

**THE SUGAR HOUSE SITE
44AX96
Interim Report: 1987 Field Season**

by
Barbara H. Magid



**Alexandria Archaeology Publications
Number 24**

Alexandria Archaeology
Office of Historic Alexandria
City of Alexandria, Virginia
Copyright 1987

ALEXANDRIA CITY COUNCIL

Patricia S. Ticer, Mayor

William C. Cleveland, Vice Mayor

Kerry J. Donley

T. Michael Jackson

Redella S. Pepper

Lonnie C. Rich

David G. Speck

CITY MANAGER

Vola Lawson

Foreword

The Alexandria Archaeology Publications series is composed of papers on various aspects of research conducted under the auspices of Alexandria Archaeology, a division of the Office of Historic Alexandria, City of Alexandria, Virginia. The authors include professional staff members, university students and Alexandria Archaeology volunteers. Editing of the papers has been kept to a minimum. It should be understood that the papers vary in tone and level of technicality, since they were originally directed toward many different audiences.

We are pleased to offer the papers within this series and in so doing are opening our "manuscripts on file" - including professional conference papers, background documentary studies, student course papers, and volunteer research papers - to professionals and public alike.

Pamela J. Cressey, Ph.D.
City Archaeologist
1991

Excavations at the Sugar House Site (44AX96) were conducted by Alexandria Archaeology, a city agency within the Office of Historic Alexandria. Excavations were directed by Alexandria Archaeologists Pamela J. Cressey, Steven J. Shephard and Donald K. Creveling. The artifacts were analyzed by Barbara H. Magid, who, along with Joanna T. Moyer, supervised the laboratory work. The George Washington University and Alexandria Archaeology conducted a field school on this site in 1987, and again in 1988. This paper is a preliminary report on the results of the 1987 field season.

The excavation is being undertaken in advance of construction by the city of Alexandria of a parking garage on what is currently an asphalt parking lot. The lot extends over the northern half of the block bounded by the 100 block of N. Alfred and N. Columbus Streets and the 800 block of Cameron Street. This entire lot and the neighboring house now owned by WJD Realty was all included in the Sugar House complex in the early 19th century. A number of structures which appear on historic insurance maps of this block, dating from 1798 to 1921, are shown in Figure 1. Excavations in the first season explored two areas of the site: the area of the Sugar House in the southwest portion of the site, and the site of the earliest known structure, a wooden dwelling house which is described and mapped in the 1798 Mutual Assurance records, in the northwest corner. These preliminary excavations tested the archaeological integrity of different areas of the site, examining the extent of the remains and the amount of

disturbance. The 1988 season will concentrate on the Sugar House, and will search for the remains of dependent outbuildings behind the refinery.

History

Excavation of The Sugar House Site is adding to our knowledge of an industry which was important to Alexandria's early economy. The Moore-McLean Sugar Refinery, located on the 100 Block of North Alfred Street in Old Town Alexandria, operated from 1804 until 1828, producing lump and loaf sugar, molasses and candy. This and another nearby refinery produced enough sugar in 1810 to rank Alexandria as the third largest U.S. producer of refined sugar.

According to the 1820 Census of Manufacturers, about 500 boxes of "Havannah Sugar", valued at \$20,000, were used annually in the production of sugar. Labor was provided by seven slaves, using "one pan, one cooler, and one cistern and about five thousand molds and the same quantity of pots." Fragments of these molds and pots account for more than half of the 15,000 artifacts recovered in the first season of excavation.

The Mutual Assurance assessment (Figure 1), from 1805, lists the Sugar House assets, including a Dwelling House valued at \$1,000, and two attached kitchens valued at \$200 each. The sketch map of the property shows the location of the "Sugar House, 5 stories high covered with slate", and of the neighboring dwelling house,

to be insured a two-story wooden structure with two one-story wings.

The first reference to the Sugar House in the Alexandria Gazette was an advertisement from October 26, 1804, which read:

SUGAR HOUSE

The Subscribers have on hand at their SUGAR HOUSE, in Alexandria, LOAF & LUMP SUGARS and MOLASSES, of their own manufacturing, which they sell at the Philadelphia and Baltimore prices.

Brunner & Moore.

The next year, on March 2, 1805, a subsequent advertisement read as follows:

Sugar Refinery

THE SUBSCRIBERS beg leave to inform their friends and the public in general that they have commenced the

Refining of Sugar

In the refinery formerly occupied by William S. Moore, and they expect ... in a few days refined Sugar of different qualities ready for delivery--Also, Sugar Candy and Molasses.

McLean & Weston

Daniel McLean, who took over the business from William S. Moore, continued the operation until his death in 1824. The rise of sugar production in Louisiana and economic hard times for Alexandria in the mid-1820s brought on the demise of the Sugar House by 1828. The building was later torn down, and a brick dwelling with a cellar constructed over its northern side between 1891 and 1896. The front section of the brick building at 111 N. Alfred Street was probably built over the Sugar House remains in the

1840s.

A history of the Sugar House and of sugar production in Alexandria is being prepared by Pamela J. Cressey and Sara Revis.

Refining Sugar

Artifacts relating to sugar refining were found throughout all stratigraphic levels of the site, including those which were disturbed by later development. These artifacts include earthenware sugar molds and syrup jars, coral and water worn pottery, lumps of white clay, and coal clinkers (impurities remaining after coal is burnt).

The refining process used at the Sugar House involved a process known as claying. This was referred to in a treatise on the refining of sugar written in 1833 as "the old or German method" (Silliman 1833).

Several steps were involved in the refining process, and some or all of these may have been used at the Alexandria refinery. The Sugar House is known from the 1820 Census of Manufacturers to have had a cistern, pan and cooler. The use of these copper basins and the earthenware sugar molds and pots, as described by Silliman, is outlined below.

The Pan

The first process involved the use of lime water. In a New York refinery described by Silliman, this was kept in a wooden cistern

outside the building, and conducted through pipes to the copper pans. The unrefined sugar was added to the pans, mixed with an amount of lime water which varied according to the quality of sugar being refined. Silliman states that the best and cheapest lime came from Providence, Rhode Island. A large quantity of coral and shell fragments was found at the Sugar House site and have been identified by a micropaleontologist with the U.S. Geological Survey as originating in the southern Gulf of Mexico area including the northeast coast of Cuba (Poag 1988). Perhaps this material was ground up and burnt as a source of lime. The purpose of the lime water, according to Silliman, was to coagulate the sediments in the sugar, extracting the impurities.

Fresh bullock's blood, egg white, or charcoal may then have been added to the pan. The pan was heated to just below the boiling point for several hours, so that the blood, egg whites, sediments, etc. rose to the surface as a scum several inches thick. The scum was removed with a long-handled perforated copper skimmer until a white milky looking froth appeared.

Even the scum was not wasted. An oblong basket was placed upon an empty copper basin (the cooler). A thick hempen bag filled with scum was placed in this basket, topped with a board and heavy weights. The liquor suspended in the scum was drawn out in this way over a twenty-four hour period, and the clarified liquid added to the evaporating boiler. The residue of the scum was usually sold to a cordial manufacturer who would extract it

farther.

The Cistern

The liquor (liquid sugar) was then transferred to a copper cistern, open at the top. This cistern was topped with a woollen blanket in an oblong basket. A copper dipper was used to transfer the liquor into a wooden trough, and ran through the trough to the cistern where it was filtered through the blanket. The sand and other substances caught in the blanket were discarded.

The pan was then washed and a portion of the liquor returned to it for evaporation. The liquor was boiled and stirred for twelve to thirty minutes until the foreman has determined that it has reached the exact degree of viscosity. The fire in the furnace beneath the pan was dampened, but not extinguished, by throwing fresh coal and then water upon the flame.

The Cooler

The liquor was then transferred to a circular copper basin called a cooler. The liquor was stirred as it was poured, so it would not form a crust. The liquor was then agitated vigorously with the stirring oars, and in a few minutes the sugar would begin to crystallize (granulation).

A second portion of liquor, combined with that of previously refined sugar, was then evaporated in the boiler. A third and fourth portion of the liquor would then be evaporated.

It was at this stage that the granulated, or crystallized sugar was transferred from the coolers to the molds to undergo the claying process. The Census of Manufacturers recorded 5,000 molds and 5,000 pots (syrup jars) in use at the Sugar House in 1820.

The Molds and Pots

The molds were described by Silliman as conical in shape, made of unglazed red earthenware, with a small aperture at the lower end. Thousands of fragments of these molds were found in the Sugar House excavation.

Silliman (1833) reported that the molds and pots were formerly all imported, from England, Holland and France. The English wares were "smoother, firmer and stronger than the American, but (were) much more expensive" (Silliman 1833:90). Molds and pots were by 1833 being made by Quintard and Chichester in Norwalk, Connecticut, and on Long Island. These wares were extensively used in New York, but not in the cities to the south. Many refineries continued to use the better quality English molds. Long Island and New Jersey clays were mixed with sand to produce a ware which would be firm enough so that the molds would not break when they were tapped to release the loaf of sugar (Silliman 1833:93).

The molds came in various sizes, according to the grade of sugar

being produced. The Connecticut wares were, in 1833, priced at 90, 60, 20, and 18 cents each according to their size, and the pots at 46, 30, 11, and 9 cents (Silliman 1833:93).

Molds found at the Sugar House are of a hard, dense sandy clay. They are not of local manufacture. Allison Stenger of the Ceramics Analytical Laboratory at Oregon State University is analyzing the ware and may be able to shed some light on its origin. The pots, or syrup jars, have a heavy rounded rim to support the weight of the mold, and are glazed on the interior (Figure 2).

The Ceramics Analytical Laboratory is expected to confirm that these pots are of local manufacture. They cannot be attributed to a particular potter, as no rims of this shape have been found on the pottery sites. Several variations on the rim form have been found, and may indicate the products of different potters. The pots may have been made by Lewis Plum (1788-1821), and at the Wilkes Street pottery by John Swann (1813-1825) and under the direction of Hugh Smith (1825-1841).

Claying

A fine white clay was used to aid the refining. Silliman reports that Teaman, Tobias & Co. received its clay used in refining from Long Island. Another New York Refinery (that of Meday & Ritter) obtained clay for the claying process from Cow Bay on Long Island. Boston manufacturers used a finer quality clay from Gay

Head in Martha's Vineyard, said to be purer and lighter than the

Holland clay. Philadelphia and Baltimore refiners obtained clay from Federal Hill near Baltimore, or, for the Philadelphia sugar houses, from the Delaware River drainage.

The clay had to be white and clean, and to be free of stones, iron rust and organic matter. Large lumps of whitish gray clay were found at the Sugar House site, and traces of clay remained in many of the molds.

The claying process refined lower grade sugar into that of a better quality, such as Muscavado into lump sugar. Claying was done using the conical shaped clay molds. The molds were washed, and, if previously used, soaked to remove any remnants of sugar, clay and syrup. The aperture was stopped up with a twist of the kind of paper used to wrap the loaves. The molds were set in rows near the cooler, balanced against each other on their small ends, between a row of molds inverted onto their wide end and the wall of the room. The sugar was poured from the cooler into the molds using a large copper bucket, until the molds were about two-thirds full. They were later topped up with the moist granulated sugar from the bottom of the cooler. The molds were left for several hours for the sugar to harden enough to be moved.

The molds were moved in tubs or buckets to a draining room on an upper floor of the refinery. There the paper stoppers were removed and the molds were placed upright, their small ends being inserted into the mouths of the syrup jars. In about twenty-four

hours the syrup had drained to the bottom of the mold, and the sugar had hardened. The drainings were emptied into larger pots and saved for the manufacture of bastard sugar (a lower grade of sugar).

A wet clay slip was then poured over the mold, entirely covering the sugar. When dry, the clay was half an inch to an inch in thickness. The molds, covered with clay, stood for at least five days, after which the drainings were again removed and a new layer of clay applied. The drainings containing the clay residue from were later clarified again for lump sugar. The surface of the sugar was then smoothed over and clayed a third time, remaining for another five days. Then the clay cap was removed and the molds sat for about four more days before being placed in the drying oven. The molds were occasionally shaken or knocked to prevent the sugar from adhering.

A small portion of syrup usually remained at the narrow end of the lump causing discoloration of three to five inches. While this could be further refined, the tip was usually cut off and returned to the clarifier.

The drying oven on the upper floors of the refinery was connected by pipes to a coal furnace on the lower floor. The oven was a large chamber, possibly several stories high, lined with shelves. The temperature was kept at about 130°F. The loaves, and usually the lumps, were wrapped in paper and placed on the shelves where

they dried for five or six days. A five-story oven with the dimensions of 25 feet high, 15 feet long and 10 feet wide was described as holding 4,000 lumps weighing from seven to ten pounds each.

The sugar refining process was then complete and the loaves ready for market. The refined loaves were wrapped in blue paper for sale. The paper was, in 1833, made in Massachusetts by Tileson, Holingsworth & Son. The blue paper "was sanctioned by long use, and was probably introduced on account of the contrast of its color with that of the sugar, thus making it both to appear whiter, and to assume a shade agreeable to the eye, as milk and refined sugar are more beautiful when seen through blue glass" (Silliman 1833:96).

Types of Sugar

The best quality of sugar was the double refined loaf or "family" sugar, followed by single loaves (once refined), lump in three qualities, piece, and bastard.

"Bastard sugar" was made from the first drainings of the lump, sometimes combined with the inferior grade Muscavado sugar. The bastard sugar was refined in much larger molds, and only underwent two clayings. The second draining from the bastard sugar was called molasses and sold as such. The bastard, or brown sugar, was ground up for home use.

While all grades of sugar could be refined from Muscavado, it was more cost effective to produce the finer sugars by starting with a finer product. Loaf sugar was usually made of Havanna or Brazil whites, and lump from Havanna browns or Muscavado from Puerto Rico or St. Croix. Lumps intended for export were powdered using a mill, to form "crushed sugar," but those for domestic use were rarely broken up. Double loaves, the finest grade of sugar, were often made from single loaves or lump sugar which may have been purchased by the refiner and ground down to be further refined. Occasionally, indigo was added to improve the color of the double loaf.

The Alexandria refinery was importing Havanna sugar, which could have been either the Havanna brown or white.

Silliman describes the bastard molds as producing 60 pounds of sugar and a quantity of molasses from 200 pounds of syrup. A mold containing 28 pounds of syrup would produce 10-12 pounds of lump sugar, and a 12 pound mold would give 6 pounds in a single or double loaf. There appear to be molds and jars of several sizes at the Sugar House site.

The Sugar House Site

Only a narrow strip of land remains between an existing brick house on a neighboring property now owned by WJD Realty Co. at 111 N. Alfred Street and the debris-filled basement of the 1890s house. One five-foot wide transect was excavated on the southern

edge of the parking lot, adjoining the basement. Additional excavation units will be opened in 1988 immediately to the south, on the narrow strip of grass belonging to 111 N. Alfred. Five units were excavated in this transect (N000/E000-N000/E020). Unit N000/E000 will be completed in 1988. This transect is thought to fall within the interior of the original Sugar House structure as shown on the 1805 insurance map. Two more units were opened behind the foundations of the 1890s building, at N000/E105 and N045/E105, and this excavation area will be expanded in 1988 to search for remains of outbuildings and strata relating to use of the Sugar House.

Excavation Methods

A five-foot square grid was established over the Sugar House Site, and the site measured in feet and tenths. The English measurements were used to facilitate mapping since the builders of the Sugar House and neighboring structures all measured in feet and inches. Excavation units were measured from a datum point on the southwest corner of the property, designated as **N000/E000**. Subsequent squares were numbered from this point, for instance, N005/E005 for five feet north and east of the datum (see Figure 3).

All excavation units were dug in natural stratigraphic levels, which were given level numbers within each square, and, when appropriate, feature numbers which may extend over more than one square. In addition, each separate context (i.e., one level

and/or feature within a grid square) was assigned a Context Number (CN). The Context Numbers are a sequence of unique record numbers assigned sequentially as the contexts are first encountered in excavation. It is this Context Number, along with the Site Number, which is marked with ink on the artifacts, and which is the key linking the computerized Field Record and Artifact databases. The Context Number is recorded on the artifacts and in the computer as, for instance, **AX96-13** for Site Number 44AX96, Context Number 13. This context is listed in the field notes and on the artifact bags as: **44AX96 CN13 N000/E000 L.2.**

A Level Report and/or Feature Report, with sketch maps, were filled out for each context, and the data later copied into the Field Record database to facilitate retrieval. The Minark archaeological database program is used for all computerized records.

Artifacts were washed, described on a sorting form for each artifact bag, and re-bagged by material within each context. All ceramics were marked with India ink and removed for cross-mending. Bones were removed for faunal analysis which will be conducted following the 1988 field season.

Artifact descriptions were entered into the computer Artifact database. This database now stores catalogue information on more than 200,000 artifacts from 25 Alexandria sites. A separate data entry form is used to record ceramics, glass, bones, and miscel-

laneous artifacts (including small finds, structural materials, shell, seeds and samples). Each item in the database refers to one or more artifacts from the same provenience with the same description (i.e., three plain creamware body sherds would be recorded as one item). Each artifact description is broken up into discrete variables, and a codebook is used to facilitate retrieval and for consistency in terminology. Each description contains full provenience data including site, context, square, level and feature numbers; sherd count; full artifact description; and additional comments. The information was then sorted by the computer to provide artifact lists by level within each square, terminus post quem lists, artifact counts for different phases and areas of the site, etc.

The Site Stratigraphy

The North Transect: N000/E000-N000/E020

Abundant evidence of the former sugar refinery, in the form of sugar molds, syrup jars, coral and clay, was found in the N000 transect of the site (N000/E000-N000/E020), along the south edge of the property.

Throughout this area, the upper levels were disturbed by destruction of the 1890s house and construction of the parking lot in the 1960s, and contained modern materials combined with the earlier sugar house artifacts. Level 1 (CN8,29,21,22 and 11)

included a loose dark brown sandy fill layer beneath the asphalt, mixed with brick rubble, mortar, and asphalt. In some areas a "cap" of heavy clay redeposited from elsewhere on the site, which was overlying level two, was included in this level. Above the clay, the artifacts were mixed in age, including aluminum pull tabs and plastic along with water-worn pearlware. The earlier materials were to a large extent recovered from the clay areas. The clay area contained the coral and shell, sugar mold sherds, and water-worn artifacts.

Level 2 (CN13, 31, 25, 26 and 18) is described as a mixed layer of yellow/brown and gray clay, with patches of sand and soil. A builders trench (Feature [Ft.] 6) for the 1890s basement wall running through the northern portion of all squares, and a possible post hole (Ft.5) against the brick wall in the east part of square N000/E000, appeared in Level 2. Artifacts in Level 2 are almost exclusively of the Sugar House era. A couple of later glass fragments may have been mixed from the level above. Below this was a level of white clay in N000/E005 and E010 (CN63, 62) containing sugar pottery, coral, window glass and nails.

The third level in the easternmost two squares (N000/E015 and E020) was a burnt layer with brick rubble (CN41, 28), which also appeared in squares on the northern portion of the site. This level relates to destruction of buildings on the site and the bulldozing of the lot which took place in the 1960s in preparation for the parking lot.

N000/E000, near the street and containing the southwest corner of the 1890s basement, had the most complicated stratigraphy, and the most artifacts. Levels 2 and 3 were cut by the 1890s builders trench (Ft.6) which contained structural materials and sugar mold fragments. This builders trench cut through Ft.8. The top of Ft.8 (CN27) appeared as a dark layer with a large quantity of coal clinkers. Below this the area was filled almost exclusively with sherds of sugar molds, with some additional clinkers and slag, and a few broken syrup jar bases. A concrete slab associated with the boundary wall overlay part of this feature. This feature will be completed in the 1988 field season, but has so far produced 6,898 fragments of sugar molds, and only 27 syrup jar sherds and one piece of pearlware. Ft.8 might be a drainage trench lining the street, or a land fill or trash pit for disposal of broken molds. The molds are very fragmented, and do not, for the most part, crossmend. Only 50 rim sherds and 29 cone tips were found among all of these sherds. An area to the west of and partially overlying Ft.8 also contained a large number of sugar mold sherds (759), but here the matrix was mottled clay with lumps of white clay of the type used in the claying process. This was designated Ft.16 (CN123). This material may have been deposited during the Sugar House era, or following its destruction.

Also below the third level running east\west parallel and to the south of the basement wall was a shallow foundation consisting of

a single row of bricks (Ft.7), which may have supported a wall. Its relationship to the sugar refinery is unknown. (See Figure 4, map of N000 transect). The bricks continued from this unit one foot east into square N000/E005, in Level 4 (CN76).

Level 4 (CN76, 78, 51), a sandy loam layer in N000/E005-E015 with brick rubble, runs under the basement wall builder's trench (Ft.6). A dark patch of sandy soil in the southeast corner of N000/E010 contained rubble with a large quantity of earthenware sugar mold sherds (308) and nails (73). This was overlying an orange sandy layer in N000/E005 (CN79) and N000/E010 (CN102). In the two squares to the east, a mortar and rubble area overlay sandy clay and the natural yellow subsoil, beneath the burnt rubble layer. These layers date to the use or destruction of the Sugar House in the early 19th century.

The Eastern Section of the Site: N000/E105 and N045/E105

These squares were opened at the end of the 1987 season to examine the integrity and time periods represented in the stratigraphy behind the Sugar House. The squares were positioned behind the foundations of the 1890s building in an area which is thought to have remained undeveloped after the demolition of the Sugar House. These squares did contain undisturbed stratigraphic layers. This excavation area will be expanded in 1988.

Level 1 in each of these units was, again, fill below the asphalt

of the parking lot, dating from the 1960s. Only 10 artifacts were found in this level in the N000 square (CN118), and all were modern. The N045 square (CN117) contained 154 artifacts. These included such modern debris as plastic and copper wire, and structural material including 24 wire nails and 54 fragments of window glass. There was also a quantity of artifacts from the Sugar House period, including 27 sherds of creamware and pearlware, and a fragment of an earthenware syrup jar. This earlier material was disturbed by the earth moving activities in the 1960s.

Level 2 in N000/E105 (CN119) was dark grayish brown soil, dipping down along the southern edge of the parking lot. This level also contained structural materials, including 25 fragments of window glass, six unglazed earthenware tile fragments, six iron bolts, six wire nails (which were developed in 1859), and three earlier square nails. An 1889 Indian Head penny was found in this level, as were two fragments of manganese tinted glass dating from ca. 1880-1915. This level apparently dates to around the time that the 1890s house was constructed. It may represent the topsoil level of that period. It also contained Sugar House period artifacts, including 23 fragments of imported creamware, pearlware, and porcelain, and three fragments of coral and shell.

Level 2 in N045/E105 (CN120), a thin layer of very dark brown grayish soil, is probably equivalent to level 2 in the N000/E105 square. Here the layer also contained structural materials (13

window glass fragments, 10 wire nails, 5 square nails, slate, glazed brick) and late 19th/early 20th century glass. There were also 26 sherds of imported late 18th/early 19th century pottery, 2 fragments of sugar cones and 6 of syrup jars.

Level 3 in N000/E105 (CN121), dark brown loam mottled with clay, was disturbed by a trench, Ft.17 (CN124) running east/west through its center. This shallow feature, only 2 deep, was filled with mottled clay and loam. It only disturbed the top of this level and contained no artifacts. It was thought by the excavator upon discovery to be a utility trench, and could be associated either with the 1890s house or the Sugar House, as Level 3 contained only early 19th century materials. This level contained a much greater quantity of domestic materials, including 106 sherds of creamware, 77 of pearlware, 5 of Chinese Export Porcelain and 5 of English bone china. There were also 6 fragments of clay pipes, a slate pencil, and 47 fragments of early 19th century glass. There were also 15 sugar cone and 10 probable syrup jar fragments. This layer contained 16 window glass fragments and 16 square nails, but none of the later wire nails. The terminus post quem is ca. 1830, from two plain yellowware sherds. This square will be completed in 1988.

In N045/E105, level 3 (CN122) also consisted of loam with mottled orange clay, but contained less artifacts, and was not cut through by a trench. While level 3 in N000/E105 contained 329 artifacts, here it only contained 43 artifacts. More than half

of these were structural (three fragments of window glass and 25 square or unidentified rusty nails). The domestic artifacts included 9 fragments of imported pottery and one fragment of a syrup jar, a pipestem, and a milk glass fragment with printed advertising. This material could all be from the Sugar House period. (While milk glass was most popular in the last quarter of the 19th century, it was produced extensively in Europe by the 1820s.)

Two more levels were excavated in N045/E105, and at least one more level remains to be excavated in 1988. Level 4 (CN125) was a thick (6-8 inches) layer of clay mottled with dark sandy loam. A depression in the southwest corner contained a concentration of brick fragments, coal, shell, ceramics and nails. This depression should continue in the neighboring squares N045/E100, N040/E100 and N040/E105. Artifacts from this level include 12 fragments of imported creamware and pearlware, two sugar cone and 24 syrup jar fragments, two flowerpot rims, a window glass fragment, and 61 square nails. Samples taken from this level include sandy buff pink plaster, coal, clinker, and brick.

Level 5 (CN126) consisted of yellow brown clay mottled with sandy loam, and contained very few artifacts. This level is described as a clay cap overlying Level 6 which is a sandy loam and brick layer (not yet excavated). Level 5 contained only one creamware sherd, two square nails and an oyster shell. (A cellophane candy wrapper, for "Lutti Menthe Fraiche", is thought to be intrusive.

The square was surrounded by gravel and small pieces of trash and the wrapper is likely to have blown in unnoticed during excavation.)

A likely sequence for these squares is as follows:

Level 1: parking lot fill, ca. 1960s

Level 2: (?) topsoil during construction of 1890's house

Level 3: (?) between demolition of sugar house and construction of 1890s house (ca. 1830s)

Level 4: (?) following demolition of sugar house
(or Sugar House period?)

Level 5: (?) clay redeposited following demolition of Sugar House (or from construction of Sugar House?)

Level 6: (?) Sugar House period

Work Remaining for the 1988 Season

In the N000/E000 square, the trench which is full of sugar mold fragments needs to be completed (Features 8 and 16). Another square to the south in the grassy area would help to define this feature. Profiles must be drawn of the north and south walls of the square to show the relationship of Levels 2 and 3 to the foundation of the 1890s building (Feature 6), these features, and the concrete base of the boundary wall.

Both squares in the eastern portion of the site need to be completed. Another square to the east or west of N000/E105 would further define Ft. 17, the shallow trench. Squares to the south

and west of N045/E105 should be opened up to explore the depression in the southwest corner of Level 4.

Remaining laboratory work includes the identification of all animal bones from the site, and the crossmending of pottery sherds. The imported sherds are very tiny and it is unlikely that any crossmends will be found. Some crossmends are being found among the sugar refining sherds. However, the large group of sugar mold fragments in Ft.8 is probably a secondary deposit and no large segments have yet been reconstructed. The rim sherds will be measured and an attempt made to define the sizes of molds used at the refinery. No statistical analysis has yet been undertaken. The artifact counts are quite small for each level, and further investigation will indicate which levels can be combined for analysis.

The north side of the site, around the 1790s dwelling house, will not be further excavated. The stratigraphic descriptions and related artifacts are now being studied for inclusion the preliminary site report.

References

Poag, C. Wylie

1988 Letter to Steven Shephard, dated January 4.

Silliman, Benjamin

1833 Manual on the Cultivation of the Sugar Cane and the Fabrication and Refinement of Sugar. Francis Preston Blair, Washington, D.C.