ARCHEOLOGICAL COLLECTIONS MANAGEMENT AT

SAGAMORE HILL NATIONAL HISTORIC SITE

NEW YORK

ACMP Series No. 7

Division of Cultural Resources Management
North Atlantic Regional Office
National Park Service
U.S. Department of the Interior

Illustration on Cover: Photo of Main House, SAHI. Courtesy of SAHI Park files, Photo # 1163.

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Louise M. DeCesare

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Collections represent a valuable resource only if they are properly documented, conserved, and organized in such a manner that their research value, is maintained....To maintain their research value, both collections and their associated documentation must be accessible, and they must be protected from deterioration....Without a doubt, there is a crisis in curation (Marquardt et al. 1982:409, 411).

Preface and Acknowledgements

The Sagamore Hill National Historic Site (SAHI) is the eleventh Park to have its archeological collection processed by the Archeological Collections Management Project (ACMP) of the North Atlantic Regional Office, National Park Service (NPS). The goal of this project was to process (catalog and prepare for storage) the SAHI field collections to National Park Service curatorial standards. This report presents an outline of ACMP processing methodology and procedures, as well as a brief history of the site and the collections. An inventory of the contents of the collection is also listed in Appendix 4. It is hoped that this report will serve as a general guide for the collection, making the material more accessible to both Park curatorial staff and independent researchers alike.

Many individuals have contributed to the successful completion of this project. I would like to thank Myra Harrison, Manager of the Cultural Resources Center of the National Park Service North Atlantic Regional Office for her continued promotion of the ACMP. Without her guidance and support, the ACMP could not be a reality. Linda Towle, Supervisor of the Archeology Branch of the Cultural Resources Center, deserves a special thanks. Her ongoing support, suggestions and patience throughout the numerous drafts of this report has been most helpful, and her contribution in writing the Archeological Resources Protection Act section of this report is much appreciated. I would also like to thank Darcie MacMahon for her comments and editorial help in the initial drafts of the report.

I am grateful to Chris Merritt, the former Curator at SAHI, and George Dziomba, a maintenance worker at SAHI, for their cooperation and assistance concerning the SAHI collections. Both provided useful information about the history of SAHI as well as compiling a reconstructed site map identifying approximate proveniences for the collections which is used as the basis for Figure 2 in this report.

I would also like to thank Dick Hsu, Regional Archeologist of the National Park Service North Atlantic Regional Office, for providing clarification of the National Historic Preservation Act legislation and the Archeological Resources Protection Act legislation as it relates to the SAHI collections.

Finally, I would like to thank Maria Capozzi for her work in cataloging the collection, and Kurt Faust for his professional graphics and the time spent preparing the report for publication. Both have done a fine job and have made this project a pleasure.

Louise M. DeCesare
Charlestown, MA
May 25, 1990

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Introduction

The Archeological Collections Management Project (ACMP)

The Sagamore Hill archeological field collections were retrieved in August 1988 from the architectural elements storage area at SAHI for artifact processing by the Archeological Collections Management Project (ACMP). These collections are composed of six separate accessions (SAHI Accessions #204, 209, 225, 278, 298, and 308) collected between 1983 and 1987 from various locations on the Park grounds by Park employees and by a bottle collector. The artifacts and available documentation were transported to the Eastern Archeological Field Laboratory (EAFL) at the Charlestown Navy Yard, Boston National Historical Park, in Charlestown, Massachusetts for processing.

Developed in 1981 by the Division of Cultural Resources (DCR) of the North Atlantic Regional Office (NARO) of the National Park Service (NPS), the ACMP was designed to catalog and reorganize archeological collections within the region in accordance with NPS standards. In this way, the ACMP facilitates access to the collections for Park curatorial staff, as well as for independent researchers (MacMahon 1988:3). SAHI is the eleventh Park to have its archeological collection processed by the ACMP.

In 1985, as part of a Region-wide Accountability Project, ACMP archeologist Linda Towle conducted an assessment to determine the number of collections held at each Park in the region in need of ACMP processing (Towle 1985:1). In her final report, Towle included a table for each Park summarizing the status of its archeological collections. These tables aid in identifying collections in need of ACMP processing, and facilitate tracking the overall progress of the ACMP (Towle 1985:Appendix III). The table for SAHI has been included as Appendix 1 to this report.

ACMP reports for small and not well documented collections, such as the SAHI collections, describe the procedures followed while cleaning, cataloging and reboxing the collection. Reports for larger and more complex collections (especially those from numerous excavations) are more extensive, involving synthesis and, in some cases, reinterpretation (e.g., Minute Man NHP and Saugus Iron Works) (Towle and MacMahon 1986, 1987; MacMahon 1988). This report for SAHI contains a brief summary of the site background to provide a context for the artifactual material, enabling the reader to better assess the research potential of this collection.

The SAHI Archeological Collections

Sagamore Hill National Historic Site (SAHI), homestead of the late Theodore Roosevelt, is located on Long Island's north shore, in the quiet and affluent community of Oyster Bay, NY (Figure 1). The material forming the various SAHI archeological field

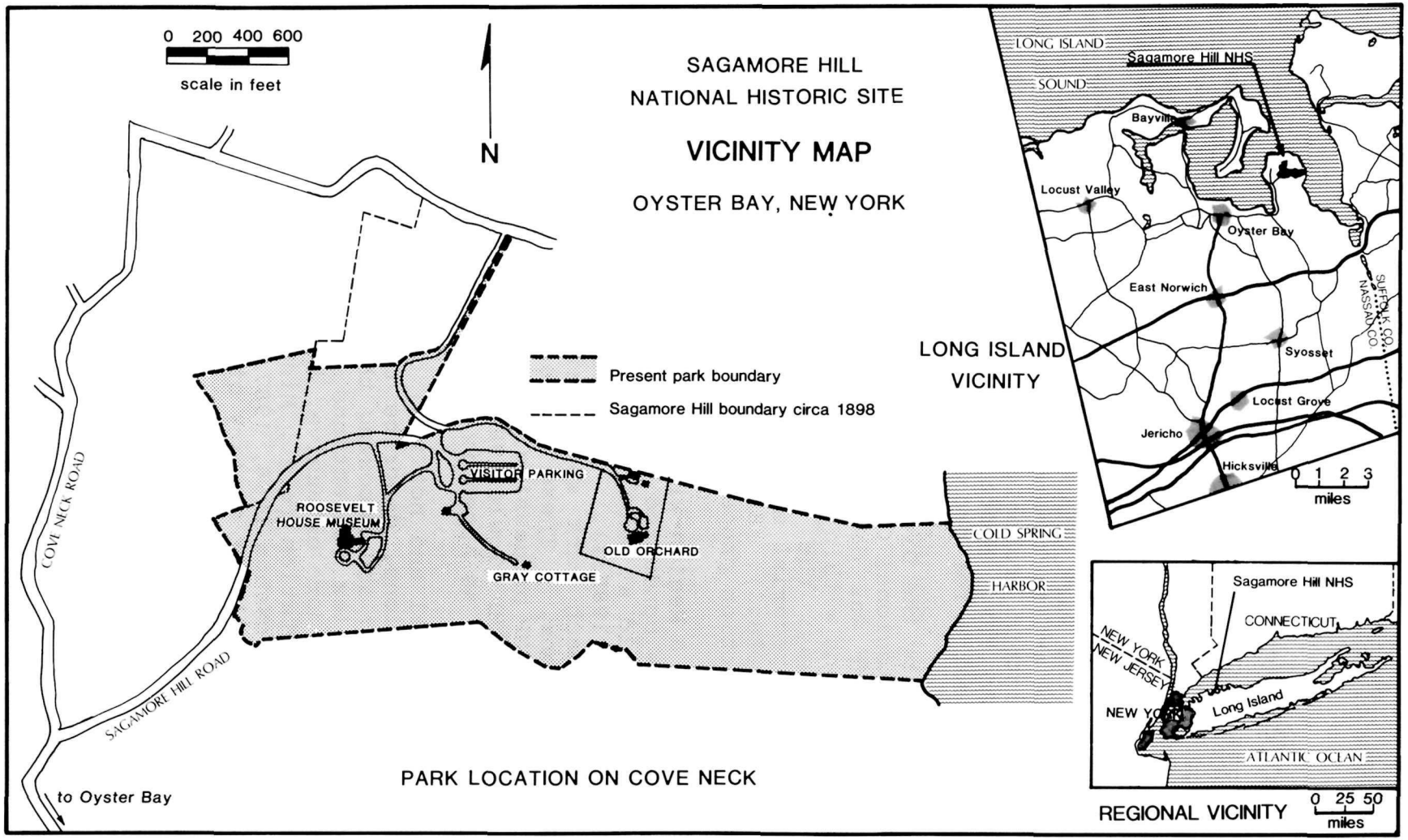

Figure 1. ACMP composite map locating SAHI in Oyster Bay, Long Island, N.Y.

collections was recovered by Park staff and a bottle collector between 1983 and 1987. Accessions #204, 225, 278, 298 and 308 were collected by the Park Superintendent and a Maintenance worker as they encountered cultural material on the Park grounds. Accession #209 was illegally removed by a bottle collector from two trash pits located in a wooded section behind the Gray Cottage. After consultation with law enforcement authorities, the material was returned to the Park. An updated version of the 1985 Accountability Table is presented in Appendix 2.

Accessions #204, 225, 278, 298, and 308: In the Spring of 1983, a development plan which incorporated subsurface excavation was implemented at the Park (Chris Merritt, personal communication 1989). During the installation of the water line, a trench was dug which extended from the Main House to the Old Orchard, at a depth between four and five feet below ground surface. This trench intersected the former cow pasture/clover field and corn and timothy fields (Figure 2). Between 1985 and 1986, this area was again disturbed by the installation of an electrical line. A second trench was dug in the same general area, although documentation of the exact location is not readily available (Chris Merritt, personal communication 1989, 1990). Unfortunately, the plans for both of these projects were not cleared through the Section 106 compliance process, and thus the impact of the resulting ground disturbance on the archeological remains in the project area had not been reviewed by the Regional Archeologist (Dick Hsu, personal communication 1988).

During this subsurface work, archeological material was inadvertently brought to the ground surface. It seems likely that the increase of cultural material on the Park grounds may have sparked an awareness of these resources by Park staff, not only in the area along the utility trenches, but at other areas of archeological sensitivity throughout the Park. Perhaps out of concern that this material might be lost as a result of erosion or removal by visitors, the Park Superintendent and a Maintenance worker removed artifacts as they encountered them on the Park grounds. Cultural material was collected in the vicinity of the new barn, near the hog pond, and from a fill deposit from the former stable in addition to the area along the boundaries of the utility trenches (George Dziomba, personal communication 1988). Some of the material was brought to the Park Curator upon recovery (Accessions #204, 278, and 308) while other collections (Accessions #225 and 298) remained in the temporary custody of these employees until the Park Curator became aware of them. At this time, the material was formally entered into the Park's Accession Book and was stored with the surface collections (SAHI Accessions #204, 278, and 308) in the architectural elements storage area in the basement of the Museum.

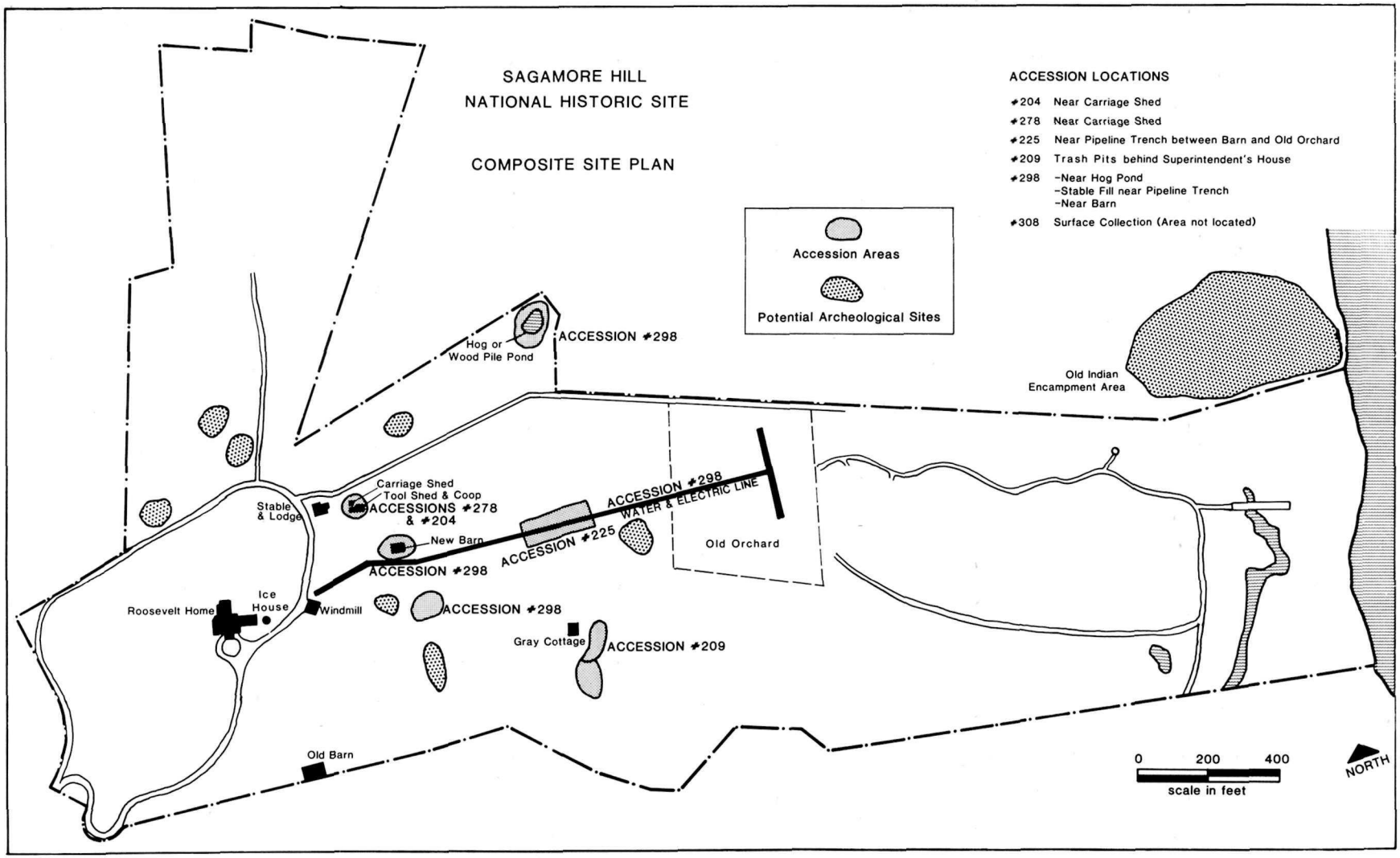

Figure 2. ACMP composite site plan identifying the approximate location of the field collection proveniences, utility line trenches, and other areas of archeological sensitivity (from information compiled by NPS staff, and from Wilshin 1972:Map [F]).

Accession #209: In the spring of 1985, a bottle collector was apprehended while illegally looting two trash pits located in a section of woodland behind the Gray Cottage. Though local and federal law enforcement agencies were notified, they were unable to pursue the matter. Fortunately, the Chief Ranger of Law Enforcement at SAHI was able to persuade the individual in question to return the stolen material to the Park with the understanding that in return for his cooperation, the charges brought against him would be dropped. Five boxes of artifacts were returned to the Park forming Accession #209, and the case was closed (Dick Hsu, personal communication 1989).

Archeological Collections as Cultural Resources

Archeological resources represent a unique and irreplaceable record of the past and often contain information which is unavailable from other sources. The archeological record is often vital in providing new information while it also augments the understanding of diverse cultural resource collections in the Park's care. Considering the fragility of these resources, their protection and preservation should be a priority (NPS 1985:Chapter 2, p.18). According to NPS management policy, "significant archeological resources remain preserved in situ whenever possible" (NPS 1985:Chapter 2; p.18). Moreover, the protection of these resources from looting, vandalism, erosion, and destruction through Park operations and development should be incorporated in the Park's Cultural Resource Management Plan (NPS 1985:Chapter 2, p.12).

National Historic Preservation Act, Section 106: In some cases, the destruction of significant archeological resources may be unavoidable. The implementation of developmental or interpretive activities at the Park, essential to its operation and larger goals, may severely threaten or even destroy the integrity of these fragile and irreplaceable resources. When faced with such a conflict of interests, the Park must comply with the Section 106 process which requires an evaluation and review of the impact of the proposed development on the archeological resources currently under the Park's stewardship prior to the execution of this work.

> Such destruction of significant resources must result from a planning decision to be assessed for compliance under Section 106 of the National Historic Preservation Act (NPS 1985:Chapter 2 p.18).

Detailed guidelines for the application of Section 106 compliance are given in chapter 4 of NPS Cultural Resources Management Guidelines (NPS 1985:Chapter 4, pp.1-9).

The Archeological Resources Protection Act of 1979 (ARPA):

> The purpose of this Act is to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands...(NPS 1989:18).

This law (PL 95-96) established that it was illegal to "excavate, remove, damage, or otherwise alter or deface any archeological resource located on public lands" (NPS 1989:21) without a permit, and established procedures for issuing permits to qualified individuals. It also established criminal and civil penalties for persons violating this Act (NPS 1989:21-22).

In order to apply this law to archeological materials removed from federal lands, the archeological resources must be at least 100 years old (NPS 1989:19). Although some of the artifacts removed from the trash deposits at SAHI may have been more than 100 years old, many were not.

While it could have been difficult to prosecute the SAHI case under ARPA, two other federal laws were violated: Theft of Government Property (18 USC 641) and Destruction of Government Property (18 USC 1361) (Dick Hsu, personal communication 1990). It is fortunate that the individual returned the artifacts to the Park without a court case, but it is regrettable that they were removed in the first place.

Research Potential of SAHI Collections

Unfortunately, the research potential of the various Sagamore Hill surface collections is limited by the biases inherent in the recovery process, and therefore they cannot be used to answer larger research questions. All of these collections contain a certain amount of bias, though perhaps Accession #209 (the bottle collection), removed from the trash pits located behind the Gray Cottage, is the most selective. The recovery of all of these collections was conducted in ignorance of the appropriate procedures for managing and protecting archeological resources. Such a "walk over survey" would ordinarily employ a scientific sampling methodology appropriate to the resources at SAHI, and precise documentation of the recovery process by trained personnel.

It is worth noting that several artifact categories which one might expect to be a significant component of the archeological resources at SAHI are conspicuously absent from these collections. Architectural-related materials (e.g. window glass, nails, screws, staples, bolts, wood fasteners, brick, mortar, stone and other materials associated with structural components), fuel and fire-related byproducts (e.g. coal, charcoal, ash, cinders/clinkers, etc.), and floral or faunal remains (e.g. seeds, nutshells, bone,

and shell) are not present in these collections. Considering that this material was collected from areas containing structural debris and household trash, it can be assumed that this absence correlates with the personal bias of the collector, rather than the actual composition of the archeological resources at SAHI.

Without precise documentation (e.g. site photographs, plans, profiles, and field notes) of the original context or provenience for any given artifact, interpretation of artifactual material is severely limited. Despite the lack of scientific methodology used in recovering this material, these collections do have some value. They can help us predict the location of other significant and currently unrecognized archeological resources at the Park. They are also of value to the Park, the archeologist, and the public because they provide us with an understanding and appreciation of the fragility and relevance of archeological resources, in that they often provide information which substantiates or embellishes the historical record.

SAHI Historical Background

The Estate

In 1883, Theodore Roosevelt purchased 155 acres of pasture, woodland, and tidal estuary in Cove Neck, Oyster Bay, NY, which was to become the peaceful and relatively isolated homestead of the late President (Wilshin 1972:2). It was Roosevelt's intent to name the estate Leeholm, in honor of his beloved wife Alice Lee (McCullough 1981:281). Grief stricken after her sudden and unexpected death in February of 1884, the name Sagamore Hill was instead chosen in tribute to the original landholder, Indian Chief Sagamore Mohannis (Wilshin 1972:7).

Over the course of 79 years, parcels of the Sagamore Hill estate were sold and/or exchanged both within the family and with non-family members (Figure 3). Shortly after Roosevelt purchased the property, he sold two tracts of land located on the southern portion of the property to his sister and to his Aunt. His sister, Anna, received 28 acres, and approximately 32 acres were sold to his Aunt Anna B. Gracie (Wilshin 1972:3). In 1906, two additional property transactions occurred. Roosevelt purchased 17 acres and an additional twenty foot right-of-way from Emlen Roosevelt while she, in turn, purchased 19 acres from him (Wilshin 1972:4). In 1945, Edith K. Roosevelt, as trustee of the Theodore Roosevelt estate, transferred a four acre tract of land located in the Old Orchard area to Eleanor B. Roosevelt. Following the death of Theodore's second wife, Mrs. Edith Carrow Roosevelt, the Roosevelt Memorial Association purchased the property in 1949 and became the trustees to the Sagamore Hill estate (Wilshin 1972:4). While under the guardianship of the Roosevelt Memorial Association, an 11 acre tract of land was sold in 1961 to Philip Zollar, a resident of Cove Neck Road. It wasn't until 1962 that the estate, which at this time contained 85 acres, was sanctioned as a National Park and donated to the United States. The deed to Sagamore Hill National Historic Site was accepted by the Secretary of the Interior in ceremonies held at the site on July 8, 1963 (Wilshin 1972:5).

Land Use: Shortly after the purchase of the estate in 1883, Roosevelt sketched a map of the estate boundaries which encompassed woodland, pasture, tidal estuary, and cultivated fields. This plan delineated the location of these various features (including cultivated fields, the orchard, the barn, roads, fences, ponds and the surrounding woodland) (Figure 4). Presumably this rough draft was used by Roosevelt in planning the development of the estate.

Roosevelt first discovered the charm and beauty of Oyster Bay in 1873 when his parents took up summer residence at "Tranquility." Ten years later, Roosevelt established roots in Oyster Bay making Sagamore Hill his home (Wilshin 1972:2). Indeed,

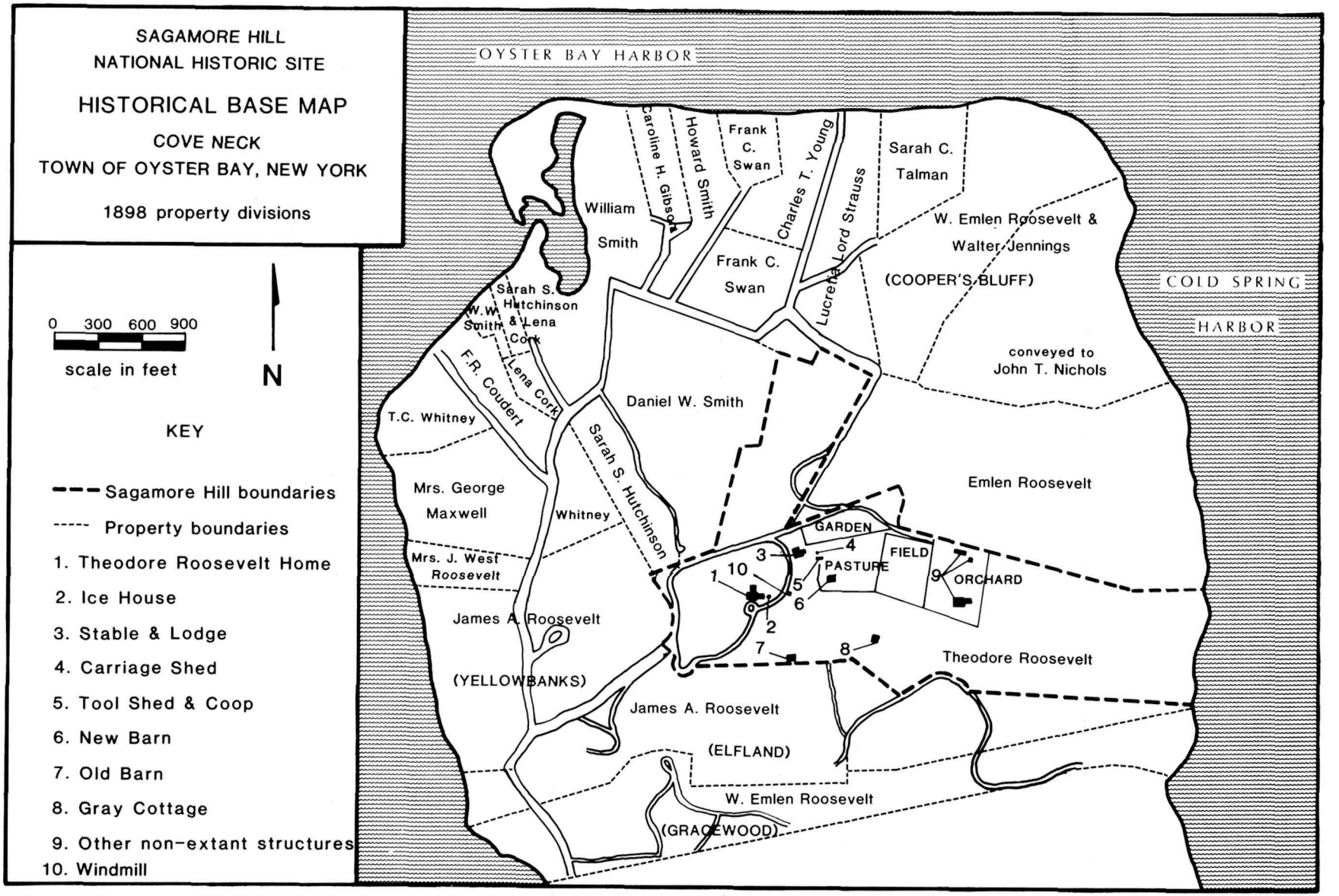

Figure 3. ACMP historical base map of SAHI (from Wilshin 1972:Map [F]).

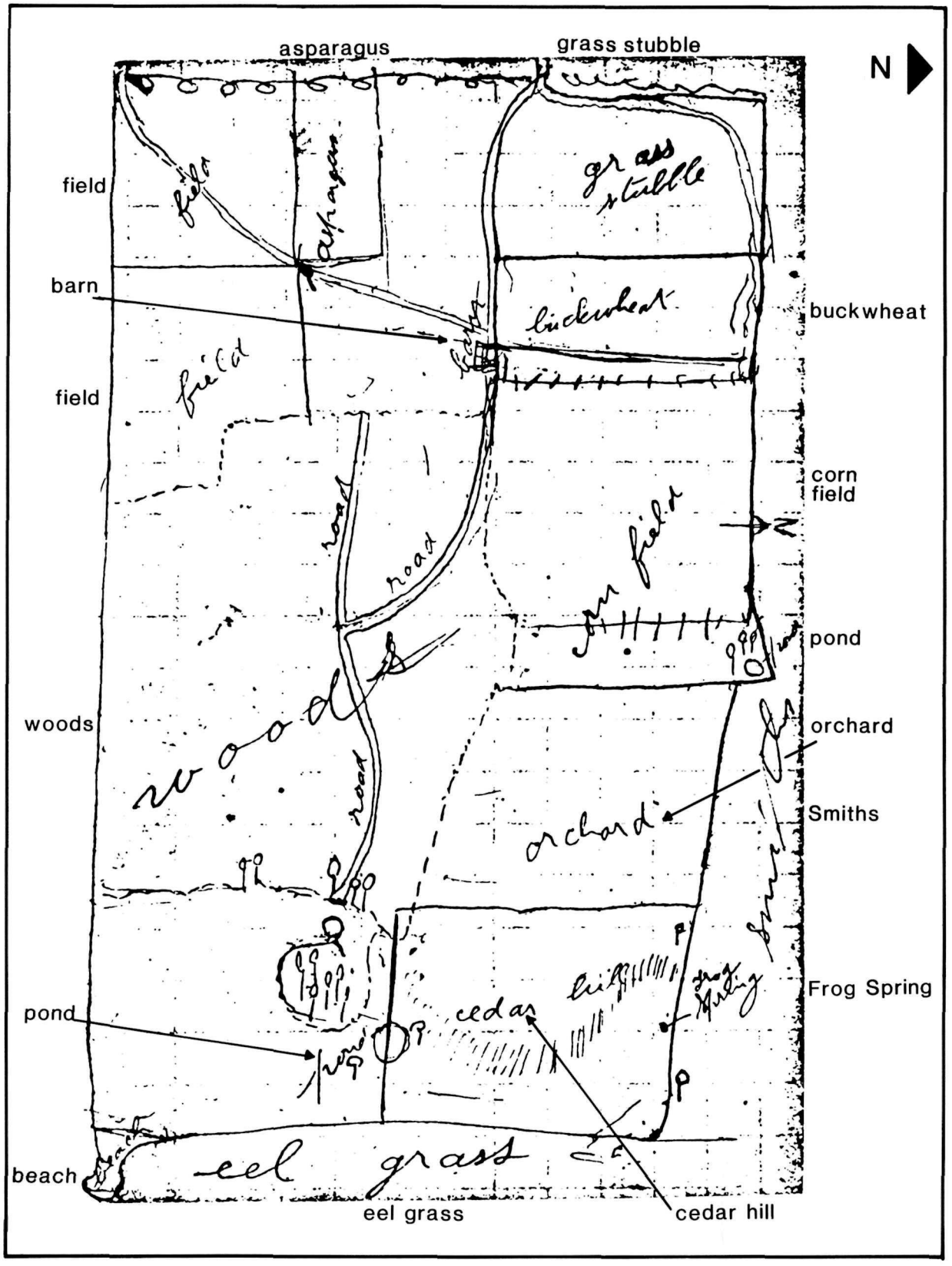

Figure 4. ACMP adaptation of sketch map of the SAHI estate drafted by Theodore Roosevelt ca. 1847 (from Wilshin 1972:Map [E]).

the notion of maintaining the estate as a functioning farm must have appealed very much to Roosevelt's sensibility of a self-sufficient lifestyle. Though it varied from season to season, anywhere from 20-40 acres of land were cultivated at Sagamore Hill year round. A combination of timothy and corn were tilled in the fields (Wilshin 1972:10), while a wide variety of fruits and vegetables were grown in the vegetable garden and the orchard (Wilshin 1972:10) (Figure 4). The estate also included ample pasture for grazing livestock.

A small section of woodland, located behind the Gray Cottage, was utilized for two trash pits. It is not clear whether these pits were used interchangeably to service the Main House during Roosevelt's occupancy of Sagamore Hill, or whether one or both had a more recent use relating to the occupation of the Gray Cottage. By 1949, when the estate was purchased by the Roosevelt Memorial Association, these trash pits were no longer in use (Chris Merritt, personal communication 1990).

The Main House: The Main House, a Victorian structure designed by architects Lamb and Rich, was erected on the crest of Sagamore hill (Figure 5). By the summer of 1885, the house was completed and ready for occupancy by Roosevelt's sister Anna "Bye" and his daughter from his first marriage, Alice (Wilshin 1972:25). However, it wasn't until March, 1887, that Roosevelt himself took up residency on the estate with his second wife, Edith Carrow Roosevelt (Wilshin 1972:26).

Theodore Roosevelt had an eye and fondness for the exquisite, and furnished the rooms of the manor lavishly. Over the course of several years, he compiled an extensive library and accumulated a number of bronze statues and exotic art objects from all over the world. Roosevelt also enjoyed large game hunting, and adorned the house with a number of trophies taken as souvenirs of his numerous exploits while on safaris in the wilds of Africa.

Throughout Roosevelt's varied and illustrious careers in the military and as a public statesman, Sagamore Hill remained both home and refuge. On September 6, 1901, President McKinley was killed by an assassin's bullet, and Theodore Roosevelt found himself thrust from the Vice Presidency into the Oval Office to finish out McKinley's term. Sagamore Hill was almost at once transformed from a quiet retreat to the celebrated "Summer White House" of the new president (Hagedorn 1954:116). Throughout Roosevelt's two terms in office (1901-1909), many distinguished guests were entertained at the estate, and life at Sagamore Hill became the highlight of popular news and public interest (Wilshin 1972:28).

After Roosevelt's death in 1919, the house was occupied by Mrs. Edith Carrow Roosevelt until her death in 1948. The estate

Figure 5. Photo of Main House, c. 1960 SAHI. Photo # 1163, Courtesy of SAHI Park files.

was subsequently purchased by the Roosevelt Memorial Association in 1953, and the mansion was opened to the public. The estate was sanctioned as a National Park in 1963, and continues to serve the public as a museum.

The Gray Cottage: The Gray Cottage, a modest and typical estate outbuilding of its period, was constructed in 1910 to serve as a residence for Roosevelt's two servants: James Amos and Charles Lee. These men had faithfully attended to Roosevelt during his years in the White House, and were retained as domestic staff at Sagamore Hill. Amos' primary duties as valet involved looking after the six Roosevelt children. Amos left Sagamore Hill in 1913, only to return again in 1919 to attend to Roosevelt in his failing health. Lee, who had served as a White House coachman, was retained as a chauffeur at Sagamore Hill (Wilshin 1972:53). During his residency at the cottage, Lee received many distinguished guests whose acquaintance he had made while he was employed by the President (Wilshin 1972:53).

After the property was purchased by the Roosevelt Memorial Association in 1949, the Gray Cottage was once again occupied. The Townsend family maintained the estate for Mr. and Mrs. Reginald P. Rose (members of the Roosevelt Memorial Association), and lived in the Cottage during the time period when it was under the Association's guardianship (Townsley 1964:2). During the mid-1950s, the building underwent a series of structural alterations, and it is assumed that these modifications were made to accommodate the new residents. When the estate came under the jurisdiction of the National Park Service, the Gray Cottage was used as a residence for the Superintendent of the Park.

ACMP Project Methodology

Prior Condition of Collection

On August 15, 1988 the ACMP retrieved the archeological field collections (SAHI Accessions #204, 209, 225, 278, 298 and 308) from the architectural elements storage area located in the basement of the Museum at SAHI. Accession #209 was contained in five cardboard boxes while SAHI Accessions #204, 225, 278, 298 and 308 were stored in small cardboard boxes, and plastic or paper bags. These collections had not received prior processing and were transported to EAFL for both cleaning and cataloging.

The ACMP Provenience System

Due in part to the haphazard manner in which these collections were recovered, the provenience information which accompanied them was general at best (Table 1). Broad location descriptions were derived, in part, from the Curator's accession file at SAHI and description tags which accompanied some of the material. However, most of the information was obtained through conversations with George Dziomba, the Maintenance worker who collected a portion of the material. Luckily George was available and able to recall some of the locations where material was recovered, as well as identifying additional areas of archeological sensitivity (George Dziomba, personal communication 1988). A map locating the general provenience locations for each accession was prepared by Park staff, and was drafted by the ACMP (Figure 2). In some cases, material within the same accession was recovered from many different areas on the Park grounds. Where it was possible to identify the separate proveniences, this was done.

Collections Processing and Storage

ACMP processing began by organizing the material by accession and provenience, and then by cleaning the artifacts. The ceramics and glass were submersed in water and brushed to remove soil, while the metallic material was dry brushed to remove dirt and corrosion byproducts from the surface. When dry, the artifacts were sorted by artifact class and material type within each accession and provenience. The objects were then examined and separated into lots according to the ACMP artifact classification system (MacMahon 1988:13). Each lot was assigned a unique catalog number following the sequential progression of artifact classes on the ACMP catalog flow chart (Appendix 3). A separate ACMP worksheet was filled out for each lot detailing such information as artifact class, object name, counts or quantities, descriptive features, the storage box #, cataloger and catalog date.

Table 1

SAHI Provenience List

SAHI Accession #	Provenience
Accession #204	Near Carriage Shed
Accession #209	Trash Pits behind Superintendent's House
Accession #225	Near Pipeline Trench, between Barn and Orchard
Accession #278	Near Carriage Shed
Accession #298	Near Hog Pond Stable Fill near Pipeline Trench Near Pipeline Trench Near Barn
Accession #308	Surface Collection

The artifacts from each lot were placed in resealable polyethylene bags accompanied by an acid-free tag designating the Park acronym (SAHI), the collection accession number (e.g., 209, etc.), the site name (e.g., Surface Collection), the provenience (e.g., Pipeline Trench), and the catalog number for that lot. Polyethylene bags were used because they meet object conservation standards, are sturdy, and are transparent allowing visibility. Four sizes of bags were used to separate artifacts in accordance with their hierarchical typology (MacMahon 1988:13). Because a large portion of the collection was composed of whole vessels (glass bottles and jars), these items were wrapped in bubble pack within separate polyethylene bags to insure against breakage during transport and collection use.

After bagging, the artifacts were stored in acid-free Hollinger record boxes in accession, provenience, and catalog number order. The material is easily accessible because it was successively cataloged and bagged to reflect the order of the ACMP catalog flow chart. Organic material was separated from the inorganic material to allow for appropriate storage in a climate-controlled environment. Each box was numbered and received a computer-generated box label which identified the contents of the box: the Park acronym, the accession number, the site name, the box number, the range of catalog numbers stored within the box, and whether the contents were organic or inorganic.

Although there were only 207 artifacts in all of the accessions combined, the material was housed in nine Hollinger boxes because of the large number of whole vessels. Boxes one through eight contained inorganic objects and box nine contained organic material. The artifacts were returned to the architectural elements storage area in the basement of the Museum at SAHI on November 25, 1988.

ANCS and the SAHI Database

The Automated National Catalog System (ANCS) is a computerized cataloging program which was developed by the NPS Curatorial Services Division in Washington, D.C. (NPS 1987). Initially released in the spring of 1987, it is intended to be used in conjunction with the NPS Museum Handbook (NPS 1984) for the cataloging of all NPS collections. ANCS is a menu-driven system which was written using dBASE III Plus software (NPS 1984:v). It allows for the printing of NPS catalog cards (form 10-254, Rev. 7/84), and also creates data base files which can then be manipulated in dBASE III Plus for additional analytical purposes (MacMahon 1988:18).

All of the collections from SAHI were cataloged under the ANCS Archeology Classification. The ACMP printed individual catalog cards for the entire collection using the ANCS system. Each catalog card serves as an individual catalog record and provides information specific to every lot of material. This information includes: the four material classifications, Park acronym, unique lot catalog number, acquisition date and accession number, acquisition type (e.g. field collection), object status and year, object name (often a functional category) and description, item count or quantity, provenience information, material type, object storage (usually recorded as box #), cataloger and catalog date. The SAHI catalog cards were sent to the Park in January, 1989.

The SAHI archeological database contains a total of 81 records and was stored in one file in ANCS format. This file, SAHI1.DBF, was archived onto a floppy disk and was returned to the Park in August, 1989, along with instructions on how to unarchive the file and use it in ANCS. Additional information pertaining to the actual contents of the database may be found in the Collection Summary section and Appendix 4 of this report.

Collection Summary

The ACMP cataloged a total of 207 historic artifacts or 81 lots of cultural material from the SAHI archeological field collections (SAHI Accessions #204, 209, 225, 278, 298, 308) (Table 2). The artifacts from these collections included a broad range of historic material: ceramic sherds, intact glass bottles and drinking vessels, apparel related items (e.g., leather footwear and buttons), household and personal objects (e.g., various kitchenware, toiletry and stationery items), and some hand tools and hardware items (Appendix 4). Since the material in these collections was recovered as they were encountered on the ground surface or selected from the trash pits, they cannot be used for statistical analysis. A brief summary of the collections and their contents is provided below, while complete artifact counts can be found in Appendix 4. Artifact definitions for these collections are provided in Appendix 5.

Table 2

SAHI Artifact Totals by Accession

SAHI Accession #	Total Artifact Count
#204	1
#209	114
#225	15
#278	1
#298	72
#308	4
	207

Accession #209, the Trash Pits

The material which forms SAHI Accession #209 was collected by a bottle collector from the trash pits behind the Gray Cottage in the spring of 1985. The collection is composed of 114 artifacts, primarily bottle glass (either wine or liquor bottles), and household and personal objects including kitchenware, toiletry and stationery items. A few drinking vessel glasses and ceramic sherds were also collected, but in smaller quantities.

Machine-made bottles composed the majority (92.3%) of the bottle glass collected. The remaining 8.8% were contact molded bottles, either two piece mold with separate base or turn/paste molds. Kitchenware items included machine-made mason and canning/food storage jars, one of which still contained cherry preserves. An enameled ferrous canister lid was also in this collection. Toiletry items included various antiseptic and medicinal bottles (e.g. Sloans Liniment, Bromo Seltzer, and Philips

Milk of Magnesia), and milkglass jars (e.g. halitosine, listerine, vaseline and other ointment jars). All of this glass was machine made. A "Waterman's" ink bottle was also included in the collection.

A few porcelain, stoneware and transfer-printed whiteware sherds were also included in this collection. Four jars were determined to have been used as drinking glasses and were cataloged as drinking vessels.

Accession #225

A total of 15 artifacts were recovered by Park staff in the vicinity of the utility line trench, between the Barn and Orchard. This material forms Accession #225 and was collected over the course of a few years. The collection consists of a stoneware ceramic sherd, bottle glass sherds, a glass vial, a button, a spoon, an electric coffee pot, tin vessel fragments, and lamp fragments. An intact press molded "Hei Sei" wine glass, dating from 1897-1902, matches similar glasses in the museum collection which are displayed in the dining room of the mansion.

Accession #298

A total of 72 artifacts were collected by Park staff in the vicinity of the barn, the hog pond, the utility line trench, and fill from the former stable. This collection consists primarily of ceramic sherds, bottle glass, drinking vessel glass, and indeterminate glass. The ceramic sherds range from plain creamware to gilted porcelain (see Appendix 4).

Of special note are two whiteware rim sherds with a blue transfer printed border pattern and gilting identified by the Museum curator as being part of the "White House China" set (Chris Merritt, personal communication 1988). This collection of tableware was used by the family during Roosevelt's term in the White House. Other examples of colorful whitewares are also in this collection, in addition to a selection of creamware, pearlware, stoneware and decorated porcelains.

Most of the bottle glass was either contact molded or machine made while the drinking vessels were either press molded or some other form of contact mold manufacture. A few sherds of colored milkglass were also included in this collection.

Accessions #204, #278 and #308

A rake fragment (Accession #204) and a possible telephone rung spike (Accession #278) were collected by Park staff in the vicinity

of the Carriage Shed. Three fragments of shoe leather and a pair of shears were collected from the grounds by Park staff forming Accession #308.

Conclusion

Despite the selective nature of these collections, the material that was collected reflects the occupancy of the Roosevelts and a cross section of activities which took place at Sagamore Hill. Of particular note are the large number of mason and preserve jars (one of which contained cherry preserves) retrieved from the trash pits located behind the Gray Cottage. Considering the variety of vegetables and fruits grown on the estate, it seems likely that these jars were used to preserve the produce from the President's garden for future consumption.

The quantity of machine manufactured glass from these collections (especially from Accession #209) places the average date range for this material circa 1933 (Toulouse 1969; 1971). Though it is quite possible that some of the material may indeed date to the turn of the century, it is certainly a twentieth century collection and probably reflects a time period after Roosevelt's death in 1919, although quite possibly before the death of his second wife, Edith Carrow Roosevelt, in 1948.

Unquestionably, the intact Hei Sei glass, and "White House China" sherds (Accession #225 and #298) reflect the Roosevelt occupancy. These two artifacts correspond with material displayed in the house museum collection and demonstrate the potential for the archeological record to expand our understanding of lifeways at SAHI during the Roosevelt occupation.

Recommendations

Up to this time, no formal archeological investigation or assessment of these cultural resources has been undertaken at SAHI. Unfortunately, there has already been significant and irreversible damage to the integrity of the archeological record, due to lack of awareness by the Park staff of the appropriate procedures in caring for cultural resources of this kind, and their inherent fragility.

The location of what may be a Native American shell midden was identified by Park maintenance staff within the confines of the Park. Native American artifacts were recovered by the Roosevelt children on the property which borders Cold Spring Harbor, and this area has been identified by the Department of Planning and Construction, National Park Service, as an Indian encampment area (Figure 2) (Wilshin 1972:291; Map[F]). The surface collections from SAHI do not reflect this indigenous occupation, and the potential for a significant Native American component of the archeological resources at the Park remains unexplored at present.

Additional historic dump sites have been identified by Park maintenance staff indicating that SAHI has a high potential for encompassing both prehistoric and as well as historic archeological resources (Figure 2). A survey and inventory of the Park which identifies areas of historic and prehistoric significance should be undertaken. Such a survey is vital in determining base line data for future development projects at the Park in order to avoid the unnecessary destruction of these irreplaceable resources.

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Appendix 1

SAHI Accountability Project

Summary Table

PARK NAME: SAHI
(Acronym)

	Inventoried by ACMP	Estimated # Artifacts	Est. # Lots (Gross Material Types)	Estimated # of ACMP lots	Est. # Lots (Finest Breakdown)	Storage Location	Storage Containers	Artifacts sorted by	Documentation Field Notes	Maps	Photos
1)	N	123	2	100 (item cat. most)	123	Basement, TR House	Plastic Bags in cardboard boxes	Not sorted	None	None	None
2)	N	25	4	10	20	Personal possession of Park Personnel (Loretta & George)	---------	-------	None	None	None
TOTALS=		148	6	110	143						

Archeological Collections Accountability Project

PARK NAME: SAHI
(Acronym)

Site	Archeologist (Affiliation)	Date(s) Of Fieldwork	Report Reference	Artifact Inventory in Report (Y/N)	Provenience Data (Y/N)	Park Accession #	Accession Date	Acquisition Type	Catalog #'s
1) Trash Pit behind Super. House	Bottle Collector	1985	--------	------	----	209	------	Field Collection	Not Cataloged
2) Surface Collections from pipe-line trench	NPS Staff	----------	--------	------	Y	Not accessioned	------	" "	" "

Appendix 2

Revised SAHI Accountability Project

Summary Table

PARK NAME: SAHI
(Acronym)

Archeological Collections Accountability Project
(Revised 6/90)

Site	Archeologist (Affiliation)	Date(s) of Fieldwork	Report Reference	Artifact Inventory in Report (Y/N)	Provenience Data (Y/N)	Park Accession	Accession Date	Acquisition Type	Catalog #s
1) Trash Pits behind Superintendent's House	Bottle Collector	1985	-----	-----	Y	#209	5/20/85	Field Collection	SAHI 5718-5735
2) Surface Collections from Pipeline Trench	NPS Staff	1983	-----	-----	Y	#298	8/15/88	Field Collection	SAHI 5736-5782
3) Surface Collection	NPS Staff (Loretta Schmidt)	1986	-----	-----	Y	#225	5/28/86	Field Collection	SAHI 5783-5791; SAHI 5796-5798
4) Surface Collection	NPS Staff	-----	-----	-----	N	#308	10/5/88	Field Collection	SAHI 5794-5795
5) Near Carriage Shed	NPS Staff (George Dzionbia)	1987	-----	-----	Y	#278	10/26/87	Field Collection	SAHI 5793
6) Near Carriage Shed	NPS Staff (George Dzionbia)	1984	-----	-----	Y	#204	11/26/84	Field Collection	SAHI 5792

Archeological Collections Accountability Project
(Revised 6/90)

PARK NAME: SAHI
(Acronym)

Inventoried by ACMP	# of Artifacts	# of ACMP Lots	Storage Location	Storage Containers	Artifacts Sorted by	Field Notes	Maps	Photos
1) Y	114	18	Basement, TR House	Plastic bags in Hollinger boxes	ACMP system	None	*	None
2) Y	72	47	Basement, TR House	Plastic bags in Hollinger boxes	ACMP system	None	*	None
3) Y	15	12	Basement, TR House	Plastic bags in Hollinger boxes	ACMP system	None	*	None
4) Y	4	2	Basement, TR House	Plastic bags in Hollinger boxes	ACMP system	None	None	None
5) Y	1	1	Basement, TR House	Plastic bags in Hollinger boxes	ACMP system	None	*	None
6) Y	1	1	Basement, TR House	Plastic bags in Hollinger boxes	ACMP system	None	*	None

* A reconstructed map locating the general provenience for the collection was provided by the Park Curator.

Appendix 3

ACMP Catalog Flow Chart

CLASSIFICATION

ARCHEOLOGY (A)
HISTORIC (HI)
MINERAL (0001)
CERAMIC (02)

OBJECT NAME	DESCR1	DESCR2	MATERIAL
BODY SHERD(S) RIM SHERD(S) BASAL SHERD(S) HANDLE(S) LID/COVER(S) WHOLE VESSEL (75%+) WHOLE VESSEL, RECONSTRUCTED PARTIAL VESSEL (25-75%) PARTIAL VESSEL, RECONSTRUCTED	REDWARE	PLAIN, LEAD GLAZED 1 SURFACE, LEAD GLAZED 2 SURFACES, SGRAFFITO, TRAILED SLIPWARE, JACKFIELD, ASTBURY, OTHER (specify), UNIDENTIFIED	EARTHENWARE
	TIN ENAMEL	DELFT, ROUEN/FAIENCE, OTHER (specify), UNIDENTIFIED	
	COARSE BUFF-BODY	COMBED WARE, DOTTED WARE, N. DEVON GRAVEL TEMPERED, MOTTLED, OTHER (specify), UNIDENTIFIED	
	CREAMWARE	PLAIN, SHELL-EDGED, OTHER EDGE-DECORATED, HANDPAINTED, ANNULAR, TRANSFER-PRINTED, SPONGE/SPATTER-DECORATED, MOLDED, OTHER (specify), UNIDENTIFIED	
	PEARLWARE	(as above for creamware)	
	WHITEWARE	(as above for creamware)	
	WHIELDON WARE		
	LUSTERWARE		
	AGATEWARE		
	ROCKINGHAM/BENNINGTON		
	YELLOWARE		
	UNIDENTIFIED EARTHENWARE		
	PORCELAIN	UNDECORATED, UNDERGLAZE HANDPAINTED MONOCHROME (or POLYCHROME), OVERGLAZE HANDPAINTED MONOCHROME (or POLYCHROME), GILTED, TRANSFER-PRINTED, SPRIG-MOLDED, OTHER (specify), UNIDENTIFIED	PORCELAIN
	WHITE SALT GLAZED STONEWARE	PLAIN, MOLDED (specify on DESCR3), SCRATCH BLUE, OTHER	STONEWARE
	DRYBODY STONEWARE	BLACK BASALTE, ROSSO ANTICO, OTHER, UNIDENTIFIED	
	NOTTINGHAM		
	BELLARMINE/FRECHEN		
	WESTERWALD/RAEREN		
	DOMESTIC STONEWARE	BLUE COBALT DECORATION	
	UNIDENTIFIED STONEWARE		

DESCR3	DESCR4
(space to elaborate, e.g., FLOWER POT)	MAKER'S MARK = x (x = count) (not a separate lot)

ACMP Catalog Flow Chart

CLASSIFICATION

ARCHEOLOGY (A)
HISTORIC (HI)
MINERAL (0001)
CERAMIC (02)

OBJECT NAME	DESCR1	DESCR2	DESCR3	MATERIAL
TOBACCO PIPE(S)	BOWL(S)	WITH STEM ATTACHED, XX BORE DIAMETER - x		KAOLIN (WHITE), RED CLAY, PORCELAIN, OTHER (specify)
		MOLDED DECORATION = x	MAKER'S MARK = x	
	STEM(S), 4-9/64 BORE DIAMETER, INDETERMINATE BORE DIAMETER			
BOTTLE CLOSURE(S)				specify ceramic type
BUTTON(S)	1 (or 2)-PIECE CAST; 2, 3 or 4-PIECE STAMPED; STAMPED; MOLDED; OTHER (specify); UNIDENTIFIED			
BUCKLE(S)				
OTHER FASTENER(S) (specify)				
specific Household/ Personal objects (*see p.13)				
STRUCTURAL MATERIAL	specify object (SEWER TILE, e.g.) (leave blank for brick)			EARTHENWARE, STONEWARE BRICK [weight, grams]

INDETERMINATE CERAMIC OBJECT

ACMP CATALOG FLOW CHART

CLASSIFICATION

ARCHEOLOGY (A)
HISTORIC (HI)
MINERAL (0001)
GLASS (05)

OBJECT NAME		DESCR1	DESCR2	DESCR3
BODY SHERD(S),		FREEBLOWN		
NECK SHERD(S),	BOTTLE	MOLDED	CONTACT MOLDED	DIP MOLD
BASAL SHERD(S),	DRINKING VESSEL	INDETERMINATE	PATTERN MOLDED	2-PIECE MOLD
BASAL/STEM SHERD(S),	INDETERMINATE		PRESS MOLDED	2, 3, OR 4-PIECE MOLD WITH SEPARATE BASE
STEM SHERD(S)	VESSEL		OPTIC MOLDED	SHOULDER-HEIGHT MULTI-PIECE MOLD
HANDLE(S),			MACHINE MADE MANUFACTURE	RICKETTS MOLD
RIM SHERD(S),				TURN/PASTE MOLD
LID/COVER(S),				MOLDED NECK WITH HAND-FINISHED LIP
WHOLE VESSEL(S) (75%+),				APPLIED COLOR LABEL
WHOLE VESSEL(S), RECONSTRUCTED,				
PARTIAL VESSEL(S) (25-75%),				
PARTIAL VESSEL(S)0 RECONSTRUCTED,				
WINDOW GLASS SHERD(S)		CROWN/CYLINDER PLATE INDETERMINATE		DESCR4 EMBOSSED BODY = x (x = count) (not a separate lot)
BOTTLE CLOSURE(S)				DESCR5
BUTTON(S)		1 (or 2)-PIECE CAST; 2, 3 or 4-PIECE STAMPED; MOLDED; OTHER (specify); UNIDENTIFIED		MAKER'S MARK = x (x = count) (not a separate lot)
BUCKLE(S)				
OTHER FASTENER(S)				
specific Household/Personal Objects (*see p.13)		(specify object)		
e.g., LIGHTING FIXTURE(S)		LAMP CHIMNEY FRAGMENT(S)		
e.g., KITCHENWARE		JAR, MASON JAR, FOOD JAR, INDETERMINATE FUNCTION JAR, (specify)		
e.g., TOILETRIES		JAR, (specify)		
INDETERMINATE GLASS				

MATERIAL

GLASS
MILKGLASS

CLASSIFICATION

ARCHEOLOGY (A)
HISTORIC (HI)
MINERAL (0001)
METAL (04)

OBJECT NAME	DESCR1	DESCR3
BOTTLE CLOSURE(S)		MAKER'S MARK = x (x=count)
BUTTON(S)	(see ceramics sheet)	
BUCKLE(S)		
specific Household/ Personal Objects (*see p.13)	(specify object)	
NAIL(S)	HAND WROUGHT MACHINE CUT INDETERMINATE MACHINE CUT (1795-1850) MACHINE CUT (1840-1885) WIRE INDETERMINATE	
SCREW(S)	HAND WROUGHT MACHINE CUT INDETERMINATE	
STAPLE(S)		
BOLT(S)		
WOOD FASTENER(S)		
STRUCTURAL MATERIAL		
		DESCR3
WINDOW HARDWARE DOOR HARDWARE ELECTRICAL HARDWARE PLUMBING HARDWARE LIGHTING/HEATING HARDWARE HAND TOOL(S) MACHINE PART(S) DOMESTIC ANIMAL GEAR TRANSPORTATION OBJECT(S) WEAPONRY/ACCOUTREMENTS	(specify object)	RESIDUE FROM (specify object name) = x GM (x = wt. in grams), (put in same lot as object)
MISCELLANEOUS HARDWARE [do all as one lot]	(e.g.: SPIKES-2, BRASS RING-1)	
INDETERMINATE METAL OBJECT(S)		

MATERIAL

specific metals: FERROUS, COPPER, BRASS, LEAD, TIN, PEWTER, SILVER, INDETERMINATE, etc.

CLASSIFICATION

ARCHEOLOGY (A)
HISTORIC (HI)
MINERAL (0001)
STONE (01)

OBJECT NAME	DESCR1	MATERIAL
STRUCTURAL MATERIAL	ROOFING TILE (e.g.)	SLATE (e.g.)
specific Tools/Hardware Objects (***see p.13)		
GUNFLINT(S)	ROUNDED HEEL RECTANGULAR HEEL POSSIBLE GUNFLINT MANUFACTURE FLAKE (specify other)	(specify)
GROUNDSTONE	PESTLE MORTAR	
WORKED STONE UNWORKED STONE		

MINERAL
SYNTHETIC (06)

OBJECT NAME	DESCR1	MATERIAL
BOTTLE CLOSURE(S)		PLASTIC, RUBBER, ASPHALT, NYLON, (specify other)
CLOTHING	(specify object?)	
FOOTWEAR	(" ")	
BUTTON(S)	(see ceramics sheet)	
specific Household/ Personal Objects (*see p.13)	(specify object)	
STRUCTURAL MATERIAL		
specific Tools/Hardware Objects (***see p.13)		
MACADAM		SYNTHETIC
LINOLEUM FRAGMENTS		LINOLEUM
INDETERMINATE SYNTHETIC OBJECT(S)		(specify or INDETERMINATE)

CLASSIFICATION

ARCHEOLOGY (A)
HISTORIC (HI)
MINERAL (0001)
OTHER MINERAL (07)

OBJECT NAME	DESCR1	MATERIAL
STRUCTURAL MATERIAL [use weight in grams]		MORTAR/PLASTER, CONCRETE
PAINT CHIP(S) [use weight in grams]	(specify color)	PAINT
COAL [use weight in grams]		COAL
CINDERS/CLINKERS [use weight in grams]		CINDERS/CLINKERS
BOG IRON [use weight in grams]		BOG IRON
SLAG [use weight in grams]		SLAG
COMPOSITE FIRE BYPRODUCTS [use weight in grams]		(leave blank)
MICA		MICA
INDETERMINATE MINERAL OBJECT		(specify or INDETERMINATE)

MINERAL
CLAY/MUD/SOIL (03)

OBJECT NAME	
SOIL SAMPLE(S)	SOIL

CLASSIFICATION

ARCHEOLOGY (A)
HISTORIC (HI)
VEGETAL (0002)
WOOD (10)

OBJECT NAME	DESCR1	MATERIAL
BOTTLE CLOSURE(S)	(specify object)	WOOD, CORK
specific Household/Personal Objects (*see p.13)	↓	↓
STRUCTURAL MATERIAL		
specific Tools/Hardware (***see p.13)		
SPECIMEN (UNWORKED) [use wt. in grams if fragmentary]		
WOOD SAMPLE(S)		
CHARCOAL [use weight in grams]		CHARCOAL
ASH		ASH

CLASSIFICATION

VEGETAL
FIBERS (11)

OBJECT NAME	DESCR1	MATERIAL
CLOTHING	(specify object)	COTTON
specific Household/Personal Objects (*see p.13)	↓	WOOL
STRUCTURAL MATERIAL		
specific Tools/Hardware (***see p.13)		
INDETERMINATE TEXTILE(S)		FIBER

CLASSIFICATION

VEGETAL
PAPER (13)

OBJECT NAME
(specify object, e.g. wallpaper fragment)

VEGETAL
OTHER PLANT MATERIALS (14)

OBJECT NAME	DESCR1	MATERIAL
SEED(S)	(specify if possible)	VEGETAL
NUTSHELL(S)	(specify if possible, e.g., walnut)	NUTSHELL
FLOTATION SAMPLE(S)		(leave blank)

CLASSIFICATION

ARCHEOLOGY (A)
HISTORIC (HI)
ANIMAL (0003)
SHELL/CORAL (20)

OBJECT NAME	DESCR1	DESCR2
BUTTON(S)		
specific Household/ Personal Objects (*see p.13)		
SPECIMEN (UNWORKED) [weight in grams]	BIVALVE UNIVALVE INDETERMINATE SHELL CORAL	species (**see p.13)

ARCHEOLOGY
HISTORIC
ANIMAL
BONE/IVORY (21)

OBJECT NAME	DESCR1	DESCR2
BUTTON(S)		
specific Household/ Personal Objects (*see p.13)		
specific Tools/ Hardware Objects (***see p.13)		
SPECIMEN (UNWORKED)	FISH, MAMMAL, BIRD, INDETERMINATE specify other	DIAGNOSTIC UNDIAGNOSTIC TOOTH

ARCHEOLOGY
HISTORIC
ANIMAL
HIDE/HAIR (23)

OBJECT NAME	DESCR1	MATERIAL
CLOTHING	(specify object)	LEATHER
FOOTWEAR		FUR
BUTTON(S)		HAIR
specific Household/ Personal Objects (*see p.13)		
specific Tools/ Hardware Objects (***see p.13)		
INDETERMINATE LEATHER		

ACMP CATALOG FLOW CHART

5/88

CLASSIFICATION

ARCHEOLOGY (A)
HISTORIC (or PREHISTORIC) (HI or PR)
HUMAN REMAINS (0004)
OSTEOLOGICAL (30)

OBJECT NAME

TOOTH
BONE (and type)

CLASSIFICATION

ARCHEOLOGY (A)
PREHISTORIC (PR)
MINERAL (0001)
STONE (01)

OBJECT NAME	DESCR1	DESCR2	DESCR3**
FIRE-CRACKED ROCK [wt. in grams]			
GROUNDSTONE	PESTLE MORTAR (specify other)		
CHIPPED STONE	PROJECTILE POINT(S)	(specify point type)* INDETERMINATE INDETERMINATE	BASAL FRAGMENT POSSIBLE (specify type)
	BIFACE(S)	BIFACIAL IMPLEMENT BLADE*; EDGE TOOL*	BASAL FRAGMENT; TIP FRAGMENT; MIDSECTION FRAGMENT; REWORKED POINT; SHAPE*
	UNIFACE(S)	EDGE TOOL*	SHAPE*

(as one lot):	CORE(S) - (specify ct.)	[DESCR1]
	SHATTER/BLOCK - (ct.)	[DESCR2]
	DECORTICATION FLAKE(S) - (ct.)	[DESCR3]
	FLAKE(S) - (ct.)	[DESCR4]

MATERIAL

FELSITE, QUARTZITE, QUARTZ, SAUGUS JASPER, CHERT, ARGILLITE, OTHER, UNKNOWN

ARCHEOLOGY
PREHISTORIC
MINERAL
CERAMIC (02)

OBJECT NAME	DESCR1	DESCR2
BODY SHERD(S) RIM SHERD(S) BASAL SHERD(S)	(specify temper)	(specify surface decoration)

---

* Refer to MHC Artifact Classification System (1984:140-145); also see p.13 of this document.

CLASSIFICATION

ARCHEOLOGY (A)
PREHISTORIC (PR)
ANIMAL (0003)
SHELL/CORAL (20)

OBJECT NAME

specify object
SPECIMEN (UNWORKED)

ARCHEOLOGY
PREHISTORIC
ANIMAL
BONE/IVORY (21)

OBJECT NAME	DESCR1
TOOTH	
specify object	
SPECIMEN (UNWORKED)	(see Historic/Bone sheet)

ARCHEOLOGY
PREHISTORIC
ANIMAL
ANTLER/HORN (22)

OBJECT NAME

specify object
SPECIMEN (UNWORKED)

CLASSIFICATION

ARCHEOLOGY (A)
PREHISTORIC (PR)
VEGETAL (0002)
WOOD (10)

OBJECT NAME	MATERIAL
CHARCOAL	CHARCOAL
C-14 SAMPLES	
(specify other)	

ARCHEOLOGY
PREHISTORIC
VEGETAL
OTHER PLANT MATERIALS (14)

OBJECT NAME

FOOD REMAINS
FOOD REMAINS, BURNED

ARCHEOLOGY
HISTORIC or PREHISTORIC or UNKNOWN (UN)
UNIDENTIFIED MATERIAL (0005)
UNIDENTIFIED (40)

OBJECT NAME	MATERIAL
UNIDENTIFIED OBJECT	INDETERMINATE

HOUSEHOLD AND PERSONAL OBJECTS*

TABLEWARE
KITCHENWARE
FURNITURE AND HARDWARE
LIGHTING FIXTURE(S)
DECORATIVE OBJECT(S)
TOILETRIES
STATIONERY
COINS/TOKENS/MEDALS
PERSONAL OBJECT(S)
TOY(S)

TOOLS AND HARDWARE***

OTHER BUILDERS' HARDWARE
WINDOW HARDWARE
DOOR HARDWARE
ELECTRICAL HARDWARE
PLUMBING HARDWARE
LIGHTING/HEATING HARDWARE
HAND TOOL(S)
MACHINE PART(S)
DOMESTIC ANIMAL GEAR
TRANSPORTATION OBJECT(S)
WEAPONRY/ACCOUTREMENTS

UNIVALVES**

BUSYCON CANALICULATUM
CREPIDULA FORNICATA
NASSARIUS OBSOLETUS
POLINICES DUPLICATUS
UROSALPINX CINEREA
OTHER GASTROPODS
INDETERMINATE UNIVALVE

BIVALVES**

MERCENARIA MERCENARIA
CRASSOSTREA VIRGINICA
MYA ARENARIA
ENSIS DIRECTUS
ARGOPECTEN IRRADIANS
SPISULA SOLIDISSIMA
MYTILUS EDULIS
MODIOLUS MODIOLUS
OTHER MARINE BIVALVES
INDETERMINATE BIVALVES

CATALOG NOTES

CERAMICS

Lead Glazed Redwares: At times, most often with rim sherds, a LEAD GLAZED 1 SURFACE vessel will also exhibit patches of glaze on the rim or exterior of the vessel. In these cases the cataloger may not know whether to classify the sherd as LEAD GLAZED 1 SURFACE or TWO SURFACES. The cataloger should be able to see enough of the exterior to determine that the vessel was actually glazed only on the interior, and that the exterior was not intentionally glazed. Thus, even though there may be small sections of glaze on the exterior, the sherd should be classified as LEAD GLAZED 1 SURFACE.

Other Edge-Decorated: This classification appears in DESCR2, and may be substituted with an actual pattern name if the pattern can be identified in Noel Hume (1980:116) (e.g., BEAD AND REEL PATTERN). If the pattern cannot be identified, DESCR2 should say OTHER EDGE-DECORATED, and DESCR3 may be used to describe the pattern (e.g., BLUE-BANDED RIM).

CERAMICS OR GLASS

Crossmends: Sherds which crossmend with other sherds in different lots should be noted on DESCR3 or DESCR4 if necessary. The notation should begin with the word CROSSMENDS, followed by the number of sherds in parentheses, and the catalog number containing the sherds from the same vessel:

CROSSMENDS (2) WITH CAT. #4598

The crossmend should also be noted on the catalog card for Cat. No. 4598 (in this example).

Crossmends can also be noted within a lot as follows:

CROSSMENDS (2)

Rims/Bases: When a sherd exhibits attributes of either a rim or a base, but the distinction is not clear, the sherd should be classified as BODY SHERD since this category also contains undiagnostic sherds.

Whole Vessel/Partial Vessel: These categories may be defined as follows:

WHOLE VESSEL - at least 75% of the vessel
PARTIAL VESSEL - between 25% and 75% of the vessel

Multiple vessels may be cataloged in one lot.

Whole Vessel/Partial Vessel, Reconstructed: Reconstructed vessels may be defined as either whole or partial vessels which have been

reconstructed (usually glued together) during earlier projects, or vessels which are represented by a number of crossmended sherds but which have not been physically glued together. In all cases, the Item Count field should equal the total number of sherds in the reconstructed vessel. Each vessel should have its own catalog number (catalog lot), with all sherds cataloged in that lot and bagged together. Thus these vessels are treated differently from the one-piece Whole and Partial Vessels, which can have multiple vessels per lot. This is because the Item Count for reconstructed vessels equals the total number of sherds (vs. number of vessels), thus requiring separate lots to differentiate between vessels.

GLASS

Vessel Glass: Our vessel glass classification system is actually a little redundant in that all types listed in DESCR2 with CONTACT MOLDED are contact molded themselves. The category CONTACT MOLDED should be used for any sherds that can be further identified on DESCR3, as well as for sherds which cannot be classified as to DESCR3 mold type or as belonging to another DESCR2 category (e.g., whether they are machine-made). In other words, a sherd should never be classified as just MOLDED. At minimum, it should be MOLDED/CONTACT MOLDED, unless another DESCR2 attribute can be determined (e.g., MOLDED/MACHINE MADE MANUFACTURE).

METAL

Machine Cut Nails: It is often difficult to determine whether a machine cut nail is of the early or late manufacturing type. The primary classification choice will therefore be MACHINE CUT INDETERMINATE. The cataloger should feel confident that positive attributes are clearly evident before classifying a machine cut nail as either early or late. In other words, don't hesitate to use the Indeterminate category unless absolutely certain that the nail can be further identified.

Indeterminate Metal Objects: This category includes both objects which cannot be identified due to their state of corrosion and objects which may be identifiable but could not be identified by project staff given limited expertise and reference materials. Objects which could not be identified but which are clearly hardware of some sort should be classified as MISCELLANEOUS HARDWARE.

WOOD

Counts vs. Weights: Wood pieces should be counted if it seems "reasonable" to count them. For example, obvious structural fragments or pieces of tools or intact wooden objects should be counted. On the other hand, if the wood consists of small or decaying fragments, these should be weighed and the weight in grams noted on the catalog card. Weights as well as counts should be included in final collection totals.

PREHISTORIC CHIPPED STONE

MHC Typology: We are using a limited version of the stone tool typology developed by the Massachusetts Historical Commission (1984). This includes the classification of projectile point types, as well as the identification of unifaces as edge tools and bifaces as either edge tools or bifacial implement blades. These terms are explained in the MHC manual (pp. 140-147), and can be briefly summarized as follows:

BIFACE/BIFACIAL IMPLEMENT BLADE: This category is used for any lithic artifact which is bifacially modified around the entire periphery, but which exhibits both a length equal to or greater than 4cm, and a thickness of less than or equal to 1.5cm.

BIFACE/EDGE TOOL: There are three possibilities within this category. The lithic artifact may be:
(1) bifacially modified along at least one edge;
(2) bifacially modified around entire periphery and of any length but more than 1.5cm thick;
(3) bifacially modified around entire periphery and of any thickness but less than 4cm long.

The primary distinction between a bifacial implement blade and an edge tool is thus the size of the artifact, both in length and thickness.

Appendix 4

SAHI Archeological Field Collections

Summary Artifact Inventory

SAHI SUMMARY ARTIFACT INVENTORY

	ACCESSION #204 & #278 NEAR CARRIAGE SHED		ACCESSION #209 TRASH PIT		ACCESSION #225 NEAR PIPELINE TRENCH BETWEEN BARN & ORCHARD		ACCESSION #298 NEAR BARN		ACCESSION #298 NEAR HOG POND		ACCESSION #298 NEAR PIPELINE TRENCH		ACCESSION #298 STABLE FILL NEAR PIPELINE TRENCH		ACCESSION #308 SURFACE COLLECTION		TOTAL ARTIFACTS	
	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%
HISTORIC ARTIFACTS																		
CERAMIC VESSEL																		
TOTAL REDWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL TIN ENAMEL	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL COARSE BUFF-BODY	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
CREAMWARE																		
PLAIN	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	0	0.0%	1	0.5%
SHELL-EDGED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
OTHER EDGE-DECORATED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
HANDPAINTED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
ANNULAR	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TRANSFER-PRINTED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
SPONGE-DECORATED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
ALL OTHER	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL CREAMWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%	0	0.0%	1	0.5%
PEARLWARE																		
PLAIN	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
SHELL-EDGED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
OTHER EDGE-DECORATED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
HANDPAINTED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
ANNULAR	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TRANSFER-PRINTED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%	1	0.5%	0	0.0%	2	1.0%
SPONGE-DECORATED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
ALL OTHER	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL PEARLWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%	1	0.5%	0	0.0%	2	1.0%

SAHI SUMMARY ARTIFACT INVENTORY

	ACCESSION #204 & #278 NEAR CARRIAGE SHED		ACCESSION #209 TRASH PIT		ACCESSION #225 NEAR PIPELINE TRENCH BETWEEN BARN & ORCHARD		ACCESSION #298 NEAR BARN		ACCESSION #298 NEAR HOG POND		ACCESSION #298 NEAR PIPELINE TRENCH		ACCESSION #298 STABLE FILL NEAR PIPELINE TRENCH		ACCESSION #308 SURFACE COLLECTION		TOTAL ARTIFACTS	
	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%
WHITEWARE																		
PLAIN	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	5	2.4%	0	0.0%	0	0.0%	5	2.4%
SHELL-EDGED	0	0.0%	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%
OTHER EDGE-DECORATED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	1.0%	0	0.0%	0	0.0%	2	1.0%
HANDPAINTED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
ANNULAR	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TRANSFER-PRINTED	0	0.0%	3	1.4%	0	0.0%	1	0.5%	0	0.0%	2	1.0%	0	0.0%	0	0.0%	6	2.9%
SPONGE-DECORATED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
ALL OTHER	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	1.9%	0	0.0%	0	0.0%	4	1.9%
TOTAL WHITEWARE	0	0.0%	3	1.4%	0	0.0%	2	1.0%	0	0.0%	13	6.3%	0	0.0%	0	0.0%	18	8.7%
OTHER EARTHENWARE																		
WHIELDON WARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
LUSTERWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
AGATEWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
ROCKINGHAM/BENNINGTON	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
YELLOWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
ALL OTHER	0	0.0%	0	0.0%	0	0.0%	2	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	1.0%
TOTAL OTHER EARTHENWARE	0	0.0%	0	0.0%	0	0.0%	2	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	1.0%
PORCELAIN																		
UNDECORATED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	1.0%	0	0.0%	0	0.0%	2	1.0%
UNDERGLAZE HP MONOCHROME	0	0.0%	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%
UNDERGLAZE HP POLYCHROME	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	.0	0.0%
OVERGLAZE HP MONOCHROME	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
OVERGLAZE HP POLYCHROME	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	1	0.5%
GILTED	0	0.0%	0	0.0%	0	0.0%	1	0.5%	0	0.0%	3	1.4%	0	0.0%	0	0.0%	4	1.9%
TRANSFER-PRINTED	0	0.0%	0	0.0%	0	0.0%	2	1.0%	0	0.0%	5	2.4%	0	0.0%	0	0.0%	7	3.4%
ALL OTHER	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	2	1.0%
TOTAL PORCELAIN	0	0.0%	1	0.5%	0	0.0%	4	1.9%	0	0.0%	12	5.8%	0	0.0%	0	0.0%	17	8.2%

SAHI SUMMARY ARTIFACT INVENTORY

	ACCESSION #204 & #278 NEAR CARRIAGE SHED		ACCESSION #209 TRASH PIT		ACCESSION #225 NEAR PIPELINE TRENCH BETWEEN BARN & ORCHARD		ACCESSION #298 NEAR BARN		ACCESSION #298 NEAR HOG POND		ACCESSION #298 NEAR PIPELINE TRENCH		ACCESSION #298 STABLE FILL NEAR PIPELINE TRENCH		ACCESSION #308 SURFACE COLLECTION		TOTAL ARTIFACTS	
	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%
TOTAL WHITE SALT GLAZED STONEWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL DRYBODY STONEWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
OTHER STONEWARE																		
NOTTINGHAM	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
BELLARMINE/FRECHEN	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
WESTERWALD/RAEREN	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
DOMESTIC	0	0.0%	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%
ALL OTHER	0	0.0%	1	0.5%	1	0.5%	0	0.0%	0	0.0%	2	1.0%	0	0.0%	0	0.0%	4	1.9%
TOTAL OTHER STONEWARE	0	0.0%	1	0.5%	1	0.5%	1	0.5%	0	0.0%	2	1.0%	0	0.0%	0	0.0%	5	2.4%
TOTAL CERAMIC VESSEL	0	0.0%	5	2.4%	1	0.5%	9	4.3%	0	0.0%	28	13.5%	2	1.0%	0	0.0%	45	21.7%
TOTAL TOBACCO PIPE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
BOTTLE GLASS																		
FREEBLOWN	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	1	0.5%
CONTACT MOLDED	0	0.0%	4	1.9%	5	2.4%	0	0.0%	0	0.0%	13	6.3%	0	0.0%	0	0.0%	22	10.6%
PATTERN MOLDED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
PRESS MOLDED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
OPTIC MOLDED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
MACHINE MADE	0	0.0%	48	23.2%	1	0.5%	0	0.0%	1	0.5%	5	2.4%	0	0.0%	0	0.0%	55	26.6%
ALL OTHER	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	1	0.5%
TOTAL BOTTLE GLASS	0	0.0%	52	25.1%	6	2.9%	0	0.0%	1	0.5%	20	9.7%	0	0.0%	0	0.0%	79	38.2%

SAHI SUMMARY ARTIFACT INVENTORY

	ACCESSION #204 & #278 NEAR CARRIAGE SHED		ACCESSION #209 TRASH PIT		ACCESSION #225 NEAR PIPELINE TRENCH BETWEEN BARN & ORCHARD		ACCESSION #298 NEAR BARN		ACCESSION #298 NEAR HOG POND		ACCESSION #298 NEAR PIPELINE TRENCH		ACCESSION #298 STABLE FILL NEAR PIPELINE TRENCH		ACCESSION #308 SURFACE COLLECTION		TOTAL ARTIFACTS	
	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%
DRINKING VESSEL GLASS																		
FREEBLOWN	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
CONTACT MOLDED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	1.0%	0	0.0%	0	0.0%	2	1.0%
PATTERN MOLDED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
PRESS MOLDED	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	3	1.4%	0	0.0%	0	0.0%	4	1.9%
OPTIC MOLDED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
MACHINE MADE	0	0.0%	4	1.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	1.9%
ALL OTHER	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL DRINKING VESSEL GLASS	0	0.0%	4	1.9%	1	0.5%	0	0.0%	0	0.0%	5	2.4%	0	0.0%	0	0.0%	10	4.8%
INDETERMINATE VESSEL GLASS																		
FREEBLOWN	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
MOLDED	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	1.4%	0	0.0%	0	0.0%	3	1.4%
INDETERMINATE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL INDET. VESSEL GLASS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	1.4%	0	0.0%	0	0.0%	3	1.4%
TOTAL BOTTLE CLOSURES	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
APPAREL																		
CLOTHING	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
FOOTWEAR	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	1.4%	3	1.4%
BUTTONS	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%
BUCKLES	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
OTHER FASTENERS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL APPAREL	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	1.4%	4	1.9%

SAHI SUMMARY ARTIFACT INVENTORY

	ACCESSION #204 & #278 NEAR CARRIAGE SHED		ACCESSION #209 TRASH PIT		ACCESSION #225 NEAR PIPELINE TRENCH BETWEEN BARN & ORCHARD		ACCESSION #298 NEAR BARN		ACCESSION #298 NEAR HOG POND		ACCESSION #298 NEAR PIPELINE TRENCH		ACCESSION #298 STABLE FILL NEAR PIPELINE TRENCH		ACCESSION #308 SURFACE COLLECTION		TOTAL ARTIFACTS	
	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%
HOUSEHOLD & PERSONAL OBJECTS																		
TABLEWARE	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%
KITCHENWARE	0	0.0%	40	19.3%	2	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	42	20.3%
FURNITURE & HARDWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
LIGHTING FIXTURES	0	0.0%	0	0.0%	2	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	1.0%
DECORATIVE OBJECTS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOILETRIES	0	0.0%	12	5.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	12	5.8%
STATIONERY	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%
COINS/TOKENS/MEDALS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
PERSONAL OBJECTS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOYS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL HOUSEHOLD & PERSONAL OBJ	0	0.0%	53	25.6%	5	2.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	58	28.0%
TOTAL WINDOW GLASS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL NAILS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL OTHER FASTENING DEVICES	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL STRUCTURAL MATERIAL	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOOLS & HARDWARE																		
WINDOW HARDWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
DOOR HARDWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
ELECTRICAL HARDWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
PLUMBING HARDWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
LIGHTING/HEATING HARDWARE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
HAND TOOLS	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%	2	1.0%

SAHI SUMMARY ARTIFACT INVENTORY

	ACCESSION #204 & #278 NEAR CARRIAGE SHED		ACCESSION #209 TRASH PIT		ACCESSION #225 NEAR PIPELINE TRENCH BETWEEN BARN & ORCHARD		ACCESSION #298 NEAR BARN		ACCESSION #298 NEAR HOG POND		ACCESSION #298 NEAR PIPELINE TRENCH		ACCESSION #298 STABLE FILL NEAR PIPELINE TRENCH		ACCESSION #308 SURFACE COLLECTION		TOTAL ARTIFACTS	
	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%
MACHINE PARTS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
DOMESTIC ANIMAL GEAR	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TRANSPORTATION OBJECTS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
WEAPONRY/ACCOUTREMENTS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
GUNFLINTS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
WORKED STONE/GROUNDSTONE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
COMMERCIAL EQUIPMENT	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
MISCELLANEOUS HARDWARE	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%
TOTAL TOOLS & HARDWARE	2	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%	3	1.4%
TOTAL FUEL & FIRE BYPRODUCTS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL SHELL	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL BONE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL VEGETAL MATERIAL	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL SAMPLES	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
MISCELLANEOUS																		
INDETERMINATE METAL OBJECTS	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%
OTHER INDETERMINATE OBJECTS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	1.9%	0	0.0%	0	0.0%	4	1.9%
METAL RESIDUE	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
ALL OTHER MISCELLANEOUS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL MISCELLANEOUS	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%	4	1.9%	0	0.0%	0	0.0%	5	2.4%

SAHI SUMMARY ARTIFACT INVENTORY

	ACCESSION #204 & #278 NEAR CARRIAGE SHED		ACCESSION #209 TRASH PIT		ACCESSION #225 NEAR PIPELINE TRENCH BETWEEN BARN & ORCHARD		ACCESSION #298 NEAR BARN		ACCESSION #298 NEAR HOG POND		ACCESSION #298 NEAR PIPELINE TRENCH		ACCESSION #298 STABLE FILL NEAR PIPELINE TRENCH		ACCESSION #308 SURFACE COLLECTION		TOTAL ARTIFACTS	
	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%	CNT	%
TOTAL HISTORIC ARTIFACTS	2	1.0%	114	55.1%	15	7.2%	9	4.3%	1	0.5%	60	29.0%	2	1.0%	4	1.9%	207	100.0%
TOTAL PREHISTORIC ARTIFACTS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL ARTIFACTS	2	1.0%	114	55.1%	15	7.2%	9	4.3%	1	0.5%	60	29.0%	2	1.0%	4	1.9%	207	100.0%

Appendix 5

ACMP Artifact Category Definitions

ACMP Artifact Category Definitions

The ACMP artifact categories were developed during previous ACMPs of other Park's archeological collections in the North Atlantic Region. The ACMP for SAHI retained the general artifact classes which were originally designed for the Salem Maritime collection from Salem Maritime National Historic Site (Synenki and Charles 1983a), and have been expanded and tailored to the specific needs of new collections as they have undergone ACMP processing. In 1985, minor revisions were made to the definitions during the ACMP for collections from Minute Man National Historical Park (Towle and MacMahon 1986, 1987). Further alterations in terminology were incorporated to accommodate the format of the NPS Automated National Catalog System (ANCS), while the classification of bottle glass was substantially broadened during ACMP cataloging of collections from the Saugus Iron Works National Historic Site (MacMahon 1988). During the ACMP for SAHI, the classification of glass jars was also expanded to accommodate the needs of this collection.

The following is an abbreviated listing of ACMP artifact category definitions excerpted from previous ACMP reports (Synenki and Charles 1983a:14-30, 1983b:26-36, 1984:28-41; Towle and MacMahon 1987:132-154; MacMahon 1988:168-193) which were selected on the basis of their relevance to the SAHI archeological collection. Specific citations are not included for these definitions, and the reader is referred to The Archeological Collections Management at the Saugus Iron Works National Historic Site report for a comprehensive listing of ACMP definitions (MacMahon 1988). Most of the original artifact definition research was conducted by Sheila Charles, and subsequent research in upgrading and revising ACMP artifact terminology was undertaken primarily by Darcie MacMahon.

The categories discussed below will be ordered in two fashions. First, historic vessel ceramics and vessel glass will be defined. Second, the remaining artifact categories will be discussed within general functional groupings. This differs from the order in which the artifact categories appear on the ACMP flow charts (Appendix 3). The flow charts are organized by material type in order to accommodate the classification system required by ANCS. This means that functional groups of artifacts which cannot be associated with a single material class are listed repetitively on multiple pages of the flow charts, (e.g., Bottle Closures, which could be ceramic, glass, metal, cork, etc.). In the definitions which follow, these functional categories will be discussed only once where relevant, within the context of a general functional group.

More complete definitions are provided for historic ceramics and other artifact categories which were deemed most useful for site analyses, particularly those categories which provided

temporal information. Other categories are largely self-explanatory and are thus given general summary definitions. The "Indeterminate" categories will not be discussed, although they are a part of every material classification (e.g., Indeterminate Metal Object, Indeterminate Ceramic Object, etc.).

The SAHI archeological collections contained a total of 207 items. Reference may be made to Appendix 4 for the complete SAHI artifact inventory.

Historic Vessel Ceramics

Historic ceramics are divided into three groups on the basis of paste: earthenware, porcelain, and stoneware. There are major ware type categories within these groups, each of which also has subsidiary categories based upon temper, glaze, and decoration. The ceramics are also classified according to one of five attributes of form: body sherd, rim sherd, basal sherd, handle, or whole vessel. Fragments which contain both base and rim forms are classified as rims, in order to enable minimum number of vessel counts. These attributes of form are used for the "object name" field in the ANCS program, while the ware type is defined in the first two description fields (Appendix 3). The presence of maker's marks is noted in the third description line of the catalog record.

Ceramic sherds and vessels used in the preparation, cooking, serving, and storing of food are recorded in the historic ceramics section of the inventory. The specific ceramic ware categories were chosen to reflect attributes generally considered useful for analytical purposes, although finer breakdowns by attributes such as decorative motif or color were not included. The attributes used were often derived from and consistent with those detailed by historical archeologists (e.g., Noel Hume 1980; South 1978) and ceramic specialists (e.g., Godden 1975; Lewis 1969; Ramsay 1976; Watkins 1959, 1968).

Historic Vessel Ceramics: Earthenware

Earthenware has a relatively soft, water-absorbent paste in comparison with stoneware and porcelain (Deetz 1977:47). Unrefined earthenwares, including redwares, tin enameled wares, and coarse buff-bodied wares, have a softer and more porous paste than the refined earthenwares which began to be developed in the mid-18th century. The harder pastes of the refined wares were due to the addition of calcinated flint to the clay (Miller 1980:1). They include Whieldon ware, creamware, pearlware, whiteware, and several later ware varieties such as yelloware and Rockingham. Earthenwares were commonly glazed and often decorated, particularly the refined earthenwares. Unrefined earthenwares, when they served a utilitarian rather than tableware function, were not as

consistently glazed, especially redwares, which were often "plain," or unglazed.

Creamware: This ware type is identified by two primary attributes: a thin, hard, fine-grained cream-to-white earthenware paste; and a clear surface glaze to which copper was added, resulting in pale yellow to yellow-green tint. This tint is most noticeable in the folds and crevices of the vessel where the glaze pools, particularly along the edges of footrings.

The development of creamware was the result of many individuals' work in several districts of England (Solon 1906:199-299). The clay body was refined by the addition of ground flints which allowed the production of thinner, harder vessels. "Clouded" or "Whieldon" wares were among the first wares of this type to be manufactured, ca. 1750. Wedgwood perfected a plain cream-colored ware in Burslem by 1762 (Noel Hume 1980:123-124), although much English creamware is also attributed to producers in Leeds, Liverpool, and Staffordshire (Austin 1978:39; see also Moore 1909; Towner 1965).

In general, most creamware assemblages on American sites postdate 1770 (Miller and Stone 1970:42-44), and production continued in England until ca. 1820 (Towner 1957; Noel Hume 1980; South 1978), although its popularity waned significantly with the introduction of pearlware (Miller 1980:15) (see below). The perfection and subsequent popularity of creamware is viewed as one of the most important ceramic developments of the 18th century (Noel Hume 1980:123), as it shaped the course of all future earthenware production. It also displaced "tin-glazed ware, white salt glazed stoneware, and to some extent even oriental porcelain...from the market" (Miller 1980:1). Creamware, along with the subsequent development of pearlware (see below), allowed the British to capture "the world ceramic tableware trade by the 1790s" (Miller 1980:1).

Plain Creamware: This category is used to record undecorated creamware sherds, which are often the most common form of creamware found on historic sites in the Northeast.

Pearlware: Pearlware exhibits two major attributes: a thin, hard, fine-grained white earthenware paste; and a clear surface glaze to which cobalt was added, resulting in an overall blue tint. Like creamware, this coloration is most noticeable in the folds and crevices of vessels, particularly around footrings where the bluish glaze often pools.

Pearlware has been called "one of the landmarks of English earthenwares" (Noel Hume 1978:42). It evolved out of creamware (Miller 1980:2), and although it was available in England as early

as 1765, it seems to have entered the American ceramic market in the 1780s, after the disruption in trade caused by the American Revolution (Noel Hume 1978:46).

Pearlware developed as the demand for creamware waned (Miller 1980:2). Its bluish glaze and typically blue surface decorations were an attempt to imitate porcelain. With pearlware came the transition in marketing emphasis from ware type to decoration (Miller 1980:2, 15-16). Many of the decorative techniques were the same as those developed on creamware. Unlike creamware, pearlware was rarely undecorated (Miller 1980:16). This emphasis on decoration continued with the gradual development of whiteware, and the distinction between the two ware types was not as significant a factor for the market as were the decorative motifs. Thus the wares of the early 19th century (ca. 1820+) are less easily distinguished by ware type (Miller 1980:16-18). The decorative categories represented are classified in the same way as those used for creamware.

Transfer-Printed: Underglaze transfer printing became a common mode of decoration by the 1790s, and continued to be very popular until the mid-19th century (Miller 1980:4, 1984b:44). Blue was the most common color used, although other monochrome colors and polychrome designs were also available. Designs included oriental motifs (particularly the blue willow design), floral patterns, European and idealistic scenes, and geometric designs.

Whiteware: Two major attributes characterize whiteware: a very hard, fine-grained paste, with a vessel body that is usually fairly thin but can also be rather substantial; and a clear, glossy surface glaze. Whiteware emerged from the production of pearlware, and was first made simply by reducing the amount of cobalt in the glaze. The gradual whitening of the glaze reflected the growing popularity of whiter porcelains during the first decades of the 19th century (Miller 1980:17). These wares are thus sometimes difficult to distinguish from late pearlwares, and in fact the producers made no real distinction as they focused instead on the decorative techniques (Miller 1980:17). However, the emergence of whiteware as the predominant ware type by ca. 1820 (Noel Hume 1980:130) serves as a useful, though certainly not absolute, chronological marker. By ca. 1840 there was again a demand for wares with a bluish or "pearl" tint, and the glazes of some whitewares of this period reflect this change (Miller 1980:17-18). Whiteware continues to be manufactured, and although it was first produced in England, it was subsequently produced in the United States as well.

The ACMP whiteware category includes all "white" wares of the period, although several varieties existed (e.g.,ironstone, white granite, semiporcelain). The subcategories identified are based upon the same decorative techniques discussed above for creamware

and pearlware. The whiteware assemblage is often the largest ceramic assemblage from 19th century historic sites in the Northeast.

Plain Whiteware: Plain whiteware is commonly found on 19th century archeological sites, often reflecting decorated vessels which were broken into sherds which may or may not retain a portion of the decoration.

Shell-Edged: The shell-edged rim design has been called the most popular of all pearlware borders (Noel Hume 1978:44), and this design was also carried over to whiteware ceramics. It consisted of a painted border which was drawn inward with brushstrokes to give a feathery appearance. At times, the vessel rim itself was also molded or embossed with feathery designs, or others such as fish scales or garlands, to accentuate this effect. The early examples of this design on creamware and pearlware were generally well-painted (ca. 1780-1795), but after ca. 1800 it was common to have a "debased" version of the motif, often nothing more than a painted stripe along the rim of the vessel (Noel Hume 1980:131). Shell-edging was done in both blue and green.

Other Edge Decorated: Whiteware sherds with rim decoration other than shell-edging are classified either as "other edge-decorated," or as a more specific descriptive type, most commonly some form of molded rim.

Other Whiteware: There are other miscellaneous types of whiteware decoration which do not fit into the above categories. These are described when possible, or listed as simply unidentified. Such decoration could include molded designs on parts of the vessel other than the rim, and a combination of two or more of the above techniques (e.g., transfer printing with handpainting). These sherds are lumped as "Unidentified" for the purpose of inventory display in the ACMP reports.

Other Earthenware: This category is used to record earthenwares which were different from the above categories or were otherwise unidentifiable, particularly sherds which have lost their glaze or had been burned. Sometimes sherds which exhibit an Albany-like slip on the interior but have an earthenware paste are included in this category, but may actually be low-fired domestic stoneware.

Historic Vessel Ceramics: Porcelain

Two attributes characterize porcelain: an extremely vitreous, often translucent white paste; and a white glossy surface glaze. Numerous decorative techniques were employed, several of which are enumerated on the ACMP flow charts (Appendix 3), including:

underglaze handpainted monochrome and polychrome, overglaze handpainted monochrome and polychrome, gilted, and transfer printed, molded, and sprig-molded. Monochrome designs were typically executed in blue, and polychrome designs most commonly added red. These descriptive types were not further analyzed as to point of origin or time period. Both Oriental and English porcelain was available in the American marketplace during, as well as after, the colonial period.

It is generally held that porcelain tablewares were relatively expensive, high status wares in the 17th and early 18th centuries (Noel Hume 1980:257; Miller 1984a:2). They subsequently became more popular and affordable, and the quality of the wares generally decreased as they were mass-produced for the foreign trade (Noel Hume 1980:257-265; Gordon 1975:162). In the late 18th century, the porcelain market was affected by the strong competition of the newly developed refined earthenwares (e.g., creamware, pearlware) (Miller 1984a:2). Many of the porcelains from historic sites can be later (19th and 20th century) domestic wares, as opposed to imported Oriental or European wares from the 17th or 18th century. The ACMP does not distinguish between these wares.

Historic Vessel Ceramics: Stoneware

Stonewares are fired at high temperatures and have a very hard, vitreous, nonabsorbent paste. The color and surface texture of stoneware vessels is variable, depending largely on clay composition, kiln firing conditions, and the kinds and amounts of glaze applied to the surface (Stewart and Cosentino 1977:21).

Domestic Stoneware: Three attributes were used to define this ware: a stoneware paste, a salt glazed exterior vessel surface, and an interior Albany-type slip. Albany-type slip refers to an iron oxide clay wash which was used on a vessel's interior surface to seal the clay body. It was originally developed in Albany, New York, but similar varieties were subsequently mined and used elsewhere in the United States (Greer 1981:194). It varies in color from medium brown to black, but most often appears as a dark metallic brown. This color variability is due to differences in clay sources or techniques of applying the slip before or after firing (Webster 1971:40). These are generally 19th century wares, and both Webster (1971:40) and Watkins (1968:11) indicate that after ca. 1800, Albany-type slip appeared often on American stonewares and nearly always on stonewares in the Northeast. These wares are not further broken down by the ACMP, although if a maker's mark or design is present, they are recorded on the forms and identified where possible.

Other Stoneware: These sherds exhibit a stoneware paste, a glazed or unglazed exterior, but lack an Albany-type slip on the interior and cannot otherwise be identified in the above categories. These sherds may be domestic stonewares produced without an Albany-type slip, or unidentified imported stonewares.

Bottle and Drinking Vessel Glass

The ACMP classified bottle glass and drinking vessel glass according to manufacturing technique. These categories were developed from the system used by the Parks Canada Historic Parks and Sites Branch, as defined in their excellent publication entitled The Parks Canada Glass Glossary (Jones and Sullivan 1985; see also Miller and Sullivan 1981). The ACMP used these categories for the first time for the SAIR collection. The classification system used during previous ACMPs was based upon older research information and was not an adequate system for identifying chronological attributes. The new system uses hierarchical categories, as shown on the ACMP flow charts (Appendix 3). The first breakdown is based upon sherd morphology (body, neck, base, base/stem, handle, rim, lid/cover, or whole vessel), which is recorded in the "object name" field on the catalog record along with an identifier as to whether the object is from a bottle, drinking vessel, or indeterminate vessel (of indeterminate function).

The first three description lines on the catalog record are used for recording technological attributes. These categories, as defined by Jones and Sullivan (1985), provide chronological information which is useful for archeological analysis. The first breakdown identifies the object as freeblown, molded, or indeterminate. Molded objects are further described as contact molded, pattern molded, press molded, optic molded, or machine made. Whenever possible, the contact molded items are further classified as to mold type: dip mold; 2-piece mold; 2, 3, or 4-piece mold with separate base; shoulder-height multi-piece mold; Ricketts mold; turn/paste mold; or molded neck with hand-finished lip. If the item exhibits embossing or a maker's mark, these are noted on the fourth and fifth description lines of the catalog record.

Due to the small size of most glass sherds from archeological sites, it is often impossible to identify precise technological attributes, such as the mold types represented by contact molded sherds. Most frequently the bottle glass is identifiable only to the first level of classification, as either freeblown, molded, or indeterminate. The definitions for the manufacturing technique categories follow, as abstracted from The Parks Canada Glass Glossary (Jones and Sullivan 1985), with permission of the authors (Olive Jones, personal communication 1988). Researchers may refer to that publication for more detailed definitions.

Freeblown: Freeblown vessels are made without the assistance of molds, and are often somewhat irregular in shape and exhibit a glossy surface. Glass blowing technology has been used for centuries and is still used today, and thus specific dates of manufacture cannot usually be determined (Jones and Sullivan 1985:22). Generally, most glass vessels were freeblown until about the mid-18th century when molds began to be used with increasing frequency for the production of certain vessel types, particularly bottles. Thus, in order to use freeblown glass for chronological analysis, it is most useful to regard it in the context of the total glass assemblage (e.g., compared to the relative percentages of molded glass vessels).

Molded/Contact Molded: This category includes all glass vessels which were formed, at least partially, in a mold known as a contact mold. The glass can be blown by mouth or by machine into the mold. The technique of molding glass was known during Roman times, and was revitalized by Venetian glassmakers in the 17th century for molding stemware. It does not appear to have been regularly used for glass containers until the 18th century, with the exception of 17th century square case bottles (Jones and Sullivan 1985:22-24). The fact that a vessel was molded cannot therefore be used as a specific chronological marker, although in a general sense, molded bottles did not become common until after the mid-18th century. There are a number of mold types which were commonly used and which can be more chronologically diagnostic. Those identified by the ACMP will be discussed below.

Sherds from contact molded vessels can be best recognized if they have a portion of a mold seam or an embossed surface. Molded vessels are also more regular than freeblown vessels, and the surface of the glass often exhibits a fine stippling caused by contact with the mold. In many cases, it is possible to identify a sherd as molded, but specific mold types cannot be identified. In these cases, the ACMP classifies the sherd as Molded/Contact Molded on the first two description lines of the catalog record.

Two, Three, or Four-Piece Mold with Separate Base: These multi-piece molds consist of hinged vertical mold sections with a separate post or cup base mold. Usually the finish is shaped by hand, although it may also be formed in the mold. The most common of these molds is the two-piece, which became the most widely used mold type for containers in the late 19th and early 20th centuries. The three and four-piece molds were less commonly used, and usually for decorative containers. The mold seams on these bottles extend from the finish to the edge of the base. The base mold also leaves seams around its periphery as well as on the base itself according to the mold type (cup or post mold). The common two-piece mold with separate base part can be dated to roughly post-1850, and it was generally replaced by machine manufacturing which began in the 1920s (Jones and Sullivan 1985:28-29). Such multi-piece molds were

used earlier in the production of highly decorated tableware, which can be dated to the first half of the 19th century.

Turn- or Paste-Mold (Turn/Paste Mold): These molds have a paste on the interior which is wetted before the glass is blown into the mold. This creates a cushion of steam between the glass and the mold which allows the bottle to be turned, eliminating mold seams. These bottles are vertically symmetrical, with no mold seams or embossing except possibly near or on the base. The surface of the glass is highly polished, and sometimes exhibits horizontal lines created during the turning process. The original use of this technique has not been dated, but was most commonly in use for commercial containers, particularly wine and liquor bottles, from about the 1870s to 1920s (Jones and Sullivan 1985:30-31). This was also a popular technique for the manufacture of tumblers during the 19th and 20th centuries.

Molded Neck with Hand-Finished Lip: This category is used by the ACMP when the specific mold type cannot be determined, but the lip is hand-finished, indicating that the bottle was not machine-made. In this case, the definite lack of diagnostic attributes for machine-made bottles was considered to be important for chronological analysis.

Machine-Made Manufacture: These vessels were created entirely within contact molds, using air supplied by a machine. The molding process generally begins with a ring mold for the formation of the finish, followed by a parison mold for the initial formation of the vessel body, and a full-sized mold for the final shaping of the vessel and the possible addition of embossing. This combination of molds imparts a variety of mold seams which are diagnostic of the machine-made process, although all are not necessarily present. These include: horizontal seams on the finish and at the base of the finish; vertical seams up the body and over the finish; possible "ghost seams" left by the parison mold, which wander up the side of the bottle in proximity to the final vertical seams and are unique to machine-made manufacture; basal cup or post seams similar to other multi-piece molds; and basal "Owens scars," which are "feathery" roundish scars caused by shearing the glass, and are also unique to the machine-made process, dating to post-1904 (Jones and Sullivan 1985:35-37).

The production of machine-made containers began in the 1880s, but was not widespread until the 20th century. The introduction of Owens' fully automatic machine (ca. 1903), combined with subsequent technological innovations and promotion of the new technology, led to the widespread use of the machine-made process. By the 1920s, other forms of bottle production were quickly becoming obsolete (Jones and Sullivan 1985:38-39).

Press Molded: Vessels made by press molding are formed in a mold of any number of parts, with the glass pushed into the mold by a plunger which creates the interior surface of the vessel. The vessel can then be removed from the mold and finished in various ways (e.g., addition of a neck and lip), although often the finished product is taken directly from the mold. The interior surface is typically smooth from the plunger and does not need to be related to the exterior surface shape or design. The exterior surface can be highly decorated, and should exhibit signs of molding, such as mold seams and possibly a stippled surface, although fire polishing can eliminate some of these characteristics. It can be distinguished from cut glass by the more rounded edges of the designs and the other characteristics of molded glass. This technique was not usually used for making commercial containers, and was most often employed in the production of tableware and display vessels such as ink or cosmetic bottles. Although the technique was developed as early as the late-17th century, it was not used to produce hollowware vessels until the 19th century. This change occurred in the United States in the 1820s, and by the 1830s such vessels were mass produced in at least the Northeast and Pennsylvania. Press molded vessels are common on mid-19th to 20th century sites (Jones and Sullivan 1985:33-35).

Other Glass: This category is used to record bottle glass, drinking vessel glass, and indeterminate vessel glass sherds which are either different from the above categories, or are so small that manufacturing technique cannot be ascertained.

Functional Artifact Categories

The ANCS requires that archeological materials be cataloged according to material, as indicated on the ACMP flow charts (Appendix 3). However, many of the categories used for the "object name" and description fields are functional rather than material-based, and are more easily discussed by functional headings than by material groupings. The following discussion is therefore organized by functional groups, some of which are actually ACMP classification categories, while others are simply general topical groups which enable an overall discussion of a variety of categories.

Apparel-Related Objects: ACMP categories which may be grouped under this general heading include clothing, footwear, buttons, buckles, and other apparel fasteners. These categories are largely self-explanatory. The buttons are classified as to manufacturing technique, including: stamped; 1- or 2-piece cast; 2, 3, or 4-piece stamped; and molded. All of the apparel-related categories are cataloged by material type (e.g., metal, ceramic, glass, leather, fiber, etc.).

Household and Personal Objects: A variety of ACMP categories can be discussed under this general heading. Some of these categories are for objects which have pragmatic or decorative household functions, and others are for personal possessions associated with grooming, writing, procurement of goods, ornamentation, and play. These categories are largely self-explanatory: tableware, kitchenware, furniture and hardware, lighting fixtures, decorative objects, toiletries, stationery, coins/tokens/medals, personal objects, and toys. Each of these categories is used in the "object name" field of the catalog record, with more specific information provided in the description fields. These objects are cataloged by material type.

Many miscellaneous items are recorded in these functional categories, and confusion may arise as to which category an item would be included under. The following listing may help to clarify some of the categories:

1) Tableware includes objects used in the serving and consumption of food (e.g., cutlery).

2) Kitchenware refers to objects used in the preparation, cooking, and storage of food (e.g., pots and pans, colanders, tin cans, stove parts, mason and preserve jars).

Tools and Hardware: This is not an actual classification category, but rather a grouping of several functional categories. These are largely self-explanatory, and include Window Hardware, Door Hardware, Electrical Hardware, Plumbing Hardware, Lighting/Heating Hardware, Hand Tools, Machine Parts, Domestic Animal Gear (e.g., horse shoes, harnessing equipment), Transportation Objects (e.g., portions of cars, bicycles, carriages), and Weaponry/Accoutrements (e.g., gun parts, bullet shells). There is also a Miscellaneous Hardware category to accommodate hardware items which could not be specifically identified as to function. These categories are used in the "object name" field of the catalog record. These items are also cataloged by material type, which is not included on the inventory in this report (Appendix 4), and are further described under the description fields.

Miscellaneous Mineral Objects: A number of additional mineral objects appear on the catalog flow charts in the "object name" field. These include mica (under "Other Mineral"), and macadam (under "Synthetic"). Typically iron fragments less than one half inch in size are cataloged as "Residue" while larger fragments are cataloged as Indeterminate Metal Objects.

REPORTS OF THE DIVISION OF CULTURAL RESOURCES MANAGEMENT
North Atlantic Regional Office, National Park Service

The Division produces and prints reports on archeological, curatorial, historical, and historic architectural topics that identify, evaluate, document, and interpret cultural resources in National Park Service units of the North Atlantic Region. Some of these reports are of general interest for their presentations of substantive, bibliographic, technical, or methodological information. These are listed below. Those that are listed with an NTIS number are only available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22151. Others are available from the Division of Cultural Resources Management, NARO, National Park Service, 15 State Street, Boston, MA 02109. Prices are listed.

Cultural Resources Management Studies

No. 1	Archeological Resource Study, Roger Williams National Monument. Public Archeology Laboratory, Brown University, 1979.	NTIS	PB81	185134
No. 2	Archeological Overview and Evaluation at Minute Man National Historical Park. Vernon G. Baker, 1980.	NTIS	PB81	185142
No. 3	Historic Resources Study, Jamaica Bay: A History. Gateway National Recreation Area, New York-New Jersey. Frederick R. Black, 1981.	NTIS	PB81	226649
No. 4	Archeological Site Examination: A Case Study in Urban Archeology. Roger Williams National Monument.	6.00		
No. 5	Archeological Resource Study, Historical Archeology at Bunker Hill Monument. Boston National Historical Park. Thomas Mahlstedt, 1981.	NTIS	PB83	186957
No. 6	Archeological Investigation at the Narbonne House. Salem Maritime National Historic Site. Geoffrey P. Moran, Edward F. Zimmer, Anne E. Yentsch, 1982.	7.00		
No. 7	Historic Resource Study, A History of Fort Wadsworth, New York Harbor. Frederick R. Black, 1983.	4.00		
No. 8	Chapters in the Archeology of Cape Cod, I: Results of the Cape Cod National Seashore Archeological Survey, 1979-1981 (2 volumes). Francis P. McManamon, editor, 1984.	NTIS	PB85	220101
No. 9	The National Park Service in the Northeast: A Cultural Resource Management Bibliography. Dwight T. Pitcaithley, 1984.	7.00		
No. 10	Celebrating the Immigrant: An Administrative History of the Statue of Liberty National Monument, 1952-1982. Barbara Blumberg, 1985.	5.00		
No. 11	Hoosac Docks: Foreign Trade Terminal. A Case of the Expanding Transportation System Late in the Nineteenth Century. Paul O. Weinbaum, 1985.	4.00		
No. 12	The 1983 Excavations of 19BN281: Chapters in the Archeology of Cape Cod, II. Christopher L. Borstel, 1985.	5.00		
No. 13	Chapters in the Archeology of Cape Cod, III: The Historic Period and Historic Period Archeology. Francis P. McManamon, editor, 1985.	5.00		
No. 14	Inventory of Structures: Morristown National Historical Park. David Arbogast, 1985.	7.00		
No. 15	The Scene of the Battle: Historic Grounds Report, Minute Man National Historical Park. Joyce L. Malcolm, 1985.	3.00		
No. 16	Chapters in the Archeology of Cape Cod, IV.			

No. 17	Chapters in the Archeology of Cape Cod, V: Indian Neck Ossuary. Francis P. McManamon, James W. Bradley, and Ann L. Magennis, 1986.	5.00
No. 18	Interdisciplinary Investigations of the Boott Mills, Lowell, Massachusetts. Volume I: Life at the Boarding Houses. Mary C. Beaudry and Stephen A. Mrozowski, editors, 1987.	12.00
No. 19	Interdisciplinary Investigations of the Boott Mills, Lowell, Massachusetts. Volume II: The Kirk Street Agents' House. Mary C. Beaudry and Stephen A. Mrozowski, editors, 1987.	12.00
No. 20	Charlestown Navy Yard, 1890-1973. Volumes I and II. Frederick R. Black, 1988.	
No. 21	Interdisciplinary Investigations of the Boott Mills, Lowell, Massachusetts. Volume III: The Boarding House System as a Way of Life. Mary C. Beaudry and Stephen A. Mrozowski, editors, 1989.	

Archeological Collections Management Project Series

No. 1	Archeological Collections Management at Salem Maritime National Historic Site. Alan T. Synenki and Sheila Charles, 1983.	4.00
No. 2	Archeological Collections Management at Morristown National Historical Park, New Jersey. Alan T. Synenki and Sheila Charles, 1983.	3.00
No. 3	Archeological Collections Management of the Great Island Tavern Site. Cape Cod National Seashore, Massachusetts. Alan T. Synenki and Sheila Charles, 1984.	3.00
No. 4	Archeological Collections Management at Minute Man National Historical Park, Massachusetts. Linda A. Towle and Darcie A. MacMahon, editors.	
	Volume 1, Introduction and Fiske Hill Area, 1987.	4.00
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No. 7	Archeological Collections Management at Sagamore Hill National Historic Site, Massachusetts. Louise M. DeCesare, 1990.	

Other Publications

Cultural Resources Inventory, Lowell National Historical Park and Preservation District: Report. Shepley, Bulfinch, Richardson and Abbott, Architects, 1980.	NTIS PB81	189169
The Archeology of Cape Cod National Seashore. Francis P. McManamon and Christopher L. Borstel, 1982, (pamphlet 16pp.).	1.00	