. 1-4	Flake	1	Prehistoric secondary lithic flake
14153	T.U. 3, S.U. 2	Body	2	Glass; amber
14153	T.U. 3, S.U. 2	Body	8	Glass; clear
14370	T.U. 3, S.U. 2	?	5	Fragments
14444	T.U. 3, S.U. 2	Rubble	9	Non-cultural - not described in text
14158	T.U. 3, S.U. 2B	Body	1	Glass; cobalt blue
14158	T.U. 3, S.U. 2B	Body	2	Glass; amber
14158	T.U. 3, S.U. 2B	Body	3	Glass; olive green

Table B6. Continued.

Cat.#	Provenience	Object	#	Description
14159	T.U. 3, S.U. 2B	Body	7	Glass; clear (some yellowed)
14445	T.U. 3, S.U. 2B	Rubble	2	Non-cultural - not described in text
14156	T.U. 3, S.U. 2B-C	Body	1	Glass; aqua
14156	T.U. 3, S.U. 2B-C	Body	3	Glass; olive green
14157	T.U. 3, S.U. 2B-C	Body	11	Glass; clear (some yellowed)
14351	T.U. 3, S.U. 2B-C	?	1	Ferrous metal; Sheet metal fragment
14446	T.U. 3, S.U. 2B-C	Rubble	1	Non-cultural - not described in text
14165	T.U. 3, S.U. 3	Body	1	Glass; clear
14375	T.U. 3, S.U. 3	?	1	frag. ferrous metal scrap.
14377	T.U. 3, S.U. 3/4 interface	?	1	Ferrous metal; Fragments
14174	T.U. 3, S.U. 4	Body	1	Glass; amber
14174	T.U. 3, S.U. 4	Body	2	Glass; olive green
14175	T.U. 3, S.U. 4	Body	16	Glass; clear
14196	T.U. 3, S.U. 4	Body	1	Glass; clear; lump of melted bottle glass
14381	T.U. 3, S.U. 4	?	86	Sheet metal fragments of various size and shape, some with rolled edges
14382	T.U. 3, S.U. 4	?	2	Ferrous metal; Fragments
14451	T.U. 3, S.U. 4	Rubble	5	Non-cultural - not described in text
14192	T.U. 3, S.U. 4, near base	Body	12	Glass; clear
14176	T.U. 3, S.U. 5	Body	2	Glass; clear
14181	T.U. 3, S.U. 5	Body	1	Glass; amber
14384	T.U. 3, S.U. 5	Wire	1	Ferrous metal; Twisted wire; 0.1” diameter
14371	T.U. 4, 0-20cm	Wire	1	Ferrous metal; 0.1” diameter
14154	T.U. 4, 0-20cm	Finish	1	Glass; aqua; 7n.
14154	T.U. 4, 0-20cm	Body	1	Glass; blue green (Iosaline?)
14154	T.U. 4, 0-20cm	Body	1	Glass; cobalt blue)
14154	T.U. 4, 0-20cm	Body	1	Glass; green
14154	T.U. 4, 0-20cm	Body	2	Glass; light aqua
14154	T.U. 4, 0-20cm	Body	4	Glass; clear
14154	T.U. 4, 0-20cm	Body	6	Glass; amber
14155	T.U. 4, 0-20cm	Finish	4	Glass; clear; 2 - 7n, 1 - 9n; 1 - 10n
14155	T.U. 4, 0-20cm	Base	4	Glass; clear; 1 - raised **A**; 1 - raised **8**; 1 - raised **SA**..; 1 - 20b
14155	T.U. 4, 0-20cm	Body	51	Glass; clear; 1 with raised back-slanted **...M.** and **J.S.**...
14413	T.U. 4, 0-20cm	Wire	1	Cuprous; same as Cat.# 14405
14457	T.U. 4, 0-20cm	Rubble	3	Non-cultural - not described in text
14454	T.U. 4, 100+ cm	Rubble	2	Non-cultural - not described in text
14373	T.U. 4, 20-30cm	?	11	frags. of ferrous metal scrap.
14162	T.U. 4, 20-30cm	Finish	1	Glass; clear; 17n
14162	T.U. 4, 20-30cm	Finish	1	Glass; clear; 9n
14162	T.U. 4, 20-30cm	Finish	1	Glass; clear; for snap-on or friction lid jar; “stepped’ rim; 2 plain bands stepped in from body; body constricts toward base. Probably from same vessel as Cat. 14137.
14162	T.U. 4, 20-30cm	Base	1	Glass; clear; 21b

Table B6. Continued.

Cat.#	Provenience	Object	#	Description
14162	T.U. 4, 20-30cm	Base	1	Glass; clear; [Base:] **X;** 2.25” diameter; 20b; ABM (valve mark)
14162	T.U. 4, 20-30cm	Base	7	Glass; clear; 1 - 21b
14162	T.U. 4, 20-30cm	Body	99	Glass; clear; 1 with raised **[TRADE?]MARK**; panel with unidentifiable raised lettering; panel with **AL**
14193	T.U. 4, 20-30cm	Finish	1	Glass; cobalt blue; 3n
14193	T.U. 4, 20-30cm	Body	1	Glass; cobalt blue
14193	T.U. 4, 20-30cm	Body	1	Glass; green
14193	T.U. 4, 20-30cm	Body	1	Glass; olive green
14193	T.U. 4, 20-30cm	Body	10	Glass; amber
14193	T.U. 4, 20-30cm	Body	2	Glass; clear
14193	T.U. 4, 20-30cm	Body	2	Glass; light aqua
14447	T.U. 4, 20-30cm	Rubble	1	Non-cultural - not described in text
14374	T.U. 4, 30-40cm	?	6	frags. of ferrous metal scrap, 1 wrapped in wire.
14163	T.U. 4, 30-40cm	Finish	1	Glass; clear; double reinforced 10n; ABM.
14163	T.U. 4, 30-40cm	Base	2	Glass; clear;
14163	T.U. 4, 30-40cm	Body	55	Glass; clear
14164	T.U. 4, 30-40cm	Base	1	Glass; yellow green; 2 mended fragments; 2.25” diameter; 20b; ABM (valve mark)
14164	T.U. 4, 30-40cm	Finish	1	Glass; clear; 7n
14164	T.U. 4, 30-40cm	Body	1	Glass; olive green
14164	T.U. 4, 30-40cm	Body	12	Glass; amber
14164	T.U. 4, 30-40cm	Body	12	Glass; aqua
14164	T.U. 4, 30-40cm	Body	6	Glass; clear; 1 panel with **EN**
14185	T.U. 4, 30-40cm	Finish	1	Glass; clear; unid. melted
14185	T.U. 4, 30-40cm	Body	1	Glass; clear; misshapen from exposure to high heat
14416	T.U. 4, 30-40cm	Cup cap	1	Cuprous slide-on cap marked “[flowers inside heart]/SOUVENIR/OF/HOT SPRINGS/ARK.”; about 2½” diameter with 0.7” high rim Probably from collapsible cup
14378	T.U. 4, 40-50cm	?	9	Fragments
14166	T.U. 4, 40-50cm	Body	24	Glass; clear; 1 24b body
14166	T.U. 4, 40-50cm	Base	4	Glass; clear; 1 - 20b
14169	T.U. 4, 40-50cm	Body	2	Glass; clear
14169	T.U. 4, 40-50cm	Body	5	Glass; amber
14169	T.U. 4, 40-50cm	Body	5	Glass; light aqua
14417	T.U. 4, 40-50cm	Canister cap	1	Aluminum slip-on cap fragment
14448	T.U. 4, 40-50cm	Rubble	5	Non-cultural - not described in text
14379	T.U. 4, 50-60cm	?	6	Fragment?
14170	T.U. 4, 50-60cm	Base	1	Glass; aqua
14170	T.U. 4, 50-60cm	Body	1	Glass; light yellow
14170	T.U. 4, 50-60cm	Body	1	Glass; olive green
14170	T.U. 4, 50-60cm	Body	2	Glass; amber
14170	T.U. 4, 50-60cm	Body	3	Glass; clear
14170	T.U. 4, 50-60cm	Body	5	Glass; aqua
14171	T.U. 4, 50-60cm	Base	1	Glass; clear;

Table B6. Concluded.

Cat.#	Provenience	Object	#	Description
14171	T.U. 4, 50-60cm	Base	1	Glass; clear (slightly SA); **[REGISTERED TRADE]MARK/**...**[REFILLING P]ROHIBITED;** 20b
14171	T.U. 4, 50-60cm	Body	32	Glass; clear
14418	T.U. 4, 50-60cm	Canister	2	Aluminum side and threaded lid fragments
14449	T.U. 4, 50-60cm	Rubble	3	Non-cultural - not described in text
14468	T.U. 4, 60-70cm	?	6	Ferrous fragments
14172	T.U. 4, 60-70cm	Body	1	Glass; amber
14172	T.U. 4, 60-70cm	Body	1	Glass; light aqua
14172	T.U. 4, 60-70cm	Body	1	Glass; olive green
14173	T.U. 4, 60-70cm	Body	17	Glass; clear
14419	T.U. 4, 60-70cm	Wire tie?	1	Cuprous; 2” long x 0.04” diameter
14450	T.U. 4, 60-70cm	Rubble	10	Non-cultural - not described in text
14385	T.U. 4, 70-80cm	Spring	1	Ferrous metal; 0.3” diameter x 2¼” long
14385	T.U. 4, 70-80cm	?	1	Ferrous metal; Sheet metal fragment
14385	T.U. 4, 70-80cm	?	2	Ferrous metal; Cast iron fragments
14179	T.U. 4, 70-80cm	Finish	1	Glass; clear; unid.
14179	T.U. 4, 70-80cm	Body	20	Glass; clear
14180	T.U. 4, 70-80cm	Body	2	Glass; amber
14180	T.U. 4, 70-80cm	Body	2	Glass; aqua
14453	T.U. 4, 70-80cm	Rubble	3	Non-cultural - not described in text
14189	T.U. 4, 80-90cm, Column 1 S. edge, 100+ cm	Base,	1	Glass; clear; 20b; post mold?
14189	T.U. 4, 80-90cm, Column 1 S. edge, 100+ cm	Body,	6	Glass; clear
14191	T.U. 4, 80-90cm, Column 1 S. edge, 100+ cm	Body	9	Glass; olive green

HOT SPRINGS

APPENDIX C.
FAUNAL REMAINS FROM HOT SPRINGS NATIONAL PARK, 2004-2005 FIELD INVESTIGATIONS

by
Kenneth P. Cannon

INTRODUCTION

A limited sample of faunal remains was recovered during the 2004-5 field investigations by the Midwest Archeological Center under the direction of William Hunt. The assemblage represents almost exclusively domestic animals, with the exception of a single cottontail element and two elements from Canada geese. Two fragments of oyster shells were also recovered from the 2004 excavations. All of the species represented were probably discarded food remains.

Analysis of the faunal remains was conducted at the Midwest Archeological Center using the Center's comparative faunal collection. Osteological guides were also consulted. These include Gilbert et al.'s (1996) *Avian Osteology*, Olsen's (1985) and Gilbert's (1980) mammalian osteology guides. Taxonomy of the species follows Banks et al. (1987).

All faunal materials are currently being curated by the Midwest Archeological Center under MWAC Accession Number 1086 and HOSP Accession Number 384. All information was entered into a Microsoft Access 2000 file (HOSP Fauna 2004-5).

The 2004 Assemblage

Two hundred and eighty-eight specimens were recovered during the 2004 field season (see following table). This limited sample includes 15 taxonomic groups of birds and mammals. In addition to the specimens identified to genus and species, the taxonomic groupings include elements of various indeterminate mammals and birds that could not be further identified than either bird, fish, or mammal. With the exception of the fish, oysters, cottontail and Canada goose, the vast majority (98%) of the taxa represent domestic specimens. One hundred and sixty-three (56.6%) of the specimens have evidence of modification either in the form of having been cut sawn, or have been burned. Burning is the most prevalent modification of the elements (50.7%).

Mollusca: Bivalvia

Two shell fragments from oysters (*Crassostrea virginica*) were recovered from the Ozark Bathhouse sump drain out.

HOT SPRINGS

Osteichthyes: Fish

A single vertebra fragment from an indeterminate fish was recovered from Test Unit 3 of the Lamar Bathhouse

Avifauna

Forty-six elements from the 2004 assemblage were identified as bird bones. These include 2 elements of Canada geese (*Branta canadensis*), 20 elements of domestic chickens (*Gallus gallus*), 22 specimens from indeterminate bird and a single long bone fragment from an indeterminate large bird. An eggshell was also recovered with the 2004 material.

Family Anatidae: Swans, Geese and Ducks

Two elements from the 2004 assemblage were identified as belonging to the Anatidae family. Both of these elements are from Canada geese.

Branta canadensis (Canada goose)

The anterior portion of a sternum and a right tibiotarsus were identified as Canada goose. The specimens represent two individuals based upon size and their recovery from different contexts. The anterior portion of the sternum is from a fairly small adult (in comparison to specimens in the MWAC comparative collection) that may represent a female.

Family Phasianidae: Pheasants, Grouse, and Quail

Gallus gallus (Domestic chicken)

With the exception of the indeterminate bird specimens, domestic chicken is the most numerous bird taxon identified. A minimum number of 11 individuals are represented based upon their recovery from different contexts. Three of the specimens exhibit modifications that includes a burned tibiotarsus (Cat.# 14255.67), a sawn ulna (Cat.# 14255.56) and a femur that was gnawed by a canid (Cat.# 14603.6). One of the more interesting elements is a fused right and left coracoid (Cat.# 14603.1) in which the right coracoid was broken, displaced and fused with the left.

Indeterminate Bird

Twenty-three specimens were assigned to the taxonomic group of indeterminate bird due to their fragmentary nature. Many of these specimens probably represent chicken elements based upon their general size. Five of the specimens were burned.

One burned long bone fragment was assigned to the taxonomic group of indeterminate large bird. The specimen is a portion of the long bone diaphysis and compares well with turkey and Canada goose specimens in size.

Mammalian Faunal

The majority (83%) of the 2004 assemblage is represented by domestic mammals. These include pigs, cattle, and sheep/goats, plus indeterminate mammal elements that were further grouped by size. The single non-domestic is represented by the left proximal tibia from a cottontail (*Syvilagus* sp.). Over sixty percent of the specimens have either been burned or have evidence of butchery marks (i.e., cut or sawn).

Family Suidae: Pigs

Sus scrofa (Domestic pig)

Eight specimens were identified as pig. Three of the specimens were burned and three have been sawn. Six of the elements represent the foot portion and may have been prepared and eaten as a unit (i.e., pigs feet). All of the pig remains were recovered from the Lamar Bathhouse and represent a minimum of two individuals based upon the presence of two right astragali. This limited assemblage probably represents a minimum of two individuals.

Family Bovidae: Bovids

Bos taurus (Cattle)

Only three cattle elements were recovered from the Lamar Bathhouse, although many of the specimens identified as large mammal are probably cattle. Two of the elements have been sawn, the right scapula (Cat.# 14603.19) and a cervical vertebra (Cat.# 14603.22). The third specimen is a radius (Cat.# 14276.1).

Ovis aries/Capra hircus (Sheep/goat)

Twelve elements were identified to the group sheep/goat (*Ovis aries*/*Capra hircus*). Due to the limits of the comparative collection further indication can not be made. All of the specimens were recovered from the Lamar Bathhouse with the exception of the midshaft of a femur (Cat.# 14337.1) which was recovered from the basement drainline of the Ozark Bathhouse. Four of the specimens were burned and five have been sawn during the butchering process. A minimum of four individuals is represented based upon their recovery from various contexts.

HOT SPRINGS

Indeterminate Mammals

One hundred and seventy-five specimens were too fragmentary to identify beyond a general size mammal. Sixty-four percent of the specimens were burned with one that was both sawn and burned, and two specimens which were sawn.

Twelve specimens were categorized as indeterminate large mammal and probably represent cattle remains. Over half (n=7) have been either burned or sawn.

The general taxonomic category of medium mammal is represented by 20 specimens, over half of which have been burned or exhibit butchery marks (n=14). This group may be represented by such domestic species as sheep/goat or pig. Seven specimens could be classified as indeterminate small mammal. These would include such likely food species as cottontail. Two of the specimens were burned

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ANCS #	Provenience	Species	Element	Side	Modification	Comment
14338	Sump drain out					
14276	Column 9, pit, Below 50	Bos taurus	Radius	Unsided		
14603	Under north stairway to first floor	Bos taurus	Scapula	Right	Sawn	
14603	Under north stairway to first floor	Bos taurus	Cervial vertebra		Sawn	Immature
14259	T.U. 2, Lev. 6, 70+	Branta canadensis	Tibiotarsus	Right		
14603	Under north stairway to first floor	Branta canadensis	Sternum	Anterior		Small
14260	T.U. 2, Lev. 1, 15-30	Gallus gallus	Rib			
14255	T.U. 2, Lev. 3, 40-50	Gallus gallus	Fibula	Right		
14255	T.U. 2, Lev. 3, 40-50	Gallus gallus	Ulna	Left	Sawn	Distal
14255	T.U. 2, Lev. 3, 40-50	Gallus gallus	Ulna	Right		
14255	T.U. 2, Lev. 3, 40-50	Gallus gallus	Tibiotarsus	Left	Burned	
14256	T.U. 2, Lev. 4, 50-60	Gallus gallus	First rib	Left		
14256	T.U. 2, Lev. 4, 50-60	Gallus gallus	Coracoid	Left		Anterior
14257	T.U. 2, Lev. 4, 50-60	Gallus gallus	Coracoid	Left		
14258	T.U. 2, Lev. 5, 60-70	Gallus gallus	Rib			
14259	T.U. 2, Lev. 6, 70+	Gallus gallus	Humerus			Proximal
14272	T.U. 3, SU5	Gallus gallus	Carpometa-carpus	Left		
14272	T.U. 3, SU5	Gallus gallus	Ulna	Left		
14267	T.U. 4, Lev. 3, 30-40	Gallus gallus	Ulna	Right		
14603	Under north stairway to first floor	Gallus gallus	Coracoid	Left/Right		Right broken and fused
14603	Under north stairway to first floor	Gallus gallus	Humerus	Right		Distal
14603	Under north stairway to first floor	Gallus gallus	Humerus	Left		
14603	Under north stairway to first floor	Gallus gallus	Innominate	Right		Acetabu-lum, ilium, ischium

Table Continued.

ANCS #	Provenience	Species	Element	Side	Modification	Comment
14603	Under north stairway to first floor	Gallus gallus	Femur	Left		Canid gnawing
14603	Under north stairway to first floor	Gallus gallus	Tibiotarsus	Left		
14603	Under north stairway to first floor	Gallus gallus	Sternum	Anterior portion and keel		
14253	T.U. 2, Lev. 1, 15-30	Indeterminate bird	Long bone			
14254	T.U. 2, Lev. 2, 30-40	Indeterminate bird				
14254	T.U. 2, Lev. 2, 30-40	Indeterminate bird	Synsacrum			
14254	T.U. 2, Lev. 2, 30-40	Indeterminate bird	Long bone			
14255	T.U. 2, Lev. 3, 40-50	Indeterminate bird	Long bone			
14255	T.U. 2, Lev. 3, 40-50	Indeterminate bird	Long bone		Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate bird	Long bone			
14255	T.U. 2, Lev. 3, 40-50	Indeterminate bird	Tibiotrasus	Right		Chicken-sized proximal
14255	T.U. 2, Lev. 3, 40-50	Indeterminate bird	Long bone			
14256	T.U. 2, Lev. 4, 50-60	Indeterminate bird	Long bone		Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate bird	Long bone		Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate bird	Rib			Chicken-sized
14256	T.U. 2, Lev. 4, 50-60	Indeterminate bird	Tarsometa-tarsus	Left		Proximal
14257	T.U. 2, Lev. 4, 50-60	Indeterminate bird	Shell			
14257	T.U. 2, Lev. 4, 50-60	Indeterminate bird	Long bone			
14257	T.U. 2, Lev. 4, 50-60	Indeterminate bird	Rib			Chicken-sized
14256	T.U. 2, Lev. 4, 50-60	Indeterminate bird	Long bone			Chicken-sized
14259	T.U. 2, Lev. 6, 70+	Indeterminate bird	Long bone		Burned	
14271	T.U. 3, S.U. 4	Indeterminate bird	Radius			Proximal
14266	T.U. 4, Lev. 2, 20-30	Indeterminate bird				
14267	T.U. 4, Lev. 3, 30-40	Indeterminate bird	Rib		Burned	

Table Continued.

ANCS #	Provenience	Species	Element	Side	Modification	Comment
14603	Under north stairway to first floor	Indeterminate bird	Sternum?			
14603	Under north stairway to first floor	Indeterminate bird	Sternum			Keel fragment
14271	T.U. 3, S.U. 4	Indeterminate fish	Vertebra			
14259	T.U. 2, Lev. 6, 70+	Indeterminate large bird	Long bone		Burned	
14260	T.U. 2, Lev. 1, 15-30	Indeterminate large mammal	Long bone		Burned	
14260	T.U. 2, Lev. 1, 15-30	Indeterminate large mammal	Long bone		Burned	
14260	T.U. 2, Lev. 1, 15-30	Indeterminate large mammal	Long bone		Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate large mammal	Metatarsal/ metacarpal			Distal-lateral epiphysis
14256	T.U. 2, Lev. 4, 50-60	Indeterminate large mammal	Rib			Probably cow
14256	T.U. 2, Lev. 4, 50-60	Indeterminate large mammal	Long bone			Immature
14257	T.U. 2, Lev. 4, 50-60	Indeterminate large mammal	Long bone		Burned/Sawn	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate large mammal	Rib			Immature
14258	T.U. 2, Lev. 5, 60-70	Indeterminate large mammal	Rib		Burned/Sawn	Possibly cow
14259	T.U. 2, Lev. 6, 70+	Indeterminate large mammal	Scapula		Sawn	Probably cow
14259	T.U. 2, Lev. 6, 70+	Indeterminate large mammal	long bone diaphysis			Immature
14271	T.U. 3, S.U. 4	Indeterminate large mammal	Scapula			Glenoid cavity
14603	Under north stairway to first floor	Indeterminate large mammal	Vertebra		Sawn	
14252	T.U. 1, Lev. 6, 110-120	Indeterminate mammal			Burned	
14260	T.U. 2, Lev. 1, 15-30	Indeterminate mammal			Burned	
14260	T.U. 2, Lev. 1, 15-30	Indeterminate mammal			Burned	
14254	T.U. 2, Lev. 2, 30-40	Indeterminate mammal				
14254	T.U. 2, Lev. 2, 30-40	Indeterminate mammal				
14254	T.U. 2, Lev. 2, 30-40	Indeterminate mammal				
14254	T.U. 2, Lev. 2, 30-40	Indeterminate mammal				

Table Continued.

ANCS #	Provenience	Species	Element	Side	Modification	Comment
14254	T.U. 2, Lev. 2, 30-40	Indeterminate mammal				
14254	T.U. 2, Lev. 2, 30-40	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Sawn	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	

Table Continued.

ANCS #	Provenience	Species	Element	Side	Modification	Comment
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned	
14255	T.U. 2, Lev. 3, 40-50	Indeterminate mammal			Burned/Sawn	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal				
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal				
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal				

Table Continued.

ANCS #	Provenience	Species	Element	Side	Modification	Comment
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal				
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal				
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal				
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal				
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal				
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal				
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal				
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal				
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal				
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	

Table Continued.

ANCS #	Provenience	Species	Element	Side	Modification	Comment
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	

Table Continued.

ANCS #	Provenience	Species	Element	Side	Modification	Comment
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate mammal			Burned	
14259	T.U. 2, Lev. 6, 70+	Indeterminate mammal				
14259	T.U. 2, Lev. 6, 70+	Indeterminate mammal				
14259	T.U. 2, Lev. 6, 70+	Indeterminate mammal				
14259	T.U. 2, Lev. 6, 70+	Indeterminate mammal			Burned	
14259	T.U. 2, Lev. 6, 70+	Indeterminate mammal			Burned	
14259	T.U. 2, Lev. 6, 70+	Indeterminate mammal			Burned	
14259	T.U. 2, Lev. 6, 70+	Indeterminate mammal			Burned	
14273	T.U. 2, Lev. 6, 70+	Indeterminate mammal			Burned	
14262	T.U. 3, S.U. 2	Indeterminate mammal	Long bone		Burned	
14264	T.U. 3, S.U. 2B,	Indeterminate mammal			Burned	
14264	T.U. 3, S.U. 2B,	Indeterminate mammal				
14264	T.U. 3, S.U. 2B,	Indeterminate mammal				
14264	T.U. 3, S.U. 2B,	Indeterminate mammal				
14264	T.U. 3, S.U. 2B,	Indeterminate mammal				
14265	T.U. 3, S.U. 2B-C	Indeterminate mammal				
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14261	T.U. 3, S.U. 3	Indeterminate mammal			Burned	
14271	T.U. 3, S.U. 4	Indeterminate mammal			Burned	
14271	T.U. 3, S.U. 4	Indeterminate mammal			Burned	
14271	T.U. 3, S.U. 4	Indeterminate mammal			Burned	
14271	T.U. 3, S.U. 4	Indeterminate mammal			Burned	
14271	T.U. 3, S.U. 4	Indeterminate mammal			Burned	
14271	T.U. 3, S.U. 4	Indeterminate mammal			Burned	
14271	T.U. 3, S.U. 4	Indeterminate mammal				

Table Continued.

ANCS #	Provenience	Species	Element	Side	Modification	Comment
14271	T.U. 3, S.U. 4	Indeterminate mammal				
14271	T.U. 3, S.U. 4	Indeterminate mammal				
14271	T.U. 3, S.U. 4	Indeterminate mammal				
14271	T.U. 3, S.U. 4	Indeterminate mammal				
14271	T.U. 3, S.U. 4	Indeterminate mammal				
14271	T.U. 3, S.U. 4	Indeterminate mammal			Sawn	
14270	T.U. 3, SU4, near base	Indeterminate mammal				
14270	T.U. 3, SU4, near base	Indeterminate mammal				
14270	T.U. 3, SU4, near base	Indeterminate mammal				
14270	T.U. 3, SU4, near base	Indeterminate mammal				
14270	T.U. 3, SU4, near base	Indeterminate mammal				
14263	T.U. 4, Lev. 1, 0-20	Indeterminate mammal				
14263	T.U. 4, Lev. 1, 0-20	Indeterminate mammal				
14263	T.U. 4, Lev. 1, 0-20	Indeterminate mammal				
14266	T.U. 4, Lev. 2, 20-30	Indeterminate mammal			Burned	
14266	T.U. 4, Lev. 2, 20-30	Indeterminate mammal			Burned	
14267	T.U. 4, Lev. 3, 30-40	Indeterminate mammal				
14267	T.U. 4, Lev. 3, 30-40	Indeterminate mammal				
14267	T.U. 4, Lev. 3, 30-40	Indeterminate mammal				
14267	T.U. 4, Lev. 3, 30-40	Indeterminate mammal			Burned	
14267	T.U. 4, Lev. 3, 30-40	Indeterminate mammal			Burned	
14268	T.U. 4, Lev. 4, 40-50	Indeterminate mammal				
14269	T.U. 4, Lev. 5, 50-60	Indeterminate mammal			Burned	
14269	T.U. 4, Lev. 5, 50-60	Indeterminate mammal			Burned	
14274	T.U. 4, Lev., 6, 70-80	Indeterminate mammal				
14275	T.U. 4, , Lev. 7, 80-90	Indeterminate mammal				
14275	T.U. 4, Lev. 7, 80-90	Indeterminate mammal				
14255	T.U. 2, Lev. 3, 40-50	Indeterminate medium mammal			Sawn	

Table Continued.

ANCS #	Provenience	Species	Element	Side	Modification	Comment
14255	T.U. 2, Lev. 3, 40-50	Indeterminate medium mammal	Phalanx			Imma-tuere
14255	T.U. 2, Lev. 3, 40-50	Indeterminate medium mammal	Rib			
14255	T.U. 2, Lev. 3, 40-50	Indeterminate medium mammal	Rib		Burned	Sheep/ goat-sized
14255	T.U. 2, Lev. 3, 40-50	Indeterminate medium mammal	Phalanx		Burned	Immature
14255	T.U. 2, Lev. 3, 40-50	Indeterminate medium mammal	Phalanx			Proximal
14255	T.U. 2, Lev. 3, 40-50	Indeterminate medium mammal	Vertebra		Burned	Immature
14255	T.U. 2, Lev. 3, 40-50	Indeterminate medium mammal	Rib		Sawn	Sheep/ goat-sized
14255	T.U. 2, Lev. 3, 40-50	Indeterminate medium mammal	Metatarsal		Burned	Sheep/ goat-sized distal epiphysis
14256	T.U. 2, Lev. 4, 50-60	Indeterminate medium mammal	Rib		Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate medium mammal	Rib		Burned	
14256	T.U. 2, Lev. 4, 50-60	Indeterminate medium mammal	Rib			
14256	T.U. 2, Lev. 4, 50-60	Indeterminate medium mammal	Rib			
14257	T.U. 2, Lev. 4, 50-60	Indeterminate medium mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate medium mammal			Burned	
14257	T.U. 2, Lev. 4, 50-60	Indeterminate medium mammal			Burned/Cut	
14258	T.U. 2, Lev. 5, 60-70	Indeterminate medium mammal	Tooth			
14267	T.U. 4, Lev. 3, 30-40	Indeterminate medium mammal	Rib		Burned	
14267	T.U. 4, Lev. 3, 30-40	Indeterminate medium mammal	Long bone		Burned/Sawn	
14267	T.U. 4, Lev. 3, 30-40	Indeterminate medium mammal	Rib		Burned	
14259	T.U. 2, Lev. 6, 70+	Indeterminate small mammal	Rib		Burned	
14267	T.U. 4, Lev. 3, 30-40	Indeterminate small mammal	Rib		Burned	
14603	Under north stairway to first floor	Indeterminate small mammal				
14603	Under north stairway to first floor	Indeterminate small mammal				

Table Continued.

ANCS #	Provenience	Species	Element	Side	Modification	Comment
14603	Under north stairway to first floor	Indeterminate small mammal				
14603	Under north stairway to first floor	Indeterminate small mammal				
14603	Under north stairway to first floor	Indeterminate small mammal				
14255	T.U. 2, Lev. 3, 40-50	Ovis aries/Capra hircus	Tibia	Right	Burned	Tibial crest
14255	T.U. 2, Lev. 3, 40-50	Ovis aries/Capra hircus	Tibia	Left	Sawn	Proximal
14255	T.U. 2, Lev. 3, 40-50	Ovis aries/Capra hircus	Radius	Left		Distal
14255	T.U. 2, Lev. 3, 40-50	Ovis aries/Capra hircus	Rib		Sawn	
14257	T.U. 2, Lev. 4, 50-60	Ovis aries/Capra hircus	Tibia		Burned	Proximal/ immature
14258	T.U. 2, Lev. 5, 60-70	Ovis aries/Capra hircus	Scapula	Right	Burned	Glenoid cavity
14258	T.U. 2, Lev. 5, 60-70	Ovis aries/Capra hircus	Radius			
14258	T.U. 2, Lev. 5, 60-70	Ovis aries/Capra hircus	Femur		Burned	Mid-shaft
14603	Under north stairway to first floor	Ovis aries/Capra hircus	Cervical vertebra			
14603	Under north stairway to first floor	Ovis aries/Capra hircus	Femur	Left	Sawn	Distal, immature
14603	Under north stairway to first floor	Ovis aries/Capra hircus	Lumbar vertebra		Sawn	Immature
14603	Under north stairway to first floor	Ovis aries/Capra hircus	Humerus	Left	Sawn	Canid gnawing
14254	T.U. 2, Lev. 2, 30-40	Sus scrofa	Phalanx	Unsided		Immature
14255	T.U. 2, Lev. 3, 40-50	Sus scrofa	Metacarpal		Burned	
14255	T.U. 2, Lev. 3, 40-50	Sus scrofa	Metatarsal			
14256	T.U. 2, Lev. 4, 50-60	Sus scrofa	Astragalus	Right	Sawn	
14258	T.U. 2, Lev. 5, 60-70	Sus scrofa	First phalanx		Burned	
14267	T.U. 4, Lev. 3, 30-40	Sus scrofa	Astragalus	Right	Burned	
14603	Under north stairway to first floor	Sus scrofa	Lumbar vertebra		Sawn	Immature

Table Concluded.

ANCS #	Provenience	Species	Element	Side	Modification	Comment
14603	Under north stairway to first floor	Sus scrofa	Ulna	Left	Sawn	Proximal
14603	Under north stairway to first floor	Sylvilagus sp.	Tibia	Left		Proximal, immature