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**Sandy ground: Historical archaeology of class and ethnicity in a
nineteenth century community on Staten Island**

Askins, William Victor, Ph.D.

City University of New York, 1988

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SANDY GROUND:
HISTORICAL ARCHAEOLOGY OF CLASS AND ETHNICITY
IN A
NINETEENTH CENTURY COMMUNITY ON STATEN ISLAND
by
WILLIAM V. ASKINS

A dissertation submitted to the Graduate Faculty
in Anthropology in partial fulfillment of the
requirements for the degree of Doctor of
Philosophy, The City University of New York.

1988

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This manuscript has been read and accepted for the Graduate Faculty in Anthropology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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Abstract

SANDY GROUND: HISTORICAL ARCHAEOLOGY OF CLASS AND ETHNICITY
IN A NINETEENTH CENTURY COMMUNITY ON STATEN ISLAND

by

William V. Askins

Adviser: Professor James Moore

In capitalist societies, the definition of social identities is an arena of cultural production and conflict where the right to resources and social power are contested. The dominant class ascribes identities based on racial, national, or other distinctions in order to segment the labor force and divide working class interests by rewarding some and excluding others. Those who experience the loss of power call upon social identities to resist this domination, or to accommodate themselves to the new order, or to compete for access to work segments or other social resources.

This dissertation investigates the responses of the multi-ethnic oystering and agricultural community of Sandy Ground, Staten Island, to the penetration of their work world by capitalist relations and the rise of racist ideology at the end of the nineteenth century. I look at how social identities were transformed, mobilized and maintained through community activities and material

cultural markers.

Sandy Ground was established as a free Afro-American and white ethnic community before the Civil War. During Reconstruction Afro-Americans achieved relative equality in oystering and in the community, an equality threatened by the capitalization of oystering, the collapse of the agricultural rural economy and the rise of Jim Crow.

The analysis of the facades of vernacular domestic architecture indicates that a movement away from the material expression of ethnic identity occurred in the community towards the end of the century. The new significant style referant was occupation or class status. Archaeological materials, dating between the 1870s and 1930s, indicate differences in ethnic behaviours in foodways and medical practices continued through this period. Ceramic analysis reveals that the presentation of social identity within households retained ethnic differences longer than architecture, but by the 1910s household decorative styles were emphasizing similarity between households.

Instead of calling upon ethnic differences as a strategy for competing in the new labor market, Sandy Grounders responded to the collapse of the basis of their social equality by mobilizing upon their community identity in order to mediate the transformations in their world.

This dissertation is dedicated to my parents
Harry and Mindy Askins

ACKNOWLEDGEMENTS

This dissertation has benefited from the criticism, encouragement, patience and demands of many people.

My committee - Jim Moore, Gerry Sider, Tom McGovern and Bob Schuyler - encouraged me to pursue an original approach. The dissertation benefited significantly from the critical editing and intellectual demands made by Jim and Gerry.

Robert Schuyler deserves my special thanks, for this work would not exist if not for him. Bob introduced me to historical archaeology and to Sandy Ground, and allowed me to have the collections for my research. Bob has demonstrated what a mentor should be, through his unfailing support and encouragement throughout my academic career.

Archival work was facilitated by the staff of the Staten Island Institute of Arts and Sciences. The professionalism of Gale Schneider, Eloise Beale, and Hugh Powell led me to many valuable sources.

Archaeology is a labor intensive business, and this project reflects many hundreds of hours of work on the part of my students at City College; producing illustrations and maps, and working in the lab. Their insightful questions and intellectual energy in class discussions enriched my analysis of Sandy Ground. To all of these students I

express my thanks. Karla Katz contributed especially to the success of my work as the manager of the archaeology lab. She always maintained an enthusiastic support for the project.

Members of the CUNY Working Class Anthropology Project have provided emotional support, intellectual stimulation and good nights of satisfying talk. I thank John Anticci, Geoff Bate, August Carbonella, Gerrie Casey, Sharryn Kasmir and Warren Perry, along with our compadre Paul Mishler, for the collective experience we share.

Many ideas expressed in this work were first developed in conversation with Jed Levin. Jed has a central role in how I understand Anthropology and History.

To the people of Sandy Ground I owe a special thanks. They allowed me to enter their world, and mine is much richer for this.

My deepest gratitude is extended to Gerrie Casey, who has supported my work with her critical feedback and close editing. She has encouraged me to claim the right to completion, and I offer her my loving thanks.

And finally I acknowledge my son Eben. He has witnessed every stage of this work; the trays of "torn bottles" in the lab at City College, our excursions to Sandy Ground, and my many nights at the word processor. His love and constant support have grown over the years with his understanding of what this dissertation means.

TABLE OF CONTENTS

	Page
ABSTRACT.....	iv
ACKNOWLEDGEMENTS.....	vii
LIST OF TABLES.....	xii
LIST OF FIGURES.....	ix
PART I: PROBLEM, THEORY, AND SANDY GROUND HISTORY	
CHAPTER 1: INTRODUCTION.....	1
Statement of the Problem.....	1
Plan of Dissertation.....	6
CHAPTER 2: SOCIAL GROUP IDENTITY DURING INDUSTRIAL CAPITALIST TRANSFORMATIONS: THEORETICAL CONSIDERATIONS.....	15
Introduction.....	15
Ethnicity.....	18
Minority, Race and Racism.....	29
Class and Class Processes.....	34
Cultural Production in the Community and Household.....	37
Material Culture Analysis and Social Identity.....	38
Discussion and Conclusions.....	48
CHAPTER 3: SANDY GROUND SOCIAL HISTORY.....	52
Introduction.....	52
Afro-Americans: The National Experience in the Nineteenth Century.....	54

Table of Contents (Continued)

Sandy Ground in Time and Space.....	64
Economic Relations in Sandy Ground.....	81
The Oyster Industry in Sandy Ground.....	91
Relations Between Afro-American and White Sandy Grounders.....	117
Social History Evaluation.....	128
Sandy Ground's Changing Social Reality.....	132
PART II: HISTORICAL ARCHAEOLOGY AND MATERIAL CULTURE ANALYSIS	
CHAPTER 4: FIELD AND LABORATORY PROCEDURES.....	139
Location of Field Work.....	139
Geology and Ecology.....	141
Prehistoric Sites in the Sandy Ground Area.....	143
Historical Archaeology in Sandy Ground.....	143
Summary of Field Work.....	144
Recent Archaeological Field Work.....	161
Spatial Analysis and Historic Associations of Features.....	162
CHAPTER 5: FEATURE CHRONOLOGY - GLASS AND CERAMICS.....	170
Introduction.....	170
Glass Containers.....	172
Ceramic Dates Based on Trademark Data.....	189
Analysis of Results - Chronology of Assemblages.....	196
Ceramic Time Lag.....	206

Table of Contents (Continued)

CHAPTER 6: STYLISTIC CHOICES AND SOCIAL IDENTITY - HOUSE FACADES AND DECORATIVE CERAMICS.....	212
Introduction.....	212
House Form Analysis.....	217
Ceramic Analysis.....	229
Principal Component Analysis of Ceramic Style Appearance in Sandy Ground Features.....	251
Chi Square Analysis.....	269
Chapter Discussion.....	272
PART III: CONCLUSIONS	
CHAPTER 7: SANDY GROUND SOCIAL-HISTORICAL ARCHAEOLOGY - DISCUSSIONS, CONCLUSIONS AND IMPLICATIONS.....	278
Summary of Dissertation.....	278
Discussion of Findings.....	278
Discussion of Artefact Analysis.....	282
Implications for Theory.....	286
Implications and Contributions for Historical Archaeology.....	289
Implications for Future Research.....	291
Epilogue.....	292
APPENDIX A: CODING SYSTEMS AND RECORDING FORMS FOR SANDY GROUND BOTTLES AND CERAMICS.....	294
APPENDIX B: BOTTLE DATA TABLES.....	321
APPENDIX C: CERAMIC DATA TABLES AND ILLUSTRATIONS.....	361
LIST OF ABBREVIATIONS.....	420
SOURCES.....	421

LIST OF TABLES

Table	Page
3.1: Occupations of Afro-American Sandy Ground Men.....	84
3.2: Selected Land Value Assessments in Sandy Ground 1860-1896.....	86
3.3: Oystermen in Westfield.....	114
4.1: Identified Households and Associated Features.....	169
5.1: Mean Mid-dates for Features Based on Datable Bottle Specimens - Organized by Feature Sequence.....	184
5.2: Mean Mid-dates for Features Based on Datable Bottle Specimens - Organized Chronologically.....	185
5.3: Mean Mid-dates for Features Based on Datable Ceramic Specimens - Organized by Feature Sequence.....	192
5.4: Mean Mid-dates for Features Based on Datable Ceramic Specimens - Organized Chronologically.....	193
5.5: Time Lag Between Ceramic and Glass Manufacture Dates at Four Sites With Known Deposition Dates.....	201
5.6: Sandy Ground Glass Container Feature Dates, Dates of Deposition and Median Systemic Dates...	204
5.7: Median Systemic Dates by Decade.....	208
5.8: Ceramic Time Lag - Bottle Dates Compared to Ceramic Dates.....	210
6.1: Residential Architectural Types in Sandy Ground.....	224
6.2: Domestic Architecture in Sandy Ground, c1800-1910 - House Forms, Ethnicity, Occupation.....	225

List of Tables (Continued)

6.3:	Seriation of Ceramic Tablewares.....	241
6.4:	Ratios of Ceramic Fabric Types in Assemblages - Porcelain : Refined Earthenware : Whiteware.....	247
6.5:	Functional Categories of Tablewares.....	249
6.6:	Earthenware - Porcelain Cost Ratio.....	250
6.7:	Vessel Counts of Stylistic Types in Sandy Ground Features.....	253
6.8:	Pearson's r Correlation Coefficients.....	255
6.9:	Factor Pattern Matrix.....	257
6.10:	Vessel Counts of Stylistic Types in Sandy Ground Features with Sample Size Greater than Ten.....	260
6.11:	Factor Pattern - Features with Sample Size More than Ten and Cost and Date Removed.....	261
6.12:	Orthagonal Transformation Matrix of Large Sample Size Features.....	263
6.13:	Cummulative Factor Loadings for Each Feature....	267
6.14:	Chi-Square Tests Comparing Household Identified Features.....	271
6.15:	Ceramic Analysis Summary.....	275
B.1:	Historic Data Information from Glass Containers.....	322
B.2:	Bottle Inventory.....	331
C.1:	Ceramic Trademark Inventory.....	362
C.2:	Calculations for Ceramic Generated Feature Dates.....	392
C.3:	Ceramic Inventory.....	397

LIST OF FIGURES

Figure	Page
3.1: Location of Sandy Ground.....	66
3.2: Bloomingdale and Woodrow Roads on an eighteenth century map.....	72
3.3: Sharrotts Road leading west to Kreisherville.....	73
3.4: Claypit Road and the nucleus of Harrisville in Sandy Ground.....	74
3.5: Location of Harrisville and Sandy Creek.....	75
3.6: Location of New Church on Bloomingdale Road.....	78
3.7: Summary of distribution of Black families in Sandy Ground circa 1860, 1890, and 1910.....	79
3.8: Location of Oyster beds in and around Southern Staten Island.....	94
3.9: A Racist Caricature of an Afro-American Oysterman from the Oyster Capitalists' Trade Journal.....	112
4.1: The Location of Sandy Ground on Staten Island.....	140
4.2: The Winant-Bloomingdale Survey Grid.....	147
4.3: Location of Features used in the Analysis.....	150
4.4: Contour Map and Grid Plan for Feature 4.....	153
4.5: Grid Plan of Feature 38.....	155
4.6: Contour Map and Grid Plan for Feature 120.....	158
4.7: 1907 City Atlas Showing Location of Johan Fisher Property.....	166
4.8: Location of Household Deposition on the Property of Robert Cutting.....	168

List of Figures (Continued)

5.1:	Bar Graphs of Feature Date Frequency - Mean Mid-dates Based on Bottle Dating.....	186
5.2:	Bar Graphs - Comparison Between Bottle and Ceramic Mean Mid-date Frequencies.....	194
5.3:	Bar Graphs of Median Systemic Dates.....	209
6.1:	I-House form, Sandy Ground - Unknown builder, circa 1870.....	220
6.2:	Temple-House form, Sandy Ground - George Hunter, builder, 1901.....	221
6.3:	Eclectic Victorian house style, Sandy Ground - Isaac Harris, original owner, circa 1900.....	222
6.4:	Popularity Seriation Curves of Ceramic Styles...	242
6.5:	Plot of Factor Pattern - Initial Analysis.....	258
6.6:	Plot of Factor Pattern - Features with Sample Size Greater than Ten and Cost and Date Removed.....	262
6.7:	Plot of Factor Pattern - Orthogonal Rotation of Large Sample Size Features.....	264
6.8:	Plot of Cumulative Factor Scores.....	268
A.1:	Bottle Technological Dating Codes.....	295
A.2:	Glass Container Dating Form.....	299
A.3:	Bottle Shapes.....	300
A.4:	Bottle Shape Illustrations.....	304
A.5:	Glass Container Function Codes.....	308
A.6:	Ceramic Tableware Coding Form.....	310
A.7:	Ceramic Tableware Body Type Codes.....	311
A.8:	Ceramic Tableware Function Codes.....	312
A.9:	Ceramic Decorative Technology Codes.....	315
A.10:	Ceramic Stylistic Genre Groups and Code Numbers.....	316

List of Figures (Continued)

C.1 - C.11: Ceramic Trademarks - Whiteware.....	374
C.12 - C.14: Ceramic Trademarks - Porcelain.....	385
C.15 - C.18: Ceramic Trademarks & Designs - Utilitarian Stoneware.....	388

PART I
PROBLEM, THEORY, AND SANDY GROUND HISTORY

CHAPTER 1

INTRODUCTION

STATEMENT OF THE PROBLEM

How do people manipulate material markers of identity during a period of transformation in class relationships? What social group identities do people call upon as they confront and adjust to new social and economic relations? This dissertation addresses these questions through a social history and historical archaeological analysis of the small nineteenth century, multi-ethnic community of Sandy Ground.

I use a theoretical framework that looks to transformations in the relations of production as the primary generator of social change. As capitalist penetration into traditional work-relations occurs, the relations of production become the arena in which the struggle for social power takes place. Ideologies of ethnocentrism and racism are often called upon to support the domination of one social group by another. Social group identities are seized upon by those in power and used to segment a labor force in order to reward some and exclude others (Gordon, Edwards and Reich 1984). Simultaneously, those who experience the loss of power call upon similar or other social identities to resist this

domination, to accommodate themselves to the new order, or to compete for access to work segments or other social resources.

In nineteenth century America, racism, ethnocentrism and notions of national destiny were called upon to support the growth of capital (Zinn 1979). Working people in America reacted in many ways. In this dissertation I explore how a single multi-ethnic community responded to a deterioration of customary community and occupational work relations, and the rise of racist ideology during the late nineteenth century.

Sandy Ground, located in a rural section of southern Staten Island in New York City, developed as an inter-racial community of free Blacks and local and emigrant whites in the decade before the Civil War. After the War, the expansion of oystering allowed Sandy Ground Afro-Americans to gain a relatively high degree of economic security and social status as oyster entrepreneurs. Both Blacks and whites participated on a level of relative equality in this traditional Staten Island occupation. Within the community economic interdependence and an ideology of respect characterized most Black-white relationships. At the end of the century oystering was transformed. Capitalist development driven by New York merchants marginalized Black oystermen. By the second decade of the twentieth century the industry collapsed, when most New York Bay area beds were closed from fear of

pollution-caused disease. Farming, the primary occupation of local whites and an alternative for Sandy Ground Blacks, became economically unviable in the twentieth century. Sandy Grounders, Afro-American and white, were forced into a labor market which had become infused with the Jim Crow ideology of the post-Reconstruction era.

Analyzing this complex history requires a theoretical perspective sensitive to class change, ethnic differences, racism, increasing minoritization, and the solidarity and opposition in a small community. The approaches offered in anthropology, and more so in historical archaeology, are inadequate to this task.

Mainstream anthropology has used a functionalist approach to analyzing the emergence and significance of social group identity in recent complex societies, conceptualizing "ethnic groups" as the primary units of analysis (Barth 1969; Bennett 1975; Cohen 1978; De Vos 1975; Gluckman 1955, 1965; Royce 1982; Shibutani and Kwan 1965). Ethnicity in this sense is a normative concept, masking the much more complex reality of identity choices people make (Mullings 1978; Vincent 1974). Similarly, the notion of a local community has often been used to avoid confronting the integration of local level activities with larger trends, such as capital accumulation and changes in racist ideology (Leeds 1973; Bender 1978). In this dissertation I will develop an approach to social group

identity which recognizes that people make choices concerning identity within a complex, and often contradictory, field of forces (Mullings 1978; Vincent 1974). In the case of Sandy Ground the motor for these forces was developing industrial capitalism, and the identity frameworks open to Sandy Grounders included ethnicity, race, community, class and occupation.

This project is pursued through a combination of social history and historical archaeological analysis. The larger stage of national, regional, and work-life changes are reconstructed through secondary and primary historical sources. The fine grained reality of community and household level activities, revealed by social history and archaeology, is placed in the larger context of economic and social forces.

The material culture used in the analysis are the facades of vernacular domestic structures and excavated household materials. The excavated materials come from middens deposited in the community between 1870s and 1930s. The middens' contents reflect economic status, foodways, medical choices, and, most importantly, choices in the presentation of self as seen in ceramic tablewares.

The stylistic choices people made are a component of the production of cultural meaning in the community. Cultural meaning involves the symbolic systems which people ascribe to, adjust, and invent, as an attempt to mediate the complexities and contradictions confronting them. The

social history and the foodways and medical practices establish ethnic cultural differences in the community. The study then shifts to the material items to evaluate which identities were mobilized by Sandy Grounders in response to rising racism, economic collapse and class change.

The project contributes to the ongoing analysis in anthropology, archaeology and social history of the ways in which groups of people respond within new economic and social relationships by utilizing or manipulating group identities. Within historical archaeology, the primary approach to both ethnicity and class has been a static search for material correlations of each socio-economic category. The dissertation extends the analytic considerations used in historical archaeology to move ethnicity and class beyond simple correlation to and understanding of process. In addition it adds to the still small number of monographs on the social history and material life history of free nineteenth century Afro-American communities.

PLAN OF DISSERTATION

This work encompasses a number of usually discrete disciplines. Anthropological theory, the methods of historical archaeology and social history, and an art history analysis of decorative art are combined. The following outline is a guide to the logical relations of

these approaches, and a map of my analysis and argument.

Chapter 2 is an evaluation of anthropological theory and material cultural interpretations applications of social group identity. Two theoretical considerations are addressed in this chapter. First, I survey discussions concerning the definition, origin, structural position and boundary formation of social group identities, focusing on ethnicity, minority and class. Functionalist approaches, exemplified by the work of Barth (1969) and Warner (Warner, Meeker and Ells 1949) are shown to be inadequate to either explain the causes of ethnic or class identity expression or deal with the ability of peoples to make choices about which social identities are expressed. A more processual approach, based on the work of Vincent (1974), Mullings (1978), Wolf (1982) and others is developed. This focuses on the significance of work-place relations and labor segmentation in the creation and reinforcement of ethnic identity in capitalist societies. In this context, the uses of class and ethnicity in historical archaeology are reviewed, and the paucity of processual studies is briefly discussed.

Second, I address how material culture has been conceived as an expression of social identity (Wobst 1977; Hodder 1982; Weissner 1983), and how objects operate as components of the cultural production of meaning.

In Chapter 3 a historical summary of nineteenth

century Afro-American experience and a social historical reconstruction of Sandy Ground is presented. This history of Sandy Ground encompasses the early development of the oyster industry in the Chesapeake in the 1820s, the migration of some oystermen to Staten Island, and extends into the 1920s. Secondary sources in Afro-American history are used to summarize the nineteenth and early twentieth century history of Afro-Americans. Secondary and primary sources, including census tracts, contemporary newspapers, descriptive articles, directory information and oral reminiscences are used in reconstructing the social history of Sandy Ground. The technology, social relations and historical transformation of the oyster trade is described, as is the specific role in the industry held by Sandy Ground Afro-Americans.

This chapter reconstructs the community culture of respect and economic interaction between Afro-Americans and whites that developed in late nineteenth century Sandy Ground. This sense of community was maintained through attendance and participation at multi-ethnic church, sporting, and social events, by labor exchanges and hiring of services between boat owning Black oystermen and farmers, and through the exchange of garden products and medical service among women in the community. While some racial tensions existed, Sandy Ground boasted a sense relative equality between Afro-Americans and whites.

The chapter delineates the primary identities

available to Sandy Grounders: class or occupational affiliation, community, and ethnicity or race. It also establishes the dual transformation the community experienced. Locally, the relations of production changed from occupational and community interaction based on a high degree of customary cooperation to a situation of productive relations increasingly involved in competition for wage labor. Superimposed on this was the increasing national ideologies of racial superiority and American Nativism, and their political and civil expression in Jim Crow laws (Woodward 1974).

The Chapter concludes with a historical periodization which synthesizes the national changes in Afro-American experience and capitalist development, with the specific history of Sandy Ground development and economic collapse. The synthesized periods are used in later chapters to organize the material culture for analysis of the expressions of social identity.

The second section of the dissertation is concerned with the archaeological methods and analysis of Sandy Ground material culture.

Chapter 4 describes the archaeological field and lab work on which the analysis is based. Previous fieldwork in the area and the geological and ecological conditions in Sandy Ground are discussed.

The archaeological material used in this

dissertation was recovered by Robert L. Schuyler. Schuyler excavated nearly one hundred features in Sandy Ground during the summers of 1971 and 1972. The specific household association of several features is established. Through the community and household associations of features four assemblages are assigned to white households and a fifth assemblage is associated with an unidentified Black household. Additionally the general community midden material is used to represent the purchasing choices in ceramics made by the community as a whole.

The archaeological dating of materials is established in Chapter 5. The chronology of the midden material is based on an analysis of glass containers. Mean dates of midden usage or deposition are produced using an adaptation of South's ceramic formula (South 1972). Changes in bottle production technology recognizable on the bottle produce date ranges for each bottle type. Dates for the bottling companies and contents indicated by historic information on the bottles are combined with the technological dates to narrow the date range for each bottle type.

The median dates for each feature are transformed to represent median dates of systemic use of the materials in the feature. This is accomplished by comparing the results of manufacture-deposition lags at other historic sites and applying the observed time lag to Sandy Ground features.

Understanding the period of systemic use of archaeological materials accomplishes two things. It facilitates an analysis and comparison of consumables which reveal similarities and differences in foodways and medical practices. It also is necessary in establishing the approximate date of purchase of the ceramic assemblages. It is the moment of purchase when decisions about style and expressed identity are made into material reality.

Twenty-two features in the Sandy Ground collection are dated by ceramic trademarks. Ceramics and bottles have different systemic use-lives, producing a time-lag between the deposition date of bottles and the purchase date of ceramics. Ceramic-bottle production and deposition time-lag investigation supports the median systemic dates established by the bottle data, and for each feature indicates the date of purchase and style choice by consumers.

The features associated with specific households are then assigned dates which reflect the periods in Sandy Ground social history these materials were purchased and used.

In Chapter 6 I investigate Sandy Ground house facades and household ceramics as material expressions of social identity. Foodways and other behavioral differences and similarities in the identified households are also evaluated. Comparisons are made between identified

households, and chronological trends are established.

A sample of house facades from the mid-nineteenth century into the 1920s indicates that ethnic and regional identity was expressed in house form in the first part of the nineteenth century in Sandy Ground. By the 1880s, class, expressed as economic status, is clearly the dominant identity embodied in residential architecture.

Ceramic style is next analyzed. I develop a ceramic stylistic popularity seriation, which I use to indicate general community trends in stylistic preferences. Type designations are established using criteria of fabric, design elements, and design technology (Blee 1983; Brose 1967; Price 1979; Lofstrom 1976; Worthy 1982). Documentary research into contemporary wholesale and retail catalogs and technological manuals are used in developing this typology (Askins 1980c).

Economic variation in the ceramic collection is measured by comparing percentages of porcelain tablewares in each household assemblage. I apply ceramic formal/functional analysis in order to recognize similarities and differences in culinary behaviors (Otto 1975, Griffiths 1978).

Four middens identified to household, and several others with adequate numbers of ceramics, are used in a principle component analysis. This describes the underlying structure which influenced the distribution of ceramic styles in each feature. Three style clusters are

identified in the assemblages, typified by the dominant ceramic design style: historicist, floral and intermediate. A chi-square analysis is used to further indicate the degree of similarity and difference between these features. When the assemblages associated with Afro-American, German immigrant and Anglo-American households are compared, differences along ethnic lines are seen. In addition, a general temporal trend towards fewer differences between household ceramic style is seen.

The ceramic analysis supports two slightly divergent interpretations. The four ethnically identified households are sufficiently different to support ethnic identity as the significant component in determining stylistic choices. Incorporating unidentified households into the analysis indicates that a temporal trend towards more similarity is evident by the 1920s, towards the end of the study period. This may indicate that ethnicity is becoming less important in household level identity reproduction in Sandy Ground. This supports the house facade findings.

More important than the similarity in direction of change in material categories, is the different chronology of the patterned change. Vernacular houses, built by men, shift to styles similar to white, successful workers a full generation before household purchase of ceramics reflects a change in identity expression. Causes for this difference are explored in Chapter 7.

The concluding chapter summarizes the findings and evaluates the implications for theory in general anthropology and historical archaeology. The utility of thick social historical description, and an approach which recognizes the importance of work-place relations in forming identity is explored. The study demonstrates that a simple a priori assumption of ethnic association of identity expression is inadequate. An approach which expects complexity, a diversity of responses to social change by the social actors, and looks to work relations for the generator of change will be more productive.

CHAPTER 2
SOCIAL GROUP IDENTITY DURING INDUSTRIAL CAPITALIST
TRANSFORMATIONS: THEORETICAL CONSIDERATIONS

INTRODUCTION

How are social group identities produced and manipulated in the context of developing industrial capitalism? This is the central problem I address in this dissertation. The study focuses on the local level of community and household for the people of Sandy Ground, Staten Island during the nineteenth and early twentieth centuries. I am concerned with identities or statuses based on social group categories - ethnicity, minority, race, class and occupation. In this chapter I will review the influential ways anthropologists and historical archaeologists have approached these categories in order to evaluate the meanings embedded in different analytic frameworks. A more processual theoretical approach will be offered which allows for the recovery of the choices in identity expression made by the people of Sandy Ground as their world was transformed by developing industrial capitalism.

The underlying changes occurring in this period were changes in relations of power, generated by the increasing domination of an industrial capitalist class. Social

power can be defined as "whatever decisions men make about the arrangements under which they live, and about the events which make up the history of their times" (Mills 1958:23). The manipulation of social identities, by both the powerful and powerless, are attempts to maintain, rationalize, accomodate or alter the relations of social power.

Consciously expressed social identities are aspects of cultural production, a production which takes place on several interacting spheres including 1) general popular culture - e.g. the media, often controlled by a specific class - 2) work place interaction - another arena where class interests are at stake - and 3) the local community and household level. Developing industrial capitalism transformed class relations, creating new arrangements of power and access to resources, new work and economic relationships and new ideological constructs. My concern is how people act and react in confrontations with large scale changes in economic and social relations. For the Sandy Ground case study, I am interested in ethnic differentiation and ethnically based segmentation of the labor force.

The complex nature of Sandy Ground's population, economic transformation and historical context require that three theoretical issues be explored. First, the question of ethnicity plays a central role in this analysis. Sandy Ground was and is made up of peoples with a variety of

ethnicities - primarily Afro-American, Dutch and Huguenot-American with long historical presence in the United States, and nineteenth century emigrants from England, Germany, Switzerland and Ireland. Second, ideologies of race and the institutionalization of racism require theoretical work on the formation of minority status, especially racial minorities. Third, definitions of class and theories of class change are especially relevant, given the economic history of Sandy Ground. The nineteenth century traditional, artesanal culture of the oyster trade was transformed into the twentieth century capital intensive, mechanized industry, while Staten Island farming was marginalized by the expanded national rail system. These transformations, and the entry of many Staten Islanders into New Jersey factory work, provide the historical context for the analysis of ethnicity and class in the formation of industrial capitalist social relations.

The research question focuses on the local level of cultural production of meaning, including the use of material culture, for it is at this level that large scale processes of intersect with the lives and activities of specific peoples.

In summary, this chapter develops the theoretical context for the study of how an economically stable, multi-ethnic and bi-racial nineteenth century community reacted to occupational displacement driven by industrial

capitalist processes, economic collapse, and the rise of institutional and popular racism. I want to know how social group identity was articulated and mobilized in Sandy Ground, and this helps us to better understand the historical dynamic of large-scale processes.

ETHNICITY

Beginning in the late 1960s ethnicity, ethnic identity or ethnic groups became the focus of anthropological discourse in the study of social groups in complex societies (Cohen 1978:38; Mullings 1978). Four basic problems have been addressed in the anthropological theory on ethnicity: 1) definitions of the category, 2) the nature of boundaries between ethnic groups, 3) the structural position in society of groups defined as ethnic formations, and 4) origins of ethnic groups. These are integrated aspects, though I will treat them separately for purposes of review.

Defining Ethnicity

Until the 1970s anthropologists had usually defined an ethnic group by its internally shared traits (Naroll 1964; Bennett 1975; Mullings 1988). In this approach "ethnic group" is a normative construct referring to a group of people assumed to share a set of values, and customs, and organizational and structural forms, including basic economic relationships (Cohen 1978). This parallels the notion of "culture" in the bounded sense used by

traditional anthropology. Vincent (1974) and Mullings (1978) have pointed out that "ethnic group" in this sense is the urban, complex society version of "tribe"; often the new term is used to describe cultural formations which were previously called "tribes" or "cultures" until they were more fully incorporated into a larger state society. Zulu, for example, is described as a culture when the ethnographic present of the nineteenth century is used, and as an ethnic identity in contemporary South Africa.

This approach focuses on the shared cultural background of a group. Often this devolves into a definition based on historical continuity - ethnic groups are assumed to have relatively long time depth. This tactic ignores the ways in which history is produced to fit current needs and the creation of "traditional traits" as part of establishing ethnicity (Williams 1977; Hobsbawm and Ranger 1983).

The notion of bounded ethnic groups may only exist in complex societies, where one cultural group dominates another (Wolf 1982; Kahn 1981; Despres 1974). The imposition of ethnic group identities often facilitated and reinforced the agendas of colonial administrations or other regulating political structures. Administrative activities are simplified by assigning ethnic identity - based on language, locality, or resource activity - to conquered peoples. The category "ethnicity" becomes a way

to define social groups for domination, carving up a complex social world (Asad 1979; Nzimiro 1979). It also facilitates the social scientist's need to identify a unit of study.

This external, or etic, definition of an ethnic group is opposed by an approach which emphasizes the social actors' own notions of identity, called the objective/subjective issue by Cohen (1978:381). Anthropologists have increasingly used an emic or subjective approach, defining ethnic identity based on self ascription (Barth 1969; De Vos 1975:17). This became more widespread as the concept of "ethnic identity" entered popular, political and cultural discourse in the late 1960s (Mullings 1988). In most urban societies, ethnic identity has become a common point of popular political organization and definition (Vincent 1974). Historically established origins are of little concern here, although the identification is usually assumed to be primordial - containing the core elements of members' identity. Individuals are considered members of an ethnic group if they define themselves as such, regardless of whether or not there are any shared traits or when their ancestors acquired the identity. Barth exemplifies this approach.

To the extent that actors use ethnic identities to categorize themselves and others for purposes of interaction, they form ethnic groups in this organizational sense (Barth 1969:13-14).

We have distinguished two aspects of ethnicity,

which Mullings considers to be fundamental (1978). First is the idea of shared cultural beliefs or behaviors. The second aspect involves the self consciousness of difference, a conscious distinctiveness which is the starting point for the maintenance of ethnic boundaries. The degree to which ethnic groups share common cultural patterns or agree on self identification is a research question, and cannot be assumed a priori. The archaeological and social historical analysis in this dissertation will establish the differences and similarities in behaviors and consciousness of Sandy Ground people.

Ethnic Boundaries

Symbols, including material culture items, are used to impose or reinforce ethnic boundaries. Such symbols define ethnic groups in order to outwardly mark their identity. Physical differences, language, dress, religion, foodways, and architecture are the most common forms that boundary maintenance takes. These forms also signal inwardly, claiming a common identity for group members. The arena in which such markers are used systematically and the intended audience must be considered in order to grasp the social and ideological significance of the ethnic identity.

In some cases, ethnic boundary maintenance may indicate the consciousness of dissimilar historical

identity and not enclose any significant practical, daily life cultural differences. Fully acculturated white middle-class Americans of different ethnicities can live essentially identical lives, but mark their distinctive ethnic identities during ethnic holidays - such as the the green and shamrocks of St. Patrick's Day.

Until the 1960s it had been assumed that ethnic groups in plural societies would loose their differences and fully assimilate; especially in the United States, the most developed industrial society (Olson 1979). This was based on a diffusionary, or developmental model in which cultural differences were expected to disappear through interaction, or as sub-groups became economically integrated into the mainstream of society and appropriated the dominant group's cultural behaviors. While this occurred to some degree for elites and the middle class in stratified societies, subordinate groups did not shed their distinctiveness. Ethnocentric or racist interpretations of this fact argue that such failure to assimilate reflects the cultural inferiority or "pathology" of the distinctive group (see Moynihan 1967 for the classic example of this analysis).

Conversely it has been argued that the retention or elaboration of ethnic differences is functional (Royce 1982; Barth 1969). Here ethnic identities are used by groups to establish distinct niches in an economic landscape. In anthropology, Frederik Barth (1969) is the

most influential proponent of this functionalist approach. He argues that the maintenance of ethnic differences through boundary marking is an adaptive strategy. It facilitates the functioning of plural societies as each ethnic group maintains its own occupational niche. Yet, Barth ignores power relationships and the coercive nature of ideology which limits peoples choices. This argument is more subtle than Moynihan's analysis, but equally as dangerous with regard to political and ideological impact, since it rationalizes the status quo as adaptive.

Barth's important contribution is that group identity can be maintained and even strengthened during ethnic interaction. He shifted the focus of analysis onto action at the boundaries, where conscious signalling can be apprehended both through ethnographic and archaeological recovery. Barth does not confront how the fixity of these boundaries can be manipulated to maintain a divided labor market in which access to higher status occupations is limited or denied to some groups. In capitalist formations, the functionality of defining economic niches by ethnicity facilitates social reproduction.

Social-Structural Contexts of Ethnicity

The social-structural position of ethnic groups has received attention as part of the study of stratification and inequality (Shibutani and Kwan 1965) and as part of a perspective of ethnic groups as competing or cooperating in

economic or ecological systems (Barth 1969; Despres 1974; Turnbull 1962). Ethnicity becomes the primary mechanism for defining access to statuses. Barth sees ethnicity as "superordinate to most other statuses, and defines the permissible constellations of statuses, or social personalities, which an individual with that identity may assume..." and therefore the "constraints on a person's behavior which springs from his ethnic identity thus tend to be absolute" (Barth 1969:17). Barth's absolutist approach to the implications of ethnicity stems from his view of ethnicity as another form of the concept "culture" or "tribe" (see Vincent 1974 for discussion). Yet the degree to which ethnicity as the "most basic identity" does limit or define the permissible constellations of statuses is a research question. It cannot be established a priori (Despres 1974).

Barth's absolutist definition of ethnicity is integral to his functionalist-ecological argument. If an ethnic group is conceived as being in competition for an economic niche, then membership must define the type of behaviors allowed to that category. If alternative economic behaviors are available, then the ecological model breaks down.

Barth recognizes that people cross ethnic boundaries. His ethnic membranes allow for the osmotic movement of personnel, but he still assumes that once on

the other side people assume appropriate ethnic behaviors.

The most significant aspect of Barth's model is his proposal that cultural differences between ethnic groups are the result of boundary maintenance. As people maintain boundaries to mark differences, actual cultural differences will develop further. In keeping with Barth's ecological terminology, this can be called a form of "cultural drift", analogous to random genetic drift. This transplanted biological model does not consider that cultural expressions and institutional forms of family structure and economic practice may be accommodations to oppression, or forced upon members of the identified ethnic group by the policy of a dominant group. And once forced upon a group, an externally defined social category of people may seize upon a structure intended to control them and turn it to their own needs and uses.

The Afro-American church is one such example. Initiated by slave-holders in their attempt to "civilize" and control their slave population, Christianity was preached to slaves as a gospel of obedience, often by the planters' themselves (Stampp 1972:156-162). Yet by the 1790s an independent and mostly free Black church was established, and became the core institution in Afro-American life. The development of a matrifocal Afro-American family structure is another case. Though a previous generation of scholars argued that it was a result of slavery (Frazier 1966; Billingsley 1968), the husband-

absent family structure has been more recently understood as a result of twentieth century economic displacement and especially federal and state welfare policies (Genovese 1974:450-458; Gutman 1976:461-469). This feature, the Black single mother, has come to identify or signal the ethnic essence of the Afro-American poor in this country, and has led, or misled, some scholars to look for family structural continuity from Africa to North America.

Barth's approach, and functionalism in general, tends to ignore the significance of power relations in the formation of ethnic identities. The ascriptive nature of ethnic and racial definitions is part of the system of domination. It facilitates the internalization of existing power relations by minorities and underscores hegemony. Ethnicities are not primordial social relationships. They are created by split-labor markets in modern industrial capitalism (Bonacich 1972; Wolf 1982).

The Creation of Ethnic Identity

The creation of ethnic groups and ethnic identity has not received as much attention as the definitional problem. Since most anthropologists approach ethnicity as "culture", and as therefore in some way primordial, they assume that the existence of an ethnic identity is a continuation of an earlier identity in a different social context. Functionalist anthropologists have found an explanation for the origins of ethnic identities in

ecological competition.

In formulating a critique of this view, Wolf points out that the functionalist explanation of social heterogeneity in plural or poly-ethnic societies is tautological. It is assumed that a poly-ethnic social mix exists because people of different ethnicities have come into a new social formation. This "explains" heterogeneity by reference to past heterogeneity (Wolf 1982). Or, as Joel Kahn presents it:

socio-cultural differentiation is not of itself sufficient reason for the resurgence of ethnic loyalties...ethnicity is an ideology that needs to be explained in terms of its social base (Kahn 1981:43).

In order to explore the nature of the "social base" for ethnicity, instead of assuming it a priori, it is necessary to identify those forces which encourage or enforce the ideology of ethnicity.

Wolf finds these forces residing in the nature of capitalism.

Capitalism creates a "disposable mass" of laborers out of diverse populations...in all such instances, the mode re-creates the basic relation between capital and labor power...(simultaneously) it re-creates the heterogeneity of the labor force produced...1) by ordering the groups and categories of laborers hierarchically 2) by producing and reproducing symbolically marked "cultural" distinctions among them (Wolf 1982).

In Sandy Ground in the late nineteenth century, the industrial capitalist invasion of the oystering industry included an attempt to segment the labor force by employing racist hiring practices and by invoking ethnic

distinctions. White oystermen were hired as captains and gatherers, while Afro-Americans were relegated to shucking work or the most menial deck work. In addition, the independent Black oysterman was considered a renegade, and accused of disregarding oyster legislation (see Chapter 3).

The opposing interests that divide the working class are further reinforced through appeals to "racial" and "ethnic" distinctions. Such appeals serve to allocate different categories of workers to rungs on the scale of labor markets, relegate the stigmatized populations to the lower levels and insulating the higher echelons from competition from (Wolf 1982:380).

Afro-American oystermen on Staten Island, mostly Sandy Grounders, were not allowed to maintain their status in the new oyster industry, and explicit appeals to racial distinctions were made in the industry's trade journal. Capitalist domination did not create the racial and ethnic distinctions found in Sandy Ground, but attempted to give them new meaning and new effective values in the labor market and in the culture in general.

Capitalism did not create all the distinctions of ethnicity and race that function to set off categories of workers from one another. It is, nevertheless, the process of labor mobilization under capitalism that imparts to these distinctions their effective values" (Wolf 1982:380).

In analyzing the history of Sandy Ground, the application of Wolf's approach requires the exploration of how Afro-Americans were able to achieve relative equality in the oyster industry and in the local community. This involves a study of the specific historical moments that Afro-Americans on the Chesapeake entered the oyster

industry and when their descendants in Sandy Ground established the community on Staten Island. What were the conditions of labor in oystering encountered by Afro-Americans through the nineteenth century; what local social relations existed between Blacks and whites in southern Staten Island; and what were the larger cultural meanings within which these people operated? These questions are explored in the social history chapter.

MINORITY, RACE AND RACISM

While the power relationships inherent in ethnicity have been often ignored, the study of minority status automatically entails differentials in power (Mack 1968). The best way of defining a minority is not demographically, but as an ascribed group with a minority of power in a political and economic context. Both Vincent and Mullings recognize that all social group identities involve power relationships.

the recognition of the political dimension of all intergroup relations can usefully lead to the operational step by which "societal structures" are replaced in our thinking by structures closer to empirical reality-in this case, national polities. The study of ethnicity, race, caste, tribe, class, and minority may then be squarely set within the framework of stratification and conflict theory. The strategy then becomes one of examining the usefulness of such "content" terms and asking processual questions of when and where one status - ethnic, racial, class, and so on - is articulated rather than another (Vincent 1974:376).

Mullings and Vincent make an analytical distinction between minority and ethnic group as a way of

distinguishing groups which have no alternative expression of status from groups which do. "Ethnicity must be consistently placed in the context of alternative status articulations: the essence of minority status is that it cannot" (Vincent 1974:377). Vincent is arguing that ethnic groups can compete for resources because of access to some degree of power, and that this is the distinguishing characteristic of an ethnic group.

Mullings, using slightly different terminology, distinguishes cultural minorities, based on ethnicity, from oppressed minorities. Cultural minorities, carrying a shared symbolic identification, become ethnic groups through the process of political, economic, and social competition and opportunity. Oppressed minorities, however, are relegated to a position of "structured restriction to (the) lowest levels of access to resources" (Mullings 1978:19). Thus the distinction, in these terms, between an ethnic group and a minority have to do with the relative position in a hierarchy of effective social and economic power. Those groups relegated to the bottom of the social hierarchy, and whose mobility is restricted by juro-political sanctions, are minorities. Those who establish some relative degree of upward movement are ethnic groups.

I find it more useful to think in processual terms rather than in relativistic dichotomization: ethnic group or cultural minority versus oppressed minority. Definable

social groups may undergo a process of minoritization in which some cultural, behavioral, or biological criteria are identified in order to mark the group as inferior or dangerous. This allows the dominant group to impose structural limitations regarding the subgroup's access to resources and alternative status identities. Ethnic differences can be used by a dominant group to clearly delineate and enforce membership in an oppressed group.

To reinforce the economic domination and political exclusion of a group, the dominant group usually identify cultural attributes of the minority group as dangerous, impure or uncivilized. The culturally expressed prejudice and racism, often supported by legal sanctions, can establish group endogamy, which leads to the biological perpetuation of group distinctions (Wagley and Harris 1958:10).

When a superordinate group ascribes identity in racial terms, based on some real or imagined biological characteristics, the implications are far reaching. The marker of identity can be literally carried on one's face, depending on the degree of physical distinguishability of the group (Cox 1948:422-436). It can be publicly recognized despite the presence or absence of any other behavioral or cultural criteria. Closely related is the question of the degree to which "passing" is possible. When a minority group is clearly biologically distinct, it can become nearly impossible to pass from one group to

another. This automatically limits the alternate identities and statuses available. This contrasts with the situation Hodder examines amongst the egalitarian Pokot, Njemps, and Tugen (1983), in the Nuer and Dinka (Evans-Pritchard 1940), and among many other non-complex societies.

The reasons for such ascription may vary in different social formations, but, as Wolf has indicated, in industrial capitalism ascribing minority status allows for a clear cut segmentation of the work force. This can be seen in the history of most American emigrant populations, and is clearly the case for Afro-Americans. The legal and cultural definition of Africans in America as a debased minority began with the rationalization for slavery during the colonial period. The correlation of "Black equals slave" was put forward to absolutely bind these people to a single occupational status (Goode 1969:25-29).

The process of moving between minority status and ethnic group has characterized the experiences of Italians, Jews, the Irish, and Africans in America. Yet through political mobilization as ethnic groups (Vincent 1974), and also through the ability of group members to "pass" from one identity to another, the European minorities of nineteenth century America have more easily moved in the direction of being ethnic groups, an identity which allows access to a wider range of personal statuses than allowed by minority status.

Afro-Americans, it will be demonstrated (see Chapter 3), have begun to move on the track of becoming ethnic groups at least three times in the last two centuries, but the re-emergence of popular and structured racism in the society has prevented, at least until recently, Afro-Americans from achieving a position of "ethnic group" in the American poly-ethnic milieu.

The process of reproducing and transforming the segmentation of the labor force, and the movement between minority and "ethnic" group, occur in the context of political and cultural domination and economic exploitation. Dominated social groups struggle to expand their access to occupational categories and gain status in a hierarchy. Ethnic groups are those that achieve a level of access which involves competition for available non-elite positions in class societies. The underlying generator of ethnic struggles are processes of class change and interaction. I am not saying that "ethnicity" is indistinct from class, but that in a capitalist society class processes are dominant. This implies changes in organization and control at the work-place, differences in access to political power, and an ideological struggle. The struggle is ultimately between a dominant class and those that are dominated - in America since the Civil War, the dominant class has been a rising industrial capitalist class attempting to dominate both an artesanal class and a proletariat of European immigrants and freed African-

Americans (Gutman 1976:14-16).

CLASS AND CLASS PROCESSES

The functionalist approach to class in anthropology has seen this as a category of social stratification, combining some constellation of wealth, status, prestige, and power (Warner, Meeker and Ells 1949; Gluckman 1955,1965; Smith 1984). This can, and has, devolved into a relativistic approach in which the description and number of classes in a social formation are often only relevant to the immediate context. A processual approach, which looks at the relationships which generate class differences, is more productive.

E.P. Thompson has stated that class is primarily a relationship, not a thing or a structure (Thompson 1966:11). The defining relationship for understanding class is the ownership and control of the means of production (Wolf 1982). In developing capitalism it is this relationship which undergoes the primary transformation. Changes in the work process provide the nexus of class transformation, as workers lose control of the means of production, lose control over work time and work behavior, and increasingly are changed into wage laborers - in which they simply sell their labor time on a "free" market (Wolf 1982:77-79; Gutman 1976; Montgomery 1979).

In thinking about class processes, two areas must

be distinguished: the objective conditions which determine the class relationship and the sphere of cultural discourse. The objective conditions are those material changes in work place control, profit movement, level of economic well-being and stability, and technological advancement which change in a linked fashion during the development of capitalism. The cultural sphere encompasses the myriad symbols and meanings which tend to legitimate or disempower portions of the population. The struggle to maintain control at the workplace has involved an ideological struggle over defining the roles and rights of labor and capital (Montgomery 1979). Ethnicity, minority and race are concepts which exist within this struggle. It is here that the significance of a materialist analysis is made clear. The material conditions of class relations, and the transformation of these relations, can be reconstructed. As Alan Dawley (1976) asks: "Who is in charge of production? Who receives the fruits of industrialization? What are the links between economic and political power?" But this leaves in question the consciousness of those involved in the transformation: "What is the interplay between cultural values and the social hierarchy?" These questions are used to organize the social history chapter to follow and focus the interpretation of the material cultural analysis.

On the one hand the dominant class may have a

cultural agenda which includes new definitions of identity, or new interpretations of established "ethnic" identities. The nature of this redefinition, and how it may impact groups on the local level, is explored in this dissertation.

Finding themselves in new class positions, those who have lost control of the means of production, utilize available cultural forms to interpret the changing relationships. Those involved in the same work process may not have a consciousness of broad class commonalities. More often the consciousness of commonality is focused on the specific occupation, as construction workers or carpenters, fisherman, or auto-workers identify through their work. It is not known if Sandy Grounders, Black or white, possessed class consciousness, though clear patterns of social reproduction can be seen. Sandy Grounders identified themselves in occupational terms, and these referents of identification - oystering, farming, service work - implicitly carried with them social relationships that arose from the occupational activity.

Class relationships in Sandy Ground affected many basic relationships in the community. Although class identity may not have been articulated consciously, occupational identities were clearly present and significant in social contexts of interaction. On the other hand, the larger society, increasingly dominated by an industrial capitalist class, emphasized race or ethnic

differences - both specifically in the oyster industry and in general with the rise of Jim Crow. Sandy Grounders acted materially and symbolically within this context.

CULTURAL PRODUCTION IN THE COMMUNITY AND HOUSEHOLD

(culture is) a kind of resource...(society) a kind of arena...(a distinction)...between sets of historically available alternatives or forms on the one hand, and the social circumstances or setting within which these forms may be employed on the other. "Culture is used; and an analysis of its use immediately brings into view the arrangements of persons in societal groups for whom cultural forms confirm, reinforce, maintain, change, or deny particular arrangements of status, power, and identity (Mintz 1970).

The local level production of cultural meaning provided the focus for the analysis of material cultural in this dissertation. The household is the site of cultural production, the essential notions of who a person is within the world is usually generated within the family in its structure as a household.

Households are convenient units of study for historical archaeologists. Similarly, given the local, neighborhood, or community scale of even the largest historical archaeological projects, some portion of communities are the largest unit of analysis which is approachable through archaeological research.

The community is the area of everyday interaction between people. While primarily defined in terms of residential areas, community may, though not necessarily, include the work contexts of individuals. In Sandy Ground

some work relations were conducted within the community. Oystering however took people out of the residential community providing points of articulation with the larger world (Leeds 1973). The boundaries of a residential community will be defined in a similar way as ethnic group, internally by the self ascription of its members, and externally by how a residential area is treated in laws and practice, by state, county, and city governments and by significant private interests (e.g. real estate).

The sphere of household identity production is more closed to the historical researcher. The study of material culture expands the scholars contact with public expressions of meaning, such as house facades, and also with cultural production within the household, through foodways, and ceramic styles. It is through the archaeological recovery of material cultural items which function in the systems of cultural meaning that we can recognize some aspects of everyday response to larger scale economic and cultural challenges.

MATERIAL CULTURE ANALYSIS AND SOCIAL IDENTITY

Stylistic aspects of material culture have been investigated for information on social and ideological dimensions by researchers in many fields (see Schlereth 1982, Upton 1983 and Ames 1983 for recent summaries). In anthropological archaeology, there has been a long tradition of recognizing prehistoric "cultures" through

stylistic distinctions in pottery, tools, or other items, through the presence or absence of sets of traits, or through statistical patterns of materials (Plog 1978). Direct access to the consciousness of the cultural producers is impossible for prehistorians. While prehistorians are able to recognize the distributions and significant uses of signs or items with probable significant meaning, prehistoric archaeology does not allow an understanding of the cultural conflicts over the use and meanings of symbolically significant items of material culture. The dialectical tensions which cultural meanings attempt to mask or mediate, and from which new meanings emerge, are unavailable in prehistory. In historical archaeology, the presence of documents, and (for recent periods) oral history allows the investigation of this dialectic (Schuyler 1977b).

The Analysis of Social Identity in Historical Archaeology

In historical archaeology studies of social group identity have primarily defined ethnic group and class as normative, static categories. Most research has been methodological, attempting to establish techniques of analysis which correctly identify class, usually termed socio-economic status, or ethnic identity (Kelly and Kelly 1980; Schuyler 1980:vii-viii). While some studies have attempted to measure and evaluate the degree of acculturation of one ethnic group towards another (Deagan

1980; Kent 1980; Staski 1987), a very few studies have analyzed the effect of class transitions and tensions (Levin 1985; Handsman 1980; Leone, Parker and Shackel 1987).

Representative of this normative approach, correlational studies have evaluated the predictive power of specific sets of items, of stylistic forms or patterns in artefact inventories for identifying socio-economic or ethnic groups. Folk pottery (Noel-Hume 1962; Ferguson 1980), ceramic costs (Miller 1980), the quality of meat and types of butchering practices (Bellantoni, Gradie and Poirier 1982; Mudar 1978; Cumbaa 1975), alcoholic beverage consumption (Staski 1984), architectural forms (Deetz 1977, Leone 1973), functional categories of ceramics (Otto 1975), mortuary practices (Combes 1974; Fremmer 1973) and overall artefact patterning (South 1977) have all been suggested as diagnostic of social identity.

This correlational approach has been most successful with ethnic cultures which are especially distinct, such as Native-American (Quimby 1966), Spanish and Mexican (McGuire 1979; Staski 1987), French (Blanchette 1979) or "Overseas" Chinese (Praetzellis, Praetzellis and Brown 1987). These researches all assume an equivalency between ethnicity and "culture", and therefore focus on cultural content. The search for African survivals or syncretic Afro-American slave cultural items has long been

in this tradition (Herskovitz 1941), though the discovery of distinct Afro-American cultural markers has been less successful, in part because of the impoverishment of the slave and most rural free Black populations investigated (Singleton 1985; Ferguson 1980; Klingelhofer 1987).

Those who pursue this approach measure success through the correlation of certain artefacts or patterns with the ethnic group. But this does not allow for the discovery or recognition of variation within a group. Also, since groups are defined a priori, patterning across groups cannot be recognized. Deetz' and Baker's work demonstrate these limitations.

Deetz applied a structuralist approach in his work at the Parting Ways site (1977). He attempted to find an Afro-American "mind set" in the room dimensions of residential structures. This was contrasted to a Georgian mindset, found among white Anglo-Saxons of North America and now generally expressed in the Euro-American world. The "Afro-American" and "Georgian" mind-sets were erroneously considered to be unchanging structures characteristic of all members of the respective groups and organizing all aspects of their material culture.

Vernon Baker pursued the Afro-American "mindset" in ratios of bowls to plates in an assemblage from an early nineteenth century Afro-American women (Baker 1978). He assumed that a higher percentage of bowls indicated the use of stews, related to a history of poverty and thus part of

the Afro-American world.

This normative approach has been applied in a less static manner in the study of acculturation. Acculturation has been measured by the replacement of traditional material culture by material items from a dominant group. The best studies isolate cultural subsystems, such as foodways, as exceptionally sensitive to traditional practices (Blanchette 1979; Staski 1987).

These correlational studies are either static, or fail to search for non-ethnic associated patterns. Variation within the a priori defined groups is usually ignored. At worst they assume total homogeneity within the groups studied, at best there is a recognition that cultural sub-systems may behave somewhat differently. In general they attempt to prove hypotheses, rather than evaluate them.

Some scholars have recognized the distinction between ethnic cultural content and symbolically significant items used for boundary maintenance or internal group signalling (De Cunzio 1983; McGuire 1979, 1982; Zierdan 1981). This has allowed a more sophisticated acculturational approach. But acculturational studies have not been combined with a recognition that class processes are simultaneously in effect.

Exuberant attempts to find ethnic identity in every assemblage have been tempered by the recognition that

economic position, as industrial proletarians, field slaves, rural tenants, or marginal poor, is an overriding factor in the material life of many ethnic groups in nineteenth and early twentieth century Americans (Baughner-Perlin 1982b; Otto 1977, 1980; Baker 1980). A recent review of ethnic and socio-economic correlation studies has concluded that "despite racial, legal and symbolic differences, (Afro-Americans and poor whites) often experienced a basically similar material existence" (Otto 1984:121). But much of this realization has been tentative, as in Kathleen Deagan's recognition that the move from criollo to mestizo identity in early colonial Spanish St. Augustine "could also be accounted for by the low income level of the mestizo household" (Deagan 1983:244). A more powerful and processual perspective recognizes ethnic identity and behavior operates within the class relations that exist at a specific moment in a complex society.

The analysis of class in historical archaeology also overwhelmingly focused on establishing the material cultural correlates of socio-economic status (Otto 1977). Scales of economic worth of archaeologically recovered material have been developed to mechanically diagnose socio-economic status (Spencer-Wood and Heberling 1984).

The relation of class to control or domination has been developed by Mark Leone and his associates (1987). Leone has pursued the general transformation of world view

under industrial capitalism, enriching the work done on the Georgian mind set by Deetz, but guided by somewhat different assumptions - Leone presents this world view as the means of class control through ideological production. Leone's application of his insight has been relatively static, in part because he has not looked at the methods of resistance employed by the oppressed groups.

Only a few historical archaeologists have used class as a dynamic relationship which informs their analysis. Diana Wall and Arnold Pickman (1985) have explored the separation of home and work place and the creation of new spheres of female activity in middle-class families with the development of mercantile capital, and Jed Levin (1985) has attempted to measure the success of imposed work discipline at work sites through the decreased presence of alcoholic beverage bottles.

Historical archaeologists have not posited their research on ethnic groups and class in explicit theoretical positions. With a few significant exceptions (Wall and Pickman 1985; Levin 1985), those who have made their approach explicit utilize rather simple functionalist or static structuralist approaches. Notions of exploitation or power have not been incorporated into the research. It would be useful if Schuyler's clear statement of the central significance of domination be more seriously considered by historical archaeologists: "Ethnicity has

little meaning until complex structures arose based on political domination" (Schuyler 1980a:vii).

Material Culture and the Symbolic
Expression of Identity

Martin Wobst has provided a starting point for a discussion on the role of style and material culture as symbolic expression (Wobst 1977). As a strategy for information exchange, material cultural style can be used to transmit information about identity affiliation and differentiation (Wobst 1977:317; Weissner 1983:256). Expressions of identity can be a part of individuals' and groups' strategies for maintaining social power and access to resources, as "artifacts are actively manipulated in social strategies" (Hodder 1982:85).

The aspects of material culture I am using in this research which carry social meaning are house facades and ceramic tablewares. The visibility of the item, both in frequency and distance, as well as the nature of the social network which has access to the item in part determines the nature of social information most appropriately expressed (Wobst 1982:329).

The popular architecture of house facades of late nineteenth and early twentieth century Sandy Ground and surrounding communities carried explicit information on identity (Wobst 1977:327). House facades would be expected to be prime candidates for carrying "emblemic" information on group boundaries or group inclusiveness (Weissner

1983:257). Emblematic style has a distinct referent and transmits a clear message to a defined population about conscious affiliation or identity.

Most frequently its referent will be a social group and the norms, values, goals or property associated with this group and thus it will be used to express objective social attributes of identity...Because it carries a distinct message, emblematic style should undergo strong selection for uniformity and clarity (Weissner 1983:257).

Sandy Grounders, who built their own homes or had them built by other members of the community, could choose architectural styles from either traditional Chesopean forms or from several styles current in the mid to late nineteenth century used on Staten Island (Clifford 1976:33-56; McDaniel 1979; Szekely and Gabay 1980; Askins 1980b:Section 4). Sandy Grounders may also have chosen to signal individual differentiation from similar others by choosing a style which could be classified as "assertive", one which would be different from other house styles (Weissner 1983:258; Askins 1982a:10-11). The choice to use traditional southern architectural forms, whether or not based in "Africanisms", could be taken as an expression of ethnic boundary marking in this northern community. Alternatively, choosing to build houses in a style similar to other Staten Islanders of parallel economic and occupational status, though of a different ethnic identity is also significant. Using architectural style in the same cultural vernacular can be understood as an expression of

social equality.

Household items, such as ceramic tablewares, especially those used for special events, explicitly carry symbols of a stylistic nature, though intended for a much smaller audience than house facades. Wobst would expect items less often seen, and viewed primarily by individuals who already know the social affiliations of the signallers, to be less likely to carry social information. But the ritual reinforcement of group cohesion is a significant function, which usually includes objects. Special events centered around dining, or taking place in the parlor or the sitting room of a Victorian home were always accompanied by appropriate items (Ames 1978). The style of these items reflects shared notions of status or may have some direct ethnic association. Laumann and House have tentatively isolated "traditional" and "modern" styles in midtwentieth century homes and associated them with several social aspects including ethnicity and degree of status mobility (Laumann and House 1970). General choices in styles of household items were available to Victorian consumers, and certainly could have functioned in similar ways (Cohen 1980).

With these expectations concerning the potential use of material cultural items as identity markers, markers which extend meaning both inwards and outwards, research questions concerning the identities used by Sandy Grounders can be developed and evaluated. The choice of

styles is part of a production and reproduction of meanings which are the cultural wrappings for behavior and choices in Sandy Ground during the major economic transitions of the nineteenth and twentieth centuries.

DISCUSSION AND CONCLUSIONS

This chapter has provided the theoretical basis for an analysis of social group identity expression in Sandy Ground. Ethnicity has been discussed as an analytic unit defined through cultural content or emically by social actors, as a boundary for social interaction, as a definition mobilized in political and economic domination and competition, and as as a description of a structural position in social formations. I have compared notions of minority, including race and the use of racism, with ethnicity. A functionalist approach has been rejected and a more processual one developed. The concepts ethnicity and minority act as markers for extremes on a continuum which measures restriction or access to hierarchically ordered categories of labor and the cultural production of ideologies of inferiority or relative equality.

The historical context of the case study - developing industrial capitalism in nineteenth and twentieth century America - required a consideration of class and the process of class transformation. Sandy Grounders, both Black and white, experienced a major shift in their productive relations, which involved new

class alignments in the community. The functionalist approach to social class entails the assumption that social action is coherent, and systematically maintains the social whole. Even where conflict took place it "could be seen as producing ultimate cohesion" (Forster 1975). Social actors are assumed to behave with a rational and maximizing perspective. Meaning systems, such as religion, become a systemic component in maintaining social equilibrium (Rapaport 1968). Social change is perceived as deleterious or threatening to the system, although it can be cathartic/cleansing under certain circumstances (Gluckman 1965). Such changes are attributed to some external stimuli, or is seen as a teleological unfolding of internal systems. No room is found in a functionalist approach for lack of fit or incomplete or contradictory elements in a system. No internal dynamism is recognized.

The more processual approach, as exemplified in the work of Eric Wolf, E.P. Thompson and David Montgomery has been shown to have an analytical advantage. Social formations are seen to have internal contradictions, yet they reproduce in spite of these contradictions.

Culture, as the production of meaning (Geertz 1966), exemplifies and mediates the contradictions found in social formations. People mobilize cultural and symbolic identities on the household and community level in order to interpret the contradictions and oppressions they

experience, to achieve access to economic resources and to maintain a sense of self and group identity. The symbolic action takes place in a range of public and private arenas, and embeds people in sets of symbols which, while not total or complete, allow them to function within contradictions. Cultural production and mobilization in late nineteenth century Sandy Ground called upon local traditional symbols such as vernacular architecture, dress, dialect, and foodways, and a commonly perceived history as freedmen. In addition, the actions of advertisers and other style producers in service to the new mass production and consumer economy created new elements in mass popular culture. This mass popular culture can be referred to as Victorian, in its emphasis on material accumulation and "proper" behaviors (Howe 1976). The dissertation explores to what degree Sandy Grounders employed local traditional or mass popular-Victorian cultural identity expression.

The analysis of material culture is essential to the discovery of the history of local level production of meaning. This cultural production includes aspects of material culture which are used to signal differences or similarities. The study of house facades, domestic foodways, and household ceramic styles expands our knowledge of Sandy Grounders' public expressions of meaning. It is through the archaeological recovery of material cultural items which function as part of the systems of cultural meaning that we can recognize some

aspects of local response to larger scale economic and cultural challenges.

The creation of cultural meanings by people is neither haphazard nor complete. People incorporate identities based on categories which may be forced upon them or which they have themselves generated. These identities can be ambiguous or inappropriate in many contexts and they always include manifest and potential contradictions. The identity "systems" produced are neither simple nor internally consistent. They reflect the ambivalencies and hard choices people make. Sandy Grounders' of the late nineteenth and twentieth century maintained and changed a system of identities which met a number of agendas, and which was in conflict with the increasingly oppressive economic and ideological systems of developing capitalism.

CHAPTER 3

SANDY GROUND SOCIAL HISTORY

INTRODUCTION

This chapter places Sandy Ground in its social, economic, and geographical context. The complex experiences and transformations encountered by and which took place in the community are laid out in the following sections. The concluding portion of the chapter synthesizes this history through a periodization which integrates this rich social history, and which structures the analysis in the final chapter.

Afro-American Sandy Grounders shared the national experience of being Black in the nineteenth and early twentieth centuries. Like several hundred thousand others, they were free Blacks in the Ante-Bellum period, and like all Afro-Americans they knew rising expectations during Reconstruction. They encountered the rise of Jim Crow, which moved Afro-Americans back towards being a clearly subordinate group in America.

Sandy Grounders, Black and white had the daily experience of their work worlds. Black oystermen participated in the development of their occupation as a self regulating artisanal trade, which was later transformed by expanding markets, technological change and

the domination by "oyster capitalists" based in New York.

The interdependent social and economic relations within Sandy Ground tied together oystermen and farmers, laborers and entrepreneurs, small shop owners, customers and provisioners. A network of households, Black and white, were connected through the exchange of garden products and services such as folk remedies and midwifing. Community celebrations, rituals and sporting events were public expressions of the relative equality in the community.

All of these complex relations underwent changes and stresses in the early decades of the twentieth century. Much of the economic underpinnings of Sandy Ground collapsed and most men entered factory work or day labor. Rising racism at the workplace and in the society in general confronted all Sandy Grounders. It is in the context of these transformations that Afro-American and white Sandy Grounders chose social identities to deal with their complex and changing world.

The following sections of this chapter present this history. First I analyze the Afro-American national experience using the notion of minoritization developed in Chapter 2. Then I place Sandy Ground in space and time, by describing its geographical location, the moment the community was established, and analyzing the social meaning of its changing settlement pattern. The economic relations within the community, and the relative economic status of

Afro-American and white Sandy Grounders is discussed in the next section. I then describe the growth of the oyster industry, its operation, technology, and late nineteenth century transformation. The social relations within the industry, and their expression in Sandy Ground are also presented. The full set of local, workplace and national relations and changes are summarized in the final section, and synthesized into a historical periodization in the final section.

AFRO-AMERICANS: THE NATIONAL EXPERIENCE IN THE NINETEENTH CENTURY

It is impossible to conceive of the innumerable events and interracial experiments and contacts of the 1860s taking place in the 1900s. To attempt that would be to do violence to the nuances of history (Woodward 1974:29).

From the beginning of the nineteenth century, through the period when Sandy Ground was founded, to the end of the study period in approximately the 1920s, Afro-Americans participated in great transformations in their statuses and experiences.

Through the eighteenth century the vast majority of Black Americans were enslaved in a variety of contexts. The ideological fervor accompanying the American Revolution lead to several decades of expansion of Afro-American rights and experiences in both North and South (Litwack 1961:3-15; Woodward 1971; Woodward 1974; Meier and Rudwick 1966:69). Most significant of these changes was the

liberalization of manumission laws and the great expansion of acts of emancipation, both by individuals, and in the north, by acts of legislation (Berlin 1974:29-30).

Before the Revolution, Black freemen were almost unknown, except for those defined as "mulattos". The only state with a pre-Revolutionary census of Black freemen, Maryland, counted 1817 in 1755, 80% of them "mulattos" (Berlin 1974:3). A gross guess, extrapolating from the tables in Berlin (1974:46) would put the pre-Revolutionary free Black population of the whole country at no more than 10,000 and more likely less than 6,000, most found in the upper south and north. By 1790 there were ten times as many freemen, a number which tripled again by 1810 (Berlin 1974:46). In Maryland, where most Sandy Grounders had their origin, the free population reached 150,000 before the Civil War. Among this large population were some who achieved a degree of economic success and independent existence not often found outside of the "middle ground" of Maryland (Fields 1985).

Sandy Grounders also came from New York and New Jersey. Early in the nineteenth century New York was one of the most progressive states in supporting Afro-American rights. Albany was motivated by the most "radical extension of the Revolutionary ideology to Negro rights" (Litwack 1961:7). By 1785 there was an attempt in the legislature to pass a gradual abolition bill, but it was blocked by more radical members of the legislation who

refused to accept a bill that did not also extend the franchise to Blacks (Litwack 1961:8). Gradual abolition in New York finally passed in 1799, leaving all Blacks free by 1827. Throughout this period, New Jersey seemed the most reluctant of Northern States to allow civil rights to its Black population. Over 12,000 slaves were found in the state in 1800. By 1830 two-thirds of the 3,568 Blacks in bondage in the North, were found in New Jersey (Litwack 1961:14). In 1860 there were still 12 slaves enumerated, New Jersey having passed the least progressive of gradual manumission laws. Despite this the free Black population of New Jersey increased rapidly in the decades after the Revolution, in part the result of independent acts of manumission and economic support by Quakers, especially in the southern portion of the state (Calligaro 1967:167-180).

In general Afro-Americans had undergone a marked transformation in their status in the generation after the Revolution. In the north general abolition was guaranteed by 1830, and many civil rights had been granted. Similarly in the upper south, some civil and economic freedoms were ensured. A new Black free caste had come into existence which was able to support not only a wide variety of modest economic and social successes, but also the first tangible centers of Black intellectual life, especially in New York and Philadelphia (DuBois 1899).

This was also a period which saw the expansion of

Afro-American participation in all trades which can be called navigation. Afro-Americans had long been involved in a variety of maritime, coastal and riverine occupations. In the fisheries industries, Afro-Americans, both slave and free, found a degree of relative equality and freedom usually unknown in terrestrial occupations. Blacks made up a large percentage of the crews, and even some mates and captains, among the whaling fleets of New England. The trades of navigation and fishing, including oystering, offered Afro-Americans a greater degree of independence than was found elsewhere throughout their pre-twentieth century experience (Cohn and Platzer 1978).

During these same decades a backlash against the Revolutionary ideology began to be significant. Often, soon after states provided for the abolition of its Black residents, laws limiting the civil rights of free Blacks were proposed and enacted. As the century passed, Afro-Americans found themselves in the midst of a major ideological war between those who saw slavery and the oppressed position of free Blacks as natural, and those who opposed these views. Importantly, Afro-Americans themselves participated more vigorously than ever before in this debate. In the south, the dominant slavocracy was able to increasingly restrict the rights of free Blacks, as they endangered the argument of the inability of Afro-Americans to adjust successfully to freedom.

In Maryland restrictive legislation against free

Afro-Americans began as early as 1796, but intensified in the 1830s. An 1831 law limited the ability of any Afro-American to leave the state for a period of more than thirty days. Though exceptions were initially included to allow sailors, and presumably oystermen, to leave for longer periods, these limitations were removed by the 1840s. Maryland free Blacks could then not leave and expect to be able to return. Transfer of capital out of the state was also limited (Brackett 1889:175-183; Wright, 1921:15).

Some of these laws were specifically aimed at free Blacks in the growing oyster industry. In 1836 it was legislated that any vessel of sufficient size to be registered had to be worked by a white pilot over 18, under threat of seizure and sale. This law was later rescinded in some counties, including Worcester, where Snow Hill, the parent community for many Sandy Grounders, was located (Brackett 1889:206). As Black oystermen gained more success, some whites in the industry complained that "free Black participation had become an injury to the oyster industry" (Brackett 1889:207). Accordingly, in 1856 a law concerning boating on the Potomac in Worcester and Somerset Counties was passed which required that Afro-Americans obtain a magistrate's license issued upon proof of good character by the word of two or more respectable, i.e. white, landholders (Wright 1921:98). It is during the

1850s, and especially after 1856, that Sandy Ground received more than a dozen families from Worcester County.

Similarly in the North, Afro-Americans saw their recently granted rights and liberties eroded. Whereas all northern free Black men who met the standard freehold qualifications could vote in 1800, the five states most populous in Blacks disenfranchised them by the 1840s. Despite the activities of abolitionists and the newly emerging Black intelligencia, Northern free Afro-Americans saw increasing limitations imposed on their rights to property, access to public facilities, appearance as witnesses, and numerous other areas of life. The fugitive slave act of 1850 threw the burden of proof of the status of "free" onto every Afro-American, allowing slave catchers to abduct an individual without immediate proof. One elder Sandy Grounder still recalled in the 1950s his parents admonition to run from any strange white man who tried to speak with him in Manhattan when he was a child in the 1850s (BMOSI 1,22:Harris). The movement towards increasing oppression culminated in the Dred Scott decision of 1857, which denied the rights of citizenship to Black Americans (Litwack 1961:49). The activities of abolitionists and Black activists were in general unsuccessful in stemming this increasing oppression. Thus from the Revolution to the Civil War, Afro-Americans experienced an expansion and then restrictions on their civil liberties.

The Civil War was a turning point in Afro-American experience. Freedom, besides being granted for southern slaves by the Proclamation, was more often self-proclaimed as Black Americans left their masters to reach the Union lines. Over two-hundred thousand Afro-Americans fought in the War, a significant contribution to the northern success. Several men from Sandy Ground fought in the Northern forces and at least one died (FCWT 1880).

With the success of the Radical Republicans in establishing Reconstruction governments in the south, Black Americans there were able to seize legal powers which had long been denied them. Reconstruction saw the first Black federal, state and local elected officials, including congressmen, mayors and a governor. Afro-Americans controlled most southern legislatures and wrote new constitutions in several Black states. Blacks in the south became policemen, sheriffs, and had access to the courts as plaintiffs, witnesses and jurors and were able to greatly expand their access to education. Most experienced the new and significant right of the franchise, even in the face of white vigilantism (DuBois 1935; Bethel 1981).

In describing primarily the south, but surely also the north, C. Van Woodward has called the period from the end of the Civil War to the 1890s a "...time of experiment, testing, and uncertainty-quite different from the time of repression and rigid uniformity that was to come toward the

end of the century. Alternatives were still open and real choices had to be made" (Woodward 1974:33). "Race relations" included a great variety of new contexts of interaction, new power distributions, new community forms, new economic relationships as well as some old relationships in very new settings. The majority of Black Americans lived in the intense rural poverty of share and tenant farming of the south. But there were many other forms of experience, with urban-rural, occupational and regional differences throughout the country (Woodward 1974; Meier and Rudwick 1966)

In the north those few decades after the Civil War allowed Afro-Americans to begin to move towards fuller participation in American society. Besides the well known urban areas of Black intellectual leadership, Philadelphia and New York (DuBois 1899; Johnson 1930), social historians and others have seen that in a variety of community contexts Afro-Americans achieved relatively greater access to alternative personal statuses, including access to political influence and economic stability, even if only on a local level. This can be seen in the "Almost Equal" status of Blacks in 1870s Cleveland (Kusmer 1978:3-31), in the florescence of small northern rural hamlets such as Skunk Hollow (Geismar 1982:7-61), and in the economic and social effectiveness achieved by Afro-Americans in multi-ethnic and multi-racial Sandy Ground (Askins 1980a, Wilkins

1943a, 1943b).

Similarly, the new territories of the West saw Afro-Americans participating in the "Western" experience as cowboys, lawmen, and settlers (Durham 1955). Blacks entered new trades, and began their first major involvements with trade union activity, though many unions were segregated and saw the Black worker as a potential scab (Foner 1974).

The continued fight of white and Black radicals finally led to the Federal Civil Rights Act of 1875, insuring citizenship to Afro-Americans (Woodward 1974:28). Though almost immediately thwarted by the Supreme Court, the Act of 1875 marked a highwater mark in Afro-American freedoms in the nineteenth century.

In 1876, with the compromise election of Rutherford B. Hayes, Reconstruction ended and white supremacists began to reverse the accomplishments made by Afro-Americans.

The period from the 1880s through the immediate post World War One years saw the rapid decline in the social statuses legally or popularly allowed to Afro-Americans. Jim Crow in the South, and its equivalents in the North, the landmark Plessy vs Ferguson case, and the general development of structural forms of racism marked strongly the re-establishment of major oppressive structures aimed at Black Americans (DuBois 1935; Higham 1974; Woodward 1971:74).

The increasing scientific and popular racism of the end of the nineteenth century was part of a broad resurgence of Nativism associated with an expansion of Imperialist ideology in the United States (Woodward 1974:74). As the country received a succession of new emigrant groups, each was categorized as dangerous, often with race implied from national origin, and each underwent the process of "minoritization". Italians, speaking a diversity of regional dialects and with a diversity of customs, were lumped together and considered a race and, in some instances, underwent as much legal and popular discrimination as Afro-Americans, including educational segregation and lynching (Higham 1974). Afro-Americans, received the brunt of the new ideologies and structures of oppression between the 1890s to 1910s, with,

legal, popular literary, journalistic, scholarly, and religious attacks...as well as physical (which had always existed)...liberal reformers despaired over the intractability of the Negro, and Booker T. Washington tried to teach Negroes subservience (Woodward 1974:85).

In the first decades of the twentieth century anti-Black lynchings, legislation, films, and the cold reception of returning Black veterans from World War One confirmed the status of Afro-Americans as second class citizens (DuBois 1935; Woodward 1971, 1974).

Thus Afro-Americans experienced a second cycle of expansion and contraction of rights and opportunities. The broadened opportunities and new experiences of Reconstruction had been replaced by increasing oppression,

in a process of oppression and minoritization which Afro-Americans had suffered in the past. Of course, the trends in expanding and contracting experiences and statuses of Afro-Americans were in no way so linear. Violence, insult, and a variety of racist expressions in law and popular behavior existed throughout the nineteenth and twentieth centuries. But Reconstruction did allow real new opportunities and promises for Black Americans. And in some locales Afro-American economic integration and success and local sentiment combined to create especially convivial "race relations".

Sandy Grounders lived within these large scale processes. They left New Jersey, Maryland and other Chesapeake states, and emigrated to a rural, Republican part of Staten Island, and became involved in oystering, a "navigation" trade where Afro-Americans had found a long history of relative equality. Sandy Ground flourished during the period 1860 to the end of the century. In the twentieth century, Black Sandy grounders were faced with a resurgence in potential oppressive structures and ideologies. Their response is the primary research question of this work.

SANDY GROUND IN TIME AND SPACE

Location of The Sandy Ground Community

Sandy Ground is located in southern Staten Island, in the township of Westfield, one of the four townships of

Staten Island established in the eighteenth century (Northfield, Southfield, Eastfield, and Westfield. Castleton was added in 1893). After incorporation with New York City, the townships became county wards, Westfield becoming the Fifth Ward. The community of Sandy Ground has always been centered at the meeting of Woodrow and Bloomingdale Roads (Figure 3.1). As a designation, the term Sandy Ground appears on some historic maps for several areas in this portion of the island, and refers to the sandy soils which form the basis for the local patches of pine barrens biota. In the 1900 Federal Census, annotations along the margin next to the entries for Westfield identify the streets and neighborhoods. "Sandy Ground" appears next to most of the Black and white families living in the area presently identified by this name (FCWT 1900:9a,9b,10b). Some oral histories indicate that Afro-Americans did not appreciate the name in the past, but it has been accepted with pride by the contemporary community, and will therefore be used in this project (BMOSI 1/2,3:Flossie Henry Interview).

Sandy Ground has never had an independent municipal identity, rather it has, at various times been included in the postal zones for Rossville or Pleasant Plains, the communities respectively to the north and south. Contiguousness of settlement indicates that Sandy Ground is best considered the western portion of the community of

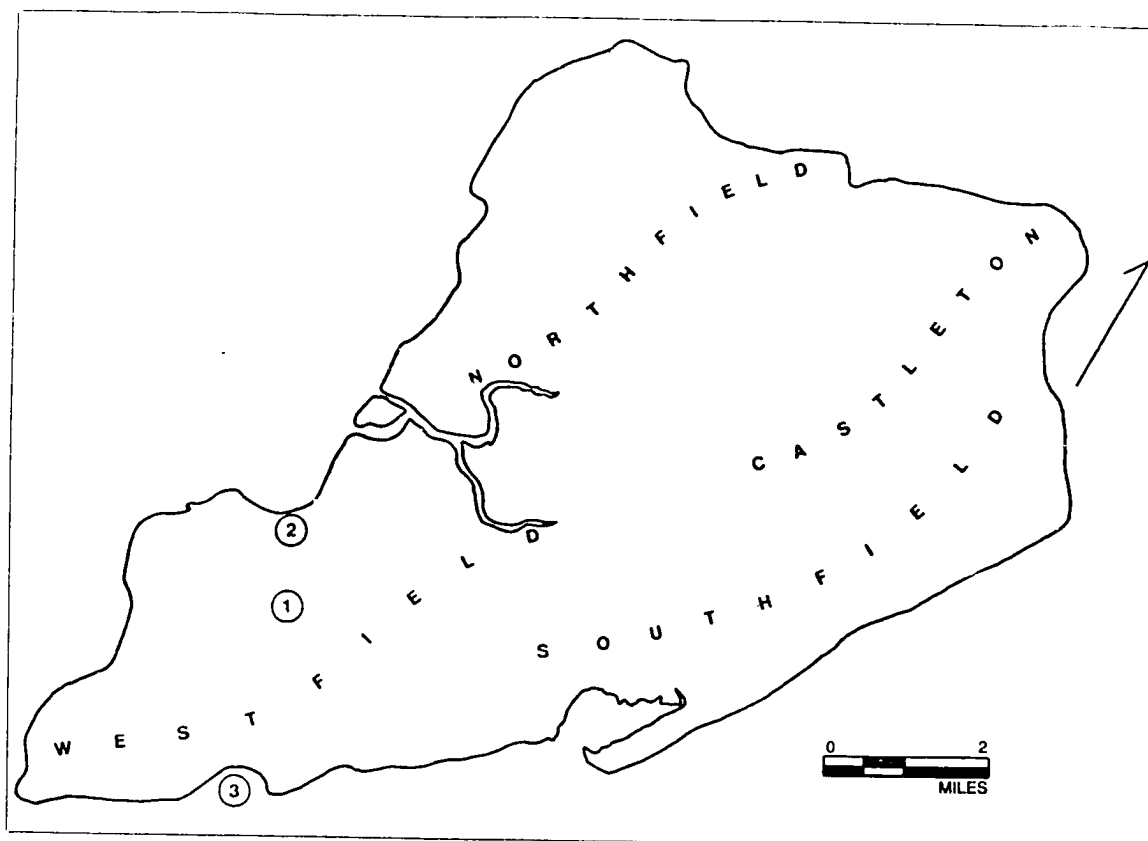


Figure 3.1: Location of Sandy Ground
 Key: 1) Sandy Ground 2) Rossville, 3) Princes Bay

From: Robert L. Schuyler "The Spoken Word, The Written Word, Observed Behavior and Preserved Behavior: The Contexts Available to the Archaeologist." In Historical Archaeology: A Guide to Substantive and Theoretical Contributions, edited by R. L. Schuyler, pp. 272. Baywood Publishing Company, Farmingdale, New York. 1978.

Woodrow, which stretches along Woodrow Road. Therefore, for purposes of this project, the designation Sandy Ground will be used to indicate that western portion of the settlement of Woodrow which included Afro-American families.

The Establishment of the Community

The first land grants in the area of Sandy Ground were acquired by Dutch and Huguenot families in the second half of the seventeenth century (Leng and Davis 1930:58), though the first indications of settlement do not appear until the 1781 Clinton Map, drawn by British engineers during the occupation of New York (Clinton 1781). Architecturally, several buildings along Woodrow near Bloomingdale appear to be late Colonial (Askins 1980), and agree with the conclusion that settlement began to develop in west Woodrow by the second half of the eighteenth century. These first families in the area were primarily of Dutch and Huguenot stock, with some English and, later, Swiss and other north and west Europeans. When the first Black families came to Sandy Ground, the white families which appear in the census and on historic maps included the Guyons, Wogloms, Winants, Sharrotts, Du Bois, and Kerns, all of whom sold land to these first Black Sandy Grounders (FCWT 1840, 1850; NYSCWT 1845, 1855). Within a decade these White families were joined by the Cuttings, Worts, and Bogarduses. This last family, lead by Charles

Bogardus senior, established a commercial complex at the corner of Woodrow and Bloomingdale Roads which included, at various times, a general store, an ice house, and ice cream parlor, and a mortuary. The friendly presence of the "Charlie" Bogarduses, senior and junior, gave the name Bogardus' corners to this intersection for most of the history of multiracial Sandy Ground.

The Afro-Americans who came to Sandy Ground had their roots in Staten Island, New Jersey, Manhattan, and especially the Chesapeake region, most importantly the community of Snow Hill in Worcester County, Maryland.

On Staten Island, in the region of Sandy Ground, several Black families were resident for over a decade before the migration of families from the south and the metropolitan region. The first known free Afro-American in the Sandy Ground region apparently was John Jackson, who owned the sloop "Lewis Columbia", and operated it as the Blazing Star Ferry, transporting people and goods from Clifton, New Jersey, to Rossville on the Arthur Kill side of Staten Island and then into Manhattan. Jackson, who may have had a slave background (Wilkins 1943a:2,3), bought land in Westfield in 1828 (RCCDB Liber 12:370-372; Wilkins n.d.a:5,6), a half mile north of Bogardus' Corners. South of this crossroads lived Thomas Holmes, a free Black who was resident there from at least 1830 (FCWT 1830). Little is known of Holmes and he may not have participated to any degree in Sandy Ground. A Thomas Henry, who may have been

of the Henry family that became important in Sandy Ground, also lived somewhere in Westfield by 1830 (Wilkins n.d.b:35).

The institutional beginning of the community of Sandy Ground can be considered the establishment of the Zion African Methodist Episcopal Church in 1850 (Hubbell 1898:149; RCCDB Liber 25:513). The full list of trustees includes Cezar Jackson and John Jackson Henry, son and son-in-law of John Jackson, Hiram Jones, a New York born "mariner", Francis Williams, of New Jersey, and William Henry Stephens, Delaware born with a wife and children all born in Maryland (FCWT 1850). William Pitts of Virginia via New York, was pastor of this first assembly, said to have been held in a home. Moses Harris, born in New Jersey but most recently living in New York, was also in the community but a member of a different church (RCCDB Liber 21:235; Vosburgh 1922:231). These families can be considered the nucleus of Sandy Ground. The initial migration to New York from the Chesapeake occurred in the next five years, with at least ten Maryland and Virginia families establishing themselves in Sandy Ground along with at least four additional New York and New Jersey families (Askins 1980a; NYSCWT 1855). The most important of these Chesapeake migrants were Dawson and Robert Landin, who arrive about 1857 (RCCDB Liber 50:199). The Landins became oyster entrepreneurs, sloop owners, and two of the pillars

of the community. By 1860 the census reveals 114 individuals in twenty-two Afro-Americans households living among about 150 whites in twenty-six families (FCWT 1860).

Serial migration into Sandy Ground continued throughout the century, with a few families or individuals arriving every few years. After the Civil War the Black population of Sandy Ground expanded to about 149 in 1880 and to 196 in 1910, numbers which do not include the increasing white population which reached nearly 300 by the latter date (FCWT 1880, 1910).

Settlement Pattern - The Spatial Reflection of Social Integration

The settlement pattern in Sandy Ground reflects the initial peripheral existence of the Black community and its increasing economic success and inclusion into the general community.

The main streets of Sandy Ground are the north-south running Bloomingdale Road, known as Pleasant Plains Avenue for most of the nineteenth century, and Woodrow Road, which begins at Bloomingdale Road and heads eastward. Both these Roads can be seen on the earliest eighteenth century maps of southern Staten Island (Figure 3.2). Bloomingdale connects Rossville on the north shore with Pleasant Plains and Prince's Bay on the south shore. About 1200 feet south of Woodrow, Sharrott's Road merges with Bloomingdale and heads west to Kreisherville, a German owned brick factory town near the shore (Figure 3.3).

Claypit Road is a later addition, appearing as a dirt road on the 1859 Walling map of Staten Island (Figure 3.4). Though nearly a dozen Black families are known to have been resident by this date, only eight appear on this map. Despite this, the Walling map does show the initial pattern of settlement in Sandy Ground. The primary center of Black occupation is west of Bloomingdale Road just north of Woodrow, in part on small dirt roads which lead back into the woods where the homes of Moses Harris, Minil Purnell and Jephtha Barcroft were located. The first church meetings were held in the home of John Stevens or William Pitts, who live on Bloomingdale. By 1859 the first permanent church structure had been built where Barcroft, the second pastor, was living, possibly in the church pastorage. As the century proceeded, more small dirt roads were extended west from Bloomingdale Road (Figures 3.4 and 3.5). This whole area came to be known as Harrisville, after the Harris brothers who became important in Sandy Ground as berry growers (Leng and Davis 1930:76). The more northerly of the paths was called Strawberry Avenue and is now known as Harris Lane (BMOSI 1/2,9:Pedro Interview). Within a generation white as well as Black households were living next to each other in Harrisville, but it was always somewhat more Black, and eventually housed poorer families in mostly small, frame houses (Figure 3.5). Some Black families also lived on Woodrow Road, including Joseph

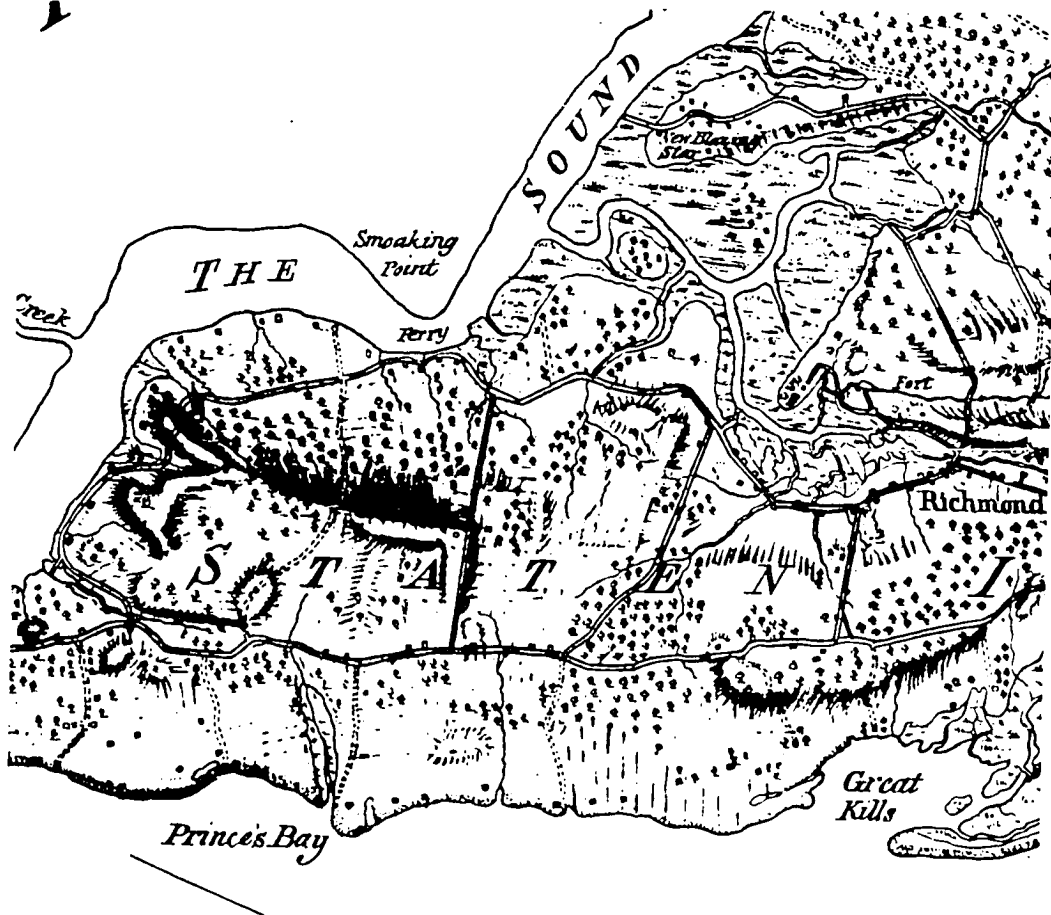


Figure 3.2: Bloomingdale and Woodrow Roads on an eighteenth century map (Anonymous 1797)

Bishop, whose Grandson, also Joseph, occupied the same house lot that appears on the 1859 map until his death in 1986 at 85. Mid-century maps show the relatively nucleated nature of the settlement, appearing as the western portion of Woodrow. Through the history of Sandy Ground, there is no evidence that any Black family ever lived east of Sandy Creek, (Figure 3.4).

Until the 1870s few Afro-American families lived outside of Harrisville. This little enclave of back streets was centered on the Methodist Episcopal Church and school, and the community cemetery (Figures 3.5 and 3.6). The Bishops still lived down Woodrow, and the Landins, joined by one or two other families, were living on Sharrotts Road. But the Afro-American community was clearly not highly visible on the main north-south thoroughfare of Bloomingdale Road.

In the 1880s the center of Black Sandy Ground life shifted, with the erection of a new Church on a high spot on Bloomingdale Road just a few hundred feet south of Bogardus' corners. This was soon followed by the buying of land and building of houses by Black Sandy Grounders across from the church and further down Bloomingdale. Most of these houses were built by oystermen, including the successful sloop owner Francis Henry. Further south on Bloomingdale, Isaac Harris and two other Black families bought land and built houses. Thus, by 1900, the center of Black Sandy Ground settlement had shifted from side

roads and back streets, to the main street of Bloomingdale Road.

Figure 3.7 summarizes the distribution of Afro-American settlement in Sandy Ground from 1860 to 1910. Besides the physical expansion of Harrisville, the most important change is the construction of several homes and the Church on the main street of Bloomingdale road. While most of the Harrisville homes are set back on small dirt roads, the Bloomingdale Road homes are on a main north-south thoroughfare close to the center of the community at Bogardus corners. This shift in settlement is a reflection of the economic and social success of Black Sandy Grounders in the last decades of the nineteenth century.

Throughout the nineteenth century and past the end of our study period, all Sandy Ground Blacks lived within a few minutes walk of white families. Only in the earliest period, in the back roads of Harrisville, do we find any all Black enclaves in the community. By the 1880s, Black and white families lived mostly within a few houses of each other.

By the first decades of the twentieth century, Afro-Americans resident in Sandy Ground had ancestral ties to the South, the Mid-Atlantic, and the New England regions, and the beginnings of West Indian migration. White families had backgrounds in Holland, France, Germany, Switzerland, Ireland, and England.

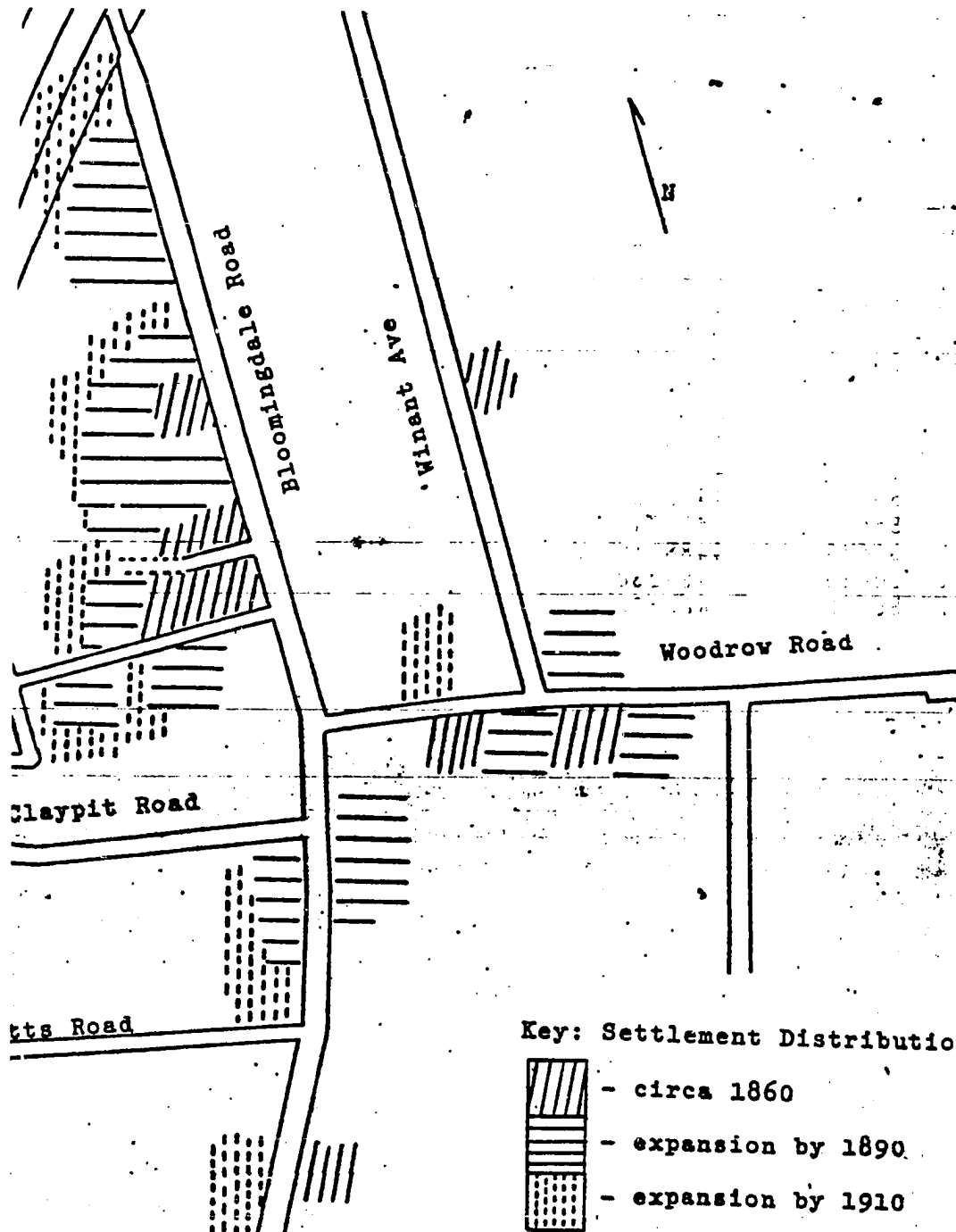


Figure 3.7: Summary of distribution of Black families in Sandy Ground circa 1860, 1890, and 1910

From Charles A. Florence Sandy Ground Historic Archaeological District (A085-01-2258-D03). National Register of Historic Places Inventory - Nomination Form. State Historic Preservation Office, Albany. 1982.

The multi-ethnic nature of Sandy Ground continued into the 1960s, though slowly the proportion of Blacks to whites shifted as white families left. In 1963 a large fire on southern Staten Island devastated the community. Over twenty-five buildings were destroyed, including the stores at Bogardus' Corners, a local gas station, the church parsonage, most of Harrisville, and many homes along Bloomingdale. Both Afro-American and white families left, though Black families tended to stay if they could afford reconstruction. But the fire drastically reduced the population and increased the preponderance of Black families.

In 1970 the West Shore Expressway was built, destroying the bulk of Rossville to the north and cutting a swath along the edge of Sandy Ground. The community became isolated by the highway to the north and west, while the new artery increased land values for tract housing development. Over the last two decades the pressures and enticements of developers have encouraged some families to sell their land and move away, and the construction of tract homes has hedged in on Sandy Ground from the north, south and east, and most recently, directly behind the Church. The core of the Black community, now numbering no more than twenty families, and the dozen or so white families that identify themselves as Sandy Grounders, now exist as a small island amidst hundreds of almost exclusively white working and lower middle class families

from other parts of Staten Island, Brooklyn and New Jersey. The efforts of Sandy Ground descendants, who identify strongly with the community and have established the Sandy Ground Historical Society, and several cultural institutions and researchers, including the author, have allowed the physical structure of Sandy Ground a small measure of protection through its placement on the National and State Registers of Historic Sites as a Historical Archaeology District (Florence 1982). Though the erection of additional hundreds of tract homes within the immediate area is almost certain, the community has hopes to maintain the center of the settlement, including parts of Harrisville and portions of the Bloomingdale and Woodrow homes, as both a real and emotional home for Sandy Grounders throughout the region. Most recently the Church cemetery has received Landmarks designation by the City of New York and construction has begun on a Sandy Ground historical center on Woodrow Road on the site of the Bishop's homestead (Doman Associates 1986).

ECONOMIC RELATIONS IN SANDY GROUND

At the time of establishment, Sandy Ground was a typical rural agricultural community of Staten Island. That is, while agriculture was the dominant occupation, some individuals were involved in coastal navigation and a miscellany of small businesses. In the pre-Civil War Censuses agriculture or farming is most often listed as the

occupations of local white families, though a few in sandy Ground were associated with the "navigation of coastal waters", such as "Captain" John Cole, an oysterman (FCWT 1850). Early historic maps indicate the presence of a store and hotel, Dupuy's Store, located where the present "Rhinehart's Gardens" stands, and most likely housed in the same early Greek Revival structure (Figure 3.3).

By the decade of the Civil War the pattern of Black Sandy Ground economic activity had been established. At least five men were listed in the census as oystermen, and possibly more were involved in the industry as laborers on other's boats, and listed in the census as laborer (Schuyler 1977b:107,115). Other occupations listed for Afro-Americans in Sandy Ground included farmer, carter, farm laborer for men, and housework and seamstress for women. The Harris', Silas and Moses, are both listed as "gardeners", most likely referring to their berry growing business, which was carefully enumerated in the surviving State Agricultural census of 1875 (NYSACWT 1875). By this time Bogardus' stores had been established, and the Sharrotts had begun to develop their land holdings with one of the family's butcher shops. Most white families were involved in farming, sometimes in berries as the Harris', sometimes in a wide variety of subsistence and small commodity production (Cotz 1985:136).

By 1880, the importance of oystering in Sandy

Ground is clearly evident. By this time, several Sandy Grounders owned their own large boats (see below). These entrepreneurs, especially Robert and Dawson Landin, and somewhat later Francis Henry, were leaders in the community and acted as intermediaries with the leading white oystermen.

The manuscript censuses are of uneven quality; the later state censuses were underfinanced leaving several of the manuscripts in the Richmond County Clerks Office are apparently incomplete (see Appendix D, Historiographical Discussion). Still, census data can demonstrate the degree to which oystering dominated the occupational life of Sandy Ground men in the years from 1870 to 1900. Oystering was still important into the first decades of the twentieth century (Table 3.1).

Next to oystering, farming and farm labor were the most important occupation for Afro-American Sandy Grounders in the nineteenth century. The berry production of the Harris'' has already been mentioned. Oral history attests to the importance of such "gardening" - the small dirt road known as Harris Lane was also called "Strawberry Road" (Askins 1980b:Pedro Interview). Since the oystering work regime left the summers most free, oystermen and those involved in general labor could participate in farm labor or in shipping farm goods by skiff or sloop. In the twentieth century, the importance of farming decreased just as factory work, especially in the factories of New Jersey,

Table 3.1: Occupations of Afro-American Sandy Ground Men

Year	Oystermen N %	Farm	Factory	All other*	Total
1860	5 (15.6)	6		21 (17)	32
1870**	18 (66.6)			9 (7)	27
1875	17 (44.7)	4		17 (12)	38
1880	24 (63.2)	6		8 (4)	38
1900**	17 (73.9)	1		5 (1)	23
1910#	11 (22.9)		2	35 (11)	48
1915**	5 (38.4)			8 (3)	13
1925	0 (0.0)		10	36 (5)	46

* Numbers in parentheses are all men listed as laborers. The 1890 census for most of New York State was destroyed by fire in the last century.

** Censuses marked with an asterisk are not complete in the forms available to the author.

The 1910 census includes a listing "labor in oyster business". This was not used in earlier censuses. Instead the general term "laborer" was used. Therefore enumeration of oyster participation during the nineteenth century is an underestimate. Similarly, farm labor is probably underenumerated throughout the nineteenth century.

became significant.

Other local occupations entered by Black Sandy Grounders included blacksmithing, construction, trucking, and a variety of sales and miscellaneous manual laboring jobs. There was always at least one, and for a period two, resident ministers in the community. Though the category laborer appears often, it does not dominate as an occupational description at any time in the history of Sandy Ground.

Based on the 1860 and 1880 Federal censuses, the 1865 State census and various Westfield assessment rolls, it is possible to compare the relative economic position of Black and white households in Sandy Ground and chart changes in the economic standing of the communities Afro-Americans (Table 3.2).

Throughout the history of Sandy Ground at least some Afro-Americans had real and personal wealth equivalent to all but the most well off white Sandy Grounders. The 1860 State Census indicates valuations as high as \$2000 for some of the more established Black families. The more recent Afro-American arrivals in the community were either renting, and had no real property assessment, or had bought only the first small parcels of later larger holdings. There is also the likelihood that many of these new arrivals lived a frugal life, remembered as "poor" in the oral histories, in order to invest in land, houses, and productive means. Dawson Landin,

Table 3.2: Selected Land Value Assessments
in Sandy Ground 1860-1896

Name	Year	Ethnicity	Occupation	Value	Source
A. Cole	1870	English	oysterman	\$2000	(FCWT 1870)
A. Cutting	1870 1879	English	farmer	\$1020 \$550	(FCWT 1870)
R. Cutting	1885 1896	English	farmer	\$325 \$475	(Cotz 1985: 183)
S. Harris	1860 1876	Afro-Am.	farmer	\$2000 \$600	(FCWT 1860) (Cotz 1985: 213)
J. Henry	1870	Afro-Am.	oysterman	\$300	(FCWT 1870)
R. Landin	1860	Afro-Am.	oysterman	\$500	(FCWT 1860)
D. Sharrott	1865	Huguenot	butcher	\$1500	(Cotz 1985:67)
I. Winant	1865	Huguenot	store owner	\$1475	(Cotz 1985:97)

eventually the owner of a sailing sloop and one of the most prestigious members of the community, was a renter and had only \$250 in personal property. His brother, Robert, had \$500 in property, but only \$50 in personal value in 1860. Robert was also heading towards economic security as a sloop owner and oyster planter.

Inspection of the census records for 1860 and 1870 and the few tax assessments available to the author, produces some conclusions concerning relative wealth in Sandy Ground. The mean wealth of white Sandy Grounds in this small sample is \$1170, with a range from \$325 to \$2000. Afro-Americans have a mean of \$640 when computed without the large valuation of the Harris property in 1860. If this is used the figure is \$1107. The range is from \$300 to \$1020 or \$2000. It should be noted that Harris' valuation apparently goes down significantly between 1860 and 1876. We can conclude that the average valuation of Afro-American property values was well below the average for whites within Sandy Ground, but that a significant overlap occurring, with the wealthiest Blacks comparable in estate to store owners.

Much of the value estimation correlates with length of residence in the community, and type of occupation. A farmer or berry grower will have more land than a small oysterman, who only has enough land for a house and a vegetable garden. The skiffs of oystermen rarely cost more than \$100, while the sloops of the leading oyster planters

could cost upwards of \$400, and as much as several thousand. It is not clear if these appear in the census estimates for real property.

Upward mobility among Black Sandy Grounders is apparent in several ways. The reminiscences of several of the elder Sandy Grounders' recall, or heard their mothers recall, the poverty first experienced by Black migrants of the community (Askins 1982a; Mitchell 1956). Some of this poverty may have been self imposed frugality, as families saved in order to buy land, build houses, and invest capital in oystering equipment. Several of the Maryland oystermen eventually bought their own sloops and became quite prosperous. Some of the second generation of Harris', Isaac Harris and Joseph Post, Silas' son and son-in-law, became involved in service work for wealthy whites in New York City. Isaac, who died in 1956 at 106, left numerous oral interviews and histories, telling of his employment as a youth at the United States Hotel in Long Branch, New Jersey, popularized as a resort spot by President Grant, his development and planting of roof gardens for wealthy New Yorkers of Chelsea, and his employment as an estate groundskeeper at up to three estates at once (BMOSI 1/10,22:Harris Interviews; Mitchell n.d.:12,13). Isaac attested that his home in Sandy Ground, built in 1898, was designed by architects from the firm of Stanford White, for whom he worked. Both the Post and

Harris family apparently maintained second homes in Manhattan from at least the 1860s until the 1930s, usually at Minetta Lane or elsewhere in Greenwich Village, an area of emerging Black middle class life. Work for wealthy whites was one of the most high status employments for Afro-Americans in the nineteenth century (Meir and Rudwick 1966:201).

Further evidence of upward mobility in the community can be measured by the number of professionals or white collar workers who came from the community. Usually those entering this Black middle class would leave the Sandy Ground. By the end of the century these included school teachers in both the New York and New Jersey public school systems, a New York City policeman, and at least one lawyer. A brother of Isaac Harris accompanied the U.S. Ambassador ~~to~~ Germany, Bayard Taylor, and eventually became a leading American dentist in Germany, marrying the daughter of the Kaiser's barber (Wilkins 1943a, 1943b).

Similarly, white members of the community were involved in "upward mobility". The local entrepreneurs, such as the Bogardus and Sharrott families, expanded their businesses and profited from real estate.

The economics of southern Staten Island underwent a transformation beginning in the last quarter of the nineteenth century culminating in a new set of occupational choices by the 1920s. The oyster industry, as will be described below, moved from a small scale industry to one

dominated by Manhattan "capitalists". Farming, the other basis of the rural economy, was pressured by competition from farms within the growing rail and truck network leading into New York City. The collapse of the traditional economy and the rise of factory work encouraged many whites and Blacks to enter wage labor in New Jersey, and to a lesser degree on Staten Island. By the 1920s, the local oystering industry was closed down because of pollution emitted by the very same factories. Finally, new waves of emigrants, both foreign born from Europe and the Caribbean, and Afro-Americans from the south, changed the demography of race on Staten Island.

At the end of our study period, 1925, a variety of new occupations were pursued by Sandy Grounders. Factory work, non-existent for Black Sandy Grounders until after 1900, became important for many. But other occupations of a skilled or semi-skilled nature were turned to by Black Sandy Grounders. The 1925 census enumerates two blacksmiths, three machinists, a carpenter and two masons. Also for the first time, large numbers of boarders appear in Sandy Ground, mostly West Indians, and one Sandy Grounder opens a large rooming house. White Sandy Grounders also enter factory work, though more of them are able to continue farming, possibly because they had acquired larger tract of land through the nineteenth century and could continue to specialize in truck farming.

Small white farmers, such as John Cutting, combined the household farm maintained by his son with his own factory work. The Great Depression which followed stressed the community, but some degree of entry into the middle class was maintained by Sandy Ground Afro-Americans.

In recent decades, the community has continued to produce a variety of professionals, including lawyers, doctors, numerous school teachers, and managerial level workers in large firms, banks, and small businessmen.

It can be seen that for over one hundred years Sandy Ground Afro-Americans have had access to stable working class, and to a lesser degree, middle class occupations. Though some poverty has existed at times in the community, in general an assumption and real achievement of economic stability has been part of the cultural view of Sandy Grounders.

THE OYSTER INDUSTRY IN SANDY GROUND

The Development of The Oyster Trade in the Northeast

At the beginning of the nineteenth century the oystering industry was primarily a part-time occupation of farmers and others who had access to local natural beds throughout the coastal regions of the the east and south. By the beginning of the twentieth century, it was the largest fisheries industry in the country, capitalized in the millions with large vertically integrated corporations as the dominant organizational form. Afro-Americans who

participated in the oystering industry during the century experienced an occupational transformation crucial to an understanding of the potential social roles of Black Sandy Grounders.

During the colonial period, collecting shellfish, especially oysters, was incorporated into the seasonal round of activities of farmers and other residents with access to the coast (Ingersoll 1881:110). Especially in the Chesapeake, though also in other slaveholding regions, Afro-Americans participated in oystering as slaves, supplying their masters and well as their own tables with oyster meat. Large plantations sometimes had full time "watermen", who would oyster regularly through the year (Cohn and Platzer 1978:40). By the late eighteenth century shellfish were becoming a significant resource for local consumption and resale in markets, especially in the Chesapeake and Hudson Bay areas, where developing urban populations and large natural beds occurred near each other (Kochiss 1974). As early as the first decades of the eighteenth century colonial governments had to establish regulations governing access to the natural oyster beds. In 1715 the Colony of New York passed its first oyster law, prohibiting the gathering of oysters between May first and August 31st in its waters. Native free Indians were exempted from this restriction (Ingersoll 1881:111; Powell 1976:3). Soon after "oyster wars" broke out between New

York and New Jersey residents over access to the beds, which were rapidly being reduced in productivity by over-harvesting (Powell 1976:4). 1737 saw a New York law specifically forbidding access to Richmond County beds to any non-resident of the Colony (Ingersoll 1881:112; Kochiss 1974:10). The Chesapeake Colonies, led by Virginia, similarly established laws limiting access to local beds to residents. Though conflict over beds was often bloodthirsty in the Chesapeake, the immensity of the Bay allowed almost everyone to at least eke out a subsistence with only seasonal labor. Northern beds, especially those around New York City, were rapidly depleted during the early Republic, as oystering developed into the primary occupation for some, and an important seasonal activity for many, and as oysters became an increasingly significant item of diet in developing Victorian America (Kochiss 1974).

The Staten Island beds, located along the Arthur Kill, in Prince's Bay and other parts of Raritan Bay, were failing by the second decade of the nineteenth century (Figure 3.8) (Kochiss 1974:10,30). In order to replenish these beds, the technique of oyster planting was developed in the second and third decade of the century in a number of oystering communities in the New York region, such as Keyport, New Jersey, Prince's Bay, and City Island (Kochiss 1974:30; Kollmer 1940:19). Planting oysters consists of

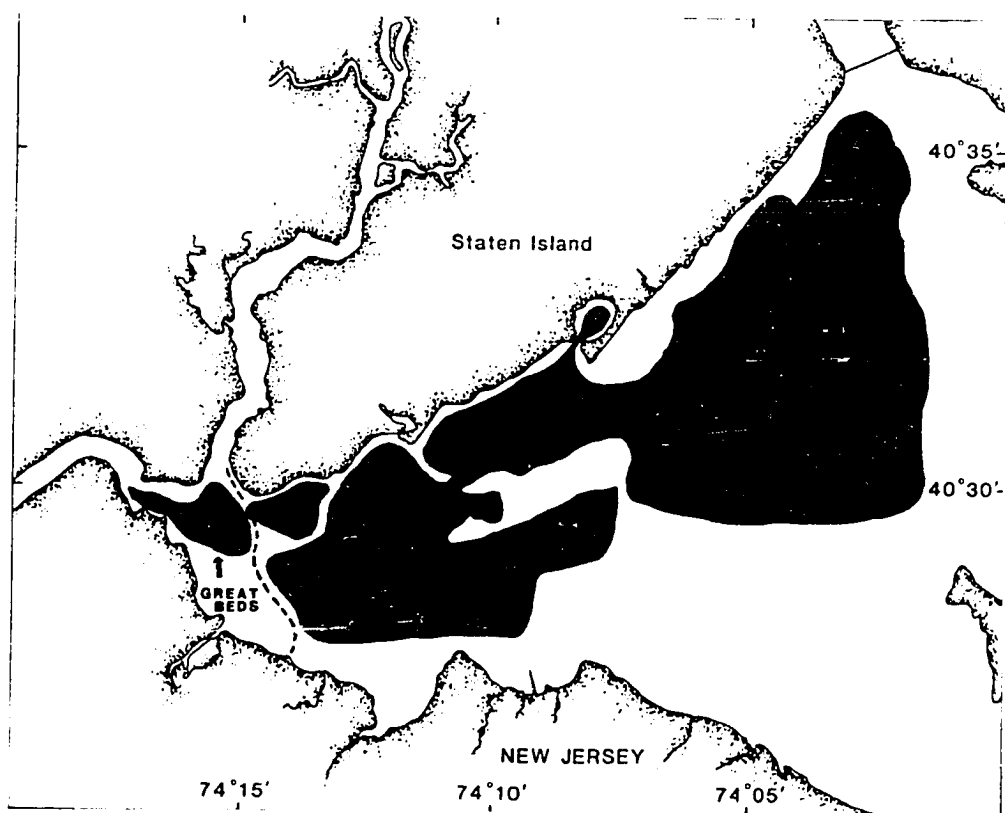


Figure 3.8: Location of Oyster beds in and around Southern Staten Island

recovering immature "seed" oysters from natural beds and transplanting them to another area where they can grow to maturity (Kochiss 1974:11,13). Though oysters adapted to even a slightly different environment may not be able to reproduce, they usually can grow quite well in any intertidal habitat that is calm and nutrient rich. The first oysters transplanted to Staten Island were brought from the Chesapeake, beginning a regular commercial contact between Staten Island and the Chesapeake states which lasted until the Civil War, and to a much reduced degree, into the twentieth century. This contact also allowed the occupational culture of oystering to extend along much of the Eastern Coast. Planting also developed between Arthur Kill, where natural beds survived into the twentieth century, and the Prince's Bay area. Importantly, oyster planting allowed new areas to be opened as productive oyster beds, as some waters were well suited for oyster growth but unsuited for reproduction. The development of oyster planting allowed the industry to develop rapidly, and a period of great expansion occurred in the decades of the 1830s through the 1850s (Ingersoll 1881:112). By 1853 an area five miles wide by ten miles long along the south shore of Staten Island was under oyster cultivation, whereas a generation before the oyster beds of this shore were limited to a few square miles in Prince's Bay (Ingersoll 1881:115).

The first attempts at oyster cultivation were also

made in the 1820s. Cultivation of oysters consists of preparing beds by spreading cultch, cleaned and empty oyster shells, onto flat, protected shallow waters in order to provide an attractive substrate for spat, the free swimming larvae released into the water by the billions during the several reproductive episodes which may occur in a local oyster population in the spring and into the summer. Planting and cultivation were also combined by the end of the century, when especially selected mature oysters might be planted amidst a large bed that was to be cultivated by spreading with cultch just before larva were released. Successful cultivation depended greatly on the ability to predict when reproductive episodes took place, for cultch left too long in the water acquired an algae covering which made them unattractive to spat. In addition, in both planting and cultivation, maturing oysters might be recovered and moved several times to different waters to encourage growth, provide protection from storms or predators, and affect taste (Kochiss 1974:13-14). Oyster cultivation, which could involve large outlays of capital, did not begin to become important in the industry until the last two decades of the nineteenth century (Kochiss 1974:17-18).

Oysters could be recovered in one of three ways during the nineteenth century. Most common was the use of iron tongs, usually attached to wooden handles six to

twenty-four feet long (Ingersoll 1881:247; Kochiss 1981:82-83). Oyster rakes, also long handled and of iron, were only effective on beds which were not overly rocky. Rake handles could be even longer than tongs, allowing the rakes to be dragged across deep beds (Ingersoll 1881:249; Kochiss 1981:84-85). Tonging and raking were usually done from small boats. In the New York region the local small tonging boat was the Staten Island skiff, usually from eighteen to twenty feet long with a small stepped mast (Kochiss 1981:101). Oysters could also be recovered by dredging, or "drudging", using chain link "pocketbooks" which were dragged across an oyster bed and hauled up, usually by winch. Dredging was most effective on flat beds without damaging obstructions (Kochiss 1981:85). Though sometimes done from skiffs, larger wind-powered vessels were characteristically used for dredging. On Staten Island, the typical dredging boat was a New York sloop, the common workboat of New York Harbor. Usually weighing from five tons to over thirty, the single masted sloop was the primary vessel of the oyster planters of the middle half of the nineteenth century. It was the use of dredges on the more accessible natural beds that was a primary reason for their exhaustion, leaving only the more inaccessible beds, those with rock strewn or undulating bottoms.

By the second half of the century the term "tonger" became synonymous with oystermen who specialized in working these remnant natural beds. Also known as "natural

growthers", these oystermen, probably including most Black Sandy Grounders, survived with small investment in equipment - a skiff, which in 1879 cost from \$20 to \$75, baskets, which could be made or traded for, and tongs. These men often worked in partnership with another man or two, including sons, brothers and other kin. Though often poor, natural growthers could eke out a relatively independent and rigorous living without working the whole year.

Before the development of oyster planting, when natural beds were the only source for oysters, the legal concerns of oystermen were focused on the limitation of access to the beds to local or state residents, though the conflict between growthers and dredgers was growing. In the eighteenth and nineteenth centuries in New York, and to the present in the Chesapeake, natural beds were considered public property open to all residents, though limited to tonging and raking. The development of oyster planting, and the creation of new beds "soon demanded solutions to underwater land ownership problems" (Kochiss 1974:30). Thus beginning in the 1820s and 30s, local oystering communities began to develop self-regulating customs concerning bed tenure. Significantly, in both the Chesapeake and in New York waters, free Black men were participating in the industry during these first decades of the development of its occupational culture. The system

which emerged recognized claims to staked beds only as long as those beds were planted each season (Ingersoll 1881:119). No state or local laws covered ownership, transfer, or inheritance of planted beds, except limiting the right to local residents, but the local courts of Staten Island respected the customs of the oystering community. If someone failed to plant a bed, for a year or two, it was considered available to whomever could stake it out and plant upon it. Sales of beds were based on handshake agreements, and inheritance was recognized only if descendents replanted the beds and continued working them (Kollmer 1940:19).

These customary relationships were adequate for the regulation of the industry well into the 1880s or 1890s, though some conflicts between oystermen were evident. Natural growers, who on the one hand might profit by sale of seed oysters to planters or through wage work on planter's boats, would, on the other hand, view planters as engrossers of oyster beds, as the planters often took over natural beds, sometimes recently failed but not always, to incorporate into their dredging operations. "Poaching" of oysters was a constant problem, though the accusations of poaching reflected generation long antagonisms. The natural growers held grudges against the oyster planters, who were seen as responsible for the dredging out of the beds, and later the cultivators who usually based their operations on the natural growths of oysters which spread

their spat throughout the local waters. In the Chesapeake tongs were known to be rammed and sunk by sloops dredging natural beds, and armed guards sat over both planted beds and natural growths in many places along the East Coast (Kochiss 1974).

In the 1870s and 1880s the structure of the industry can be seen through the census report of enumerator Cornelious Mersereau (NYSCWT 1875), himself an oyster planter, and a report for the Department of the Interior by Ernest Ingersoll (1881). Mersereau distinguishes four classes of oysterers. "Oystermen" were the natural growers, usually skiff operators, who sold mature oysters directly to market, or sold seed oysters to the planters. The "Planters" of the 1870s usually owned one sloop and a skiff, though a few planters owned two or three vessels. Most of the deck hands, or "Boatmen", who worked for planters, were oystermen, though some seem to fall under the category of "laborer" in the census. Both oystermen and planters sold their stock to "oyster dealers", most of whom were based in New York City and operated oyster barges for storage, shelling, barrelling and shipping. Some Staten Island planters were also dealers, but in general there was a vertical stratification in the industry, since, by custom New York City dealers could not have direct access to local beds (NYSCWT 1875). Some dealers tried to avoid these laws by being silent

partners to local planters, others lent money to planters or guaranteed they would buy all the harvest of certain planters (Ingersoll 1881:126-127). Other dealers sent out buy boats to sail through the beds during harvest with "their business card painted all over the mainsail." (Ingersoll 1881:127). The dealers establishments were operated out of barges which acted as warehouses for live oysters submerged in baskets on a flooded lower deck, as showrooms where buyers admired baskets of different grades of stock, and as counting houses.

The period of the 1870s through 1890s saw sufficient expansion in the industry so that nearly all parties in the trade prospered. By as early as the 1840s the growing rail network allowed dealers to become involved in the shipment of oysters cross country, and the regular use of rapid steam vessels brought England and Europe into the market area of packed oysters by the 1870s (Ingersoll 1881:131). Increasing urbanization allowed all planters and growers to find markets. Though oyster parasites and diseases, and other acts of nature, made life precarious for even large dealers, the number of men occupied in the trade grew. These years from the 1860s through the 1890s were the heyday of the small oysterman.

But the industry was transforming by the end of this period, as two major processes moved this essentially small scale, artisanal fishery into a mechanized and capital intensive industry. By the mid-1870s, the first

steam powered oyster dredges were being used in eastern waters (Anonymous 1912,9(6):33). Soon the use of steam, and then gasoline powered boats and power dredges expanded greatly the amount of acreage that could be planted or cultivated. The wealthiest planters and merchants began to invest in the new machinery and growth became more rapid. As the income from the industry increased, State governments began to impose regulations, including permit costs and taxes, and initiated legislation which allowed the opening up and sale of new potential oyster beds. Sometime between 1880 and 1900, the oyster industry in northern waters became dominated by vertically integrated businesses which oversaw every aspect of operation. The corporations emerged from the New York oyster dealers, who bought up beds, expanded fleets, and operated the industry from their now larger and more luxurious barges. Merchant-planters were described as those

with capital sufficient to enable him to use every device and appliance necessary or convenient to large operations including the employment of well-manned steamers equipped with steam dredges, starfish mops, etc., together with extensive oyster houses where oysters are opened or otherwise prepared for shipment and from whence the product is sent throughout the country and indeed to all parts of the world (Wood 1910:1-2).

The largest operation in Staten Island waters belonged to J. and J.W. Elsworth of Manhattan, founded in 1873 as oyster dealers and long specializing in shipping by rail and boat. By 1911 the Elsworth operation in Prince's

Bay included 14 steam and gasoline boats worth \$50,000, averaging 30 tons each, 868 acres in the bay, a work force of 250 men, plantings of about 240,000 bushels per year, and a packing house for shipment to Europe and the west (Russell 1912:13-14). In addition to their Prince's Bay operation, Elsworth owned beds, boats and houses at Keyport, New Jersey, Oyster Bay on Long Island, and South Norwalk, Connecticut. They were soon to open seed beds at Greenpoint. By this time the Elsworth company was the third largest shipper in carload lots of any firm handling any commodity in America (Anonymous 1912,9(11):14). Large companies like Elsworth were involved in both planting and cultivation, sold and shipped seed oysters to Europe and the Pacific, and owned large opening or packing houses which could employ hundreds in what was essentially factory-like wage work. The merchants became a political force in affecting state legislation concerning the oyster beds.

In the face of the expanding capitalist domination of the industry, smaller oystermen had only a few alternatives. Sloop owners, or "captains", could work for one of the large companies, operating steam dredges. Or they could try to continue as before, operating small beds and selling seed to the large companies or mature stock for local consumption, though the competition from these firms, and their ability to monopolize increasing areas of beds, pushed many of these small planters and oystermen into

poverty. Some of the small Staten Island planters attempted to protect themselves and the more vulnerable skiff owners by establishing the Prince's Bay Oyster Company as early as 1883 (Russell 1912). The Company bought several hundred feet of shore along Prince's Bay and Lemon Creek, and kept these areas open for the "free use of those occupied in the oyster industry, whether owners of stock in the company or not" (Russell 1912:6).

The small skiff owner, still often a natural growther, may have been even more hard pressed. In the 1880s, oystering on Prince's Bay used great numbers of skiffs along with the sail powered sloops (Russell 1912:16). But by the 1900s, the dominance of the Elsworth Co., which used power boats and hired crews, limited the need for skiffmen. Both skiff owners and some sloop captains worked the few natural beds still productive in the area, and many continued in claiming their natural rights. The "Oyster and Fisherman" saw any smaller planter as a

poor bayman who, without capital, cultivates a small piece of ground by his individual labor, with possibly the assistance of some member of his family or a similarly situated "partner". There are many hundreds of these who...manage to wrest from the sand and mud of our bays and harbors a frugal livelihood...The number of this type are constantly increasing (Wood 1910:1-2).

Most dangerous to the merchants were the natural growers, perceived as "an unprogressive element composed of those who prefer to range where they have not sown, who

rely upon what they term their "natural right" to rake where they may choose in the public waters" (Wood 1910:1-2). The natural growers were taken with great seriousness. At the first annual meeting of the Raritan Bay Oyster Growers' Protective Association - made up of big dealers from New York - the chief topic of discussion was "affording protection and watching of the oyster grounds in the bay" (Anonymous 1913,10(33):18). Oyster police, guard houses and patrol boats became a regular part of the industry.

In the first decades of the twentieth century the oyster industry was faced with new problems, primarily the increasing effect of industrial pollution. A series of typhoid cases were traced to oysters, and the public's taste for oysters began to wane. The federal government became involved in monitoring the industry and a series of laws were passed intending to increase the sanitary conditions of handling and shipping oysters. But the increasing industrialization of northeastern New Jersey was clearly affecting both the safety and flavor of Raritan Bay oysters. The most productive beds around Staten Island were closed in 1916, the last Raritan Bay bed was shut down in 1927. The industry died on Staten Island during those eleven years (Powell 1976).

Sandy Grounders and the Changing Social
Relations of the Oyster Trade

Through the exploitation of oysters, and their participation in the oyster business, Afro-American Sandy Grounders were able to establish themselves on a level of relative equality to white members of their occupational and residential communities. Oystering provided most Black Sandy Grounders a respectable yearly income in a well regarded local trade with long traditions on Staten Island, it allowed them numerous points of interaction on terms of mutual interest with the white oystering community, and insured a highly valued independence.

Afro-Americans had entered into oystering in the New York area by at least the 1820s, and most probably considerably earlier. In the 1820 and 1830 Federal censuses Black oystermen and watermen were recorded in the New York census, including some with names later important in Sandy Ground, such as Henry and Jackson (FCNYC 1820,1830).

As noted above, free Maryland Afro-Americans were involved in oystering for subsistence and profit from the end of the eighteenth century. By the 1830s some of these oystermen came into contact with Staten Island white, and probably Black, oystermen as the system of hauling seed and stock oysters from the Chesapeake to New York developed. The first recorded Black oysterman to come up from the Chesapeake was Joel Cooley (Cooler), who bought

land on Prince's Bay "down to the low water mark", thus giving him access to the natural beds near the shore (Wilkins 1943b:32).

In 1850, when Sandy Ground was clearly established, several Afro-American families were enumerated in the Sandy Ground area of Westfield as boatmen, including John Jackson, Jim and John Henry and Hiram Jones, all associated with the founding of Sandy Ground. In John Jackson's case, this probably refers to his ferry service; for the others, the possibility of oystering is strong. Within a decade, Sandy Ground was a full-fledged, though small, oystering village, with a dozen men involved in the trade.

Dawson Landin is said to be the first to have owned and operated an oyster sloop from Sandy Ground, though his daughter-in-law recalled that Dawson and his brother Robert first owned the vessel Fannie Fern together (Wilkins 1943a; 1943b). Eventually, both Dawson and Robert were sloop owners. Exactly when they achieved the status of "Captain" is not clear. In the 1860 census, when they were about 36 and 26 years old respectively, Dawson is enumerated as having no real property, and Robert about \$500. Both had enumerations of over a \$1000 a decade later, and in 1875 both were listed as oyster growers, that is planters (NYSCWT 1865,1875). It was the 1875 census which included quite specific distinctions between oystermen or natural growers, and growers. Therefore it is clear that both Dawson and Robert were sloop owners by 1875. Several oral

histories agree that Dawson owned the Independence, and Robert the Pacific (BMOSI 1/2,9:Pedro Interview). An 1879 list of vessels registered in the New York City custom house includes Robert's Pacific, 19.11 tons, a very respectably sized vessel for the time. Also registered that year was the Fannie Fern, 5.79 tons (Ingersoll 1881:129). Francis Henry, who later owned the vessel, was too young to yet be the captain. If, as Francis Henry's daughter recalls, the Fern was first owned by the Landins' together, it may have been owned by Dawson alone in 1879 (BMOSI 1/2,1:Flossie Henry Interview).

The Landins' were clearly established small scale planters by the 1870s, sometimes hiring as many as ten men to work moving seed oysters from the Arthur Kill into Prince's Bay and recovering the mature stock (Wilkins n.d.:24;BMOSI 1/2,1:Flossie Henry Interview; BMOSI 1/2,9:William Pedro Interview). By the 1890s, Francis Henry joined them with the Fannie Fern, a time when Francis also bought land and built a home along Bloomingdale Road near the AME Church. The other Sandy Ground oystermen were skiff owners, often sharing the ownership a single boat. Skiff owners could plant small beds, but most worked natural beds, selling the oysters to planters or directly to merchants (Ingersoll 1879:118-119). Skiff men would also work for captains, either as hands on their vessels, or on their beds, raking and tonging seed or stock. Other

Sandy Grounders, simply listed as "laborers" in the censuses, could have worked as hands. Throughout Sandy Ground history, Blacks worked for both white and Black planters, though it is not clear if any whites ever worked for the few Black planters. Probably this was not necessary, since the Landins and Frank Henry could turn to their own kin and community for hands.

It was through the success of the Sandy Ground oyster planters that the community in general was able to participate fully in the occupational culture of the business. This included both interaction at the work place, at the natural and planted beds, where men could see and talk with each other across the waters, and on shore, especially along Prince's Bay and on Lemon Creek, where most sloops and skiffs were anchored. White oyster planters attended social events in Sandy Ground, surely out of professional respect and personal friendship. These events were long remembered by Black Sandy Grounders, and included the church camp meets, ox roasts, as well as weddings and funerals.

Every summer, we put up a tent in the churchyard and held a big camp meeting, a revival...We'd invite the white oystermen to come and bring their families, and a lot of them would...All the big oyster captains in Prince's Bay would come. Captain Phil De Waters...Abraham Manee...William Haughwout...Peter Polworth...George Newbury, and a dozen others. And we'd eat and laugh and joke with each other over who could hold the most." (Mitchell 1956:112,113)

Such respect and signs of conviviality between the sloop owners were of course necessary for the continued

operation of the oyster business. Even with the increasing pressures from the oyster capitalists in the twentieth century, and the changing state laws which did not recognize many of the oyster culture's precedents, the local captains on Staten Island were the leaders of their communities. The Landins especially, and Frank Henry to a lesser degree, are clearly recalled in Sandy Ground as community leaders (Wilkins 1943b).

But the majority of men in oystering were not planters, and most were involved in natural growth oystering. Their interests were not necessarily the same as the planters, though the general health of the business was of concern to all. Natural growers resented the incursions of planters, and accusations of "poaching" were heard from both planters and growers (Kochiss 1974:155-156). Growers resented planters appropriating too much seed from the natural beds, a practice which threatened the survival of the grower. Some planters may have poached natural beds - illegally dredging beds and selling the catch to oyster opening houses where the size of the oyster was of no concern. Sloop owners were not so tied to local beds. The sloop could always sail farther afield to rake or buy seed if local beds gave out. Conflict between the small grower and local planter sometimes came to blows, but the customs of the industry were called upon to maintain peace in the business. The New York based oyster

companies, on the other hand, had little use for the natural growers, especially as the oyster capitalists set up their own seed grounds, such as the Elsworth Company's Greenpoint beds (Wood 1910:1-2).

Such conflict in the oystering community was to a great degree based in the beliefs of "natural rights". The natural growth oyster tonger was raised with the ideology that beds of natural oysters, or even any oysters in local waters, could not be privately owned, and that all oystermen, through their natural right, could tong and rake wherever oysters grew in local waters (Ingersoll 1879:113).

The loss of the natural beds to the big companies was one of the reasons behind the age-old antagonism between the natural growers and the cultivators. Natural growers believed the companies would eventually gobble up all the natural ground leaving them nothing from which to make a living. Through the years some men justified their occasional poaching raids on cultivated beds on the theory that they were originally natural and, therefore, somehow legally or at least morally still public property (Kochiss 1974:155-156).

It is not clear to what degree Black Sandy Grounders, or other oystermen on Staten Island operated under the notions of natural rights. But the large oyster capitalists certainly recognized the sentiment, and described the natural growers as those "who rely upon what they term their "natural right" to rake where they may

choose in the public waters" (Wood 1910:1-2). The oyster capitalists may also have thought of the Black oystermen as especially prone to such beliefs. The only cartoon to appear in the merchant's journal, The Oysterman and Fisherman, though not explicit, is certainly suggestive of an association of Afro-Americans with "illegal" activity (Figure 3.9). Whether this prejudice extended to local policies of the oyster merchants is not clear, but the use of armed guards in Prince's Bay has been mentioned, and certainly may have affected the willingness of Black tongers to work in the Bay.

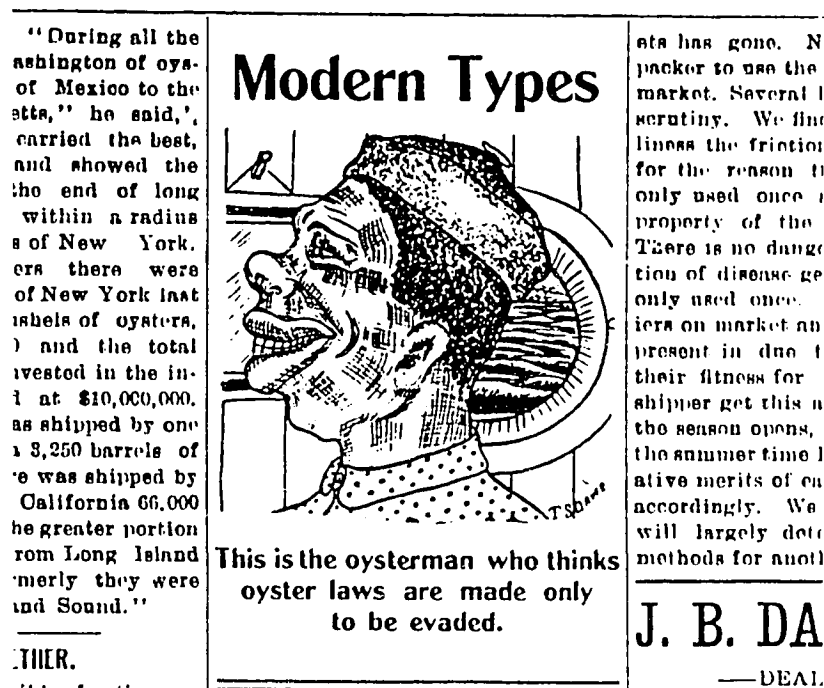


Figure 3.9: A Racist Caricature of an Afro-American Oysterman from the Oyster Capitalists' Trade Journal

The transformation of oystering into a highly capitalized industry put great pressure on local Staten Island oystermen. Oystermen had a few choices, to leave or to work for the growing merchant operations, or to struggle on as independents. There is evidence that Black oystermen reacted differently to the growing economic and social pressure than did white oysterers. Black men stayed in the industry and brought their sons into the trade while white oystermen were leaving and not bequeathing the trade to their sons (Table 3.3).

A survey of three manuscript censuses for Westfield indicates some definite trends in Black and white participation in the trade. From 1860 to 1875, as oystering was coming into its peak years as a local industry, the number of people involved increased. By 1900, when the first effects of the growing industrialization of the trade would be apparent, the total number of local individuals involved in oystering had decreased. The reduction was only in the numbers of white oystermen, Afro-Americans increased their participation. By 1900 the average age of white oystermen in Westfield was nearly 50, while the average age of Black oystermen was approximately 42, an increase since 1875, but still near the average for the industry in the previous enumerations. It is also from the documents that many Black households included fathers and sons involved in the industry, while this was increasingly rare among white oystering

households. White oystermen, under pressure from the change in the industry's structure, were leaving for other occupations, and the younger generation of whites was not entering the business. Black Staten Islanders, nearly all Sandy Grounders, continued their participation. Some oral history recalls that, as the years passed, it became more difficult to gather natural oysters, and the length of rake and tong handles had to be doubled, to nearly forty feet, in order to reach deeper beds.

Black oystermen must have found powerful reasons to continue in an industry which demanded more arduous labor for minimal success, and which presented them with increasing occupational racism. One reason was the lack of local alternatives. The few factories on Staten Island were strictly segregated. The largest of these was a

Table 3.3: Oystermen in Westfield

Year	Total Median age		White Median age		Black* Median age		Percent Black
1860	116	40.5	110	40.6	6(5)	39.2	5.2
1875	166	39.6	148	40	18(17)	36.8	10.8
1900	152	47	118	48.5	34(26)	41.9	22.4

Note: Compiled from FCWT 1860 and 1900, and NYSCWT 1875.

* Numbers in parentheses are Afro-American Sandy Grounders.

dental factory located at Prince's Bay, in sight of the Black men who still worked the Bay.

The reasons for continuing in oystering were shared by many Black, and probably white, oystermen throughout the industry. Simply put, most oystermen preferred the freedom of working on water rather than the restrictions of working on land (Jackson 1942:77).

A description of the choices made by Maryland Afro-Americans is applicable to Sandy Grounders.

Oystermen preferred the independence of life on the water to hiring on under someone else's supervision; oystering permitted them either to avoid wage work altogether or to escape it at intervals. Others used oystering to eke out a living from submarginal holdings - the "acre or so of land" of the census investigator's description. All would in time feel pressure, from actions of the legislature and from the economic logic of the industry, driving them from their precarious haven (Fields 1985:184-186).

In the social survey of Litwalton, an Oyster Town, Thom encountered the same sentiments.

The oyster tonger is his own master. He comes and goes when he wishes. If he has good luck he may, especially if he owns his boat, make enough money in the open weather, in the fall months practically, to carry him through the season, possibly through the year. Then he can stay at home in the hard weather, or stand around the stove in the store with his fellows, or otherwise disport himself. He can always find an odd job to keep enough meal in the box for a corn pone, if the oystering proves very unprofitable...the oyster tonger works out in the open

air in his boat, in sight and sound of his fellow tongers...He has the gambler's's hope of luck always before him...The fact remains that the Litwalton tongers have not become the Whealton shuckers (Thom 1901:1126).

Thom found that the tongers would never enter into oyster shucking work because it was seen as factory-like, and limited their freedom to come and go as they wished.

The combination of a belief in natural rights, which rationalized the taking of oysters from all local waters, and the desire to avoid the onerous condition of wage labor in a generally racist society made the choices obvious for many Afro-American oystermen. They continued oystering despite the increasingly hard work and low profits. In Gilbert Byron's "The Lord's Oysters", a novel of Black Maryland oystermen, a growther describes to a fellow his reasons for not leaving oystering for a "decent job".

The river was good enough for my pappy and it's good enough for me. I ain't going to tie myself down like a slave for nobody. Folks have forgotten about 'life, liberty and the pursuit of happiness...Them's the Lord's oysters and the Lord is a cheerful giver (Byron 1971).

In the second and third decades of the twentieth century increasing pollution drastically reduced the chances of profit, or even survival, in oystering. The public became increasingly wary of oysters and the State and Federal governments became increasingly strict concerning sanitary conditions in the business. Sandy Ground participation in the industry was reduced by 1910 (FCWT

1910). The Prince's Bay beds were linked to cases of typhoid fever and were closed by the State Department of Health in 1916 (Powell 1976:30). Most likely few Sandy Ground Afro-Americans continued in the industry after World War One. The last local beds near Staten Island were closed in 1927, by which time all Sandy Grounders had shifted to other occupations (NYSCWT 1925).

RELATIONS BETWEEN AFRO-AMERICAN AND WHITE SANDY GROUNDERS

Biographies of Towns, No. 1: Sandy Ground. Various-ly called Bogardus Corners, Harrisville, and Little Africa...noted for the friendly feeling existing between its white and colored residents...intensely proud of its baseball team...(Staten Island Transcript, May 24, 1932:1.1)

The Afro-American and white residents of Sandy Ground lived through periods of great change and great public focus on the status of Black people. In the 1850s, free Afro-Americans were undergoing increasing restrictions in their rights while at the same time many whites and Blacks were struggling for the abolition of slavery and the recognition of Afro-American rights. The Civil War and Reconstruction saw an attempt to allow Black Americans to participate much more fully than they had ever been able to before in the political life of the south, an attempt which influenced the nature of interaction in the North. Finally, the late nineteenth and early twentieth centuries, the last period of my study, saw the reemergence of national racist ideologies and their resulting

restriction on Afro-American activities and identities.

What was the changing course of Black - white interaction in Sandy Ground through the eighty years from 1850 till 1930.

The evidence relevant to evaluating the quality of "race relations" in Sandy Ground includes newspaper articles and notes, and personal reminiscences. The degree of contact between Black and white Sandy Grounders can also be seen through settlement patterns (see above), and through inferences about work-place and neighborhood interaction. Changes in the larger social environment can also be seen through local newspapers and interpreted through the general history of the northern Black experience.

Through the nineteenth century Staten Island was serviced by more than thirty newspapers, with thirteen in print in 1900 (Schneider 1966:Appendix B). This large potential of available documentary literature has not been exhausted for this research. The number of surviving editions, and the generally much fewer references to Afro-Americans in Mid-Century newspapers leaves less material to draw for the earlier decades. Towards the end of the century additional newspaper references and more oral histories are available.

This section does not evaluate the range of interactions that may have occurred in Sandy Ground, from paternalistic, to friendly, from cold to antagonistic. The

evidence indicates that there were racial and ethnic tensions, as well as class snobbery and resentment. What is significant in Sandy Ground is the degree to which these tensions were ameliorated by interactions of relative equality and respect. This section demonstrates that numerous contexts of community interaction existed, and that the tenor of these interactions was positive and non-antagonistic. Generally, sources agree that Sandy Ground had developed a marked degree of conviviality between Black and white residents. In addition, the local network of household exchange reinforced community solidarity.

During the decade before the Civil War white Sandy Grounders acted as sponsors towards the new Afro-American emigrants. Whites sold land to some new Black families, rented land and homes to others, and bore witness to some of the significant foundational events, such as the founding of the first church (RCCDB 1852, Liber 25:513; 1849, Liber 18:693; 1852, Liber 25:170; 1854 Liber 32:59; 1861 Liber 48:411). Some Afro-Americans belonged to white churches. Silas Harris and his wife joined St. Luke's Protestant Episcopal Church in Rossville, as early as the 1850s, and were later joined by Joseph Post, Silas' son-in-law (Vosburgh 1923:28). Later in the century, Silas' brother, Moses, a deacon in the A.M.E.Zion Church, was nevertheless married by the pastor of the Woodrow Methodist Episcopal Church (Hubbell 1898:150; Vosburgh 1875:95).

Southern Staten Island may have also been more attractive to Afro-Americans fleeing the south because of the "abolitionist sentiment" present in Westfield. There is also the possibility that the underground railroad passed through Staten Island, and that oystermen were involved in aiding fugitives. Just before the Civil War several Staten Island oyster boats were seized in the Chesapeake under the claim that suspected "fugitives" were aboard (Richmond County Gazette January 23, 1861; May 1, 1861; October 3, 1861).

The New York draft riots of 1863 did not touch southern Staten Island. In Manhattan and northern Staten Island the riots involved attacks and mutilations of Black men, women and children, and even the burning of a Negro orphanage in northern Manhattan. No attacks on Afro-Americans took place anywhere in southern Staten Island, though abolitionist and Republican homes and stores were attacked in Northfield. It is possible that Blacks from the northern part of the Island, and even from New York, came to the southern part of the Island to escape the mobs during the several days of the riots (BMOSI 4/10,8).

The most direct evidence of the feelings between Blacks and whites in early Sandy Ground comes through oral history. Isaac Harris, Silas' son, born in 1850 and interviewed in the 1950s before his death at 106, contrasted the relaxed racial interactions of Sandy Ground with the tensions of New York before the Civil War. Harris

recalled playing with white children in Sandy Ground, and his father's preference for Sandy Ground over life in Manhattan. Isaac memories include the dangers of the city. His parents told him to run from any strange white man who tried to accost him in Manhattan, where his family had a second home for most of the nineteenth century (BMOSI 1/10,22:Isaac Harris Interview). Isaac's parents' concern was caused by the then recent passage of the fugitive slave law. This lead to the abduction of many northern free Blacks. Since the courts made it encumbent upon the Afro-American to produce documents demonstrating his or her free status, slave catchers would not stop to ask for these documents before reaching a southern state.

The second period in Sandy Ground, during the rise and success of the oyster trade, is better documented. The integrated oyster trade, which had its roots in the pre-Civil War period, was fully developed in the decades after the War. The church organized "camp meets" would attract three to four hundred or more people, including Black and white oystermen and their families, local whites, and Afro-Americans from Sandy Ground and other parts of Staten Island and New Jersey (Mitchell n.d.:12,13; Mitchell 1956:62-63; BMOSI 1/2,9). Such camp meets were recorded from at least 1889, and with regularity into the twentieth century (The Staten Islander June 19,1889,No.21; Richmond County Standard July 23, 1892; The Staten Islander

September 9, 1905:6.1). Whites also attended more secular events, such as cake walks and ox roasts, held by the Black churches (Mitchell 1956:112-113).

Within Sandy Ground there are Afro-Americans who recall the easy going relations between Blacks and whites. At least two local Afro-American women held private "schools" in their homes, schools which were attended by both Black and white children. Public schools were integrated in Staten Island by the 1860s, and Black Sandy Ground parents could remove their children from schools where racial tensions were high, as Flossie Henry, born in 1891, recalled, and send them to schools where their children were accepted (BMOSI 1/2,3:Flossie Henry Interview; FCWT 1900:10A). William Pedro, born in Sandy Ground in 1882, recalled only one event of racism from a teacher in his school years, and felt it was his right to use physical force to correct the "cracker" teacher. Pedro used this term to refer to whites from the south. When asked directly about relations between Blacks and whites in Sandy Ground, Pedro insisted that "Everything got along. We all worked together and all were just as happy as could be. None of that fighting that there is today". Pedro even went so far as to say that there was no discrimination in his time (BMOSI 1/2,9:William Pedro Interview). This may be more a relative than an absolute statement, it clearly indicates the sense of equality in the community. And Flossie Henry, referring to the turn of the century,

related that Sandy Ground "used to be a colored and white neighborhood and we all got along like one family" (BMOSI 1/2,3:William Pedro Interview).

Possibly the strongest evidence for feelings of relative equality in Sandy Ground can be seen in recreational activities. Sandy Grounders, white and Black, participated in integrated sports events from at least the 1880s well into the twentieth century.

As early as 1884, newspapers reported on interracial baseball games, in which the Excelsior Base Ball Club of Prince's Bay included at least one Black member (Staten Island Sun July 11, 1884). Eventually Sandy Ground contained both all Black teams, such as the Pleasant Plains Colored Stars and Pleasant Plains Colored Eagles, and integrated teams, such as Herman Oechsli's Pirates, and both played against all white teams from other parts of Staten Island and off-Island visiting Black teams (Staten Island Transcript July 3, 1908:1.3; May 12, 1931:2.6; September 1, 1931:31.5). An integrated Sandy Ground team even played against a team from the local police precinct (Staten Island Transcript August 16, 1932:1.3). These integrated teams existed two generations before the Major Leagues were integrated.

Holidays, such as the Fourth of July, were celebrated with integrated feasting and sports (Staten Island Transcript July 1, 1932).

In work contexts, Afro-Americans worked for both other Blacks and white men. The integrated nature of the oyster business has been described above. Some Sandy Grounders with their own businesses, such as William and Joseph Bishop's blacksmith shop, catered primarily to white clients (BMOSI 1/2,1).

Blacks and whites also participated together in community fund raising. In 1898 a "mock marriage" was conducted at the AME Zion Church in Sandy Ground. Mock marriages, an informant in the Staten Island Institute of Arts and Sciences revealed, were used as fund raising events, as were cake walks and other forms of social entertainment (Beale 1987). What makes this event so unusual is that at least some of the performers in the event were white, most noticeably Mrs. C(harles) Bogardus, wife of the local undertaker and store owner. The organization and food preparation was done by Black members of the church. The full copy of the handbill, with a banner reading "From the Press of the Staten Island Times, Tottenville, N.Y.", reads:

BEHOLD THE BRIDEGROOM COMETH/ There will be a Grand Bride-Groom and Combination Entertainment at the A.M.E. Zion Church, Pleasant Plains Ave., Pleasant Plains. J.H. Mason, Pastor. Wednesday, Thursday and Friday evenings, October 5th, 6th and 7th, 1898. Program. Wednesday - Opening chorus by the choir. Selections by Mmes. Macadams, Coloos, Bailey and Jackson, of New York City. Solo by Miss Annie Smith. Solo by Mrs. C. Bogardus, accompanist Miss Dixon. Solo by Miss Maquerite Morrow, title "Oh Jesus thou art Standing," accompanist Prof. Max Maretzek. Grand Supper and Paper Dress Reception to conclude the evening.

Thursday - The Bride-Groom and his attendant will appear in their ancient costumes to meet the ten Virgins. Songs and remarks will grace the performance. Cast of characters - Bride Groom, Uncle Jerry-Go-easy; Groomsman, Teddy Juniper; Bride, Aunt Jane Fetch-up; Bridesmaid, Miss Maria Whence-she-comes.

Friday - Grand concert under the direction of Prof. Dawson Landin and Choir.

Committees - On arrangements, Pres. Mmes. Harriet Green, Susan Walker, Secys, Mmes. Maggie Mason, E.V. Pernell; Treas. Edith Pernell. On Pages Mmes Frances Jackson, Josephine Harris. On Gustatory, Mmes. Mary Morse, Henrietta Bishop, Ella Landin, with Mr. Dawson Landin Master of Ceremonies. On order, Messres. Wm. E. Landin, Geo. Pernell, James McCoy; Sentinel Rob. H. Landin. An enjoyable evening should be had by all. Admittance on the first evening, 25 cents; each evening thereafter 10 cents. Supper 25 cents. (BMOSI 4/10,20).

Politically, Westfield was also more congenial for Afro-Americans other areas in and around New York. In the 1880s, nearly all of Staten Island and New York City was voting Democratic - the pro-southern, Copperhead, position based in part on the belief that emancipation would increase competition for low level jobs occupied by Irish-Americans. Westfield was voting Republican, the party of Lincoln and radical reform (The Staten Islander January 1, 1889:1.1).

The late nineteenth and early twentieth centuries' emergence of a renewed American Nativism and racism (see above) became evident locally on Staten Island before World War One. By 1916, an Island paper could calmly describe the upcoming social of the local Ku Klux Klan, describing them as a "clan of night riders" and indicating that the club enjoyed the patronage of a local National Guard troop

(The Staten Islander March 1, 1916).

Despite the congenial atmosphere in Sandy Ground, there are indications of tensions and subtle, and not so subtle, expressions of racism. Documents describing Black and white joint enterprises, in sports, or in oystering, indicate whites as holding the positions of leadership. The mock-marriage described above is a singular, and significant, exception. A newspaper article reported a local white widow's accusations directed at a Black teenager of theft and malicious destruction (The Staten Islander October 1, 1898). One anonymous white informant, mentioned to me that Rhinehart's, the local tavern and beer garden, and the site of many social and sporting events, had two entrances, one for Blacks and one for whites. The informant's age indicated that the double entrance existed no earlier than the 1930s. In another case the account book of a local white farmer, covering the ten years from 1882 to 1892, mentioned no financial dealings with Black Sandy Grounders, though three Black families lived within a few hundred feet. It is clear that the community did not avoid all racial tensions.

In contrast to these signs of disrespect and outright racism, Sandy Ground contained a pervasive local economy which included both Black and white households. Oral reminiscences refer to the small gardens people maintained in the late nineteenth and well into the

twentieth centuries and the sharing or exchange of some of the produce with other households. Mid-wife service and herbal medicinal care and advice were also exchanged between household, both Black and white (Askins 1980b). On a more formal level, oystermen used their skiffs and sloops to transport farm produce, and households seemed to share in the labor of butchering hogs, a fall occupation (Wilkins 1943b). Though a tentative proposal, it is not improbable that the exchange of some commodities and services was an extension of the inter-household conviviality and ease felt in the community. This local level economy may have intensified in the Depression years, as recently collected oral reminiscences often do not distinguish clearly in the chronology of the "old days" (Askins n.d.; Wilkins n.d.b:2).

Sandy Ground, in the period from the 1850s well into the twentieth century, was one of those areas described by C. Vann Woodward that "experimented" with social relationships which were unthought of in the pre-Civil war years. Black and white Sandy Grounders lived side by side, attended the same schools, worked together, played together, and attended religious events together. What seems most unusual about Sandy Ground is that these relations of relative equality lasted into the twentieth century.

SOCIAL HISTORY EVALUATION

The documentary analysis of Sandy Ground, though somewhat cursory, sets the stage for the material culture analysis. What social identity choices did Sandy Grounders have during the years from 1850 through 1930? Social historical reconstruction indicates that Sandy Grounders had occupational, class, religious, community and ethnic identities available to them.

By the 1870s the population of Sandy Ground was tending towards a set of class relationships with two strata. Black oystermen and Black and white entrepreneurs of various kinds - plus prosperous farmers - all formed a sort of rural bourgeoisie which included artisans. Black and white laborers formed a lower segment, yet all local residents were were joined in a set of customary relationships of service and commodity exchange intrinsic to their work relationships. By the end of our period, in the 1920s, this set of relationships transformed to where almost everyone was involved in wage-labor and few could maintain themselves as entrepreneurs - among the Afro-Americans one or two blacksmiths, and one or two carpenters or masons. But the local sense of community continued, in sports and holiday celebrations, despite the possible presence of any competition over wage labor. The customary exchange relationships between oystermen and farmers disappeared longer existed, though these exchange relationships were seemingly maintained in the local level

inter-household economy. While the community became somewhat proletarianized, some Blacks and whites entered into white collar occupations, and even professions.

Thus there is strong evidence that both through the independence acquired from oystering and the relative equality of community relationships, Black Sandy Grounders had, throughout the period from the 1870s into the 1920s, available social identities not dependent on their racial identity. Race in Sandy Ground was less significant in determining Afro-American social status possibilities than class or occupation or community residence. Racial identity was certainly important, and possibly more so as Jim Crow rose in prominence from the 1890s onwards, but there were alternative sources of status positions based in other identities, that of oysterer, or high status service worker, or community member.

The rise of the renewed racism and Nativism and the collapse of oystering and farming limited the status alternatives of Afro-Americans in Sandy Ground in the 1910s. The occupational culture shared by Blacks and whites was gradually destroyed by the new merchant oystering industry, thus destroying the seemingly stable job hierarchy of oystering which cross-cut race and which had intensified the local interdependence between Blacks and whites. The importance of the household exchanges and interactions based on the rural interdependence of farmers

(Black and white), farm laborers, (Black and white), local entrepreneurs (store owners, blacksmiths, and oystermen with vessels for goods transshipment) was also reduced as farming collapsed. The ideology of resurgent racism was manipulated by the oyster merchants, seemingly to castigate Black oystermen. Local race consciousness and tensions segmented the oystering labor market. Entering non-local occupations involved Sandy Ground Afro-Americans in many new, and intensely more racist contexts. All factories on Staten Island excluded Blacks, forcing them to search for industrial work in New Jersey. The rapid development of Jim Crow and the reports of lynching must have thrown a pall over the expectations that Sandy Grounders' had held for two generations.

Yet, a strong degree of community equality seems to have lasted into the 1930s, as seen in the reminiscences of shared schooling, play and celebration in the community. This relative equality allowed some mediation of the increasing minoritization encountered by Black Sandy Grounders. Some racial tensions may have increased in the early twentieth century in the community. But the traditions of congeniality and respect in Sandy Ground still allowed Blacks and whites to live in a relatively more equal relationship than most places in the New York region.

Hidden in this social historical reconstruction is the degree to which Blacks and whites, or workers and

entrepreneurs, or any other contrasting categories felt more or less similar. Were there shifts in emphasis in expressions of identity during the study period in Sandy Ground? Did the Black migrants entering Sandy Ground before the Civil War build material markers of their differences, despite the relative openness of the white community? Or is this openness actually paternalism, with its own expectations of difference and unequal status? To what degree were racial, ethnic, occupational, economic and other differences mobilized or ignored in marking identity while Sandy Ground prospered? And did Afro-Americans or whites increasingly call upon any of these identities after the collapse of oystering and the increasing economic and ideological pressures on the community?

The research questions for the material culture analysis thus become:

- 1) Is there increasing, decreasing or unchanging degrees of differences or similarities between the expressions of social identity in the community as community members are forced more and more into the outside world of increasing race tension and prejudices?
- 2) Did the community culture allow the identity of "Sandy Grounder" to be maintained?
- 3) Were Victorian and post-Victorian distinctions of occupation and class more prominent in the late nineteenth and early twentieth centuries?

SANDY GROUND'S CHANGING SOCIAL REALITY

In order to understand the social history of Sandy Ground in a more processual manner, the changes in the general state of Afro-Americans, the general course of United States capitalism, and the specific history of change in Staten Island work and social relations can be synthesized. This periodization will be used in the analytic and final chapters as a framework for evaluating changes in the material cultural expressions of identity found in Sandy Ground. As a first step in this synthesis, I will refer to two historical periodizations which have relevance. Herbert Gutman has proposed a general historical periodization for the nineteenth century, which reflects general changes in capitalist social relations (Gutman 1976). Robert Schuyler has offered a scheme based on the economic expansion and collapse of Sandy Ground (Schuyler 1974). These will be combined with the historical understanding of Afro-American social history and the transformations in the oyster trade developed above. Herbert Gutman, in discussing free white labor, proposed a nineteenth century chronology with three periods: 1815-1843, 1843-1893, 1893-1919 (Gutman 1976:13). Gutman sees the period from 1815 to 1843 as one in which the country was still essentially pre-industrial. This is the period in which the oyster industry emerged, and the work relationships which developed grew out of such "premodern" notions as natural right and self regulation of

the oystering beds. The period of 1843-1893 was one in which tension existed between the the older preindustrial social structure and emerging capitalist "modernizing" relationships. The oyster industry maintained itself as an essentially premodern institution through much of this period. It was only in Gutman's last period, 1893 to 1919, that mature industrial capitalism emerged in the country, with, as we have seen, even such businesses as oystering becoming incorporated into modern capitalist relationships, with small sloop owners and natural growers seen as impoverished or unprogressive and dangerous. The reluctance of Afro-American Sandy Grounders to leave the oyster industry was not just based on the freedom it allowed them. The conflict between natural growers and the oyster merchants was one incident in the general conflict between pre-capitalist and capitalist social relations taking place in America. Similarly, the sloop owning oyster planters did not want to give up the artisan-like control, participation and respect which the norms of the oyster trade brought them. The alternative for most Sandy Grounders was wage labor in one form or another, with its new set of social relations, which included directly confronting work-place racism.

Schuyler (1974:18-21) has distinguished four periods in the history of Sandy Ground. A period of formation, 1820-1850, during which the community of Afro-

American and white families first developed; a period of florescence and stability, 1850-1900, "characterized by oyster success, lack of occupational discrimination, women involved in church and other activities, and expansion of local crafts and industries (blacksmith, strawberries, etc.) The third period was one of decline and disintegration, 1900-1965, during which time the oyster industry collapses and Afro-American Sandy Grounders become involved in more segregated and discriminatory work contexts. The Depression of the 1930s caused greater hardships, including the repossession of some homes (Anonymous 1934), and ends with the affects of the April 1963 fire. Schuyler sees the contemporary situation, 1965-1972, as unclear, with its development of tract housing and the highway, both embedding the community firmly into the developing region.

Given the social historical reconstruction, and considering the chronological frameworks of Gutman and Schuyler, the following periods in Sandy Ground social history seem relevant to the research questions.

Period I: 1850s to 1860s. The period of entry into the essentially pre-industrial labor relations of the Staten Island oyster industry and the local farming community. The settlement pattern during this decade indicates a relatively peripheral position for Sandy Ground Blacks, in which they were mostly marginalized in Harrisville. Yet some indications of inter-group congeniality exist in the

memories of Isaac Harris, including the willingness of whites to sell land to Blacks, the attendance in white church of some Black families, and the racially integrated household locations of many Black Sandy Grounders. Racial tensions in the outside communities, Maryland and New York, were high into the mid 1860s.

Period II: 1860s to 1910s. This is the period during which Afro-American Sandy Grounders were successful in the oyster trade and in farming, as well as other occupations, including service work for elite whites. Compared to elsewhere, Black Sandy Grounders experienced relatively little occupational discrimination. The settlement pattern became more integrated, as the church, and many oystermen, moved to the main street of the community. Both documentary and oral historical evidence indicates a great deal of relative social equality existing between Black and white members of the community. Externally, Afro-Americans experienced great changes from Reconstruction to the rise of Jim Crow, but Westfield continued to be Republican and seemed less affected by the re-emergence of structural racism.

Period III 1910s to 1930s. Oystering and farming collapsed, forcing both Black and white Sandy Grounders into the established modern industrial work relations of the region. This meant a direct experience of increased occupational discrimination. Though the local community

felt economic stress which had begun in the previous period, many Blacks and whites continued having access to non-laboring occupations. Available evidence indicates that much community equality continued, but the presence of the Klan on Staten Island, and the intensifying racism of the country in general, had their effects on Afro-American Sandy Grounders.

This three part historical synthesis will be used as the chronological framework for organizing the archaeological materials in Chapter 5, for analysis of these materials and house facades in Chapter 6, and for discussion in the final chapter.

CONCLUSIONS

This chapter has accomplished the following. The relatively equal nature of social relations in Sandy Ground has been explored, in the context of the general movement towards greater Afro-American equality during the Reconstruction era, and the special economic and social significance of the pre-capitalist oyster trade. The relative social and economic equality in Sandy Ground, and the multiplicity of social identities available to Black and white community members has been demonstrated. Sandy Grounders could call upon ethnic, occupational, class and community identities which all provided social effectiveness in interaction.

The collapse of the oyster industry and farming,

and the rise of structural racism have been linked to recognized and inferred effects within the Sandy Ground community. New social relations and ideologies at the work place, on Staten Island and in the community may have altered the potential effectiveness of the available identities.

Finally, through a synthesis of the social history I have offered a historical periodization which is used to structure the material cultural analysis in the following chapters.

This chapter has demonstrated the potential choices in social identity which Sandy Grounders' had, and provided the framework which will allow us to understand these choices.

PART II

HISTORICAL ARCHAEOLOGY AND
MATERIAL CULTURE ANALYSIS

CHAPTER 4

FIELD AND LABORATORY PROCEDURES

LOCATION OF FIELD WORK

Sandy Ground is an informal designation given to the cluster of Black and white households which occupy the area within a quarter to a half mile of the confluence of Bloomingdale and Woodrow Roads in southern Staten Island (Figure 4.1). Historic maps show that a small nucleated community has existed in this area from the early nineteenth century (see Chapter 3). Though often referred to as part of Rossville, the community to the north, or Pleasant Plains, the village to the south, Sandy Ground is an extension of the unincorporated community of Woodrow, which stretches along Woodrow Road to the east of Bloomingdale Road.

The general area of Sandy Ground is depicted on the USGS Arthur Kill N.Y. - N.J. quadrant map at 40° 32' 30" north; 74° 13' 30" (Figure 4.1) (USGS 1966). This point marks the center of the community at the juncture of Bloomingdale Road and Woodrow Road, known as Bogardus Corners in the later nineteenth and early twentieth centuries. Conveniently, north of its junction with Woodrow Road, Bloomingdale Road runs on a line along magnetic north until it reaches Arthur Kill Road. The

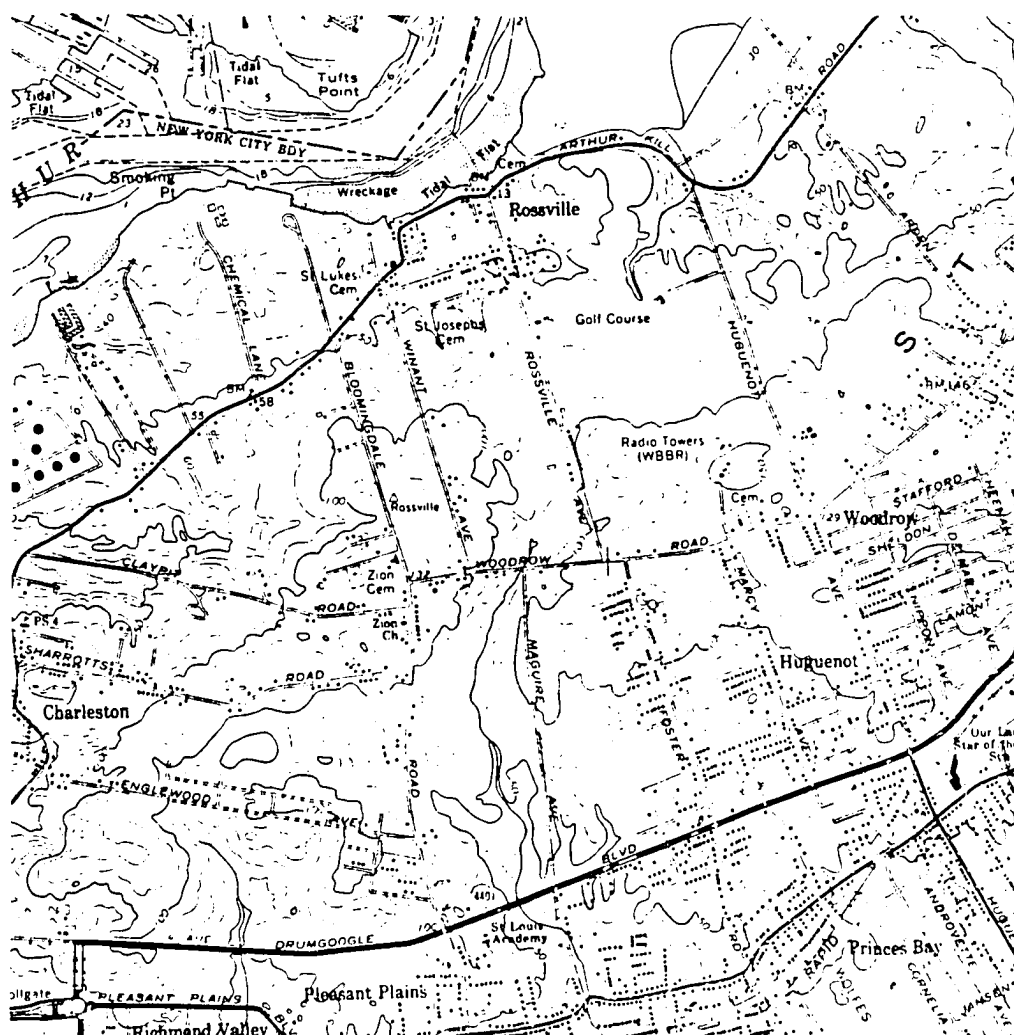


Figure 4.1: The Location of Sandy Ground on Staten Island
(USGS Arthur Kill N.Y. - N.J. Quadrant map, 1966)

nearest USGS benchmark, the Rossville station, is located just east of Bloomingdale Road.

GEOLOGY AND ECOLOGY

The upper geological formations of southern Staten Island are of Cretaceous and Pleistocene origin. The most recent Cretaceous unit is the Magothy, consisting of layers of fine to coarse sands and gravels mixed with usually white, fine silts and clays (Schneider 1977:1). Occasionally found within the Cretaceous formations is "ironstone", hard iron-rich bands of sandstone (Schuberth 1968:248). In the terminal Pleistocene nearly all of Staten Island was covered by the Wisconsin Glacier, which left unsorted till, outwash and erratics including fragments of maroon-red Triassic sandstones and shales. The Triassic sandstones appear with yellow-stained sandstones as deposits of interlayered coarse sands and gravels (Schuberth 1968:247-248).

Topographically, the Sandy Ground area lies astride a rise reaching an elevation of 132 feet above sea level at Bogardus' Corners. Local relief varies up to 60 feet, with a few ridges rising from lower areas. Some of these low lying areas contain ponds, bogs, and streams. Lemon Creek, the largest of the local streams, flows down to Prince's Bay and was used by the oystermen to moor their skiffs.

With the mostly sandy, acidic soils, the local

flora is dominated by the remnants of pine barrens (Shapiro 1972:43). This tends toward maple-oak forest on the rises and small ridges. The occurrence of natural fires in pine barrens environments results in an often heavy undergrowth of briars (Shapiro 1972:14,16), as well as property loss. In addition, the depredation of the gypsy moth in recent years has altered the local flora, with fewer trees surviving and more bushes and low ground cover (Shapiro 1972:17).

Much of the Sandy Ground area was cultivated during the nineteenth century, both for cash, with berries the primary crop, and for kitchen gardens. Farming, except for small gardens, had ceased by the 1950s, allowing most of the land area to begin to revert to scrub pine barrens. The large fire of 1963 ravaged southern Staten Island, destroying over 200 homes, including more than a score in the Sandy Ground area (Schuyler 1974:21). A dense growth of several burnt field colonists had become established by the 1971 and 1972 field seasons. The two most significant for the archaeologist, briars and poison ivy, were encountered in dense stands in parts of the survey and excavation areas. Work in Sandy Ground was thus made unpleasant, and this groundcover certainly affected the quality of feature identification during the walkover surveys conducted by Schuyler (1974:31).

PREHISTORIC SITES IN THE SANDY GROUND AREA

Native Americans have occupied the southern portion of Staten Island since the Paleo-indian period. About one mile north of Bogardus Corners lies the Port Mobil site, a Paleo- Indian occupation which includes Clovis-like and Folsom-like fluted points (Kraft 1977). An isolated fluted point was found in Sandy Ground by a local collector (Sainz 1962). Archaic components have been discovered at the Harik's Sandy Ground (Lavin 1980), Pottery Farm (Rubertone 1974) and Smoking Point sites, all within a mile of Bogardus Corners. The Woodland period shows the densest occupation in Staten Island with large sites such as Burial Ridge at the southern end of the island (Jacobson 1980). Within the area of the Sandy Ground community is Wort Farm (Williams 1968), and the recently recovered materials from the Sharrotts Estate Project (Cotz 1985). Other sites have been reported within the research area by Skinner (1909), including a village site which extended along Woodrow Road from Bogardus Corners for several hundred feet to the east (1975:93).

HISTORICAL ARCHAEOLOGY IN SANDY GROUND

Three historic archaeological projects have been conducted in Sandy Ground (Schuyler 1977a; Askins 1980a, 1980b; and Cotz 1985). The archaeological data used in this research are from the two year field project conducted by Robert L. Schuyler. This author acted as a student

excavator and field assistant to Schuyler during the two field seasons of the project and as lab director for most of the subsequent five years of lab processing of the materials. In 1978 Prof. Schuyler allowed me to take over research and management of the Sandy Ground collection. All laboratory notes and documentary materials collected by Schuyler are now in my possession and the archaeological materials are under my supervision in the Archaeology Laboratory of the Department of Anthropology of the City College, CUNY.

SUMMARY OF FIELD WORK

Robert Schuyler conducted two field seasons in Sandy Ground in the summers of 1971 and 1972. During the first season his crew numbered nearly 30 students and two field assistants, allowing a great deal of work to be completed. The second season crew numbered less than a dozen, and much less was accomplished.

Winant-Bloomingdale Grid

Schuyler's initial informal observations of the Sandy Ground neighborhood indicated many surface dumps located in the large unbuilt-up area bounded on the south by Woodrow Road, on the East by Winant Road, on the west by Bloomingdale Road, and on the north by Arthur Kill Road (Figures 4.2). Bloomingdale and Winant run approximately parallel to each other, while Woodrow forms an obtuse angle with Bloomingdale and an acute angle with Winant. The

total dimensions of this lot are 820 feet east to west and approximately 3500 feet north to south along the Bloomingdale Road side. The northern end of this lot is within the community of Rossville, and held half a dozen or so frame houses. In 1971, the rest of the lot was empty except for an abandoned modern frame house and swimming pool in the south east corner. Historic maps revealed that through the nineteenth and twentieth centuries the lot contained two structures in its south and south east corners in Sandy Ground. A single large frame structure, the mansion of the Mason family, was located about 2200 feet north from Woodrow Road within a large landscaped area (Figure 4.3) (Leng and Davis 1930:927). Oral history indicated that the major community activity in the lot was recreational - one of the community's baseball diamonds was located in the south west corner of the lot. The identification of over two hundred nineteenth and early twentieth century dumps indicates that refuse disposal was also an activity of significance in the lot.

In 1971 this area was mostly sandy soil pine barrens, with a highly variable ground cover. Students who conducted parallel walkovers of the area encountered scattered and dense briars, sometimes growing over bushes and up saplings, grassy fields with growth from less than a foot to over eight feet tall, patches of blueberries and strawberries, open sandy areas, patches of moss, stands of

saplings amidst fire destroyed trunks, mature stands of trees untouched by fire, a few low lying boggy areas, and lots of poison ivy. Stands of burnt trees and other evidence of the 1963 fire were found scattered through the area, reflecting the leapfrog spread of the wind driven flames. Criss-crossing the area were bridle paths, used by the many local residents who owned horses. In addition, remnants of a grid pattern of concrete sidewalks were encountered in the middle and northern portion of the plot, following "paper" streets planned in the 1930s. The sidewalks had been constructed as a WPA project and were useful in acting as landmarks.

A grid was superimposed onto the lot using a transit survey, with lines of sight opened by machete, saw, and axe. The thusly named Winant-Bloomingtondale Grid (Figure 4.2) consisted of units 200' on a side, with the units along Woodrow Road adjusted to compensate for the angle of the road and small, triangular units along Winant to account for the slight angular difference between Bloomingtondale and Winant Roads. Forty-three WB grid units, stretching 2000 feet up Bloomingtondale from Woodrow, were flagged. The small triangular shaped units along Winant, numbers 5, 6, 15, and 16, were later incorporated into the adjacent full size units, respectively 4, 7, 14, and 17.

Each WB unit was then walked over by portions of the crew moving in parallel lines 20 feet apart from west

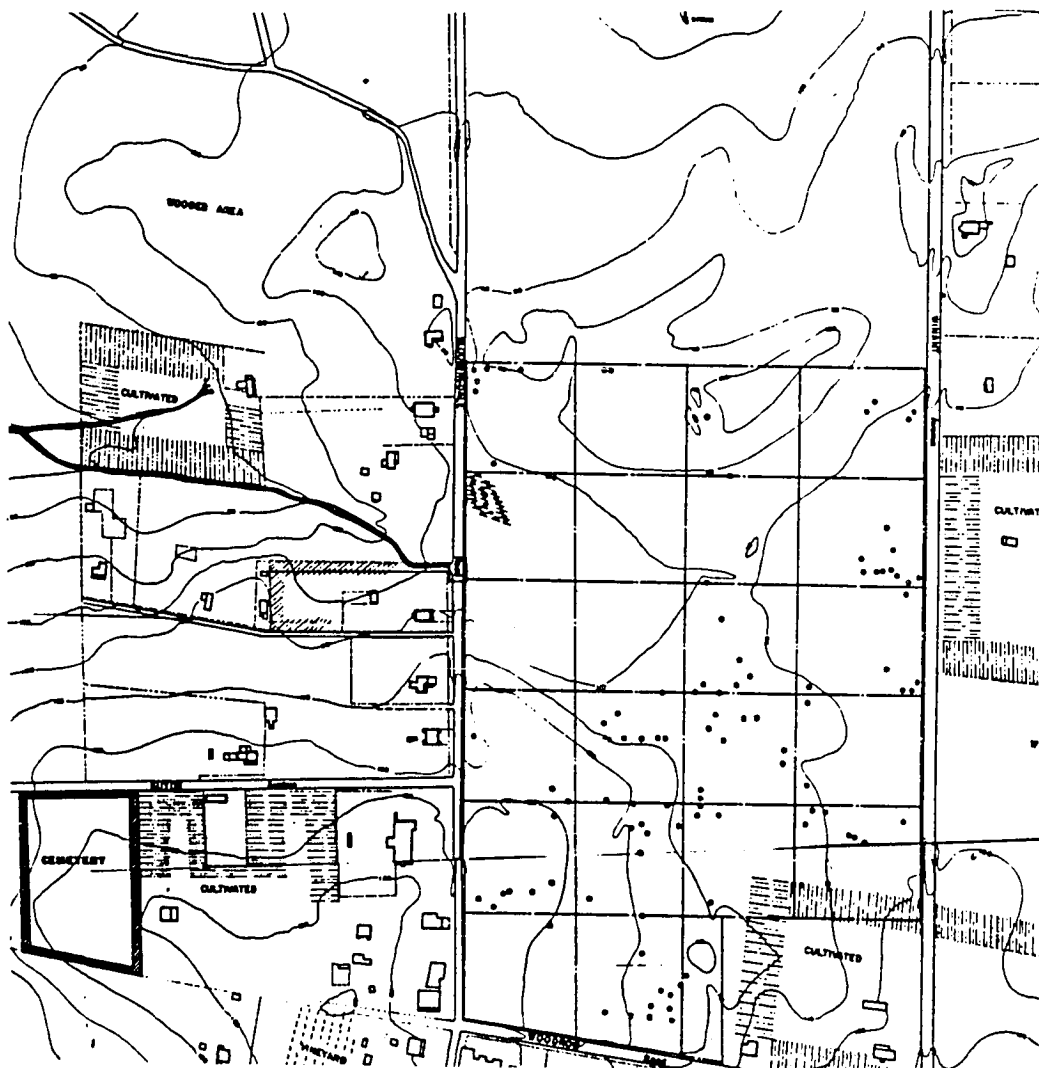


Figure 4.2: The Winant-Bloomington Survey Grid
 Dots indicated feature locations
 (Grid superimposed on Bridgeman 1913 topographical map)

to east. Surface dumps and indications of subsurface deposits in each unit were recorded and measured onto a master chart. The ground cover encountered was also noted, though often quite subjectively. Isolated finds of diagnostic materials were collected in this initial survey and given provenience by WB Grid unit. When completed well over 200 dumps were located. It cannot be said that this was a 100% identification of materials in the Grid, given the dense overgrowth in many parts of the Grid. In subsequent years the author has visited the Grid area and located signs of additional nineteenth and early twentieth century deposits revealed by loss of floral ground cover, erosion and other disturbances. The past ten years has seen increased activity in the area, including extensive dumping, excavation of sands, and the depredations produced by off-road motorized vehicles, which now compete with horses as a favorite local recreation.

After completing this initial survey it was obvious that the more northerly WB units had been intensively used in recent times for the dumping of both household and industrial refuse. Numerous abandoned cars were encountered. It was in this north portion of the lot that the Mason house stood, surrounded by a landscaped area and maintained well into the twentieth century. Given this, and the likelihood that nineteenth century deposits in the more northerly units were from Rossville, it was decided to concentrate on the grid units clearly within the bounds of

Sandy Ground. Further investigation was focused on the WB units numbered 21 through 43, which represented an area that stretched 1000 feet up Bloomingdale from Woodrow Road and 820 feet from Bloomingdale to Winant Road.

The identified and located Winant-Bloomingdale Grid features in the survey area were treated in one of four ways (Figure 4.3). 1) Those recognized as modern, dating clearly to the 1950s or later, were not collected. 2) Older features which consisted primarily of large portions of household construction material, or which contained mostly rusted and unidentifiable metal, were sampled for diagnostic glass or ceramic artefacts. 3) Most features were fully recovered as single units. All artefacts were collected from the surface and the immediate soil matrix was excavated using at first trowels, and then, if there was little depth or no apparent stratigraphy to the deposit, by shovel. All soils and sands were screened through 1/4" mesh. None of these units showed any discernible stratification, though two, numbers 12 and 30, clearly represented several episodes of deposition. 4) The two largest features from the WB grid, numbers 4 and 38, were excavated using grids of five foot squares. These large features are discussed below.

Excavated features were given sequential numbers from 1 to 107. Two numbers, 3 and 5, were assigned to features outside the grid which will be discussed below.

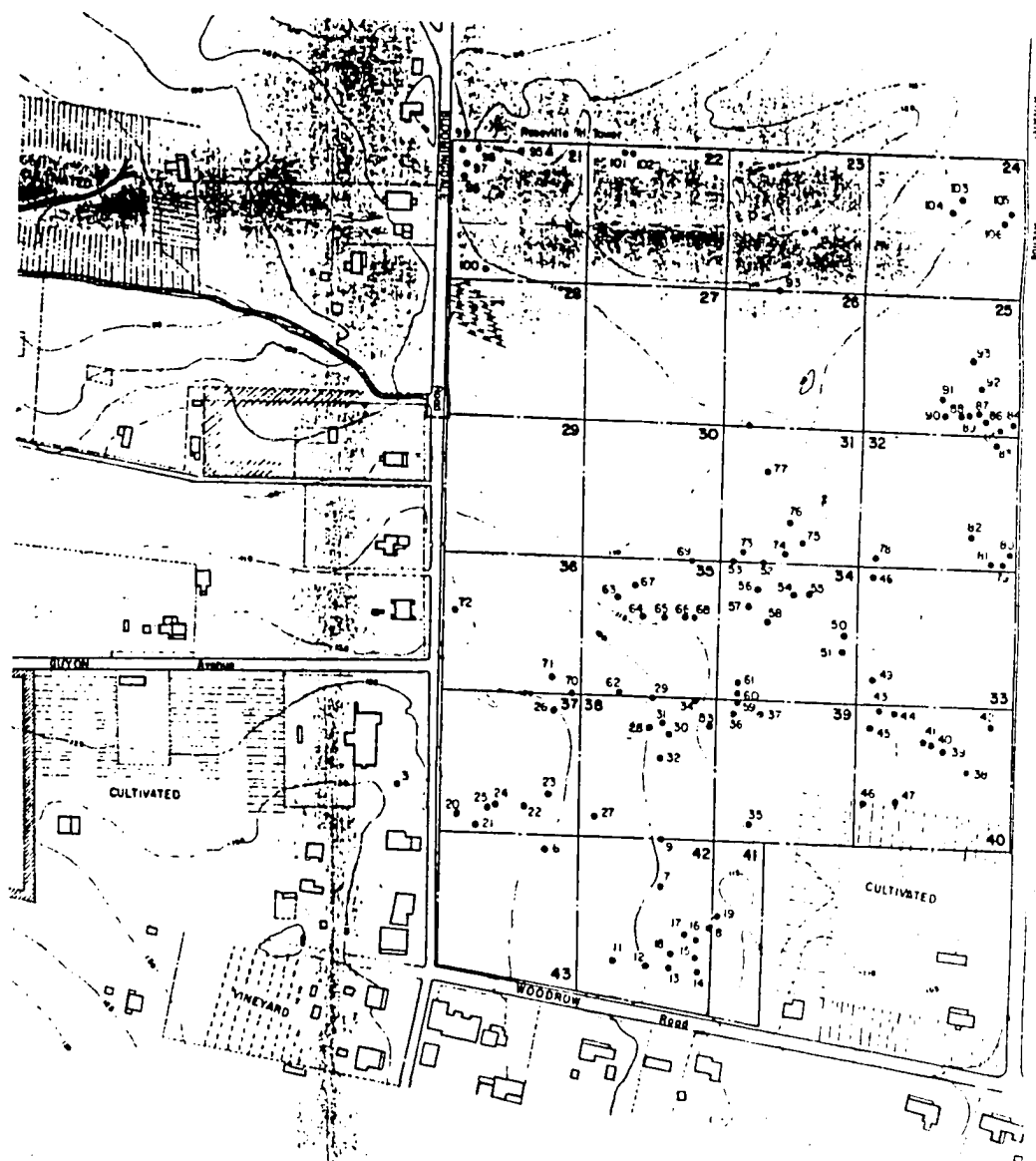


Figure 4.3: Location of Features used in the Analysis
(Grid superimposed on Bridgeman 1913 topographical map)

Of these numbers 36, 61, 69, 85, 94, 96, 97, 107 were not recovered, and numbers 42, 60, 68, 70, 80 and 83 were only sampled. Features numbered 1 and 2 were located north of the limits of the surveyed Winant-Bloomingtondale Grid. Thus all the above listed units, save for 3 and 5, are not included in the inventory for this dissertation analysis. Figure 4.3 shows the location of all WB Features used in this analysis.

Feature 4

Two features from the Winant-Bloomingtondale Grid were sufficiently unlooted and of such size as to be excavated using a grid system of five foot squares. Feature 4 was located in a depression in the side of a small ridge in WB grid unit 23 (Figures 4.3 and 4.4). The depression sloped to five feet below the top of this rise, opening on one end towards the south, with dimensions at the bottom of about 25 feet by 35 feet. The north, west and east slopes of the depression had a grade of between 15 and 20 degrees, while the south slope was no more than five degrees. Much or all of the trash seems to have been dumped into this depression from the higher portion of the ridge. The depression may have been an erosional feature, or it may have been the result of excavation, possibly for building material, as the slight ridge was made of a red sandstone outcrop of either Magothy "ironstone" or a very large glacial erratic of Triassic sandstone. There was no evidence of the area

having been burned, unlike most of the WB grid area.

The initial appearance of the feature was of a scatter of household materials in dense leaf litter, though it was soon realized that the whole depression was carpeted in artefacts. Beneath the two to four inch thick leaf litter was a layer of matted roots and humus, from four to eight inches thick. The last inch of this layer was mostly humus and it was here that the majority of the artefacts were found. Under the humus was the basal layer of sterile decomposing sandstone occasionally interlensed with orange to red sands and clays. Some artefacts had been pushed up to the surface by root action, some others had percolated down into the upper portion of the decomposing sandstone, sand and clay.

A grid which eventually included 34 five foot square units was laid out (Figure 4.4) with north approximately on a diagonal through the grid. All squares but number 31 were excavated. A datum was established at the north east corner of the grid, at the corner of square 4, and two surface profiles were made. Since the dump was not stratified each square was assigned a catalog number which was the same as the square number. In each square the leaf cover was picked up revealing some artefacts and the root mat. This matted humus was then removed by being cut into sections and rolled up. Most artefacts were usually exposed on completion of this process. Diagnostic pieces, i.e. whole bottles, bottle necks, bases, fragments

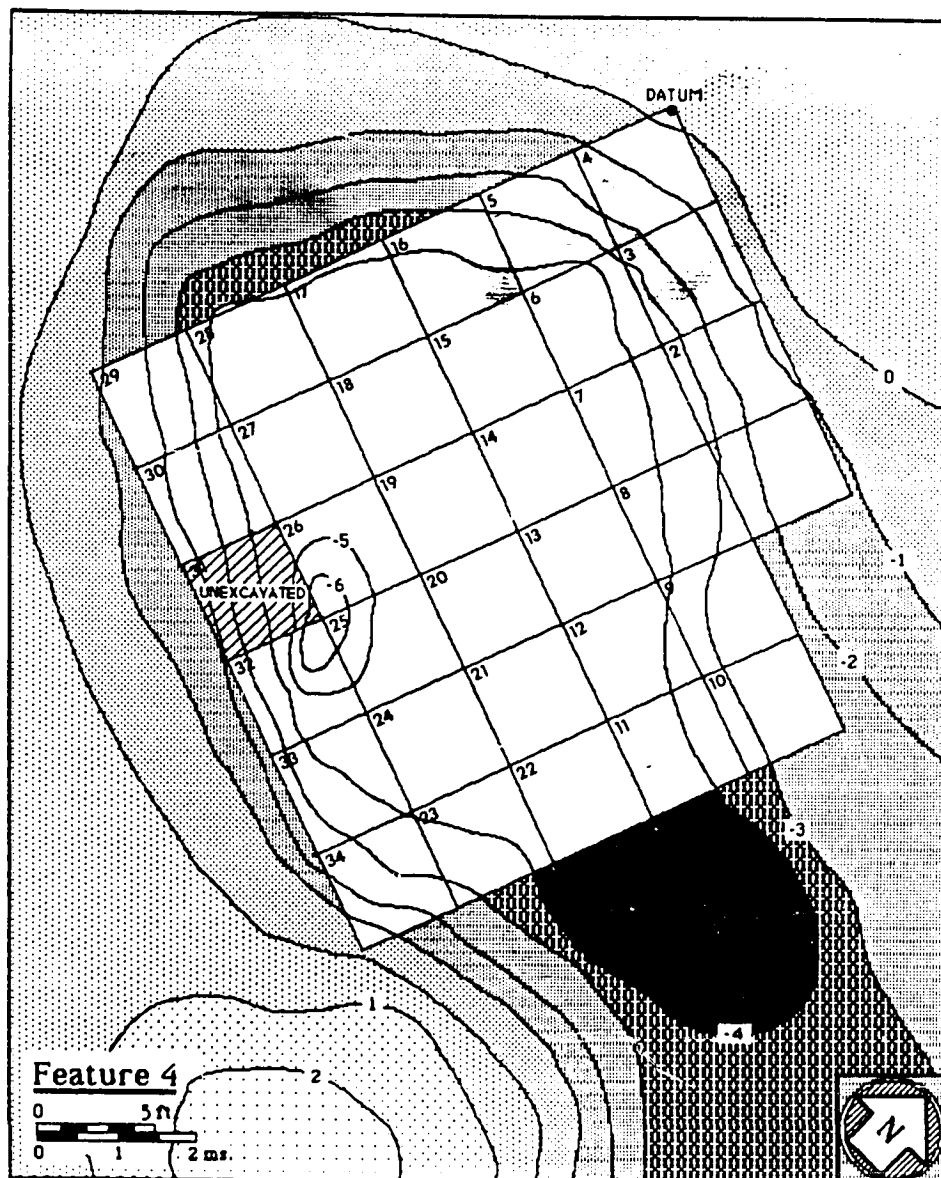


Figure 4.4: Contour Map and Grid Plan for Feature 4

with lettering, ceramic rims or trademarks, identifiable metal, miscellaneous small finds and clusters of associated artefacts, were given individual catalog numbers. All cataloged artefacts were mapped. The root mat was shaken for artefacts, and the humus and underlying sand and clay were sifted. Excavation continued down to the red sandstone in all squares.

Feature 38

Feature 38, in WB grid unit 40, was a large surface dump with little indication of looting, measuring about 40 feet north to south and 25 feet east to west (Figure 4.3). The feature was excavated using a grid of five foot squares with square numbers one through 15 and 18 through 35 laid out on a north to south axis (Figure 4.5). Two small dumps close by Feature 38 were given subunit designations 38.16 and 38.17. The former lay seven feet east of the Feature 38 grid, the latter three feet east of the grid. Squares 26 through 29 were not excavated. Throughout this feature artefacts were encountered in the humus layer and just at the top of the underlying sand. The humus layer was no more than six inches thick. The midden appeared to have been disturbed after deposition, but not to a great degree.

Feature 3

During this first season Schuyler conducted other work across Bloomingdale Road from the WB Grid, opposite Bogardus Corners, on and next to the property of Martha

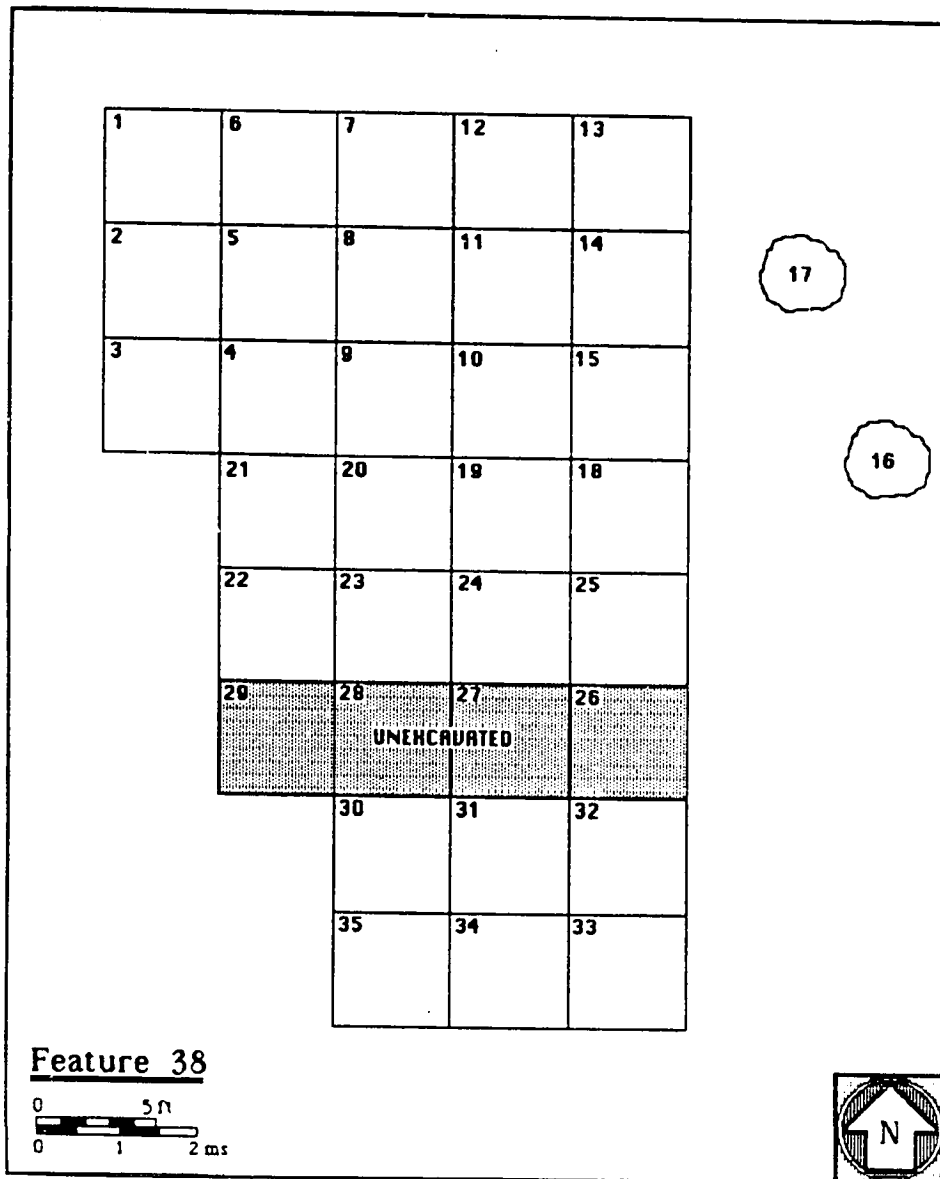


Figure 4.5: Grid Plan of Feature 38

Purnell (Schuyler 1974). In the very last week of the first field season a feature was uncovered adjacent to the Purnell property (Figure 4.3). The recovery of Feature 3 was in essence a salvage excavation. In preparation for the construction of a playground, a bulldozer was clearing brush. The treads and dragging blade of the machine greatly disturbed the deposit. Given the very little time left, and the immanent return of the bulldozer, it was decided to recover this feature by selective trowelling, shovelling and rapid sifting. One five foot square and two 20 by two foot trenches, east-west and north-south, were shovelled out. Though clear stratification was noted, it was also greatly disturbed. The trenches and square were therefore excavated in two arbitrary levels, the first consisting of the upper one foot of the dump, the second to about one foot and six inches, the approximate bottom of the feature. The matrix was mostly sand grading to a hardpacked orange sand. No plans or profiles of the feature were made.

Feature 120

During the second season, the summer of 1972, Schuyler excavated a single large, stratified feature, designated number 120. This dump was located along a sluggish, swampy stream to the west of Bloomingdale Road. Historic maps indicate that this dump was just beyond the cultivated lands of Stephen Cutting, and is in an area not

easily reached by any other household in the area (Figure 4.3). The dump was located on a slightly sloping grade bordering the stream. The area surrounding the dump was covered in a thick growth of shrubs and vines, with some sassafras trees. After clearing, the full extent of the feature was perceived, and a grid of 17 five foot square units was surveyed onto the dump, with north running diagonally through the squares (Figure 4.6). Squares were numbered in the order in which they were excavated. It became apparent that this feature was stratified, and catalog numbers were assigned for each strata within each square in sequential order. Natural stratigraphy was followed, with excavation proceeding with trowels and rootcutters where necessary. Shovels were used when apparently sterile soils were reached, and all soils were sifted through 1/4 inch mesh screens.

The top layer of humus and matted roots varied in depth from two to over six inches. This layer contained almost all the artefacts associated with the dump. Underlying the humus was a sandy soil, leached brown from organic material and artefacts above. Below this was the sterile orange sandy soil, with clay lenses, which underlay most of the Sandy Ground area. Marked exceptions to this were two linear shaped deposits and several small depressions which intruded into the sterile orange soil. These pits and trenches were recognized as brown sandy soils, often as a graded continuation of the humus above,

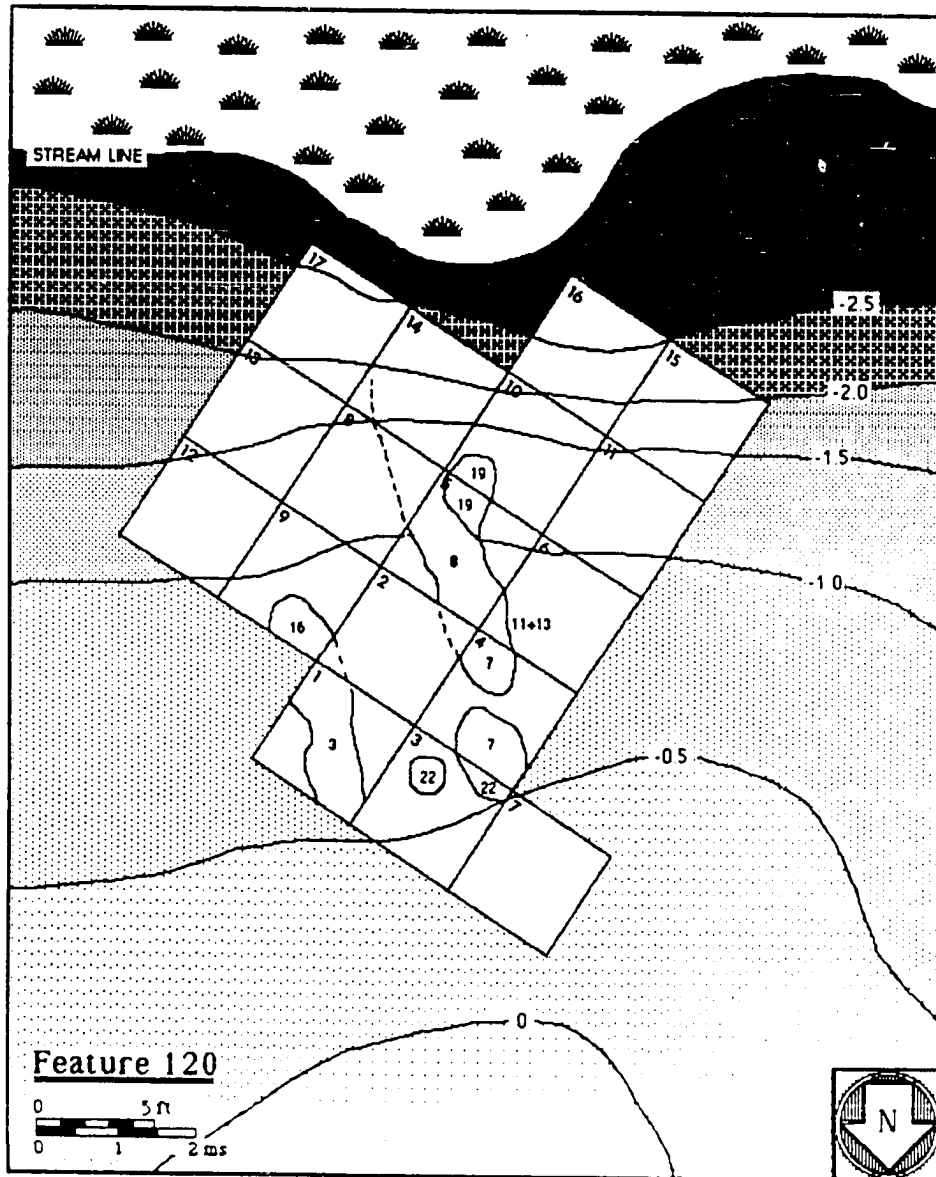


Figure 4.6: Contour Map and Grid Plan for Feature 120

though in several cases with a stratum of sterile orange sandy soil between them and the overlying humus. To some degree the linear deposits coincided with the densest concentration of artefacts in the stratum above. These two "trenches" ran at an angle through the feature towards the stream. These may have been natural erosional features, some form of drainage facility for the nearby agricultural land, or a method for burying solid waste. In any case, it is clear that after these trenches and pits were filled the depositional pattern changed from linear or pit concentrations to broadcast deposition. Separate catalog numbers were given to each of these pits and trenches (Figure 4.6). In a few cases some historic artefacts were found in the orange sandy soil, though this was primarily sterile of historic materials.

A prehistoric manifestation was encountered in Square 3, catalog number 22, at one foot and nine inches below the surface, well into the orange sandy soil. A cluster of fire cracked sandstone and other rocks was found associated with a stone flake. This is the only recovery of any in-situ aboriginal material during Schuyler's field work.

The surface of the feature included materials described in the field notes as clearly more recent than the subsurface materials. These were included in the field as part of the subsurface materials and could not be distinguished during laboratory work. In addition,

materials from a much more recent and specialized dump were excavated on the edge of Feature 120 in squares 12 and 13. This material was mostly modern pharmaceutical labware and is not considered in this research.

The stratigraphic relationships in this feature allow for the distinction of two components: the broadcast materials in the upper level, and the contents of the linear deposits. Chronological analysis of glass containers from the feature indicated very little temporal difference between these components. Furthermore, considering Feature 120 as a single unit allowed for a more robust comparison with other features.

Lab Procedures

No processing of artefacts was conducted during Schuyler's field seasons. Washing and labelling was conducted during the school terms over the following years. Under Schuyler's direction, artefacts usually received the full site identification prefix, 30 Std 24-3, as well as the Feature number and any square or catalog numbers. Materials from the Winant-Bloomingtondale Grid also received the prefix WB. Schuyler initially concentrated on Features 4 and 120. Many Feature 120 artefacts received shorthand designations, only catalog and subcatalog numbers. Much time was also spent on the reconstruction of the glass and ceramic assemblages of Feature 120 and 4. Glass and ceramics were reconstructed using Duco cement and sand

boxes. On reconstructed objects, labels were often written on only one or two sherds.

Schuyler also completed an inventory of all materials from the WB grid features before washing and reconstruction. This inventory is satisfactory for everything but glass and ceramic materials, as it was done before adequate sources became available describing the stylistic and technological changes in the glass container and ceramics industries in the nineteenth and twentieth centuries. Therefore, all household glass and ceramic materials have been reinventoried by this author. Some materials were never washed or labelled. This included Structures A, B, and C, and nearly all of Feature 5.

When this author inherited the Sandy Ground collection, it was decided to complete the labelling and reconstruction of the Winant-Bloomingtondale materials, which had not progressed very far. The reconstruction of the glass and ceramic materials forms the basis for chronological control of the features and the stylistic analysis developed in this dissertation.

RECENT ARCHAEOLOGICAL FIELD WORK

In 1979 this author worked under contract to the Sandy Ground Historical Society to produce background research for an archaeological nomination to the National and State Registers of Historic Places. Research consisted of a surface survey of occupied and abandoned house lots

throughout Sandy Ground. In addition, a few lots were probed with shovel tests and one five foot square unit was placed within a garage where a concentration of prehistoric and historic artefacts had been reported. None of this material has been used for this analysis (Askins 1982a and 1982b). A Sandy Ground Historic Archaeological District was accepted to the Historic Registers in 1984.

In the summer of 1983, Jo Ann Cotz directed a contract excavation in Sandy Ground, and recovered materials associated with several Sandy Ground families (Cotz et al 1985). This material has also not been used here.

All of the above artefactual materials are stored at the Staten Island Institute of Arts and Sciences.

SPATIAL ANALYSIS AND HISTORIC ASSOCIATIONS OF FEATURES

This section accomplishes two things. It demonstrates the behavioral patterns which produced the Sandy Ground deposits. Second, the household and community associations of the excavated features are established. Attributions are made to six specific households as the origin for some of the recovered material.

Feature 4

The size of Feature 4 indicates that this does not represent a single depositional episode. Nonetheless, analysis of the date ranges from the 57 datable glass

containers indicates that the midden was created over no more than a few years, possibly a half a decade.

Feature 4 seems to have had three primary clusters in which there are a high number of cross-mends. A number of artefacts mended across the square boundaries. These cross-mends are most likely the result of the movement of sherds during dumping or subsequent disturbance. This leads to the conclusion that the feature must be considered as a single unit, since there is little possibility of separating the material into distinct subunits.

The inference that these materials belong to a single household is based on the appearance of identical ceramic table sets in various parts of the feature. Though the same table patterns may have been obtained by different households, this seems unlikely given the diversity of ceramic styles available to and found in the Sandy Ground collections.

It is also assumed that an individual household dumped refuse in the same place or area, usually within easy walking distance.

The specific identity of the household of origin for Feature 4 cannot be inferred. Feature 4 is in the northern part of the WB grid, across Winant Road from the households of two Afro-Americans, the Robbins and Stevens families. Most importantly, internal evidence indicates that this feature represents the household refuse from a

Black household. As Schuyler noted (1977), one bottle from this feature originates from a small pharmacy in Seaford, Delaware. Seaford was the site of an oyster shucking house, and is not far from Snow Hill, the home of many of the Sandy Ground founders.

A distribution analysis of the place of origin of glass products in Features 4 and 120 showed that the Seaford bottle stands out as unusual (Askins 1982b). Medicinals in the assemblages, including mass produced and widely distributed patent medicines, and most pharmacy bottles came from large cities, such as Philadelphia, New York and Lowell, Mass. Some local pharmaceuticals in the deposits came from small pharmacies on Staten Island. But the Seaford pharmacy bottle is the only item from a small pharmacy not from Staten Island. All other medicinals in the Sandy Ground collection are either local to Staten Island or nationally distributed products. The question becomes, how did this bottle get from Seaford to Sandy Ground? The most efficient answer is that it was carried by someone who had contact with the Eastern shore of the Chesapeake. This would most likely be an oysterman, who regularly worked in the Chesapeake recovering seed oysters for planting in the North. And since no white oystermen lived in the community, this would indicate an Afro-American as the source of the bottle, and therefore the feature. Alternatively, it could be someone who had relatives in the Chesapeake and had visited them, or been

visited. Again, the only Sandy Grounders with relatives in or near Seaford were Afro-Americans. Therefore this feature is attributed to an unspecified Afro-American household, most likely an oysterman's family.

Feature 38

Crossmending analysis has indicated that Feature 38 can be subdivided into two subfeatures, 38A and 38B. Feature 38A includes units 1 through 19, 22, 24 and 25; Feature 38B includes 23 and 30 through 35. No artefacts have been found which mend across these unit boundaries. Importantly, parts of the same ceramic sets are found in both subfeatures (Figure 4.5). Since portions of the same ceramic tablesets are found in both subfeatures, the dump is most likely the product of a single household. And once again, the assumption of habitual use of the same dump by the same household is applied.

The inspection of historic maps indicates that the feature is located just behind the property of Johan Fisher who occupied the lot at the turn of the century (Figure 4.7). This pattern of dumping just beyond the cultivated land by a farmer is also seen in the location of Feature 120. This is the period of the feature materials (Chapter 5), and therefore, given its closeness to his land and the assumption of habitual use, it is probable that the materials come from Mr. Fisher's household.

The Samuel Wort Features

Samuel Wort, the son of Isaac Wort who lived at the east end of Sandy Ground along Woodrow Road, built a farm house adjacent to his farther's property sometime between 1907 and 1913 (Robinson and Pidgeon 1907; Bridgeman 1913). Opposite the Wort household, in WB grid units 24, 25, and 32, three clusters of trash were encountered, all of which date to after 1909 (Chapter 5). The features numbering 83 through 93 cluster exactly opposite Wort's home. Several other features cluster opposite his fences across Winant Road, as if these were dumped by those who would not cross in front of his property (4.3). Given an assumption of least effort, I am attributing the cluster of features immediately opposite Wort's house to his household.

Feature 120

Feature 120 was encountered within 50 feet of the cultivated land of John Cutting (Figure 4.3). With no other households within several hundred feet, it seems most likely that Feature 120 was produced by the Cutting household. In addition, during the Sharrott's Estate Project, directed by JoAnn Cotz, the farm of Robert Cutting, the brother of John, was surveyed and features excavated. On Robert's farm, a large feature was encountered on the stream which bisected his land, just at the rear of his cultivated property (Figure 4.8) (Cotz et al 1985:262). A pattern can be adduced, in which household

Feature 3

Feature 3, which dates to the 1920s, is adjacent to the Staudt houselot, with no other adjacent occupied lots (Figure 4.3). Thus it seems clearly to be the product of this household.

Summary of Household Associations

The majority of Sandy Ground features cannot be associated with households. Four households have been specifically identified, two with German immigrant households, and two with white immigrants of the second or latter generation after arrival. Another has been inferred as being Afro-American.

Table 4.1: Identified Households and Associated Features

Identification	Feature(s)	Median Systemic Date	Occupation
John Cutting Anglo-American	120	1914	laborer, farmer (FCWT 1900)
Samuel Wort Anglo-American	83-93	1912-1930	market gardner (FCWT 1910)
Johan Fisher German	38	1901	machinist (FCWT 1910)
Johan Staudt German	3	1925	farmer (SCWT 1925)
Afro-American	4	1902	oysterman

Note: See Chapter 5 for attribution of dates to each feature.

CHAPTER 5

FEATURE CHRONOLOGY - GLASS AND CERAMICS

INTRODUCTION

The research questions of this dissertation require an understanding of the choices made by people in the styles of material culture used to express identity. These choices or preferences in style are turned into material reality when items, in this case ceramics, are bought. Therefore a chronological control over the purchase time of tablewares and tea services is a necessary pre-requisite to the analysis in Chapter 6.

This chapter first establishes the deposition dates of the household middens through an analysis of bottles found in the features. From these deposition dates, the systemic dates of mean use of the household materials and their period of purchase are found.

A chronological analysis must recognize that different household items have use lives of different lengths (Schiffer 1972). Historical archaeologists have recognized that ceramics show a time-lag in their mean production dates when compared to bottles (Adams and Gaw 1977; Hill 1982). This time lag is an indicator of the much greater length of time that ceramics stay in use. I use ceramic time-lag analysis to get to the systemic

moments of purchase of Sandy Ground ceramics.

Distinguishing categories of artefacts by their relative length of systemic participation allows for a more accurate dating. Objects with relatively short use life, bottles in the Sandy Ground assemblages, would be most accurate in dating the time of deposition. Objects with potentially long use life may be deposited any time in that usage, and, if represented in even moderate numbers, may skew a date early or late.

Many materials are available for dating, including buttons, ceramic dolls, coins, toys, tools, etc (Noel-Hume 1970). But ceramics and glass containers have been most fully researched, and are the most common categories of datable items in the Sandy Ground collection. Therefore bottles and pottery are the focus of this chapter.

Glass containers, i.e. bottles, usually hold comestibles and household products which are used relatively quickly. In some cases, such as sodas and most foodstuffs, usage is almost immediate. Glass container technology and company history is used in this chapter as the primary sources for dating bottles. As a check on the glass container produced dates, and to account for the phenomenon of ceramic time lag, ceramic dates based on company information are also presented in this chapter. The chapter will discuss the technology and company history of glass containers and the glass coding system used. The resulting glass container feature dates will be presented

and discussed. Ceramic history will be briefly covered - a fuller outline is presented in Chapter 6 - and the ceramic feature dates compared to the bottle generated dates. The issue of time lag between ceramics and bottles, and the moments of deposition represented in the Sandy Ground collections will be considered.

GLASS CONTAINERS

Nineteenth and Early Twentieth Century Technological and Corporate Changes in the Bottling Industry

This section describes the history of technological and corporate organizational change in the bottle industry from just before the Civil War until the 1950s. References are made to Appendix A, Figure A.1: Bottle Technology Dating Code.

Until after the Civil War bottles were used to hold a limited range of items. No adequate method for sealing perishable materials had become widespread or economical (Miller and Sullivan 1981). Thus only items which were relatively immune from spoilage, such as whiskey, wine, pickled or spiced foods or condiments, and medicines, were bottled. Beer, though increasingly popular in nineteenth century America, was not bottled to any extent until the 1870s (Baughner-Perlin 1982:270). Bottles were also relatively expensive, with labor intensive hand blowing dominant until the 1850s. Hand blown, technically called off-hand or free blown, bottles, required highly skilled

craftsmen to produce most bottle shapes (Toulouse 1967). A small percentage of bottles were made in cast iron molds, but this was a minor part of the industry. The bottle industry expanded rapidly after the War with the widespread adoption of blown-in-mold production in the 1860s, followed in the 1890s with the beginnings of automation (Barnett 1926), improved seal apparatus and food processing techniques, and a cultural shift to the acceptance of metal and glass packaged foods (Toulouse 1969; Miller and Sullivan 1981).

In general, then, there were two technological periods of bottle production in this country, which overlapped extensively. The earlier period was based on the ancient technology of forming bottles by skilled blowers, either "free blown" or "blown-in-mold". During the early nineteenth century, improvements in this technology consisted in the introduction and diversification of mold making techniques, and developments in the technique of holding bottles for "finishing" (forming the neck and mouth), and in the finishing process itself (Armstrong and Schulz 1980). The second period, which begins towards the end of the nineteenth century, is characterized by the introduction of automatic bottle making machinery and the use of semi-skilled or unskilled labor as operators of the machines. Improvements in this period consisted of the development of more efficient machines, and machines which could produce a greater

variety of types and sizes of bottles (Hodkin and Cousen 1925; Miller and Sullivan 1981:1).

The following paragraphs describe the specific traits used in the bottle code, with the code numbers indicated in parentheses.

Off-hand or free blown bottle making predominated in this country until the 1830s, and was important regionally until the Civil War, with a few categories of bottles, such as wines, produced by this method until the early 1920s (038) (Deiss 1982:46,47; McKearin 1978:247,253). This technique involved a skilled glass blower taking a gob of 'metal' (molten glass) and blowing and shaping the body, shoulder and neck of the bottle. A long rod, or pontil, was then attached to the already formed base and the blow-pipe broken from the bottle. This allowed the mouth of the bottle, now held on the pontil, to be "finished" (thus the term for this portion of the vessel). Such bottles can usually be recognized by the lack of seams, and some degree of non-symmetricality to the form (Kendrick 1968; Toulouse 1967).

The different marks left by the several styles of pontils which were used during the nineteenth century can also be recognized (036) (Toulouse 1969:535; Jones 1971). Since pontils left marks, which could interfere with how a bottle stood or detracted from its appearance, a device known as the snap case was developed by the late 1850s

which held the bottle for finishing and left no marks on the base (028, 034) (Davis 1949:82; Munsey 1970:39,48; Baugher-Perlin 1982:266-267).

Though a variety of molds had been used in the industry for some time, several types of cast iron chilled molds became important to glass production after 1860 (028, 030, 040) (Toulouse 1969:532,536; Munsey 1970:39,40; Baugher-Perlin 1982:262-265). Most molds, and especially the poly-part molds, left seams (vertical lines), parting lines (horizontal lines), turn marks and other landmarks on the bottles, allowing the particular type of mold to be recognized, sometimes from a single sherd (007) (Toulouse 1969:532; Munsey 1970:60). In addition, the different combinations of pontils or snap cases, and molds can allow for the assignment of relatively narrow date ranges for the production of some bottles (034, 036) (Toulouse 1969:535; Munsey 1970:39; Baugher-Perlin 1982:262-265).

The finish on mold blown bottles was still made in a separate operation using a variety of hand or tool finishing techniques. The methods went through a development, which included the introduction of higher temperature furnaces with "glory holes", which allowed a cleaner fusing of the finish to the bottle body. Some of the different technologies for finishing mold-made bottles have been recognized in this collection (125, 129, 130) (Baugher-Perlin 1982:267-268; Deiss 1981:94).

The improvement in finishing techniques was related

to the development of bottle sealing methods which could be standardized, produced more cheaply and increased the quality of seal for bottles (Lief 1965). Seals for containing beers and carbonated beverages were developed in this period (100, 200, 103, 104, 120) (Munsey 1970:104,105,116; Deiss 1981:94).

Blown-in-mold bottle making allowed for the easy production of bottles with embossed characters, usually in the form of product and company information. Large runs of bottles would have molds specifically made for individual companies. With the introduction of the slug plate, a removable plate carrying product and company information that slipped into the blow mold, now also called a plate mold, even very small runs of labelled bottles could be produced inexpensively (Munsey 1970:40; Baugher-Perlin 1982:265).

New products, and old products in the new glass packages, expanded the market for bottles (Riley 1958). Beer bottling became a major industry with thousands of small and large breweries (Baron 1962). Soda water became a new refreshment, and patent and proprietary medicines flooded the country (Young 1961). Many of these products carried embossed company information. Even the smallest grocery or pharmacy was able to buy embossed bottles carrying their name and location.

Under the competitive pressure of this market new

technologies emerged in the 1890s and early 1900s. The semi-automatic production of bottles, patented as early as the 1860s in the United States and England, was not used for large scale production until 1893. Semi-automatic machines required a semi-skilled operator to feed appropriate amounts of glass into the machines, assisted by one or two "boys", i.e. unskilled men (001, 021) (Meigh 1960:27; Miller and Sullivan 1981:3). The addition of glass feeding devices to these machines after the turn of the century converted many semi-automatic machines into fully automatics. Semi-automatic machines formed the complete vessel, leaving seams and parting lines, and base marks of various types and combinations on bottles. They allowed for rapid production with much less product variation. At present no researcher has worked out the differences among the many varieties of semi-automatic machines produced in the decades of the 1890s through the 1910s (Meigh 1960; Barnett 1926; Scoville 1948).

The quality control of automation, especially the mechanical forming of the bottle finish, allowed the introduction of several standard finish types which accommodated closures improving the tightness of seal on bottles for carbonated beverages and spoilable foods (135, 140, 152, 154, 155) (Munsey 1970:126; Nurnberg 1967; Lief 1965:22,23).

By 1903, Michael Owens developed the first fully automatic bottle blowing machine, allowing large scale

production with no skilled labor (023) (Toulouse 1969:582). Mold blowing and semi-automatic machine production continued for the next decade or two, until the onset of Prohibition and then the Depression forced the smaller, and usually less technologically developed, bottle makers, out of business. The Owens machine, leaving its characteristic scar on bottle bases, dominated the industry by the 1920s. A more efficient automatic machine, the gob feeder, soon outcompeted the Owens machine and is now the primary machine used in glass bottle production (025) (Kendrick 1966:83).

Several other technological developments aid in the dating of the Sandy Ground collection. The increase in the demand for bottled foods and beverages involved the cultural shift to expecting bottles to be clear, and their contents easily visible (Stewart and Cosentino 1976:15). The primary decoloring agent used in glass sand was manganese, introduced in 1880. The English blockade of Germany and then the entry of the United States into World War One cut this country off from its source for manganese from 1915 to 1918. Selenium was introduced as the industry's primary decoloring agent in 1915. Glass produced with manganese takes on an amethyst tint with exposure to the sun, and such sun-colored glass is easily recognizable (002, 004, 012, 026) (Munsey 1970:55; Deiss 1981:94).

Applied color labelling for the most part replaced embossed lettering by the 1930s (005) (Munsey 1970:52).

The appearance of the "Federal Law Prohibits Sale or Reuse of This Bottle" embossment and the recognition from stylistic and technological attributes of post-Prohibition alcoholic beverage bottles completes the datable attributes found on Sandy Ground bottles (006, 020) (Munsey 1970:126).

Bottle Typology

Glass container objects were coded using a system aimed primarily at establishing a date range for each item. Every item, or group of identical items from any one provenience, was coded in the following way (the following parentheses refer to Appendix A, Figure A.2: Glass Container Dating Form). Each item or lot was recorded by provenience (Prov.), number (N), vessel portion (Part), shape of vessel (Shape), contents (Function - 2 codes: a) general, b) specific), chronological information, including technology (Techno), and information from embossments or labels on bottles (Historic Info. card no.), and any miscellaneous information (Notes).

Provenience and number are self explanatory. Under Part the portion of the vessel present was recorded, distinguishing sherds (S), finish (F), or base (B), or any items which included two portions of a vessel, either base and substantive body section (BB), or finish and body (FB).

Whole vessels were those with no substantial diagnostic portion missing, regardless of whether the vessels were broken or substantially mended (W). Diagnostic portions included majority of base, sufficient body to recognize all technological landmarks and historic information, and most of finish.

Shape codes were assigned based on shapes listed in Herskowitz (1978), photographs and bottle designations in Wilson (1981) and from the 1911 Illinois Glass Catalog (Putnam 1965). Shapes not found in these sources were drawn from the specimen in the collection. All encountered shapes are listed in Appendix A, Figure A.3: Bottle Shapes.

Functional codes are two tiered (Appendix A, Figure A.4: Glass Container Function Codes). General categories of inferred function were first assigned, such as food, or condiment, based on shape or specific finish type, which were sometimes used for a limited range of products. Some bottle shapes were used for only one product, as "Blob-top champagne beers" or "Hutchinson stoppered sodas" (Baugher-Perlin 1982). Other general categories of bottles could be recognized, as condiments, but specific contents, pickled items, or olives, for example, usually could not. Embossed information was of great assistance in specific identification. When possible more precise assignments were made, such as milk under food or ketchup under condiments. When no function could be inferred the item was

assigned 998 or was simply not coded for function.

Technological characteristics of glass containers, described above, were not completely recorded. Instead, those technological traits which provided the narrowest date range for the object were coded. For example, if a vessel was made in a turn mold, used from 1870 to 1920 (030), and was amethyst sun colored, which would date it from 1880 to 1916 (002), only the sun coloration would be coded. Though this involved a loss of information, it was an efficient manner of coding the large assemblage.

All historic data on glass container parts were recorded on file cards (Historic Data Cards) and are listed in Appendix B, Table B.1: Historic Data Information from Glass Containers. In general, three kinds of historic information were of use. Product information allowed definite functional identification. Bottle maker information usually appeared as logos or trademarks on the base of bottles. These were then researched, primarily from Julian Toulouse's "Bottle Makers and Their Marks" (1971). Bottler or retail outlet information was also of great use, embossed on so many bottles from this period. These were also researched through collector's books or through New York City, Staten Island, and miscellaneous other municipal business directories (Bull, Friedrich and Gottschalk 1984; Baldwin 1973; Watson 1965; Zumwalt 1980). Unfortunately, directory searches were not available for

other communities from which Sandy Ground bottles originated, such as several small towns in New Jersey, like Rahway or Patterson. A final date range was assigned to each dated object. The final date combined the technological date range with the range of historically identified companies. This approach allowed the narrowest date ranges possible. The date range and mid-date for all dated bottles appears in the Appendix B, Table B.2: Bottle Inventory.

All coded information was entered into the Knowledgeman Information Management System (Micro Data Base Systems 1983) run on an IBM XT and an IBM PC. Knowledgeman allowed sorting, the entry of dates for codes, and the production of mid-dates, sums and averages.

Glass Container Generated Dates

Appendix B, Table B.2: Bottle Inventory contains the coded information for all Sandy Ground glass containers used in this study. Mean dates were generated for each assemblage based on the median dates for the date range assigned to items. Initially, sherds with assigned date ranges were included in the calculations, but it became apparent that including sherds was skewing the dates in unpredictable ways. A single vessel might produce a dozen sherds carrying datable characteristics which would weight the mean towards the date of that single bottle. Only in the case of Features 62, 78, and 84, which contained no

other datable glass items, were single sherds used as the basis for the median date.

The mean middates generated are listed in Tables 5.1 and 5.2. Table 5.1 lists the dates in Feature order, Table 5.2 in chronological order, with the earliest assigned date 1882.5 and the latest 1962.5.

To aid in interpretation, bar graphs showing the distribution of assigned mid-dates for assemblages are presented in Figure 5.1: Bar Graphs of Feature Date Frequency. Two decadal and one half-decadal graphs are presented.

It is apparent that the mean dates for bottle assemblages fall into a bimodal pattern, with one mode centered in the 1890s and early 1900s and a second in the second half of the 1920s. It is also possible that a third, smaller mode clusters in the late 1940s, though this is only apparent in the half decadal graph. Before we can assume that this bimodal pattern reflects the discard behavior of Sandy Ground households the possible influence of the structure of the coding system and the sample size of some of the features must be discussed. The bimodal distribution may be the result of the coding system used in its reflection of changes in the bottling industry itself; combined with the small sample size of datable objects in some of the features. The earlier discussion of technological and corporate changes in the bottle industry indicates that there was a major period of technological

Table 5.1: Mean Mid-dates for Features Based on
Datable Bottle Specimens - Organized by feature sequence

Dates have been rounded to the first decimal point

Feature	N	Mean Mid-date	Feature	N	Mean Mid-date
3	131	1917.6	50	15	1924.3
4	146	1895.1	51	17	1927.0
6	1	1962.5	53	5	1928.0
7	1	1890.0	54	8	1917.3
8	25	1944.3	55	118	1925.6
9	11	1900.0	56	5	1923.6
10	1	1962.5	57	11	1929.8
12	4	1903.9	58	7	1938.1
13	2	1925.0	61	1	1890.0
14	21	1944.1	62	1*	1932.0
15	9	1948.4	63	11	1929.4
16	26	1941.4	64	36	1905.4
17	1	1948.0	66	41	1895.7
18	3	1954.3	67	7	1903.4
20	4	1936.3	70	67	1938.8
21	5	1934.3	73	6	1894.0
22	7	1944.0	74	3	1927.3
23	27	1913.3	75	34	1893.1
24	5	1942.1	76	5	1901.0
26	1	1932.0	78	1*	1890.0
27	1	1932.0	79	1	1962.5
28	3	1903.5	81	1	1943.0
30	12	1922.0	84	1*	1917.0
32	3	1914.3	86	7	1923.6
34	31	1898.9	87	8	1910.8
35	15	1904.3	88	5	1922.7
37	9	1883.1	89	15	1921.6
38	121	1893.0	90	5	1918.7
39	6	1884.8	92	6	1894.8
40	7	1900.2	93	3	1905.7
41	9	1892.8	95	4	1927.0
42	5	1950.3	100	1	1890.0
43	1	1941.5	102	1	1937.5
45	1	1932.0	103	22	1929.4
46	6	1929.2	104	2	1937.5
47	7	1909.4	105	2	1915.8
48	7	1882.5	106	16	1928.9
49	5	1899.4	120	354	1907.9
			Total N = 1534		
Mean Mid-date for Total Assemblage:			1912.5		

* Indicates dates based on single sherds. Sherds were not used for compiling dates for any other features.

Table 5.2: Mean Mid-dates for Features Based on
Datable Bottle Specimens - Organized chronologically

Dates have been rounded to the first decimal point

Feature	N	Mean Mid-date	Feature	N	Mean Mid-date
48	7	1882.5	56	5	1923.6
37	9	1883.1	86	7	1923.6
39	6	1884.8	50	15	1924.3
7	1	1890.0	13	2	1925.0
61	1	1890.0	55	118	1925.6
78	1*	1890.0	51	17	1927.0
100	1	1890.0	95	4	1927.0
41	9	1892.8	74	3	1927.3
38	121	1893.0	53	5	1928.0
75	34	1893.1	106	16	1928.9
73	6	1894.0	46	6	1929.2
92	6	1894.8	63	11	1929.4
4	146	1895.1	103	22	1929.4
66	41	1895.7	57	11	1929.8
34	31	1898.9	26	1	1932.0
49	5	1899.4	27	1	1932.0
9	11	1900.0	45	1	1932.0
40	7	1900.2	62	1*	1932.0
76	5	1901.0	21	5	1934.3
67	7	1903.4	20	4	1936.3
28	3	1903.5	102	1	1937.5
12	4	1903.9	104	2	1937.5
35	15	1904.3	58	7	1938.1
64	36	1905.4	70	67	1938.8
93	3	1905.7	16	26	1941.4
120	354	1907.9	43	1	1941.5
47	7	1909.4	24	5	1942.1
87	8	1910.8	81	1	1943.0
23	27	1913.3	22	7	1944.0
32	3	1914.3	14	21	1944.1
105	2	1915.8	8	25	1944.3
84	1*	1917.0	17	1	1948.0
54	8	1917.3	15	9	1948.4
3	131	1917.6	42	5	1950.3
90	5	1918.7	18	3	1954.3
89	15	1921.6	6	1	1962.5
30	12	1922.0	10	1	1962.5
88	5	1922.7	79	1	1962.5

* Indicates dates based on single sherds. Sherds were not used for compiling dates for any other features.

Figure 5.1: Bar Graphs of Feature Date Frequency
Mean Mid-dates Based on Bottle Dating

Feature Date Frequencies Feature Date Frequencies with
Based on all Dated Features. Small Sample Features Removed.

<u>Ten Year Segments</u>		
1880s	XXX (3)	XXX (3)
1890s	XXXXXXXXXXXXX (13)	XXXXXXXXXX (9)
1900s	XXXXXXXXXXXXX (11)	XXXXXXXXXXXXX (11)
1910s	XXXXXXXXXX (8)	XXXXXXX (6)
1920s	XXXXXXXXXXXXXXXXXXXXX (17)	XXXXXXXXXXXXXXXXXXXXX (16)
1930s	XXXXXXXXXXXXX (10)	XXXXX (4)
1940s	XXXXXXXXXXXXX (9)	XXXXXXX (6)
1950s	XX (2)	XX (2)
1960s	XXX (3)	

<u>Five Year Segments</u>		
1880-1884	XXX (3)	XXX (3)
1885-1889		
1890-1894	XXXXXXXXXX (9)	XXXXXX (5)
1895-1899	XXXXX (4)	XXXXX (4)
1900-1904	XXXXXXX (7)	XXXXXXX (7)
1905-1909	XXXXX (4)	XXXXX (4)
1910-1914	XXX (3)	XXX (3)
1915-1919	XXXXXX (5)	XXX (3)
1920-1924	XXXXXXX (6)	XXXXXXX (6)
1925-1929	XXXXXXXXXXXXX (11)	XXXXXXXXXXXXX (10)
1930-1934	XXXXXX (5)	X (1)
1935-1939	XXXXXX (5)	XXX (3)
1940-1944	XXXXXXX (7)	XXXXXX (6)
1945-1949	XX (2)	X (1)
1950-1954	XX (2)	XX (2)
1955-1959		
1960-1964	XXX (3)	

<u>Ten Year Segments from Mid-decade</u>		
1875-1884	XXX (3)	XXX (3)
1885-1894	XXXXXXXXXX (9)	XXXXXX (5)
1895-1904	XXXXXXXXXXXXX (11)	XXXXXXXXXXXXX (11)
1905-1914	XXXXXXX (7)	XXXXXXX (7)
1915-1924	XXXXXXXXXXXXX (11)	XXXXXXXXXXXXX (9)
1925-1934	XXXXXXXXXXXXXXXXXXXXX (16)	XXXXXXXXXXXXX (11)
1935-1944	XXXXXXXXXXXXX (12)	XXXXXXXXXXXXX (9)
1945-1954	XXXXX (4)	XXX (3)
1955-1964	XXX (3)	

N=76

N=57

Features whose dates are based on one or two sherds were removed from the second bar-graph analysis.

transformation in bottling, beginning in the 1890s and continuing into the 1910s (Miller and Sullivan 1981). Dates assigned to earlier bottling techniques, such as several of the mold making technologies, have median dates which cluster in the 1880s and 1890s. The very common bottle formation process of three piece blown-in-mold with cup or post mold (028 in the typology) has a date range of 1860 to 1920 for most containers, 1860 to 1930 for sodas, beers, patent medicines, and medicinals. These produce median dates of 1890 and 1895 respectively. Any of the Sandy Ground assemblages deposited in this period will have a tendency to be assigned a date towards the median date, regardless of when in the period it was deposited, especially if the assigned dates are based on very few objects. Of the four features assigned the date of 1890 based on a single item, three contain blown-in-mold bottle portions.

To allow an evaluation of the effect of small sample size on the feature date distribution, Figure 5.1 also contains the bar graphs with features removed which have dates based on only one or two datable items. The bimodal distribution remains, with the third peak more clearly apparent in one of the decadal graphs. This rather simple evaluation procedure indicates that the small sample size of some feature assemblages has not affected the date distribution.

There are several reasons for expecting a bimodal

distribution to result from the general period of Sandy Ground deposits relating to the history of the bottling industry. As mentioned above, a major period of technological change took place in the industry in the period from the 1890s into the 1910s, the period when many of the Sandy Ground assemblages were deposited. Many technologies either ended or began in this period. Sandy Ground assemblages, which contain bottles produced by technologies just at the end of their use, or others at the beginning of their production, will end up with aggregate dates which are either earlier or later than their "real" product dates.

The history of corporate change in the bottle industry may also affect the dating of bottle assemblages through the dates assigned historic company information found on bottles. With the expansion of demand for glass containers in the 1880s and 1890s many small and large bottle making companies opened. Also, many more small bottlers had their names molded onto bottles. The development of automatic bottling machines was part of the process of consolidation in the industry, with larger companies driving the smaller out of the industry or absorbing them. Thus one would also expect a bimodal distribution in the history of bottle companies, with many smaller ones in the 1890s and early 1900s and fewer larger ones consolidating in the post World War One years and

lasting into the recent past, at least until the 1960s, when the bottling industry began to feel the effects of the expansion of plastic packages. These later, larger bottle making companies would show median dates falling in the later decades of the century, and features with many bottles produced by these companies would have dates skewed towards more recent times.

Two of the peaks in the distribution may therefore be "artefacts" of the changes in the bottle industry. This possibility can be evaluated by comparing the bottle median date frequency distribution with the ceramic median date frequency distribution.

CERAMIC DATES BASED ON TRADEMARK DATA

This section will establish dates for features using trademarks recorded from ceramics in the Sandy Ground collection. The distribution of the ceramic trademark generated dates are compared with the bottle based dates, allowing an evaluation of the multi-modal distribution of bottle dates.

Recording and Research of Ceramic Trademarks

Ceramic vessels as sources for chronology have long received attention in the historical archaeological literature (South 1972). Unfortunately, the period of the late nineteenth and early twentieth centuries has been an exception to this attention, in part because of the proliferation of new styles and technologies in this

period, and in part because of the only recent attention payed to early modern America. Thus, though a full literature exists for dating ceramics by a method combining stylistic and technological changes into the immediate post-Civil War decades, no such dating system has been developed for ceramics of the time period of this study. I will not present a technological analysis of early modern ceramics. One of the intentions of this research is to develop a seriation of ceramic styles for the period 1880 through 1930 by first controlling the chronology of the ceramics through the dating of the features containing ceramics. As presented this seriation can be used for future dating. This seriation will be discussed in Chapter 6.

Besides stylistic and technological criteria for dating ceramics in the Sandy Ground assemblages, manufacturers' trademarks are the most available sources for chronology. Trademarks were impressed, stamped, applied or incised on many, though far from all, vessels. Ceramic trademarks can be with relative easily using a variety of sources, most especially Goeffrey Godden's Encyclopedia of British Pottery and Porcelain Marks (1964). Altogether one hundred and nine different trademarks were illustrated, found on one hundred and thirty nine vessels (see Appendix C, Figures C.1 through C.12 and C.18). Also recorded were nineteen potters' marks and lot marks,

applied, usually by hand, in the factory to indicate the individual potter or some aspect of production volume (see Appendix C, Figures C.11, 13 and 14). Finally, portions of the cobalt blue decorations on utilitarian stonewares were also drawn (Appendix C, Figures 15 through 17).

Of the one hundred and nine marks drawn, all but 28 were identified sufficiently to allow for the assignment of date ranges (Appendix C, Table C.1: Ceramic Trademark Inventory). Ninety-nine separate vessels could be dated from these marks.

The date ranges were used to calculate average median dates for twenty-one features (Appendix C, Table C.2: Calculations for Ceramic Generated Feature Dates and Table 5.3: Feature Dates Based on Ceramic Trademarks).

Ceramic Trademark Generated Dates

The ceramic median dates range from 1870 to 1968.5, with the majority falling into the period before 1920 (Tables 5.3 and 5.4). Bar graphs (Figure 5.2) indicate that these median dates show a multimodal distribution. Feature dates based on ceramics cluster in the 1870s, 1890s, 1910s and possibly the 1930s. The distribution of bottle dated features clusters in the 1890s and 1920s, when ten year periods are used for the distribution. The five-year bar graph of bottle dated features indicates a third mode, in the 1900s, and a fourth in the 1940s. These four

Table 5.3: Mean Mid-dates for Features Based on Datable
Ceramic Specimens - Organized by feature sequence

Dates have been rounded to the first decimal point

Feature	N	Median Date	T.P.Q.
3	8	1921	1910
4	13	1898.7	1900
15	1	1968.5	1966
30	1	1918	1900
34	1	1900.5	
38	31	1892.6	1900
40	1	1879.5	1871
41	1	1901	1892
46	1	1930	1900
54	3	1892	1884
55	3	1897.7	1891
64	1	1870	1842
66	1	1902.5	1881
70	1	1931	1891
75	2	1898.8	1891
88	1	1879	1876
89	1	1919	1905
92	1	1876	1865
101	1	1884	1797
103	4	1912.5	1901
120	22	1912.4	1914
N = 99		1902.7	

Table 5.4: Mean Mid-dates for Features Based on
Datable Ceramic Specimens
Organized chronologically

Feature	N	Mean Mid-date
64	1	1870
92	1	1876
88	1	1879
40	1	1879.5
101	1	1884
54	3	1892
38	31	1892.6
55	3	1897.7
4	13	1898.7
75	2	1898.8
34	1	1900.5
41	1	1901
66	1	1902.5
120	22	1912.4
103	4	1912.5
30	1	1918
89	1	1919
3	8	1921
46	1	1930
70	1	1931
15	1	1968.5

Figure 5.2: Bar Graphs - Comparison Between Bottle and Ceramic Mean Mid-date Frequencies

Feature Date Frequencies Based on Bottle Dating.		Feature Date Frequencies Based on Ceramic Dating.	
		<u>Ten Year Segments</u>	
1870s			XXXX (4)
1880s	XXX (3)		X (1)
1890s	XXXXXXXXXXXXXXX (13)		XXXXX (5)
1900s	XXXXXXXXXXXXXXX (11)		XXX (3)
1910s	XXXXXXXXXX (8)		XXXX (4)
1920s	XXXXXXXXXXXXXXXXXXXXX (17)		X (1)
1930s	XXXXXXXXXXXXX (10)		XX (2)
1940s	XXXXXXXXXXXXX (9)		
1950s	XX (2)		
1960s	XXX (3)		X (1)
		<u>Five Year Segments</u>	
1870-1874			X (1)
1875-1879			XXX (3)
1880-1884	XXX (3)		X (1)
1885-1889			
1890-1894	XXXXXXXXXXXXX (9)		XX (2)
1895-1899	XXXXXX (4)		XXX (3)
1900-1904	XXXXXXX (7)		XXX (3)
1905-1909	XXXXXX (4)		
1910-1914	XXX (3)		XX (2)
1915-1919	XXXXXX (5)		XX (2)
1920-1924	XXXXXXX (6)		X (1)
1925-1929	XXXXXXXXXXXXXXX (11)		
1930-1934	XXXXXX (5)		XX (2)
1935-1939	XXXXXX (5)		
1940-1944	XXXXXXX (7)		
1945-1949	XX (2)		
1950-1954	XX (2)		
1955-1959			
1960-1964	XXX (3)		
1965-1969			X (1)
		<u>Ten Year Segments from Mid-decade</u>	
1865-1874			X (1)
1875-1884	XXX (3)		XXXX (4)
1885-1894	XXXXXXXXXXXXX (9)		XX (2)
1895-1904	XXXXXXXXXXXXXXX (11)		XXXXXXX (6)
1905-1914	XXXXXXXXXXXXX (7)		XX (2)
1915-1924	XXXXXXXXXXXXXXX (11)		XXX (3)
1925-1934	XXXXXXXXXXXXXXXXXXXXX (16)		XX (2)
1935-1944	XXXXXXXXXXXXXXX (12)		
1945-1954	XXXXX (4)		
1955-1964	XXX (3)		
1965-1974			X (1)
N=76			N=21

clusters of feature dates based on bottles, when matched to the four modes based on ceramics, may reflect the difference between ceramic and bottle use-life.

Since the ceramic dates are based only on manufacturer's dates, the modal patterning cannot be influenced by technological developments in the ceramic industry. It is also unlikely that this multimodal distribution is a result of patterns in corporate merging and startups. The ceramic industry was operating on an international scale even before Josiah Wedgwood began promoting his pottery in the 1790s, and companies from many different countries with different market and competitive histories are represented in the Sandy Ground collection. The bottle industry, on the other hand, had not been involved in regional and international marketing until very recently.

The greater number of mean bottle dates seen in the 1890s and 1920s may be in part a reflection of the peculiarities of the dating system discussed above. But, it seems safe to assume that the correlated modalities found in the ceramic and bottle generated dates in the collection are more the result of local systemic activities, including consumer behavior in purchase and household behavior in use and breakage of these items.

ANALYSIS OF RESULTS - CHRONOLOGY OF ASSEMBLAGES

Moments of Systemic Contexts

The materials used for developing the Sandy Ground Feature chronology have all been processed in a complex social and economic system of capitalist production and household consumption. The systemic contexts of ceramics and glass containers include several systemic transformations as the items move through the cultural system (Schiffer 1976:29). The points of systemic transition include: production, primarily in industrialized factory contexts; distribution in local, regional, national and international markets; purchase, which includes choices concerning style of ceramics and types of materials (both affected by numerous cultural factors); the period of use or consumption of the items, the possible recycling of some items and their eventual discard. These moments of transition obviously include a temporal aspect, and it is the purpose of this section to clarify which of the systemic contexts are being measured by the dating scheme used. In addition, the two major categories of household items used for this analysis, bottles and ceramics, have somewhat different life histories which must be considered in evaluating the chronological conclusions.

Industrially produced ceramics are bought for their long term functioning. This includes both an instrumental function, as plate, pan, bowl, etc, found in the basic form

of the vessel, and a social-ideological function found in its "style". Style in ceramics includes decoration and fabric, with more expensive body types, especially porcelain, having a higher status association. This social-ideological function is usually enacted through the display of the item, in glass cupboards or on mantelpieces or other display areas, or more usually in the table-setting itself. It is expected that the use-life of a ceramic item will be longer the more money or social concern focused on its social-ideological functions in reflecting identity and status. Porcelains, which in general represent higher status, should show longer use-lives than less expensive tablewares.

The glass containers used in this study have a systemic history which includes their production, their filling with product contents, and then distribution, purchase, consumption and discard. Glass containers are bought for their contents, and the use-life of bottles depends on how rapidly the contents are consumed. This rate of consumption may be almost instantaneous for some categories, such as soda, beer and milk, somewhat longer for whiskeys, many foods, many wines, and longest for condiments, medicines and household chemicals. Within each category great variation in actual individual vessel use-life can be expected.

In addition, lateral cycling can take place with bottles. They may be re-used in the household, or returned

to points of purchase and refilled. The degree of re-use of nineteenth and early twentieth century bottles has not been investigated, but may certainly be a factor affecting the analysis of chronology. In the Sandy Ground collection there is inferential evidence of bottle re-use, seen in the amount of wear on the heels of the vessels, but this has not been systematically recorded.

The point at which the systemic-archaeological transform takes place for ceramics is usually determined by breakage, though family life-cycle changes or the purchase of new complete tableware sets, and the discard of the old, may also be significant factors. Bottles will usually enter the archaeological record when they are broken or empty, though as noted one or more re-use cycles may be involved.

Date of Production

The period of production of ceramics and glass containers can be recovered through research into company histories - when company information is recorded on the item, or through technological landmarks reflecting developments in the production process. The range of period of production is used in this analysis to produce a median date, the date half way between the initial and end-date of production. This may not represent the mid-point in terms of volume of production for an item. For example, the Owens fully automatic bottle making machine was

developed in 1903 but was not used for wide scale production until 1905. Owens machines were producing half of all bottles made in this country by 1917, at which point a more efficient fully automatic machine was introduced, the gob feeder machine, which had nearly driven Owens machines from the market by the 1950s. Toulouse gives the period of peak production by Owens machines as circa 1925 (Toulouse 1969). Yet the median, half way between 1903, the date of first production, and 1971, the date of excavation, is 1937. Thus median dates themselves cannot be taken as a mid-point on a normal curve representing a gradual increase and decrease in rate of production. Rather the use of a median date between initial and terminal production dates represents the average number of items produced for the total production period, and not a weighted mean date.

The dates produced for the features are thus the average dates of manufacture for those items.

Dates of Purchase

The dates of purchase of items cannot be directly recovered. Items may be purchased anytime during the manufacture range, and even after manufacture has ceased. It will be assumed that date of purchase will fall before the median date of usage.

Dates of Feature Deposition

A lag in time between production and deposition must be assumed for industrially produced consumables. Items are distributed through a market system, purchased, and then used, before deposition. In some cases, as noted above, use may be nearly instantaneous, as with beer and soda. Yet, on the average, some manufacture-deposition lag should be expected. Sarah Hill (1982) has investigated deposition lag at two domestic sites, Silcott, Washington, and Edgewood, Georgia, a military site, the Custer Road Dump, and the sunken Mississippi riverboat Bertrand, all dating to the nineteenth and early twentieth centuries. These sites have clearly assignable moments of deposition, thus allowing Hill to compare the average manufacture dates of glass containers to the known date of deposition (1982:324). Table 5.5 summarizes Hill's results.

There are some problems of comparability among these sites and between Hill's procedures and the ones used in this analysis. Hill was comparing two domestic sites with a military and a transportation site. The Bertrand represents consumables which had not yet reached their points of distribution, and thus are not in the same moment of the systemic context as the other sites. The Custer Road site represents as much as twenty years of accumulation, whereas the other three sites are or seem to represent short-duration depositions. In addition, it is not clear if Hill used the same glass container dating

criteria as used in this research. Regardless of these qualifications, Hill's results can be used as general guidelines for inferring the dates of deposition for the Sandy Ground features.

Before applying Hill's result, they can be evaluated using the Sandy Ground assemblages. None of the Sandy Ground features used in this analysis were deposited in any sealed manner. Nearly all are surface dumps, and thus have no overlying strata or geological context which can be used to assign terminus post quems. All features dated contain glass and ceramic items which can be assigned terminus post quems, which are the earliest possible dates the assemblages could have been deposited. Table 5.6 lists

Table 5.5: Time Lag Between Ceramic and Glass Manufacture Dates at Four Sites With Known Deposition Dates

Site	Deposition Date	Time lag
Bertrand	1865.4	10.8 years
Custer Road Dump	1896	18 years
Edgewood Site	1911	11.6 years
Silcott Site	1928	11.2
Average time lag		12.9

Source: Sarah H. Hill, An Examination of Manufacture-Deposition Lag for Glass Bottles from Late Historic Sites. In Archaeology of Urban America; The Search for Pattern and Process, edited by Roy S. Dickens, Jr., (Academic Press, New York) pp. 325, table 12.26.

the glass container mean manufacture dates and the assigned terminus post quem dates. The T.P.Q. dates are based on the latest initial production dates for glass items in the feature assemblages. Though it is possible that other categories of artefacts might contain items whose initial date of production is later than any of these, it was considered sufficient to use datable bottles which appear in all features. Terminus post quem dates, based on technology and company history, sometimes fall before the median dates of manufacture, sometimes are approximately contemporaneous, and sometimes fall afterwards. For the sake of this analysis we can assume that terminus post quem dates which fall after the median dates approximate the dates of deposition.

Hill's manufacture-deposition lag dates range from 10.8 to 18 years, with an average of 12.9 years. Only one T.P.Q. date in the Sandy Ground collection falls more than twenty years after the glass median date. This is from Feature 3, which most likely was disturbed before excavation (see Chapter 4). Several others have lag dates which fall between 19.7 years and 15 years. Though it cannot be independently demonstrated that the terminus post quem dates represent the actual dates of deposition for the Sandy Ground features, it does demonstrate that Hill's results are consistent with the dates generated for these Sandy Ground features. Therefore, in assigning approximate dates of deposition, we will use the general, and

admittedly ballpark, guideline that domestic sites are deposited approximately 13 years after the mean date of manufacture, and apply Hill's median deposition lag of 12.9 years in the calculations.

Dates of deposition of assemblages have been assigned using the following approach. For all features in which the terminus post quem is less than 12.9 years after the median bottle manufacture date, I will assign the deposition date as 12.9 years after the median manufacture date. When the terminus post quem is more than 12.9 years after the median, the deposition date will be the terminus post quem date (See Table 5.6).

Some assemblages represent deposition over a rather extended period of time, months or even years of dumping, such as the large Features 3, 4, 38, 55 and 120. The deposition dates assigned large features should be considered the latest episode of dumping on these features.

Median Systemic Context of Household Materials

Establishing the date of deposition allows us to infer the date of use. In this case, the mid-point between median bottle manufacture date and deposition date will be assumed to be the date of primary systemic context. Though some mean ceramic manufacture dates are later than their assemblage bottle manufacture dates, the ceramic mean dates will not be used in calculating median systemic context dates. For the reasons outlined above, it is assumed that

Table 5.6: Sandy Ground Glass Container Feature Dates,
Dates of Deposition and Median Systemic Dates

Feature	N	Mean Mid-date	T.P.Q.*	Deposition** Date	Median# Systemic Date
3	131	1917.6	1954	1954	1935.8
4	151	1895.1		1908	1901.55
6	1	1962.5	1954	1971++	1966.95
7	1	1890.0	1870	1902.9	1906.45
8	25	1944.3	1960	1960	1952.15
9	11	1900.0	1903	1912.9	1906.45
10	1	1962.5	1954	1971++	1966.95
12	4	1903.9	1908	1916.8	1910.35
13	2	1925.0	1933	1937.9	1931.45
14	21	1944.1	1954	1957	1950.55
15	9	1948.4	1954	1961.3	1954.85
16	26	1941.4	1954	1954.3	1947.85
17	1	1948.0	1925	1960.9	1956.45
18	3	1954.3	1954	1967.4	1960.75
20	4	1936.3	1924	1949.2	1942.75
21	5	1934.3	1929	1947.2	1940.75
22	7	1944.0	1933	1956.9	1950.45
23	27	1913.3	1933	1933	1923.15
24	5	1942.1	1954	1955	1948.55
26	1	1932.0	1893	1944.9	1938.45
27	1	1932.0	1893	1944.9	1938.45
28	3	1903.5	1893	1916.4	1909.95
30	12	1922.0	1917	1934.9	1928.45
32	3	1914.3	1903	1927.2	1920.75
34	31	1898.9	1910	1911.8	1907.35
35	15	1904.3	1908	1917.2	1910.75
37	9	1883.1	1893	1896	1889.55
38	121	1893.0	1908	1908	1900.5
39	6	1884.8	1903	1903	1893.9
40	7	1900.2	1903	1913.1	1906.65
41	9	1892.8	1898	1905.7	1899.25
42	5	1950.3	1960	1963.2	1956.75
43	1	1941.5	1929	1954.4	1947.95
45	1	1932.0	1893	1944.9	1938.45
46	6	1929.2	1903	1942.1	1935.65
47	7	1909.4	1903	1922.3	1915.85
48	7	1882.5	1860	1895.4	1886.65
49	5	1899.4	1903	1912.3	1905.85
50	15	1924.3	1903	1937.2	1930.75
51	17	1927.0	1911	1939.9	1933.45
53	5	1928.0	1917	1940.9	1934.45
54	8	1917.3	1916	1930.2	1923.75
55	118	1925.6	1924	1938.5	1932.05
56	5	1923.6	1903	1936.5	1930.05
57	11	1929.8	1929	1942.7	1936.25

Table 5.6: Continued

58	7	1938.1	1924	1951	1944.45
61	1	1890.0	1860	1902.9	1896.45
62	1+	1932.0	1893	1944.9	1938.45
63	11	1929.4	1924	1942.3	1935.85
64	36	1905.4	1908	1918.3	1911.85
66	41	1895.7	1920	1920	1907.85
67	7	1903.4	1903	1916.3	1909.85
70	67	1938.8	1938	1951.7	1947.25
73	6	1894.0	1908	1908	1901
74	3	1927.3	1940	1940.2	1933.75
75	34	1893.1	1903	1906	1899.55
76	5	1901.0	1903	1913.9	1907.45
78	1+	1890.0	1860	1902.9	1896.45
79	1	1962.5	1954	1971++	1966.95
81	1	1943.0	1917	1955.9	1949.45
84	1+	1917.0	1917	1929.9	1923.45
86	7	1923.6	1911	1936.5	1930.05
87	8	1910.8	1910	1923.7	1917.25
88	5	1922.7	1916	1935.6	1929.15
89	15	1921.6	1906	1934.5	1928.05
90	5	1918.7	1924	1941.6	1925.15
92	6	1894.8	1880	1907.7	1901.25
93	3	1905.7	1903	1918.6	1912.15
95	4	1927.0	1917	1939.9	1933.45
100	1	1890.0	1860	1902.9	1896.45
102	1	1937.5	1903	1950.4	1943.95
103	22	1929.4	1911	1942.3	1935.85
104	2	1937.5	1906	1950.4	1943.95
105	2	1915.8	1929	1929	1922.4
106	16	1928.9	1924	1941.8	1935.35
120	354	1907.9		1920.8	1914.35

- * Terminus Post Quem dates are the latest initial date of manufacture of either glass or ceramic artefacts.
- ** Deposition dates produced by adding Hill's (1982:324) mean manufacture-deposition time lag (12.9) to feature mean mid-date. Were T.P.Q. is more than 12.9 years after mean mid-date, T.P.Q. is used as deposition date.
- # Inferred median systemic date is the mid-point between median glass date and deposition date.
- + Indicates dates based on single sherds. Sherds were not used for compiling dates for any other features.
- ++ Features whose inferred deposition dates fell after the date of excavation (1971) using the above method were assigned the deposition date of 1971.

the bottle dates are more sensitive in reflecting actual dates of purchase and use (Tables 5.6 and 5.7).

CERAMIC TIME LAG

William Adams (Adams and Gaw 1977), Linda Worthy (1982), and this author (in Cotz et al 1985) have looked at the time lag found between the median dates of ceramic and glass components of late nineteenth and early twentieth century historical assemblages. Ceramics are expected to have the longest average uselife of the easily datable materials from these assemblages and thus produce average manufacture dates which are earlier than bottles. Since the stylistic analysis presented in the next chapter focuses on ceramics, and since it is the point of purchase at which the stylistic choice is made manifest, an understanding of the chronological relationship of ceramics to bottles in the systemic context of Sandy Ground households is essential.

At Silcott, Washington, Adams and Gaw analyzed dump assemblages from a ranch and store dating to the first and second decades of the twentieth century (1977). They produced median dates of manufacture for glass and ceramics, resulting in an average time lag of 23.54 years (Adams and Gaw 1977:225). At the Edgewood, Atlanta site, with a deposition date of 1911, Linda Worthy found a difference between the mean ceramic production date and the mean glass production date of only 7.8 years (Worthy

1982:350). In an analysis done previously in Sandy Ground, this author found a ceramic-glass time lag for feature SE-4 975 SS (not included in this analysis), with a deposition date of 1932, of 22.19 years. In the present analysis, ceramic-bottle time lags for the twenty-three features and sub-features with both bottle and ceramic average manufacture dates range from +43.7 years to -9.67 years (Table 5.8: Ceramic Time Lag). The aggregate average time lag difference for all ceramic and glass artefacts in this analysis is +10.16 years, with an aggregate mean ceramic manufacture date of 1902.7, and an aggregate mean bottle manufacture date 1912.5.

Though most of the Sandy Ground features with datable ceramics and bottles meet the expectation of positive ceramic-bottle time lag, nine do not. One of these features, number 3, is most likely highly disturbed and has been discussed in Chapter 4. The variation in the time-lag found in the other features can be the result of a number of variables - errors in the attributing of dates to companies made by researchers; the discard in some households of ceramics soon after they were bought, and soon after that type was first manufactured; the small sample size on several features; long periods of deposition at some features; and biases in the dating system caused by the history of bottle industry technological and corporate change. Given the number of factors which may be causing the unexpected negative dates in these features it was

Table 5.7: Median Systemic Dates by Decade

Feature	Inferred Median Systemic Date	Feature	Inferred Median Systemic Date
48	1886.65	56	1930.05
37	1889.55	86	1930.05
		50	1930.75
39	1893.9	13	1931.45
61	1896.45	55	1932.05
78	1896.45	51	1933.45
100	1896.45	95	1933.45
41	1899.25	74	1933.75
75	1899.55	53	1934.45
		106	1935.35
38	1900.5	46	1935.65
73	1901	3	1935.8
92	1901.25	63	1935.85
4	1901.55	103	1935.85
49	1905.85	57	1936.25
7	1906.45	26	1938.45
9	1906.45	27	1938.45
40	1906.65	45	1938.45
34	1907.35	62	1938.45
76	1907.45		
66	1907.85	21	1940.75
67	1909.85	20	1942.75
28	1909.95	102	1943.95
		104	1943.95
12	1910.35	58	1944.45
35	1910.75	70	1947.25
64	1911.85	16	1947.85
93	1912.15	43	1947.95
120	1914.35	24	1948.55
47	1915.85	81	1949.45
87	1917.25		
		22	1950.45
32	1920.75	14	1950.55
105	1922.4	8	1952.15
23	1923.15	15	1954.85
84	1923.45	17	1956.45
54	1923.75	42	1956.75
90	1925.15		
89	1928.05	18	1960.75
30	1928.45	6	1966.95
88	1929.15	10	1966.95
		79	1966.95

Figure 5.3: Bar Graphs of Median Systemic Dates

<u>Ten Year Units by Decade</u>	
1880S	XX (2)
1890S	XXXXXX (6)
1900S	XXXXXXXXXXXXXXX (13)
1910s	XXXXXXX (7)
1920s	XXXXXXXXXX (9)
1930s	XXXXXXXXXXXXXXXXXXXXX (19)
1940s	XXXXXXXXXXX (10)
1950s	XXXXXX (6)
1960s	XXXX (4)

<u>Five Year Units</u>	
1885-1889	XX (2)
1890-1894	X (1)
1895-1899	XXXXX (5)
1900-1904	XXXX (4)
1905-1909	XXXXXXXXXX (9)
1910-1914	XXXXX (5)
1915-1919	XX (2)
1920-1924	XXXXX (5)
1925-1929	XXXX (4)
1930-1934	XXXXXXXXXX (9)
1935-1939	XXXXXXXXXXXXX (10)
1940-1944	XXXXX (5)
1945-1949	XXXXX (5)
1950-1954	XXXX (4)
1955-1959	XX (2)
1960-1964	X (1)
1965-1969	XXX (3)

<u>Ten Year Units from Mid-decade</u>	
1885-1894	XXX (3)
1895-1904	XXXXXXXXXX (9)
1905-1914	XXXXXXXXXXXXXXXXXXXXX (14)
1915-1924	XXXXXXX (7)
1925-1934	XXXXXXXXXXXXXXXXXXXXX (13)
1935-1944	XXXXXXXXXXXXXXXXXXXXX (15)
1945-1954	XXXXXXXXXX (9)
1955-1964	XXX (3)
1965-1974	XXX (3)

N=76

Table 5.8: Ceramic Time Lag - Bottle Dates Compared to Ceramic Dates

Ceramic Dates				Bottle Dates			Time Deposition Lag Date	
Feature No.	N	Median	T.P.Q.	N	Median	T.P.Q.		
3	8	1921	1910	89	1917.7	1938	- 3.3	1938
4	13	1898.7	1900	151	1895.1		- 3.6	1908
15	1	1968.5	1966	9	1948.4	1954	-20.1	1966
30	1	1918	1900	12	1922	1917	+ 4.0	1934.9
34	1	1900.5		31	1898.9	1910	- .6	1911.8
38	31	1892.6	1900	121	1893	1908	- .4	1908
40	1	1879.5	1871	7	1900.2	1903	+20.7	1913.1
41	1	1901	1892	9	1892.8	1898	- 8.2	1905.7
46	1	1930	1900	6	1929.2	1903	- .8	1942.1
54	3	1892	1884	8	1917.3	1916	+25.3	1930.2
55	3	1897.7	1891	118	1925.6	1924	+27.9	1938.5
64	1	1870	1842	36	1905.4	1908	+35.4	1918.3
66	1	1902.5	1881	41	1895.7	1920	+ 6.8	1920
70	1	1931	1891	67	1938.8	1938	+ 7.8	1951.7
75	2	1898.8	1891	34	1893.1	1903	- 5.6	1906
88	1	1879	1876	5	1922.7	1916	+43.7	1935.6
89	1	1919	1905	15	1921.6	1906	+ 2.6	1934.5
92	1	1876	1865	6	1894.8	1880	+18.8	1907.7
103	4	1912.5	1901	22	1929.4	1911	+16.9	1942.3
120	22	1912.4	1914	354	1907.9		- 4.5	1921.8
99 1902.7				1534	1912.5		+10.16	

decided not to assign them individual time lag dates, and instead use the aggregate time lag for the Sandy Ground materials.

The aggregate time lag for all glass and ceramics used in this analysis is 10.16 years, towards the lower period found at the Edgemont site. This ten year lag will be assumed to approximate the actual time lag for all features in the Sandy Ground collection. This assumption avoids the assigning of markedly different time lag dates for different features, and will allow the attribution of approximate dates for the manufacture of ceramics in features with no datable ceramic materials. All ceramic assemblages will be assumed to date ten years before the median bottle manufacture dates, and this will be considered to represent the approximate moment of purchase.

CHAPTER 6

STYLISTIC CHOICES AND SOCIAL IDENTITY - HOUSE FACADES
AND DECORATIVE CERAMICS

INTRODUCTION

Nineteenth century Sandy Grounders used material culture to articulate aspects of their social identities in a complex manner. This complex identity expression is evaluated in this chapter. Two kinds of material culture are available for this analysis: the facades of the vernacular built houses and mass produced ceramic tablewares. House facades are large and signal to the general public. They are intended for both community members and others who are not familiar with all subtleties of a community's social makeup. They establish firmly the social or individual identity of the household for both the passing public and the community at large. I expect house facades to incorporate the broad and clear statements of status. As such they will be used in this chapter to set the research focus.

Ceramic tablewares are less visible and signal to viewers who usually share more social knowledge, and more of the vocabulary of the message, with those in the household. We can assume that if the senders and receivers share more of the vocabulary of the message, then more

subtlety of expression is possible.

In the second section I present a discussion of the use of the concept "style" as it has appeared in archaeology and material culture studies. I then turn to Sandy Ground house facades. These are ordered chronologically using the periodization developed in Chapter 3, and reveal a transition in the house form constructed and a shift in the category of identity expressed.

Ceramic housewares receive an extensive treatment in Section Four of the chapter. The inadequacy of earlier typologies for nineteenth century Euro-American ceramics is demonstrated and a stylistic typology appropriate to the needs of this study is described. The typology is applied to the ceramic assemblages from Sandy Ground, and in the context of the feature chronology developed in Chapter 5, a stylistic seriation is built. Economic variation between the assemblages is gauged using the ratio of porcelains to non-porcelains, the ratios of functional types of tablewares, and the quality of body type of the tablewares.

With chronology and economic status controlled, the variation in stylistic diversity between assemblages is analyzed using the Chi Square statistic and principle component analysis. Dimensions of variation produced by the principle component analysis are used as a scale to distinguish differences in consumer choices, choices which allow for a presentation of social identity in the

community.

The concluding section summarizes the patterns of identity expression revealed in the other sections of the chapter.

MATERIAL CULTURE AND EXPRESSIONS OF IDENTITY

Stylistic aspects of material culture have been investigated for information on social and ideological dimensions by researchers in several fields (see Schlereth 1982 for a recent summary). As a strategy for information exchange, style can be used to transmit information about identity affiliation and differentiation (Wobst 1977:317; Weissner 1983:256). Expressions of identity can be a part of individuals' and groups' strategies for maintaining social power and access to resources, as "artifacts are actively manipulated in social strategies" (Hodder 1982:85).

The aspects of material culture assumed in this research to carry social meaning are house facades and ceramic tablewares. Wobst has pointed out that the visibility of the item, in both frequency and distance, in part determines the nature of social information most appropriately expressed (Wobst 1977:329). Highly visible items, hats in Wobst's study, house facades in this analysis, should carry information about the most general social identity of the wearer or builder. In addition, the nature of the social network which has visible access

to the item should also be a factor in the type of information expressed. That is, the notion of visibility should include the social relationship of the viewers to the people "showing" the material items. In Sandy Ground the potential viewers of house facades included all of the local community, plus the general public - the hundreds or even thousands who attended local religious, sports and fund raising events, and the many more who passed through Sandy Ground along Bloomingdale Road, the major north-south thoroughfare in this part of Staten Island.

The popular architecture of house facades of late nineteenth and early twentieth century Sandy Ground and surrounding communities may have carried the most explicit information on identity (Wobst 1977:327). House facades would be expected to be prime candidates for carrying "emblemic" information on group boundaries or group inclusiveness (Weissner 1983:257). Sandy Grounders, who built their own homes or had them built by other members of the community, could choose architectural styles from either traditional Chesopean forms or from several styles currently in use in the mid to late nineteenth century on Staten Island (McDaniel 1979; Szekely and Gabay 1980; Askins 1980b:Section 4). Sandy Grounders may also have chosen to signal individual differentiation from similar others by choosing a style which could be classified as "assertive", one which would be different from other house

styles (Weissner 1983:257; Askins 1982:10-11). The choice to use traditional southern architectural forms, whether or not based in "Africanisms", could be taken as an expression of ethnic boundary marking in this northern community. Alternatively, choosing to build houses in a style similar to other Staten Islanders of parallel economic and occupational status, though of a different ethnic identity, is also significant. This can be seen as the expression of a social position or identity in the same cultural idiom as the dominant White population, and thus part of a strategy focused on acceptance by that group, or a recognition of commonality between Afro-American and white households.

Household items, such as ceramic tablewares, especially those used for special events, explicitly carry symbols of a stylistic nature, though intended for a much smaller audience than house facades. Wobst expects items less often seen, and viewed primarily by individuals who already know the social affiliations of the signallers, to be less likely to carry social information. Wobst overlooks the ritual reinforcement of group cohesion as a significant function, which can be aided by material objects. Special events centered around dining, or taking place in the parlor or the sitting room of a Victorian where accompanied by appropriate items (Ames 1982). The style of these items may reflect shared notions of status and style or may have some direct ethnic association. Laumann and House have tentatively isolated "traditional"

and "modern" styles in mid-twentieth century homes and associated them with several social aspects including ethnicity and degree of status mobility. Many choices in the styles of household items were available to Victorian consumers, and certainly could have functioned in similar ways (Cohen 1982).

HOUSE FORM ANALYSIS

The most public, permanent and expensive material expression of social identity is the house a family occupies. The more directly decisions over the form and style of a house are controlled by those who are going to live in them, the more directly group identity expression will be embodied in the structure (Rapoport 1982). In Sandy Ground both choice in styles and control over construction are apparent in the relationships of owners to builders.

The nineteenth and early twentieth century residential architecture of Sandy Ground can be categorized as "vernacular" (Rapoport 1969:4) or as "popular-vernacular". Vernacular architecture is built in a context in which tradesmen are the primary builders, though most members of the community have at least some knowledge of construction. One Sandy Ground resident, Mr. George Hunter, was listed in several censuses as a bricklayer or mason (FCWT 1910, NYSCWT 1925), and oral histories indicated that he built a number of Sandy Ground homes

(Askins 1980a). It is possible that Mr. Hunter, and others who built in Sandy Ground, used architectural style and construction guides, a common practice in the nineteenth century. This would involve the architectural choices made in a larger popular arena, since style guides allowed local builders to choose from many of the currently popular styles of architecture. This would make at least the later nineteenth century architecture of Sandy Ground popular-vernacular.

The vernacular nature of Sandy Ground homes indicates that the builders or original owners of houses were selecting the aspects of style and form of the structure through which they could express identity.

Identity in house construction may be made tangible either in decorative treatments, especially to the public facade, or in the general form of the structure. At Sandy Ground we find relatively little architectural detail on house facades. The houses were often built with little facade decoration, and in many cases the facades have been altered, especially with the incorporation of front porches and the use of aluminum siding. It is difficult to infer what alterations were made in the history of any single structure. This leaves only the general style of the structures as a potential guide to identity expression.

There were two basic house types built in Sandy Ground during the later nineteenth and early twentieth

centuries. The earlier of these vernacular forms is the I house, described by Glassie as "the most common of the traditional English house types brought over by seventeenth and eighteenth century English emigrants." These are two-story dwellings, one room deep, two or more rooms long (Glassie 1968:49) (Figure 6.1). The second common style is the Temple form, influenced by the Greek Revival. This became the predominant type of house throughout the North in the second half of the nineteenth century (Glassie 1968:129). The simple version of this type found in Sandy Ground has also been called the "Bracket or American Farmhouse" style (Gillon and Lancaster 1973:plate 31), or the "Three-bay Workers'" house by local Staten Island architectural historian Barnett Shepard (personal communication) (Figure 6.2).

Table 6.1 indicates the popularity of various styles of residential architecture in Sandy Ground from the early nineteenth century to the recent past. Though the data suffer from the differential destruction of older homes through deterioration and fire, and the loss of integrity through major reconstruction, some significant observations can be made. It is clear that the I-house was the most popular form for the earliest homes in Sandy Ground. Unfortunately, few of these earliest houses can be identified as to builders. Those that can may indicate ethnicity as the primary "message" of the architectural



Figure 6.1: I-House form, Sandy Ground
Unknown builder, circa 1870

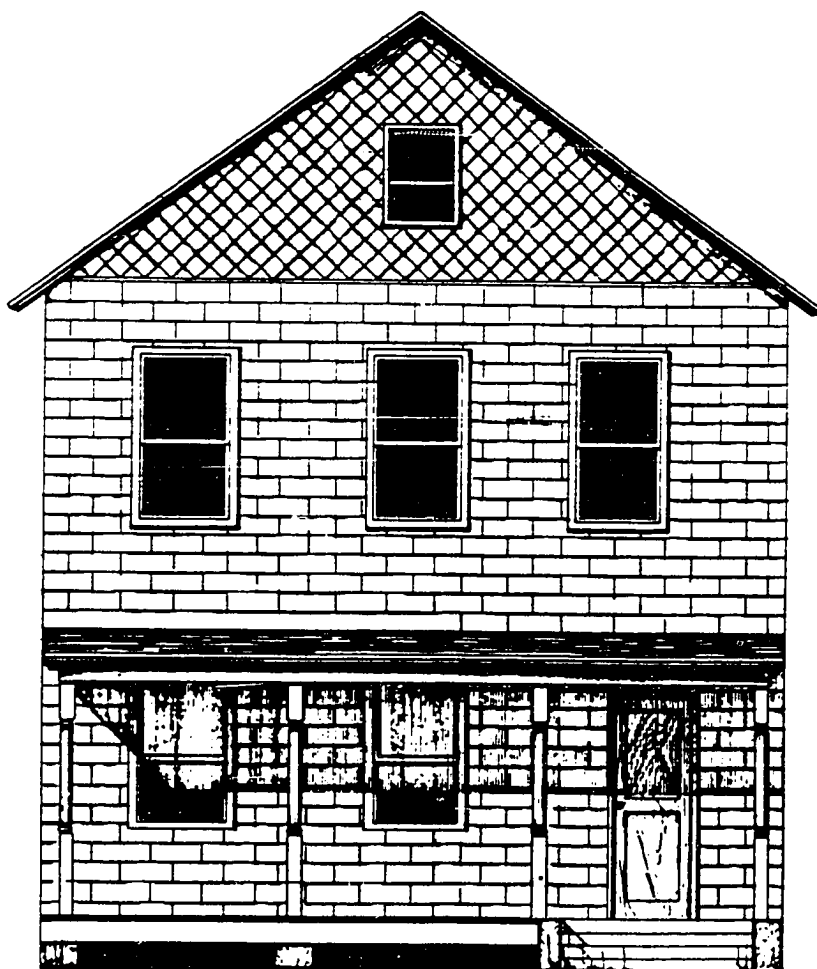


Figure 6.2: Temple-House form, Sandy Ground
George Hunter, builder, 1901

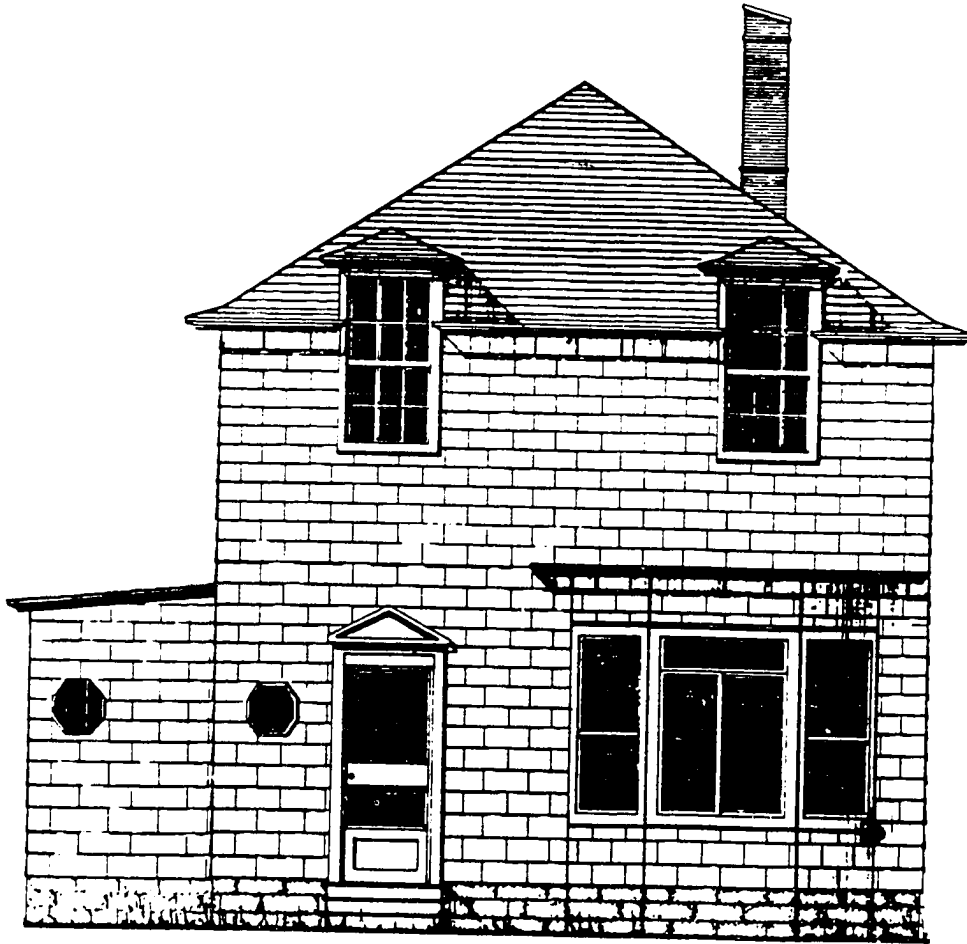


Figure 6.3: Eclectic Victorian house style, Sandy Ground
Isaac Harris, original owner, circa 1900
Said to have been designed by the firm of
McKim, Meade and White

form. One of the early nineteenth century Dutch Colonial style homes was built by the Guyon family, descendants of one of the early Hugenot settlers of Staten Island. In 1875 James Guyon was listed as a butcher (NYSCWT 1875). Two I-houses were built by Afro-American families, from New Jersey and Delaware. Their use of this traditional English style of the eighteenth century Mid-Atlantic may reflect their ancestors' acculturation to this dominant culture.

Table 6.2 indicates the identified original owners of homes built in the 1870 to 1910 period in Sandy Ground. I-houses in this period were built either by farmers, Black or white, or for rental. Temple style houses were built by Afro-Americans, long resident whites (Sharrott), and recent white emigrants. The owners of Temple houses were all involved in relatively comfortable occupations (oysterman), owned small businesses (saloon proprietor), or held prestigious positions (minister). The one identified house built in a distinct style in this period was the Isaac Harris house (Figure 6.3). Though listed as a house painter in this period, Harris worked for wealthy white families, including, it is said, the architect Stanford White.

Such elite service work was considered especially high status in nineteenth century Black communities (Meier and Rudwick 1966:91). Harris did not belong to the local AME Zion Church, and is not buried in the Sandy Ground cemetery. In an interview with Mr. Harris and his wife

Table 6.1: Residential Architectural Types in Sandy Ground

Period of Construction:	Ante-Sellum	1870-1910	1910-1950	1950-1970
<u>Style*</u>				
Dutch Revival	2 (1)			
Georgian	2 (1)			
I-house	6 (2)	7 (5)	2	
Temple Form		10 (9)	1	
Eclectic Victorian		1 (1)		
Dutch Revival Cottage			3	
Cape Cod/Bungalow			9	
Match Box Modern				11
Misc./Altered	2		1	1

Notes: Table compiled from Askins (1980a and 1980b), 1910 Federal census, and historic photographs collected by author.

* Architectural styles based on Glassie (1968); Gillon and Lancaster (1973); and Szekely and Gabay (1980).

Seven houses of various styles could not be dated.

Table 6.2: Domestic Architecture in Sandy Ground,
c1800-1910 - House Forms, Ethnicity, Occupation

First Owner	Ethnicity	Occupation
<u>1800-1850</u>		
<u>I-House</u>		
Moses Harris	Afro-American	Fruit grower (1855)
William Stephens	Afro-American	Farmer (1855)
<u>Dutch Revival</u>		
Guyon Family	Native white	Butcher (1875)
<u>Georgian</u>		
Dupuy family	Native white	Store owner (1855)
<u>1850-1910</u>		
<u>Victorian Eclectic</u>		
Isaac Harris	Afro-American	Painter (1900)
<u>Three-Bay Temple</u>		
Lemuel Morse	Afro-American	Oysterman (1900)
George Hunter	Afro-American	Mason business (1900)
John Tyler	Afro-American	Oysterman (1900)
George Purnell	Afro-American	Oysterman (1900)
Bishop Sarjeant	Afro-American	Minister (1900)
Francis Henry	Afro-American	Oysterman (1900)
Charles W. Sharrott	White	Owned stores (1870)
J. Peidl	German- -American	Owns saloon (1910) Butcher (1915)
C. Oechsli	Swiss/American	Farmer (1900, 1910)
<u>I-House</u>		
R. Mersereau	White	(built two houses, for rental)
Homer Harris	Afro-American	Farmer (1880)
Alfred Cutting	English	Farmer
Robert Cutting	Anglo-American	Farmer (1910, 1915)

Note: Table compiled from Askins (1980a and 1980b), 1900, 1910 FCWT and 1855, 1875, 1915 NTSCWT.

conducted in the 1950s (Harris was then 105) his wife expressed some distain for the oystermen of the community. The Harris' social and personal identity distinctions are certainly consistent with the distinct style of their house.

It is clear that a simple correlation of ethnicity and house style is not found throughout Sandy Ground history. Ethnicity, or regional culture, may have been expressed in the earliest period of the community. This can be seen in the association of Afro-Americans with the building of I-houses, and of white families with Dutch Revival and Georgian styles. During the later period the picture is more complex. Instead of ethnicity, occupation or relative class position is what was expressed. From the late 1870s onwards most Afro-Americans built temple-houses, homes identical to successful working class housing throughout Staten Island (Askins 1980b, 1982a). In this context, the significance of the Victorian eclectic Isaac Harris house is clear. Harris expressed his difference, his association with wealthy whites, his feeling more cultured than the oystermen, through at least two highly significant forms: his membership in a mostly white church, and the choice in architectural style of his home. The architectural analysis reinforces this interpretation that social status, whether emically perceived as class or occupationally associated, was the primary form of identity expressed by Sandy Grounders in the late nineteenth

century.

Social Context of Ceramic Consumption

The people of Sandy Ground in the period from 1860 to 1920, though living in a rural context, were a ferry ride away from the greatest metropolis in the Union, and could find there the broadest range of consumer goods available. Some craft produced ceramics appear in the Sandy Ground assemblages, but the vast majority were industrially produced and marketed in overlapping regional, national, and international networks. As consumers of ceramic tablewares, decorative and utilitarian items, Sandy Grounders chose from a range of styles widely available in the Northeast, if not all metropolitan localities. Their choices were constrained in part by economic considerations, a variable that is controlled in this analysis.

Stylistic choices are influenced in a variety of ways. For arguments sake, we can divide such influences into those from within ones "community", and those which come from without. Community here means a settlement, a neighborhood, a religious or ethnic network or any regular face-to-face group that one identifies with in some way. Within our communities, stylistic influences mostly come from directly experiencing others stylistic presentation in dress, food, language, household decoration, etc. Contact with outside style presentation comes with interaction with

individuals or groups from other "communities", at work, as part of daily routines, or at occasional special events. Outside stylistic influences may also come from such media as newspapers, billboards, radio, and television.

This distinction using community has problems, but most of these are avoided in application to Sandy Ground. Sandy Ground was a local community, with a strongly expressed identity, and a high degree of inter-ethnic tolerance and respect in the local store, on the sidewalk, in backyards, and in households. For Sandy Ground the "outside" community included other villages, some of the local wealthy, nearby small and large towns and, powerfully, New York City. New York, and the metropolitan world it embodied, was also present in the increasing amounts of advertising, mostly in newspapers, encountered by Sandy Grounders. A visit to New York involved a morning ferry and a return before sundown. In addition, some Afro-American families, mostly women, and a few white females worked for white families, as servants of some form, or as farm workers, and encountered the social space of their employers' homes. A few Afro-American Sandy Grounders also worked for wealthy whites in Northeastern and National society, providing another conduit for stylistic experience.

Sandy Grounders, as consumers of ceramics, made choices with a knowledge of a wide range of stylistic

expressions, and thus chose with subtle, and sometimes explicit, considerations of the uses of style as social expression of identity.

CERAMIC ANALYSIS

Ceramic Typology

Late nineteenth and early twentieth century mass produced ceramics have received little attention in the historical archaeological literature. Earlier ceramics have received much attention, most successfully with the typology developed by Stanley South (1972), based on the work of Ivor Noel Hume (1970). The South typology combines stylistic and technological criteria to produce chronological types. In this it is successful, but this typology does not allow the separation of style as a distinct variable. The few typologies developed for nineteenth century ceramics usually follow South's model, either focusing primarily on technological attributes or by combining technological and decorative criteria. Sherene Baugher-Perlin's ceramic typology developed for the Prall site, a late nineteenth century Staten Island middle class residence, is typical. Baugher's typology has groups based on "the composition of the clay, the type of glaze used and/or the stylistic properties of the ware" (Baugher-Perlin 1978:190). The stylistic properties focused on are either technology of decoration (e.g. underglaze print or decalomania) or color attributes. Some purely stylistic

attributes are recognized, such as the occurrence of feather or shell edged wares, an inexpensive Roccocco style of the late eighteenth through mid-nineteenth centuries. Similar in approach are the typologies for nineteenth century assemblages used by Albert Bartovics (1981), Cynthia Price (1979) and David Brose (1967). Suzanne Elliot indicates in one of her tables the sequence of popularity of some styles, such as "Classical", but does not apply these distinctions in her analysis (Elliot 1977:114). Linda Worthy's typology, though not based on South's, also combines some technological aspects of decoration with descriptive attributes (e.g. geometric pattern) (Worthy 1982).

All of these are inadequate for the present analysis. For the purposes of this dissertation, a ceramic typology should focus on and make distinct three aspects of ceramic description: technology, function, and decorative style. First, technological aspects of a vessel's fabric, glaze and decoration are useful indicators for establishing chronology and the cost of ceramics (Miller 1980). The above mentioned ceramic typologies for this period have described these aspects well. In the case of this project, dating of the ceramic assemblages has been accomplished through glass container dating. Following Miller (1980), I use differences in ceramic fabric and the technology of decoration to develop a economic scale for the Sandy Ground collections. Second, functional categorization

based on shape and size of vessels is of utility in investigating food-ways and as an economic indicator (Otto 1977). I have used Linda Worthy's typology of formal-functional types to distinguish ceramic use, such as tea sets versus regular dinner wares. The styles of decoration, whether applied by printing, painting, stamping, turning, decal or sprig, or molded into the shape of the vessel, indicate changing styles of decoration in the study period. Most importantly, the identification of general categories of decorative styles is the basis for a recognition of stylistic choices made by ceramic consuming households.

The Decorative Arts Approach

Decorative styles on ceramics have long been a topic of prehistoric archaeology. For undocumented cultures, style has either been inferred in a "catch-as-catch-can" manner, or, in recent decades inductively produced by one or another analytical or statistical method using distinctions of stylistic elements (Jernigan 1986; Plog 1980). A style element approach would not be appropriate to industrially produced and well documented ceramics. Industrial ceramics are developed and designed in the context of explicit stylistic movements and with considerations of production cost and consumer acceptance. Therefore an approach taking advantage of the historical data is advised.

A typology of decorative styles for Sandy Ground can be developed through an ethnohistorical analysis which focuses on the contemporary stylistic notions of nineteenth and early twentieth century Euro-America. This can be pursued along three different paths. 1) The styles as conceived by the producers of ceramics can be reconstructed. The conscious influences on the designers, or their employers, can be researched. Adrian Forty (1986), though focusing on another problem, has illuminated the reasons for Josiah Wedgwoods' choice of switching from an elaborate Rococo style to a purely neo-classical one in the late eighteenth century. She demonstrates the explicit notion of style used by Wedgwood's ceramic designers. Using memoirs and corporate documents her research could be expanded. This would produce an "ethno-typology" of the ceramic producers. 2) The retailers' conceptions of style, and more importantly the manner in which they advertized and displayed ceramics could be explored. Style is defined in the text and associations of advertisements and store displays. Though this is related to the producers' categorizations, there may be some significant differences. Retail mail order catalogs are direct expressions of retailers' stylistic categories. Though catalogs have been used to research functional categories of ceramics, and the contemporary notions of full sets of tablewares (Worthy 1982), no stylistic

analyzes have been attempted through catalogs. 3) The buyers own ethno-design notions are significant. This is the most difficult goal to approach directly for the lower middle class and working class. Diaries or realistic literature might contain occasional discussions of ceramics, though the research might not be worth the results. On the other hand the wealthy, and more generally all those who ascribed to the bourgeoisie would be more likely to leave diaries, household accounts, and be described in literature. Also the bourgeoisie were increasingly serviced and influenced by the growing profession of interior design, beginning in the 1870s. Interior designers included in their services direction in the buying and combining of all household objects, including ceramics. From the mid-century onwards an extensive discussion on bourgeois household interior design was carried on in books, magazine articles and lectures. Design was elevated to the level of "esthetic philosophy". William Morris and John Ruskin are only the most prominent of those who directly influenced bourgeois taste. They and other less luminous cultural brokers connected the world of the Victorian bourgeoisie to the art historical world, and to the ceramic manufacturers who also attended to the intellectual discussions of style and taste. Thus the bourgeois consumers of designed household items were following guidelines ultimately connected to art historical and aesthetic discussions (Gloag 1962; Lynes 1980; Williams

1982).

It is this third approach which will be followed by assuming that working class consumers were perceiving styles in a similar manner to the middle and upper classes. This does not imply that the same esthetic vocabulary was used by the peoples of Sandy Ground and their fellow Staten Islander, Commodore Vanderbilt, but that Victorian cultural forms were pervasive by the late nineteenth century.

Therefore the vocabulary of decorative arts history has been used as the starting point in defining the ceramic types found in Sandy Ground.

The stylistic vocabulary of art history includes such terms as Rococco, Neo-Classical, Art Deco, and others. These were most often invented by diletante or academic art collectors, historians, or archaeologists after the emergence or decline of the popularity of the style. The term Art Deco was not generally used until 1966, at a retrospective of the art world of 1925 at the Musee des Arts Decoratifs in Paris (Battersby 1978:18). Despite this, the decorative arts history approach is useful because of the clearly defined characteristics of the recognized styles.

In practice, the stylistic typology developed for the Sandy Ground collection incorporates a few terms from earlier typologies, allowing the immediate recognition of some eighteenth century types which show up in the

collection. In addition, inspection of historic ceramic catalogs allowed the recognition of distinctions of style made by the retailers.

Ceramic Coding System for Sandy Ground

The Ceramic typology developed for the Sandy Ground collection allowed for the recording of a broad range of attributes, including ceramic function, body type, and a precise description of decorative technology (see Appendix A, Figure A.5: Ceramic Tableware Coding Form).

The ceramic assemblages from Sandy Ground received some initial reconstruction under the direction of Robert L. Schuyler. Further reconstruction work was conducted by the author and numerous student assistants during 1985 and 1986. The reconstruction efforts allowed a high degree of recovery of forms, though a 100% reconstruction cannot be claimed. Altogether some 692 minimum vessels were recognized from 7869 sherds. The high degree of reconstruction (286 whole or diagnostically whole vessels) supported the use of vessel counts, rather than sherd counts, for all analysis (see Appendix C, Table C.3: Ceramic Inventory). Many sherds, especially plain white pieces, could not be matched to specific vessels. In general the degree of reconstruction lead to relatively complete vessel counts and accurate functional recognition.

Each coded entry first received a Line Number, acting as the entry's identification for verification.

This also recorded the order in which data was entered. Provenience was entered by feature number, or by feature, square and catalog number for larger features. Where a reconstructed vessel contained sherds from more than one provenience, the designation with the most pieces, or greatest portion of the vessel was assigned the code. The cross mends were recorded elsewhere.

The minimum number of vessels (MNV) was entered based on recognized individual items. When whole or nearly whole vessels were present, MNV count was straightforward. Most often MNV was established by comparing and matching or distinguishing fabric, decoration, rims, foot-rings, curvatures, and other diagnostic attributes for a group of similar vessels. The total number of sherds counted for each entry was recorded, thus showing the exact or average number of sherds used for each MNV attribution.

The degree of reconstruction for each MNV recognition was coded by a simple distinction. "Whole" vessels had at least 70% of their total fabric and included parts of all diagnostic attributes: rim, body, foot ring, and handle (if a handled vessel). "Diagnostic Whole" vessels were those represented by less than 70% of their total fabric while still including parts of all diagnostic attributes. Other vessels were recognized without having parts of all diagnostic attributes present.

Body type was coded using a standard set of distinctions, earthenware, stoneware, and porcelain, with

additional distinctions which are relevant to the categories of tableware used since the late nineteenth century. See Appendix A, Table A.6: Ceramic Tableware Body Type Codes. During coding large numbers of undecorated sherds of various body types were entered on one line without body type indicated.

In practice distinguishing some body types was difficult. The designation white earthenware was assigned to relatively soft bodied wares, but in reality there is a continuum from soft to quite hard earthenwares, with very porous white earthenwares at one end and hard bodied refined earthenwares at the other. Refined earthenwares were distinguished by having no more than a barely perceptible porosity, recognized by touching one's tongue to a cleanly broken surface. Most often refined earthenwares were not considered porous. The author has performed this tongue porosity test thousands of times over the last decade, and has some degree of expertise in the recognition of "barely porous" bodies. Refined stonewares were similarly non-porous, but have a different "look", i.e. no granularity while still being opaque. All porcelain designations required some degree of translucency.

Functional designations were based on Linda Worthy's (1982:339-340) categories and elaborated by research using the ceramic sections of several mail-order

catalogs (Montgomery Ward 1901; Sears Roebuck 1908; Butler Brothers 1925, 1930). The functional designations were two tiered with a code for general function, and a subcode for a more precise attribution (Appendix A, Figure A.7: Ceramic Tableware Function Codes). Worthy organized her code purely on formal-functional grounds, distinguishing serving from eating vessels as the primary tier in the code. I did not code for the distinction between eating, drinking and serving tablewares, but this was easily recoverable given the specific designations in the subcodes.

Decoration was coded by technology, by description of the contents of motifs, and by a general evaluation of the "style" of the piece.

Decorative attributes were indicated as either formal, as when the decoration is in some way three dimensional - molded body, slip trailed, applied sprigs, etc. - or surface - as in paint, glaze, print, etc. Surface decorations recognized included hand painted, machine painted, monochrome and polychrome glazes, transfer printed, gilt, applied decals, stenciled, enameled, and lustred (a glaze type). Any combinations of these decorative technologies were also indicated. See Appendix A, Figure A.8: Ceramic Decorative Technology.

If a code implied a color choice a terminal number was affixed to the decorative technology code (see Appendix A, Figure A.9: Ceramic Color Code Technology Suffixes).

For both formal and surface decoration, codes were

assigned describing the dominant stylistic elements of each vessel or sherd. The same code list was used for both formal and surface decoration (Appendix A, Figure A.10: Stylistic Elements on Ceramics).

Each vessel or sherd was assigned a code representing the stylistic genre to which it most closely conformed. The stylistic language of art historical studies has been applied here in describing the stylistic genres found on Sandy Ground ceramics. Most styles defined below follow closely to the accepted descriptions of "Neo-classical", "Rococco", "Art Nouveau", etc.

Initially stylistic genres were developed and assigned as coding proceeded. At the completion of coding 39 different stylistic genres had been identified. These were reduced to eight major stylistic groups which acted as the basis of the seriation analysis. Appendix A, Figure A.11 describes the stylistic categories used in the analysis.

Ceramic Trademark numbers (CT) numbers were also recorded, and can be correlated with the Ceramic Trademark Catalog found in Appendix C, Table C.1. All items photographed were assigned Photo Numbers, which were recorded. Any comments were added to the final space on the code line.

Seriation of Ceramic Tablewares

In a normal stylistic seriation it can be expected

that well defined styles will undergo a curve of popularity, increasing and/or decreasing through time as the style becomes relatively more and less "popular". Just this expectation is here used to evaluate the style groups developed for the Sandy Ground ceramic assemblage. Not all of the 692 minimum number of vessels were used in the seriation. Since the focus of analysis is on tablewares, utilitarian and decorative ceramics were eliminated, as were 51 vessels unidentified as to style. This left 522 vessels. Using the median systemic dates for each feature (see Table 5.6), ceramics were grouped by decade from 1900 to 1930. All features before 1900 were grouped as one unit, as were all those after 1940 (Table 6.3).

In general the defined style groups follow an expected popularity curve well. "Ironstone", plain undecorated white earthenware, generally declines through the period, from over 40 percent of the early assemblages to less than 20 percent after 1930. Similarly the several styles grouped under "Historicism" decrease from over 20 percent to being unrepresented after 1930. Blue and white decreases steadily from nearly 15 percent in the nineteenth century assemblages to zero in the post 1930 period. Other style groups increase through the period. Neoclassical styles increase from less than eight percent to over 20 in the 1930 to 1940 period, which reduces to ten percent in the post 1940 assemblages. Modernist styles, as would be

Table 6.3: Seriation of Ceramic Tablewares

Ceramic types	Time Periods					
	Pre-1900	1900-1910	1910-1920	1920-1930	1930-1940	1940+
N =	14	227	132	107	32	10
Ironstone % =	6 42.9	103 45.4	39 29.5	32 29.9	6 18.8	1 10.0
Historical % =	3 21.4	16 7.0	6 4.5	7 6.5	0 0.0	0 0.0
Blue-white % =	2 14.3	23 10.1	7 5.3	3 2.8	0 0.0	0 0.0
Neoclassical % =	1 7.1	22 9.7	13 9.8	18 16.8	7 21.9	1 10.0
Modern % =	0 0.0	2 0.9	1 0.8	2 1.9	1 3.1	4 40.0
Floral % =	1 7.1	19 8.4	27 20.4	19 17.8	5 15.6	2 20.0
Rococo % =	1 7.1	29 12.8	34 25.8	15 14.0	10 31.3	2 20.0
HOTEL % =	0 0.0	8 3.5	2 1.5	9 8.4	3 9.4	0 0.0
OTHR % =	0 0.0	5 2.2	3 2.3	2 3.9	0 0.0	0 0.0
	100.1	100.0	99.9	102.	100.1	100.0

N=522

Figure 6.4: Popularity Seriation Curves of Ceramic Styles

Ceramic type	Pre-1900	1900-1910	1910-1920	1920-1930	1930-1940	1940+
N =	14	227	132	107	32	10
Hotel	-	x	x	X X	X X	-
Other	-	x	x	x	-	-
Historical	X X X X	x X	X	X	-	-
Blue-white	X X X	X	X	x	-	-
Ironstone	x X X X X X X X	X X X X X X X X X	X X X X X X	X X X X X X	X X X X	X X
Floral	x X	x X	X X X	x X X X	X X X	X X X
Neo-classical	x X	X X	X X	X X X	X X X	X X
Rococo	x X	x X X	X X X X X	X X X	X X X X X	X X X X
Modern	-	x	x	x	x	X X X X X

expected, increase from being unrepresented to being 40 percent of the small sample form the post 1940 period. Other styles are not as clearly patterned. Floral patterns are generally more represented in the post 1910 period than earlier, though this style group does not follow a clear curve. Rococo styles generally increase after 1910, but also do not follow a clear curve. Hotel wares, those heavy undecorated forms, are not found in the earliest or latest period, and are only represented in small amounts in the other time periods.

It should be recognized that the median systemic dates used for this analysis do not represent the point of purchase, but rather the inferred average date of use of the ceramics. The date of purchase of these ceramics is at least a decade earlier than these median dates. The median dates should approximate the period when the tableware are most in use and most seen by family and household visitors.

The small sample size for the earliest and latest periods allows for the presence of rare types to skew the percentages for these periods, though in general this does not seem to be a problem. In general the seriation analysis confirms the style groups chosen, except for Rococo and Floral, though these do not show an extremely skewed curve.

Economic Variation in Sandy Ground Tablewares

The ceramic assemblages from the Sandy Ground

collection represent the choices in purchase of styles by members of the community. The degree of diversity or similarity of these styles between households, and within the community in general, are assumed to represent degrees of closeness in expressions of social identity. Before comparisons of the styles of ceramic tablewares can be developed, two other axes of variability must be controlled. Chronologically, different styles are generally popular and available for American consumers. The ceramic styles marketed in the 1890s are supplanted to some degree by new styles, and in general a greater variety of styles as the twentieth century unfolds.

In addition, economic variation must be accounted for. Differences in wealth, or the amount of investment in ceramics must be controlled for as an independent variable from style.

Three economic indicators for these assemblages have been developed. The first consists of comparing the percentages of porcelain and refined earthenware among the tablewares for each household set. Second, the ratios of flatware to bowls is compared, a ratio used in the past to infer economic status, though this may be more of an indicator of foodways. Finally, a simplified form of Miller decorative ranking is used to compare expense of assemblages.

Porcelain Percentages

Porcelain is the finest and most expensive of ceramic body types. Porcelain is usually used for types of ceramic forms with the highest status, such as tea sets or highly decorated tablewares. Refined earthenwares, as defined here, are those earthenware body types which are much less porous, and therefore more highly fired, and more expensive to produce than other earthenwares. For purposes of this analysis, the category "refined earthenware" includes fine grained stonewares, semi-porcelains, and hotel porcelains. The least expensive body type found in tablewares are white earthenwares - porous bodied vessels made at a lower temperature than refined earthenwares. Comparison of body types is confined to tablewares, not kitchenwares or other utilitarian forms. The identified households are compared with each other and with the cumulative tablewares from each time period.

The periods 1880-1900, 1910-1920, and post 1940 are represented by very small samples, and are therefore not considered in the interpretation (Table 6.4).

In general, porcelains make up about 25 to 40 percent of each assemblage up through the 1920s, though porcelain vessels may occur to a lesser degree in the 1930 to 1940 period. Exceptions to this are the Samuel Wort assemblage and the unidentified assemblage of Feature 30, which contain less than 15 percent porcelain vessels. A major divergence in ware appearance is in refined

earthenwares, which should reflect ceramics of mid-range expense. Table Refined earthenwares appear in percentages from 8.7 to 33.5. In two periods, contemporary assemblages show clear divergence in appearance of refined earthenwares. In the 1900-1910 period, Feature 4, associated with a Black oysterman, has a low appearance of refined earthenwares compared to Feature 38, associated with a German emigrant industrial worker. Similarly, the unidentified feature 64 has a low appearance of refined earthenwares while the white farmer associated Feature 120 has a high percentage. These low appearances of refined earthenwares may reflect a choice to spend less on mid-range ceramics while allowing the purchase of porcelains.

Functional Analysis

A second approach to economic status is based on comparing the percentage of bowls to plates in ceramic assemblages (Otto 1975; Worthy 1982). Otto and others have found that a higher ratio of bowls to plates correlates with the greater presence of faunal remains associated with soups and stews, rather than more expensive cuts of meat. Two explanations have been offered concerning the plate-bowl ratios. Differences in such ratios may reflect foodways differences, possibly based on ethnic differences. Alternatively, differences in these ratios may reflect economic status, with a greater percentage of bowls representing families which spend

Table 6.4: Ratios of Ceramic Fabric Types in Assemblages
Porcelain : Refined Earthenware : Whiteware

Time Period	Porcelain		Refined earthenware		White earthenware		Total
	N	%	N	%	N	%	
1880- 1900	1	3.6	10	35.7	17	60.7	28
1900- 1910	12	23.1	6	11.5	34	65.4	52
Feat 4 (1902)	10	34.5	2	6.9	17	58.6	29
Feat 38 (1901)	38	24.1	53	33.5	67	42.4	158
1910- 1920	2	28.6	0	0.0	5	71.4	7
Feat 120 (1914)	24	31.6	23	30.1	29	38.2	76
Feat 64 (1912)	16	42.1	5	13.2	17	44.7	38
1920- 1930	7	38.9	6	33.3	5	27.8	18
Feat 3 (1925)	13	26.5	13	26.5	23	46.9	49
Worts (1920s)	3	11.5	3	11.5	20	76.9	26
Feat 30 (1928)	3	13.0	2	8.7	18	78.3	23
1930- 1940	6	12.5	12	50.0	30	62.5	48
1940+	1	6.7	4	26.7	10	66.7	15

relatively less on meat. At Sandy Ground ratios of bowls and plates, and cups and saucers, can be found in Table 6.5: Functional Categories of Tablewares.

The plate to bowl ratio in the Sandy Ground assemblages is found to undergo a directional change through time. In the earlier periods, 1880-1900 and 1900-1910, plates appear about three times as often as bowls. This relationship is reflected in the Feature 38, Johan Fisher, assemblages, with a ratio of about two to one. The reverse direction of the ratio in Feature 4, the Afro-American assemblage, therefore is a clear difference. Again the 1920s assemblages of Samuel Wort and, in this case, Johan Staudt also show a higher appearance of bowls.

Ranking of Ceramic Decorative Technology

George Miller (1980) developed a ranking system for nineteenth century ceramic tables based on the industries price fixing lists for the first half of the century. Since then he has extended this classification into the 1880s. Unfortunately, this system leaves off just when the Sandy Ground ceramics are being bought. But Miller's system can be used as a guide for ranking ceramics by decoration and body types.

Instead of using Miller's distinctions of body and decorative technology, I decided to use a very simplified ranking system. Ceramics are simply divided into porcelains and non-porcelains. A basic expense ratio was

Table 6.5: Functional Categories of Tablewares

Feat.	Plates N %	Bowls N %	Cups N %	Saucers N %	Total
1880- 1900	7 43.8	2 12.5	2 12.5	5 31.2	16
1900- 1910	6 20.7	2 6.9	8 27.6	13 44.9	29
Feat 38 (1901)	28 19.9	16 11.3	47 33.3	50 35.5	141
Feat 4 (1902)	5 20.0	7 28.0	6 24.0	7 28.0	25
1910- 1920	1 33.3	2 66.7	0 0.0	0 0.0	3
Feat 64 (1912)	8 29.6	7 25.9	6 22.2	6 22.2	27
Feat 120 (1914)	18 28.6	20 31.7	16 25.4	9 14.3	63
1920- 1930	4 14.8	5 18.5	10 37.0	8 29.6	27
Feat 3 (1925)	3 6.9	7 15.9	14 31.8	20 45.4	44
Worts (1920s)	2 10.0	4 20.0	7 35.0	7 35.0	20
Feat 30 (1928)	6 42.9	1 7.1	3 21.4	4 28.6	14
1930- 1940	9 34.6	6 23.1	4 15.4	7 26.9	26
1940+	4 44.4	3 33.3	1 11.1	1 11.1	9
Winant Bloom.	31 28.2	20 18.2	25 22.7	34 30.1	110

Table 6.6: Earthenware - Porcelain Cost Ratio

White Earthenware		Porcelain		Ratio
Range	Median	Range	Median	
1908				1:2.70
5.89 - 9.98	7.94	10.95 - 31.98	21.47	
1925				1:1.74
1.50-5.50	3.50	4.40 - 7.80	6.10	
Average earthenware : porcelain ration =				1:2.37

From Sears, Roebuck and Co. The Great Price Maker. 1908 Catalogue No. 117. Reprinted by Follett Publishing Company, Chicago, and Butler Brothers' 1925 Midwinter Catalog No. 2233. Reprinted by Antiques Research Publications, Mentone, Alabama, 1968.

Note: Prices in dollars and cents represent the cost of one dozen cups and saucers.

developed and applied to all ceramic vessels.

The basic expense ratio was developed from several available early twentieth century retail and wholesale ceramic catalogs (Montgomery Ward & Co. 1901; Sears, Roebuck and Co. 1908; Butler Brothers 1925; 1930) (see Table 6.6). Because of the impossibility of consistently distinguishing white earthenware from refined earthenwares in the catalogs, all non-porcelains were lumped together. A median cost for a typical item (a dozen cups and saucers) was established by finding the lowest and highest cost for non-porcelains, and for porcelains. The ratio of porcelain to non-porcelain cost was calculated. The average non-porcelain to porcelain ratio is 2.37, with a range from 1.73 to 2.73. The low ratio is mostly caused by the absence of very inexpensive non-porcelain cups and saucers in the 1925 catalog. As a very general approximation, we will use a ratio of 1:2.5 for the relative cost of non-porcelains to porcelains. This ratio is used in Table 6.6 to establish relative costs of ceramic assemblages.

PRINCIPAL COMPONENT ANALYSIS OF CERAMIC STYLE APPEARANCE IN SANDY GROUND FEATURES

Sandy Ground residents' selection of styles of ceramics may have been influenced in a number of ways. The working assumption is that the results of these influences can be seen in some pattern of diversity of styles which appear in the archaeological record. One often used way of statistically searching for structure and pattern in a set

of variables is principal component analysis. The use of principal component analysis allows any structural relationships among the styles and the date and cost to be evaluated. Each feature with ceramic tablewares is treated as a case. The minimum number of vessels of each style for the 44 features with identified ceramics is entered in a matrix (Table 6.7), including an entry for miscellaneous styles, which represent older or unique items. Each feature entry also includes the median systemic date for the feature.

Principal component analysis begins with a correlation matrix (Pearson's r is used here) of the stylistic types among all Sandy Ground Features (Table 6.8). Pearson's r values range from 1.0, indicating a positive linear correlation, to -1.0, indicating a negative correlation. Values which hover around 0.0 indicate no correlation. The correlation matrix produced for the Sandy Ground ceramics can be inspected and shows that "Blue and White" style has a high correlation with "Ironstone" ($r=.917196$). Since the the most positive r value is 1.0, the "Blue and White":"Ironstone" value indicates that the styles correlate to a high degree in their appearance in the assemblages. The matrix also shows that "Modern" and "Hotel China", with an r value of .20622, do not have a linear correlation.

Principal component analysis attempts to "see

Table 6.7: Vessel Counts of Stylistic Types in
Sandy Ground features

Feat	Date	Ironst	Hotel	Neocl	Hist	Rococ	Floral	Modrn	Bimb	Other	Unid	Total
3	1925	20	3	13	5	4	6	0	3	2	4	60
4	1902	11	2	3	1	6	4	0	1	1	2	31
12	1910	0	0	0	1	0	0	0	0	0	0	1
15	1955	0	0	0	0	0	0	1	0	0	0	1
16	1948	1	0	0	0	0	0	0	0	0	1	2
23	1923	0	0	0	0	1	0	0	0	0	0	1
24	1949	0	0	0	0	0	1	0	0	0	0	1
30	1928	4	3	4	0	3	6	0	0	0	0	20
32	1921	1	0	0	0	0	0	0	0	0	0	1
35	1911	1	0	0	0	0	0	0	0	0	0	1
38	1901	78	6	14	10	16	11	2	21	3	14	175
39	1894	0	0	0	0	0	0	0	1	0	0	1
40	1907	6	0	2	4	1	2	0	1	0	1	17
41	1899	3	0	0	1	1	1	0	1	0	3	10
43	1948	0	0	0	0	0	0	0	0	0	1	1
47	1916	1	0	0	0	0	1	0	0	0	1	3
48	1887	1	0	0	2	0	0	0	0	0	2	5
50	1931	0	0	0	0	0	0	0	0	0	1	1
51	1933	1	0	0	0	2	0	0	0	0	2	5
53	1934	0	0	1	0	1	0	0	0	0	1	3
54	1924	4	1	0	0	1	1	0	0	0	1	8
55	1932	0	0	2	0	6	1	0	0	0	0	9
57	1936	1	0	1	0	0	1	0	0	0	0	3

Table 6.7: Continued

58	1944	0	0	1	0	1	1	0	0	0	0	3
64	1912	10	0	4	0	13	13	1	4	2	2	49
66	1908	2	0	1	0	3	2	0	0	1	1	10
67	1910	1	0	1	0	1	0	0	0	0	0	3
70	1947	0	0	0	0	0	0	3	0	0	0	3
73	1901	0	0	1	0	0	0	0	0	0	1	2
75	1900	3	0	1	0	1	0	0	0	0	1	6
76	1907	2	0	0	0	2	0	0	0	0	0	4
84	1923	0	0	0	0	0	0	0	0	0	1	1
86	1930	0	0	2	0	0	0	0	0	0	0	2
87	1917	0	0	0	0	1	0	0	0	0	0	1
88	1929	0	0	1	0	1	0	0	0	0	0	2
89	1928	1	2	0	0	2	5	0	0	0	1	11
90	1925	2	0	0	2	1	1	0	0	0	1	7
92	1901	1	0	0	1	0	0	0	0	0	1	3
100	1896	1	0	0	0	0	0	0	0	0	0	1
103	1936	3	3	1	0	1	3	0	0	0	2	13
104	1944	0	0	0	0	1	0	0	0	0	1	2
105	1922	0	0	0	0	2	0	2	0	0	0	4
106	1935	1	0	0	0	0	0	1	0	0	0	2
120	1914	25	2	8	5	19	13	0	3	1	5	81
Totals:		186	23	63	33	91	74	10	35	10	53	578

Table 6.8: Pearson's r Correlation Coefficients

	Cost	Ironst	Hotel	Neocl	Hist	Rococ	Floral	Modrn	Blwh	Othr	Unid
Date	-0.13959	-0.24591	-0.09533	-0.15617	-0.29773	-0.20622	-0.15474	0.15760	-0.23514	-0.23914	-0.25889
Cost		0.04686	0.02428	0.06282	0.00722	0.13310	0.08128	-0.10219	0.03626	0.12449	0.01805
Ironst			0.81102	0.85344	0.90142	0.75237	0.69287	0.36273	0.97196	0.84259	0.95881
Hotel				0.79674	0.70798	0.59336	0.67945	0.20622	0.73286	0.67756	0.77856
Neocl					0.86394	0.74549	0.76354	0.21367	0.76943	0.87341	0.79685
Hist						0.65875	0.61510	0.24301	0.83474	0.73946	0.88462
Rococ							0.91108	0.24846	0.68282	0.78366	0.71304
Floral								0.20043	0.62356	0.79924	0.65667
Modrn									0.42542	0.32308	0.29353
Blwh										0.81678	0.93058
Othr											0.80375

whether some underlying pattern of relationships exists such that the data may be 'rearranged' or 'reduced' to a smaller set of components that may be taken as source variables accounting for the observed interrelations in the data" (Kim 1975:469). The initial principal component analysis of the correlation matrix produced two factors (Table 6.9). Factor 1 accounts for most variance in all categories except date, cost and "Modernist" style. Factor 2 accounts for these three only moderately. Graphically (Figure 6.10) this indicates that all styles, except "Modernist", load onto Factor 1, and are not affected by Factor 2. Factor 2 shows positive correlation between time and "Modernism" and negatively with cost. In turn these do not load onto Factor 1. The orthogonal transformation shows essentially identical results, and is not depicted.

The two Factors isolated do not indicate a structure between the two sets of correlations which load onto each Factor. Thus time and cost are not part of the component which is affecting all styles (except "Modern"). A useful interpretation of this is that chronology and cost of assemblages is not relevant in the appearance of styles. Exactly what variable is affecting the majority of styles is not clear. It has been suggested that size of feature is the factor which is structuring all style, except for "Modernism". By inspection it seems that smaller features often do not contain the rarer styles, and

Table 6.9: Factor Pattern Matrix

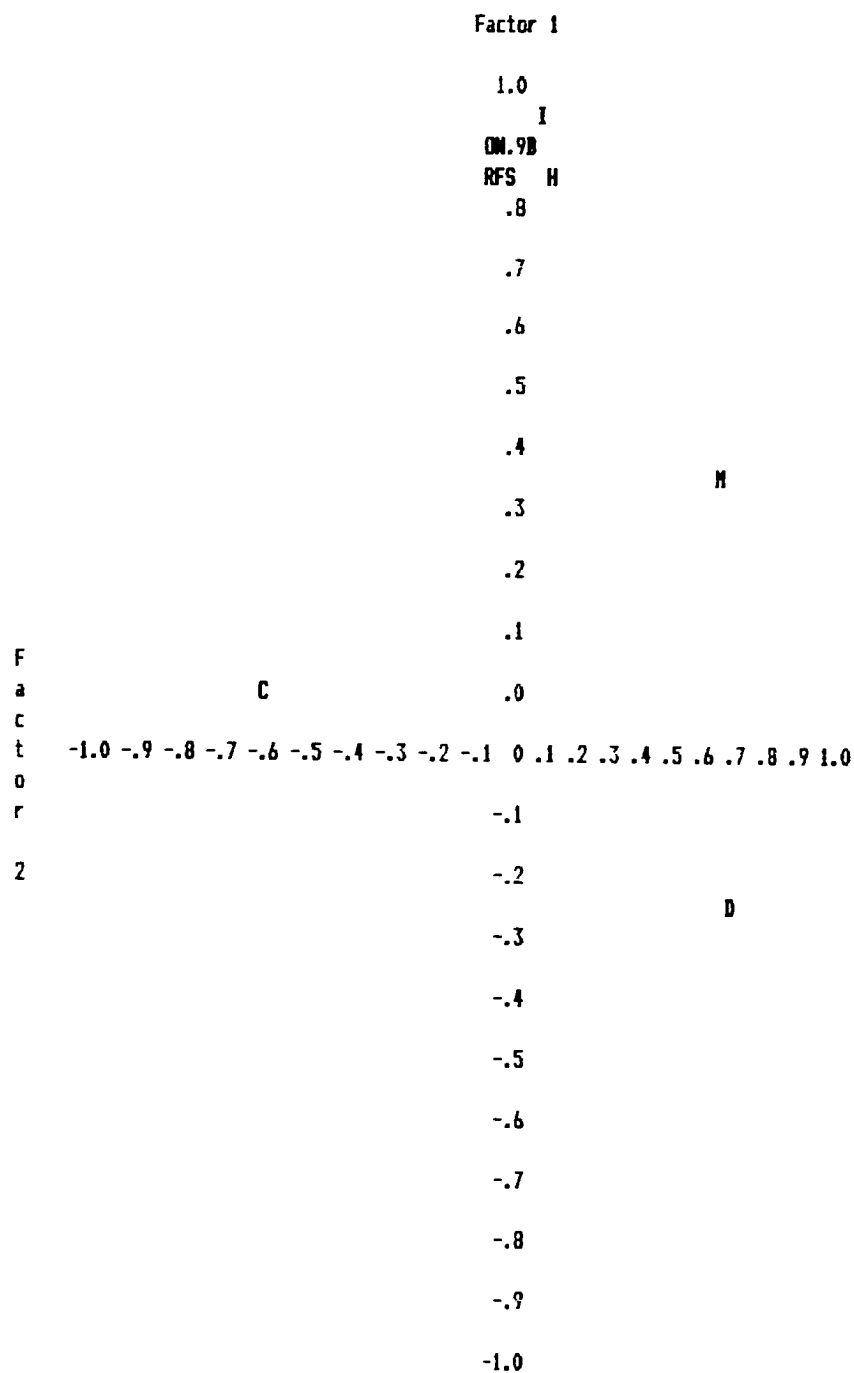
	Factor 1	Factor 2
Date	-0.25595	0.67309
Cost	0.08262	-0.61325
Ironst	0.96090	0.05142
Hotel	0.82968	0.06596
Neocl	0.92356	-0.01177
Hist	0.88478	-0.02571
Rococ	0.85437	-0.09258
Floral	0.84184	-0.06739
Modrn	0.35075	0.65225
Blwh	0.91118	0.10244
Othr	0.91871	-0.03686

Variance explained by each factor

Factor 1	Factor 2
6.555747	1.287313

Final communality estimates: Total = 7.843060

Figure 6.5: Plot of Factor Pattern - Initial Analysis



thus, to put it simply, the larger the feature, the more styles present.

To eliminate this proposed size affect a second component analysis was conducted. In this only features with at least ten items present were used. Additionally, cost and date were not included in the second analysis. The eight features included are in Table 6.10.

The principal component analysis of these features indicates two factors (Table 6.11). Factor 1 loads positively on all variables. Factor 2 produces both negative and positive loadings. The graphic representation of this (Figure 6.6) indicates that "Rococo" and "Floral" load positive and moderately on factor 2, while "Hotel Ware" loads negatively. The other styles cluster near zero on Factor 2, indicating little significance from this Factor.

To further illuminate the possible structuring relationship the principal component analysis was orthogonally transformed using a varimax rotation. The purpose of a rotation is to produce a simpler, and theoretically more meaningful, component pattern (Kim 1975:472-473). The resultant component pattern and graph indicate a clear structure to the data as now manipulated (Table 6.12, Figure 6.7). The variables now load alternatively to Factor 1 and 2 - those that load strongly on component 1 load weakly on 2 and vice versa. Loading strongly on 1 are "Hotel Ware", "Ironstone",

Table 6.10: Vessel Counts of Stylistic Types in
Sandy Ground features with Sample Size Greater than Ten

Feat	Date	Cost	Ironst	Hotel	Neocl	Hist	Rococo	Floral	Modrn	Blmh	Othr	Unid	Total
38	1901	1.35	78	6	14	10	16	11	2	21	3	14	161
4	1902	1.48	11	2	3	1	6	4	0	1	1	2	29
40	1907	1.35	6	0	2	4	1	2	0	1	0	1	16
64	1912	1.59	10	0	4	0	13	13	1	4	2	2	47
120	1914	1.50	25	2	8	5	19	13	0	3	1	5	76
3	1925	1.39	10	3	13	5	4	6	0	3	2	4	56
38	1928	1.20	4	3	4	0	3	6	0	0	0	0	20
103	1936	1.35	3	3	1	0	1	3	0	0	0	2	11

Table 6.11: Factor Pattern - Features with Sample Size
more than Ten and Cost and Date Removed

	Factor 1	Factor 2
Ironst	0.96881	-0.18700
Hotel	0.66252	-0.56901
Neocl	0.85328	-0.17659
Hist	0.83622	-0.28899
Rococ	0.73954	0.59572
Floral	0.66324	0.70983
Modrn	0.85187	0.07168
Blwh	0.95115	-0.15508
Othr	0.88531	0.14184

Variance explained by each factor

Factor 1	Factor 2
6.205828	1.381478

Final communality estimates: Total = 7.587306

Figure 6.6: Plot of Factor Pattern - Features with Sample Size Greater than Ten and Cost and Date Removed

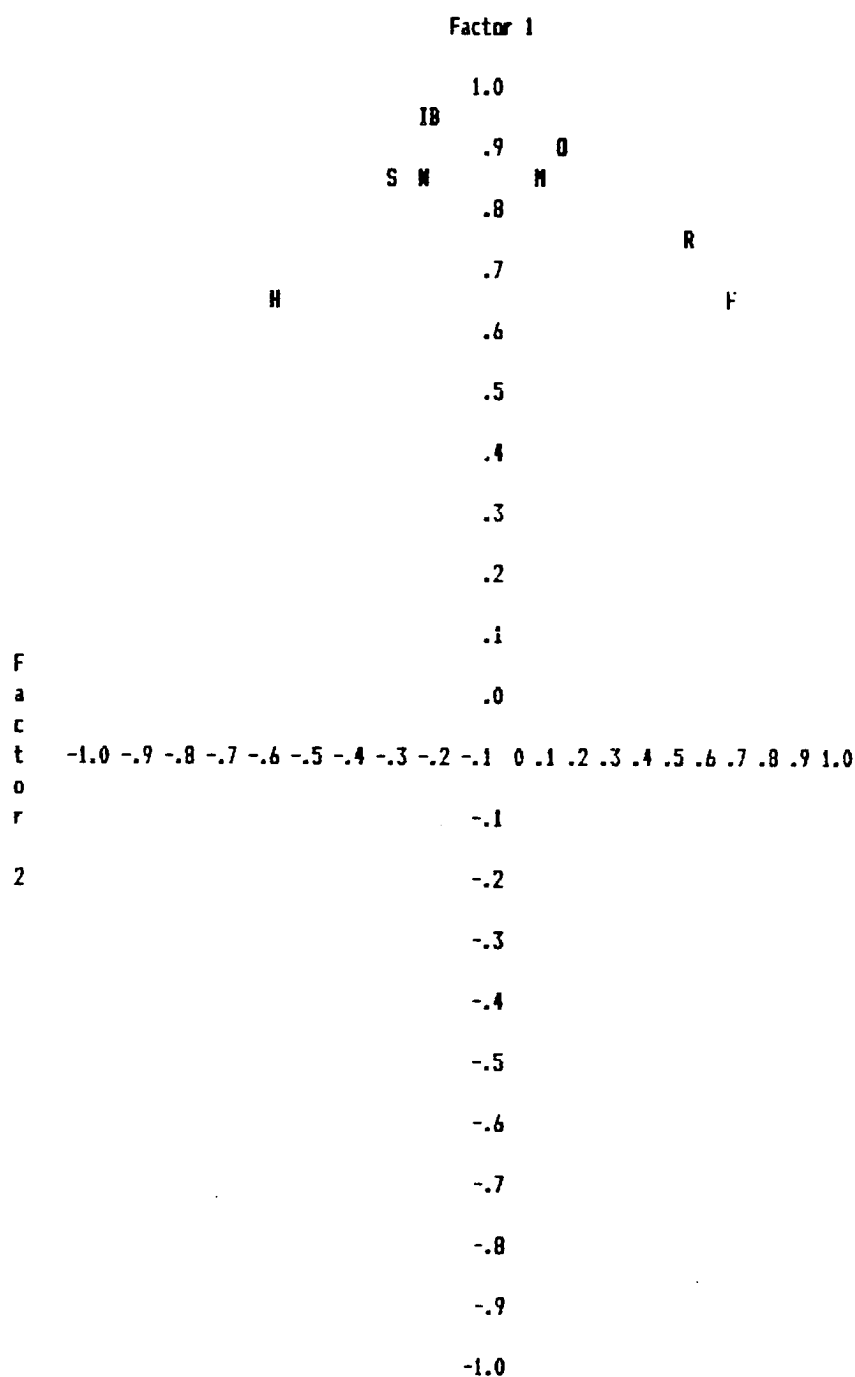


Table 6.12: Orthogonal Transformation Matrix of Large Sample Size Features

Factors	1	2
1	0.99957	-0.02934
2	0.02934	0.99957

Rotated Factor Pattern

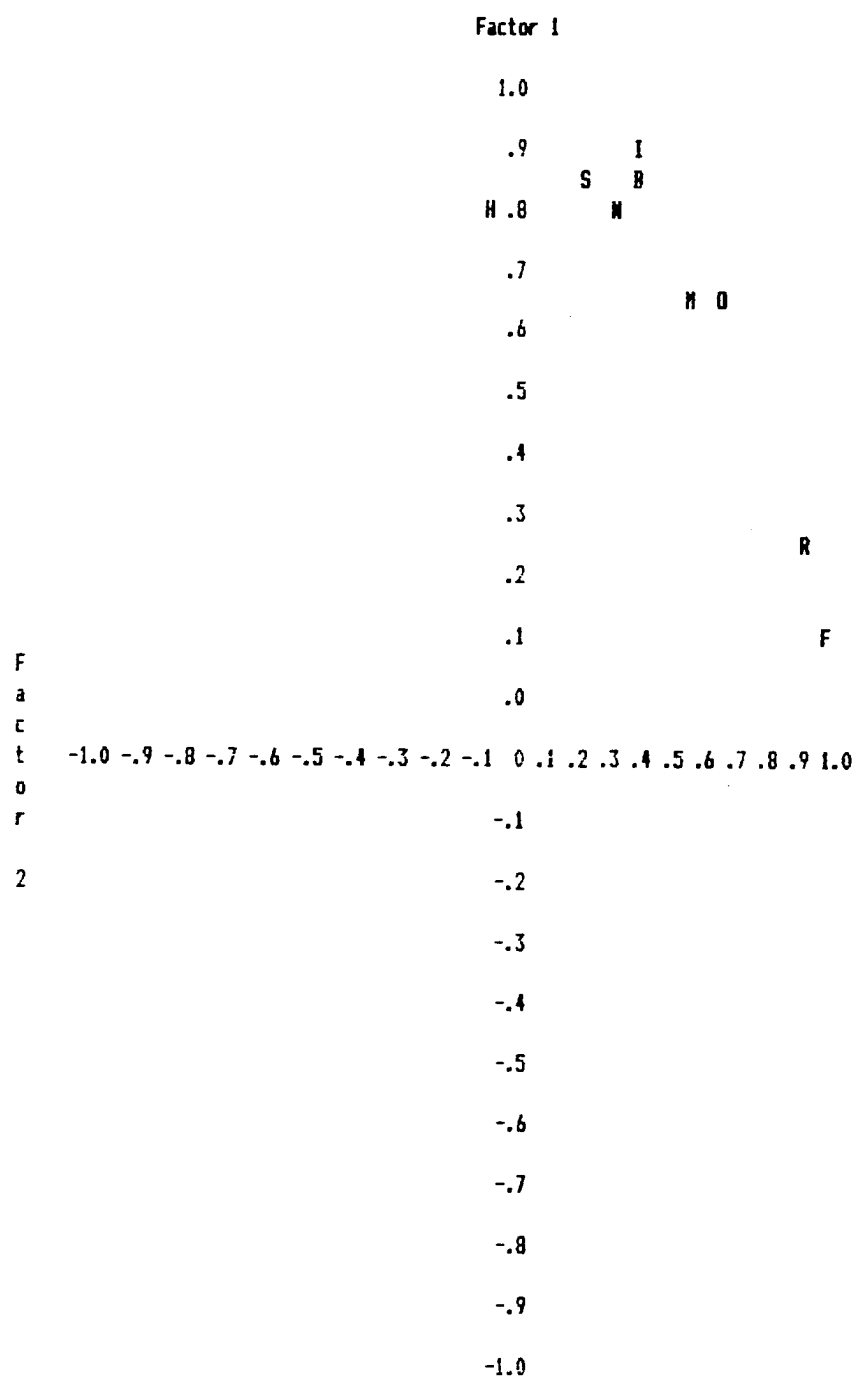
	Factor 1	Factor 2
Ironst	0.96199	0.02320
Hotel	0.83126	0.04159
Neocl	0.92282	-0.03886
Hist	0.88364	-0.05167
Rococ	0.85128	-0.11761
Floral	0.83950	-0.09207
Modrn	0.36973	0.64168
Blwh	0.91379	0.07566
Othr	0.91723	-0.06380

Variance explained by each factor

Factor 1	Factor 2
6.551211	1.291849

Final communality estimates: Total = 7.843060

Figure 6.7: Plot of Factor Pattern - Orthogonal Rotation of Large Sample Size Features



"Neoclassical", "Historicist", and "Blue and White". Loading strongly on component 2 are "Rococo" and "Floral". "Modern" and "Other" are about equally loaded to a moderate degree on each factor.

With this structure, we can infer the nature of the factors given the historic information on these styles. Rococo and Floral represent styles popular throughout the late nineteenth and early twentieth centuries. In this sense they are not revivals - styles explicitly associated with past eras. The cluster of styles loading onto Factor 1 are nearly all revivals - quite explicitly for Historicist, Neo-classical, and Blue and White. The latter two had been popular two generations earlier and then experienced a lesser popularity in the mid to late nineteenth century. Thus they were styles associated with ones' Grandparents in the early twentieth century. The group of styles called Historicist were designed and advertised as revivals, including Neo-Gothic, Arts and Crafts, etc. The two other styles in this group, "Ironstone" and "Hotel Ware" are plain white wares whose popularity was strongest in the 1870s and 1880s. The inference here is that these styles are all "conservative" or refer to "elite" cultural idioms, i.e. they all are either plain or have explicit historical referents. In addition Arts and Crafts was a modern version of hand crafted wares, and though presented in the context of a progressive ideology (a respect for craft work) it was also

elitist and, some argue, anti-industrial working class (Ames 1982). Rococo and Floral are without these explicit revivalist contexts and are here taken to be, if not progressive, than without the explicit revivalist and upwardly mobile implications of the conservative style group. The two style groups which fall in the middle of both component, modernist and "Other" represent an explicitly progressive style in the former, and archaic or idiosyncratic styles in the latter.

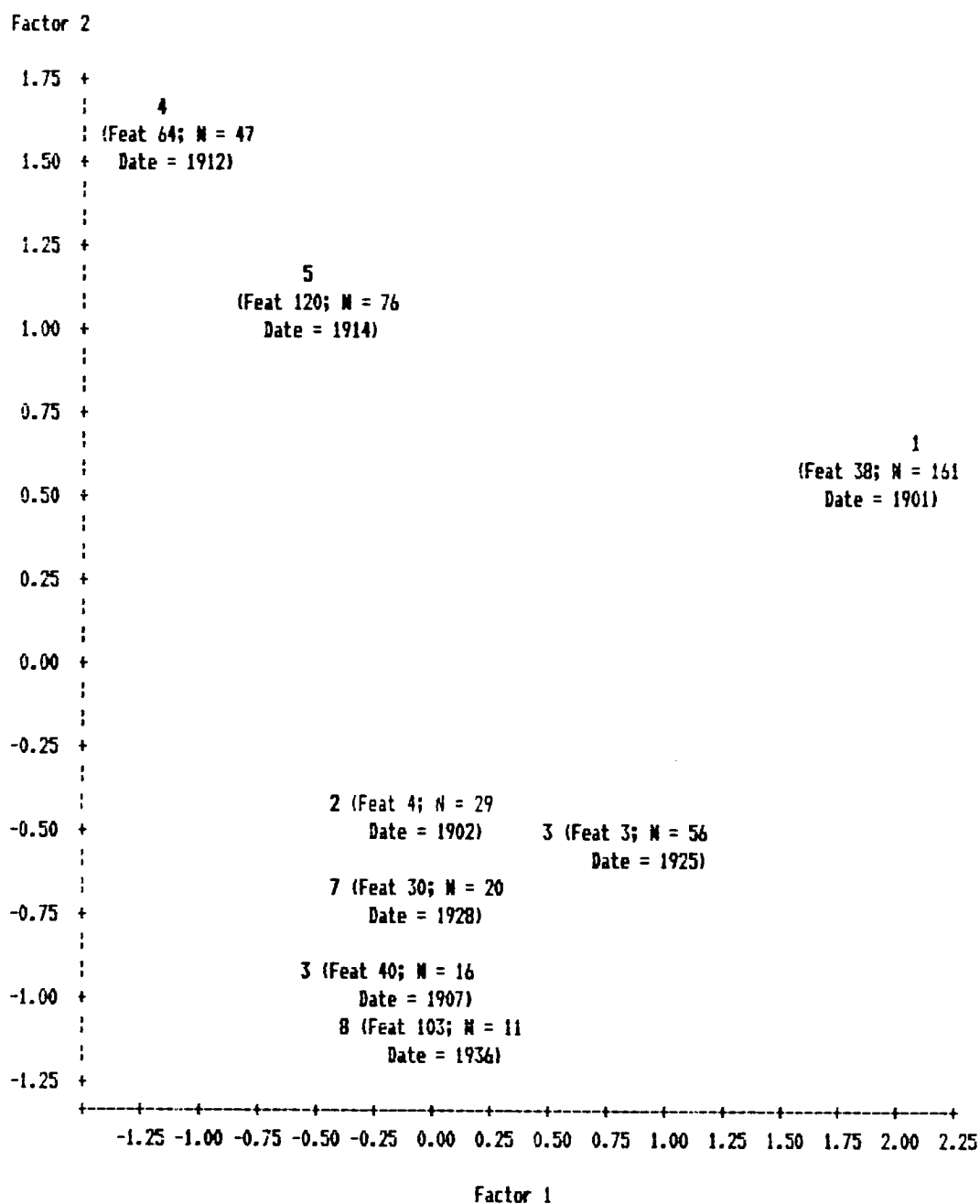
The distribution of features structured by these components can be presented by graphing the cumulative load of Factor 1 against Factor 2 for each feature (Table 6.13 and Figure 6.8). This plot produces three clusters. Though the loadings for this analysis are low, they can allow several inferences.

Eight ceramic assemblages, four from identified households, have been grouped into three clusters in this analysis. Two sets of styles are significant in the variation seen between these features. "Conservative" styles characterize Feature 38, associated with a turn of the century German emigrant machinist. The closest assemblage is Feature 3, which also comes from a German emigrant, Johan Staudt. Though listed as a farmer in 1925, Staudt was soon to build another structure on his property and open a general store. At the opposite loading are the Floral and Rococo characterized feature of the Anglo-

Table 6.13: Cumulative Factor Loadings for Each Feature

	Factor 1	Factor 2
38	2.2124	0.6601
4	-0.3247	-0.4116
40	-0.3924	-0.8555
64	-1.0492	1.5831
120	-0.4263	1.1864
3	0.6050	-0.4624
30	-0.3465	-0.6373
103	-0.2784	-1.0627

Figure 6.8: Plot of Cumulative Factor Scores. Factor 1 by Factor 2 for all Features with Sample Size of Ten or More



Note: Factor 1 loads onto Hotel and Ironstone; Factor 2 loads onto Floral and Rococo

American farmer Stephen Cutting. A third cluster includes the one identified Afro-American oystering assemblage, which does not load strongly onto the Floral or "Conservative" style groups. The possible inferences from this pattern are discussed in the final section and the concluding chapter.

CHI SQUARE ANALYSIS

As an aid in interpreting the facto analysis a simpler statistic was applied to the four identified households. Chi-square measures the relationship between sets of variables, and produces a number which is a statement of the probability that the differences between two sets of variables could be produced by chance. When two distributions are identical, the chi-square will be 0. The greater the difference between two distributions, the larger the chi-square number.

The number of variables compared effects the evaluation of the chi-square score, the larger the number of variables the larger the number of degrees of freedom (df). The df is used to find the appropriate critical value of chi-square on a table reflecting the family of curves produced by the statistic.

An important caveat in the use of chi-square concerns the cell size of a distribution. Chi-square is usually not applied to distributions with cell sizes less than five. Among the four identified household

assemblages, there are several categories of ceramic styles which dip below five. This problem is lessened, but not eliminated, by dropping the categories of "modern" and "other" styles from the evaluation. This still leaves several cells at a score of less than five in some of the comparisons, and therefore weakens the assurance we can have in the statistical results.

Table 6.14 displays the chi-square scores produced for comparisons among features 3, 4, 38 and 120. Since the number of variables compared is seven, the degrees of freedom is six, which indicates a critical value for chi-square of 12.59 at the .05 level of significance, and a chi-square of 10.64 at the .10 level.

Three of the six chi-square comparisons approach or exceed the critical value for the .05 level of significance. Feature 38 and 120 are the most dissimilar by this measure. This is the comparison which suffers least from small cell size, and is therefore the strongest. Features 38 and 3, and 120 and 3 are also near the critical value. Chi-squares for the comparisons between 38 and 4, and 4 and 3 are low, and the value for 4 and 120 is very low, below 2.

These results in part confirm the principal component analysis. The chi-square value of over 21 for the comparison of 38 and 120 supports the results of the factor analysis, indicating that 38 and 120 are the most different of the assemblages compared. The moderate chi-

Table 6.14: Chi-Square Tests Comparing Household Identified Features

Feat.	Iron.	Hotel.	Neocl.	Hist.	Rococ.	Floral	Blwh.	Total
38	78	6	14	10	16	11	21	156
4	11	2	3	1	6	4	1	28
	89	8	17	11	22	15	22	184
	Totals							

Chi-square = 7.498908

38	78	6	14	10	16	11	21	156
120	25	2	8	5	19	13	3	75
	103	8	22	15	35	24	24	231
	Totals							

Chi-square = 20.63302

38	78	6	14	10	16	11	21	156
3	20	3	13	5	4	6	3	54
	98	9	27	15	20	17	24	210
	Totals							

Chi-square = 12.63996

4	11	2	3	1	6	4	1	28
120	25	2	8	5	19	13	3	75
	36	4	11	6	25	17	4	103
	Totals							

Chi-square = 1.846399

4	11	2	3	1	6	4	1	28
3	20	3	13	5	4	6	3	54
	31	5	16	6	10	10	4	82
	Totals							

Chi-square = 5.87646

120	25	2	8	5	19	13	3	75
3	20	3	13	5	4	6	3	54
	45	5	21	10	23	19	6	129
	Totals							

Chi-square = 11.18541

square for 120 and 3 is consistent, but the similarly moderate score for 3 and 38 indicates that these two German immigrant households are no more similar than the first German with the Anglo-American farmer. This is helpful in understanding the degree of difference between these two features. The low scores for 4 and 3, and especially 4 and 120 support the principal component results.

In conclusion, the chi-square test applied to the four identified households in the collection support and clarify the factor results, indicating that 38 is the most different of the assemblages.

CHAPTER DISCUSSION

The analysis in this chapter indicates that there is a significant difference between the manner of expression of architectural style versus ceramic style. Architecture shifts from ethnic identification to class expression, whereas ceramics continue to correlate with ethnic identity. Temporal change is seen in the ceramic assemblages, as style diversity lessens through time, and one stylistic genre, classical, become more dominant in all assemblages.

The construction of homes and the choices in the purchase of ceramics are selections of elements in stylistic idioms which represent affiliation with one or another social group.

Initially, Afro-Americans from the Chesapeake area

arrived in Staten Island with knowledge of stylistic idioms based in Anglo-American cultural forms long established in the South, seen in the I-house construction of the earliest Afro-American built homes (Glassie 1968:64-77). Similarly the Dutch revival homes built at this time in Sandy Ground represent an expression of a regional idiom of the northeast. The 1850s I-House built by Moses Harris and the Dutch-Revival home of the Guyons represent initial regional differences in the founders of the community of Sandy Ground, though these differences may have simultaneously stood for expressions of ethnic distinctiveness.

With the growth of a shared community culture, Sandy Grounders chose not to recreate ethnic or regional distinctions in their architecture. By the last quarter of the nineteenth century Afro-Americans and whites in Sandy Ground had established, and were reproducing generationally, a community culture which emphasized conviviality and respect, yet which was based in the larger class distinctions of developing American capitalism. The idioms of class distinctions replaced the regional cultural forms as the primary identities expressed through architecture. I-houses were built by Black and white farmers, for the most part under increasing economic stress, and for rental to families that could not afford private homes. Three-bay Worker's homes were constructed by oystermen, small businessmen and skilled workers. Most emphatically the "assertive" message of the Isaac Harris

house reinforces this class idiom analysis. Harris participated in the culture of the Afro-American elite in New York City, with family connections in Manhattan, in his early education, and in his work for wealthy whites (see Chapter 4). He had access to and mobilized his stylistic knowledge to reinforce this distinctiveness in the community.

The regional-ethnic distinctions of the 1860s were replaced by an expression of status difference in architectural form by the 1880s in Sandy Ground.

The ceramic analysis provides economic, foodways and style choice information. Factor analysis indicates that average cost per vessel for each feature is not significant in the styles chosen - style choices are independent of ceramic cost. This statistical inference is supported by the porcelain percentage figures. Features 120 and 64 both cluster in the strong "Floral" cluster. Feature 120 has 31.6 percent porcelains, feature 64 has 42.1 percent and the Worts features have only 11.5 percent. Similarly Feature 4 and 30, both in the intermediate cluster, have respectively 34.5 and 13 percent porcelains. The ratio of plates to bowls has also been proposed as an indicator of economic status. As can be seen in Table 6.15 these ratios also do not correlate with the "Floral", "Conservative" and intermediate clusters.

Finally, though a chronological trend is evident in

Table 6.15: Ceramic Analysis Summary

Feat.	Date	Body ware ratios	Ave. cost/ vessel	Funct. ratios	Style cluster
38	1901	24:33:42	1.35	1.75:1	"Conserv."
4	1902	34: 7:58	1.48	1:1.4	"Interm."
64	1912	42:13:45	1.59	1.14:1	"Floral"
120	1914	32:30:38	1.50	1:1.11	"Floral"
3	1925	26:26:47	1.39	1:2.33	"Interm."

ceramic styles through the seriation analysis, the principal component statistic indicates the chronology does not predict the variation in the ceramic style groups.

At first consideration, the ceramic style clusters, "Conservative", "Floral" and "Intermediate" seem to reflect ethnicity. The identified "Floral" assemblage is from an Anglo-American household, the two "Conservative" styles are from German emigrants, and the only identified "Intermediate" assemblage is from an Afro-America household. Ceramics therefore show the possibility that idioms of style were used in Sandy Ground ceramics to express ethnicity.

An alternative analysis should not be discounted. All the factor loadings in this analysis are relatively weak, as are the Chi-squares scores - they do not strongly indicate differences between these assemblages. It could be argued that no distinct clustering of assemblages is taking place, and that all households participated in the idioms of Victorian style equally, with neither temporal nor economic distinctions significant in style choices. In this alternative analysis the power of Victorian consumer ideology swamps all ethnic difference within households.

With either conclusion, there is a significant difference between the history of stylistic identity expression in vernacular architecture when compared to any changes in ceramic stylistic change.

PART III
CONCLUSIONS

CHAPTER 7

SANDY GROUND SOCIAL-HISTORICAL ARCHAEOLOGY -
DISCUSSIONS, CONCLUSIONS AND IMPLICATIONS

SUMMARY OF DISSERTATION

This dissertation has explored the relationship of social group identity to changing economic and social relationships. It has focused on the multi-ethnic community of Sandy Ground as a case study. Social historical research has shown that Sandy Ground Afro-Americans achieved relative equality vis-a-vis white ethnics, specifically the Anglo- and German-Americans in the community. Analysis of architectural form and artifact assemblages has shown that the expression of identity through material culture was complex, and reflected both the increasing importance of economic status and the perserverance of ethnic cultural behaviors.

DISCUSSION OF FINDINGS

Sandy Ground's history articulates with the larger processes of developing American capitalism. The periodization scheme developed in Chapter Three is a framework for understanding the changing social relations in the which community was embeded, and the expressions of identity which Sandy Grounders mobilized.

The social history component of this dissertation

covered the full relevant history of the community, from the 1820s to the 1920s. The material cultural analysis was available on two levels: the architectural material covered the period from the 1850s through the 1920s, while the recovered artifactual materials cover the decades from the 1890s to the 1920s.

Afro-Americans entered oystering at a specific moment in the history of American capitalist development. Chesapeake oystering shifted from a part-time resource supplementing activity to a full-time occupation during the 1820s, before there was any significant penetration of capitalist relations into local fishery industries. An occupational culture, of an artesanal, pre-modern nature, emerged in a context where labor segmentation along racial lines was not reinforced by capitalist interests. The Afro-Americans who came north to Sandy Ground in the 1840s and 1850s entered a community with much less racial oppression than they had experienced in the south but which still treated them as wards. They entered the community during the beginning of the general transition from "premodern" to modernizing capitalist relations. Initially, Afro-Americans in Sandy Ground were marginal, as seen in the spatial arrangement of the community (Chapter Three). Architecture in this period reinforced the spatial boundedness of ethnicity in the early community. Afro-Americans labored in the oystering trade, though no

individuals had yet attained the success of independent sloop owners. Within Sandy Ground, Afro-Americans and whites were involved in many interactions, though a degree of paternalism may be inferred - whites witnessed the founding of the church, witnessed marriages, sold land to the Black settlers, and acted as the local elite as store owners and large farmers. Newspapers and contemporary popular articles give no indication of convivial relations between Afro-Americans and whites in the community, though some oral reminiscences of good relations refer to this period.

With Reconstruction and the continued expansion of oystering, Sandy Ground experienced a florescence and stability. The period up to the from the 1860s to the turn of the century saw the growing maturity of American capitalism, an expansion which allowed the local oyster trade to boom. Afro-Americans attained positions of relative equality in the community and in the fishery trade. Mutual behaviors of respect and participation in the oyster industry decision making were part of the creation of a community culture which included sports, economic exchanges and household visiting and exchange. The AME Zion church moved from a side road to the center of the main road along with new houses built by the more successful Afro-American families. The architecture of this period reflects a common usage of class position as the status being expressed by both Afro-American and white

families.

In the 1900s oystering underwent a transition to a highly capitalized wage-labor industry, and farming collapsed under technological change. Though racial discrimination increased greatly in this period, and all Sandy Grounders were absorbed into wage labor jobs in factories or service work, there was an attempt to maintain both participation in traditional occupations, and a maintenance of community culture. Black oystermen continued in the industry despite racism and, most likely, falling profits. Additionally the occupational culture was ruptured by the domination of New York merchants. Farmers continued at least part-time cultivation of their plots, as additions to their wage income. Through these periods of florescence and collapse, Sandy Grounders continued to build homes which emphasized the occupational or class status of their pre-industrialized social relations. Men built and designed these homes, and it was mens' social positions which were being indicated (Chapter 6).

Sandy Grounders continued to utilize their established community culture in the face of the increasing racial tensions, economic collapse and social transitions in the Northeast. Into the 1930s, a general equality was emphasized in sports, social events and household and street conviviality. Though racial tensions existed, as did ethnic antagonism, especially between Germans and non-

Germans (Chapter Three), the established community culture allowed for a continuity of local, small town life in the face of industrial capitalist growth which had ruptured the fabric of the nineteenth century oystering-agricultural relations.

DISCUSSION OF ARTEFACT ANALYSIS

Similar to the architectural analysis, the artefact analysis indicates a general movement away from ethnicity as the primary identity expressed through style. The chronology of this shift is different from that seen in the architecture. Additionally, the artefact analysis indicates a complex situation in terms of continuity of ethnic cultural content.

Four assemblages were identified as to households, and several others were used to indicate more general trends in the community. Feature 38, with a median systemic date of 1901, is associated with the German machinist Johan Fisher. Though little documentary data is available for Fisher, his occupation as a skilled worker would indicate a comfortable income. This is supported by the high ratio of plates to bowls in his midden, indicating a diet high in cut meat rather than stews. The dominant style in the ceramics is historicist, a Euro-centric and relatively elite set of styles. The one other German household, Johan Staudt's, dating to the mid 1920s, also is high in historicist styles. Staudt and Fisher are also

almost identical in the ratio of porcelains to non-porcelains, and in having over 30 percent of the assemblage made up by cups. The appearance of cups is associated with the tea ceremony, a more old world and bourgeois behavior. The style preference, purchasing choice, and behavioral similarity is consistent with ethnic identity distinction and continuity. [or could reflect more petit-bourgeois ideology - Staudt on his way to being a store owner]

Feature 3 shows one significant difference from 38; its plate to bowl ratio is very low, with half as many plates as bowls. This may be a key economic indicator. Though the Staudt household became store-owners within a decade, the head of the household was listed as a farmer, an impoverished occupation at this time, and his wife and both adult daughters worked. It may be that in the mid-1920s the Staudt family was in the process of saving capital for their future petit-bourgeois investment.

Feature 4, associated with an Afro-American household, is approximately contemporaneous to Feature 38, and shows a number of interesting differences. It is moderately divergent from 38 in chi-square score, and factor analysis puts it closer to feature 3, though clearly without the historicist emphasis in styles. Stylistically it is more eclectic. Feature 4, and 120, both have a lower percentage of cups, a lower ratio of plates to bowls, and a much higher percentage of porcelains. This can indicate the lesser significance of the tea ceremony, and a greater

investment in high status flatwares, indicating that meals, rather than teas, were the more significant expressions of conviviality. The low plate-bowl ratio may indicate a foodways preference - an ethnic cultural component, or a difference in economic standing.

The Cutting household, the origin of the material found in Feature 120, were relatively poor farm owners and factory operatives who lived in Harrisville, a mostly Afro-American section of Sandy Ground. Stylistically, Feature 120 is farthest from the German households, both in chi-square and factor results. Feature 120 ceramics are dominated by a set of floral designs, only shared by one unassociated feature in the sample. In cup percentage, porcelain ratio, and plate to bowl ratio this assemblage is similar to the Afro-American associated Feature 4. But a previous analysis indicated differences between Features 120 and 4 in home medical practice and foodways (Askins 1982b). Feature 4 contains a significantly greater number of condiments of all kinds, while 120 had a large number of home remedies. These differences indicate that, despite some similarities in purchasing choices and household behaviors, ethnic content differences still existed.

From these individual household assemblages it can be inferred that ethnicity as a marker of identity continued to be significant in Sandy Ground in household level activities even during the period of fluorescence.

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But the shift in factor scores on styles for the two German households hints at a shift away from ethnic differences in style choice. This is supported when one looks at all features which were included in the component analysis. Every feature which dates after 1920 has principal components which load onto floral to a small degree and historicist to a somewhat greater degree. The relative diversity of loadings found in earlier features is lost by the 1920s. This general community trend is another indicator of the lessening importance of ethnic identity expression in ceramic style.

The changes in ceramic style choice follow by more than a generation the shift in architectural style expression. Household level activity seems to be changing more slowly than culturally produced signals directed towards the general community. Two related processes may be involved. First, the construction of houses is in the control of men, who are embeded in occupational relations which emphasize cooperation and, especially in oystering, status distinctions of entrepreneur and laborer. Secondly, household purchase of ceramics was likely under the control of women. Ceramics were used in contexts which were both more familial and more restricted in recieving audience. Household ceramics, along with foodways, may have been more important in the reproduction social group identity differences, a form of signalling inwards. Finally, by the end of the nineteenth century the separation of household

and workplace was well under way in general in American bourgeois families. The people of Sandy Ground, attuned to a rural Victorian culture, and despite the community interactions, may have attempted to keep home separat and isolated from the assaults occurring in the larger work and social world. Only towards the end of the study period, in the 1920s, is there a shift to a set of similar ceramic styles which may be an indicator of the growing force of the homogenizing consumer culture.

IMPLICATIONNS FOR THEORY

The Sandy Ground findings, though based on a small data set, are consistent with a theoretical approach which sees the creative aspect of cultural meaning, including the choice of material culture, as participating in mediating the complexities and contradictions of the social world (Mintz 1970).

Functionalist approaches, like Barth's, which see boundary maintenance as expected where occupational niches are differentiated, cannot explain why Sandy Grounders did not intensify ethnic differentiation in the context of the oysterman - farmer differences, or after the collapse of both occupations, when most Sandy Ground men were pushed onto the labor market. Functional analysis assumes that when social or economic change occurs, people will adjust in order to maximize the new situation or recereate the previous set of relationship. The processual approach used

here, grounded in a historical materialism, assumes that people have choices which are informed by their history.

The relative equality found in Sandy Ground was to a great degree based in the lack of ethnic based labor segmentation in the oyster trade. This in turn was a result of the artesanal nature of the occupation, and the historic moment it developed, when capitalist relations were not directly involved in this local fishery industry. Oystering then became a model of relative equality between Afro-Americans and whites, with the rituals of occupational respect carried out in the community - at ox roasts, clam bakes, weddings, funerals, and other social events. The model of relative equality and occupational cohesion encompassed the local community of Sandy Ground, reinforcing the economic exchanges and work relations among Black and white farmers, sloop, and store owners.

When faced with the loss of control of their occupational culture, Sandy Grounders, and most likely other oystering communities, had several choices in their response. Some white osytermen on Staten Island resisted, by establishing a mutual protective group which bought a portion of shore in Prince's Bay, or by calling on their natural rights, while others accomodated, hiring on to the fleets of the oyster capitalists. Black Sandy Grounders resisted by working deeper beds and calling upon the ideology of growers' rights. This may not have made

sense economically, but it did allow Afro-American oystermen to continue participating in their occupational culture, with all its concomitant social relations.

The complete collapse of oystering left Black and white oysterers no choice - wage work of some form was necessary. Confronting directly racism and labor segmentation, Black and white Sandy Grounders did not intensify ethnic competition.

The people of Sandy Ground used their community cohesion and identity to attempt to ameliorate the economic effects of the increasingly intense capitalist domination of oystering and the collapse of farming. This cohesion was also used in dealing with the later collapse of oystering, and the further work-place fragmentation of community members.

The significant point is that the people of Sandy Ground had a number of choices in responding to the economic and social transformations occurring around them. A functionalist analysis does not allow for a recognition of choices, choices made in the context of contradictory processes and forces.

Clearly, a functionalist model of ethnic identity expression has not been found to be an adequate framework for understanding identity expression in Sandy Ground. The best understanding of the role of ethnic identity expression has been achieved by a thick social description, an investigation of the central importance of work-place

relations, and the recognition that communities of people can make choices in the paths they take within larger scale social and economic processes.

IMPLICATIONS AND CONTRIBUTIONS FOR HISTORICAL ARCHAEOLOGY

This study provides several new perspectives, methods of analysis, and bodies of data for the field of historical archaeology.

This dissertation adds to the growing monographs on free Afro-American communities in historical archaeology. It is also the only monograph which looks at a successful Afro-American community, and not one which suffers collapse (Geismar 1982), or is absorbed by a larger community (Henn 1983), or exists only as the reflection of capitalist investment (Gradwol and Osborn 1982).

The dissertation provides several methodological contributions to historical archaeology. The ceramic style analysis produced a seriation which can be used to date other late Victorian assemblages, and is the first which concentrates solely on style as the criteria for categorization. The general ceramic and bottle codes are more thorough than any this author has seen for this time period, and can be easily applied to collections contemporary with Sandy Ground.

Most significantly, this dissertation contributes to the theory of ethnicity in historical archaeology.

Historical archaeologists for the most part have not approached ethnicity or ethnic identity in the context of class relations. Instead, class, or socio-economic status, and ethnicity are seen as alternative explanations to observed material behavior. This dissertation has demonstrated that class processes are always in action in a capitalist society, transforming both the larger contexts of ethnic identity and the specific choices people have in mobilizing and expressing ethnic identity.

Most historical archaeologists, Deetz being an influential example (1977) assume the homogeneity of ethnically identified groups, both in internal and external forms of ethnic behavior and signalling, and in the responses groups make to changing social relations. This dissertation has demonstrated that ethnic groups are not homogenous in behaviour and action. Afro-Americans in Sandy Ground were occupationally and economically stratified, differences which were expressed through material culture. Some social relations bound Afro-American Sandy Grounders more closely to white men and women, whether as oystermen, as successful workers, or as community members. These affiliations were reinforced and reproduced through a wide range of social actions, including architectural forms. Depending on the context of interaction, ethnic differences were sometimes more prominent, as seen within households, in ceramics and foodways.

The study has also demonstrated that ethnic boundary markers and ethnic cultural content may change at different rates, and are not automatically correlated. Few historical archaeologists have recognized this (Zierdan 1981; Henn 1983).

Most historical archaeologists, following a correlational or acculturational approach, have found patterns of correspondance between material culture and defined groups. But this exercise in fulfilling expectations does not discover the complexity of peoples' actions, nor distinguishes patterns of response which are more significant in attempting to deal with social contradictions. In Sandy Ground, the building of similar houses is more significant as an attempt to construct and reproduce community than the ethnic differences in foodways.

By moving in the direction of exploring complexity, recongizing the significance of class relations, and expecting heterogeneity, contradiction and diverse options in peoples actions, historical archaeology will contribute more significantly to the intellectual discourse on both the specifics of American history and generally on processes of class and ethnic transformation.

IMPLICATIONS FOR FUTURE RESEARCH

Further work in Sandy Ground can refine, or alter, the conclusion made here. Additional archaeological

samples of all ethnic groups, and especially Afro-Americans would add a richer understanding of the complex relationship between class processes, ethnic identity, and cultural content of ethnic behaviors. In addition, further exploration of the documentary literature could reveal tensions or alliances not perceived in the research completed to date.

The continuity of a community culture of conviviality in Sandy Ground may or may not be unique. Most likely it is not, but this author knows no other small community studies in history or anthropology which have either revealed this, or have been approached in a manner which allows the recognition of such relative racial equality in the nineteenth century.

EPILOGUE

Sandy Ground survived the Great Depression, and the fire of 1963 and stayed relatively integrated as a community into the 1970s. It is only in the 1980s that Sandy Ground has become more clearly a Black community, as it became surrounded by tract housing and as many local white, and some Afro-American, families bowed to economic and other pressures and sold their land to developers. The recent decades have seen increasing racial tension and intensified structural racism on Staten Island. Through this period, as they have in the past, Sandy Grounders have called upon the shared community identity of Afro-

Americans and whites in dealing with the real estate development in and around their community. The Sandy Ground Historical Society was formed in the 1970s. Led by Afro-Americans, this interracial organization lobbies for heritage recognition and zoning considerations, and maintains a cultural program that reaches people throughout Staten Island. The Historical Society embodies the Sandy Ground identity, which involves pride in the labors of oystering and farming and a vision of a world of equality and respect.

APPENDIX A
CODING SYSTEMS AND RECORDING FORMS FOR SANDY
GROUND BOTTLES AND CERAMICS

Figure A.1: Bottle Technological Dating Codes

Fragments

The following attributes can be recognized from individual sherds or larger items, including whole vessels.

- 001 Machine made (semi-automatic or automatic machine).
Recognized by ghost seams, plunger marks or parting lines on finish.
DATE RANGE: 1893-1971, 1899-1971 for narrow mouthed containers (Miller and Sullivan 1981:3).
- 002 Amethyst sun coloration.
DATE RANGE: 1880-1916 (Muncey 1970:55).
- 004 Machine made and amethyst sun coloration.
DATE RANGE: 1893-1916, 1899-1916 for narrow mouthed containers.
- 005 Applied color labeling.
DATE RANGE: 1930-1971 (Muncey 1970:52).
- 006 "Federal Law Prohibits Sale or Reuse of This Bottle".
DATE RANGE: 1933-1964 (Munsey 1970:126).
- 007 Turn mold. (coded also as 030).
DATE RANGE: 1870-1920 (Toulouse 1969:532). [1880-1910 given by Munsey (1970:60), produces same mid-date.]
- 011 Applied lip, also called laid-on-ring, early type.
(coded also as 125).
DATE RANGE: 1840-1875 (Deiss 1981:94; Baugher-Perlin 1982:268).
- 012 Hand tooled lip and amethyst sun coloration.
DATE RANGE: 1880-1900 (Deiss 1981:94).
- 020 Recent alcohol - post prohibition.
DATE RANGE: 1933-1971. Recognized by obvious stylistic and technological attributes (Leuchtenberg 1963:46).

Figure A.1: Continued

Bases

The following attributes can be recognized from base fragments. These codes also used for items with other portions of containers, up to and including whole vessels.

- 021 Semi-automatic/automatic machine on wide mouth vessels or bases that cannot be identified as to mouth type. Valve-mark or multiple parting lines present.
DATE RANGE: 1893-1971 (Miller and Sullivan 1981:3).
- 022 Valve mark on wide mouth containers, especially milks.
DATE RANGE: 1893-1971 (Toulouse 1969:583).
- 023 Owens machine made. Recognized by Owens scar on base.
DATE RANGE: 1903-1971 (Toulouse 1969:582).
Miller attributes an end date of 1955 (Miller 1981:16).
- 025 Gob feeder automatic machine. Recognized by ghost seam on base, "v" shaped scar.
DATE RANGE: 1917-1971 (Kendrick 1966:83).
- 026 Automatic machine made and amethyst sun coloration.
DATE RANGE: 1903-1916.
- 027 Semi-automatic machine made and amethyst sun coloration.
DATE RANGE: 1893-1916.
- 028 Mold made (cup or post) with snap case.
Characteristic mold lines on base with absence of pontil.
DATE RANGE: 1860-1930 (Davis 1949:82).
- 030 Turn mold - rotation marks found around base - no seams. Found especially on wines.
DATE RANGE: 1870-1920 (Toulouse 1969:532; Muncey 1970:40).
- 034 Two-piece hinged-bottom mold without pontil.
DATE RANGE: 1850-1880 (to 1890 on large patents and bitters) (Muncey 1970:39).
- 038 Free blown. Shaped by hand - no seams, usually non-symmetrical.
DATE RANGE: Until 1850 for most categories of bottle (McKearin 1968).

Figure A.1: Continued

-
- 040 Dip mold with two-piece shoulder leaves.
DATE RANGE: 1870-1910 (Muncey 1970:39; Toulouse
1969:536; Baugher-Perlin 1982:

Finishes and Closures - Narrow mouth

- 100 Lightning stopper - Blob top with wire bail and mold
200 made.
DATE RANGE: 1875-1915 on non-beers. 1875-1929 on beers
and citrates.
- 103 Hutchinson stopper. Blob top with plunger seal.
DATE RANGE: 1879-1929
- 104 Mathews Gravitating stopper. Similar to Hutchinson.
DATE RANGE: 1864-1929 (Muncey 1970:104).
- 120 Crown cap - mold made.
DATE RANGE: 1893-1930.
- 125 Hand applied lip.
DATE RANGE: 1840-1875.
- 126 Crown cap and mold made and amethyst sun colored.
DATE RANGE: 1893-1916.
- 127 Twist off crown cap.
DATE RANGE: 1960-1971
- 128 Crown cap - machine made.
DATE RANGE: 1903-1971
- 129 Lipping tool.
DATE RANGE: 1820-1880.

Finishes and Closures - Narrow or Wide mouth

- 140 C.T. (continuous thread) standardized crew lid.
DATE RANGE: 1924-1971 (Lief 1965:29).

Finishes and Closures - Wide mouth

- 152 Sure Sealcap, distorted on removal, especially found
on tumblers.
DATE RANGE: 1908-1930 (Lief 1965:22).
- 154 Amerseal Lug Cap. Presently the popular four lug
metal cap.
DATE RANGE: 1906-1971 (Lief 1965:22).

Figure A.1: Continued

155 Goldy Cap.

DATE RANGE: 1903-1930 (Lief 1965:23).

Figure A.3: Bottle Shapes

Each glass container or portion was assigned a shape. These shapes are based on Herskovitz (1978) and Wilson (1981), with additional shapes located in the Illinois Glass Company catalog of 1911 (Putnam 1965). See Figure A.4 for bottle shape drawings.

1. Short neck soda - blob or crown (Herskovitz 1977)
2. Citrate of Magnesium
3. Miscellaneous cylindrical bottles
4. Short necked soda or beer
5. Champagne beer - blob or crown (Herskovitz 1977)
6. Long neck soda - usually crown top
7. Flat bottom ginger ale
8. Squat, fat necked beer - Champagne beer with bulb neck - blob or crown
9. Standard brandy (Putnam 1965:127)
10. Sauterne (standard wine)
11. Champagne (Herskovitz 1977)
12. Wine Jug - usually gallon size
13. Miscellaneous modern sodas - Coke/Pepsi with ribs, etc.*
14. Round polish bottle (Putnam 1965:64)
15. Squat Band ink (various dimensions) (Putnam 1965:60)
16. Squat square ink (Putnam 1965:60)
17. Cone ink (Putnam 1965:60)
18. Bell mouthed bell ink/mucilage
19. Cylinder Pomade
20. Square Pomade

Figure A.3: Continued

-
21. Miscellaneous pomade shapes, ribbed round, round, polygonal
 22. Miscellaneous square base bottles
 23. Miscellaneous panel bottles (Herskovitz 1977)
 24. Miscellaneous rectangular panels
 25. Miscellaneous flat sided ovals
 26. Ball neck decanter (Putnam 1965:138)
 27. Miscellaneous rectangular base
 28. "Plantation Bitters" cabin style bottle
 29. Polyhedral base
 30. Miscellaneous oval flasks
 31. Mayonaise style jars
 32. Vaseline style jar
 33. Large packer lip jar
 34. Miscellaneous condiment
 35. "Noxema" - all varieties
 36. Small panel, "Fletchers'"
 37. Polyhedral ketchup/sauce
 38. Round ketchup/sauce
 39. Striated ketchup
 40. Miscellaneous
 41. Miscellaneous
 42. Cylindrical peppersauce
 43. Hexagonal ring peppersauce (Putnam 1965:211)
(Herskovitz 1977)
 44. Cylindrical olive/pickle

Figure A.3: Continued

-
45. Miscellaneous condiment
 46. Salad dressing
 47. Hexagonal pickle
 48. Horseradish (Putnam 1965:47)
 49. Triangular pickle (Putnam 1965:47)
 50. Miscellaneous wide mouth cosmetic
 51. Modern oil or vinegar*
 52. Olive oil (Herskovitz 1977)
 53. Club sauce (Herskovitz 1977)
 54. Barrel mustard
 55. Baltimore oval (Herskovitz 1977)
 56. Blake oval (Putnam 1965:7) (Herskovitz 1977)
 57. Prima type oval (Putnam 1965:6)
 58. French square (Herskovitz 1977)
 59. Pomade/morphine (Herskovitz 1977)
 60. Tall cylindrical bottle
 62. Miscellaneous small vial (Herskovitz 1977)
 63. Cylinder medicine/chemical, brown
 64. Homeopathic vials
 65. Miscellaneous flasks
 66. Miscellaneous ovals
 67. Picnic flask (Herskovitz 1977)
 68. Vaseline type (see #32)
 69. Large pharmaceutical/candy jar

Figure A.3: Continued

Finish types (codes used when finish alone is present)
80. External screw finish
81. Patent extract
82. Ring neck patent extract
83. Contracting patent
84. Double ring or bead
85. Flat-top round
86. Prescription lip
87. Wide mouth patent/packer
88. Wide mouth round
89. Miscellaneous
90. Wide mouth bead/ring
91. Miscellaneous narrow mouth finish

* Modern means post 1920s

Figure A.4: Bottle Shape Illustrations

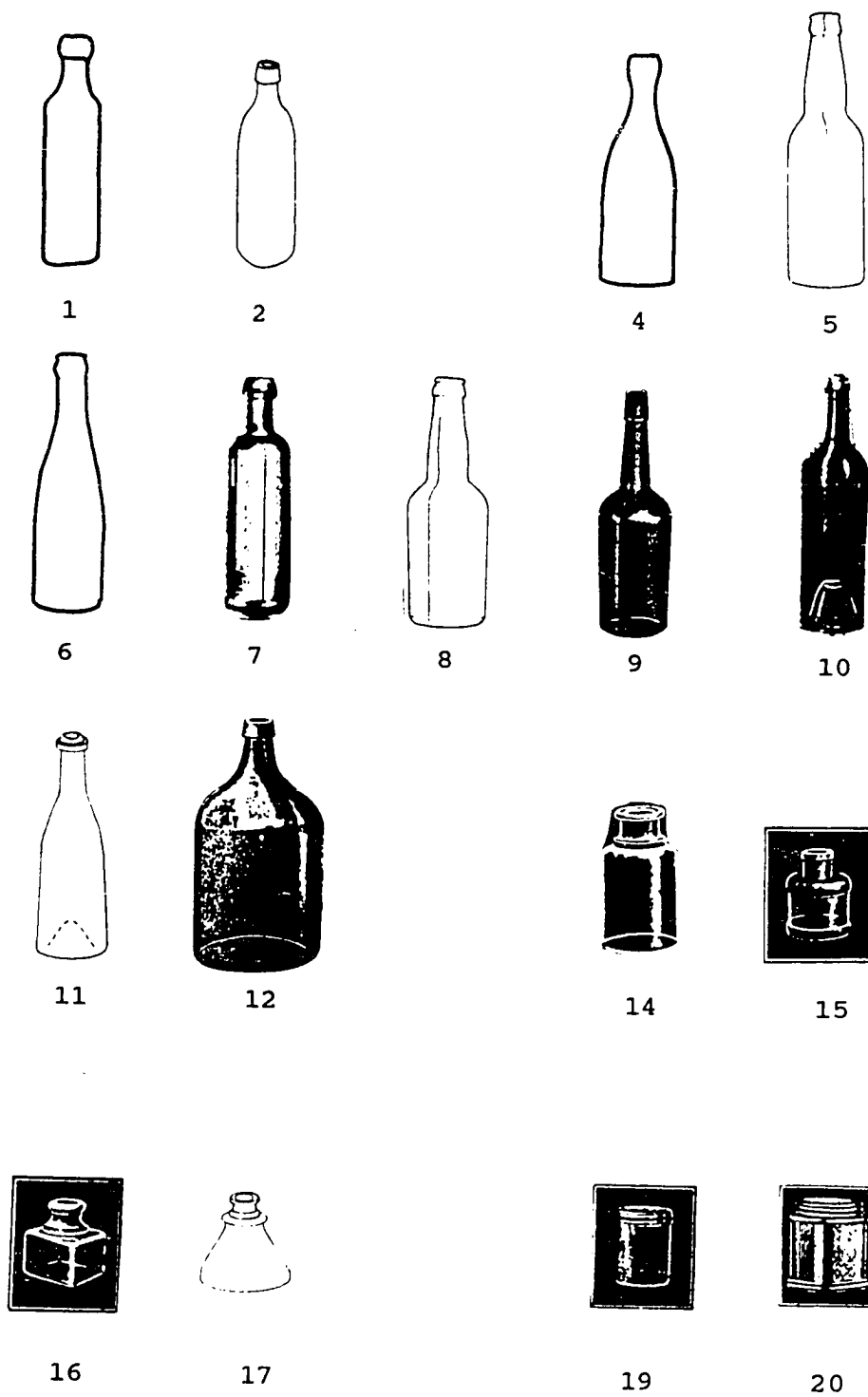


Figure A.4: Continued

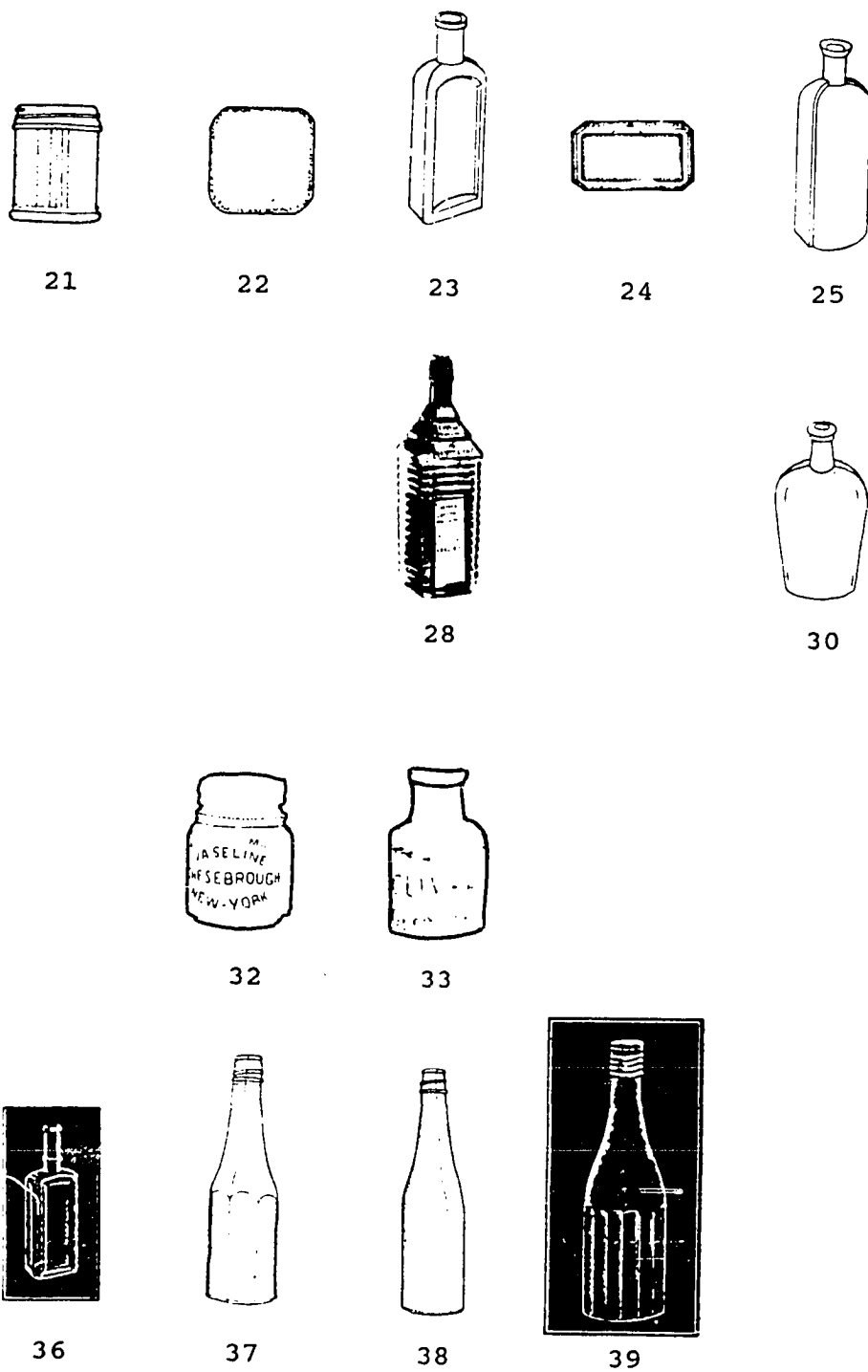
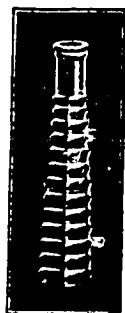


Figure A.4: Continued



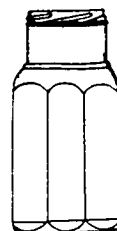
42



43



44



45



47



48



52



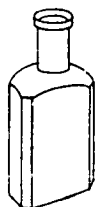
53



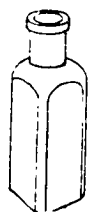
54



55



56



57



59



60

Figure A.4: Continued

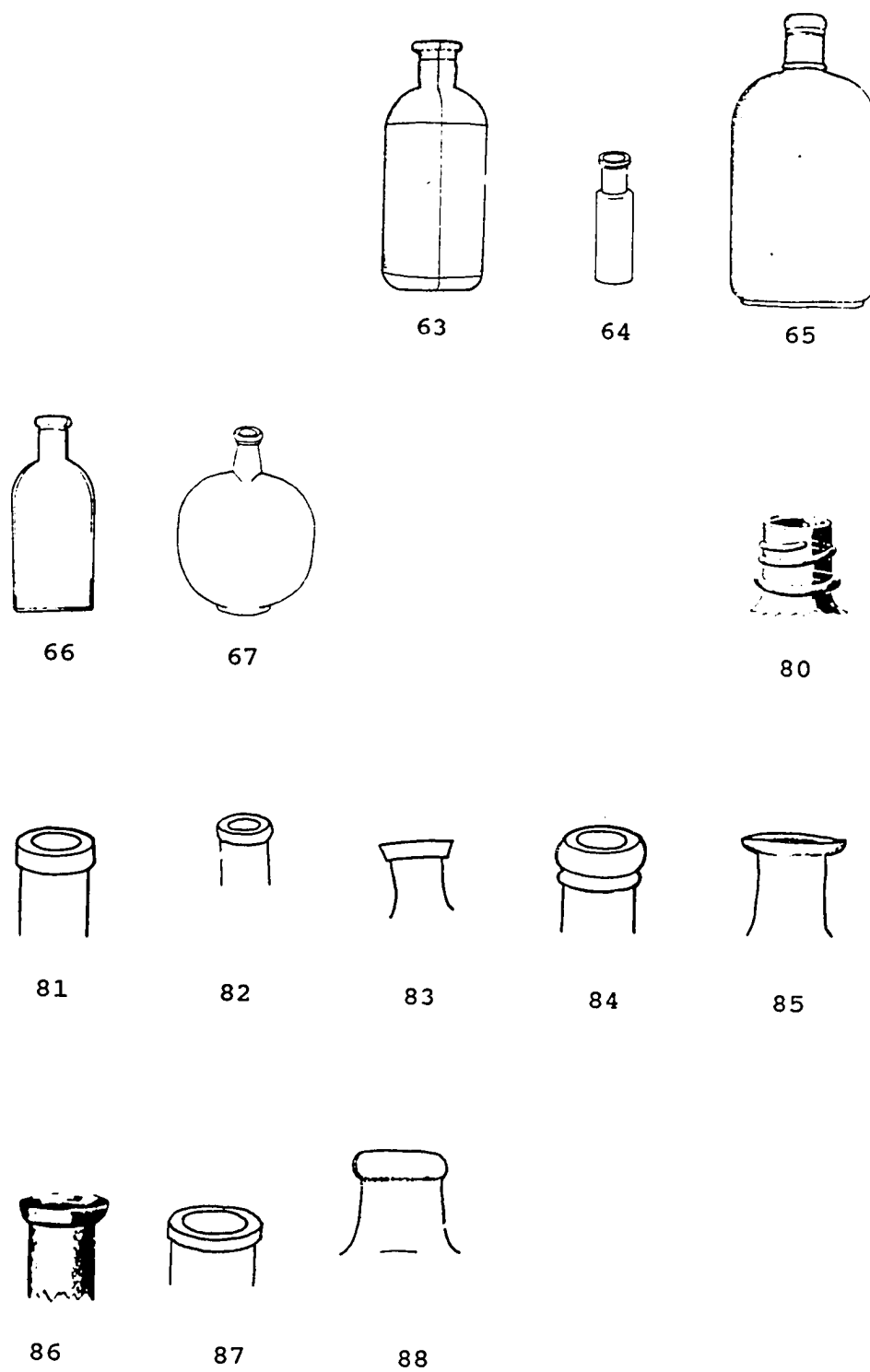


Figure A.5: Glass Container Function Codes

Directory of Primary Codes

001 Food
 005 Condiments
 010 Alcoholic Beverages
 015 Unidentified Beverages
 020 Non-alcoholic Beverages
 030 Medicinals, Prescriptions, and Popular Remedies
 040 Baby and Invalid Foods
 050 Decanters, Candy Jars, Cigar Jars, Other Re-used Containers
 070 Toiletries, Cosmetics, Personal Hygiene
 080 Chemical, Poison, Battery, Embalming
 090 Ink, Mucilage, Shoe Polish, Household Oils
 998 Unidentified

Full Code Guide - Primary and Secondary Codes
 (Code and Subcode)

Code Sub-code

001 Food
 000 Items (solids, brandied cherries, pickles)
 025 Dairy (milk, cream)
 030 Sweeteners (Karo syrup, etc.)

 005 Condiments
 050 Mayonnaise
 051 Heinz Pickles
 052 Vinegar
 053 Ketchup
 054 Oil
 055 Jelly Jar
 056 Apple Butter
 057 Pickle
 058 Olive Jar
 059 Mustard
 061 Olive Oil
 062 Extracts
 063 Pepper sauce, other misc. sauces
 064 Horse radish

 010 Alcoholic Beverages
 000 Wine/Champagne
 025 Whiskeys
 100 Beers
 200 Liquers, brandies, etc.

 015 Unidentified Beverages

Figure A.5: Continued

020	<u>Non-alcoholic Beverages</u>
000	Soda - general
050	Mineral Water
100	Ginger Ale
110	Coca Cola/Pepsi Cola
030	<u>Medicinals, Perscriptions, and Popular Remedies</u>
000	Perscription
100	Patent and proprietary
101	Milk of Magnesia
102	Bromo Seltzer
103	Cough Medicine
104	Citrate of Magnesia
105	Cod Liver Oil
106	Vaseline
107	Fletcher's Castoria
200	Extracts (also in condiments)
300	Bitters
310	Root beer
040	<u>Baby and Invalid Foods</u>
050	<u>Decanters, Candy Jars, Cigar Jars, Other Re-used Containers</u>
070	<u>Toiletries, Cosmetics, Personal Hygiene</u>
000	Colonges / Perfumes / Sashay / Dresser bottles
100	General Cosmetics / Pomades / Ointments / Powders
200	Tooth powder
250	Apothecary jars / show window
080	<u>Chemical, Poison, Battery, Embalming</u>
000	Chemical
050	Poison
075	Battery
100	Embalming
200	Houshold Chemical
210	Oil (Machine)
090	<u>Ink, Mucilage, Shoe Polish, Household Oils</u>
000	Ink
010	Carters Master Ink
050	Carter's Photolibrary Glue
050	Mucilage
100	Ink/mucilage
120	Shoe polish
150	Household oils
998	<u>Unidentified</u>

Figure A.7: Ceramic Tableware Body Type Codes

-
- E - earthenwares:
 - WE - white earthenware, soft bodied, i.e. porous and friable
 - YE - earthenware, yellow
 - RE - refined earthenwares, barely porous and hard bodied, such as Masons Patent or the later "graniteware", "ironstone"
 - PW - pearlware, not necessarily a body type, the blue tinted white earthenware popularized by Wedgewood. Recognized by blue caste to glaze and blue puddling at foot rings
 - CW - creamware, the tan earthenware of the eighteenth century which lasted slightly into the nineteenth. Essentially a tannish soft bodied earthenware
 - SP - semi-porcelain, the very fine grained hard body which is akin to refined stoneware and refined earthenware though usually with a somewhat glossy body. In practice, these items were usually coded with Refined Earthenwares. Non-porous and finely granular
 - RS - refined stoneware - hard, finegrained stonewares used for tablewares, especially in post WWII period, and close to hard white earthenware in fabric. Non-porous and non-granular
 - IP - Hotel porcelain (Industrial Porcelain), very thick porcelain, similar to semi-porcelain
 - P - porcelain (indicate Asiatic, Euro-American, etc) Non-porous, vitrified, and to some degree translucent
 - PA - asiatic porcelain, usually slightly blue or gray through glaze, also recognized by characteristic decorations
 - PEA - Euro-American porcelains, usually very white bodied, recognized by characteristic decorations

Figure A.8: Ceramic Tableware Function Codes

Function - code and subcode - one or two codes are entered, a general and specific functional designation (add more if necessary).

Code Sub-code

- 900 - not identifiable
- 990 - spalls, not identifiable
- 950 - Miscellaneous sherds - probably parts of other vessels in this provenience
- 100 - "hollow" tablewares
 - 000 - specific function not identifiable
 - 100 - candy, condiment
 - 200 - cup, tea, coffee
 - 300 - soup
 - 400 - pitcher (ewers listed under utilitarian)
 - 500 - tureen lid
 - 600 - tea, coffeepot
 - 700 - small bowl, (table)
 - 800 - small bowl (porringer-high sided small bowl)
 - 900 - lid (tea, coffee, sugar)
 - 1000 - medium bowl (table)
 - 1100 - gravy boat
 - 1200 - small lid
 - 1300 - tureen
 - 1400 - small pitcher (cream, etc.)
 - 1500 - large bowl, serving
 - 1600 - handles
 - 1700 - small bowl, serving

Figure A.8: Continued

-
- 1800 - very small hollow item
 - 1900 - mug
 - 2000 - sugar bowl
 - 2100 - finger bowl
 - 200 - "flat" tablewares
 - 000 - specific function not identifiable
 - Serving:
 - 100 - small platter 10" or less in dia.
 - 200 - large platter 10" or more in dia.
 - 300 - cake plate
 - Dining:
 - 400 - dinner plate
 - 500 - saucer
 - 600 - salad/butter plate
 - 700 - breakfast plate
 - 800 - butter
 - 900 - condiment/candy 5" dia.
 - 1000 - vegetable dish
 - 300 - Utilitarian (non-tablewares)
 - 100 - chamber pot
 - 200 - cannister 2"x3" to 4"x6"
 - 201 - cannnister lid
 - 300 - baking dish
 - 400 - ewer
 - 500 - dairy associated pans, etc.

Figure A.8: Continued

-
- 600 - spittoon
 - 700 - mixing bowl
 - 800 - basin
 - 900 - chamber pot lid
 - 1000 - misc. lid
 - 1100 - small storage crock
 - 400 - Decorative
 - 100 - Hollow
 - 200 - hanging planter
 - 300 - vase
 - 400 - pitcher
 - 500 - small plate (3-4" dia.)
 - 600 - hollow sculpture?
 - 700 - figurine
 - 500 - Product containers
 - 100 - mustard
 - 200 - cannister (transfer from utilitarian)
 - 201 - cannister lid " " "
 - 600 - Other
 - 100 - toy dinner/tea service

Figure A.9: Ceramic Decorative Technology Codes

<u>Formal Decoration</u>	
000	- plain white - no decoration
100	- raised, embossed, molded body
200	- slip trailed
300	- plain white ware (same as 000 above)
400	- applied sprigs (separately molded items attached to body)
500	- raised, embossed or molded body and applied sprigs
<u>Surface Decoration</u>	
100	- paint (hand painted over the glaze)
200	- monochrome glaze
300	- transfer print (either over or under glaze)
400	- gilt/decal
500	- gilt (copper or gold based paint applied usually by hand, sometimes by machine)
600	- industrial (machine) painted (usually annular)
700	- gilt/glaze
800/1200	- stencil (numbers both assigned, use 800)
900	- decal, polychrome
1000	- gilt/transfer print
1100	- gilt/paint
1300	- gilt/glaze/paint
1400	- gilt/decal/paint
1500	- decal/lost (fallen color unknown)
1600	- decal/gilt/overglaze
1700	- gilt/stencil
1800	- enamel/gilt
1900	- transfer/paint
2000	- paint/annular and lustre
2100	- gilt/print/paint
2200	- decal/paint

Figure A.10: Ceramic Stylistic Genre Groups
and Code Numbers

Underlined styles are the aggregate style groups
used in Chapter 6

White Ironstone: This designation is used for all unmolded
30 white earthenwares, stonewares and porcelains. In
ceramic history white ironstone is usually limited to
white earthenwares and refined stonewares, molded and
unmolded. The usage here is applied to indicate
completely undecorated white vessels. White
ironstone, molded and plain, was extremely popular
from the 1850s through the 1870s (Miller 1980:4).

Hotel Ware: Plain, white, heavy shapes in white earthenware,
100 refined stoneware or thick porcelain. Though clearly
related to "White Ironstone", this ware was sold as a
distinctive type in turn of the century catalogs
(Montgomery Ward 1908).

Neo-Classical: Alludes to Greco-Roman antecedents, emphasizes
110 symmetry, "balanced frontality", closing off of space,
uniformity of surface (Arnason 1969:14). Specific
subject matter and motifs include a variety of fret
borders, especially "Greek" fret (Barber 1914:13-18).

115 Neo-classical variant - Simple classical decoration -
wide gilt bands on white neo-classical, symmetrical
forms.

Rococo: Leading "Romantic" style of the eighteenth
century, continued as "the most powerful influence in
ceramics for most of the (nineteenth) century"
especially found in porcelains, with a neo-rococo
revival in the late 1800s (Hillier 1968:175,230-232).
Rococo is asymmetrical, invading the space around it.
Naturalism, and the use of botanical images, and most
archetypically, shell forms are characteristic of
Rococo (Hillier 1968:231,320). Curvilineality, in the
form of scroll-work with an emphasis on form, rather
than line, also seen in Rococo (Barber 1914:95).

60 Rococo variant - Most strongly rococo with molded
shell or curvilinear form and dense surface design.

170 Rococo variant - Molded white body in clear Rococo
form, sometimes with gilt on rims.

Figure A.10: Continued

160 Rococo variant - Early Art Nouveau - traits close to Rococo. Though Art Nouveau eventually was ascribed its own stylistic identity, it is in essence a "kind of drugged Rococo" (Hillier 1968:320). "Many art nouveau pieces adhere closely to Rococo precepts" (Hillier 1968:329). For this reason, the few Art Nouveau pieces in the collection were assigned to the Rococo group.

330 Rococo variant - Blue shell-edged wares. Though distinguished as a distinctive type in nineteenth century catalogs, shell edged wares are characteristically Rococo, the shell decoration being definitive of Rococo. The very few examples in the collection are assigned to the Rococo group.

Floral: A number of patterns were characterized by patterns of flowers and leaves, usually related to Rococo in their naturalism. But the overall look of most "Floral" pieces is distinct from the dense or busy Rococo group. Therefore a "Floral" group was distinguished.

70 Open Floral Rococo, less dense, sometimes typical Rococo floral pattern on plain shape.

180 Floral Rococo - naturalistic floral on white unmolded forms.

210 Primarily Neo-classical, symmetrical, with some Rococo elements, such as shell-work or asymmetrical floral distributions.

270 Naturalistic floral (flowers and/or leaves), lots of open space.

Blue and White: Not a style in art historical terms but a generalization of a recognized ware of ceramic historians. Blue and white underglaze printed ceramics have been called Blue Transfer wares or Staffordshire or other terms. They are densely decorated in primarily Rococo designs, but also with "Oriental", Neo-Gothic, Classical and other references (Coysh 1970). Includes several specific types:

90 Willow ware - originally Canton China decorated in blue with a landscape, including a bridge and willow trees (Barber 1914:118).

Figure A.10: Continued

-
- 280 Typical blue and white, floral, naturalistic, dense border design with cartouches.
 - 285 Blue and white with strong "oriental" flavor.
 - 320 Flow Blue - blue and white pattern that has been allowed to bleed or flow in the final firing - explicitly noted as a distinctive type in late nineteenth and twentieth centuries, but clearly a form of Blue and White (Coysh 1970).
 - 350 Pearlware is actually a late eighteenth and early nineteenth body type, recognized by its bluish tint. The few examples of this ware in the collection are decorated in transfer printed blue designs, and therefore included in the Blue and White stylistic group.

Historicism: A term used to describe the several styles which developed in the second half of the nineteenth century all of which shared some references to earlier European periods, and including some focus on earlier craft ceramics. The styles included in this group are: Arts and Crafts, Aesthetic Movement - generated a number of revivals, especially emphasizing nationalism through Gothic, Renaissance, and other "medievalisms". Elevated the notion of honest design by emphasizing productions which reflected their technologies (Hillier 1968:232).

- 10 Arts and Crafts: wares decorated in a craft made approach, heavy lines, usually painted, emphasized a "fidelity to the materials", making a painted plate look painted (Hillier 1968:243-4,258,263).
- 40 Rockingham: A soft bodied, mottled brown glazed type made in a range of styles, including full classical styles. Rockingham glazed pottery often contains specific or general Gothic allusions, such as the characteristic hound-handled jugs.
- 50 Crafts Rustic: a variant of Arts and Crafts.
- 120 Syncretic forms with Gothic, Neo-Classical and other elements.

Figure A.10: Continued

-
- 130 Neo-Gothic: Gothic references and forms, including gargoyles or chimaera attached as handles or knobs, images of ruins, and especially pointed arches used in molded forms (Hillier 1968:229-230). Gothic Revival began before the Arts and Crafts movement and clearly influenced it (Hillier 1968:231).
 - 140 Majolica: Distinctly derivative from Mediterranean Majolica, or brightly overglazed soft bodied spanish-islamic wares. Nineteenth century Majolica "was interpreted to include wares with a bright-colored glaze in which the interest is centered on the color itself and on bold relief decoration under the glaze" (Boger 1971:210). Part of the Renaissance Revival, one of the many "Historicist" revivals of the second half of the century (Hillier 1968:232)
 - 220 Hunting jug: depicting dead quarry, usually birds. Generally molded with Gothic touches, especially arches.
 - 240 Rococo/rustic: Rococo style with strong "rustic" elements, rural allusions, rough design.
 - 250 Dedham ware: An Arts and Crafts or Art Pottery type produced in Dedham, Massachusetts.
- Modernist: Modernist styles all contain some degree of industrial design, the general movement which began in the 1890s and culminated in the "Modernism" of Art Deco. Clean lines, pastel colors, no naturalist allusions, sometimes direct mechanical allusions.
- 20 Industrial Rustic: some degree of Arts and Crafts allusion, but primarily a clearly mass produced, stylized pattern emphasizing the mechanical production of the design.
 - 190 Depression Industrial: inexpensive industrial design, pastel colors, Art Deco related.
 - 200 Typical Art Deco: conventionalized forms, non-naturalistic. Symmetrical with an emphasis on the rectilinear line. Art Deco's "ultimate aim was to end the conflict between art industry" (Boger 1971:16).
 - 205 Early Art Deco: Art Deco allusions but also containing some naturalistic elements.

Figure A.10: Continued

Other Styles: Two styles were included in the seriation but appeared in such small numbers that they were combined as "Other" types.

230 Asian Porcelain: all porcelains with decoration in this collection were of Asian origin.

340 Creamware: not a style but a body type, the common high fired earthenware that preceded pearlware in the eighteenth century. Two sherds appear in the collection.

Several other styles were defined during the coding, but were not included in the analysis because they were found only on non-tablewares.

APPENDIX B
BOTTLE DATA TABLES

Table B.1: Historic Data Information from Glass Containers

Card No.	Company Information or Bottle Data	Date Range (References)
1	Hadkins Bottling Co., New Brunswick, N.J. and Tottenville, S.I.	1914-1971 S.I. and N.Y.C. Bus. directories
2	B: "NEW JERSEY REGISTERED"	
3	Whitall-Tatum & Company, Millville, N.J. S: "CITRATE OF MAGNESIA"	1857-1935 Toulouse 1971:544
4,22, 67-69, 81-83	B:[Owens Circle-in-square] Owens Bottle Company, Toledo, Oh.	1911-1929 Toulouse 1971:393
5	John Matthews Bottling Works, N.Y.	1864-1915 Munsey 1970:104
6	B:"CLAUSS BROS. ELIZABETH, N.J."	
7	George Bechtel Brewing Co., Stapleton, S.I.	1894-1907 Bull, Friedrich, Gottschalk 1984:214
8	F: "P.N. RORHBACH" "EXCELSIOR LAGER" "WOODBRIIDGE N.J." "REGISTERED" Ba:"THIS BOTTLE NOT TO BE SOLD" B: "KARL HUTTER 44 N NEW YORK"	
9	F: "F.E. DECKER & CO." "474 BROOK AVE. N.Y." "REGISTERED" B: "4"	
10-12	Rubsam and Horrmann Brewing Co., Stapleton, S.I.	1920-1953 Bull, Friedrich, Gottschalk 1984:215
13,15	The Bachman Brewing Co., S.I.	1884-1907 Bull, Friedrich, Gottschalk 1984:213
14,165	Bo:"2320E ROOT 28" B: "PLUTO" [Pluto Figure]	
15	(See 13)	

Table B.1: Continued

16	F: "REGISTERED" "ELM PARK BOT'G. WKS." [MONOGRAM] "MORNING STAR RD. ELM PARK, S.I." Bo: "CONTENTS 8 FLUID OUNCES"	
17,33, 45	Thatcher Glass Man. Co., Elmira, N.Y.	1900-1971 Toulouse 1971:496
18	Owens Illinois Glass Co., Toledo, Oh.	1929-1954 Toulouse 1971:403
19	Adolphus Busch Glass Man. Co., St. Louis, Mo.	1904-1907 Toulouse 1971:26
20	Beaver Flint Glass Co., Toronto, Ontario, Canada	1898-1920 Toulouse 1971:80
21,25, 26,54	Either: American Glass Works, Richmond, Va. or Armstrong Cork Co., Glass Division, Lancaster, Pa.	1908-1935 Toulouse 1971:22-24 1938-1969 Toulouse 1971:22-24
22	(See 4)	
23,41	Armstrong Cork Co., Glass Division, Lancaster, Pa.	1938-1969 Toulouse 1971:22-24
24	Owens Illinois Glass Co., Toledo, Oh. Duraglas label	1951-1954 Toulouse 1971:403
25,26	(See 21)	
27,35, 85	Anchor Hocking Glass Co., Lancaster, Pa.	1938-1971 Toulouse 1971:47-48
28,32, 43,48, 91	Owens Illinois Glass Co., Toledo, Oh.	1954-1971 Toulouse 1971:403
29,39, 45,46, 133	Brockway Machine Bottle Co., Brockway, Pa.	1925-1971 Toulouse 1971:59
30	F: "HIRES" "19"	
31	B: "R"	
32	(See 28)	
33	(See 17)	

Table B.1: Continued

34	B: "D..." "57" "9" [9 is laying on its side]	
35	(See 27)	
36	Anywhere on bottle: "FEDERAL LAW PROHIBITS RE-SALE OR RE-USE OF THIS BOTTLE"	
37	B: "DES. PAT. 120.277" "150A 6053" "TEMPERGLAS"	
38	Thatcher Glass Man. Co., Elmira, N.Y. B: "DES PAT 178.917" "3655" "5..."	1900-1971 Toulouse 1971:496
39	(See 29)	
40,47	Owens Illinois Glass Co., Toledo, Oh. Duraglas label	1940-1954 Toulouse 1971:403
41	(See 23)	
42	Owens Illinois Glass Co., Toledo, Oh.	1960-1971 Toulouse 1971:403
43	(See 28)	
44	Metro Glass Bottle Co., Jersey City, N.J.	1935-1949 Toulouse 1971:342
45,46	(See 29)	
47	(See 40)	
48	(See 28)	
49	North Baltimore Bottle Glass Co., North Baltimore, Oh.	1885-1930 Toulouse 1971:379
50	B: "[Equalateral Triangle pointing down with dot in center] 10"	
51	B: "BI X BY [with small "O" upper arms of cross, and "2" in lower arms"	
52	B: Same as above, with no marks in arms of "X" S: "PATENTED MCH 6 . 83"	1883-

Table B.1: Continued

53	B: "MUSTEROLE CLEVELAND"	
54	(See 21)	
55,95	Whitall-Tatum & Company, Millville, N.J.	1857-1935 Toulouse 1971:544
56	S: "B B B NEW YORK ST. LOUIS" B: "2"	
57	Father John's Medicine, Lowell, Ma.	Baldwin 1973:174
58	S: "Dr J HOSTETTER'S STOMACH BITTERS" BE: "W. Mc C & CO." "6"	
59	Phillips' Emulsion, Cod Liver Oil, N.Y.	1880- Baldwin 1973:386
60	Malt-Distase Co., N.Y.	1920-1932 Bull, Friedrich and Gotschalk 1984:186
61	United Drug Co., location unsure	1910-1930 Toulouse 1971:509
62,72- 78,80, 89,90 127	Owens Illinois Glass Co., Toledo, Oh. [I-in-circle-and-diamond]	1929-1954 Toulouse 1971:403
63	B: "PAT AUG 24" "2" "1886"	1886-
64,162	S: "G.B.SEE..."	
116, 164	Turner Bros Co., Terre Haute, Ind.	1910-1929 Toulouse 1971:490
66,94, 129, 134,161	Hazel-Atlas Glass Co., Wheeling, W. Va.	1902-1964 Toulouse 1971:239
67-69	(See 4)	
70,71, 150	Illinois Glass Co., Dalton, Ill.	1916-1929 Toulouse 1971:264
	Bo: "THE OAKLAND CHEMICAL COMPANY, DIOXOGEN"	
72-78	(See 62)	

Table B.1: Continued

79	(Not assigned)	
80	(See 62)	
81-83	(See 4)	
84	B: "18" "LANDER"	
160	B: "19" "LANDER"	
85	(See 27)	
86-88, 157A-B	Vaseline, Chesebrough, N.Y.	1893-1971
89,90	(See 62)	
91	(See 28)	
92	S: "...NETT" "...ON"	
93	B: "NOXEMA"	
137	B: "4" "NOXEMA"	
94	(See 66)	
95	(See 55)	
96	Alart and McGuire, N.Y.	1883-1920
97	(Missing)	Zumwalt 1980:20-22
98	B: "199 W"	
99	Charles H. Fletchers Castoria	1894- Baldwin 1973:184
100	Maryland Glass Co., Baltimore, Md.	1907-1916 Toulouse 1971:339
101, 102, 107	Hadkins Bottling Co., Tottenville, S.I.	1912-1971 S.I. and N.Y.C. Bus. Directories
103	A. Clarius, Pleasant Plains, S.I. Soda, water, mineral water	1898-1914 S.I. and N.Y.C. Bus. Directories

Table B.1: Continued

104	Princes Bay Bottling Co., Prince Bay, N.Y. Mineral water (Same bottler as 103)	1914-1929 S.I. and N.Y.C. Bus. Directories
105	J.H. Hadkins Bottling Co., Tottenville, S.I. Bottler 1863-1892 Base indicates John Matthews Bottling Works, N.Y. 1864-1915	1864-1892 S.I. and N.Y.C. Bus. Directories, Munsey 1970:104
106	New Brighton Bottling Works, New Brighton, S.I. Ba: "REGISTERED 1889"	1889-
107	(See 101)	
108	R.W. Robinson & Son, N.Y. Druggist, wholesaler	1870-1930 N.Y.C. Bus. Directories
109	Sauer's Extracts	1894-1922 Zumwalt 1980:365
110	S: "CASSIN & CO." "HOUSEHOLD REMEDIES" "BELMAR N.J."	
111	Hales's Honey of Horehound and Tar, C.N. Crittenton, Prop., N.Y.	1880- Baldwin 1973:218
112	S: "PARIS PERFUME CO." "JERSEY CITY, N.J."	
113	Dr.A.Boschee's German Syrup	1878- Baldwin 1973:72
114	S: "FOR NEURALGIA RHEUMATISM & ALL SPINAL DISEASES..."	
115	Dr. Kennedy's Medical Discovery, Roxbury, Ma.	1854- Baldwin 1973:284
116	(See 65)	
117	S: "DR. PETER FAHRNEY & SON" "CHICAGO..."	
118	Charles Lehman, Druggist, Tottenville, S.I.	1895-1914 S.I. and N.Y.C. Bus. Directories
119	Pride of the Farm Tomato Catsup. Owens Bottle Co., Toledo, Oh.	1911-1929 Toulouse 1971:393

Table B.1: Continued

120, 141	B: "B" in diamond Unknown maker	Toulouse 1971:59
121	B: "CHARLES GULDEN'S" "PATENT" "APRIL 24TH 1883"	1883-
122	B: "PATENTED" "1528" "APRIL 9 1898"	1898-
123	Curtice Brothers, Rochester, N.Y.	1868-1929 Zumwalt 1980:101
124	S: "PRIDE...TOMATO CATSUP"	
125	H.J. Heinz Co., Pittsburgh, Pa.	1910-1920 Zumwalt 1980:209
126	H.J. Heinz Co., Pittsburgh, Pa. 1910-1920 Owens Bottle Company, Toledo, Oh. 1911-1929	1911-1920 Toulouse 1971:393; Zumwalt 1980:209
127	(See 62)	
128	B: "G.C.O. & CO."	
129	(See 66)	
130	S: "PREMIER"	
131	H.J. Heinz Co., Pittsburgh, Pa. Bottle No. 341	1910-1920 Zumwalt 1980:209
132	Owens Illinois Glass Co., Toledo, Oh. B: "PATENT 94 672"	1929-1954 Toulouse 1971:403
133	(See 29)	
134	(See 66)	
135	Reed Glass Co., Rochester, N.Y.	1927-1956 Toulouse 1971:432
136	B: "U.S." "PAT'D." "92.185" "3 OZ" "MADE IN USA"	
137	(See 93)	

Table B.1: Continued

138	Tournades Kitchen Bouquet, N.Y.	1887-1971 Zumwalt 1980:404
139	B: "GULDEN'S MUSTARD" "BOTTLE" "46" "REG US PAT. OFF"	
140	B: "GULDEN'S MUSTARD" "BOTTLE" "3" "REG US PAT. OFF"	
141	(See 120)	
142	Whitall-Tatum & Co., Millville, N.J. S: "SEXTON'S DRUG STORE" "70 SMITH ST." "PERTH AMBOY, N.J."	1857-1938 Toulouse 1971:544
143	S: "CENTRAL PHARMACY" "TOTTENVILLE" "N.Y."	
144	Newborn Glass Co., Royersford, Pa.	1897-1924 Toulouse 1971:371
145	S: "GALVIN'S ROOT BEER" "PITTSBURGH, PA" "...LE MAKES GENUINE"	
146	John and Frank Wyeth, Philadelphia, Pa. Druggists and Chemists	1861-1900 Philadelphia City Bus. Directories
147	Dr. Kilmer's, Binghampton, N.Y.	1886- Baldwin 1980:289
148	(Not assigned)	
149	S: "JOHN'S CASCA. COMP."	
150	(See 70)	
151	B: "M.F.D. BY" "MANHATTAN MEDICINE CO." "N.Y."	
152	Phillips Milk of Magnesia. S: "REGD IN US PAT OFFICE" "AUG 21 1906"	1906-
153	B: "UDLTD" "VANCOUVER" "CANADA" "D" in diamond Dcminion Glass Co., Montreal, Que., Canada	1913-1971 Toulouse 1971:154
154	S: "LINDEN"	

Table B.1: Continued

155	B: "O" in-a-diamond	
156	Tobias' Venetian Linament	1848- Baldwin 1980:486
157A-B	(See 86)	
158	B: "HELLMANN'S" "BLUE RIBBON" "REGISTERED" Owens Illinois Glass Co., Toledo, Oh.	1929-1954 Toulouse 1971:403
159	B: "HELLMANN'S" "BLUE RIBBON" "REGISTERED"	
160	(See 84)	
161	(See 66)	
162	(See 64)	
163	B: "PATD AUG 24" "2" "1886"	1886-
164	(See 65)	
165	(See 14)	
166	B: "C B K" "1295"	
167	S: "TRADE" "...LICQUOT CLU..." "MARK" B: "A" [Figure holding bottle] "B"	

Notes:

* Card refers to historic data cards. This information is found in column "His" column in Appendix B, Table 2: Bottle Inventory.

** The portion of the container on which the information was found is indicated in the following manner.

F - front of container
B - base of container
Ba - back of container
Bo - bottom of container near base
S - side of container

See Sources for full references for Business Directories.

Table B.2: Bottle Inventory

Prov.	N	P	Sh	Cod	Sub	Tec	His	Init. Date	Mid- Date	End Date
3	(4)	s	36			000		0	0.0	0
3	(5)	w	64	030	998	000		0	0.0	0
3	(1)	s	36	030	100	000	117	0	0.0	0
3	(2)	s				000		0	0.0	0
3	1	w	68	030	106	000	157	1893	1932.0	1971
3	1	f	90	001		001		1893	1932.0	1971
3	1	w	31			001		1893	1932.0	1971
3	(4)	s				001		1893	(1932.0)	1971
3	7	b	3			001		1893	1932.0	1971
3	1	w	35	070	100	001	*55	1938	1954.5	1971
3	1	w	35	080	050	001	146	1893	1911.5	1930
3	1	w	32	030	106	002	87	1893	1904.5	1916
3	1	w	68	030	106	004	157	1893	1904.5	1916
3	1	f	81	998		012		1880	1890.0	1900
3	1	w	14	090	120	021		1893	1932.0	1971
3	1	f		090	100	021		1893	1932.0	1971
3	1	b	56	030	998	021	141	1893	1932.0	1971
3	1	w	32	030	106	021	86	1893	1932.0	1971
3	1	w	36	070		021	95	1893	1915.5	1938
3	1	w	31			022		1893	1932.0	1971
3	1	f	6	020	000	023		1903	1937.0	1971
3	2	b				023		1903	1937.0	1971
3	1	b	36			023		1903	1937.0	1971
3	1	bb	37	005	053	023		1903	1937.0	1971
3	1	w	44	001	000	023		1903	1937.0	1971
3	1	b	29			023		1903	1937.0	1971
3	1	w	53	005	063	023		1903	1937.0	1971
3	1	f	84	998		023		1903	1937.0	1971
3	1	f	81	998		023		1903	1937.0	1971
3	1	bb	56	030	998	023		1903	1937.0	1971
3	1	f	86	030	998	023		1903	1937.0	1971
3	1	fb	63			023		1903	1937.0	1971
3	1	f				023		1903	1937.0	1971
3	1	w	22	030	000	023	*67	1903	1937.0	1971
3	1	w	62			023	*67	1903	1937.0	1971
3	1	w	36	005	062	023	109	1903	1912.5	1922
3	1	w	66	030	101	023	152	1906	1938.5	1971
3	3	w	31			023	4	1911	1920.0	1929
3	1	w	36	030	107	023	99	1903	1937.0	1971
3	1	w	65			026		1905	1910.5	1916
3	1	f		998		028		1860	1890.0	1920
3	5	w	36			028		1860	1890.0	1920
3	3	b	36			028		1860	1890.0	1920
3	1	b	29			028		1860	1890.0	1920
3	1	f	80	005	053	028		1860	1890.0	1920
3	5	fb	36	998		028		1860	1890.0	1920

Table B.2: Continued

3	3	f	83	998		028		1860	1890.0	1920
3	1	bb	27			028		1860	1890.0	1920
3	1	b	65			028		1860	1890.0	1920
3	1	b	66			028		1860	1890.0	1920
3	1	f				028		1860	1890.0	1920
3	(23)	s				028		1860	(1890.0)	1920
3	4	b	3			028		1860	1890.0	1920
3	1	w	62			028	*55	1860	1890.0	1920
3	4	w	46	005	050	028	*67	1860	1890.0	1920
3	1	bb	36			028	*70	1916	1918.0	1920
3	1	w	63			028	150	1916	1918.0	1920
3	1	w	36			028	98	1860	1890.0	1920
3	1	b	36			028	98	1860	1890.0	1920
3	1	w	10	010	000	030		1870	1895.0	1920
3	3	w	20	070	100	140	*54	1938	1953.5	1969
3	1	fb	31			154		1906	1938.5	1971
3	2	w	31			154	*67	1911	1941.0	1971
3	1	w	31	030	106	154	*67	1911	1920.5	1930
3	1	w	5	010	100	200	7	1894	1900.5	1907

Feature 3
N = 89

Total Medians = 170404.0
Average Median Date = 1914.6516

3.1	1	w	68	030	106	001		1893	1932.0	1971
3.1	1	bb	59			001		1893	1932.0	1971
3.1	1	f		090	100	021		1893	1932.0	1971
3.1	1	w	31			021		1893	1932.0	1971
3.1	1	w	32			021		1893	1932.0	1971
3.1	1	w	14	090	120	021	50	1893	1932.0	1971
3.1	2	f	6	020	000	023		1903	1937.0	1971
3.1	1	w	14	090	120	023		1903	1937.0	1971
3.1	1	fb	48	005	064	023		1903	1937.0	1971
3.1	1	f	80	005	053	023		1903	1937.0	1971
3.1	1	fb	36	998		023		1903	1937.0	1971
3.1	1	f	84	998		023		1903	1937.0	1971
3.1	1	fb	63			023		1903	1937.0	1971
3.1	1	w	66			023		1903	1937.0	1971
3.1	3	b	3			023		1903	1937.0	1971
3.1	1	b	24			023		1903	1937.0	1971
3.1	3	b	65			023	*70	1916	1922.5	1929
3.1	1	w	5	010	100	023	10	1903	1928.0	1953
3.1	1	w	56	030	998	023	142	1903	1920.5	1938
3.1	2	w	63			023	150	1916	1922.5	1929
3.1	1	w	36	030	107	023	99	1903	1937.0	1971
3.1	1	w	33			026		1903	1909.5	1916
3.1	1	f		998		028		1860	1890.0	1920
3.1	1	b	56	030	998	028		1860	1895.0	1930
3.1	1	w	63			028		1860	1890.0	1920

Table B.2: Continued

3.1	1	bb	67			028		1860	1890.0	1920
3.1	1	fb				028		1860	1890.0	1920
3.1	2	b	3			028		1860	1890.0	1920
3.1	1	w	62	030		028	149	1860	1895.0	1930
3.1	1	w	9	010	025	030		1870	1895.0	1920
3.1	1	w	10	010	000	030		1870	1895.0	1920
3.1	(1)	w	31			044		0	0.0	0
3.1	(1)	w	45	005	998	045		0	0.0	0
3.1	1	w	15	090	000	140		1924	1947.5	1971
3.1	1	w	19	070	100	140	53	1924	1947.5	1971
3.1	1	w	24			154	*32	1954	1962.5	1971
Feature 3.1				Total Medians = 78858.0						
N = 41				Average Median Date = 1923.3658						
3.2	1	fb				023		1903	1937.0	1971
Feature 3.2				Total Medians = 1937.0						
N = 1				Average Median Date = 1937.0						
Feature 3+3.1+3.2				Total Medians = 251199.0						
N = 131				Average Median Date = 1917.5496						
6	1	b				023	48	1954	1962.5	1971
Feature 6				Total Medians = 1962.5						
N = 1				Average Median Date = 1962.5						
7	1	w	9	010	025	040		1870	1890.0	1910
Feature 7				Total Medians = 1890.0						
N = 1				Average Median Date = 1890.0						
8	1	b	3	020	110	005		1930	1950.5	1971
8	1	b	3			005	55	1930	1949.5	1969
8	1	w	15	090	000	021		1893	1932.0	1971
8	1	b				023	42	1960	1965.5	1971
8	1	b				023	43	1954	1962.5	1971
8	1	b	3			025		1917	1944.0	1971
8	1	b	3	998		025	23	1917	1943.0	1969
8	1	b	3	998		025	24	1951	1952.5	1954

Table B.2: Continued

8	1	b	3	020	00	025	21	1917	1943.0	1969
8	1	b	3			025	27	1938	1954.5	1971
8	1	b	3			025	29	1925	1948.0	1971
8	1	b	6	020	110	025	17	1917	1944.0	1971
8	1	b				025	39	1925	1948.0	1971
8	2	b				025	18	1929	1941.5	1954
8	2	b	13	020	110	025	46	1925	1948.0	1971
8	1	b				025	46	1925	1948.0	1971
8	1	f				120		1892	1906.0	1920
8	2	f				128		1903	1937.0	1971
8	1	fb	3	998		140		1924	1947.5	1971
8	3	f	31			154		1906	1938.5	1971

Feature 8
N = 25

Total Medians = 48607.0
Average Median Date = 1944.28

9	(1)	w	64	030	998	000		0	0.0	0
9	(8)	s				000		0	0.0	0
9	1	b	3			001		1893	1932.0	1971
9	1	bb	36			002		1880	1898.0	1916
9	1	bb	39	005	053	002	120	1880	1898.0	1916
9	(1)	f	80	005	053	011		0	0.0	0
9	1	fb	80	005	053	012		1880	1890.0	1900
9	1	bb	39	005	053	023	122	1903	1937.0	1971
9	1	f	80	005	053	028		1860	1890.0	1920
9	1	fb	36	998		028		1860	1890.0	1920
9	1	f	84	998		028		1860	1890.0	1920
9	2	b	3			028		1860	1890.0	1920
9	1	b	10	010		030		1870	1895.0	1920

Feature 9
N = 11

Total Medians = 20900.0
Average Median Date = 1900.00

10	1	b	3	020	110	025	28	1954	1962.5	1971

Feature 10

Total Medians = 1962.5
Average Median Date = 1962.5

12	1	b	29			028		1860	1890.0	1920
12	1	f	5	998		100		1875	1902.5	1930
12	1	b	1	020	000	103	101	1879	1904.0	1929
12	1	fb	31			152		1908	1919.0	1930

Table B.2: Continued

Feature 12				Total Medians = 7615.5				
N = 4				Average Median Date = 1903.875				
13	1	f	40		002	1880	1898.0	1916
13	1	f	12	010 000	020	1933	1952.0	1971
Feature 13				Total Medians = 3850.0				
N = 2				Average Median Date = 1925.0				
14	(1)	s			000	0	0.0	0
14	(1)	s			001	1893	(1932.0)	1971
14	1	b	3		001	1893	1932.0	1971
14	1	f	8	010 100	020	1933	1952.0	1971
14	(1)	s	8	010 100	020	1933	(1952.0)	1971
14	2	b	3	010 100	020	*23 1938	1953.5	1969
14	1	f	7	010 100	023	1903	1937.0	1971
14	1	f	5	010 100	023	1903	1937.0	1971
14	1	b			023	46 1925	1948.0	1971
14	1	b			023	48 1954	1962.5	1971
14	1	b	3		023	74 1929	1941.5	1954
14	3	b	3		025	1917	1944.0	1971
14	3	b			025	45 1925	1948.0	1971
14	1	b			025	46 1925	1948.0	1971
14	1	b	3		025	55 1938	1953.5	1969
14	1	b	3	020 000	025	21 1917	1943.0	1969
14	1	b			025	17 1917	1944.0	1971
14	1	b	3		025	54 1938	1954.5	1971
14	1	b	13	010 025	028	1860	1890.0	1920
14	(2)	s			028	1860	(1890.0)	1920
Feature 14				Total Medians = 40825.5				
N = 21				Average Median Date = 1944.0714				
15	(2)	s			000	0	0.0	0
15	1	b	3		001	1893	1932.0	1971
15	1	bb			023	1903	1937.0	1971
15	1	f			023	1903	1937.0	1971
15	1	w	34		023	91 1954	1962.5	1971
15	1	b	13	020 110	025	46 1925	1948.0	1971
15	1	b			025	48 1954	1962.5	1971
15	1	w	27	030 000	140	46 1925	1948.0	1971
15	1	w	31		154	*27 1938	1954.5	1971
15	1	w	31		154	85 1938	1954.5	1971

Table B.2: Continued

<u>Feature 15</u>					Total Medians = 17536.0					
N = 9					Average Median Date = 1948.4444					
16	17	f	7	010	100	023		1903	1937.0	1971
16	1	b	3			023		1903	1937.0	1971
16	1	b				023	*48	1954	1962.5	1971
16	3	b	3			025		1917	1944.0	1971
16	1	b				025	*47	1940	1947.0	1954
16	2	b				025	*48	1954	1962.5	1971
16	1	b	3			025	33	1917	1944.0	1971
<u>Feature 16</u>					Total Medians = 50476.5					
N = 26					Average Median Date = 1941.4038					
17	1	b				025	*45	1925	1948.0	1971
<u>Feature 17</u>					Total Medians = 1948.0					
N = 1					Average Median Date = 1948.0					
18	1	b				023	*48	1954	1962.5	1971
18	1	b				025	*48	1954	1962.5	1971
18	1	f				128		1905	1938.0	1971
<u>Feature 18</u>					Total Medians = 5863.0					
N = 3					Average Median Date = 1954.3333					
20	(1)	s				000		0	0.0	0
20	(2)	s				001		1893	(1932.0)	1971
20	1	f	7	010	100	023		1903	1937.0	1971
20	1	b	3			023		1903	1937.0	1971
20	1	w	6	020	000	025	17	1917	1923.5	1930
20	1	f	13	010	025	140	36	1924	1947.5	1971
<u>Feature 20</u>					Total Medians = 7745.0					
N = 4					Average Median Date = 1936.25					
21	1	f	31			001		1893	1932.0	1971
21	1	b	3			023		1903	1937.0	1971
21	1	b	30	010	000	023	73	1929	1950.0	1971
21	1	b				025	*46	1925	1948.0	1971
21	(1)	s				028		1860	(1890.0)	1920

Table B.2: Continued

21	1	f	1	020	000	103		1879	1904.5	1930

Feature 21
N = 5

Total Medians = 9671.5
Average Median Date = 1934.3

22	(1)	s				000		0	0.0	0
22	1	b	13	010	025	001	34	1893	1932.0	1971
22	1	b	6	020	110	005	37	1930	1950.5	1971
22	2	f	8	010	100	020		1933	1952.0	1971
22	1	b	65	010	000	023		1903	1937.0	1971
22	1	fb				023		1903	1937.0	1971
22	1	f	3			140		1924	1947.5	1971

Feature 22
N = 7

Total Medians = 13608.0
Average Median Date = 1944.0

23	(1)	s	32	030	106	000	86	1893	(1932.0)	1971
23	(8)	s				000		0	0.0	0
23	1	f	68	030	106	000	157	1893	1932.0	1971
23	1	f	90	001		001		1893	1932.0	1971
23	1	b	3			001		1893	1932.0	1971
23	1	bb	66			002		1880	1898.0	1916
23	1	b	29			023		1903	1937.0	1971
23	1	f	80	005	053	023		1903	1937.0	1971
23	1	bb	65	010	000	023		1903	1937.0	1971
23	3	b	3			023		1903	1937.0	1971
23	1	b	1	020	000	023	101	1903	1911.5	1920
23	1	b	5	010	200	023	10	1933	1952.0	1971
23	2	b	3			026		1905	1910.5	1916
23	1	b	54	005	059	028		1860	1890.0	1920
23	1	bb	27			028		1860	1890.0	1920
23	1	f	81	998		028		1860	1890.0	1920
23	1	f	91	998		028		1860	1890.0	1920
23	1	f	87	998		028		1860	1890.0	1920
23	1	p	58			028		1860	1890.0	1920
23	(1)	s				028		1860	(1890.0)	1920
23	4	b	3			028		1860	1890.0	1920
23	1	bb	66			028	*55	1860	1890.0	1920
23	1	b	3			028	77	1929	1929.5	1930
23	1	f				128		1905	1938.0	1971

Feature 23
N = 27

Total Medians = 51658.0
Average Median Date = 1913.2592

Table B.2: Continued

24	(1)	s	13	010	025	000		0	0.0	0
24	(1)	f				000		0	0.0	0
24	(1)	s	13	010	025	000	36	0	0.0	0
24	(3)	s				000		0	0.0	0
24	1	b	13	010	025	001	*32	1954	1962.5	1971
24	1	b	65	010	000	023		1903	1937.0	1971
24	3	b	3			023		1903	1937.0	1971

Feature 24
N = 5

Total Medians = 9790.5
Average Median Date = 1942.1

26	1	f	31			001		1893	1932.0	1971

Feature 26
N = 1

Total Medians = 1932.0
Average Median Date = 1932.0

27	1	w	68	030	106	000	157	1893	1932.0	1971

Feature 27
N = 1

Total Medians = 1932.0
Average Median Date = 1932.0

28	1	b	3			000	63	1886	1903.0	1920
28	1	b	3			028	163	1886	1903.0	1920
28	1	f	3	998	998	126		1893	1904.5	1916

Feature 28
N = 3

Total Medians = 5710.0
Average Median Date = 1903.5

30	(2)	s				000		0	0.0	0
30	(1)	s				001		1893	(1932.0)	1971
30	1	f	1	020	000	002		1880	1898.0	1916
30	1	bb	56	030	998	002	55	1908	1912.0	1916
30	1	b	3			022	*70	1916	1922.5	1929
30	1	f	86	998		023		1903	1937.0	1971
30	2	b	3			023		1903	1937.0	1971
30	1	b	24			023		1903	1937.0	1971
30	1	b	3			025		1917	1944.0	1971
30	1	f		998		028		1860	1890.0	1920
30	1	b	3			028		1860	1890.0	1920
30	1	w	1	020	000	102	104	1914	1921.5	1929
30	1	f	31			154		1906	1938.5	1971

Table B.2: Continued

<u>Feature 30</u>		Total Medians = 23064.							
N = 12		Average Median Date = 1922.0416							
31	(1) s		000		0		0.0		0
<u>Feature 31</u>		Total Medians = 0.0							
N = 0		Average Median Date = N.D.							
32	1 fb 80	005	053	023		1903	1937.0		1971
32	1 w 45	001	000	028	129	1902	1911.0		1920
32	1 bb 23	030	300	028	56	1860	1895.0		1930
<u>Feature 32</u>		Total Medians = 5743.0							
N = 3		Average Median Date = 1914.3333							
34	(1) f		000		0		0.0		0
34	(14) s 36		000		0		0.0		0
34	1 b 3		001	*65	1910		1919.5		1929
34	1 b 23		023		1903		1937.0		1971
34	2 b 36		023		1903		1937.0		1971
34	1 b 56	030	998	023	1903		1937.0		1971
34	1 b 3		023	*67	1903		1937.0		1971
34	1 b 13	010	025	028	1860		1890.0		1920
34	1 b 13	010	025	028	1860		1890.0		1920
34	1 b 27		028		1860		1890.0		1920
34	1 b 23		028		1860		1890.0		1920
34	2 bb 36		028		1860		1890.0		1920
34	7 fb 36	998	028		1860		1890.0		1920
34	2 f 81	998	028		1860		1890.0		1920
34	1 b 58		028		1860		1890.0		1920
34	1 bb 36		028	*55	1908		1914.0		1920
34	1 b 10	010	000	030	1870		1895.0		1920
34	1 bb 10	010	000	038	1800		1860.0		1920
34	1 b 10	010	000	038	1800		1860.0		1920
34	(1) b 3	998	039	31	0		0.0		0
34	1 f 1	020	000	103	1879		1904.5		1930
34	(1) f	998	125		0		0.0		0
34	1 f		128		1905		1938.0		1971
34	1 f	998	129		1830		1875.0		1920
34	1 f 13	010	025	130	1840		1857.5		1875
34	1 f 21	070	100	155	1903		1916.5		1930
<u>Feature 34</u>		Total Medians = 58865.0							
N = 31		Average Median Date = 1898.8709							

Table B.2: Continued

35	(1)	s				000		0	0.0	0
35	1	w	35	070	100	001		1893	1932.0	1971
35	(1)	s				002		1880	(1898.0)	1916
35	1	bb	1	020	000	002	101	1880	1898.0	1916
35	1	w	36	070	000	002	112	1880	1898.0	1916
35	1	w	39	005	053	002	121	1883	1899.5	1916
35	1	w	31			021		1893	1932.0	1971
35	1	w	31			022		1893	1932.0	1971
35	1	w	39	005	053	023		1903	1937.0	1971
35	1	b	13	010	025	028		1860	1890.0	1920
35	1	w	36			028		1860	1890.0	1920
35	1	fb	55	030	998	028		1860	1895.0	1930
35	1	w	56	030	998	028		1860	1895.0	1930
35	1	w	22			028		1860	1890.0	1920
35	1	bb	56	030	998	028	*55	1908	1919.0	1930
35	1	w	1	020	000	103	101	1879	1899.5	1920
35	1	f	13	010	025	130		1840	1857.5	1875

Feature 35
N = 15

Total Medians = 28564.5
Average Median Date = 1904.3

37	1	f	89	998		004		1893	1904.5	1916
37	1	f	90	001		012		1880	1890.0	1900
37	1	w	32	030	106	021	86	1893	1932.0	1971
37	1	b	13	010	025	028		1860	1890.0	1920
37	1	bb	24			028		1860	1890.0	1920
37	(1)	s				028		1860	(1890.0)	1920
37	1	b	3			028		1860	1890.0	1920
37	1	w	24			036		1810	1835.0	1860
37	1	b	10	010	000	038		1800	1860.0	1920
37	1	f		998		125		1840	1857.5	1875

Feature 37
N = 9

Total Medians = 16948.0
Average Median Date = 1883.1111

38.1	(2)	s				000		0	0.0	0
38.3	(17)	s				000		0	0.0	0
38.3	(3)	s				028		1860	(1890.0)	1920
38.3	1	f	3			100		1875	1902.5	1930
38.4	(2)	s				000		0	0.0	0
38.4	(1)	s				002		1880	(1898.0)	1916
38.4	(1)	s	28	030	300	028		1860	(1895.0)	1930
38.4	1	bb	52	005	054	028		1860	1890.0	1920
38.4	1	bb	55			028		1860	1890.0	1920
38.4	(1)	s				028		1860	(1890.0)	1920
38.4	2	b	3			028		1860	1890.0	1920

Table B.2: Continued

38.4	1	w	1	020	000	103	102	1879	1899.5	1920
38.5	1	b	13	010	025	028		1860	1890.0	1920
38.5	1	f	13	010	025	130		1840	1857.5	1875
38.7	1	f	90	001		028		1860	1890.0	1920
38.7	1	b	58			028		1860	1890.0	1920
38.8	(2)	s				000		0	0.0	0
38.8	1	f				002		1880	1898.0	1916
38.8	1	b	13	010	025	028		1860	1890.0	1920
38.8	1	b	58			028		1860	1890.0	1920
38.8	(1)	s				028		1860	(1890.0)	1920
38.8	1	b	66	030	000	028	156	1860	1895.0	1930
38.8	1	bb	10	010	000	038		1800	1860.0	1920
38.8	1	f	5	998		100		1875	1902.5	1930
38.8	1	b	1	020	000	103	103	1898	1906.0	1914
38.9	(4)	s				000		0	0.0	0
38.9	1	b	13	010	025	028		1860	1890.0	1920
38.9	1	f	89	030		028		1860	1895.0	1930
38.9	1	f	87	001		028		1860	1890.0	1920
38.9	(3)	s				028		1860	(1890.0)	1920
38.9	1	b	3			028		1860	1890.0	1920
38.9	1	bb	36	030	100	028	110	1860	1895.0	1930
38.9	1	f	11	010	000	038		1800	1860.0	1920
38.10	1	bb	23	030	100	023	115	1903	1937.0	1971
38.10	1	b	12	010	000	028		1860	1890.0	1920
38.10	1	f	87	001		028		1860	1890.0	1920
38.10	1	f				028		1860	1890.0	1920
38.10	(2)	s				028		1860	(1890.0)	1920
38.10	1	b	3			028		1860	1890.0	1920
38.10	1	bb	23	030	105	028	59	1880	1905.0	1930
38.10	1	b	66			034		1850	1865.0	1880
38.10	1	f	5	998		100		1875	1902.5	1930
38.10	1	b	1	020	000	103	102	1879	1899.5	1920
38.11	(3)	s				000		0	0.0	0
38.11	1	b	55	030	998	002	55	1908	1912.0	1916
38.11	1	b	13	010	025	028		1860	1890.0	1920
38.11	1	b	17	090	100	028		1860	1890.0	1920
38.11	1	w	23	030	998	028		1860	1895.0	1930
38.11	1	f	81	998		028		1860	1890.0	1920
38.11	1	w	22			028		1860	1890.0	1920
38.11	1	bb	65			028		1860	1890.0	1920
38.11	1	b	3			028		1860	1890.0	1920
38.11	1	bb	10	010	000	038		1800	1860.0	1920
38.11	1	f	5	998		100		1875	1902.5	1930
38.11	1	f	13	010	025	130		1840	1857.5	1875
38.11	1	f	5	010	100	200		1875	1897.5	1920
38.12	(2)	s				000		0	0.0	0
38.12	(1)	s				001		1893	(1932.0)	1971
38.12	1	b	23			023		1903	1937.0	1971
38.12	1	bb	52	005	054	028		1860	1890.0	1920
38.12	1	bb	3			028	166	1860	1890.0	1920

Table B.2: Continued

38.13	(1)	s	13			000		0	0.0	0
38.13	(5)	s				000		0	0.0	0
38.13	2	b	3			001		1893	1932.0	1971
38.13	1	w	15	090	000	021		1893	1932.0	1971
38.13	1	f	17	090	000	028		1860	1890.0	1920
38.13	1	bb	52	005	054	028		1860	1890.0	1920
38.13	1	f	87	001		028		1860	1890.0	1920
38.13	1	f	81	998		028		1860	1890.0	1920
38.13	1	f		998		028		1860	1890.0	1920
38.13	1	b	3			028		1860	1890.0	1920
38.13	1	b	17	090	000	028	51	1860	1890.0	1920
38.13	1	f	11	010	000	038		1800	1860.0	1920
38.13	1	f				100		1875	1902.5	1930
38.14	(48)	s				000		0	0.0	0
38.14	(1)	s				001		1893	(1932.0)	1971
38.14	(6)	s				002		1880	(1898.0)	1916
38.14	1	f	5	010	100	028		1860	1895.0	1930
38.14	1	b	13	010	025	028		1860	1890.0	1920
38.14	2	f		998		028		1860	1890.0	1920
38.14	(27)	s				028		1860	(1890.0)	1920
38.14	1	b	3			028		1860	1890.0	1920
38.14	1	b	29	030	998	028	151	1860	1895.0	1930
38.14	1	fb	22	030	300	028	58	1860	1895.0	1930
38.14	1	b	1	020	000	104		1864	1897.0	1930
38.14	1	f	13	010	025	130		1840	1857.5	1875
38.16	(1)	s				000		0	0.0	0
38.16	1	f	1	020	000	103		1879	1904.5	1930
38.17	(5)	s				000		0	0.0	0
38.17	1	f		010		002		1880	1898.0	1916
38.17	(1)	s				028		1860	(1890.0)	1920
38.17	1	f	13	010	025	130		1840	1857.5	1875
38.18	(9)	s				000		0	0.0	0
38.19	(2)	s				000		0	0.0	0
38.19	1	b	13	010	025	028		1860	1890.0	1920
38.19	1	f		090	100	028		1860	1890.0	1920
38.19	1	w	22			028		1860	1890.0	1920
38.19	1	w	52	005	054	028		1860	1890.0	1920
38.19	1	w	1	020	000	103	102	1879	1904.5	1930
38.19	1	f	13	010	025	130		1840	1857.5	1875
38.20	(1)	s	3			000		0	0.0	0
38.20	(1)	s				000		0	0.0	0
38.20	2	w	55	030	998	028		1860	1895.0	1930
38.21	1	b	24			002		1880	1898.0	1916
38.21	1	w	13	010	025	028		1860	1890.0	1920
38.21	1	f	87	001		028		1860	1890.0	1920
38.22	1	w	12	010	000	028		1860	1890.0	1920
38.22	1	w	13	010	025	028		1860	1890.0	1920
38.25	1	bb	1	020	000	103	100	1907	1911.5	1916

Table B.2: Continued

Feature 38A				Total Medians = 160834.0					
N = 85				Average Median Date = 1892.1647					
38.23	1	f		998		002		1880	1898.0
38.23	1	b	13	010	025	028		1860	1890.0
38.23	2	b	3			028		1860	1890.0
38.23	1	w	58	030	310	028	145	1860	1895.0
38.23	3	f	5	998		100		1875	1902.5
38.23	1	f	1f			125		1840	1857.5
38.30	(1)	s				002		1880	(1898.0)
38.30	1	w	36			023	108	1903	1916.5
38.30	1	b	3			028		1860	1890.0
38.30	1	w	18	090	100	028	*52	1883	1901.5
38.31	1	f		998		002		1880	1898.0
38.31	1	bb	52	005	054	028		1860	1890.0
38.31	1	b	54	005	059	028		1860	1890.0
38.31	1	f	87	001		028		1860	1890.0
38.31	2	b	10	010	000	038		1800	1860.0
38.32	1	w	23	030	998	028		1860	1895.0
38.32	1	b	29			028		1860	1895.0
38.32	1	w	65			028		1860	1890.0
38.32	1	f	5	998		100		1875	1902.5
38.33	1	b	3			001		1893	1932.0
38.33	1	w	23	030	100	023	113	1903	1937.0
38.33	1	f	86	998		028		1860	1890.0
38.33	1	fb				028		1860	1890.0
38.34	(2)	b	3	020	000	000	30	0	0.0
38.34	1	w	26	010	998	028		1860	1890.0
38.34	1	b	3	005	057	028	96	1883	1901.5
38.34	1	f	11	010	000	038		1800	1860.0
38.34	1	f	5	998		100		1875	1902.5
38.34	(1)	s	1	020	000	103	103	1898	(1906.0)
38.35	(2)	s				000		0	0.0
38.35	1	b	55			002		1880	1898.0
38.35	1	w	45	001		021		1893	1932.0
38.35	1	f	86	998		028		1860	1890.0
38.35	1	bb	3			028		1860	1890.0
38.35	1	bb	5	010	100	028	*49	1885	1907.5
38.35	1	bb	5	010	100	200	7	1894	1900.5
									1907
Feature 38B				Total Medians = 68222.5					
N = 36				Average Median Date 1895.0694					
39	1	w	14	090	120	023		1903	1937.0
39	(1)	s	23			023		1903	(1937.0)
39	1	f				028		1860	1890.0
39	1	b	10	010	000	033		1870	1895.0
									1920

Table B.2: Continued

39	1	b	10	010	000	038	1800	1860.0	1920
39	1	bb	24			042	1810	1835.0	1860
39	1	f		010	025	135	1875	1892.5	1910

Feature 39
N = 6

Total Medians = 11309.0
Average Median Date = 1884.8333

40	(1)	s	23	030	100	023	114	1903	(1916.5)	1930
40	1	f		998		028		1860	1890.0	1920
40	1	f	11	010	025	028		1860	1890.0	1920
40	1	w	55	030	998	028		1860	1895.0	1930
40	1	w	59	030		028	147	1886	1908.0	1930
40	1	bb	59	030		028	147	1886	1908.0	1930
40	1	f	59	030		028	147	1886	1908.0	1930
40	1	f	5	998		100		1875	1902.5	1930

Feature 40
N = 7

Total Medians = 13301.5
Average Median Date = 1900.2142

41	(2)	s				000		0	0.0	0
41	1	f	69			001		1893	1932.0	1971
41	1	b	36			002		1880	1898.0	1916
41	1	fb	45	001		002		1880	1898.0	1916
41	1	w	60	030		002	148	1880	1898.0	1916
41	1	f	36	998		028		1860	1890.0	1920
41	1	f	90	001		028		1860	1890.0	1920
41	1	w	58			028		1860	1890.0	1920
41	1	bb	52	005	054	038		1800	1830.0	1860
41	1	bb	1	020	000	103	103	1898	1906.0	1914

Feature 41
N = 9

Total Medians = 17035.0
Average Median Date = 1892.7777

42	1	b	3	005	059	022	*72	1929	1941.5	1954
42	1	b	3			023		1903	1937.0	1971
42	1	b	3			025		1917	1944.0	1971
42	1	b				025	48	1954	1962.5	1971
42	1	w	9	010	100	127	*21	1960	1964.5	1969

Feature 42
N = 5

Total Medians = 9751.5
Average Median Date = 1950.3

Table B.2: Continued

43	1	w	6	020	000	023	*18	1929	1941.5	1954
Feature 43				Total Medians = 1941.5						
N = 1				Average Median Date = 1941.5						
45	1	w	56	030	998	021		1893	1932.0	1971
Feature 45				Total Medians = 1932.0						
N = 1				Average Median Date = 1932.0						
46	(1)	s				000		0	0.0	0
46	3	b	3			023		1903	1937.0	1971
46	1	b	3			023	*67	1903	1937.0	1971
46	1	b	3			028		1860	1890.0	1920
46	1	f				128		1903	1937.0	1971
Feature 46				Total Medians = 11575.0						
N = 6				Average Median Date = 1929.1666						
47	(1)	s	36	030	000	000	118	1895	(1904.5)	1914
47	1	b	3			001		1893	1932.0	1971
47	1	w	14	090	120	021		1893	1932.0	1971
47	1	bb	23			023		1903	1937.0	1971
47	1	w	52	005	054	028		1860	1890.0	1920
47	1	f	86	998		028		1860	1890.0	1920
47	1	b	3			028		1860	1890.0	1920
47	1	w	10	010	000	129		1870	1895.0	1920
Feature 47				Total Medians = 13366.0						
N = 7				Average Median Date = 1909.4285						
48	(1)	s				000		0	0.0	0
48	1	fb	55	030	998	028		1860	1895.0	1930
48	1	f	83	998		028		1860	1890.0	1920
48	1	fb	62			028		1860	1890.0	1920
48	1	fb	65			028		1860	1890.0	1920
48	(1)	s				028		1860	(1890.0)	1920
48	1	b	3			028		1860	1890.0	1920
48	1	b	65			034		1850	1865.0	1880
48	1	f	13	010	025	130		1840	1857.5	1875

Table B.2: Continued

Feature 48				Total Medians = 13177.5			
N = 7				Average Median Date = 1882.5			
49	(1)	f		000	0	0.0	0
49	(1)	s		002	1880	(1898.0)	1916
49	1	bb	23	023	1903	1937.0	1971
49	1	f	81 998	028	1860	1890.0	1920
49	(1)	s		028	1860	(1890.0)	1920
49	1	b	3	028	1860	1890.0	1920
49	1	f	3	100	1875	1902.5	1930
49	1	bb	1 020 000 104 105	1864	1878.0	1892	
Feature 49				Total Medians = 9497.0			
N = 5				Average Median Date 1899.4			
50	(1)	s		000	0	0.0	0
50	(2)	s		001	1893	(1932.0)	1971
50	1	b	3	001	1893	1932.0	1971
50	1	f		002	1880	1898.0	1916
50	1	bb	6 020 100	023	1903	1937.0	1971
50	1	b	6 020 100	023	1903	1937.0	1971
50	1	f		023	1903	1937.0	1971
50	2	b	3	023	1903	1937.0	1971
50	1	f	5 010 100	023	1903	1911.5	1920
50	1	w	6 998	023	16 1903	1937.0	1971
50	1	f	45 001	028	1860	1890.0	1920
50	1	f	2 030 104	100	1875	1902.5	1930
50	3	f		128	1903	1937.0	1971
50	1	w	5 010 100 200 9	1875	1897.5	1920	
Feature 50				Total Medians = 28864.0			
N = 15				Average Median Date = 1924.2666			
51	2	f	31	001	1893	1932.0	1971
51	1	bb	41 070 000	002	1880	1898.0	1916
51	1	f	86 030 998	012	1880	1890.0	1900
51	1	w	15 090 000	021	1893	1932.0	1971
51	1	f	6 020 100	023	1903	1937.0	1971
51	1	f	6 020 000	023	1903	1937.0	1971
51	1	w	36 005 062	023	1903	1937.0	1971
51	1	f	86 030 998	023	1903	1937.0	1971
51	1	b	3	023	1903	1937.0	1971
51	1	w	2 030 104	023	*4 1911	1920.0	1929
51	1	b	3	023	*67 1903	1937.0	1971
51	1	bb	56 030 998	023	143 1903	1937.0	1971

Table B.2: Continued

51	1	bb	36	005	062	028	116	1910	1915.0	1920
51	1	f				120		1892	1906.0	1920
51	1	f				128		1903	1937.0	1971
51	1	f	31			154		1906	1938.5	1971

Feature 51
N = 17

Total Medians = 32759.5
Average Median Date = 1927.0294

52	1	s			001		1893	1932.0	1971

Feature 52
N = 1

Total Medians = 1932.0
Average Median Date = 1932.0*

53	(1)	s			000		0	0.0	0	
53	1	b	54	005	059	001	140	1893	1932.0	1971
53	1	fb	36	998		023		1903	1937.0	1971
53	1	b	3			023		1903	1937.0	1971
53	1	b	3			025		1917	1944.0	1971
53	1	b	13	010	025	028		1860	1890.0	1920

Feature 53
N = 5

Total Medians = 9649.0
Average Median Date = 1928.0

54	(1)	s			000		0	0.0	0
54	1	b	3		001		1893	1932.0	1971
54	(3)	s			002		1880	(1398.0)	1916
54	1	f	86	998	012		1880	1890.0	1900
54	2	b	3		023		1903	1937.0	1971
54	1	f	85	998	028		1860	1890.0	1920
54	1	w	65		028	*70	1916	1918.0	1920

Feature 54
N = 6

Total Medians = 11504.0
Average Median Date = 1917.3333

55	(1)	s			000		0	0.0	0
55	2	f	48	005	064	001	1893	1932.0	1971
55	1	b	44	001		001	1893	1932.0	1971
55	3	fb	45	001		001	1893	1932.0	1971
55	1	b	27			001	1893	1932.0	1971
55	1	f	31			001	1893	1932.0	1971
55	1	bb	31			001	1893	1932.0	1971
55	(2)	s			001		1893	(1932.0)	1971

Table B.2: Continued

55	2	b	3			001		1893	1932.0	1971
55	1	b	30			001	*65	1910	1919.5	1929
55	1	fb	6	015		001	64	1893	1932.0	1971
55	1	fb	27			002		1880	1898.0	1916
55	1	fb		998		002		1880	1898.0	1916
55	1	f		998		002		1880	1898.0	1916
55	1	f	85	998		012		1880	1890.0	1900
55	1	b	3	998		021		1893	1932.0	1971
55	1	w	16	090	000	021		1893	1932.0	1971
55	1	b	21	070	100	021		1893	1932.0	1971
55	1	w	31			021	92	1893	1932.0	1971
55	1	b	24			022	71	1916	1922.5	1929
55	1	b	1	020	000	023		1903	1937.0	1971
55	2	f	7	010	100	023		1903	1937.0	1971
55	3	f	6	020	000	023		1903	1937.0	1971
55	1	f	9	998		023		1903	1937.0	1971
55	1	f	48	005	064	023		1903	1937.0	1971
55	4	f	80	005	053	023		1903	1937.0	1971
55	1	fb	80	005	053	023		1903	1937.0	1971
55	2	fb	36	998		023		1903	1937.0	1971
55	1	f	83	998		023		1903	1937.0	1971
55	1	f	82	998		023		1903	1937.0	1971
55	1	f	86	030	998	023		1903	1937.0	1971
55	1	b	66			023		1903	1937.0	1971
55	1	bb	3	010	000	023		1903	1937.0	1971
55	1	f				023		1903	1937.0	1971
55	1	f				023		1903	1937.0	1971
55	15	b	3			023		1903	1937.0	1971
55	1	b	3	998		023		1903	1937.0	1971
55	1	b	3			023	*22	1911	1920.0	1929
55	1	b	5	010	200	023	*66	1903	1933.5	1964
55	1	w	48	005	064	023	10	1903	1911.5	1920
55	1	b	45	001		023	131	1910	1915.0	1920
55	2	b	41			023	134	1903	1933.5	1964
55	1	bb	3			023	164	1910	1919.5	1929
55	2	b	3			023	167	1903	1937.0	1971
55	2	b	3			023	66	1903	1933.5	1964
55	2	b	3			023	67	1903	1937.0	1971
55	1	b				023	4	1911	1920.0	1929
55	1	b	3			023	70	1916	1922.5	1929
55	1	b	24			023	70	1916	1922.5	1929
55	1	b	25			023	70	1916	1922.5	1929
55	1	b	29	001		023	70	1916	1922.5	1929
55	1	b	3			023	94	1903	1933.5	1964
55	1	bb	31	005	050	025		1917	1944.0	1971
55	1	b	29			025	159	1917	1944.0	1971
55	1	f	45	001	000	025	4	1917	1923.0	1929
55	1	f	44	001	000	028		1860	1890.0	1920
55	1	b	29			028		1860	1890.0	1920
55	1	bb	27			028		1860	1890.0	1920
55	1	bb	3	010	000	028		1860	1890.0	1920
55								1860	1890.0	1920

Table B.2: Continued

55	1	f				028		1860	1890.0	1920
55	1	b	3			028		1860	1890.0	1920
55	1	bb	29	005	998	028	125	1910	1915.0	1920
55	1	b	3	005	998	028	126	1911	1915.5	1920
55	3	w	44	001	000	028	129	1902	1911.0	1920
55	1	bb	53	005	063	028	138	1887	1903.5	1920
55	(1)	s	58	030	000	028	146	1861	(1895.5)	1930
55	1	bb	5	998		028	19	1904	1905.5	1907
55	1	b	55			028	55	1908	1914.0	1920
55	1	w	36			028	67	1860	1890.0	1920
55	1	bb	27			028	70	1916	1918.0	1920
55	1	b	10	010	000	030		1870	1895.0	1920
55	1	f	9	010		038		1800	1860.0	1920
55	1	f	5	998		100		1875	1902.5	1930
55	1	f				120		1892	1906.0	1920
55	1	f	9	010	025	125		1840	1857.5	1875
55	8	f				128		1903	1937.0	1971
55	1	fb	6			128	162	1903	1937.0	1971
55	1	w	65	010	000	140		1924	1947.5	1971
55	1	f	47	001	000	154		1906	1938.5	1971
55	1	f	45	001		154		1906	1938.5	1971
55	1	fb	22			154		1906	1938.5	1971
55	3	fb	31			154		1906	1938.5	1971
55	1	bb	5	010	100	200	7	1875	1891.0	1907

Feature 55

N = 118

Total Medians = 227217.5
Average Median Date = 1925.572

56	1	b	3			001		1893	1932.0	1971
56	1	f	7	010	100	023		1903	1937.0	1971
56	1	f		090	100	023		1903	1937.0	1971
56	1	bb	5	998		023	20	1903	1911.5	1920
56	1	bb	1	020	000	028	7	1894	1900.5	1907

Feature 56

N = 5

Total Medians = 9618.0
Average Median Date = 1923.6

57	1	f	52	005	054	002		1880	1898.0	1916
57	1	w	15	090	000	021		1893	1932.0	1971
57	1	fb	80	005	053	023		1903	1937.0	1971
57	1	b	29			023	135	1927	1949.0	1971
57	1	bb	65	010	000	023	153	1913	1942.0	1971
57	1	bb	65			023	67	1903	1937.0	1971
57	1	w	57	030	000	023	74	1929	1941.5	1954
57	1	f	13			028		1860	1890.0	1920
57	(1)	s				028		1860	(1890.0)	1920

Table B.2: Continued

57	1	b	29			028	70	1916	1918.0	1920
57	1	w	31	005	050	154	158	1929	1941.5	1954
57	1	b	31	005	050	154	80	1929	1941.5	1954
Feature 57				Total Medians = 21227.5						
N = 11				Average Median Date = 1929.7727						
58	(1)	f		998		000		0	0.0	0
58	1	w	68	030	106	000	157	1893	1932.0	1971
58	1	w	32	030	106	021	88	1893	1932.0	1971
58	1	w	1	020	000	023		1903	1937.0	1971
58	2	f	86	030	998	023		1903	1937.0	1971
58	1	bb	3	020	050	025	165	1917	1944.0	1971
58	(1)	s	3			028		1860	(1890.0)	1920
58	1	f				128		1903	1937.0	1971
58	1	w	21	070	100	140		1924	1947.5	1971
Feature 58				Total Medians = 13566.5						
N = 7				Average Median Date = 1938.0714						
61	1	w	49	001	000	028		1860	1890.0	1920
Feature 61				Total Medians = 1890.0						
N = 1				Average Median Date = 1890.0						
62	(2)	s				000		0	0.0	0
62	1	s				001		1893	1932.0	1971
Feature 62				Total Medians = 1932.0						
N = 1				Average Median Date = 1932.0*						
63	1	b	68	030	106	000	157	1893	1932.0	1971
63	1	b	32	030	106	021	86	1893	1932.0	1971
63	1	bb	65			023		1903	1937.0	1971
63	1	b	3			023	67	1903	1937.0	1971
63	1	f		998		026		1903	1909.5	1916
63	1	w	2	030	104	026	3	1903	1909.5	1916
63	1	b	5	010	200	028	13	1884	1895.5	1907
63	1	w	21	070	100	140		1924	1947.5	1971
63	1	w	35			140		1924	1947.5	1971
63	2	w	23	030	100	154	57	1906	1938.5	1971

Table B.2: Continued

Feature 63				Total Medians = 21223.5			
N = 11				Average Median Date = 1929.409			
64	(1)	f		000	0	0.0	0
64	(2)	s		001	1893	(1932.0)	1971
64	1	b	3	001	1893	1932.0	1971
64	1	bb	36	002	1880	1898.0	1916
64	1	b	54	005 059 002	1880	1898.0	1916
64	1	b	65	002	1880	1898.0	1916
64	1	b	1	020 000 002	1880	1898.0	1916
64	1	f	54	005 059 004	1893	1904.5	1916
64	1	b	3	004	1893	1904.5	1916
64	2	f	82	998 012	1880	1890.0	1900
64	1	fb	36	998 012	1880	1890.0	1900
64	2	w	36	023	1903	1937.0	1971
64	1	b	36	023	1903	1937.0	1971
64	1	f	86	030 998 023	1903	1937.0	1971
64	1	bb	65	023	1903	1937.0	1971
64	1	bb	41	023	1903	1937.0	1971
64	1	bb	3	028	1860	1890.0	1920
64	1	f	9	010 025 028	1860	1890.0	1920
64	2	fb	36	998 028	1860	1890.0	1920
64	1	f	83	998 028	1860	1890.0	1920
64	(2)	s		028	1860	(1890.0)	1920
64	1	f	87	998 028	1860	1890.0	1920
64	1	bb	58	030 998 028	1860	1895.0	1930
64	1	b	22	028	1860	1890.0	1920
64	1	bb	65	028	1860	1890.0	1920
64	1	b	3	028	1860	1890.0	1920
64	2	w	18	090 100 028	1860	1890.0	1920
64	1	w	27	028	1883	1901.5	1920
64	1	f		55 100	1908	1914.0	1920
64	2	f	5	998 100	1875	1902.5	1930
64	1	f	1	020 000 103	1875	1902.5	1930
64	1	bb	1	020 000 103	1879	1904.5	1930
64	1	bb	36	030 100 23 111	1889	1909.5	1930
					1903	1937.0	1971
Feature 64				Total Medians = 68595.5			
N = 36				Average Median Date = 1905.4305			
66	(1)	s		000	0	0.0	0
66	1	b	22	001	1893	1932.0	1971
66	1	b	3	001	1893	1932.0	1971
66	1	f		998 002	1880	1898.0	1916
66	1	fb		998 002	1880	1898.0	1916
66	1	b	3	002	1880	1898.0	1916
66	1	bb	1	020 000 002	1880	1898.0	1916
				101	1880	1898.0	1916

Table B.2: Continued

66	1	f	42	005	063	023		1903	1937.0	1971
66	1	b	22			023		1903	1937.0	1971
66	(1)	s	39	005	053	023	123	1903	(1916.0)	1929
66	1	b		010	100	028		1860	1895.0	1930
66	1	b	23			028		1860	1890.0	1920
66	1	b	36			028		1860	1890.0	1920
66	1	f	80	005	053	028		1860	1890.0	1920
66	2	f	88	001		028		1860	1890.0	1920
66	1	f	87	001		028		1860	1890.0	1920
66	3	f	90	001		028		1860	1890.0	1920
66	1	fb	55	080	998	028		1860	1890.0	1920
66	1	f	82	998		028		1860	1890.0	1920
66	4	f		998		028		1860	1890.0	1920
66	1	b	66			028		1860	1890.0	1920
66	6	b	3			028		1860	1890.0	1920
66	1	bb	66			028	155	1860	1890.0	1920
66	1	bb	66			028	55	1908	1914.0	1920
66	1	bb	25			028	60	1920	1925.0	1930
66	1	b	3	010	000	030		1870	1895.0	1920
66	1	bb	10	010	000	030		1870	1895.0	1920
66	1	b	66			034		1850	1865.0	1880
66	1	b	10	010	000	038		1800	1860.0	1920
66	1	f				100		1875	1902.5	1930
66	1	f		998		125		1840	1857.5	1875

Feature 66
N = 41

Total Medians = 77725.0
Average Median Date = 1895.7317

67	(1)	s				000		0	0.0	0
67	2	f	83	998		023		1903	1937.0	1971
67	1	b	13	010	025	028		1860	1890.0	1920
67	1	f	84	998		028		1860	1890.0	1920
67	1	fb		998		028		1360	1890.0	1920
67	1	f				028		1860	1890.0	1920
67	1	b	22			028		1860	1890.0	1920

Feature 67
N = 7

Total Medians = 13324.0
Average Median Date = 1903.4285

70	(1)	s				000		0	0.0	0
70	1	fb	35	070	100	001		1893	1932.0	1971
70	1	f	68	030	106	001		1893	1932.0	1971
70	3	fb	31			001		1893	1932.0	1971
70	1	f	31			001		1893	1932.0	1971
70	(1)	s				001		1893	(1932.0)	1971
70	1	w	50	070	100	001	136	1902	1936.5	1971

Table B.2: Continued

70	1	b	13	010	025	001	33	1900	1935.5	1971
70	1	b	13	010	025	001	35	1938	1954.5	1971
70	(2)	s	13	010	025	001	36	1893	(1932.0)	1971
70	1	f	32			021		1893	1932.0	1971
70	3	f	31			021		1893	1932.0	1971
70	1	b				021		1893	1932.0	1971
70	1	w	31	030	998	021	90	1929	1950.0	1971
70	1	w	31			022	160	1893	1932.0	1971
70	1	bb	31			022	161	1902	1933.0	1964
70	1	b	3			022	66	1902	1933.0	1964
70	1	w	31			022	84	1893	1932.0	1971
70	1	b	35	070	100	023		1903	1937.0	1971
70	1	f	80	005	053	023		1903	1937.0	1971
70	1	f	91	998		023		1903	1937.0	1971
70	1	f	84	998		023		1903	1937.0	1971
70	1	bb	24			023		1903	1937.0	1971
70	1	f				023		1903	1937.0	1971
70	1	b	3			023		1903	1937.0	1971
70	1	b	3			023		1903	1937.0	1971
70	1	b	25			023	133	1925	1948.0	1971
70	1	w	35	070	100	023	137	1903	1937.0	1971
70	1	fb	66			023	154	1903	1937.0	1971
70	1	bb	27	030	000	023	62	1929	1941.5	1954
70	1	b	3			023	75	1929	1941.5	1954
70	1	b	3			023	76	1929	1941.5	1954
70	1	b	3			023	78	1929	1941.5	1954
70	1	w	31			023	89	1929	1941.5	1954
70	1	w	31			025		1917	1944.0	1971
70	4	b	3			025		1917	1944.0	1971
70	1	w	31			025	23	1917	1943.0	1969
70	2	w	13	020	000	025	44	1935	1942.0	1949
70	2	b				025	17	1917	1944.0	1971
70	1	b				025	47	1940	1947.0	1954
70	1	w	36	070	100	025	93	1917	1944.0	1971
70	1	w	41	005	998	028		1860	1890.0	1920
70	1	b	3	001	030	028	127	1860	1890.0	1920
70	2	w	31			044	74	1929	1941.5	1954
70	1	f		010	025	140		1924	1947.5	1971
70	1	f		998		140		1924	1947.5	1971
70	1	w	31			140		1924	1947.5	1971
70	1	f	41			140		1924	1947.5	1971
70	3	w	51	001		140		1924	1947.5	1971
70	1	w	54	005	059	140		1924	1947.5	1971
70	1	w	45	001		140	132	1929	1941.5	1954
70	1	f	54	005	059	154		1906	1938.5	1971
70	3	fb	31			154		1906	1938.5	1971
70	1	w	54	005	059	154	139	1906	1938.5	1971
70	2	w	31			154	27	1938	1954.5	1971

Table B.2: Continued

Feature 70				Total Medians = 129896.0				
N = 67				Average Median Date = 1938.7462				
73	(2)	s		000	0	0.0	0	
73	1	f	9 010 025	028	1860	1890.0	1920	
73	1	f	87 001	028	1860	1890.0	1920	
73	1	f	81 998	028	1860	1890.0	1920	
73	1	f	91 998	028	1860	1890.0	1920	
73	1	fb		028	1860	1890.0	1920	
73	(1)	s		028	1860	(1890.0)	1920	
73	1	b	22	028 55	1908	1914.0	1920	
Feature 73				Total Medians = 11364.0				
N = 6				Average Median Date = 1894.0				
74	1	b	3	002	1880	1898.0	1916	
74	1	f	45 001	023	1903	1937.0	1971	
74	1	b		025 47	1940	1947.0	1954	
Feature 74				Total Medians = 5782.0				
N = 3				Average Median Date = 1927.3333				
75	(1)	bb	22	000	0	0.0	0	
75	(3)	s		000	0	0.0	0	
75	1	b	3	001	1893	1932.0	1971	
75	1	bb	65	002	1880	1898.0	1916	
75	1	b	24	023	1903	1937.0	1971	
75	1	b	13 010 025	028	1860	1890.0	1920	
75	4	bb	36	028	1860	1890.0	1920	
75	1	b	36	028	1860	1890.0	1920	
75	5	fb	36 998	028	1860	1890.0	1920	
75	4	f	83 998	028	1860	1890.0	1920	
75	1	f	81 998	028	1860	1890.0	1920	
75	1	f	90 001	028	1860	1890.0	1920	
75	1	f	86 998	028	1860	1890.0	1920	
75	1	fb	36 998	028	1860	1890.0	1920	
75	1	f	87 998	028	1860	1890.0	1920	
75	1	f	998	028	1860	1890.0	1920	
75	2	b	66	028	1860	1890.0	1920	
75	1	b		028	1860	1890.0	1920	
75	1	bb	66	028	1860	1890.0	1920	
75	2	b	3	028	1860	1890.0	1920	
75	1	b	3	038	1800	1860.0	1920	
75	1	w	1 020 000	103 103	1898	1906.0	1914	
75	1	bb	1 020 000	103 103	1898	1906.0	1914	

Table B.2: Continued

75	1	f		998		129		1870	1895.0	1920
<u>Feature 75</u>			Total Medians = 64364.0							
N = 34			Average Median Date = 1893.0588							
76	1	w	43	005	063	002		1880	1898.0	1916
76	(1)	s				002		1880	(1898.0)	1916
76	1	f	84	998		012		1880	1890.0	1900
76	1	f	86	998		028		1860	1890.0	1920
76	1	f				028		1860	1890.0	1920
76	1	f				128		1903	1937.0	1971
<u>Feature 76</u>			Total Medians = 9505.0							
N = 5			Average Median Date = 1901.0							
78	(1)	s				000		0	0.0	0
78	1	s	38	005	053	028	124	1860	1890.0	1920
<u>Feature 78</u>			Total Medians = 1890.0							
N = 1			Average Median Date = 1890.0*							
79	1	bb	12			025	48	1954	1962.5	1971
<u>Feature 79</u>			Total Medians = 1962.5							
N = 1			Average Median Date = 1962.5							
81	(1)	s				000		0	0.0	0
81	1	b				025	21	1917	1943.0	1969
<u>Feature 81</u>			Total Medians = 1943.0							
N = 1			Average Median Date = 1943.0							
84	(16)	s				000		0	0.0	0
84	(1)	s				001		1893	(1932.0)	1971
84	1	w	31			025	79	1917	1944.0	1971
84	(3)	s				028		1860	(1890.0)	1920
<u>Feature 84</u>			Total Medians = 1944.0							
N = 1			Average Median Date = 1944.0							

Table B.2: Continued

86	1	w	68	030	106	000	157	1893	1932.0	1971
86	(1)	s				001		1893	(1932.0)	1971
86	(1)	s				002		1880	(1898.0)	1916
86	1	w	32	030	106	021	88	1893	1932.0	1971
86	1	w	24	030	000	023	144	1903	1913.5	1924
86	(3)	s				028		1860	(1890.0)	1920
86	1	w	38	005	053	028	4	1911	1915.5	1920
86	1	w	9	010	025	030		1870	1895.0	1920
86	1	w	47	001	000	154		1906	1938.5	1971
86	1	w	31	005	050	154	159	1906	1938.5	1971

Feature 86
N = 7

Total Medians = 13465.0
Average Median Date = 1923.5714

87	(1)	s				000		0	0.0	0
87	1	w	47	001	000	021		1893	1932.0	1971
87	1	w	14	090	120	023		1903	1937.0	1971
87	1	w	63			023		1903	1937.0	1971
87	1	w	27	030	000	023	61	1910	1920.0	1930
87	1	w	37	005	053	028		1860	1890.0	1920
87	1	w	57			028		1860	1890.0	1920
87	1	w	63			028		1860	1890.0	1920
87	1	w	41			028		1860	1890.0	1920

Feature 87
N = 8

Total Medians = 15286.0
Average Median Date = 1910.75

88	(28)	s				000		0	0.0	0
88	1	f	1f			001		1893	1932.0	1971
88	1	w	14	090	120	021		1893	1932.0	1971
88	1	b	3			023	67	1903	1937.0	1971
88	1	w	37	005	053	028		1860	1890.0	1920
88	(3)	s				028		1860	(1890.0)	1920
88	1	w	47	001	000	154	70	1916	1922.5	1929

Feature 88
N = 5

Total Medians = 9613.5
Average Median Date = 1922.7

89	(11)	s				000		0	0.0	0
89	1	w	15	090	000	004		1893	1904.5	1916
89	1	f	80	005	053	023		1903	1937.0	1971
89	2	b	3			023		1903	1937.0	1971
89	1	b	24			023		1903	1937.0	1971
89	1	w	1	020	000	023	107	1903	1937.0	1971

Table B.2: Continued

89	1	w	6	020	050	023	14	1903	1937.0	1971
89	1	w	66	030	101	023	152	1906	1918.0	1930
89	1	bb	24	030	998	023	67	1903	1937.0	1971
89	2	w	37	005	053	028		1860	1890.0	1920
89	1	w	56	030	998	028		1860	1895.0	1930
89	1	w	36			028	67	1860	1890.0	1920
89	(1)	w	45	005	998	044		0	0.0	0
89	1	w	47	001	000	154		1906	1938.5	1971
89	1	w	31			154	67	1906	1938.5	1971

Feature 89
N = 15

Total Medians = 28823.5
Average Median Date = 1921.5666

90	(1)	s				000		0	0.0	0
90	(1)	s				001		1893	(1932.0)	1971
90	1	w	31	005	050	023	4	1911	1920.0	1929
90	2	w	57	030	000	028		1860	1895.0	1930
90	(1)	w	31			044	67	0	0.0	0
90	1	f				128		1903	1937.0	1971
90	1	w	20	070	100	140	54	1924	1946.5	1969

Feature 90
N = 5

Total Medians = 9593.5
Average Median Date = 1918.7

92	(1)	s	3			000		0	0.0	0
92	(9)	s				000		0	0.0	0
92	1	fb	27			002		1880	1898.0	1916
92	1	bb	27			002		1880	1898.0	1916
92	1	f	87	001		012		1880	1890.0	1900
92	1	w	45	005	063	028		1860	1890.0	1920
92	1	f				028		1860	1890.0	1920
92	(2)	s				028		1860	(1890.0)	1920
92	1	w	4	998		100	6	1875	1902.5	1930

Feature 92
N = 6

Total Medians = 11368.5
Average Median Date = 1894.75

93	1	w	42	005	063	023	128	1903	1937.0	1971
93	1	fb	36	998		028		1860	1890.0	1920
93	1	f	90	001		028		1860	1890.0	1920

Feature 93
N = 3

Total Medians = 5717.0
Average Median Date = 1905.6666

Table B.2: Continued

95	(1)	s				000		0	0.0	0
95	1	b	45	001		023		1903	1937.0	1971
95	1	b				023	17	1903	1937.0	1971
95	1	b	3			025		1917	1944.0	1971
95	1	f	82	998		028		1860	1890.0	1920
<u>Feature</u>		95	Total Medians = 7708.0							
N = 4			Average Median Date = 1927.0							
100	1	b		090	100	028	51	1860	1890.0	1920
<u>Feature</u>		100	Total Medians = 1890							
N = 1			Average Median Date = 1890							
102	1	b				023		1903	1937.0	1971
<u>Feature</u>		102	Total Medians = 1937							
N = 1			Average Median Date = 1937							
103	(65)	s				000		0	0.0	0
103	1	w	68	030	106	000	157	1893	1932.0	1971
103	1	f	45	001		001		1893	1932.0	1971
103	(11)	s				001		1893	(1932.0)	1971
103	2	b	3			001		1893	1932.0	1971
103	1	f	31			021		1893	1932.0	1971
103	1	w	32	030	106	021	86	1893	1932.0	1971
103	1	f	80	005	053	023		1903	1937.0	1971
103	1	fb	80	005	053	023		1903	1937.0	1971
103	1	fb	63			023		1903	1937.0	1971
103	1	f				023		1903	1937.0	1971
103	5	b	3			023		1903	1937.0	1971
103	(1)	s	37	005	053	028		1860	(1890.0)	1920
103	(29)	s				028		1860	(1890.0)	1920
103	1	bb	36	005	062	028	116	1910	1915.0	1920
103	1	bb	22	030	998	028	55	1860	1895.0	1930
103	1	f				120		1893	1911.5	1930
103	1	fb	31			154		1906	1938.5	1971
103	2	w	31	030	106	154	*67	1911	1920.5	1930
103	1	w	31			154	4	1911	1920.0	1929
<u>Feature</u>		103	Total Medians = 42446.0							
N = 22			Average Median Date = 1929.3636							

Table B.2: Continued

104	(5)	s				000	0	0.0	0
104	(1)	s				002	1880	(1898.0)	1916
104	1	f	80	005	053	023	1903	1937.0	1971
104	(3)	s				028	1860	(1890.0)	1920
104	(1)	w	31			054	0	0.0	0
104	1	w	31			154	1906	1938.5	1971

Feature 104
N = 2

Total Medians = 3875.5
Average Median Date = 1937.75

105	(1)	s				000	0	0.0	0
105	1	w	57	030	000	023	74	1929	1941.5
105	1	b	13	010	025	028		1860	1890.0
105	(2)	s				028		1860	(1890.0)

Feature 105
N = 2

Total Medians = 3831.5
Average Median Date = 1915.75

106	(49)	s				000	0	0.0	0
106	1	b	3			001	1893	1932.0	1971
106	(11)	s				002	1880	1898.0	1916
106	2	f	80	005	053	023	1903	1937.0	1971
106	1	f	86	030	998	023	1903	1937.0	1971
106	2	b	66			023	1903	1937.0	1971
106	1	f				023	1903	1937.0	1971
106	2	fb				023	1903	1937.0	1971
106	3	b	3			023	1903	1937.0	1971
106	(3)	s				028	1860	(1890.0)	1920
106	(1)	s	38	005	053	028	124	1860	(1890.0)
106	1	w	45	005	000	028	130	1860	1890.0
106	1	f		998		125		1820	1847.5
106	1	w	21	070	100	140		1924	1947.5
106	1	f	31			154	1906	1938.5	1971

Feature 106
N = 16

Total Medians = 30862.5
Average Median Date = 1928.9062

Total Glass Container Assemblage Listed Above

N = 1032

Total Medians = 1977906.0
Average Median Date = 1916.5755

Feature 4
N = 146

Total Medians = 276684.6
Average Median Date = 1895.1

Table B.2: Continued

Feature 120
N = 354

Total Medians = 675396.6
Average Median Date = 1907.9

Total Glass Container Assemblage

N = 1532

Total Medians = 2929987.2
Average Median Date = 1912.5244

APPENDIX C
CERAMIC DATA TABLES AND ILLUSTRATIONS

Table C.1: Ceramic Trademark Inventory

Item No. (Mark Type)	Prov. Company Information	Date Range (References)
<u>Earthenware</u>		
(See Figure C.1: Ceramic Trademarks - Whiteware)		
74 (BrUP)		1870-1891
38.8	Sampson Bridgwood & Son, Longton, Eng.	Godden 1964:101-102; Praetzellis 1980:37 [dates 1870-1885?]
11 (BlUP)		1876-1891
38.34	Brownfield & Sons, Cobridge, Eng.	Godden 1964:110; Kovel and Kovel 1953:180
44 (GUP)		1876-1882
88	Brunt, Bloor, Martin & Co., E.Liverpool, Oh.	Gates and Ormerod 1982:17; Kovel and Kovel 1953:180
89 (BrUP)		1879-1904
120	Burford Bros. Pottery, .10.2 E.Liverpool, Oh.	Gates and Ormerod 1982:24,28
81 (BkUP)		1864-1892
4.6.16	Henry Burgess, Burslem, Eng.	Godden 1964:116
47 (BkUP)		1865-1887
92	Edward Clarke & Co., Burslem, Eng.	Godden 1964::147; Praetzellis 1980:7-46
76 (BkUP)		1894-1929
120.13	Cook Pottery Co., .17.23 Trenton, N.J.	Barber 1904:54; Lehner 1980:45
120.10.4		
4.23.2		
65 (BkUP)		c1864-c1900
38.23	W. & E. Corn, Burslem,	Godden 1971:64
38.34	Eng.	
16 (BkUP)		1881-1924
38.8	The Crescent Pottery,	Barber 1904:62;
38.12	Trenton, N.J.	Lehner 1980:151-2
38.20		
66		

Table C.1: Continued

(See Figure C.2: Ceramic Trademarks - Whiteware)		
35 (BrUP)		1891-1910
4.2.29	Henry Alcock & Co., Staffordshire, Eng.	Godden 1964:26-27
49 (BrUP)		1891-1900
55	Henry Alcock & Co.,	Godden 1964:26-27
55	Staffordshire, Eng.	
75		
38.34		
61 (BrUP)		1891-1910
34.38	Henry Alcock & Co., Staffordshire, Eng.	Godden 1964:26-27
69 (BkUP)		1830-1859
4.15	Samuel Alcock & Co.,	Godden 1964: 28-29;
.11	Burslem, Eng.	Godden 1971:52-53
68 (BrUP)		1890-1906
4.15	T. & R. Boote Ltd.,	Godden 1964:84
.11	Burslem, Eng.	
25 (BkUP)		1894-1900
38.2	The Anchor Pottery, Trenton, N.J.	Barber 1904:61; Ramsay 1939:183
86 (BkUP)		1894-1900
4.6.49	Anchor Pottery Co.,	Barber 1904:61;
4.2	Trenton, N.J.	Ramsay 1939:18
120.8.12		
120.5.44		
120.6.11.1		
120.8.12.55		
101 (BkUP)		1894-1900
38.22	Anchor Pottery Co., Trenton, N.J.	Barber 1904:61; Ramsay 1939:183
56 (BkUP)		c1876-c1899
38.7	American Crockery Co., Trenton, N.J.	Barber 1904:59-60; Lehner 1980:24

(See Figure C.3: Ceramic Trademarks - Whiteware)

57 (BkUP)		1884-1909
54	East Palestine Pottery Co., Columbiana Co., Oh.	Gates and Ormerod 1982:323; Lehner 1980:54-55

Table C.1: Continued

52 (BkUP)		1888-1905
38.9	East Trenton Pottery Co., Trenton, N.J.	Barber 1904:47; Thorn 1947:125; Lehner 1980:55
84 (BlUP)		1905-1955
120	W.S.George Pottery,	Lehner 1980:59-60
.2.3	Canonsburg or	
120.8	E.Palenstine, Oh.	
50 (GUP)		
55	Reads "...ER...S GEORGE...319"	
21 (BkUP)		1895-1905
38.20	The Glasgow Pottery Co., Trenton, N.J.	Barber 1904:51; Lehner 1980:67
29 (BkUP)		1895-1905
38.31	The Glasgow Pottery Co.,	Barber 1904:51;
38.33	Trenton, N.J.	Lehner 1980:67
28 (I)		1886-1900
120	Greenwood Pottery Co.,	Barber 1904:41;
.10.1	Trenton, N.J.	Ramsay 1939:182;
120.7		Lehner 1980:70
.10.11		
48 (I)		1882-1900
54	Greenwood Pottery Co., Trenton, N.J.	Barber 1904:46; Spargo 1926:342; Ketchum 1971:177
112 (I)		c1868-c1875
38.4	Greenwood Pottery Co., Trenton, N.J.	Barber 1904:46
(See Figure C.4: Ceramic Trademarks - Whiteware)		
40 (BkUP)		1890-1930
103	Harker Associations, E.Liverpool, Oh.	Gates and Ormerod 1982:79,83
1 (BkUP)		1860-1890
38.10	Thomas Hughes, Burslem, Eng.	Godden 1964:11,339

Table C.1: Continued

71 (BrUP)	1895-1910
38.4 Thomas Hughes & Son,	Godden 1964:339
38.5 Staffordshire, Eng.	
38.9	
38.33	
38.34	
13 (BlUP)	1891-1957
38.36 Thomas Hughes & Son,	Godden 1964:11
Staffordshire, Eng.	
66 (I)	1966-1971
15 Hull Pottery Co.,	Lehner 1978:40
Crooksville, Oh.	
7 (BkUP)	1869-1936
3 International Pottery	Lehner 1980:80;
Co., Trenton, N.J.	Thorn 1947:120
117 (BlUP)	1900-1936
30 International Pottery	Barber 1904:59;
Co., Trenton, N.J.	Ramsay 1939:182;
Owned by Burgess & Co.	Lehner 1980:80-81
80 (BrUP)	c1900-1971
120 Johnson Brothers Ltd.,	Godden 1964:355
.6.13 Staffordshire, Eng.	
14 (BlUP)	1778-1971
38.34 Keller and Guerin,	Chaffers 1912:209
Luneville, Fr.	
(See Figure C.5: Ceramic Trademarks - Whiteware)	
2 (GUP)	1900-c1920
120 Knowles, Taylor & Knowles, Gates and Ormerod	
.6.128 E.Liverpool, Oh.	1982:125
120.6.11	
120.8.63	
8 (GUP)	1900-c1920
3.2 Knowles, Taylor & Knowles, Gates and Ormerod	
120.6 E.Liverpool, Oh.	1982:115,125
.9.15	
38.4	
46 (GUP)	1905-1929
89 Knowles, Taylor & Knowles, Gates and Ormerod	
E.Liverpool, Oh.	1982:115-116,126

Table C.1: Continued

4 (GUP)		1900-1948
3.1	Edwin M. Knowles, China Co., E.Liverpool, Oh.	Gates and Ormerod 1982:99
26 (GUP)		1900-1960
3	Homer Laughlin China Co., E.Liverpool, Oh.	Gates and Ormerod 1982:136
45 (GUP)		1900-1960
3	Homer Laughlin China Co., E.Liverpool, Oh.	Gates and Ormerod 1982:128-129,136
46		
67 (GUP)		c1920-1929
120	Homer Laughlin China Co., E.Liverpool, Oh.	Gates and Ormerod 1982:136
.6.58		
75 (GUP)		c1907-c1915
120	Homer Laughlin China Co., E.Liverpool, Oh.	Gates and Ormerod 1982:128,134
.6.113		
120.8		
119 (GUP)		1900-1972
120.5	Homer Laughlin China Co., E.Liverpool, Oh.	Gates and Ormerod 1982:134,136
.8.65		
(See Figure C.6: Ceramic Trademarks - Whiteware)		
34 (BlUP)		1891-1896
103	John Maddock & Sons, Staffordshire, Eng.	Godden 1964:406; Kovel & Kovel 1953:202
95 (BkUP)		1906-1971
3	John Maddock & Sons, Burslem, Eng.	Godden 1964:406
79 (GUP)		c1914-1964
120.14	Mayer China Co., Beaver Falls, Penn.	Lehner 1980:103
.20.74		
55 (BkUP)		1892-c1910
41	D.E.McNicol Pottery Co., E.Liverpool, Oh.	Gates and Ormerod 1982:185,186
38.1		
38.34		
51 (GUP)		1868-1936
55	Mercer Pottery Co., Trenton, N.J.	Barber 1904:57; Lehner 1980:106

Table C.1: Continued

70 (I)		1868-1936
75	Mercer Pottery Co., Trenton, N.J.	Barber 1904:57; Lehner 1980:106
24 (BkUP)		1871-1888
40	The New York City Pottery, N.Y.	Barber 1904:77
73 (BkUP-I)		1850-1882
38.34	J.W.Pankhurst & Co., Eng.	Godden 1964:481; Godden 1971:81
72 (BkUP)		1860-1882
38.33	Pinder, Bourne & Co., Burslem, Eng.	Godden 1964:495
(See Figure C.7: Ceramic Trademarks - Whiteware)		
32 (BkUP)		
66	Ott and Brewer, Trenton, N.J.	Barber 1904:52-53
33 (GUP)		1901-1971
103	The Shenango China Co., Penn.	Lehner 1980:136
6 (GUP)		1910-1927
3	The Standard Pottery Co., E.Liverpool, Oh.	Gates and Ormerod 1982:247,249
98 (GUP)		1877-1900
54	Union Porcelain Works, Greenpoint, N.Y.	Barber 1904:80; Ramsay 1939:198
77 (BlUP)		1896-c1920
4	Vodrey Associations, .2.29 E.Liverpool, Oh.	Gates and Ormerod 1982:300,305
20 (BlUP)		
Lost	John Wedg(e)wood, Staffordshire, England.	Godden 1971:100
(See Figure C.8: Ceramic Trademarks - Whiteware)		
18 (BkUP)		
38.33	Reads "BONE CHINA"	
19 (BkUP)		
38.35	Reads "E/F CO."	

Table C.1: Continued

23 (BkUP)	
38.34	Reads "T.H.M." or "J.H.M."
40	
5 (BkUP)	
38.31	
53 (BkUP)	
38.4	Monogram Reads "JRC" or "HRC" or "HPC"
54 (BkUP)	
38.8	British Royal Seal
103 (BkUP)	
38.34	British Royal Seal, last letter beneath is an "M"
114 (BkUP)	
120.8.	British Royal Seal, Reads "W.M.C."
.12.83	
(See Figure C.9: Ceramic Trademarks - Whiteware)	
85 (BkUP)	
120	Reads "COREA"
.8.30	
78 (RUP)	
120	Reads "ENGLAND" with red Whippet
.10.15.8	
39 (I)	
4.6	Reads "HOTEL CHINA"
60 (GtOG)	
16	Reads "H...CHINA...22 CARAT..."
15 (GUP)	
70	1891-1971 Godden 1964:11
27 (I)	
16	Reads "MADE IN USA"
22 (BkUP)	
38.12	Reads "...TT...", Under seal "M/N/H?"
62 (BkUP)	
38.1	Reads "...CHINA...M. & CO."

Table C.1: Continued

94 (BkUP)
 120 New Jersey State Seal
 .3.1
 120.6
 .11.1

(See Figure C.10: Ceramic Trademarks - Whiteware)

110 (I)
 4.23.5 Should read "SP"

121 (RUP)
 120 Reads "LILLAC", pattern name
 .14.20.50

82 (RUP)
 120.8.12

41 (BlUP)
 38.8

63 (BkUP)
 38.5

102 (BkUP)
 38.34

115 (I)
 38.12

120 (E)
 40

122 (BrUP)
 103

(See Figure C.11: Ceramic Trademarks - Whiteware)

38 (GUP)
 103

12 (BlUP)
 38.12

17 (BkUP)
 38.34

97 (BrUP)
 38.5 Potter's mark

Table C.1: Continued

100 (BrUP)
38.33 Potter's mark

9 (PrUP)
3.1

105 (I)
38.32 Potter's mark

Porcelain

(See Figure C.12: Ceramic Trademarks - Porcelain)

118 (BlUP) 1923-1929
120.13 Bailey-Walker China Co., Lehner 1980:157
.17.25 Bedford, Oh.

36 (GUP) 1850-1971
103 Boch Brothers, Tournay, Kovel and Kovel
Belgium 1953:49

31 (GUP-OrOP)
66 William Guerin & Cie, Boger 1971:139;
Limoge, still existing Poche 1974:1139
Limoges - Guerin - Pouyat
- Elite, 19th cent.

42 (GUP) 1797-1971
101 Haviland & Co., Limoges, Pioche 1974:926
Fr.

93 (BlOP) 1900-1913
4.7.16 A.B. Jones & Sons, Ltd., Godden 1964:357
Staffordshire, Eng.

87 (GUP) 1860-1971
4.5.21 Konigszelt (Jaworzyna Poche 1974:1537
4.5.44 Slyska) Porzellanfabrik,
Silesia, Poland

64 (GUP) 1842-1898
64 Limoges, Fr. Kovel and Kovel
1953:50

38 (GtUP-GtOPa) 1900-1971
4.2.14 Roschutz, Unger & Schilde Poche 1974:1414
and successors

Table C.1: Continued

90 (BkUP)	1898-1951
3 Warwick China Co.,	Barber 1904:152;
Wheeling, W.Va.	Lehner 1980:159
(See Figure C.13: Ceramic Trademarks - Porcelain)	
116 (BlUP)	1831-1971
38.33 Waldenburg (Walbrzych),	Poche 1974:1058,1059
Krister, Porzellanmanufaktur	
123 (I)	1868-1883
4.24...Difficult to read	Godden 1964:526-528
registration mark. Top	
quadrant contains two characters,	
thus a number, and not a letter	
(this mark not illustrated)	
83 (BrOP)	
120 Reads "JAPAN"	
.6.16	
37 (GDc)	
103 Reads "NIPPON POTTERY"	
3 (GtOPa-GtOP)	
3	
10 (ROPa)	
3	
43 (GtOP)	
4.2.1	
5 (ROP)	
87	
59 (GUP)	
4.15 [Impressed 63 not drawn]	
.17	
(See Figure C.14: Ceramic Trademarks - Porcelain)	
91 (GtOPa)	
4.24.28	
92 (BkOPa)	
4.2	
96 (GtOPa)	
4.24.20	

Table C.1: Continued

99 (GtOPa)
38.35

104 (In)
38.34 Porcelain figure

106 (I)
38.?

107 (In)
? Porcelain figure

108 (In)
120.8

109 (In)
38.4

111 (I)
38.8 Mark may be "60", not "00"

113 (In)
38.10

30
120.6 "5" (I)
.154 "2" (In)
120.14.20

Stoneware - Trademarks and Decoration

(See Figure C.15: Ceramic Trademarks & Designs
- Utilitarian Stoneware)

155 (CPa)
156
157 Portions of same vessel as 158

(See Figure C.16: Ceramic Trademarks & Designs
- Utilitarian Stoneware)

158 (I) 1850-1859
38.34 J. & E. Norton, Bennington, Osgood 1971:198
Vermont

159 (CPa)
120.10 "(P)ERTH (AMBOY)" [Parts of one vessel]
.15.46

Table C.1: Continued

160 (CPa)
120.11.18.32

(See Figure C.17: Ceramic Trademarks & Designs
- Utilitarian Stoneware)

161 (CPa)
162
163

(See Figure C.18: Ceramic Trademarks & Designs
- Utilitarian Stoneware)

150 (I)
120.13.17
120.14.20

153 (E)
9

154 (I)
38.34

151 (I)
7

Bottom Stamp Colors and Technology
(Decoration on utilitarian stoneware included)

Color	Technology
Bk - Black	Dc - Decal
Bl - Blue	E - Embossed
Br - Brown	I - Impressed
C - Cobalt	(drawn as hollow characters)
G - Green	In - Incised
Gt - Gilt	O - Overglaze
Pr - Purple	Pa - Painted
R - Red	P - Printed
	U - Underglaze

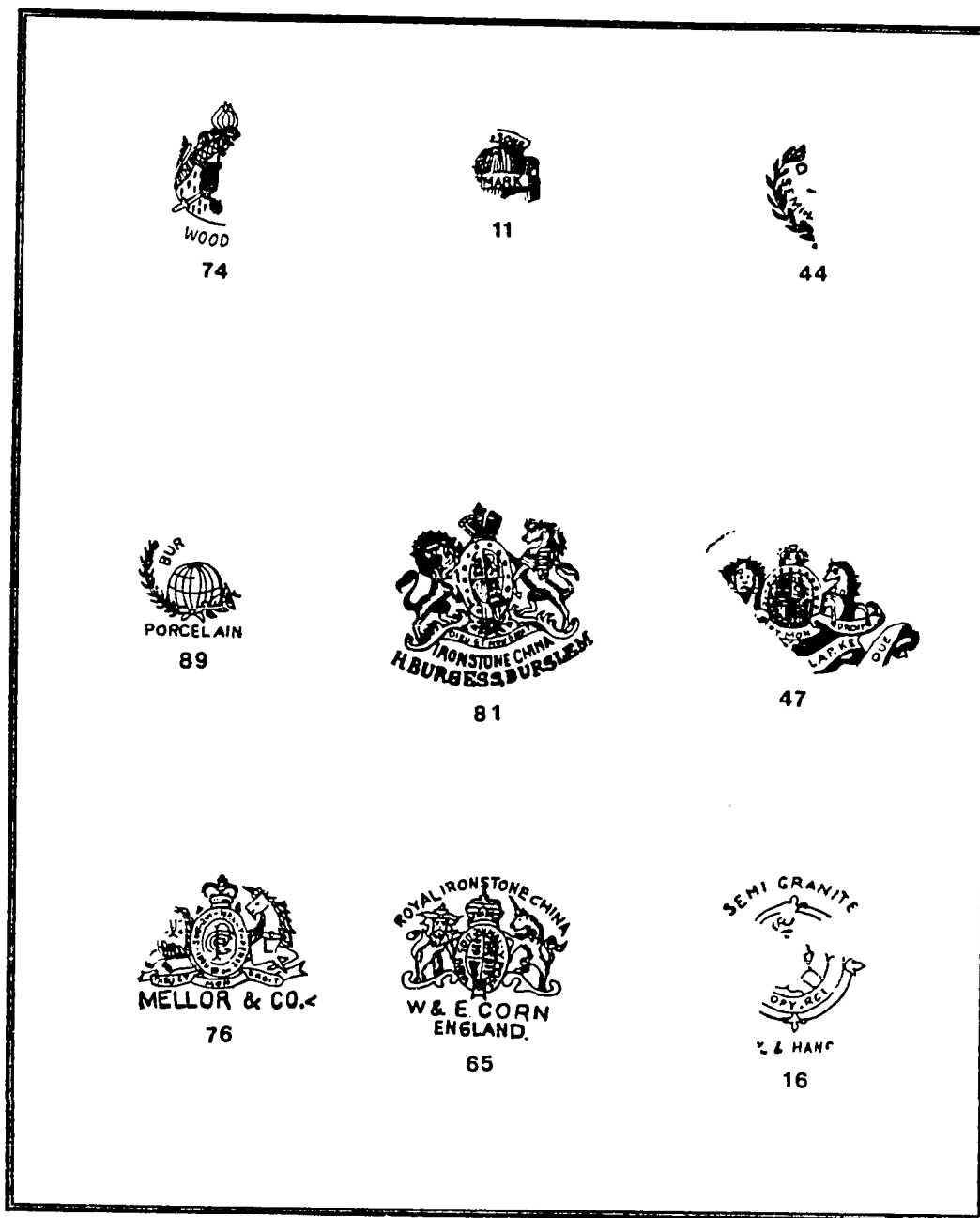


Figure C.1: Ceramic Trademarks - Whiteware
Illustrations are 80% of full size

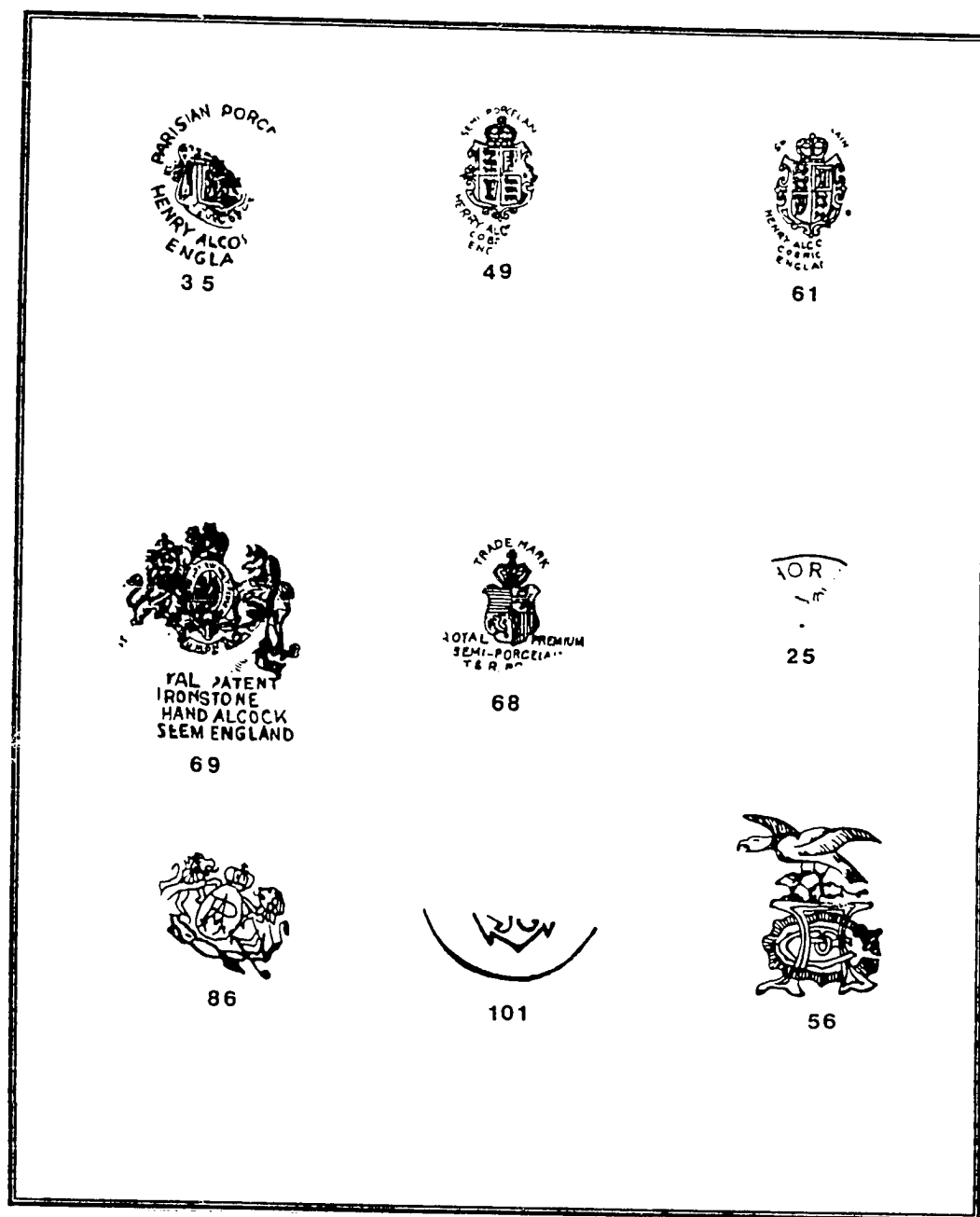


Figure C.2: Ceramic Trademarks - Whiteware
Illustrations are 80% of full size

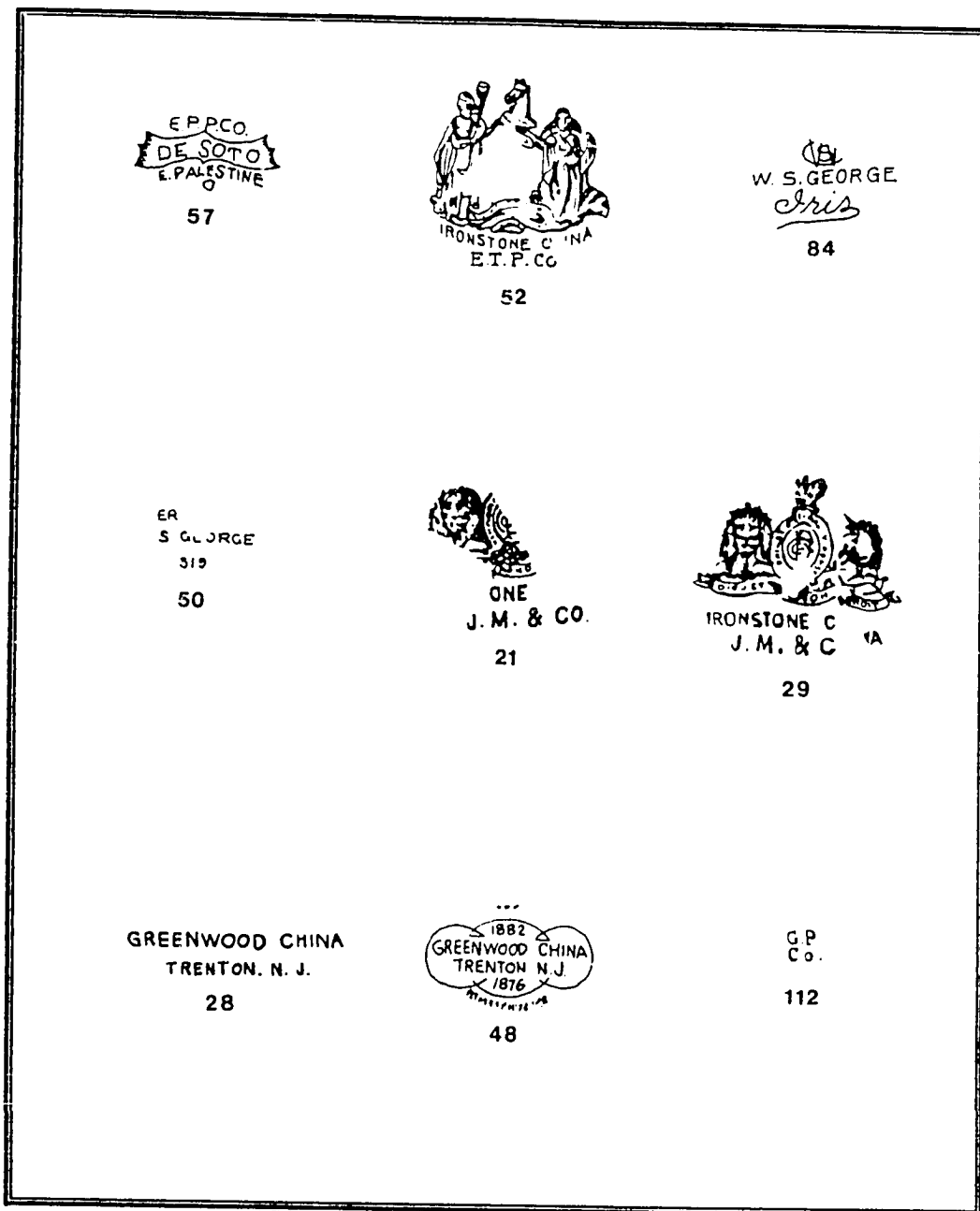


Figure C.3: Ceramic Trademarks - Whiteware
Illustrations are 80% of full size

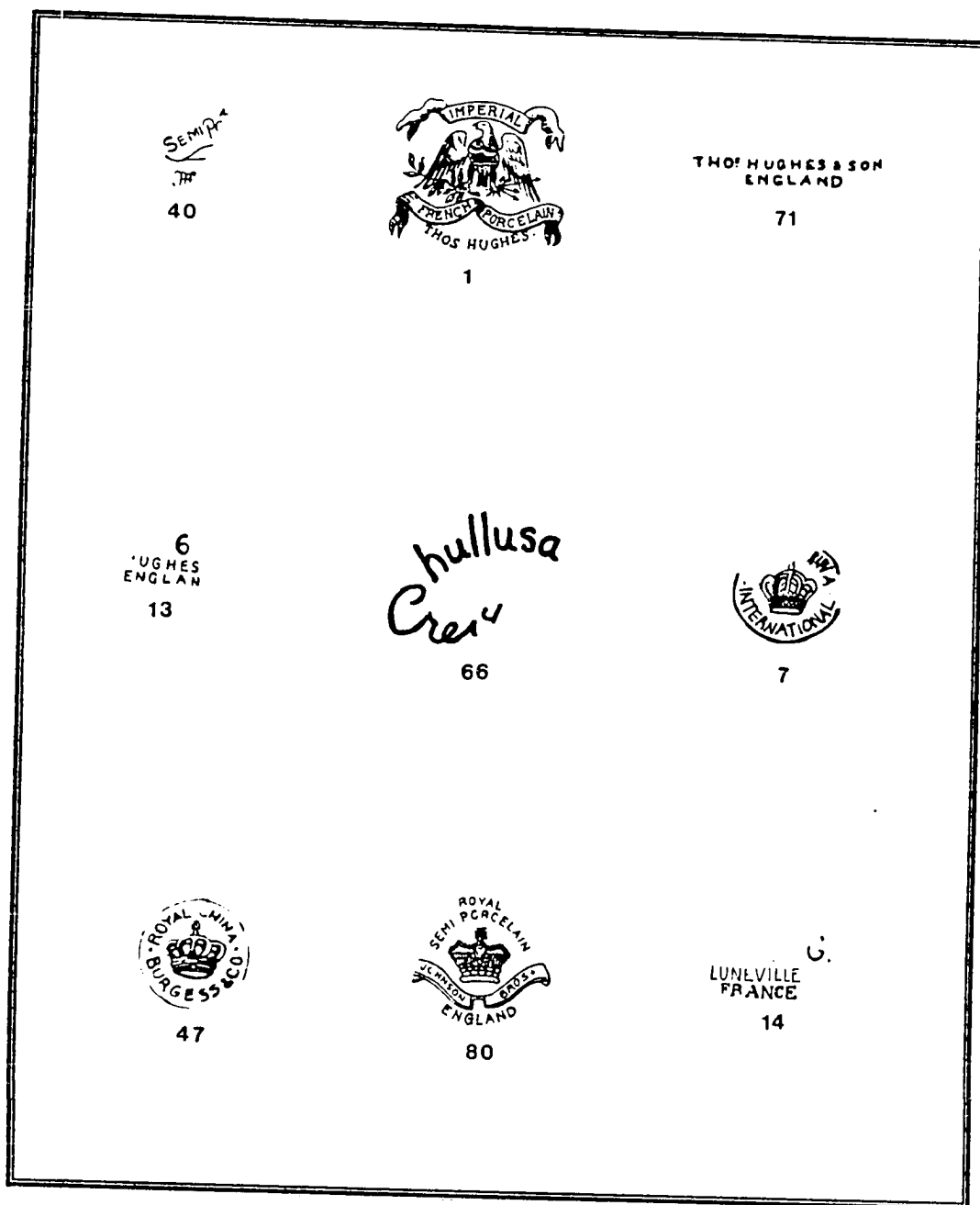


Figure C.4: Ceramic Trademarks - Whiteware
 Illustrations are 80% of full size

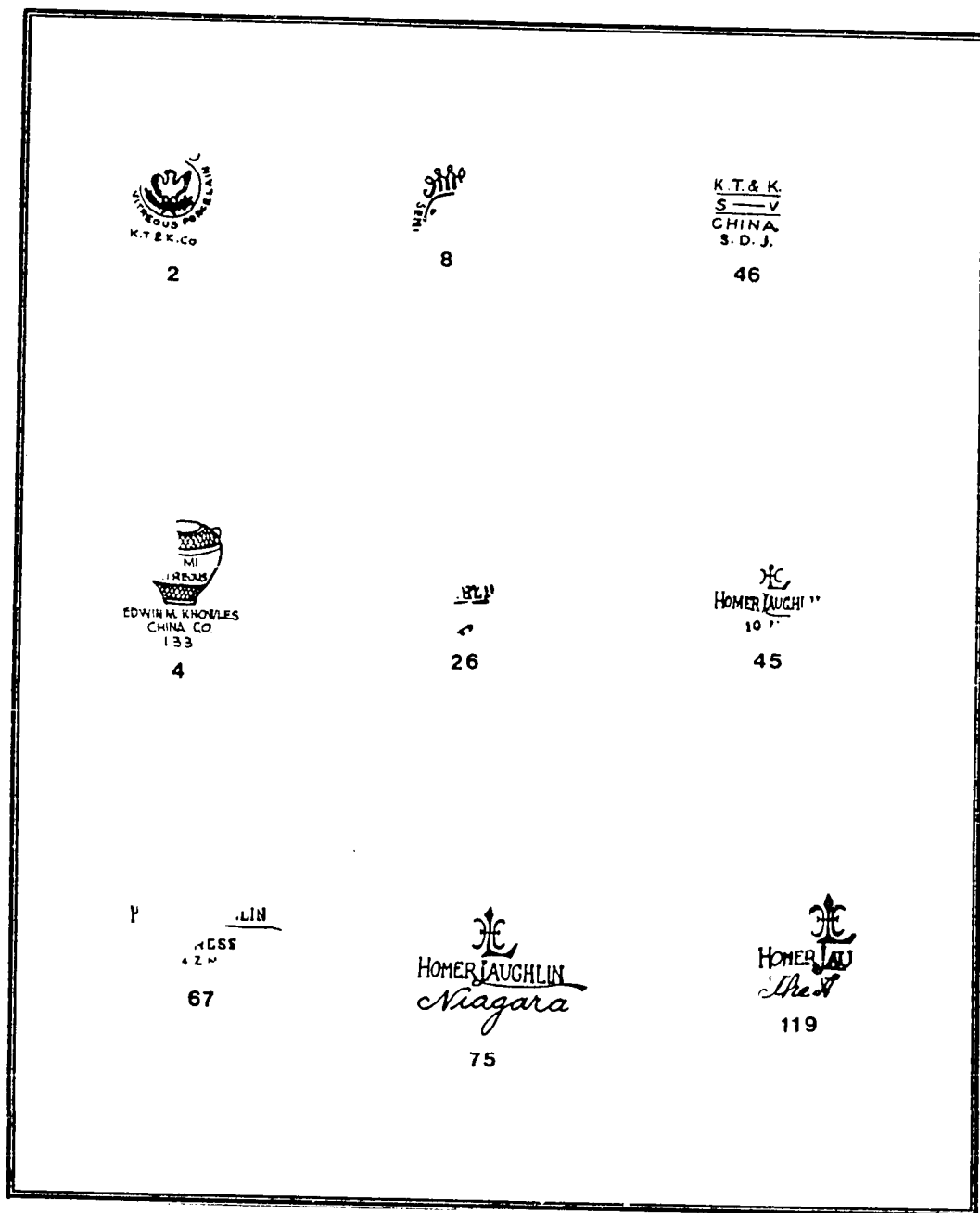


Figure C.5: Ceramic Trademarks - Whiteware
Illustrations are 80% of full size

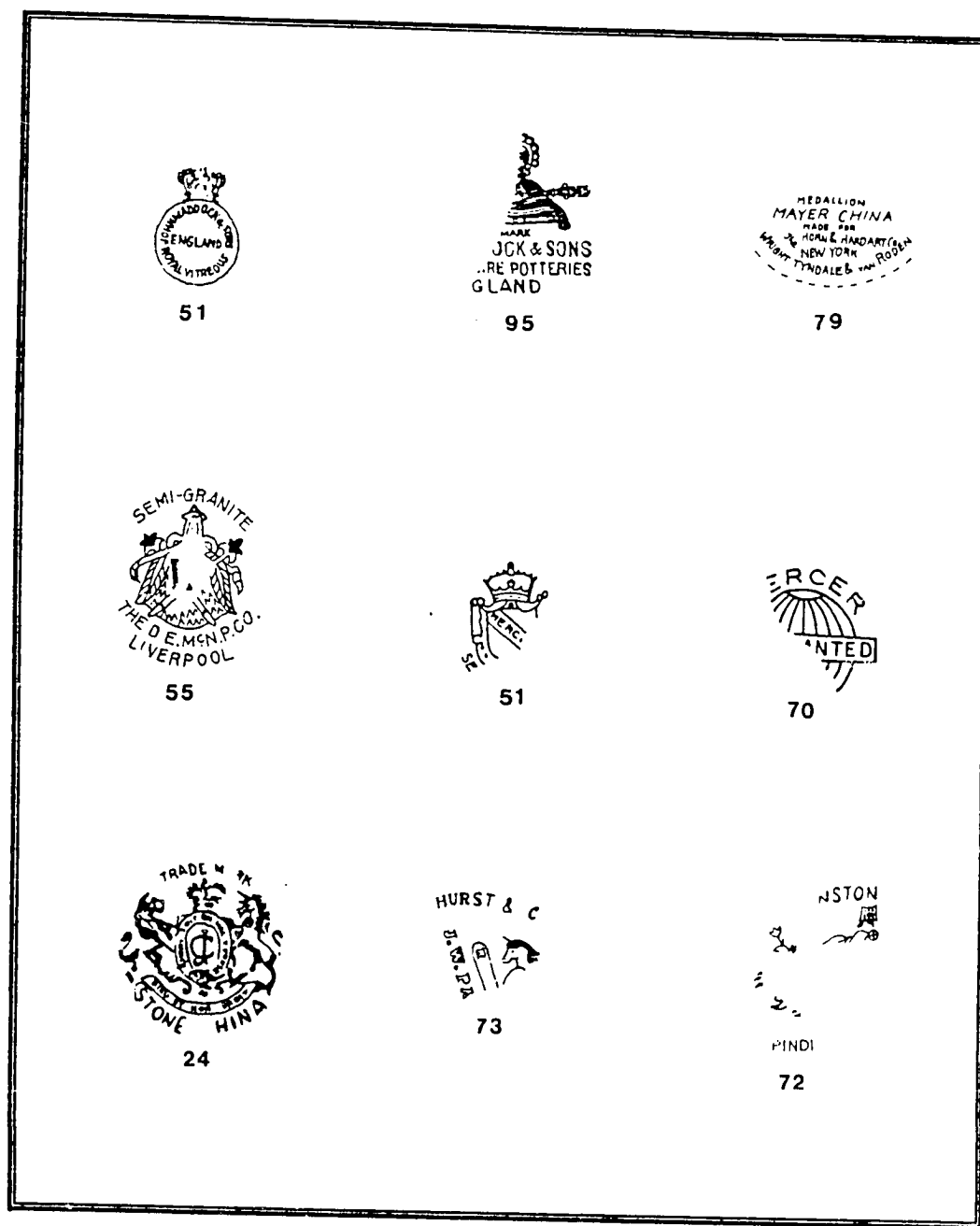


Figure C.6: Ceramic Trademarks - Whiteware
Illustrations are 80% of full size

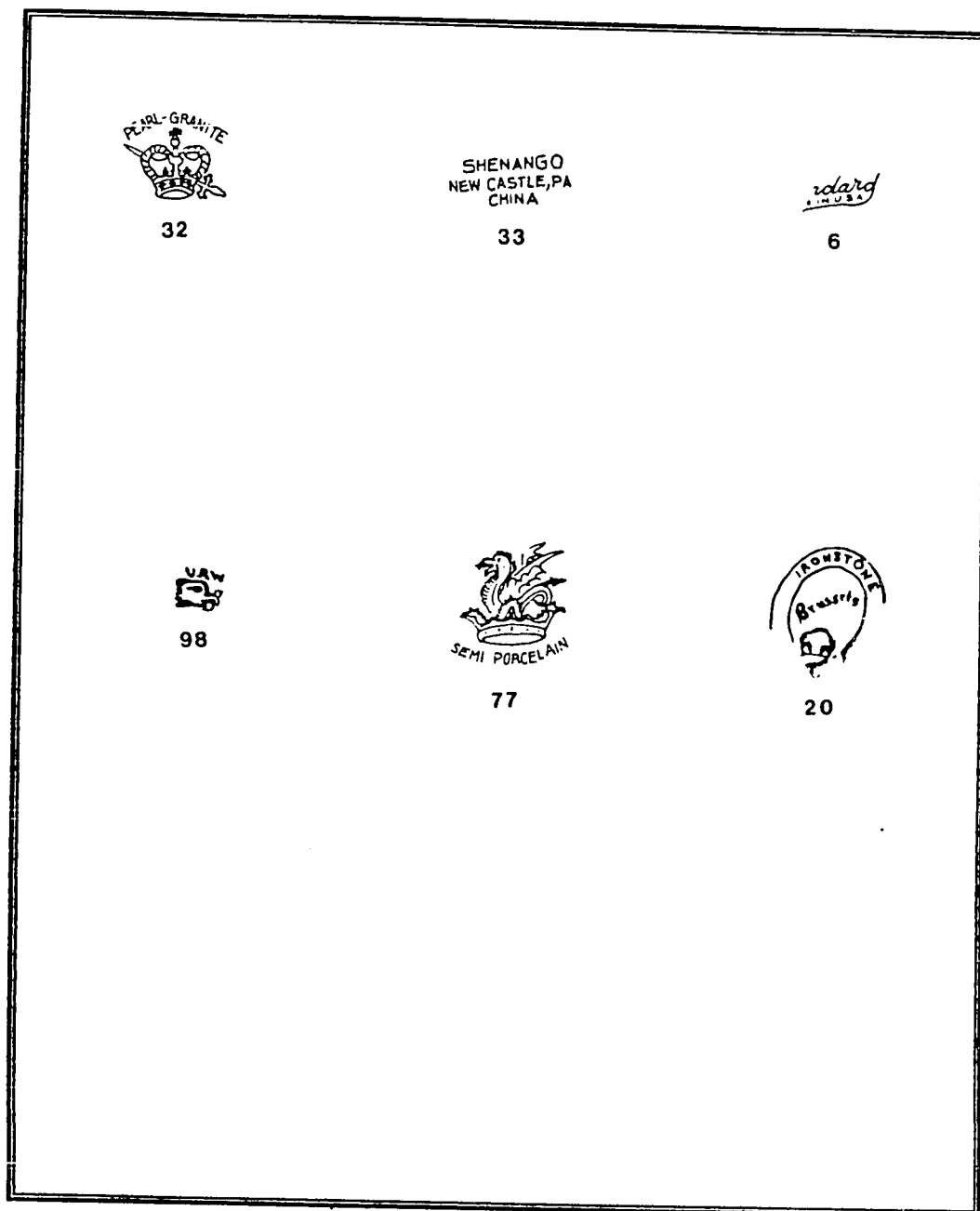


Figure C.7: Ceramic Trademarks - Whiteware
Illustrations are 80% of full size

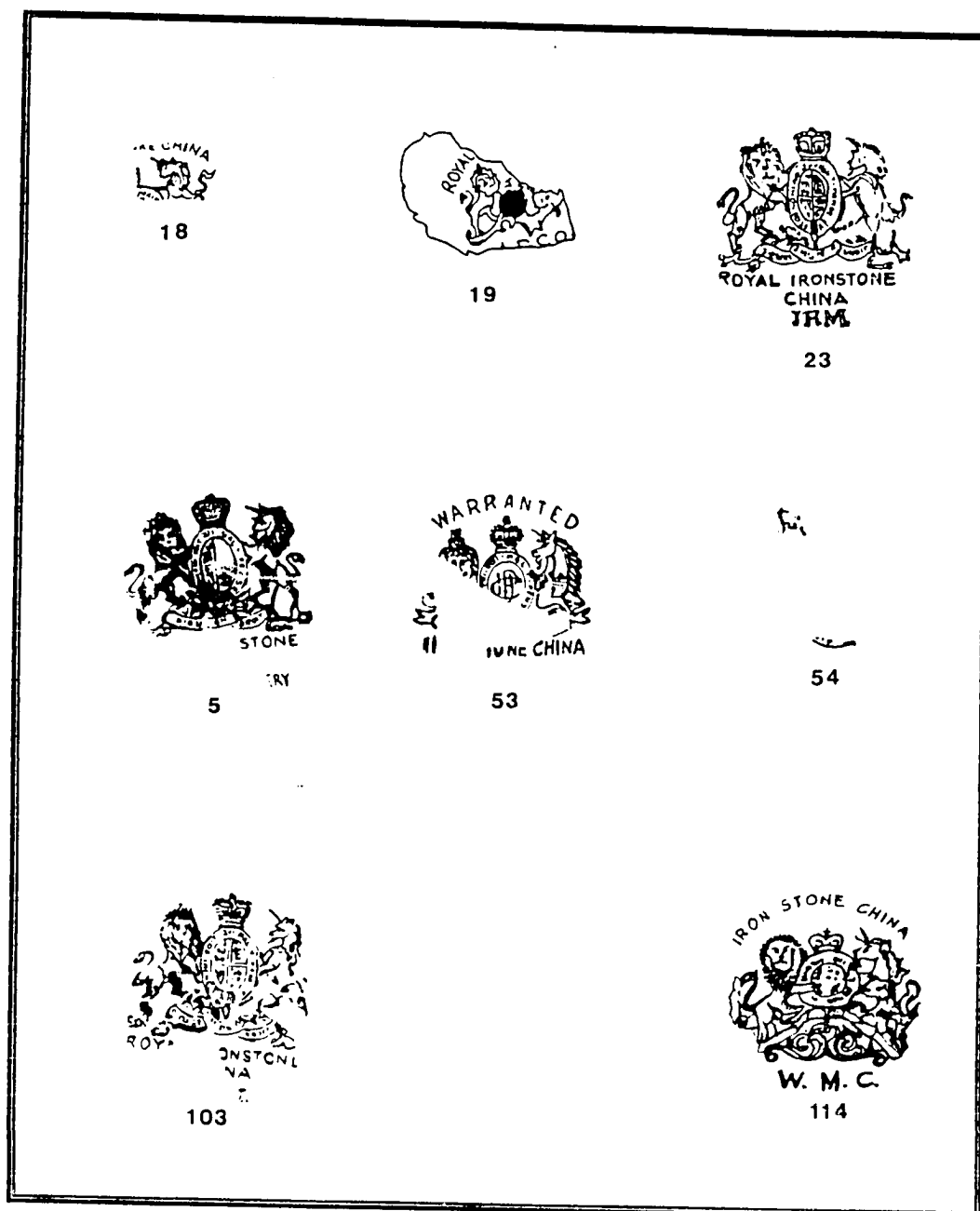


Figure C.8: Ceramic Trademarks - Whiteware
Illustrations are 80% of full size

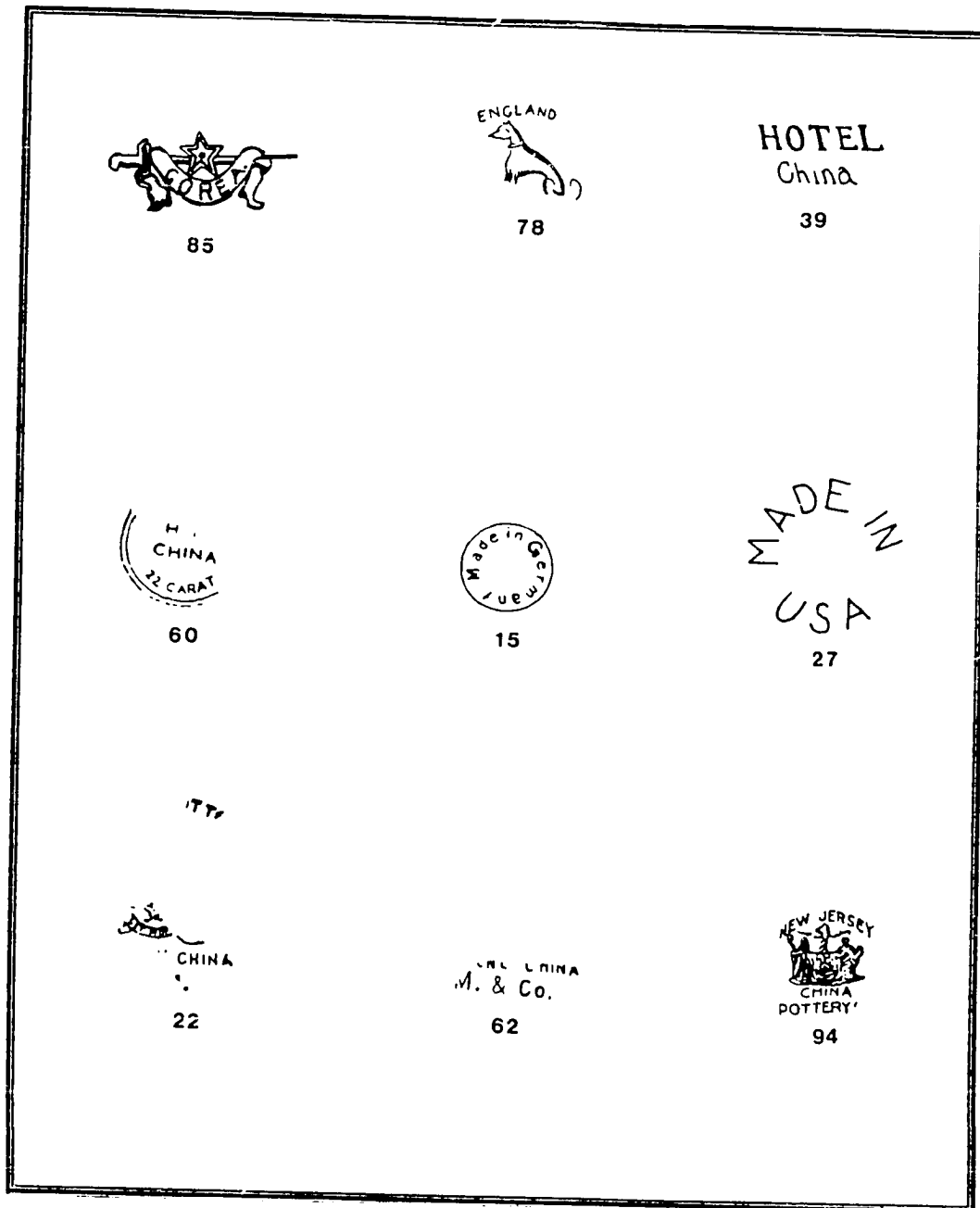


Figure C.9: Ceramic Trademarks - Whiteware
 Illustrations are 80% of full size

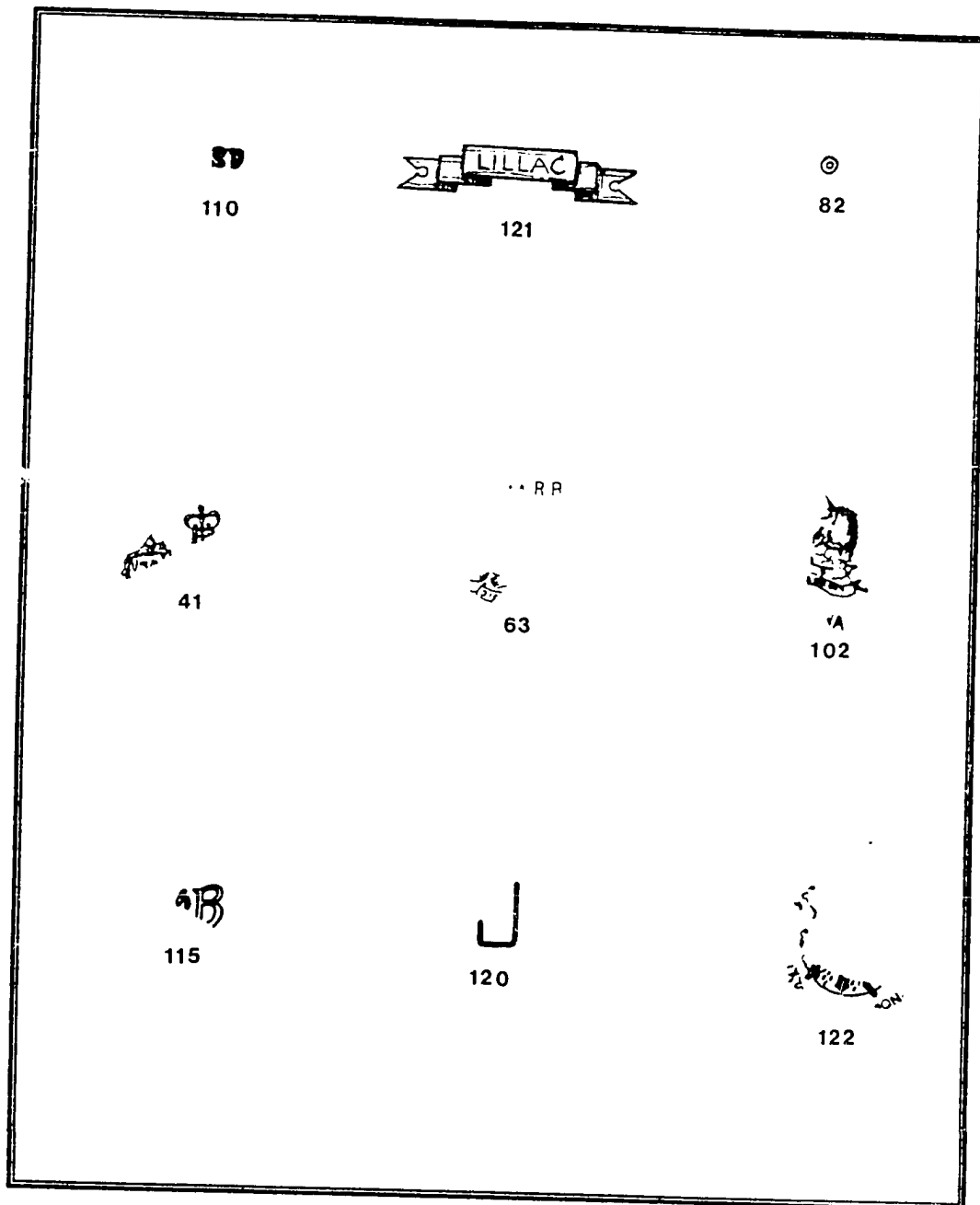


Figure C.10: Ceramic Trademarks - Whiteware
Illustrations are 80% of full size

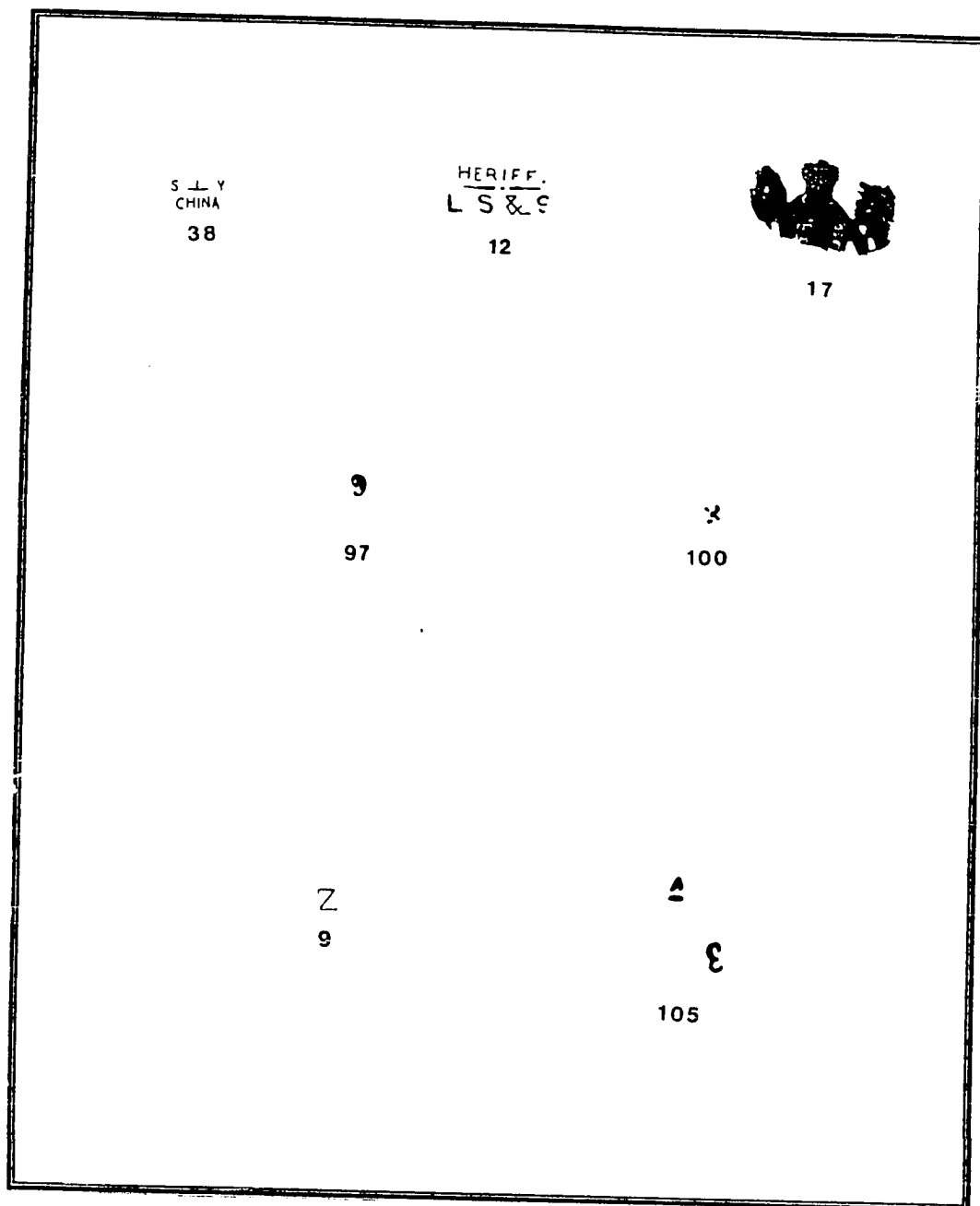


Figure C.11: Ceramic Trademarks - Whiteware
Illustrations are 80% of full size

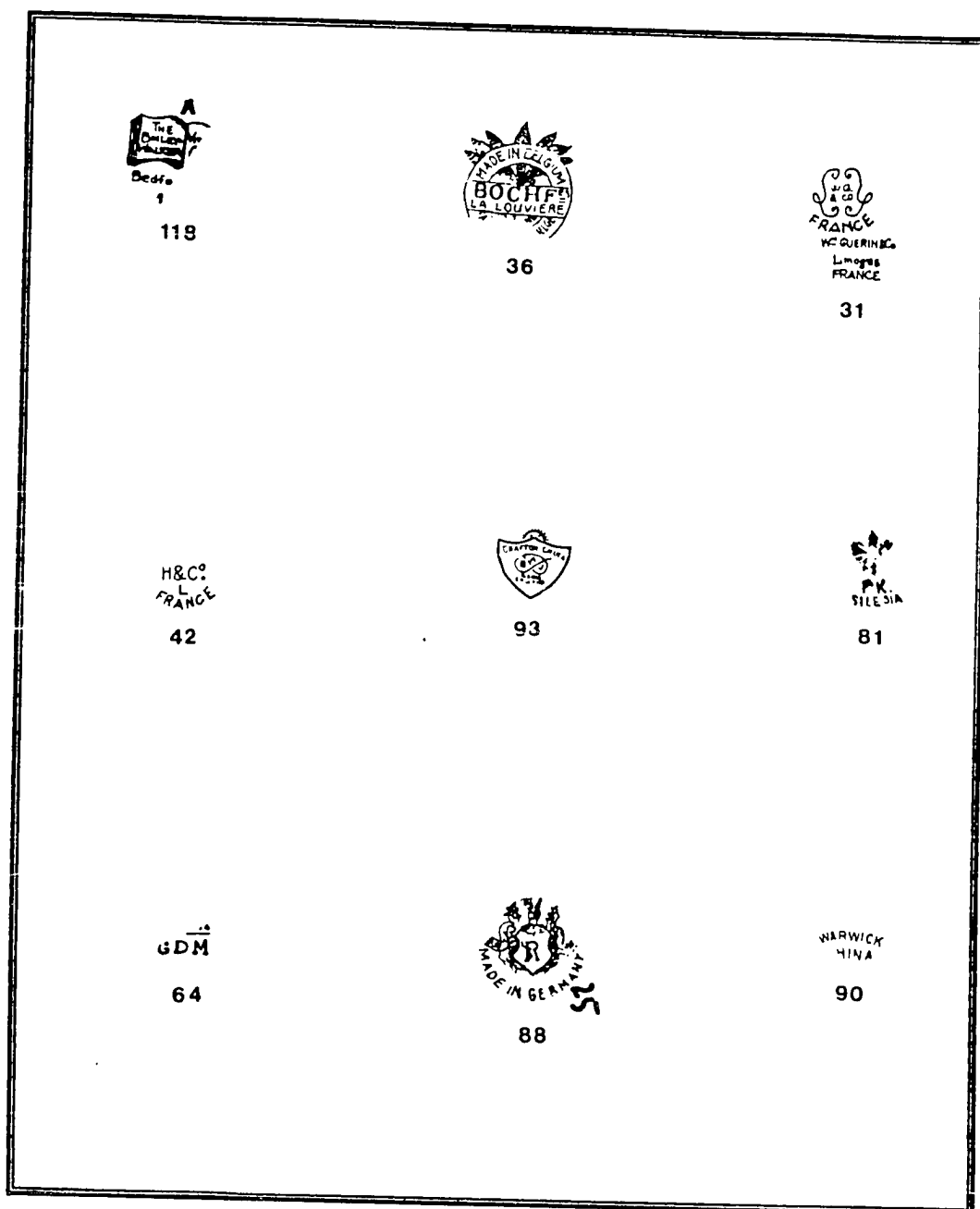


Figure C.12: Ceramic Trademarks - Porcelain
 Illustrations are 80% of full size

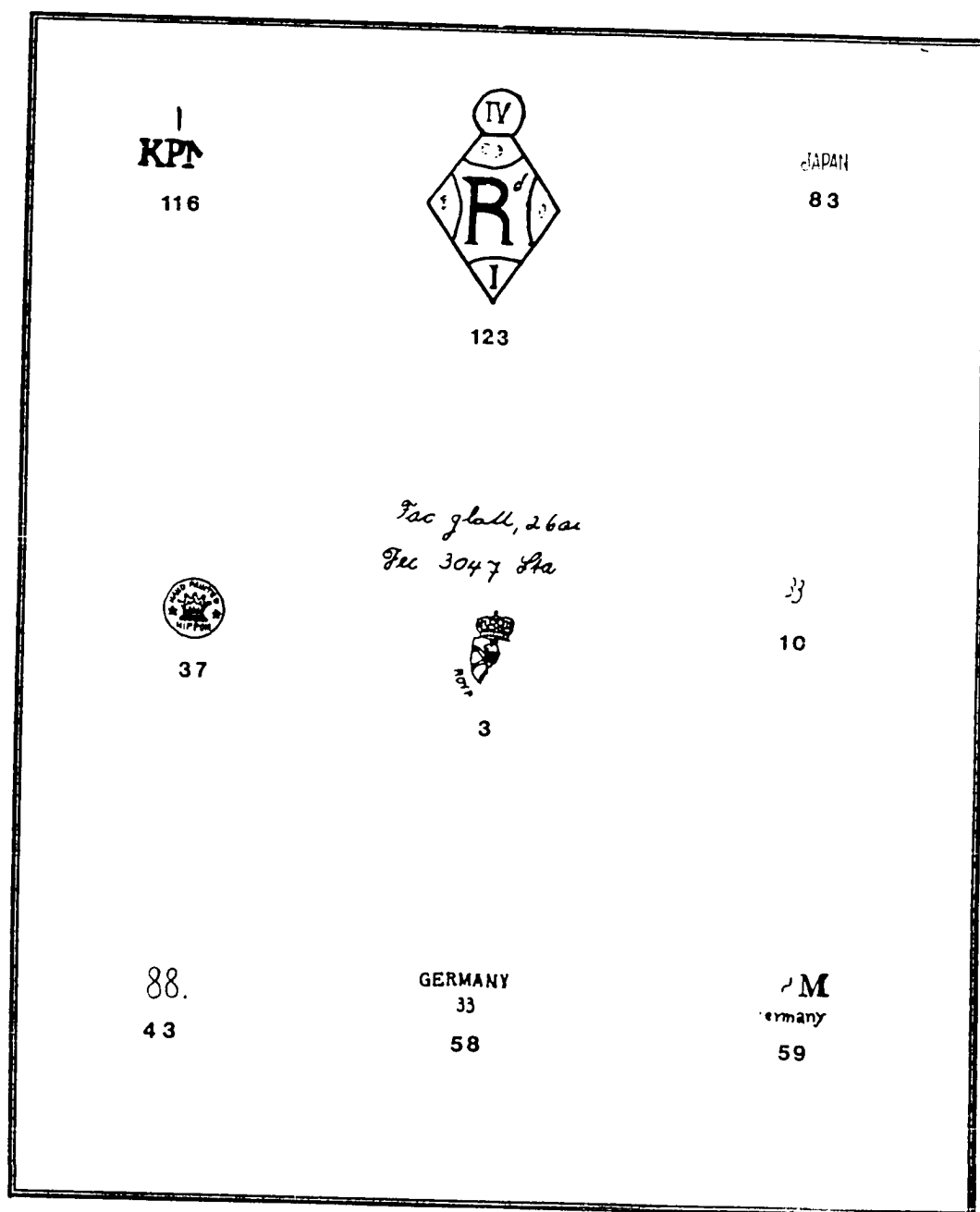


Figure C.13: Ceramic Trademarks - Porcelain
Illustrations are 80% of full size

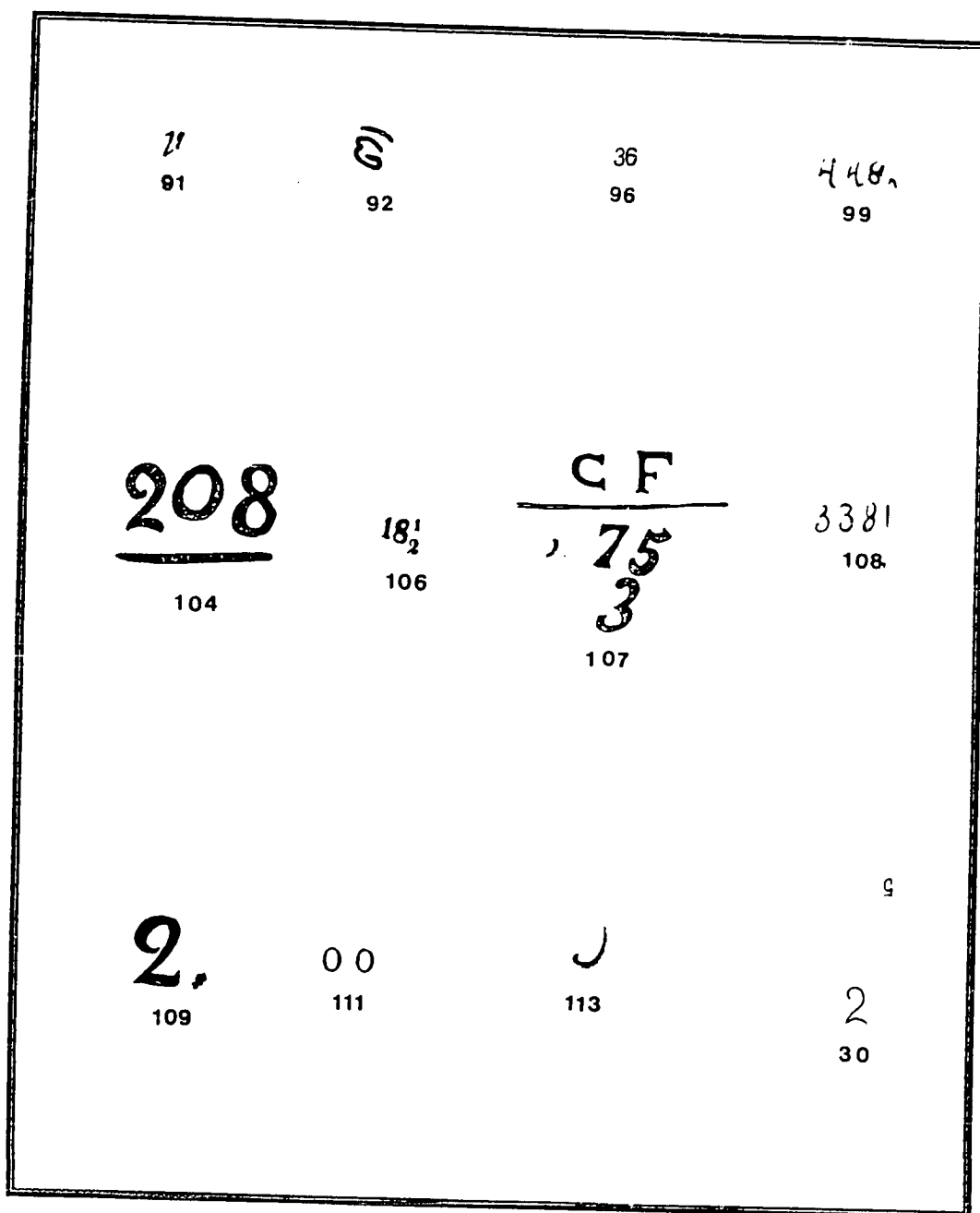


Figure C.14: Ceramic Trademarks - Porcelain
 Illustrations are 80% of full size

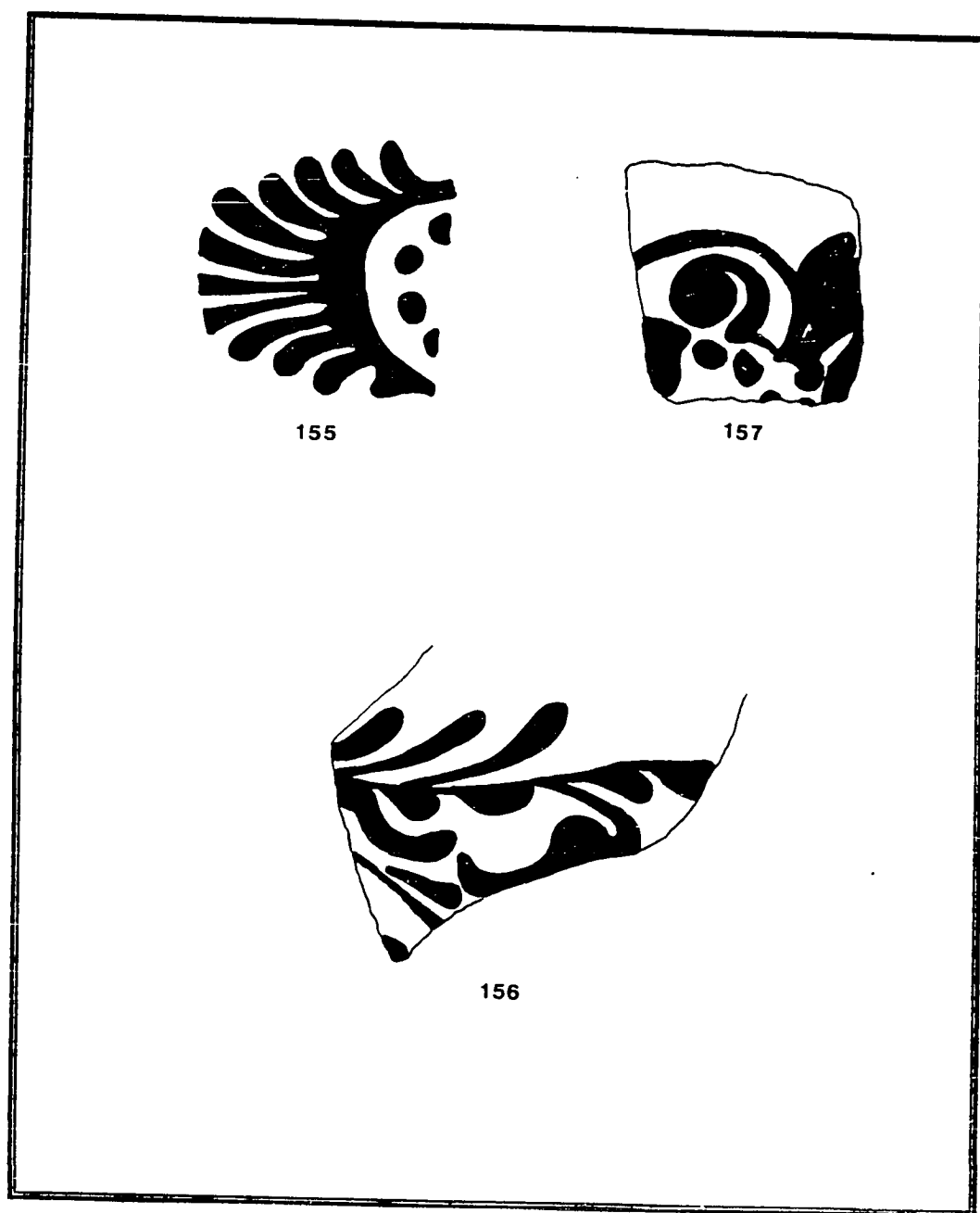


Figure C.15: Ceramic Trademarks & Designs -
Utilitarian Stoneware
Illustrations are 80% of full size

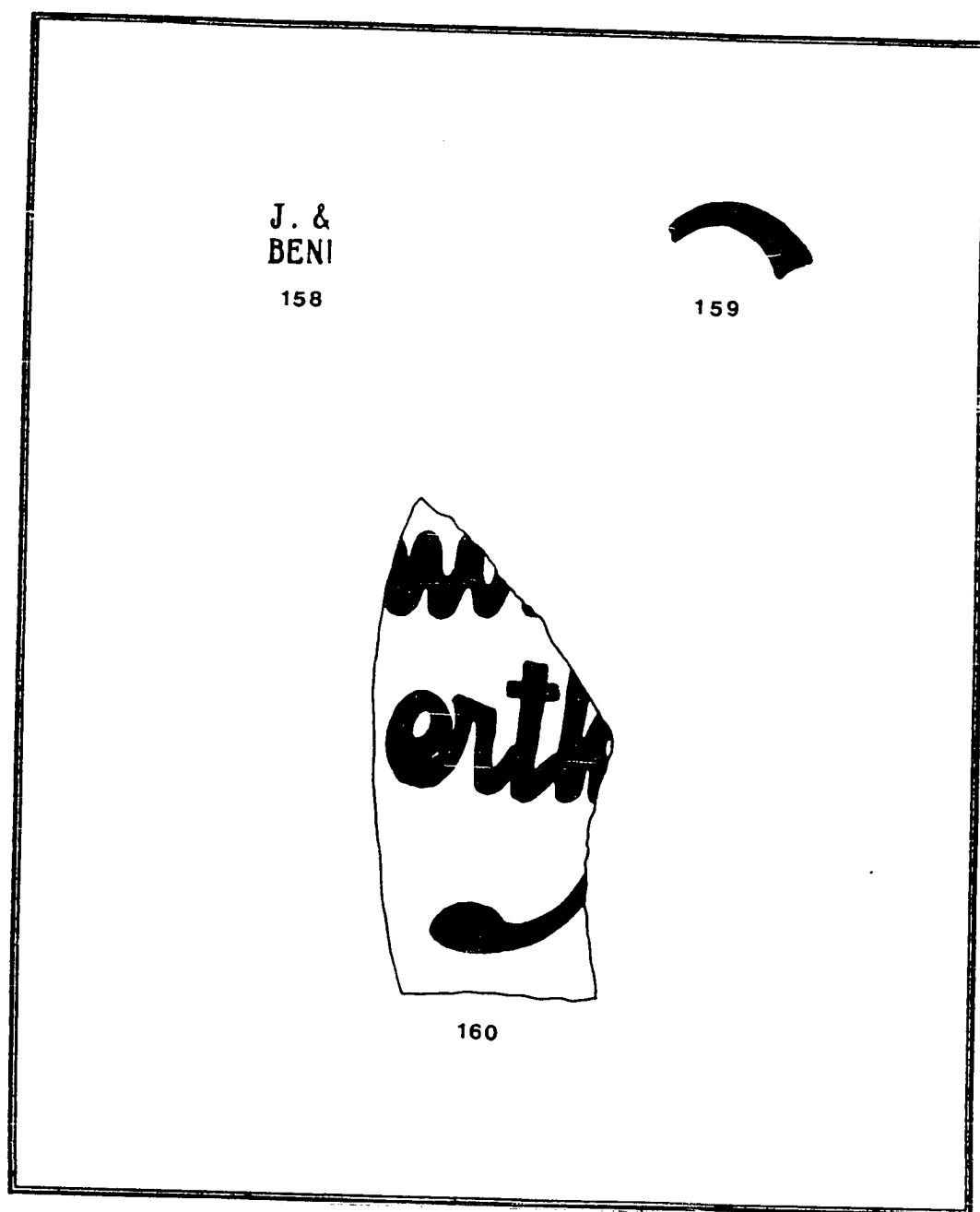


Figure C.16: Ceramic Trademarks & Designs -
Utilitarian Stoneware
Illustrations are 80% of full size

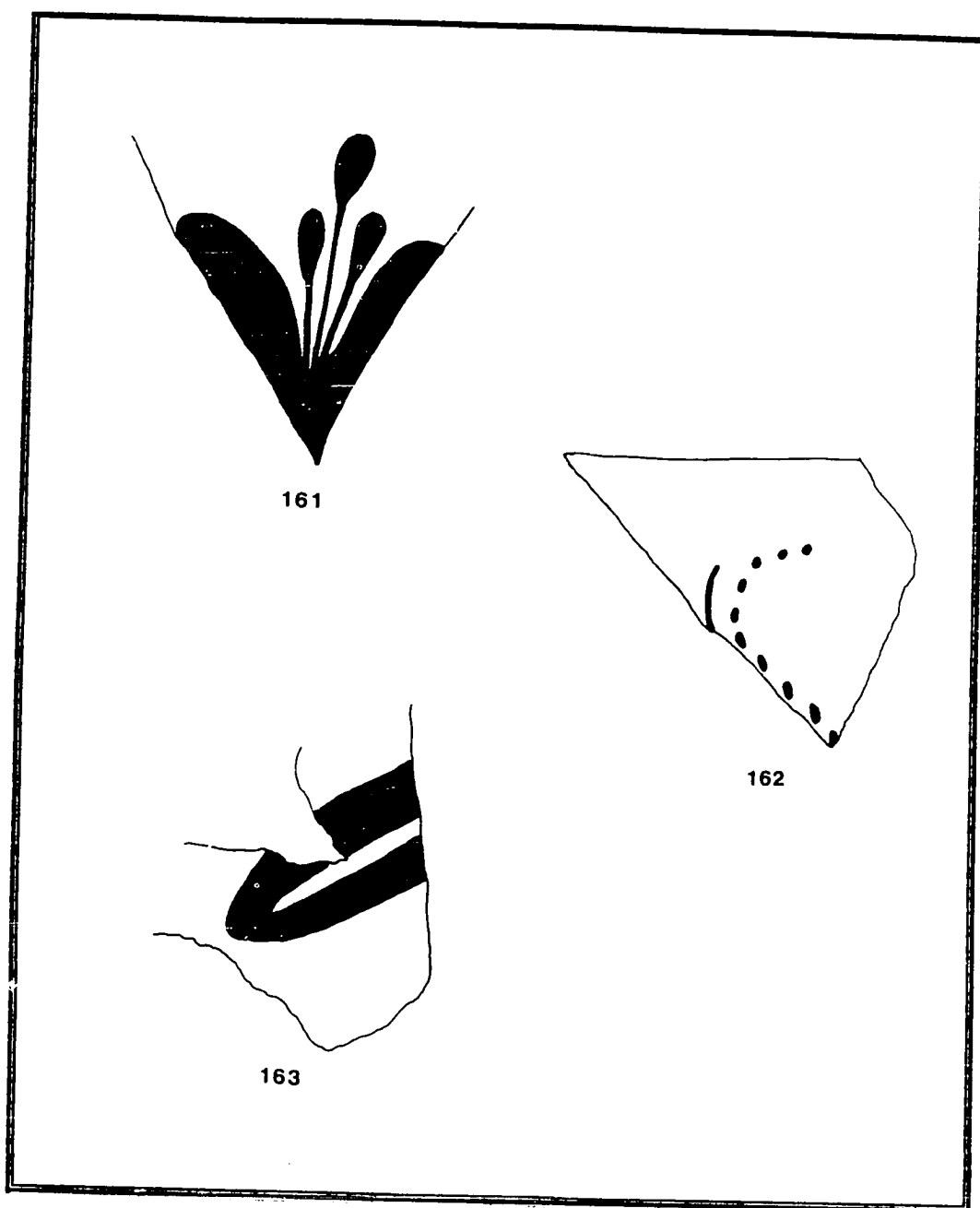


Figure C.17: Ceramic Trademarks & Designs -
Utilitarian Stoneware
Illustrations are 80% of full size

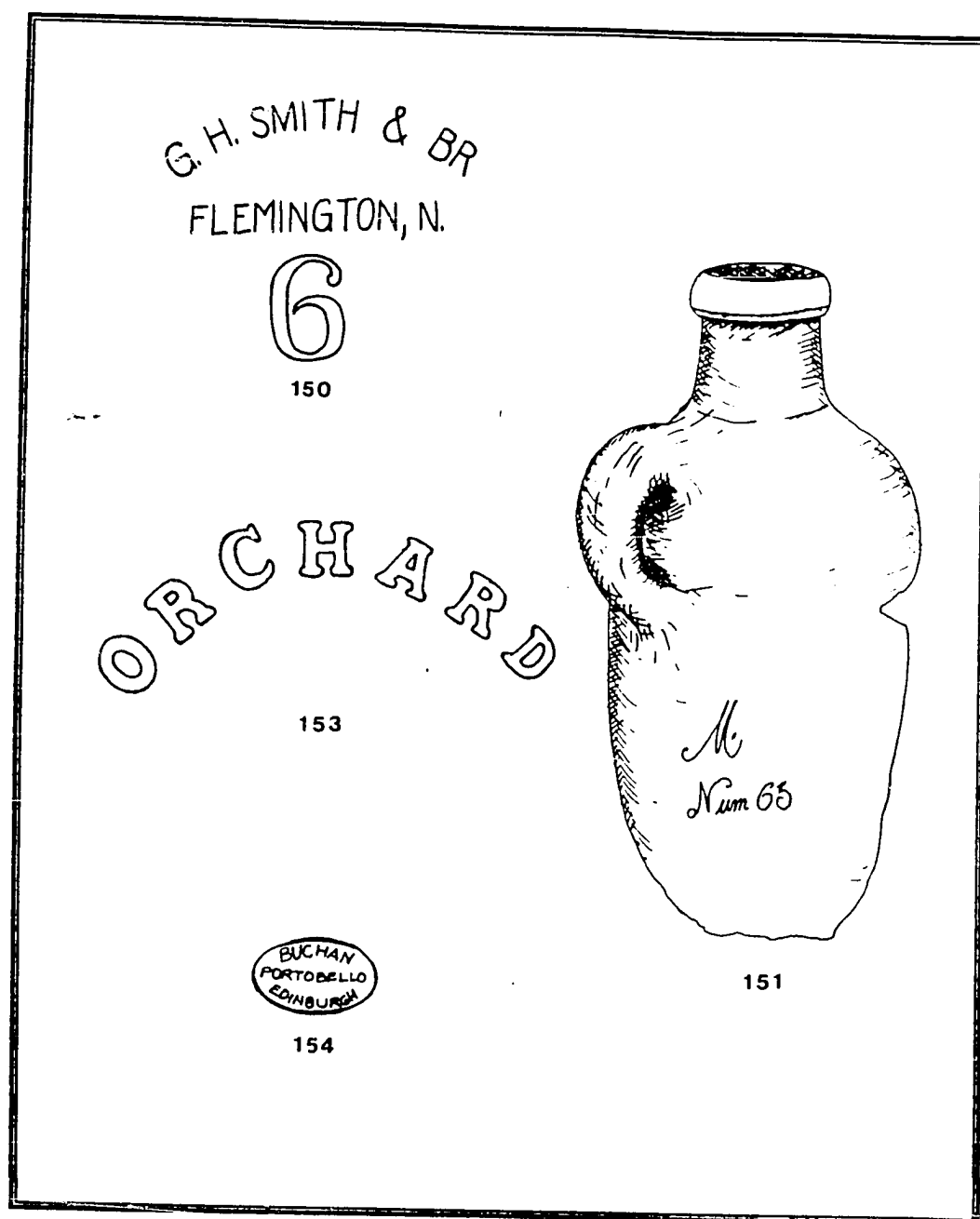


Figure C.18: Ceramic Trademarks & Designs -
Utilitarian Stoneware
Illustrations are 80% of full size

Table C.2: Calculations for Ceramic Generated Feature Dates

Feature	Ceramic ID #	Date range	Median Date
3	7	1869-1936	1902.5
3	90	1898-1951	1924.5
3	4	1900-1948	1924
3	8	1900-1920	1910
3	26	1900-1960	1930
3	45	1900-1960	1930
3	95	1906-1971	1938.5
3	6	1910-1927	1918.5
<u>Feature 3</u> N = 8		Total Medians = 15368 Average Median Date = 1921	
4	69	1830-1859	1844.5
4	87	1860-1971	1915.5
4	87	1860-1971	1915.5
4	81	1864-1892	1878
4	123	1868-1883	1875.5
4	68	1890-1906	1898
4	35	1891-1910	1900.5
4	86	1894-1900	1897
4	86	1894-1900	1897
4	76	1894-1929	1911.5
4	77	1896-1920	1908
4	88	1900-1971	1935.5
4	93	1900-1913	1906.5
<u>Feature 4</u> N = 13		Total Medians = 24683 Average Median Date = 1898.69	
15	66	1966-1971	1968.5
<u>Feature 15</u> N = 1		Average Median Date = 1968.5	
30	117	1900-1936	1918
<u>Feature 30</u> N = 1		Average Median Date = 1918	
34	61	1891-1910	1900.5

Table C.2: Continued

<u>Feature 34</u>		Average Median Date = 1900.5	
N = 1			
38	14	1778-1971	1874.5
38	116	1831-1971	1901
38	158	1850-1859	1854.5
38	73	1850-1882	1866
38	72	1860-1882	1871
38	1	1860-1890	1875
38	65	1864-1900	1882
38	65	1864-1900	1882
38	112	1868-1875	1871.5
38	74	1870-1891	1880.5
38	11	1876-1891	1883.5
38	56	1876-1899	1887.5
38	16	1881-1924	1902.5
38	16	1881-1924	1902.5
38	16	1881-1924	1902.5
38	52	1888-1905	1896.5
38	49	1891-1900	1895.5
38	13	1891-1957	1924
38	55	1892-1910	1901
38	55	1892-1910	1901
38	25	1894-1900	1897
38	101	1894-1900	1897
38	21	1895-1905	1900
38	29	1895-1905	1900
38	29	1895-1905	1900
38	71	1895-1910	1902.5
38	71	1895-1910	1902.5
38	71	1895-1910	1902.5
38	71	1895-1910	1902.5
38	71	1895-1910	1902.5
38	8	1900-1920	1910

<u>Feature 38</u>		Total Medians = 58671	
N = 31		Average Median Date = 1892.6	
40	24	1871-1888	1879.5

<u>Feature 40</u>		Average Median Date = 1879.5	
N = 1			
41	55	1892-1910	1901

Table C.2: Continued

<u>Feature</u> 41			
N = 1		Average Median Date = 1901	
46	45	1900-1960	1930
<u>Feature</u> 46			
N = 1		Average Median Date = 1930	
54	98	1877-1900	1888.5
54	48	1882-1900	1891
54	57	1884-1909	1896.5
<u>Feature</u> 54			
N = 3		Total Medians = 5676	
		Average Median Date = 1892	
55	51	1868-1936	1902
55	49	1891-1900	1895.5
55	49	1891-1900	1895.5
<u>Feature</u> 55			
N = 3		Total Medians = 5693	
		Average Median Date = 1897.67	
64	54	1842-1898	1870
<u>Feature</u> 64			
N = 1		Average Median Date = 1870	
66	16	1881-1924	1902.5
<u>Feature</u> 66			
N = 1		Average Median Date = 1902.5	
70	15	1891-1971	1931
<u>Feature</u> 70			
N = 1		Average Median Date = 1931	

Table C.2: Continued

75	70	1868-1936	1902
75	49	1891-1900	1895.5
<u>Feature</u> 75 N = 2		Total Medians = 3797.5 Average Median Date = 1898.75	
88	44	1876-1882	1879
<u>Feature</u> 88 N = 1		Average Median Date = 1879	
89	46	1905-1929	1919
<u>Feature</u> 89 N = 1		Average Median Date = 1919	
92	47	1865-1887	1876
<u>Feature</u> 92 N = 1		Average Median Date = 1876	
101	42	1797-1971	1884
<u>Feature</u> 101 N = 1		Average Median Date = 1884	
103	36	1850-1971	1910.5
103	40	1890-1930	1910
103	34	1891-1896	1893.5
103	33	1901-1971	1936
<u>Feature</u> 103 N = 4		Total Medians = 7650 Average Median Date = 1912.5	
120	89	1879-1904	1891.5
120	28	1886-1900	1893
120	28	1886-1900	1893
120	86	1894-1900	1897

Table C.2: Continued

120	86	1894-1900	1897
120	86	1894-1900	1897
120	86	1894-1900	1897
120	76	1894-1929	1911.5
120	76	1894-1929	1911.5
120	2	1900-1920	1910
120	2	1900-1920	1910
120	2	1900-1920	1910
120	8	1900-1920	1910
120	80	1900-1972	1936
120	119	1900-1972	1936
120	84	1905-1955	1930
120	84	1905-1955	1930
120	75	1907-1915	1911
120	75	1907-1915	1911
120	79	1914-1964	1939
120	67	1920-1929	1924.5
120	118	1923-1929	1926

Feature 120

N = 22

Total Medians = 42072

Average Median Date = 1912.36

Total N = 99

Total Aggregate Medians =

188369.5

Average Aggregate Median Date =

1902.72

Total Number of Features = 21

Table C.3: Ceramic Inventory

P r o v	M N V	S h #	W V l	D i a W	B d Y	Func A	Func B	Dec F	Dec F	Dec S	Dec S	Sty Dsc	DG T	Tm #
3	4	9	0	1	re	0100	0200	0300		0000		30		
3	2	4	0	0	we	0100	0200	0300		0000		30		
3	1	3	0	0	re	0100	0200	0000		0309	0900	90		9
3	2	14	1	0	re	0100	0200	0100	0300	0500	1600	110	37	
3	1	5	0	1	we	0100	0200	0300		0410	1700	120	36	
3	1	3	0	0	we	0100	0200	0300		0900	0200	70	46	
3	1	1	0	0	we	0100	0200	0300		0905	1200	310	49	
3	1	10	1	0	we	0200	0500	0000		0410	1900	120	36	4
3	1	5	0	1	re	0200	0500	0300					30	
3	7	30	1	3	we	0200	0500	0300					30	7
3	2	11	1	1	re	0200	0500	0300		0410	0200	70	35	
3	1	1	0	1	re	0200	0500	0100	0800	0410	0200	60	41	
3	1	5	0	1	we	0200	0500	0100	0800			170		
3	1	6	0	1	re	0200	0500	0100	0300	0500	1600	110	37	
3	2	44	0	0	p	0100	0200	0300		0410	1600	110	38	
3	1	2	0	0	p	0200	0500	0300		0410	1600	110	38	
3	3	6	0	0	p	0200	0500	0300				30	10	
3	1	2	0	1	p	0200	0500	0000		0900	1600	110	43	
3	1	1	0	1	p	0200	0500	0300				30		
3	2	10	2	0	p	0200	0800	0000		0500	1600	110		
3	1	3	1	0	we	0200	0800	0000		0500	0100	110		
3	1	2	0	1	we	0200	0400	0300				100		
3	1	2	0	0	we	0200	0400	0100	0800	1700	1200	310	31	
3	1	9	1	0	we	0200	0400	0300				30		45
3	1	4	0	0	we	0100	0700	0000		0410	1900	120	36	
3	1	13	0	0	we	0100	1000	0000		0410	1900	120	36	
3	2	2	0	0	p	0100	0700	0000		0900	1600	110		
3	1	2	0	1	re	0100	0300	0300				100		
3	1	2	0	0	we	0100	0300	0000		0410	0200	70		
3	1	2	0	0	we	0100	0300	0000				30		
3	1	9	0	1	we	0200	0200	0000		1500	0600	110		
3	1	1	0	0	rs	0300	0700	0000		0206	0600	260		
3	1	4	0	1	p	0200	0300	0100	0800	1600	0300	210	39	3
3	0	11	0	0	we	0950								
3	1	1	0	0	we	0900		0100	0800			170		
3	1	1	0	0	re	0900		0100	0800			170		
3	1	1	0	0	we	0900		0000		0900	0200	180	34	
3	1	1	0	0	we	0100		0000						
3	1	1	0	0	re	0950								90
3	1	1	0	1	p	0600	0100	0100	0800	0709	1800	60		
3	12	0	0	0	p	0400	0400	0100	1300	0410	0200	60	40	
3	1	1	0	0	sp	0100	1800	0300				100		
3	1	1	0	0	we	0900		0000		0206		320		
3	1	1	0	0	re	0100		0000		0306		280	50	

Table C.3: Continued

3	1	1	0	0	we	0100				0500			
3	1	1	0	0	p	0200	0100	1200				170	
3	0	2	0	0	p	0900							
3	0	2	0	0	mg	0100	0000		0100	0100		50	
Feature 3													
62 265 8 17 - Totals													
4.23	1	25	1	0	we	0100	1500	0100	0300	0000	0000	110	76
4.23	1	8	1	0	we	0200	0700	0100	1300	1000	0100	270	110
4.15	1	16	1	0	we	0200	0700	0000				30	68
4.2	1	3	1	0	we	0200	0500	0100	1300	0500	1300	170	77
4.15	1	1	0	1	p	0200	0500	0100	0800	0700	0700	60	59
4.2	1	13	1	0	p	0200	0500	0000		0500	0600	110	92
4.7	1	5	1	0	p	0200	0500	0000		0400	0200	270	93
4.15	1	40	1	0	we	0200	0600	0000				30	69
4.15	1	15	1	0	s	0300	0200	0100	1700			130	
4.5	1	3	0	0	we	0300	0200						
4.2	1	1	1	0	p	0100	0200	0000		0500	0600	110	88 52
4.24	1	3	1	0	p	0100	0200	0100	0800	1400	0200	60	91 48
4.23	1	5	1	0	p	0100	0200	0100	0300	0400	0200	270	96 53
4.24	1	8	1	0	p	0100	0200	0100	0800	0400	0200	70	122
4.6	1	6	1	0	we	0100	0200	0000				30	
4.6	1	6	1	0	we	0100	0200	0000				30	
4.2	1	4	1	0	p	0500	0100	0100	0600	0200	0700	300	176
4.25	1	14	0	0	we	0200	0500	0300				30	
4.3	1	8	0	0	we	0200	0500	0300				30	
4.7	1	3	0	0	we	0200	0500	0300				30	
4.15	1	4	0	0	we	0100	0900			0200	0300	40	
4.3	1	12	1	0	p	0100	1000			0300	0100	230	84 62
4.2	1	5	1	0	p	0200	0300	0100	0800	1000	0200	60	43 34
4.6	1	1	1	0	we	0100	1700	0300				100	39
4.2	1	3	0	1	we	0200	1000	0300				100	
4.5	1	2	0	0	we	0100	1500	0300				30	
4.7	1	1	0	0	rs	0200	0700	0300				30	
4.4	1	49	0	1	we	0100	0300	0100	1300	0200	0100	280	54
4.2	1	3	0	1	we	0200	0400	0300				30	35
4.5	1	25	0	1	we	0100	1300	0100	0800			170	18
4.2	1	1	0	0	we	0100							
4.2	1	1	0	0	re	0100	0700	0300				30	
4.7	1	1	0	0	we	0100	0700						
4.2	0	1	0	0									
4.2	0	1	0	0									86
4	0	2	0	0	p	0950							86
4	0	75	0	0	we	0950							
4.24	1	18	1	0	p	0100	0600	0100	0800			170	123 179

Table C.3: Continued

Feature 4

34 392 19 5 - Totals

7 1 8 0 0 we 0900

Feature 7

1 0 0 0 - Totals

12 1 35 0 0 we 0100 0400 40 3 197

Feature 12

1 15 0 0 - Totals

13 1 1 0 0 p

Feature 13

1 1 0 0 - Totals

15 1 1 0 1 rs 0200 0500 0000 0200 0300 20 1 66

Feature 15

1 1 0 1 - Totals

16 1 1 1 0 rs 0100 0200 0000 30 27
16 1 2 0 0 we 0200 0400 0900 60Feature 16

2 3 1 0 - Totals

19 1 16 0 0 we 0300 0500 0200 0100 20

Feature 19

1 16 0 0 - Totals

23 1 1 0 0 pa 0400 0200 219
23 1 6 0 0 we 0400 0300 0200 0500 40
23 1 1 0 0 p 0900

Table C.3: Continued

23	1	1	0	0	p	0100	0500	0100		0400	0200	60
Feature 23												
	4	9	0	0	-	Totals						
24	1	1	0	0	re	0200	0200	0100	0100			70
Feature 24												
	1	1	0	0	-	Totals						
25	1	53	0	0	we	0400	0100	0100	0100	0100	0400	10 199
Feature 25												
	1	53	0	0	-	Totals						
26	1	1	0	0	we	0900						
Feature 26												
	1	1	0	0	-	Totals						
28	1	1	0	0	re							
Feature 28												
	1	1	0	0	-	Totals						
30	1	14	0	1	we	0200	0400	0000				30
30	1	7	0	0	we	0200	0400	0000				30
30	3	6	0	0	we	0200						
30	1	1	0	0	we	0200		0100	0800	0900		70
30	1	1	0	0	we	0200		0000				30
30	1	2	0	0	we	0200	0900	0000				100
30	1	2	0	0	we	0200		0000				100
30	1	1	0	0	we	0200	0400			0300	0500	270
30	1	1	0	0	we	0200	0400	0100	0800	0300	0200	60
30	1	1	0	0	we	0200				0300	0200	270
30	1	4	0	0	re	0100	0200			0500	0600	110
30	1	1	0	0	p	0200	0500	0100	0800			170
30	1	1	0	0	p	0200	0500			0900	1600	110
30	1	8	0	1	we	0100	0200	0100	1300	0300	0200	70
30	1	73	0	0	ye	0300	0700					82

Table C.3: Continued

30	110	0	0	we	0950												
30	0	23	0	0	we	0950											
30	0	31	0	0	we	0950											
30	1	7	0	1	we	0200	0500			0400	1600	110					
30	1	3	0	1	p	0200	0500	0100	0300			170					
30	1	4	0	1	we	0100	0300	0100	0800	0905	0100	70		117			
30	1	3	0	0	we	0200	0400	0100	0800	0905	0100	70		117			
30	1	1	0	0	we	0200						100					
30	1	1	0	0	we			0100	0800	2200	0200	70					
30	1	5	0	0	re	0100	0200			1100	0600	115					
30	1	2	0	0	we	0200	0600					30					
<u>Feature 30</u>																	
	25	313	0	5	- Totals												
31	1	1	0	0	we	0100	0100	0000						30			
31	0	6	0	0	re	0950											
<u>Feature 31</u>																	
	1	7	0	0	- Totals												
32	1	1	0	1	p	0200	0500	0000						30			
<u>Feature 32</u>																	
	1	1	0	1	- Totals												
33	1	1	0	0													
<u>Feature 33</u>																	
	1	1	0	0	- Totals												
35	1	1	0	0	we	0900											
35	1	6	0	0	we	0100	0100	0000						30			
<u>Feature 35</u>																	
	1	7	0	0	- Totals												
36	1	1	0	0	we	0100											

Table C.3: Continued

Feature 36												
1	1	0	0	- Totals								
38.3	1	8	1	0	we	0100	0200	0000				30
38.1	1	20	1	0	we	0100	0200	0000				30
38.21	1	3	1	0	re	0100	0200	0000				30
38.4	1	15	1	0	we	0100	0200	0000				30
38.1	1	3	0	0	we	0100	0200	0000	0500	0600	115	30
38.19	1	4	0	0	we	0100	0200	0000				30
38.9	1	3	0	0	we	0100	0200	0000				30
38.8	1	1	0	0	re	0100	0200	0000				30
38.9	1	5	0	0	we	0100	0200	0000				30
38.4	1	4	0	0	re	0100	0200	0000				30
38.7	1	4	0	0	we	0100	0200	0000				30
38.8	0	11	0	0	we	0100	0200					
38.21	0	2	0	0	we	0100	0200					
38.9	0	39	0	0	we	0100	0200					
38.1	0	22	0	0	we	0100	0200					
38.12	0	2	0	0	we	0100	0200					
38.22	0	2	0	0	we	0100	0200					
38.7	0	10	0	0	we	0100	0200					
38.19	0	4	0	0	we	0100	0200					
38.20	0	5	0	0	we	0100	0200					
38.4	58	0	0	0	we	0100	0200					
38.?	0	8	0	0	we	0100						
38.?	0	13	0	0	we	0100						
38.5	1	3	0	0	re	0100	0200	0100	0700			
38.21	1	3	0	0	re	0100	0200	0000		0303	0900	90 26
38.19	1	4	1	0	re	0100	0200	0000		0303	0900	90
38.9	1	2	0	0	re	0100	0200	0000		0303	0900	90
38.5	1	3	1	0	re	0100	0200	0000		0303	0900	90 26 97
38.?	0	4	1	0	re	0100	0200	0000		0303	0900	90
38.?	5	49	1	4	re	0200	0500	0000		0303	0900	90 25 71
38.21	1	4	1	0	p	0100	0200			2000	1100	240
38.4	1	3	1	0	p	0100	0200			1100	1100	240
38.4	1	3	1	0	p	0100	0200					30
38.20	1	6	1	0	p	0200	0500	0000		1100	1100	240
38.8	1	1	0	0	p	0100	0200			0500	1600	
38.1	11	1	0	0	p	0200	0500					30
38.2	21	7	0	1	p	0100	0200			0500	0600	115
38.8	1	6	0	1	p	0200	0600	0100	0800	0500	1600	70
38.2	1	3	1	0	p	0200	0500	0100	1600			130
38.8	1	5	0	1	we	0200	0500					30
38.2	21	7	0	1	we	0200	0500					54
38.7	1	8	0	1	we	0200	0500					101
38.19	1	6	0	1	we	0200	0500					30
38.9	1	18	0	1	we	0200	0500					30
38.8	1	9	0	1	we	0200	0500					30
38.1	1	5	0	1	we	0200	0500					30

Table C.3: Continued

38.34	1	3	0	1	p	0100	0200	0100	0800	0500	0600	60	
38.33	2	12	2	0	we	0100	0200	0000		0303	0900	90	100
38.34	1	1	0	0	re	0100	0200	0100	0300			115	
38.3?	7	43	2	2	we	0100	0200	0000				30	
38.3?	3	12	1	1	re	0100	0200	0000				30	
38.34	1	3	0	1	p	0100	0200	0000				30	
38.34	1	5	1	0	p	0100	0200	0100	0800	0400	0200	60	
38.31	1	4	1	0	p	0100	0200	0100	1700	1800	1200	160	
38.33	1	1	0	1	p	0100	0200	0000		0211	0300	190	
38.34	1	7	1	0	p	0100	0200	0000		0400	1200	20	99
38.35	1	2	0	1	p	0100	0200	0000		1003		135	
38.34	1	2	0	0	p	0100	0200	0000		1100	0100	270	
38.34	1	2	0	0	we	0200	0700	0100	0800			170	
38.34	1	3	0	1	re	0200	0700	0000				30	103
38.32	1	15	1	0	we	0200	0700	0000				30	29
38.32	1	14	1	0	we	0100	0800	0000		0303	0100	270	47105
38.31	1	8	1	0	re	0100	0800	0000		1904	0100	270	
38.23	1	7	1	0	re	0100	0800	0100	0300			130	72
38.34	1	3	0	1	re	0200	0400	0100	0300			130	73
38.34	1	1	0	0	re	0200	0400	0000				30	
38.?	2	28	0	0	we	0200	0400	0000				30	
38.34	1	2	0	0	re	0200	0400	0100	0300			30	
38.34	1	1	0	0	we	0200	0400	0000				30	
38.33	2	28	0	0	we	0200	0200	0000				30	
38.32	1	1	0	0	re	0100	0300	0100	0800			170	
38.34	2	3	0	0	we	0100	0300	0000				30	
38.34	3	10	0	3	sp	0200	0400	0000		0612	0600	100	
38.34	1	0	0	0	we	0100	0300			0304	0100	180	62
38.34	1	6	0	0	we	0100		0100	1700	0304	0100	60	
38.34	1	6	0	0	re	0300	0400	0000				30	
38.30	1	18	1	0	rs	0300	0400	0100	1300			30	65
38.34	1	2	0	0	re	0300	0400	0100	0300			130	
38.34	2	5	1	1	we	0200	0900	0000				30	
38.34	1	3	0	0	rs	0100	0500	0100	0300			130	
38.34	1	21	0	0	we	0300	0800	0000		0203	0300	110	63
38.34	1	2	0	0	we	0300	0100	0000		0203	0300	110	63
38.34	2	12	0	0	we	0300		0000		0203	0300	110	63
38.34	1	5	0	0	pw	0100							14
38.3?	2	20	0	0	re	0300	0100	0000				30	
38.3?	2	14	0	0	we	0300	0100	0000				30	
38.33	0	1	0	0	re	0900							18
38.34	0	1	0	0	we	0900							102
38.34	0	1	0	0	we	0900							23
38.34	0	1	0	0	we	0900							17
38.35	0	1	0	0	re	0900							19
38.34	0	1	0	0	re	0900							
38.34	0	1	0	0	we	0900							
38.34	1	1	0	1	p	0100	1900	000		1100	1600	60	
38.34	1	1	0	0	p	0100	1400	0100	0800			60	
38.33	1	2	0	0	p	0100		0000		1100	2000	110	

Table C.3: Continued

38.32	1	1	1	0	p	0600	0100	0100	0700		170	
38.34	1	2	0	0	we	0500	0200					
38.3?	1	2	0	0	p	0000				0100	0200	
38.3?	1	3	0	0	p	0400	0100	0100	0700	0500		60
38.34	1	1	0	0	pa	0000				0200		230
38.?	0	6	0	0	p	0900						
38.34	1	2	0	1	p	0400	0500	0100	0700	1100	0200	60 52
38.34	1	3	0	0	p	0400	0600	0100	0100			60 104
38.34	1	3	0	0	pr	0400	0300	0500	0100			60
38.34	1	2	0	0	p	0400		0100		0100		
38.?	1	5	0	0	we	0100	0100	0100	0700			170
38.?	0	6	0	0		0900	0000					
38.34	1	1	0	0	we	0100	0000			0306	0900	90 53
38.34	1	1	0	0	we	0000				0100		
38.34	0	4	0	0		0900						
38.34	1	1	0	0	re	0100	0000					
38.?	0	27	0	0		0950		0000				
38.?	0	17	0	0		0950		0000				
38.?	0	90	0	0		0950		0000				
38.23	1	7	0	0	we	0100	0700			0304	0100	180 62

Feature 38B

99 624 25 24 - Totals

Feature 38A +38B

203 2334 55 59 - Totals

39	1	4	0	0	we	0900		0000		0300	0100	
39	1	1	0	0	we	0200		0000		0300	0900	90

Feature 39

2 5 0 0 - Totals

40	1	15	0	1	we	0300	0100	0000				30 23
40	1	2	0	1	p	0200	0500			0604	0700	110
40	1	9	1	0	p	0200	0500	0100	0700			110
40	2	11	2	0	we	0200	0500	0000				30 24
40	2	12	0	0	we	0200	0500			0306	1200	120
40	1	13	0	1	we	0100	0800			0303	0100	70
40	1	1	0	0	we	0100	0900	0100	0300			130
40	1	4	0	0	we	0400	0100	0100				140
40	1	1	0	0	we	0200	0500			0806	0100	160
40	1	14	1	0	we	0100	0200	0000				30
40	1	1	0	0	p	0100	0200	0100				
40	1	12	0	0	we	0200	0700	0000				30

Table C.3: Continued

47	1	6	0	0	p	0200	0400	0100	0100	0400	0200	70
47	1	2	0	0	we	0100	0700			0500	0100	
47	1	1	0	0	p				0100	0100	0500	170
47	1	1	0	0	we	0100	0700	0000				30

Feature 47

4 10 0 0 - Totals

48	1	2	0	0	we	0100	0600					40
48	1	26	0	0	ye	0300	0300					80
48	1	12	0	0	we	0300	0100					
48	1	1	0	0	re	0200	0200	0100				30
48	1	3	0	0	rs	0100	0200	0900				
48	1	1	0	1	p	0200	0500	0000		0500	0500	
48	0	81	0	0	we	0950						
48	1	1	0	0	we	0100	0600	0100				40

Feature 48

7 127 0 1 - Totals

50	1	5	0	0	we	0200						

Feature 50

1 5 0 0 - Totals

51	1	12	1	0	we	0200	0500	0000				30
51	1	4	0	0	rs	0200	0400	0100	1800			170
51	1	6	0	0	we	0200	0400	0100	0800	0500	0100	60
51	1	1	0	0	p	0200						
51	1	1	0	0	we	0200				0300	0200	
51	0	31	0	0	we	0950						

Feature 51

5 55 1 0 - Totals

53	1	3	0	0	we	0100	0500	0100	1300			170
53	1	7	0	0	p	0200						
53	1	1	0	0	we	0200		0100	0300			110
53	1	0	0	0	we							
53	0	8	0	0		0950						

Table C.3: Continued

58	1	4	0	0	sp	0100	0300	0000		0500	0100	110	
58	1	3	0	0	we	0100	1000	0000		0900	0100	180	
58	1	4	0	0	we	0100	0800	0100	0800	0500	0100	60	
58	1	1	0	0	we			0100	0800			170	
Feature 58													
	4	12	0	0	- Totals								
62	1	1	0	0	we								
Feature 62													
	1	1	0	0	- Totals								
63	1	1	0	0	we	0300	0201						
Feature 63													
	1	1	0	0	- Totals								
64	1	8	0	1	we	0200	0500			0200	0400	270	188
64	1	1	0	0	rs	0100	0500	0100	0800	0200	0500	60	192
64	1	2	0	0	p	0100	0500	0100	0800			170	
64	1	1	0	0	p	0100	1400	0100	0800	0900	0200	60	36
64	1	1	0	0	p	0100	0200	0100	0800	0500	0800	60	64
64	1	4	0	0	p	0200	0300	0100	0800	0200	0700	70	
64	1	1	0	0	p	0200	0400	0100	0800	0100	1200	60	186
64	1	7	0	0	we	0200	0500	0100	1300	0200	0500	270	
64	1	9	0	0	we	0200	0200			0200	0800	270	
64	1	6	0	0	we	0200	0200			0200	0800	270	
64	1	3	0	0	p	0400		0100		0700		60	
64	1	1	0	0	p	0200	0500	0100	0800			170	
64	1	2	0	0	p	0200	0700			0500	0600	110	
64	1	1	0	0	p	0200	0500			0500	0600	110	
64	1	1	0	0	p	0100	1500			0900	0200		
64	1	2	0	0	p	0200		0100	0800	0500	0600	170	
64	1	1	0	0	p	0100				0300	0300	270	
64	0	8	0	0	p	0950							
64	0	1	0	0	p	0950							
64	0	2	0	0	p								31
64	0	4	0	0	p								
64	0	5	0	0		0100		1600					
64	1	2	0	0	p	0100	0200			0300	0600	230	
64	1	1	0	0	p					0300	0600	230	
64	1	3	0	1	p	0100	1400	0100	1700	0200	0600	270	23
64	1	8	0	1	p	0100	070	0100	0800	0500	0200	70	

Table C.3: Continued

64	2	7	1	0	p	0200	0600	0100	0800	0400	0200	70	184
64	1	1	0	1	p	0200	0700	0100	0800	0400	0200	70	
64	1	9	0	0	we	0300	0800			0300	0300	270	
64	1	1	0	0	re	0200	0200	0100	1300	0300	0600	280	
64	1	2	0	0	re	0100	0500	0100	1300	0300	0600	280	
64	1	2	0	0	re	0100		0100	1300	0300	0600	280	
64	1	5	0	0	re	0100	0500	0100	0800			170	
64	1	30	0	0	rs	0300		0000				30	
64	2	19	0	0	we	0300	0100	0000				30	
64	1	19	0	1	ye	0300	0700			0200		290	
64	3	12	0	2	we	0100	0200	0000				30	
64	1	1	0	0	p	0100	0200			0500	0600	110	
64	0	4	0	0	we	0950							
64	0	2	0	0	p	0950							
64	0	2	0	0	p	1600							
64	1	1	0	1	we	0200	0400	0000				30	
64	1	1	0	1	we	0200	0500	0000				30	
64	1	2	0	0	we	0100	0300	0000				30	
64	1	2	0	0	we	0200	0400	0000				30	
64	1	2	0	0	we	0100	1000	0000				30	
64	1	3	0	0	we	0200	0400	0100	0800			170	
64	1	1	0	0	we			0100	0800			170	
64	1	1	0	0	we			0100	0800			170	
64	1	1	0	0	we	0200	0500	0100	0800	0300	0600	270	
64	1	2	0	0	re	0100	0700			0500	0600	110	
64	1	2	0	0	we	0100	0500			0300	0300	280	
64	1	1	0	0	we	0100	0300	0100	0800	0300	0100	70	
64	1	2	0	0	we	0100	0300			1100	1000	20	
64	1	12	0	0	re	0100		0100	0800			170	
64	1	5	0	0	we	0100		0100	0600			170	
64	2	13	0	0	we	0100		0000				30	
64		116	0	0	we	0950							
64	0	16	0	0	we	0950							
64		112	0	0	we	0950							
64	0	25	0	0	we	0950							
64	1	1	0	0	we	0100							
64	0	42	0	0	we	0100							

Feature 64

55 564 1 9 - Totals

65	1	1	0	0	re	0900	0100	170

Feature 65

1 1 0 0 - Totals

Table C.3: Continued

66	1	14	0	0	we	0300	0100	0100	0300				130	
66	1	2	0	0	we	0200	0700			0300	0300	270		
66	0	2	0	0	we	0100								
66	0	99	0	0		0950								32
66		126	0	0		0950								
66	0	25	0	0		0950								
66	0	3	0	0		0950								
66	0	29	0	0		0950								
66	1	1	0	0	p	0200	0500	0100	0800	0700	1200	60		205
66	1	2	0	0	p	0200	0500			0600	0600	110		
66	1	1	0	0	p	0100								
66	1	3	0	0	p	0200	0500			0900	0200	270		203
66	1	3	0	0	rs	0300	0700			0600	0600	260		207
66	1	1	0	0	cw	0100								
66	1	26	0	0	ye	0300	0300							
66	1	4	0	1	we	0100	0200	0000						
66	1	5	0	0	we	0200	0400	0000						
66	1	3	0	0	we	0200	0400	0100	0800					
66	1	2	0	0	rs	0100	0800	0100	1300					
66	1	6	0	0	we	0300	0100	0100	0300					
66	1	3	0	0	we	0300	0100	0100	0300					

Feature 66

15 360 0 1 - Totals

67	1	2	0	0	we	0100	0200	0100						
67	1	5	0	0	rs	0300	0400	0100						
67	1	44	0	0	we	0300	0400	0000						
67	1	7	0	0	p	0200	0500			0500	0600	110		
67	1	5	0	0	p	0200	0200	0100	0800	0900	0200	60		
67	1	1	0	0	we	0200								
67	1	4	0	0	re	0100	0200							
67	0	1	0	0	we									

Feature 67

7 69 0 0 - Totals

68	1	3	0	0	sp	0200	0200	0000						

Feature 68

1 3 0 0 - Totals

70	1	6	0	1	we	0200	0400			0100	1000	20		15
70	1	1	0	0	we	0100				0300	0200	20		

Table C.3: Continued

70	1	2	0	0	we	0200	0400	0100	0700	0200	0100	190	
Feature 70													
	3	9	0	1	- Totals								
73	1	11	0	1	p	0100	0200					110	
73	1	18	0	0	we	0300	0100	0000				30	
73	1	31	0	0	we	0100							
73	0	1	0	0	re	0950							
Feature 73													
	3	70	0	1	- Totals								
75	1	42	0	1	ye	0300	0500					80	
75	1	39	0	1	ye	0300	0500					80	
75	1	6	0	1	re	0200	0500	0100	0300			110	49
75	1	7	0	1	we	0200	0500	0000				30	
75	1	4	0	0	we	0200	0100	0100	0800			170	
75	1	1	0	0	we	0200	0700	0000				30	
75	1	2	0	0	we	0200	0100	0000				30	
75	2	2	0	0	we	0100							
75	0	25	0	0	we	0950							
75	0	35	0	0	we	0950							
Feature 75													
	9	163	0	3	- Totals								
76	1	4	0	1	p	0100	0200	0100	1300	0900	0200	60	
76	1	4	0	1	we	0200	0700	0000				30	
76	1	5	0	0	we	0200	0100	0000				30	
76	1	2	0	0	we	0100		0100		0500	1200	60	
76	0	29	0	0	we	0950							
Feature 76													
	4	44	0	2	- Totals								
77	1	4	0	0	we	0100				0300	0300	270	
Feature 77													
	1	4	0	0	- Totals								

Table C.3: Continued

78	1	11	0	0	re	0300	0700	0100	0600		260
78	1	38	0	0	we	0300	0700				
Feature 78											
	2	49	0	0	- Totals						
82	1	2	0	0	we	0200	0500		0400		240
82	1	1	0	0	we	0200	0500		0500	0600	110
82	0	30	0	0	we	0950					
Feature 82											
	2	33	0	0	- Totals						
84	1	2	0	0	we	0200	0500		0500		215
Feature 84											
	1	2	0	0	- Totals						
86	1	1	0	1	we	0100	0200		0500	0600	110
86	1	3	0	0	we	0100	1100		0500	1200	110
											231
Feature 86											
	2	4	0	1	- Totals						
87	1	4	0	0	p	0200	0900	0100	0500	60	58
Feature 87											
	1	4	0	0	- Totals						
86	1	4	1	0	p	0200	0500	0000	1100	0600	110
88	1	60	1	0	we	0200	0400	0100	0800		170
Feature 88											
	2	64	2	0	- Totals						
89	1	2	1	0	we	0200	0500	0100	0800	0500	0100
89	1	2	0	1	hp	0200	0400	0000			70
89	1	8	0	0	we	0100	0800		0306	0100	100

Table C.3: Continued

89	1	6	0	1	re	0100	0200	0100				170	
89	1	4	0	0	pa	0100	0200	0100	0100			210	222
89	0	51	0	0		0950							
89	1	2	0	0	we	0100	1000		0900	0200		180	
89	1	2	0	0	we	0100	1000		0900	0200		180	
89	1	2	0	0	we	0100	1000	0100				170	
89	1	5	0	0	we	0200	0500	0000				30	
89	1	1	0	0	we	0100	0200						
89	1	5	0	0	we	0200			0500	0100		70	

Feature 89

11 90 1 2 - Totals

90	1	1	0	1	re	0200	0500	0100	0300	0900	0200	70	
90	1	4	1	0	we	0100	0200	0100	0300			170	
90	1	1	0	1	we	0100	0200			1200	0500	250	
90	1	5	1	0	we	0100	1200	000				30	
90	1	5	0	1	we	0200	0500	0000				30	
90	1	7	0	0	we	0200	0100	0100	0300	0300	1500		
90	1	2	0	0	we	0100		0100		0200	0500	140	

Feature 90

7 25 2 3 - Totals

92	1	1	0	0	we	0100		0100		0200	0300	40	
92	1	12	0	0	we	0300	0400	0100	1300	0000		170	
92	1	1	0	0	we	0100	0200						
92	0	2	0	0	we	0950							
92	1	5	0	0	we	0300	0100	0100				30	

Feature 92

5 22 0 1 - Totals

93	1	1	0	0	ye	0300	0400	0100	1100			220	2
93	1	14	0	0	we	0300	0200	0300					
93	1	1	0	0	we			0300					

Feature 93

3 16 0 0 - Totals

100	1	11	0	0	we	0200	0400	0000				30	

Table C.3: Continued

<u>Feature 100</u>												
1 11 0 0 - Totals												
101	1	3	0	1	p	0100	0200	0000			110	42
<u>Feature 101</u>												
1 3 0 1 - Totals												
103	2	7	2	0	re	0200	0400	0100	1006		70	34
103	1	6	0	1	hp	0200	0400	0000			100	33
103	1	2	0	0	we	0100	1000					38
103	2	5	0	1	we	0200	0500	0000			30	18 38
103	1	1	0	0	hp	0200	0400	0000			100	
103	1	2	0	0	hp	0200	1000	0000			100	
103	1	7	0	0	we	0100	0200	0000			30	
103	1	1	0	0	p	0100	0200	0100	0100		60	
103	1	1	0	0	p	0200	0500					
103	1	1	0	0	ap	0200	0500		1100		200	37
103	1	4	0	0	we	0100	0800		0305		210	1 37
103	0	8	0	0		0950						
103	0	1	0	0	we	0950						
103	0	1	0	0	we	0950						
<u>Feature 103</u>												
13 47 2 2 - Totals												
104	1	1	0	0	ye	0300		0100			81	
104	1	1	0	0	p	0100						
104	1	3	0	0	we							
104	1	1	0	0	we	0100	0100	0100	0800		170	
<u>Feature 104</u>												
4 6 0 0 - Totals												
105	1	3	0	0	p	0100	0200	0100	0900		60	
105	1	1	0	0	we	0100		0100			170	
105	1	1	0	1	re	0100	0200	0100	0200		190	
105	1	1	0	0	re	0100	0200	0100	0200		190	
<u>Feature 105</u>												
4 6 0 1 - Totals												

Table C.3: Continued

120	0	18	0	0		0200													
120	2	2	1	0	re	0100	0800	0000											
120	3	25	0	0	we	0100	0300	0000										30	
120	1	2	0	0	p	0100	0300	0000										30	
120	3	45	2	1	we	0100	0700	0100	1300	0900	0200	180	71	84				30	28
120	1	2	0	1	re	0100	0800	0100	1200	0305	1900	120							
120	1	6	0	0	we	0100	0700	0100	1300	0900	0200	180							
120	1	4	0	0	re	0100	0700	0100	1300	0900	0200	180							
120	1	3	0	0	we	0200	0200											30	
120	1	9	0	0	we	0200	0200	0100	0800	0305	1600	280	72						
120	1	2	0	1	rs	0200	0200	0000										30	28
120	1	3	0	0	re	0200	1700	0000										100	
120	2	13	0	2	we	0200	1700	0000										30	
120	2	5	2	0	p	0100	2100	0100	0300									130	
120	1	4	1	0	p	0200	0800			0200	0600								108
120	1	2	1	0	p	0200	0800			1800		230							83
120	1	1	0	1	p	0100	0100					30							118
120	1	8	0	0	we	0100		0100	0700	0900	0200	70							
120	1	15	1	0	p	0400	0300	0100				60							107
120	1	41	0	1	we	0100				0306	0100	280							
120	1	25	0	0	we	0100													
120	0	11	0	0	p	0950													
120	1	1	0	0	p	0200			0300	0200		230	66						
120	1	2	0	0	p	0200			1800				68						
120	1	1	0	0	p	0200			0500	0100			65						
120	1	1	0	0	p	0200			1100	0100									
120	0	2	0	0	we														94
120	0	1	0	0	we														2
120	0	1	0	0	we														75
120	0	4	0	0	we														86
120	0	1	0	0	we														8
120	0	8	0	0	we														
120	0	2	0	0	p														
120	1	1	0	0	we			0100				330							
120	1	1	0	0	we			0100				40							
120	375	0	0	0	we														
120	121	0	0	0	we														
120	0	93	0	0	we														

Feature 120

92 1942 31 29 - Totals

Totals for whole collection -

MNV - 692
 Sherd # - 7869
 Whole V. - 133
 Diag. W. - 153

Table C.3: Continued

Column Categories :	
Prov.	- provenience
MNV	- Minimum number of vessels
Sh #	- number of sherds
W Vel	- whole vessels - 70% of fabric and all diagnostic traits
Dia W	- Diagnostically whole vessels - less than 70% of fabric and all diagnostic traits
Bdy	- Type of clay body - see Figure A.6
Func A	- Function code - See Figure A.7
Func B	- Function sub-code - See Figure A.7
Dec F	- Formal decoration - See Figure A.8
Dec F	- Formal decoration - See Figure A.8
Dec S	- Surface decoration - See Figure A.8
Dec S	- Surface decoration - See Figure A.8
Sty Dsc	- Style description - See Figure A.9
TM #	- Trademark number - See Table C.1 and Figures C.1 through C.18

LIST OF ABBREVIATIONS

- BMOSI - The Black Man on Staten Island Collection, housed at the Staten Island Institute of Arts and Sciences. References in the text are to BMOSI assession number followed by a box designation, and a file or folder number.
- FCNYC - Federal Census of New York City.
- FCWT - Federal Census Westfield Township.
- NYSACWT - New York State Agricultural Census, Westfield Township.
- NYSCWT - New York State Census Westfield Township.
- RCCDB - Richmond County Clerks Deed Book. References are to Liber and page number.

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Anonymous

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