

AN ABSTRACT OF THE THESIS OF

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David Brauner

This thesis describes investigations of archaeological materials recovered from Site ORBE2, an early-twentieth century historic site in Corvallis, OR. The archaeological materials were found only after construction workers had excavated trenches underneath the still-standing structure on the site in order to install a new foundation. Over 1500 artifacts were recovered from back-dirt piles which had been left surrounding the structure from the construction worker's excavations. The analysis of the artifacts contributes to the field of archaeology in four specific ways: 1) it performs an archaeological analysis on an early-twentieth century Euro-American site, an era upon which few previous investigations have been done, 2) it develops a history of the site, 3) it combines the results of the history and the analysis of the archaeological data from functional and chronological perspectives, determining possible past life-style information on these residents, and 4) it exhibits the utility of performing an archaeological analysis on a site where the archaeological materials were recovered from an urban renewal/construction zone, and has provenience limited to a lot or site association.

Site ORBE2: An Archaeological Analysis of a Construction Disturbed Site

by

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Robert J. Cromwell, Author

Table of Contents

	<u>Page</u>
INTRODUCTION.....	1
PHYSICAL AND HISTORIC SETTINGS.....	7
Physical Setting.....	7
Historic Setting.....	9
Possible Ethnic Affiliation and Setting.....	13
Description and Evolution of the Structure.....	15
ARCHAEOLOGICAL METHODS.....	23
DESCRIPTION OF THE MATERIAL CULTURE.....	27
Personal Items.....	41
Domestic Items.....	80
Architecture.....	176
Personal and Domestic Transportation.....	210
Commerce and Industry.....	215
Group Services.....	217
CONCLUSIONS AND SYNTHESSES.....	221
Conclusions on the Structure.....	221
Conclusions on Artifact Disposal and Deposition.....	225
Conclusions.....	233
BIBLIOGRAPHY.....	238

List of Figures

<u>Figure</u>	<u>Page</u>
1. Map of Corvallis showing location of Site ORBE2.....	8
2. Benton County, Oregon, Plat map of the Avery & Wells Addition to Corvallis, December 31, 1889.....	10
3. Photograph of North view of structure associated with Site ORBE2, February, 1996.....	16
4. Photograph of West view of structure associated with Site ORBE2.	16
5. Sanborn Fire Insurance Map of Block 5, Avery & Wells Addition, Corvallis, Oregon, April, 1912.....	17
6. Sanborn Fire Insurance Map of Block 5, Avery & Wells Addition, Corvallis, Oregon, July, 1927.....	18
7. Corvallis City Planning Map, Block 5, Avery & Wells Addition, Corvallis, Oregon, 1993.....	19
8. An artist's conception of the structure on Site ORBE2 as it would have appeared in ca. 1910-1921.....	22
9. Site Map of Site ORBE2, showing the relationship of the back-dirt piles to the structure.....	26
10. Buckles and buttons recovered from Site ORBE2.....	45
11. A matched pair of leather boots recovered from Site ORBE2.....	52
12. Remains of a Jacquard woven fabric recovered from Site ORBE2.....	84
13. Representative sample of cylindrically based, clear and amber colored bottles	95
14. Representative sample of rectangularly based, clear and amber colored bottles.....	95
15. Depression glass bowl, and white glass bowl recovered from Site ORBE2.	128
16. Examples of clear tumbler fragments(L), and clear, handled glass fragments recovered from the site.....	128
17. Decal decorated plate (top) and bowl recovered from Site ORBE2.....	157
18. Hand wrought hammer head, and iron nut recovered from Site ORBE2.....	172
19. A full-sized Mrs. Pott's Sad Iron (top), shown together with a toy sad iron, both recovered from Site ORBE2.....	172

List of Figures, Continued

<u>Figure</u>		<u>Page</u>
20.	A representative sample of a bolt and nails recovered from the site.....	191
21.	Incandescent light bulb fragments recovered from the site.....	199
22.	Various electrical insulators recovered from the site.....	205
23.	A representative sample of some of the more interesting “Unknown” category artifacts.....	220
24.	Numbers of Window Glass Fragments Within Roenke’s Date Range of Manufacture Modes.....	226
25.	Numbers of Artifacts in Known Date Ranges of Manufacture.....	228
26.	Date Ranges of Manufacture of Whole Bottles Recovered from Site ORBE2.....	234
27.	Mean Date Ranges of Whole Bottles Recovered from Site ORBE2.....	235

Site ORBE2: An Archaeological Investigation of a Construction Disturbed Site

Introduction

This thesis investigates the utility of performing an archaeological analysis on data salvaged from a historic site without exact site provenience. This analysis contributes to the body of knowledge in the field of archaeology in four specific ways: 1) it performs an archaeological analysis on an early-twentieth century Euro-American site, an era upon which few previous investigations have been done, 2) it develops a history of the site, and its immediate area (A Street, Corvallis, Oregon), 3) it combines the results of the history and the analysis of the archaeological data from functional and chronological perspectives, determining possible past life-style information on these residents, and 4) it exhibits the utility of performing an archaeological analysis on a site where the data was recovered from an urban renewal/construction zone, and has provenience limited to a lot or site association.

The data used for this analysis are the artifacts recovered from historic site ORBE2. These artifacts were excavated by foundation contractors from under a still-standing, early-twentieth century house in Corvallis, Oregon; after which, the artifacts were recovered by a volunteer crew of anthropology students from back-dirt piles created by the contractors in the process of their excavations.

This site was discovered by sheer coincidence. The site was approximately 75 feet from the front door of this researcher's apartment, adjacent to a travel route used on a daily basis. During the first week of October, 1993, this researcher noticed that foundation repairs were under way on a circa early-twentieth century, white house/apartment complex. The contractors were replacing the entire foundation under the house, and were excavating a trench around the perimeter of the structure. The back-dirt was being casually carted and thrown into piles surrounding the house on three of its

sides, and it was noted that artifacts were mixed in with the back-dirt. Yet, these artifacts had already been removed from their provenience by the contractors, and for all realistic purposes, had probably been so disturbed that they were no longer contextually interpretable.

Therefore, these artifacts were ignored until the morning of October 6, 1993. The contractors were excavating a new trench on the South side of the house, and had exposed some intact, turn-of-the-century bottles. After noting that the contractors had deposited these bottles in a back-dirt pile and were re-burying them with more excavated back-dirt, this researcher inquired if it would be possible to recover the bottles for comparative collections at the local university. After receiving permission from the contractors, the bottles were taken to the Anthropology Department at Oregon State University.

The bottles and the site were then brought to the attention of Dr. David Brauner, an Associate Professor of Anthropology at Oregon State University. After hearing that there were more artifacts within the back-dirt piles surrounding the structure, Dr. Brauner felt that, ethically, the department should attempt to recover as many of the artifacts as possible. It was his opinion that the site could yield information about a turn-of-the-century German community, which based upon oral information of local long-time inhabitants of Corvallis, had been centered around the area of the site. Beyond this, the analysis of the site and its artifacts could yield interesting, if not useful, results on the practicality, and utility of analyzing construction disturbed artifacts, which were still in association with a structure.

This site was discovered through a common situation, where ground-disturbing construction activities allowed artifacts associated with an old structure to be relatively easy to recover for those willing to make the effort. Unfortunately, such a situation also disturbs the artifacts from their original archaeological provenience. Thus, such sites usually draw bottle and curio collectors, yet few archaeologists. This poses the obvious question as to the utility of archaeologically salvaging artifacts from this site, and what

knowledge these artifacts can yield about the site, its history, and about the people who lived there, even when the artifacts are limited to a lot provenience. That is not to say that this analysis proposes to be the definitive example for salvaging artifacts from all construction disturbed artifact sites, but more of an example from this particular site.

In order to look at this question of the utility of performing such an analysis, it is probably wise and necessary to define the archaeological term provenience, and the related terms: matrix, association, and context. In order to define these terms, introductory archaeology texts were consulted in an attempt to use the most basic definitions possible, and as they are the current intellectual foundation of the profession.

Robert J. Sharer and Wendy Ashmore define matrix as, “..the physical medium that surrounds, holds, and supports the archaeological material.” (1993: 125). Both David Hurst Thomas (1989), and Sharer and Ashmore agree that provenience can be defined as, “..a three-dimensional location---the horizontal and vertical position on or within the matrix---at which the archaeologist finds data.” (1993: 125). Sharer and Ashmore go on to state that, “The determination and recording of provenience for all kinds of archaeological data are necessary for the data to be useful.” (ibid.: 126). Thomas (1989), and Sharer and Ashmore are in agreement, once again, that association, “refers to two or more archaeological items.....occurring together, usually within the same matrix.” (ibid.). Brian M. Fagan turns association into a law, stating that, “The Law of Association is based on the principle that an object is contemporary with the other objects found in the precise archaeological level in which it is found (1991: 19). The term archaeological context is defined by Thomas, as, “Artifacts, features, and residues as found in the archaeological record.” (1989: 651). Sharer and Ashmore state, “Context is the interpretation of the significance of an artifact’s deposition in terms of its matrix, provenience, and association---that is, where it is and how it got there.” (1992: 126). Finally, Fagan puts culture into the definition, stating that, “Archaeological context is the culturally significant location of a find spot of any object in an archaeological site.” (1991:

17). This should be differentiated from the systemic context of artifacts, which Thomas defines as artifacts which, "...are part of the actual behavioral system." (1989: 156).

So, when looking at the artifacts from site ORBE2, it is apparent that the artifacts were recovered still within their matrix, although the matrix had been excavated, and moved. This means that the artifacts' original provenience was destroyed. However, disturbed, horizontal artifact provenience information was retained, as each artifact had back-dirt pile provenience information recorded as it was recovered. Likewise, the original artifact associations were destroyed by the excavation procedures of the contractors, but the disturbed associations were retained by keeping horizontal provenience of the artifacts in their back-dirt piles (this includes the association of the artifacts with the house and the lot).

Finally, when looking at the artifacts from site ORBE2, it is important to note that there are systemic and archaeological contexts involved with them. The original systemic context of the artifacts ended when their users disposed of them on the site, to either be built over by the construction of the structure and its additions, or to be slowly buried by deposition around the outside perimeter of the structure. This placed the artifacts within an archaeological context, which was probably not disturbed again until the contractors excavated the artifacts in 1993 without regards for their original provenience. Yet, by removing these artifacts, the contractors essentially placed them back into a systemic context, the systemic context of foundation workers in the early 1990s. At last, when the volunteer groups of archaeology students recovered the artifacts from the back-dirt piles, the artifacts were placed in the systemic context of the profession of archaeology in the 1990s.

Now that the method of recovery of these artifacts has been defined using archaeological terms, it is easy to see that one can easily argue that these artifacts were not recovered in an ideal archaeological situation. The artifacts were admittedly recovered without their original archaeological provenience, associations, or contexts; yet it is the

hope of this researcher to show that the artifacts can still be used as archaeological data. These artifacts were collected still within their original matrix, and in association with the structure on the lot, and with the lot itself.

It is this association with the structure and the lot which give the artifacts any semblance of being archaeologically analyzed. For, the structure represents an artifact of the built environment, still within a systemic context, as it has been continually occupied since the day that it was constructed. This allows one to construct a chronology of the structure, its occupants, and its owners; as paper records still exist on much of this historic information. Therefore, functional and temporal analyses of the artifacts recovered from the site may yield information on the life-styles of the known owners and occupants of the structure and the lot.

If these analyses do provide information about the past actualities of the site and its occupants, then this analysis will be proven useful, whether or not the recovery process of the artifacts is seen as archaeologically ideal or not. Archaeology is supposed to be a sub-discipline of anthropology, which Walter Taylor, in, *A Study of Archaeology*, defines as, “the projection, written or verbal, of contemporary thought about past actuality in terms of cultural man and time sequences.” (1983: 36). While the use of the term, “cultural man,” may seem dated, the rest of this definition, in a basic form, is certainly still valid today. In like fashion, Taylor goes on to state that, ideally, archaeology should proceed, “...from problem, to data, to chronology, to the integration and synthesis of these data into a context, in this instance a cultural context.” (1983: 43).

It is this researcher’s intention, therefore, having now laid out the problem, to proceed to the chronology, the data, and finally to an attempt at a synthesis of all of the information into a cultural context. In order to synthesize and integrate the data of the following chapters into viable cultural conclusions, the conclusions are categorized. The conclusions are separated into a section on the structure and its construction materials, and a section on the deposition of the artifacts; which is based upon chronological and

functional aspects of the artifacts themselves. Together, these two sections will establish some cultural contexts about the site, which will display the utility of the analysis of the site using construction disturbed artifacts.

Physical and Historic Settings

Physical Setting

Site ORBE2 is located within the boundaries of Lot 12, Block 5, Avery & Wells Addition, Corvallis, Benton County, Oregon. The lot measures 100 feet by 50 feet, and the house on the lot has the address of 703 SW 15th. The site can be located on a 7.5 series USGS Quad Map of Corvallis, at the UTM of Z 1/0 - 4/7/8/4/0/0 E - 4/9/3/3/9/3/5 N, and is situated at an elevation of approximately 235 feet above sea level (see Figure 1).

Corvallis is situated within the West-central portion of the Willamette Valley, being established on a Woodburn-Willamette association soil type. The Woodburn-Willamette association soil type consists of, “deep, moderately well drained soils that formed in silty alluvium” (Knezevich, 1975: 45). The climate of the Willamette Valley can be characterized as being relatively mild, with cool, wet winters and warm, dry summers (Taylor and Bartlett, 1993: 1). Corvallis averages approximately 43” of precipitation a year, with an annual monthly mean temperature of 52.0 degrees Fahrenheit (Taylor and Bartlett, 1993: 4 - 5). Natural vegetation of the alluvial bottomlands which Corvallis is set in is largely composed of prairie and riparian deciduous forest, with dominating stands of Oregon white oak (Quercus garryana) (Speulda, 1988: 1).



Figure 1. Map of Corvallis showing location of site ORBE2. Site location is represented by star in lower right hand corner of map. Map is a full-scale reproduction of a 7.5 minute series USGS Map of the Corvallis Quad.

Historic Setting

The town of Corvallis was a fairly early settlement in the mid-Willamette Valley, having been laid out under the name of Marysville on September 9, 1850, and being incorporated with its present name on December 20, 1853. The area's first Euro-American settlers were J. C. Avery and William F. Dixon. J.C. Avery came overland from Illinois in the summer of 1845, laying claim to what is now the southern portion of the town along the confluence of the Mary's River and the Willamette. William F. Dixon came a year later in 1846, laying claim to what is now the northern portion of the town. Combined, these early claims formed the nucleus of the present town of Corvallis (Martin, 1938: 1-5).

Even with its fairly favorable mid-valley position on the confluence of the Willamette and Marys rivers, Corvallis grew at a relatively slow rate in the late-nineteenth century. According to Martin (1938: 12), when the 1850 Census was taken, Benton County had its present northern and eastern boundaries, yet extended South to California, and West to the Pacific Ocean. The 1850 census lists only 814 persons in this entire expanse of land, and Corvallis did not yet exist. By 1861, there were 531 people in Corvallis itself, and by 1870, this population had roughly doubled to 1220 (Martin, 1938: 13, 15). The population growth of the town seemed to have stabilized somewhat after this, as by 1900, the population had only increased to 1819 (Bureau of the Census, 1900).

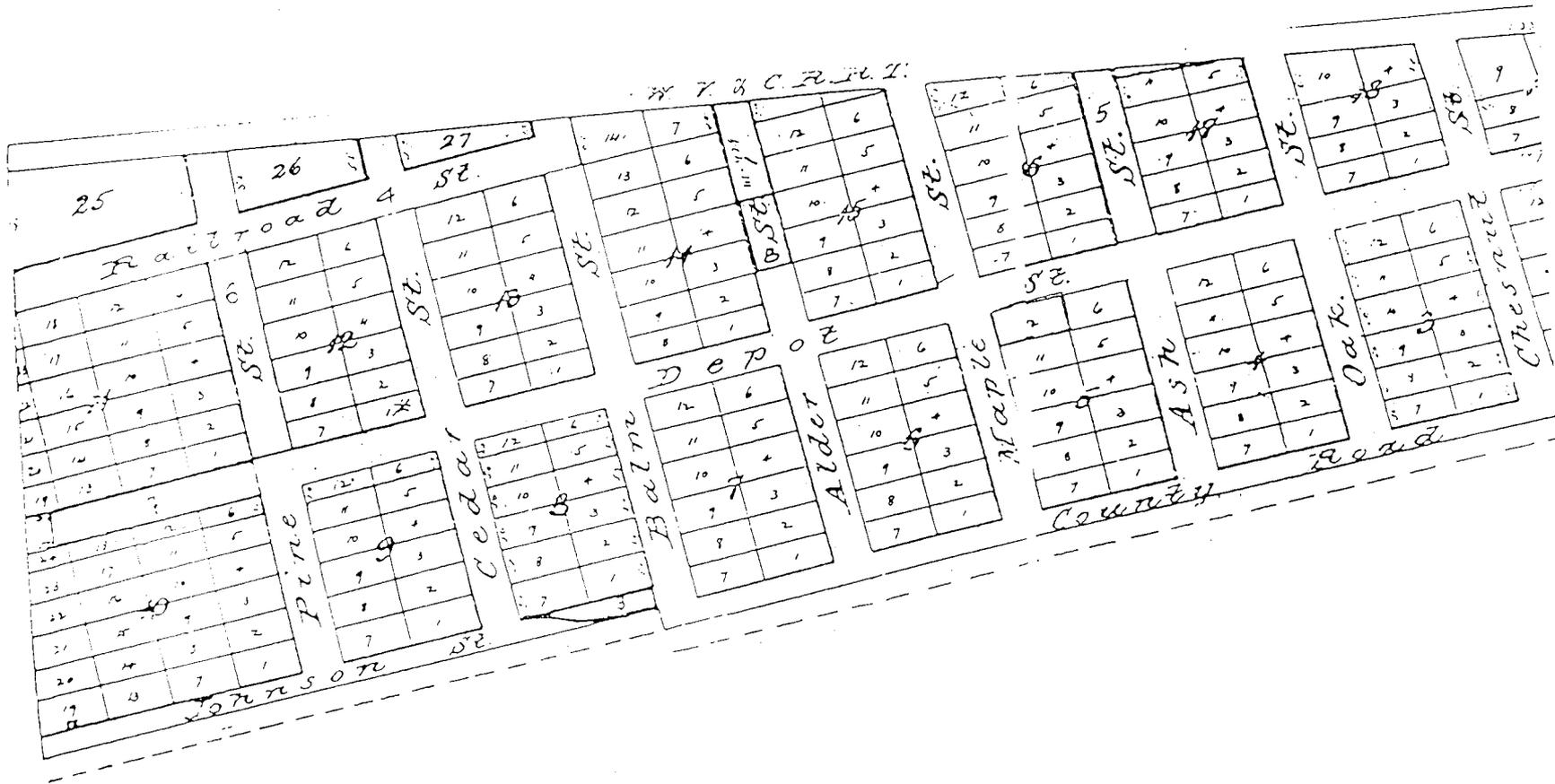


Figure 2. Benton County, Oregon, Plat Map of the Avery & Wells Addition to the town of Corvallis, December 31, 1889. Site is on Lot 12, Block 5, between Maple and Ash Streets (which are 15th and 14th Streets today).

It was during this period of relatively slow population growth that the town was growing westward, resulting in the creation of new town additions. On December 31, 1889 the Avery and Wells Addition of Corvallis was created and submitted for record with the county. The new addition contained 24 blocks, each block having a standard rectangular block size of 300 x 100 feet, although many of the blocks had significant size and shape differences (see Figure 2). Each of the standard blocks was further divided into 12 lots, each of which had the dimensions of 100 x 50 feet. This addition was apparently created on land owned by Punderson Avery, Napoleon B. Avery, and W.A. Wells, and the use of the streets on the original plat was dedicated, "...to the use of the Public." (Plat Map of the Avery & Wells Addition, Benton County, OR).

Block 5 was originally owned by W. A. Wells, and he sold this block, as well as Blocks 2, 4, and 7, to Punderson and Napoleon Avery on April 26, 1890 (Deed Records, Benton County). The Avery's had apparently purchased these blocks as an investment, and on August 25, 1892, they sold Blocks 5, 6, 11, and 12 of the Avery and Wells Addition to H. J. Parent, John H. Parent (her husband), and Essie Hannon (Deed Records, Benton County). The Parents and Ms. Hannon were probably investors as well, as they only held on to these four lots until April 11, 1895, when they sold them to Eliza Pamela Smith.

The Benton County Assessor's Office has records which indicate that the structure on the lot was constructed in 1910, and deed records indicate that Eliza Pamela Smith sold the lot and the structure on April 5, 1911. The ensuing owners of the lot and the structure are indicated in Table 1.

Table 1. Dates of Ownership of Lot 12, Block 5, Avery & Wells Addition,
Corvallis, OR, 1911-1993

<u>Names of Owners</u>	<u>Dates of Ownership</u>
John and Clara Heeszel (married)	April 5, 1911 - April 21, 1913
Alice S. and S. F. Williams (married)	April 21, 1913 - April 11, 1925
Edna A. and M.H. Bauer (married)	April 11, 1925 - August 10, 1925
Elmer Polic and Edith A. Jackson (married)	August 10, 1925 - June 11, 1932
Homer and Alice Speer (married)	June 11, 1932 - March 25, 1938
Carl W. and Edythe B. Schloeman (married)	March 25, 1938 - August 29, 1959
George R. and Virginia Steenson (married)	August 29, 1959 - August 9, 1960
B. H. and Mary Ellen Arnold (married)	August 9, 1960 - July 2, 1964
Ernest H. and Lee Rudisill (married)	July 2, 1964 - 1993

It is interesting to note that the structure seems to have been purchased primarily as a personal residence by the owners of the lot only until 1925. This was the year that Mrs. Alice S. Williams sold the lot and structure, and she is the last owner to be listed as living at the address of 703 S 15th for the entire duration of ownership (Corvallis Phone Directory, 1924). The next owner of the lot, E. P. Jackson, apparently lived at the address of 300 N 25th St. in 1931, and a Mrs. R. Alexander is listed at the 703 S 15th St. address during that same year (Corvallis Phone Directory, 1931). This probably indicates that the structure was used as a tenement by Mr. Jackson from the time that he owned it, and this is further substantiated by the fact that Mr. Jackson owned three additional lots in Corvallis in the 1920s and 1930s.

The next owners of the structure, Homer and Alice Speer, apparently did live in the structure from 1932-1934, as is indicated by the phone directories for those years. Yet, from November 1934 to November 1935, a Louis Chipman is listed at the address, and by November, 1937, the address is listed as the "Speer Apartments." The remaining

four sets of owners of the lot and structure, from 1938-1993, all have separate addresses listed as their place of residence in various Corvallis telephone directories. It is apparent, then, that the structure has continually remained a tenement from November, 1934 to October, 1993.

Possible Ethnic Affiliation and Setting

An early hypothesis on the site indicated the possibility that it was associated with a turn-of-the-century German ethnic community within Corvallis. As was stated in the Introduction, Dr. Brauner believed that A Street was the center of this German community, and this researcher sought to either confirm or deny this hypothesis. As will be shown below, the preponderance of information indicates that this site was not affiliated with this German community.

In general, the only source of information on this ethnic community was from living oral informants. Three men in their seventies, who had all been born and raised in Corvallis, were contacted for oral histories, and all had similar memories on this community. The first, Francis Gerding, is of German descent, and considered his parents and himself a part of this German community, or “Deutsch Town,” as he called it (Gerding, Oral History, February, 1996). In his memory, the East-West boundaries of Deutsch Town were 15th Street on the East, continuing down A St. to its end near where Parker Stadium is today. The North-South boundaries were apparently from Philomath Blvd. on the South, to the railroad tracks on the North (See Figure 2).

This 15th St. Eastern border of Deutsch Town is across the street from Site ORBE2, and possible German affiliations are probable with the inhabitants of the structure on the lot. In opposition to this, however, is the fact that the other two oral informants, Mr. Ben Bates, and Mr. Ken Mumford, both remember the Eastern border of Deutsch Town as being further West than 15th St., although they both agree that it was based around A St. (Bates, Personal Communication; and Mumford, Personal Communication).

On first appearance, the record of ownership of the structure and lot seems to indicate probable German ethnic affiliation also. The Heeszels, Bauers, Speers, and Schloemans all owned the structure, and four separate sets of owners with Germanic names seems to indicate a German ethnic affiliation. Yet, the Heeszels only owned the structure for two years, and the Bauers for only five months. The Speers did apparently live in the structure for at least two years, but then turned it into an apartment. Finally, Carl Schloeman always kept the structure as an apartment, and was apparently more affiliated with fighting Germany while in the U.S. Navy in both WWI and WWII, than of being a part of the German community in town (Obituary, Corvallis Gazette Times, 1962). All together, the history of ownership does not validate the hypothesis that this structure and lot were a part of the Corvallis German community.

Finally, the material culture recovered from the site adds further credence to the hypothesis that this structure was not a part of the German ethnic community in Corvallis. None of the artifacts recovered from the site were manufactured in Germany, and only one artifact used German in its labeling (Artifact Number 412). This bottle and

its medicinal contents were made in Chicago, and were apparently sold nation-wide. In short, there is nothing in the artifact assemblage which would indicate that the site was a part of a German-based ethnic community.

Description and Evolution of the Structure

The current structure on the lot cannot be definitively labeled as being any one architectural style. The structure is essentially a rectangular shaped, two-story house, with a hipped roof, and a single-story addition on the back. The siding consists of interlocking clapboards, and the roof is made of painted aluminum. Although the doors and windows do have linings around them, there are no decorative elements to the linings. The symmetry of the profile of the structure is counterbalanced by the lack of symmetry in the placement of the windows and the doors (See Figure 3 and Figure 4). This description produces an eclectic mix of architectural elements which is nearly impossible to pin a label to.

Sanborn Fire Insurance maps seem to indicate that the present structure is not in its original form, and changed significantly between April, 1912, and July, 1927 (See Figure 5 and Figure 6). The 1912 map shows a roughly “L” profiled structure, with only about half of the structure being two stories tall, and the remainder being only one story. By 1927, however, the structure is basically a rectangular profiled, two story building, with an adjoining one story shed in the back, which only slightly changed by 1993 (See Figure 6 and Figure 7).



Figure 3. Photograph of North view of structure associated with site ORBE2, February, 1996.



Figure 4. Photograph of West view of structure associated with site ORBE2.

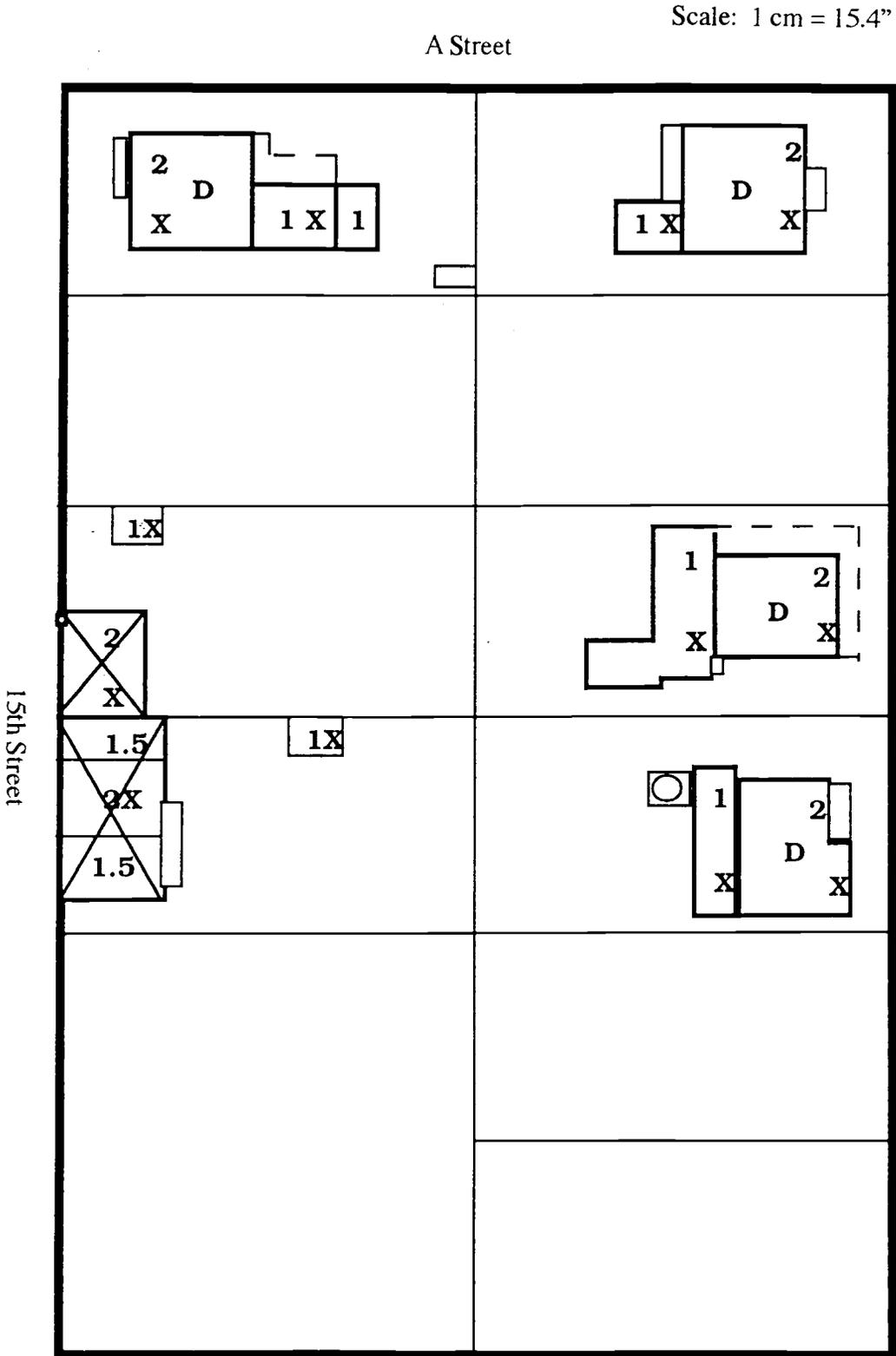


Figure 5. Sanborn Fire Insurance Map of Block 5, Avery & Wells Addition, Corvallis, Oregon, April, 1912. Site ORBE2 is in the upper left hand corner.

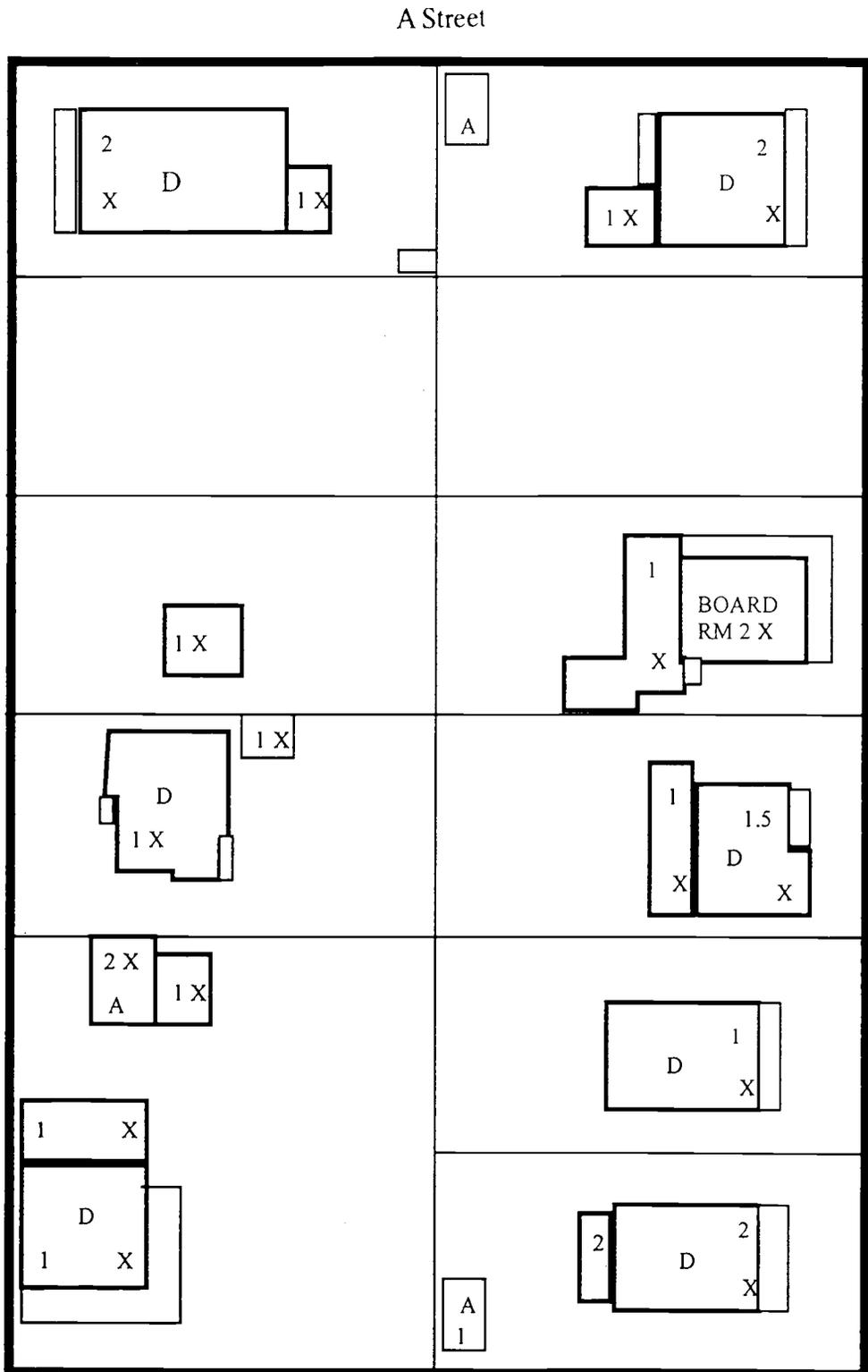


Figure 6. Sanborn Fire Insurance Map of Block 5, Avery & Wells Addition, Corvallis, Oregon, July, 1927. Site ORBE2 is in the upper left hand corner.

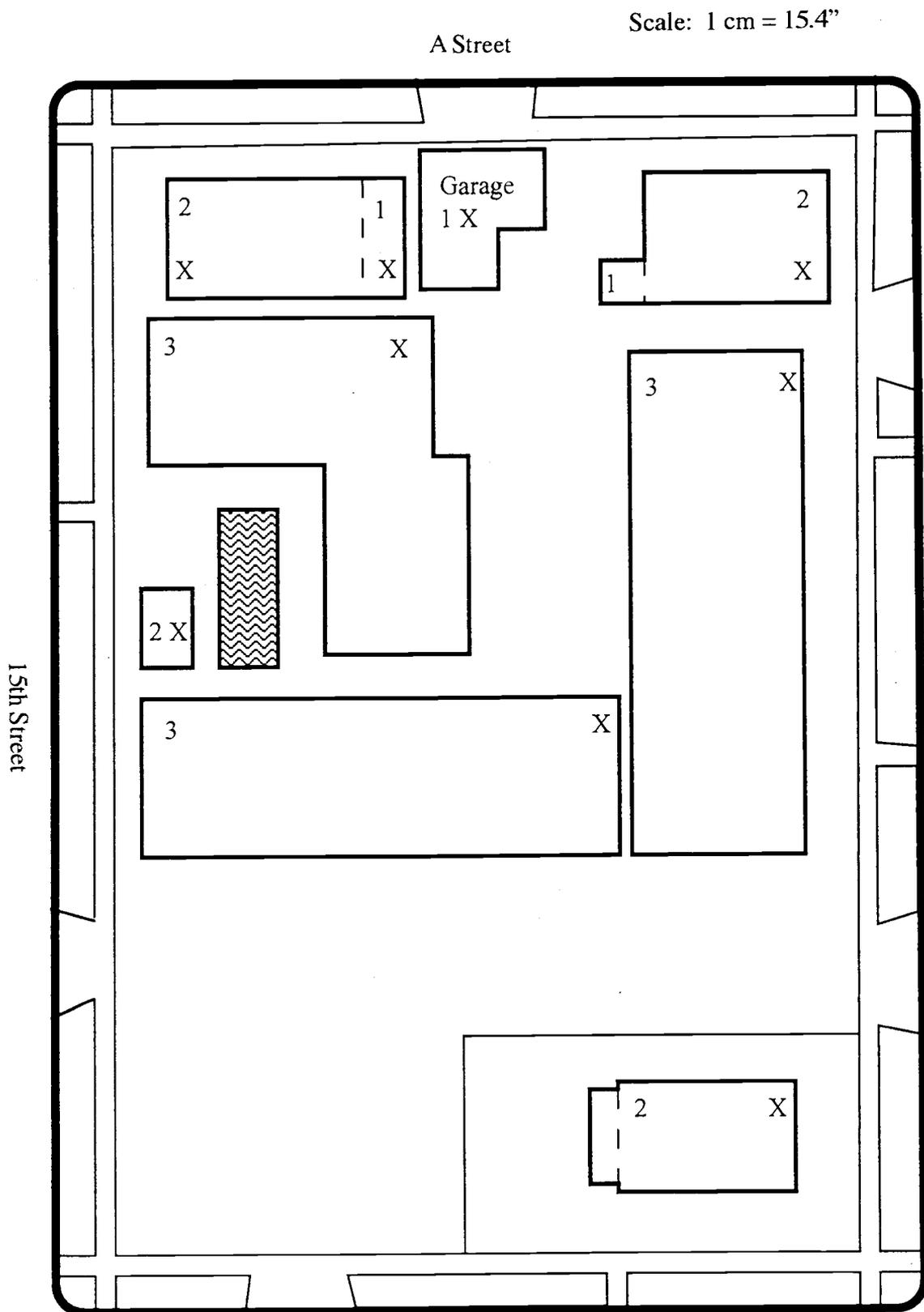


Figure 7. Corvallis City Planning Map, Block 5, Avery & Wells Addition, Corvallis, Oregon, 1993. Site ORBE2 is in the upper left hand corner.

Table 2. Benton County Tax Assessment Values for Lot 12, Block 5, Avery & Wells Addition, 1912-1927

<u>Year</u>	<u>Value of Land</u>	<u>Value of Improvements</u>	<u>Total Value</u>
1912	\$850	\$800	\$1650
1913	\$850	\$800	\$1650
1914	\$875	\$800	\$1675
1915	\$875	\$800	\$1675
1916	\$400	\$400	\$800
1917	\$400	\$400	\$800
1918	\$400	\$400	\$800
1919	\$400	\$400	\$800
1920	\$550	\$400	\$950
1921	\$225	\$1000	\$1450
1922	\$550	\$1150	\$3000
1923	\$300	\$800	\$1300
1924	\$300	\$1000	\$2800
1925	\$250	\$1000	\$1250
1926	\$300	\$1000	\$1300
1927	\$300	\$800	\$2050

In order to establish the probable date(s) of the construction of the additions to the structure, the Benton County tax assessment records for the lot were analyzed between the years 1912-1927. A sudden increase in the value of the improvements to the lot was anticipated, and such an increase does occur between 1920-1921 (See Table 2). This sudden increase of \$600 in assessed value of the improvements to the lot is further substantiated as being the probable date of the construction of the addition, by the fact that the assessed value of the improvements never drops below \$800 again.

There are two unexplainable observed trends in the assessed values for this lot during this time period, including the total value of the property listed between the years 1921-1924, and the drop in land and improvements values between the years 1915-1916.

As for the apparently inaccurate total value listings from 1921-1924, it is not known why these values fluctuate so radically during these years, or why the value of the land and the value of the improvements do not add up to the listed total value of the property. As for the observed drop in values of the property between 1915-1916, there was no significant economic depression on a national scale between these two years, and the local daily newspaper yielded no information on a local depression either. True, there were articles with titles such as, “Prices of Living Going Higher--Prices of Fabrics of all Kinds Have Soared Upwards,” (Daily Gazette Times, Jan. 31, 1916), and “War Raises Price of Footwear” (ibid., Feb. 16, 1916). Yet, these are counterbalanced by a headline on Feb. 8, 1916, that states, “Lumber Orders are Piling Up,” and that local mills were expected to run day and night to fill the orders. Whatever the reason for this apparently localized depression of real estate value, it has little effect on the overall analysis of the site.

No historic photographs of the original structure could be located, so in order to develop a model of what the original structure looked like, an artist’s rendition was produced. This illustration is based upon the profile and dimensions of the current structure, and the profile of the foundation of the structure that is illustrated on the 1912 Sanborn Fire Insurance Map (See Figure 8).

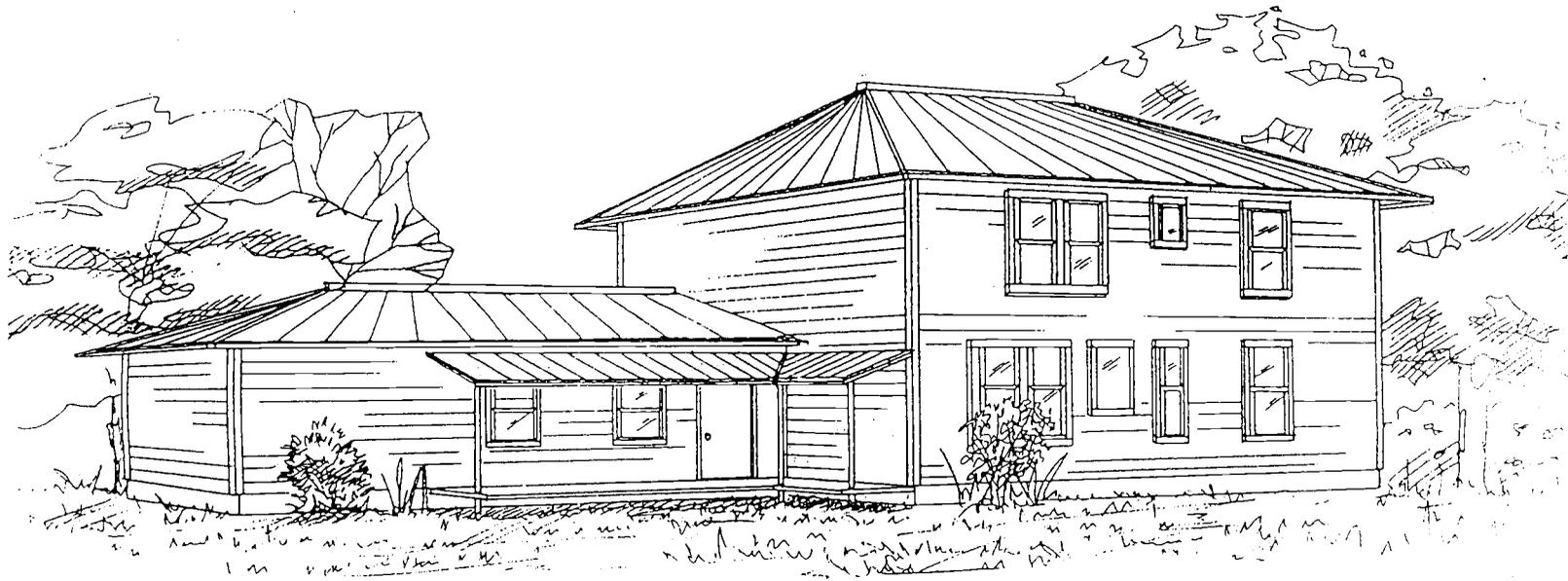


Figure 8. An artist's conception of the structure on Site ORBE2 as it would have appeared in ca. 1910-1921. View is from the Northeast.

Archaeological Methods

The process of recovering the artifacts from the back-dirt piles on the site was dictated by the requirements of: quick recovery, a lack of funding, and the ability to work around the activities of the foundation contractors. All artifacts were recovered with volunteer help recruited from Oregon State University students. The majority of the volunteers were from the Department of Anthropology, and the crew varied from day to day. After the owner of the lot and the contractors approved of the artifact recovery operation, it was determined that speed was of the essence, as the back-dirt piles were scheduled to be trucked away to be used as fill at another construction site.

The contractors pointed out that they had a right-of-way use permit, and that it would be possible to block the sidewalks around the site, as long as they were clear again by five PM. Since the artifacts were already disturbed and a collection bias would already exist, no screens were used in the collection process. The collection process appeared primitive compared to excavation standards of the time, yet this process was not exactly an excavation. It was quickly noted that the back-dirt piles were placed all around the house, and most were next to side-walks or open areas. Thus, with the aforementioned right-of-way use permit posted on the structure, it was decided to manipulate each pile onto the side-walk adjoining it, and as artifacts were encountered, they were recovered and placed into marked grocery bags.

To simplify clean-up efforts, a tarp was placed over the side-walk adjoining each pile, and the pile was simply manipulated onto the tarp and back into its original position again. In this way, artifacts which may be buried at the lowest levels of the pile could be recovered, and each pile was essentially explored for artifacts twice. Shovels, rakes and trowels were used to manipulate the piles, and the rakes were found to be the most useful to move large amounts of soil in a manner which allowed for the observation of artifacts. The trowels were mostly used to break up clods of soil which might have artifacts within them.

The primary collection process occurred over a ten day period from October 7, 1993 to October 16, 1993. To establish limited site provenience, the back-dirt piles were assigned arbitrary letter designations from A-F, and all recovered artifacts were placed in brown paper grocery bags which were labeled with their appropriate pile designation and the date that they were recovered. Pile X is so designated as it was not investigated for its artifact contents before it was hauled away to be used as fill at another construction site by the contractors. All back-dirt piles varied in size, yet most averaged approximately three feet tall, and were composed of a dry clay matrix with artifacts.

The excavation process which the contractors used in their efforts was observed by this researcher. They only used hand-tools in the excavation process, consisting of: round-nosed shovels, digging picks, entrenching tools, and a toy wagon with its wheel trucks removed. The contractors first dug the perimeter trench using the picks and shovels, and began to pile the back-dirt immediately around the house, resulting in Piles: A, E, F, and X. When these piles became large, they proceeded to create Piles B, C, and D (see Figure 9). By the time Piles B, C, and D were created, most of the perimeter work had been finished, and the three cross-trenches were being excavated. To excavate these, a contractor would start excavating with an entrenching tool, dragging the toy wagon from behind, and filling it up with back-dirt. The wagon had a rope extending out the back side also, so when the wagon was full, the contractor would announce this fact to his compatriots, who would then yank the wagon out and dump it onto whatever pile was most convenient.

Therefore, the only piles which can be labeled as containing artifacts from any defined areas are Piles: A, E, and X. The cross-trenches extended from South to North, so no cross-trench soil was dumped in Piles A or X. Pile E apparently only had back-dirt from the South side perimeter, as this researcher only observed the wagon being pulled and dumped from the North side of the structure. It can be assumed then, that Pile A had back-dirt and artifacts from the Northwest corner of the structure, that Pile X had back-dirt and

artifacts from the Southwest corner of the structure, and that Pile E had back-dirt and artifacts from the entire South perimeter of the structure. All of the remaining piles probably had back-dirt and artifacts from the North and East perimeters, as well as from the three cross-trenches. Yet, any definitive reconstruction of the probable original location of the back-dirt and artifacts of each pile remains nearly impossible to formulate.

Some artifacts were recovered by the contractors from directly under the house and turned over to this researcher or the volunteers without being put into a back-dirt pile, and other artifacts were also recovered and actually retained by the contractors; nine of which were later photographed at one of the contractor's residence. In addition, two series of surface collections of artifacts were performed well after the piles had been removed from the site, when this researcher noticed more artifacts on the lawn surrounding the structure on November 5, 1993, and January 13, 1994.

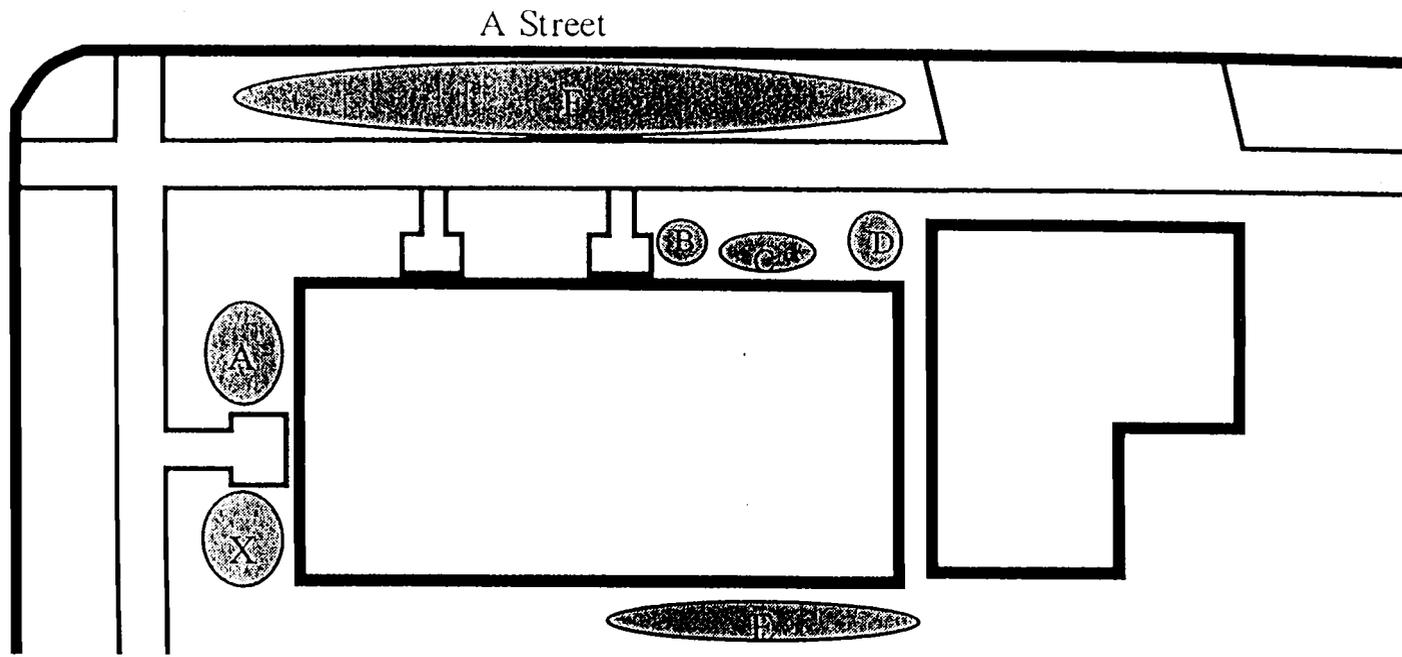


Figure 9. Site map of ORBE2, showing the relationship of the back-dirt piles to the structure.

Description of the Material Culture

The following is a description of the material culture recovered from site ORBE2 in October of 1993. All of the artifacts other than those in the “Unknown” function group are described, using metrics and prose (and inches, where necessary). Rather than describe the artifacts of unknown function, they will be left to the typology labels, and some will be illustrated using photographs, where perhaps a future researcher will recognize some of them.

Due to the fact that the material culture was recovered after it had been excavated and removed from its archaeological contexts, using non-archaeologically based methods, every effort was made to physically describe each artifact and identify as much temporal and functional information about each as was possible. Temporal analyses are limited to date ranges of manufacture, as date ranges of curation, use and disposal of each artifact is nearly impossible to determine.

Many of these date ranges are fairly broad, as often an artifact’s date range of manufacture is datable to a period, but not to distinct terminus ante quem or terminus post quem dates. In these cases, the artifacts are labeled as having been produced in the “early-twentieth century,” for example. In this way, both the nineteenth and twentieth centuries can be broken down into three distinct periods, “early,” “mid,” and “late.” As the structure on the site was apparently the first one on the lot, and was constructed in 1910 (see Chapter 3), and as the artifacts were recovered in 1993, these periods were divided into 30 year intervals. Thus, the early-twentieth century corresponds to ca. 1900-1930, the mid-twentieth to ca. 1930-1960, and the late-twentieth century to ca. 1960-1990. Likewise, the nineteenth century follows this pattern, with the early-nineteenth century corresponding to ca. 1810-1840, the mid-nineteenth to ca. 1840-1870, and the late-nineteenth to ca. 1870-1900. This does eliminate the first decade of the nineteenth century, but none of the artifacts recovered from the site appear to have been

made before ca. 1840 anyway. Often, an even broader range is required, and the “mid-to-late twentieth century,” for instance, dates to ca. 1930-1990.

The material is typologically organized using Roderick Sprague's, "A Functional Classification for Nineteenth and Twentieth Century Sites in Historical Archaeology" (Sprague, 1980). This is perhaps the most comprehensive functional typology style for historic sites yet devised, and Sprague welcomes modification of the system, which was undertaken when necessary. As far as modification goes, major categories were not changed, rather, new descriptors were added under the categories when artifacts would not fit the descriptors provided. The artifact descriptions will be provided in the order of the typology which is listed in Table 3.

A further observation about the typological style is that the numbers of artifact types given in Table 1 and in the text represent the Minimum Number of Individuals (MNI), thus, the tally of artifacts in the typology does not match the total number of artifacts recovered from the site. For instance, many pieces of ceramic flatware and hollowware were each assigned catalog numbers in a database, then were reassembled in later stages of analysis. Thus, several pieces of ceramic which were later reassembled were only counted as one piece in the typology as they represented only one piece of hollowware or flatware.

Finally, a general note about the curation process applied to the artifacts from the site. All iron artifacts were treated by having any oxidation layers removed using physical manipulation with dental picks. Then, each iron artifact was heated, and dipped in molten bee's wax. Admittedly, this process is not easily reversible, nor is it highly recommended by conservators, but it is a process which is in place in the archaeology lab at Oregon State University. This process has the following advantages: the wax covering creates a humidity barrier which is essential in the wet Willamette Valley, in a non-humidity controlled building; the wax solidifies weak, thin artifacts; and the wax provides a barrier against human-generated chlorides from handling. All other metal artifacts were

gently cleaned using a dry, soft brush, and with swabs dipped in acetone, when tougher soil and oxidation was encountered. All glass and ceramic artifacts were cleaned using water and gentle scrubbing, then any pieces to be matched together were adhered with Elmer's Glue All. All organic artifacts were gently cleaned using a dry, soft brush, and were bagged in clear, zip-lock, polyethylene bags. Each artifact is labeled using a strip of clear nail polish (using "CG Nail Slicks," distributed by Noxell Corp.), upon which was written a site number, and a catalog number (using indelible white or black ink), and finally each label was top-coated using another layer of clear nail polish. If the artifact was too porous, or organic in nature to take the nail polish, then the artifact was placed in a clear, zip-lock, polyethylene bag, and the site and catalog numbers were written on the bag using an indelible felt ink marker.

Table 3. Functional Typology of Artifacts From ORBE2

Category	Subcategory	Type	N
Personal Items			
	Clothing		
		Buckle, clasp type, iron	1
		Buckle, "D" type, chromed steel	1
		Button, bone, single carved eye	1
		Button, brown plastic, 2 hole	1
		Button, decorated glass, raised head, broken eye	1
		Button, shell, 2 hole	4
		Button, shell, 4 hole, fragmentary	3
		Button, shell, fragmentary	2
		Button, single piece pressed steel, 2 hole	1
		Button, white glass, small, 4 hole	2
		Button, white glass, molded design, 4 hole	1
		Button, white glass, large, 4 hole	1
		Button, white plastic, 4 hole	1
		Gloves, leather	3

Table 3 (Continued)

	Glove fragments	3
	Grommet, yellow metal	1
	Textile fragments	5
Footwear		
	Overshoe, rubber, right	1
	Shoes, leather, ankle high, small, matched pair	2
	Shoe heels, leather, w/ iron nails	2
	Shoe heel counter fragments, leather	2
	Shoe sole fragments, with heels, leather	5
	Shoe sole fragment, leather, hobnailed	1
	Shoe sole fragments, leather	9
	Shoe straps, leather	2
	Shoe tongue, leather	2
	Shoe upper fragments, leather	7
	Shoe upper fragment, leather, toe portion	1
Adornment		
	Bead, red glass, multifaceted	1
	Brass name tag holder	1
	Hat pin	1
Body Ritual and Grooming		
	Comb fragment, black plastic	1
	Comb handle, yellow plastic	1
	Emery board, iron	1
	Mirror glass fragments	5
Medical and Health		
	Aspirin case lid	1
	Oral thermometer fragment, glass	1
Pastimes and Recreation		
	Bullet, brass jacket to fired .45 cal. pistol cartridge	1
	Bullet, fired .45 cal. pistol cartridge	1
	Cartridge, fired .22 short rimfire shell casing	1
	Cartridges, fired .22 long rimfire shell casings	3
	Cartridge, unfired .22 WRF rimfire round	1
	Cartridges, fired .30 WCF casings	3

Table 3 (Continued)

Cartridges, fired .30-06 casings	9
Cartridge, unfired .25-21 round	1
Cartridge, unfired .25-35 round	1
Cartridge, unfired .401 Winchester round	1
Shell, 12 gauge shotgun shell, unfired	1
Shell, 12 gauge shotgun shell primer fragment	1
Clay marble	1
Doll's hand fragment, porcelain	1
Doll's head fragments, porcelain	4
Doll's foot fragment, porcelain	1
Harmonica	1
Paint brush handle, fine pointed	1
Plastic dart, green	1
Puzzle piece, to dimensional puzzle, clear plastic	1
Toy alphabet block, wood	1
Toy bowl fragments, porcelain	1
Toy buckle, white plastic	1
Toy dart for dart gun, yellow and red plastic	1
Toy frog's head, yellow plastic	1
Toy sad iron	1
Toy tea cup, porcelain	1
Pocket Tools and Accessories	
Key head, broken	1
Domestic Items	
Furnishings	
Furniture	
Decorative drawer handle base, chromed iron	1
Drawer or chest handle, iron	1
Drapery, Rugs, Linen and Dry Goods	
Jacquard woven textile fragment	1
Decorative Furnishings	
Figurine, female in form, yellow metal	1
Olivella mollusk shells	4

Table 3 (Continued)

	Picture hanger bracket, stainless steel	1
	Red earthenware planting pot, fragmentary	1
	Red earthenware planting pot fragments	17
Housewares and Appliances		
Kitchen Appliances		
	Refrigerator shelf glass	3
Culinary		
	Kitchen knife blade, stainless steel	1
	Measuring cup, yellow plastic	1
Gustatory		
	Table fork, unknown metal	1
	Table knife handle, wood and iron	2
	Table spoon, unknown metal	1
Containers, Aluminum		
	Pull tab	1
	Pull tab beverage cans	2
Containers, Glass Bottles and Jars		
	Amber, body fragments	45
	Amber, base fragments	4
	Amber, neck fragments	1
	Amber, neck and finish fragments	2
	Amber bottles, whole	6
	Black, body fragment	1
	Blue, body fragments	2
	Clear, body fragments	148
	Clear, base fragments	14
	Clear, neck fragments	3
	Clear, finish fragments	12
	Clear bottles, whole	19
	Clear ink jars, whole	3
	Clear jar, fragmentary	1
	Clear jars, whole	2
	Green, body fragments	10

Table 3 (Continued)

Green, base fragment	1
Green, rim fragment	1
White jar, threaded finish, whole	1
White jar fragments	4
Glass Bottle and Jar Closures	
Aluminum safety hood for champagne bottle	1
Canning jar lids, zinc with white glass lining	4
Canning jar lid liner fragments, white glass	6
Cardboard milk bottle disks	4
Champagne bottle stopper, white plastic	1
Clear glass jar liner fragments, Lightning style	2
Cork bottle closure	1
Crown bottle caps, tinned iron	3
Foil bottle lid	1
Threaded bottle cap, tinned iron	1
Threaded jar cap, aluminum with cardboard liner	1
Containers, Glass Bowls	
Clear Depression glass bowl, whole	1
White glass bowl, whole	1
Containers, Glass Tumblers	
Clear, base fragments	5
Clear, rim fragments	2
Containers, Glass Cups	
Clear cup fragments	2
Containers, Enameled Iron	
Cup fragment	1
Pot lid	1
Containers, Tinned Iron	
Can fragments, unknown style	19
External friction lid style cans	2
External friction lid style can lids	3
External friction lid shortening pail	1
Hole-in-cap style cans	7
Hole-in-cap style can lids	4

Table 3 (Continued)

Internal friction lid style cans	2
Internal friction lid style can lids	4
Internal friction lid shortening pail lid	1
Key to key opened can, iron	1
Pocket tobacco cans	2
Pull tab style sardine can lid	1
Sanitary style cans	11
Sanitary style can lids	5
Threaded cap style can	1
 Ceramic Flatware and Hollow Ware	
Flat stoneware fragment, thick, with gray glaze	1
Gray earthenware rim fragments	4
White undecorated earthenware base fragments	27
White undecorated earthenware body fragments	39
White undecorated earthenware handle fragments	4
White undecorated earthenware rim fragments	26
White earthenware base fragments, decal decorated	5
White earthenware body fragments, decal decorated	2
White earthenware handle fragment, decal decorated	1
White earthenware rim fragments, decal decorated	26
White earthenware, transfer printed	2
White earthenware cups, decal decorated	2
White earthenware bowl, whole, decal decorated	1
White earthenware plate, decal decorated	1
White porcelain base fragments	5
White porcelain body fragments	13
White porcelain rim fragments	5
 Food Wrapping Materials	
Aluminum foil fragments	3
Bread bag, plastic	1
Ice cream wrapper, plastic	1
 Food	
California Sea Mussel shells	2
Chicken bones	7
Cow bones	34
Corn cobs	3
Littleneck Clam shells	2

Table 3 (Continued)

	Pig bones	12
	Turkey bones	4
	Unidentified bones	15
Portable Illumination		
	Lamp chimney fragments, clear glass	5
Portable Energy		
	Battery carbons	4
Home Education, Information and Business		
	Clock fragments, internal mechanisms	1
	Nose cap to pen, threaded, stainless steel	1
	Paper clip, iron	1
	Plastic self-adhesive label tape	1
Cleaning and Maintenance		
Cleaning		
	Mop wringer handle, iron	1
	Rubber squeegee blade	1
Household Maintenance		
	Brush or push broom head fragments, wood	2
	C-vise, cast iron	1
	Claw-hammer head, iron	1
	Flat mill file, iron	1
	Hack saw blade fragment	1
	Paint brush handle, wood	1
	Paint bucket, tinned iron	1
	Plaster bucket, tinned iron	1
Laundry		
	Clothes hanger wire	2
	Sad iron	1
Sewing		
	Instructions for sewing a zipper on, paper	1
	Label from thread spool, paper	1
	Safety pin	1
	Thread spools, wood	5

Table 3 (Continued)

Binding Materials		
	Rope fragment	1
Pet maintenance		
	Dog collar, leather, iron	1
	Dog collar fragment, leather	2
	Dog leash "C" coupling, iron	1
Architecture		
Construction Materials		
	Brick fragments, orange	6
	Brick fragment, red-brown, embossed EM...	1
	Brick, whole, red, 3 circular perforations	1
	Chinking fragments	5
	Composite roof tile fragments	14
	Concrete chip	1
	Flat clear glass fragments	194
	Flat clear etched glass fragments	4
	Flat clear safety glass fragments	1
	Linoleum fragments	9
	Plaster fragments	21
	Plaster-board fragments	26
	Red ceramic tile fragments	2
	Siding fragments, inlayed wooden cut ends	6
	Tile, octagonal, porcelain	1
Construction Hardware		
	Door knob fragment, porcelain	1
	Door lock bracket, iron	1
	Gutter bracket, steel, painted white	1
	Gutter elbow joint, steel, painted white	1
	Machine cut square nails, iron	10
	Threaded eye, iron	1
	Washer, iron	1
	Wire nails, iron	113
	Wood screws, iron	4

Table 3 (Continued)

Plumbing		
	Chromed decorative water pipe sections	3
	Cylindrical ceramic drain tile fragments	23
	Faucet handle, iron	1
	Iron pipe, cut	1
	Iron pipe collar fittings	4
	Iron pipe collar fitting fragments	5
	Pipe grout	1
	Toilet bowl fragments, white porcelain	2
Fixed Illumination		
	Electric light bulb	1
	Electric light bulb base fragments	4
	Electric light bulb, glass bulb only	1
Fixed Power		
	Aluminum insulated wire strand	1
	Cloth covered electrical wire	6
	Cloth wire covering fragments	2
	Electrical wire conduit, iron	1
	Pin type glass electrical insulator	1
	Porcelain cleat insulators	2
	Porcelain cleat insulator fragments	3
	Porcelain knob type insulator	1
	Porcelain knob type insulator fragments	4
	Porcelain split type insulator fragments	4
	Porcelain tube insulator	1
	PVC insulated electrical wire strand	1
	Television cable stand-offs, iron	2
	Television roof antenna arm	1
	300 OHM twin pad wire strand	1
Fixed Heating and Cooling		
	Maker's plate for heating stove, cast iron	1
	Stove flue damper handle, iron	1

Table 3 (Continued)

Personal and Domestic Transportation

Vehicles

Bicycle handlebar mounted bell	1
Bicycle headset locking ring	1
Bicycle saddle cover, leather	1
Bicycle handle-bar stem, iron	1
Buggy bolt, hand wrought	1
Clear glass automobile head-lamp lens fragment	1
Harness buckle, iron	1
Schraeder air valve cap to a pneumatic rubber tire	1
Tail-light bulb base cover, yellow metal	1
Valve to an internal combustion engine	1

Vehicle Maintenance

Plastic seal to Texaco oil container	1
Spanner wrench, iron	1

Commerce and Industry

Fishing

Wire hook, barbed, large, iron	1
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Mass Media, Informational Services

Newspapers, whole	5
Newsprint fragments	22

Transportation Construction

Railroad spikes, machine made	3
Railroad spike, hand wrought	1

Group Services

Education

Conical centrifuge tube	1
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Utilities, Communications System

Rotary phone dialing internal mechanism	1
Taplock utility lock	1

Table 3 (Continued)

	Telephone box cover, aluminum	1
	Telephone box lightning surge protector	1
Unknowns		
Brass	Stamped decorative lid to unknown item	1
Cardboard	Cardboard wrapper, product unknown	1
Concrete	Molded concrete fragment	1
	Molded concrete cylindrical fragments	2
Glass	Clear curved glass fragment, painted green and black	1
	Flat clear stippled glass fragments, with raised edges	3
	Melted glass chunks	9
	Tube, melted into 90 degree elbow angle	1
Iron	Banding fragments	7
	Bracket, small	1
	Braided wire fragments	3
	Cast iron block, perforated	1
	Center perforated, rimmed disk	1
	Chromed flanged iron tube, multiple diameters	1
	Cut, bent iron stock	1
	Hand wrought nail	1
	Hand wrought nut	1
	Perforated strap	1
	Perforated strap with sheeting riveted to one end	1
	Perforated strap, painted white, snapped	2
	Riveted iron strap	1
	Sheeting, cut in rectangle, painted red	1
	Sheeting, cut	6
	Spring, large	1
	Spring-wound pin	1
	Thin, square wire fragments	2
	Tinned iron fragments	3

Table 3 (Continued)

	Unknown geared machinery	1
	Unknown iron objects	2
	Unknown utensil head	1
	Wire fragments, bent	3
Lead		
	Melted lead fragments	2
Leather		
	Leather fragments	14
	Leather gasket, cut	1
Mica		
	Mica fragment	1
Plastic		
	Black plastic fragment	1
	Black plastic octagons	2
	Clear plastic fragments	4
	Gray plastic fragments	1
	White plastic fragments	3
	White plastic handle fragment, with iron rivet	1
Porcelain		
	Small tube fragment	1
Rubber		
	O-ring fragments	13
	Rubber fragments	4
Textiles		
	Yarn fragments	2
Wiring		
	PVC insulated electrical wiring	1
Wood		
	Burned wood fragments	2
	Dowel, 1" with nail impaled through it	1

Table 3 (Continued)

	Flat board, crudely cut like a paddle	1
	Flat board, narrow, with wrapped iron wire	1
	Hand carved dowel with 5 leather tabs	1
	Mitered board cut in half circle	1
	Shaving	1
	Wood fragments	3
	Unknown tool handle (hammer, pick?)	1
	Unknown utensil handle	1
Unknown Materials		
	White chalky substance	2
Ecofacts		
	Rat bones	2

Personal Items

Within Sprague's (1980) functional typology system there are 12 sub-categories listed under the heading Personal Items. Seven are represented in this sample, and no new sub-categories were added to the list. The sample is represented by the following sub-categories with the corresponding number of artifacts: Clothing (32), Footwear (34), Adornment (3), Body Ritual and Grooming (8), Medical and Health (2), Pastimes and Recreation (42), and Pocket Tools and Accessories (1).

Clothing

Clasp Type Buckle:

A clasp type iron buckle was recovered from the site. The buckle is rectangular shaped, and measures 2.3 cm x 2.9 cm. Its shape and size indicates that it was probably used for some type of clothing item, perhaps on a small waist belt, or suspenders. No

markings appear on the buckle, but it does appear to be machine-made, indicating that it is probably of late-nineteenth, to early-twentieth century manufacture (see Figure 10).

“D” Style Buckle:

A second buckle, a "D" type, was recovered from the site as well. The buckle is made of chromed iron or steel, and the cylindrical cross bar of the buckle still has the remains of what appears to be leather, mixed with iron oxidation. A single thread of an unknown fiber is also present. The other three sides of the buckle have a general “V” profile, with the tip of the “V” apparently designed to face away from the wearer. This tip of the “V” also has a decorative pattern of impressed rectangles, arranged in a continuous row around the profile of the buckle. The buckle has the dimensions of 4.6 cm x 5.3 cm, and due to its size and nature was probably used on a waist belt. There are no manufacturer’s markings present on the buckle, yet it does appear to be machine-made, which indicates that it is probably of late-nineteenth, to early-twentieth century manufacture (see Figure 10).

Bone Button:

A single bone button was recovered from the site. The button is circular, "mushroom" shaped, and has a single-eyed, oval shaped shank. The button was probably turned on a lathe, and measures 2.3 cm in diameter. There are no decorative features or markings on the bone, making it difficult to determine a date range of manufacture (see Figure 10).

Decorated Glass Button:

A similarly shaped decorated glass button was recovered, being made of clear glass with a swirled, dark backing of glass having been applied. The affect creates a button which appears like a dark eye pupil when viewed from above, and a clear button with a

dark back from below. Such buttons are apparently known a “swirl pattern” types in button collector’s nomenclature, although no definitive date range for this style of button is given (Luscomb, 1992: 193). The button apparently had a metal eye inserted in the back of the button when the glass was still molten, but the eye has broken and is only represented by a broken stub. The button measures approximately 1.4 cm in diameter (see Figure 10).

Plastic Buttons:

The two plastic buttons which were identified probably show the early development of plastic, due to their slight deterioration. One of the plastic buttons is brown in color, circular, and has a depressed center well and raised edges. The button is of a two hole, sew through type, and measures approximately 1.9 cm in diameter. The other plastic button is a cream white color, although this could be due to a staining of a white shade after deposition. This button is of a four-hole, depressed center well, sew though type, and has a diameter of 1.4 cm. Due to their plastic material type, these buttons are definitely of twentieth century manufacture, and due to their degradation they probably represent early-to-mid-twentieth century manufacture (see Figure 10).

Steel Button:

The only metallic button recovered from the site is made of pressed steel, anodized or painted dark gray. The button has a depressed center well, two-holes, and is a sew-through type. It measures approximately 1.3 cm in diameter. As this button was apparently machine-made, it is probably representative of twentieth century manufacture, and due to the low levels of corrosion present on the button, it is probably of mid-to-late twentieth century manufacture (see Figure 10).

Pearl Buttons:

Eight "pearl buttons" (those made from nacreous shellfish species) were recovered from the site (Claassen, 1994: 4). More than likely these buttons were made somewhere on the Mississippi rivershed between ca. 1891- 1950, the peak years of American shell button manufacture (Claassen, 1994: 1). Two of these pearl buttons are too fragmentary to yield any information as to their type. Two other fragmentary buttons appear to be recessed well, four-hole, sew through types, although they are too deteriorated to determine a diameter. The remaining four pearl buttons are all two-hole, sew through style. One of these has a recessed well, two others have a centered, diamond shaped cut surrounding the holes, and the final button is relatively flat. The approximate diameters each of the buttons in the same order as they were described are: 1.0 cm, 1.5 cm, 1.6 cm, and 1.9 cm (see Figure 10).

Shell Button:

A single shell button (those made from shellfish lacking nacre), was also recovered from the site (Claassen, 1995: 4). Most of these buttons were apparently made from shellfish harvested in the Pacific Ocean in the early-twentieth century (ibid.: 1, 4). This button has a recessed center well, with four holes, and is a sew through type. The center well has deteriorated, leaving a hollow center connecting the four holes in a rough "X" pattern. The approximate diameter of this button is 1.4 cm.

White Milk Glass Buttons:

The final four buttons recovered from the site are all made of white "milk glass." All four buttons have recessed center wells, four holes, and are sew through type. One of these has a decorated rim consisting of radially incised lines extending around the button

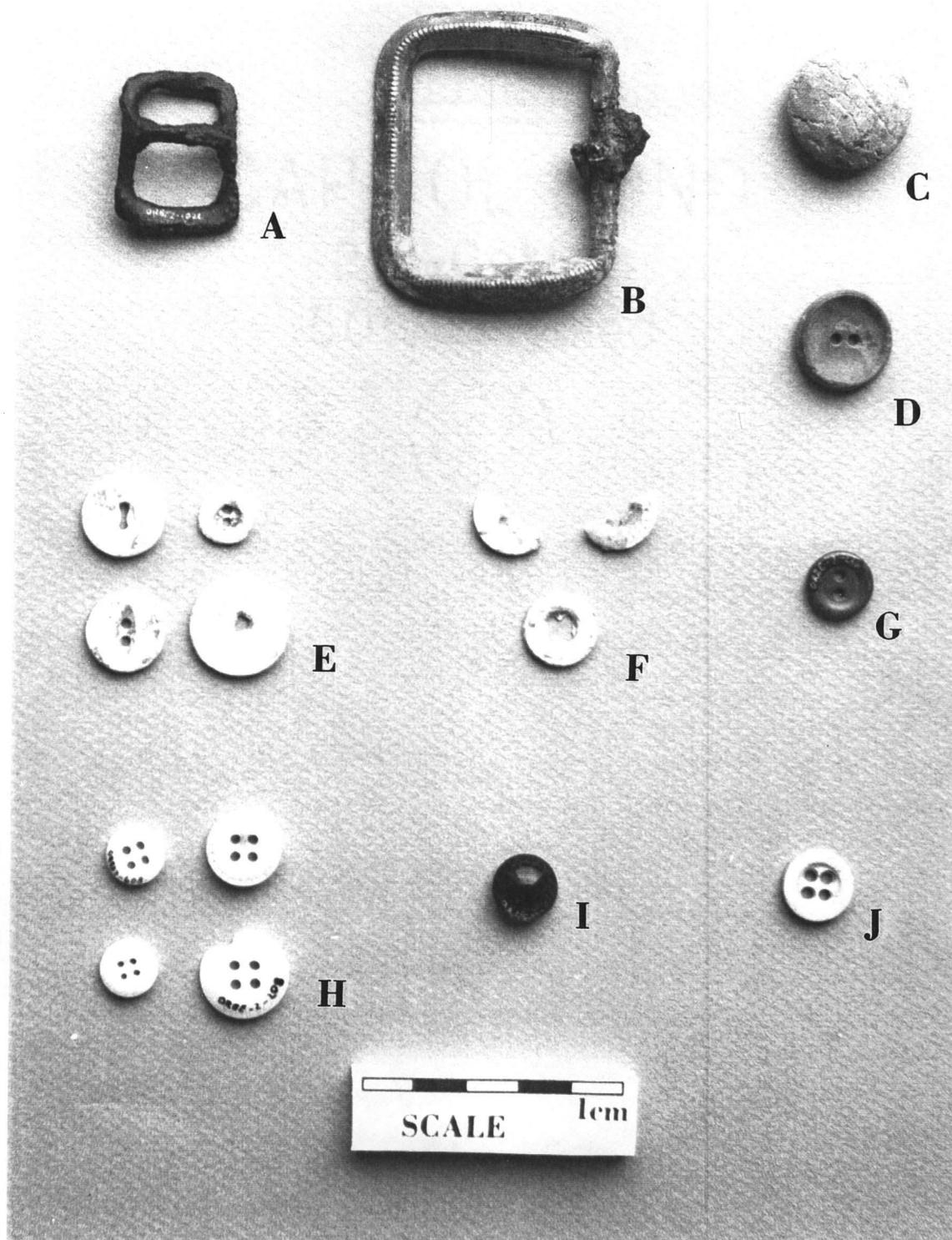


Figure 10. Buckles and buttons recovered from site ORBE2. A. Clasp Buckle B. "D" Type Buckle C. Bone Button C. Plastic Button E. 2-Hole Pearl Buttons F. 4-Hole Pearl Buttons G. Steel Button H. White Milk Glass Buttons I. Decorated Glass Buttons J. Plastic Button

which is apparently known as a "piecrust" style (Speulda, 1988: 41). Its diameter is 1.9 cm. The other three buttons have no decorative features, and are of the following diameters: 1.7 cm, 1.1 cm, and 1.1 cm (see Figure 10).

Gloves:

An almost complete pair of large leather gloves was recovered from the site. The gloves are almost wholly intact except much of their stitching has disintegrated. The gloves have been loosely pieced back together by matching seam lines together (no attempt to readhere the various pieces back together was made; the gloves have simply been laid out in trays to show their original intact order). The left glove is more complete than the right one, having a wrist band with evidence of a snap button fastener on the back represented by a hole where the snap button should have been present. The right glove does not have such a wrist band. All digits of both gloves are present, with each digit composed of two pieces of leather, one for the top and another for the bottom, with stitching along the sides and on the top of the back of the glove. The left glove's wrist band has textile lining remains, as well as a textile tag with a stamp of a shield. Inside of the shield appears the words "UNION LABEL," as well as other words which are now illegible.

The other glove in the collection is a much smaller, less "utilitarian," style, of a finer grain leather. The glove is left handed, with welted stitching for each digit along the mid-lines of the digits, as well as on the back of the hand portion. The wrist portion closed with a snap button system, apparently made of copper, due to the light green color of the corrosion on the snaps. The glove is fairly well preserved, with much of the stitching preserved, however most of the wrist area has deteriorated, and the thumb digit has fallen off and is compressed flat.

The larger pair of gloves strongly resembles those pictured in the 1902 Edition of the Sears, Roebuck Co. Catalogue, page 1008, stock number 33R508 (Sears, Roebuck and

Company, 1969). The gloves are described as, "Men's Very Best Quality Genuine Oil Tanned Calfskin Gloves. Extra heavy weight, with soft wool fleece lining and patent snap button fastener at back; welt seams and banded wrists" (ibid.). Unfortunately, there is no definitive evidence of the gloves having been lined with wool fleece, and the snap button fastener is missing (although a leather strap with a snap button fastener was recovered, see below). None of the women's gloves listed in the 1902 version of the Sears, Roebuck and Co. Catalogue resembled the smaller glove in the collection. Therefore, it is extremely difficult to date any of these gloves, other than to say that they are probably of early twentieth century manufacture.

Glove Fragments:

There are also three leather fragments recovered from the site which appear to be from gloves. The first is apparently a piece of a digit, probably a thumb piece. It is of similar design as the whole gloves, being a top or bottom half of a welted stitch construction. A leather strap with the projected end of a yellow metal snap button was also recovered. This fragment is composed of two pieces of leather stitched, "sandwich style," around the snap button. It may be a closure strap from the large pair of gloves described above, as their style indicates that they would have had one. The final piece is a wrist band which appears to be identical to that from the large left glove, and it can be proposed that it may be the missing wrist band from the right glove, yet it was recovered from Pile A, while the gloves were recovered from Pile F (see site map, Figure 9). Even with the mixed provenience, however, it is not entirely unlikely for these fragments to go together, as the contractors' excavation techniques could have certainly led to widely scattered artifacts from the same original provenience.

Grommet:

A single yellow metal grommet was recovered from the site. It is difficult to say what kind of clothing item this came from, or whether this is definitely even a clothing item. Grommets can be used on many different non-clothing textile items, yet without more evidence associated with the artifact, this is the best place to categorize it. The grommet is circular, although it has an area which has been flattened and extends past the outside circumference of the rest of the grommet. In its unaltered form, the grommet measures approximately 2.0 cm in diameter, and it still has an unknown textile type adhering to it on one side.

Textile Remains:

There are five textile fragments which are more than likely from some form of clothing. In order to determine the type of fiber which the textiles were made of, microscopic analysis and burn tests of small, loose fibers from each fragment were performed when possible. Both tests were performed on each fragment as the deterioration of many of the fibers made it difficult to confirm accuracy of identification with only one test. The microscopically analyzed samples were compared to photographs and illustrations in, *Matthew's Textile Fibers Their Physical, Microscopic, and Chemical Properties*, edited by Herbert R. Mauersberger. The procedures for, and results of the burn tests were derived from and compared to, Marjory L Joseph's, *Introductory Textile Science*.

Artifact number 296a is a rib weave, cotton textile fragment which appears to have been dyed black. The fragment is in a much deteriorated state, with gaping holes in its structure and wrinkles preventing it from laying completely flat. There is no definitive indicator as to what kind of garment the fragment may have belonged to, but it does have a selvedge edge.

Artifact number 296b is a perplexing piece. The fragment is folded over evenly on its long edge and it appears that it may be a type of double cloth. One half of the piece appears to be a satin or sateen weave, while the other is a plain weave. Double cloth is not an extremely rare type of material, however, in its folded form this piece is only 3.0 cm wide, and somebody went through a lot of trouble to create a double cloth of subtle effect on a very narrow piece of cloth. The fragment is decayed to the point where one cannot stretch it out to its full length to get an accurate measurement, however an estimate would be at 42 cm. Both the microscopic analysis and the burn tests indicate that the fragment is made of cotton. The remains of golden-brown stitching thread are also present on the piece. The textile has been dyed black, and with the thin nature of the material, its weave structure, and its color, the fragment is probably the remains of a dress.

Artifact number 297 is a ribbed knit textile fragment, which was dyed a dark color (probably brown). The fragment is much decayed, with many holes in its structure. Both the microscopic analysis and the burn tests indicate that the fragment is made of cotton, and the ribbed knit would indicate that this was probably a long underwear cuff, or, more likely, the ankle portion of a sock.

Artifact number 298 is represented by two textile fragments which were found together and probably originated from the same garment. They are both plain woven, and the smaller fragment has a double stitched finish. The fragments appear to have been a light color (probably white), and have been stained a dingy light brown through deposition in the ground. Microscopic analysis and burn tests indicate that the fragments are made of cotton. Due to the material and the general shape of the double stitched finish, the fragments are probably the remains of a shirt sleeve and cuff.

The final textile fragment which represents clothing remains is artifact number 1166. The artifact is a ribbed knit cuff to a sleeve or pant leg, which was probably affixed to a piece of clothing similar to either a set of long underwear, or a jacket. The artifact is

fairly well preserved, and due to its integrity and ribbed knit, no fibers presented themselves readily removable for analysis for either microscopy, or a burn test. However, by the looks and texture of the textile, one can make the educated guess that the fragment is probably made of cotton. The artifact appears to have been a light color (probably white), which has been stained a dingy light brown due to deposition in the soil.

Footwear

Overshoe

A single rubber overshoe was recovered from the site. The overshoe is black overall, and had a checked impressed bottom which has been smoothed over in many areas due to wear. The shoe measures approximately 26.4 cm in length, is low cut, and also has a low heel. There are no snaps, buckles, or laces which would have kept the shoe on, and it appears that this overshoe was meant to simply slip on and off, and was probably kept on by having a close fit and internal friction. In the vamp area of the sole is an oval, within which is the following: “HOOD / RUBBER COMPANY / BOSTON.” Underneath all of this are the three letters, “USA.” Likewise, on the heel of the shoe there is a further trademark within a rectangle, marked, “HOOD’S / PLYMOUTH / EXTRA QUALITY.” Without a doubt, this overshoe was manufactured by the Hood Rubber Company of Boston, Massachusetts, however, no reference to this company could be discovered. It can be noted, however, that this overshoe closely resembles those pictured in several reprinted copies of the Sears and Roebuck Co.’s between 1900-1908 (Bounty Books, 1969: 1051; DBI Books, 1970: 511; and DBI Books, 1971: 844). These references list several very similar low-cut overshoes with such names as: “Storm Alaskas,” “Stormy Weather Rubbers,” “Self Acting Sandals,” and “Sandal Rubbers.” By

any name, they all shared the function of keeping rain and mud off of, and out of one's shoes, which would have been crucial in an area as typically wet as Corvallis.

Leather Boots, Matched Pair:

A single pair of apparently matched, leather, ankle-high boots were recovered from the site. The pair appear to be matched as they are identical in style and size, with the left having an approximate length of 19.3 cm from heel to toe, while the right is approximately 19.4 cm. Although quite soiled, the leather was apparently originally tanned brown, with the hide surface facing outward. The boots are of lace-up type, with eight pairs of lace-up holes, which appear to be copper lined. The left boot even has partial textile lace remains, which also appear to be brown, and although not tested for a material type, they appear to be cotton. Each boot has a rounded toe with a decorated toe cap, which has a single row of perforated holes running across the breadth of the shoe where the cap is stitched to the ball joint area of the foot. It would appear from the presence of small nails protruding from the underside of the perimeter of the outsole, that the boots were constructed using a Nailed process, or perhaps the earlier Standard Screw process (United Shoe Machinery Corporation, 1939: 44-47). The right boot is more intact than the left, missing only its laces and its tongue. The left boot is missing its outer left ankle cover and lace-hole section, as well as its tongue; yet overall it is in better structural shape, showing less signs of aging, shrinkage, and soiling (see Figure 11).

According to Swann, this style of ankle-boot can be termed as either a "Balmoral" or an "Open Tab or Eaton" boot, although this is from a chart describing British footwear, and style labels for the same shoe or boot may have been admittedly different on the West Coast of the United States (Swann, 1982: 91-94). In fact, it must be pointed out that Swann's book was written from a British perspective, and that this should be kept in mind with all future references to her work. Dating these boots is as equally difficult as giving them a style name, as this basic style of ankle-high boot was popular from ca.



Figure 11. A matched pair of leather boots recovered from Site ORBE2. The boots are apparently from a small girl, manufactured during ca. 1900-1920.

1890-1920, with only minor variations in style being observed over this time period (ibid.: 51-59). The toe cap and the rounded toe are probably indicators of a later manufacture date in this period, probably ca. 1910-1915, although this is by no means certain (ibid.: 52-53). The boots are apparently for a child due to their small size, yet determination of gender is difficult, as styles of the period offer the impression, "...of strong, almost unisex footwear." (ibid.: 52).

Shoe Heels, Leather:

Two leather shoe heels were recovered from the site. Artifact number 308 is a complete heel with five wire drawn nails still driven through it. The heel is a standard "U" shape, and the nails are arranged in an, "X" pattern. The heel measures approximately 1.2 cm thick at its thickest, and is approximately 4.8 cm wide, by 4.7 cm long. Due to these dimensions, the heel is probably the bottom portion of a thicker, stacked heel, of a woman's shoe. Extensive wear on the outside left of the heel probably indicates that this heel is from a left shoe which was worn over an extended period of time. Due to the use of iron wire nails, this heel can be dated to the early-to-mid twentieth century.

The second heel, artifact number 855, is slightly larger than the first. This heel is approximately 6.5 cm long, .6 cm thick, and has a maximum width of approximately 6.1 cm. The breast of this heel is basically straight, and a series of 21 nail holes follows the perimeter of the heel. Many of these nails are still in place, and they appear to be iron, wire-drawn nails. This heel may only represent a portion of the entire original heel, due to its noted thinness. A preponderance of the wear on the back of the heel appears to be on the right side, probably indicating that this heel was attached to a right shoe. Due to the use of iron wire nails, this heel can probably also be dated to the early-to-mid twentieth century.

Shoe Heel-Counter Fragments, Leather:

Two brown leather shoe heel-counter fragments were recovered from the site. The first heel-counter, artifact number 925, is still curved in a rough oval, as it would have been when it was still attached to its original shoe. The bottom edge of the heel-counter still shows perforations from where it was stitch lasted, however, it is not clear as to what style of shoe construction was used, as most manufacturing processes of this century used the stitch last. Although it is almost impossible to determine a shoe style from only a heel-counter, it can be observed that this counter strongly resembles those on the aforementioned ankle-boots.

The second heel counter, artifact number 861, is still attached to a partial last. The counter is once again of brown leather, and appears to be the remains of a sturdy work shoe or boot, as the counter is double reinforced, having two inner layers of leather. The last also shows evidence of sturdy construction techniques, displaying both stitching perforations, as well as small iron nails which would have protruded all the way through to the outsole. These nails are indicative of the Nail or Standard Screw manufacture process, which was, “..used extensively in the construction of men’s work shoes..” (United Shoe Machinery Corporation, 1939: 44). Once again, the counter strongly resembles those on the aforementioned ankle-boots, and is probably the remains of a similarly styled shoe or boot of the early-twentieth century.

Shoe Sole Fragments, With Heels:

Five leather shoe sole fragments with heels were recovered. There is very little diagnostic information involved with these soles, as they are all in a relatively poor state of preservation. It is odd to note, however, that all five soles are incomplete, with all of them having a portion of the sole extending forward of the heel which has been torn across the width of the shoe at some point between the vamp and the ball of the foot.

Therefore, only dimensions and general shapes of the heels will be described, as none of the soles are complete enough to determine a possible size range.

Artifact number 847 has the highest heel of the five, being constructed of seven layers of leather, having an overall height of 3.4 cm. The heel is of a “U” shape profile, and is tacked together and to the sole with the use of eight extant iron nails, with a further hole indicating the possibility of a ninth. The heel has a forward pitch angle, and its breast is slightly curved (Thornton, 1958: 417). According to Swann, the heel style can be called a Semi-Cuban (1982: 91-94). The remnants of the sole which are still attached to the heel is broken across the ball of the foot, and has the dimensions of being approximately 13.2 cm long, by 5.0 cm wide. Four lasting tacks are still clinched into the sole in the vamp area, and between these tacks and the edge of the sole are stitching holes. Such a layout is apparently representative of a McKay sewed shoe, which was the first style of machine-made sole which was introduced in 1858 (United Shoe Machinery Corporation, 1938: 26). Due to the narrow width of the heel, and since it is a Semi-Cuban style, this artifact is probably representative of a woman’s shoe from the late nineteenth to the early-twentieth century.

Artifact number 857 has an oddly shaped heel, which is in a rough “V” shaped profile, and tapers towards the outsole. There are four pieces of stacked leather which compose the remnants of this heel, although it appears that several layers are missing. Currently, the heel is about 1.9 cm tall, 5.3 cm long, and 4.7 cm wide. The leather layers of the heel are held together with three iron wire tacks, in a triangular pattern. This heel has a definite forward pitch angle, and a slightly curved breast. Judging from the remnants of the heel, it is representative of a tall heel style such as a Louis, or a Semi-Louis (Swann, 1982: 91-94). The remnants of the outsole which are still present are broken across the vamp section of the shoe, and measures approximately 5.4 cm past the breast of the heel. There are three iron lasting tacks which are still present in the outsole, and from the inner surface of the sole, one can see a line of stitch marks which run between the lasting tacks

and the edge of the sole. Once again, this is representative of a McKay sewed shoe (United Shoe Machinery Company, 1938: 26). Due to the type and narrowness of the heel present on this sole, this artifact is probably representative of a woman's shoe from the late-nineteenth to the early-twentieth century.

Artifact number 929 has a fairly complete heel, which has a basic "U" profile, and is composed of five layers of leather. The heel is held together with at least five iron wire tacks, and the final layer is also stitched around its edges. The outer right edge of the heel shows extreme wear, cutting through the first layer of leather; indicating that this is the remnants of a right shoe. The heel is quite low, only about 1.7 cm tall, with a length of 4.7 cm, and a width of 3.9 cm. The heel has a normal type pitch, and a slightly curved breast section (Thornton, 1958: 417). According to Swann, this heel can be termed either a "German seat," or an "outstanding heel" (1982: 91-94). The remnants of the outsole extend approximately 4.7 cm forward from the breast of the heel, where it is broken across the ball of the shoe. There are no lasting tacks present in this outsole, however the presence of a stitch line running along the perimeter of the sole, as well as a wooden "filler" board in the center of the sole, indicates a McKay sewed shoe once again. This style of heel is quite utilitarian, and the size of this sole/heel indicates that it was probably from a child's shoe, from either a boy or a girl. The style of manufacture of the shoe is representative of either late-nineteenth century, or early-twentieth century manufacture.

Artifact number 930 has a degraded heel, which is a "U" shape in profile, and is composed of four layers of leather. The heel has a forward facing pitch, a straight breast, and is held together using at least ten iron wire tacks. The heel is approximately 1.4 cm tall, 5.0 cm long, and 4.6 cm wide. The outer left portion of the heel is quite worn down, indicating that this is probably the remnants of a left shoe; however the cut of the outsole indicates a right. Judging from the shape of the heel, it can probably be termed a low "semi-Louis" style (Swann, 1982: 91-94). The outsole extends approximately 6.3 cm

forward of the breast of the heel, where it was broken across the ball of the shoe. Two iron lasting tacks are present in the sole, as well as a row of stitch marks around the perimeter of the sole, indicating that this shoe was constructed using a McKay sewed shoe style. As the heel is a low semi-Louis, this sole/heel assemblage is probably representative of a woman's shoe of the late-nineteenth century, or early-twentieth century.

Artifact number 932 has a quite degraded heel, which was apparently a basic "U" shape in profile, and is composed of at least three layers of leather. The heel has a normal pitch, a straight breast, and is held together with at least 13 iron wire tacks spread around the perimeter of the heel. The heel is approximately 2.3 cm tall, and is 5.2 cm wide, but unfortunately, no lengthwise dimension could be taken as the back of the heel is basically missing due to degradation. According to Swann, this heel can be termed a "German seat", or "outstanding heel," and this is probably representative of a utilitarian type shoe (1983: 91-94). The outsole extends approximately 6.0 cm forward of the breast of the heel, where it was broken across the vamp of the shoe. There are no lasting tacks present, but the presence of a stitch line extending around the perimeter of the shoe, and the depression in the center of the sole for a filler, probably indicates that this assemblage was constructed using a McKay sewn shoe method as well. Due to the heel type, the style of manufacture, and the size of this sole/heel assemblage, this artifact is probably representative of an adult woman's or man's shoe of the late-nineteenth century to the early-twentieth century.

Shoe Sole Fragment, Hobnailed:

The fragmentary remains of a hobnailed, leather shoe sole was recovered from the site. The sole is composed of two layers of thick leather, which together are approximately .9 cm thick. The sole fragment appears to be representative of the right, forward section of a shoe, which has been broken across the vamp of the shoe. The sole

is currently approximately 12.7 cm long, and 7.9 cm wide at its maximums. Currently, there are 48 iron hobnails protruding through the outsole, from approximately the ball area of the sole, forward. Each hobnail is approximately .6 cm in diameter, and appears to be a large headed tack which was hammered through the two-layered sole. Unfortunately, the outer edge of the sole is quite degraded, and there is no evidence of stitching lines, welting, or perimeter tacks, so the method of manufacture for the entire shoe cannot be determined. Even so, this sole is probably representative of a work-style shoe for a medium-sized, adult individual, made in the late-nineteenth century, or early-twentieth century.

Shoe Sole Fragments:

A total of nine leather shoe sole fragments were recovered from the site. Out of these, seven appear to be outsole fragments, while two are inner sole lining fragments. The two inner sole lining fragments are both heel sections of two quite different pairs of shoes. Artifact number 311 is a heel and vamp section, having been broken across the sole lining around the ball of the shoe. The fragment is approximately 14.0 cm long, with a maximum heel width of 3.7 cm, a minimum vamp width of 3.3 cm, and a maximum ball width of 6.1 cm. With the heel facing the viewer, the ball of the shoe curves to the left, indicating that this is the remains of a right shoe, and due to its narrow width, probably that of an adult woman. It appears that the hide side was placed upwards in the shoe, and both sides have remnants of a textile lining still present. The perimeter of this sole has a stitch row, as well as apparent lasting tack holes. Because of these indicators, this fragment appears to be representative of a McKay sewed shoe, probably of the late-nineteenth, or early-twentieth century. Artifact number 316 is very different than 311, in that it is a heel sole liner which appears to have been purposely cut for just the heel. The forward edge of the liner is cut in a straight line, rather than being broken or degraded as many of the other sole fragments. The back of the heel is rounded, and the overall length

of this liner is 9.1 cm. The liner has a maximum width of 6.2 cm, and is only 5.6 cm wide across its forward cut edge, with a thickness of only .1 cm. There are no stitch or tack marks present on the liner, and it must be assumed that it was adhered into the sole of the shoe with some sort of adhesive. The lack of stitch marks, and the thinness of the leather indicates that the liner was for purely aesthetic purposes, and probably had little to do with the actual function of the shoe. It cannot be said whether or not this liner is from a left or a right shoe, or even if it is from a woman's or a man's, yet it is most likely of early-to-mid-twentieth century manufacture due to the use of adhesives in its construction.

Of the remaining seven heel fragments, four are too deteriorated to yield much diagnostic information, but one of these seems to have perimeter stitch marks (which could indicate a number of different shoe manufacture styles). All of the remaining fragments are the remains of toe sections of outsoles. Two of the two toe fragments, artifacts number 309 and 436, could quite possibly be the remains of a mated pair of shoes. Both have been degraded and broken across the ball of the shoe, and both have an edge perimeter stitch mark. The toe ends are both quite rounded, with the rounding extending to one side, indicating that number 436 was a left shoe, and number 309 was a right. There is no evidence of last tacking, and with only the perimeter stitching present, these soles may be the remnants of a pair of Goodyear welt shoe (United Shoe Machinery Corporation, 1939: 19). Both of the soles are approximately .5 cm thick, lending further credence to the possibility of their being a mated pair. If these are Goodyear welted shoe soles, then their date range of manufacture would be the late-nineteenth century to the mid-twentieth century.

Artifact number 313 represents the third toe fragment of an outsole, and it too has been degraded and broken across its ball. The sole is quite degraded and desiccated, and has in fact rolled into itself along its edges. It appear to be about .4 cm thick along its perimeter, however the calipers could not grasp flat in the middle. This fragment has a

line of stitching around its perimeter, and lacks evidence of last tacking. This fragment probably represents a Goodyear welted shoe as well, and shares the same date range of manufacture as those above.

Shoe Straps:

Two leather straps which are apparently the remains of shoe straps were recovered from the site. Artifact number 319 is a leather band, in a basic rectangle shape, being approximately 12.9 cm long, 1.8 cm wide, and .2 cm thick. The entire perimeter of the strap has two parallel stitch lines, although it is not known whether this was for attachment to another piece of leather, or merely for strengthening the edges of the band. The strap has a finely finished hide side, as well as a mostly unfinished skin side.

Artifact number 1196, meanwhile, ends in a tip, and gently widens in a slow taper, to an end which has been torn. The perimeter of this strap has been double stitched as well, and once again, it is not known if the strap was actually stitched to another piece of leather; or if this was merely for aesthetic, or strengthening value. This strap is approximately 11.5 cm long, and is approximately 1.7 cm wide near its tip, and 3.5 cm wide near its torn end. The strap is approximately .2 cm thick, and has a finely finished hide side.

Without other shoe contexts with which to associate these two straps, it is impossible to say what type, age, size, or gender specific shoe they came from; or if they even definitely came from a shoe.

Shoe Tongues:

Two leather shoe tongues were recovered from the site. Both tongues are each composed of a single piece of leather, and both appear to have been finished with the hide side facing out, in a brown or black color. Artifact number 306 has a squared top, which tapers to a squared bottom. The bottom has a double row of stitch marks, indicating

where it was attached to the upper of the shoe. The tongue has been doubled over, and is desiccated into this position, so an overall length measurement is not possible. The top, however, is approximately 4.7 cm wide, while the bottom is only 3.2 cm wide, and the leather used for the tongue is only .1 cm thick. In comparison, artifact number 1195 has a rounded top, which tapers to a squared bottom, and it does truly have a tongue-like profile. This tongue is approximately 13.0 cm long, is composed of leather which is .1 cm thick, has a rounded end width of 3.7 cm, and a squared end width of 1.8 cm.

Approximately 2.5 cm up from the squared end, is a wider portion of the tongue, which has been cut with two small points on either side. A width of 2.7 cm is displayed from point to point, and just underneath these widened points, is a single stitch line, indicating that this is where the tongue was attached to its upper. This widened portion probably served as a friction point to catch a narrower portion of the upper, which perhaps enhanced the strength of the single stitch line holding the tongue in place.

As the tongues were recovered separated from their shoes, it is almost impossible to determine what date range, type, size, side orientation, or gender specific shoe they came from.

Shoe Upper Fragments, With Eyelets:

Seven dark brown, leather shoe upper fragments with eyelets were recovered from the site. Six of these have copper lined eyelets, apparently made for lace-up style shoes, while one has large openings through the leather, with two smaller perforations placed underneath each opening, for an unknown type of shoe closure.

Artifact number 310 is the right ankle quarter of an ankle-high shoe or boot, which has five copper-lined eyelets, each of which is .5 cm in diameter. It appears that the entire ankle quarter is present, from the back of the shoe where it would have met the opposing ankle quarter, to the forward vamp portion of the quarter. From the forward vamp section to the back of the ankle measures approximately 18.7 cm, while the ankle

portion of the quarter is approximately 7.2 cm. The leather is approximately .4 cm thick, indicating a tough, utilitarian type shoe. Judging from the size of this quarter, and the style it apparently represents, it appears that this piece is the remains of a man's ankle-high, lace-up, shoe or boot, of the early-twentieth century.

Artifact number 864 appears to be the remains of a left ankle quarter, of an ankle-high boot or shoe. The leather was prepared to have a roughened, distressed look, and it may even be pig's hide. Four copper-lined eyelets are present, each of which is .3 cm in diameter, and single-line stitch marks appear on all four edges of the fragment, indicating connection areas with other parts of the shoe; and on one seam, the finished edge of the top of the ankle. The fragment measures approximately 12.3 cm long, by 6.5 cm wide, and the leather is approximately .2 cm thick. Judging from the size of the fragment, and its eyelets, this appears to be the remains of a boy's or girl's, lace-up, ankle-high shoe or boot, of the early-twentieth century.

Artifact number 866 appears to be the left quarter of a shoe, and has four copper-lined eyelets present, each of which is .5 cm in diameter. The piece consists of the lace-up portion of a shoe, across the vamp, then extends back to where it apparently met with the opposing quarter in the back of the shoe. The area immediately surrounding the eyelets is bulked up with an additional piece of leather stitched around it. The quarter is approximately 16.0 cm long, and the vamp section is approximately 4.0 cm wide at its maximum. The leather is less than .1 cm thick, with the doubled-up portion being approximately .2 cm thick. Judging from these remains, this quarter represents a low-cut, or possibly ankle-high shoe or boot, for either a woman or man, of the early-twentieth century.

Artifacts 927 and 928 appear to be the right and left ankle quarters of an ankle-high shoe or boot. The two were once connected on a single-stitched line at the back of the shoe, and each has nine copper-lined eyelets, each of which is approximately .4 cm in diameter. The eyelet area is also reinforced on both fragments with another layer of

leather stitched into place on the inner side of the quarters. Overall, the leather used on these quarters is approximately .2 cm thick, while the doubled leather portions are .3 cm thick. The bottoms of the quarters still have the stitched, rolled under linings, which were the attachment areas to the sole. There are also holes present to the inside of the stitch lines, probably representing last tacks, which would make these shoes a McKay sewn style. Number 928 has been folded over on itself, and is desiccated in this position making measurements nearly impossible, but number 927 is still relatively flat. From the top of the ankle, to the bottom of the heel on number 927 measures approximately 11.4 cm, while from the back of the heel to the front of the vamp measures approximately 14.8 cm. Judging from the style and size of these quarters, they probably represent a lace-up, ankle-high shoe or boot, of a medium sized man's or woman's shoe, of the early-twentieth century.

Artifact number 1195 is a small piece of leather, with two copper lined eyelets, each of which is approximately .5 cm in diameter. The leather is basically four sided, is .2 cm thick, and measures approximately 6.0 cm by 3.7 cm from each corner, diagonally. A single stitch line is present, lining the two eyelets, and it may have once held another layer of leather in place to reinforce the eyelets. As the fragment is so small, it is unknown what type, gender, or age of shoe it is from, or even if it represents an ankle-high, or normal cut shoe.

Finally, artifact number 924 is a piece of shoe leather which has the remains of seven apparent eyelets, none of which are lined. Underneath each oval-shaped eyelet, are two small perforations, of unknown purpose. Each eyelet varies in shape and size, but they are approximately 1.0 cm x .5 cm, while the smaller perforations are approximately less than .1 cm in diameter. The fragment measures approximately 10.3 cm by 5.6 cm, at its maximums, and the leather is approximately .2 cm thick. Two parallel rows of double-stitch marks line the eyelets on either side, although there is no double layer of leather to reinforce them. The eyelets are obviously some sort of shoe closure system, but it is not

known what kind. It does not appear that any metal lining was present in the eyelets which may have popped out, and although the eyelets are stretched, it does not appear that the stretching was caused by laces, as they would have been cut into much more. It appears, then, that these eyelets were for a button-closure type shoe, and the direction of the stretching probably indicates that this is the remains of the leg of a tall boot. Yet, the smaller perforations underneath each eyelet cannot be explained. If this is the remains of a tall, ankle-closure boot, then it is probably representative of a woman's boot of the late-nineteenth, to the early-twentieth century.

Shoe Upper Vamp Fragment:

An entire brown leather vamp was recovered from the site. The vamp is apparently from a right shoe, and shows evidence of lasting tacks, and stitching for its attachment to the sole, indicating that it was constructed using the McKay sewed shoe method. The vamp seems to match up quite well with the ankle quarters 927 and 928, possibly indicating that all three of these pieces were originally from the same shoe. Two parallel stitch marks cross the toe of the shoe, creating a false toe cap. From the right, rear side of the vamp, to the tip of the toe section, measures approximately 14.0 cm, while the vamp is approximately 9.2 cm wide; although it must be noted that the vamp is crushed flat, and that this would not indicate the original width of the formed shoe. If this vamp does indeed match with the ankle quarters, then it probably represents a woman's lace-up, ankle-high boot or shoe, of ca. 1890-1920 (Swann, 1982: 58-59).

Adornment

Bead, Red Glass:

A single, red, transparent, glass, multi-faceted, drawn bead was recovered from the site. The bead closely resembles Subtype If-q listed by Ross in his article on trade beads from Fort Vancouver (1990: 38). This subtype is described as a "Bead(s) with Four

Rows of Facets.” Ross goes on to state that, “These were manufactured by grinding four rows of facets, consisting of two rows with a facet on each corner of each end and two rows between the end rows and the molded sides.” (1990: 38). This manufacturing process produced a bead with seven sides, having a total of 35 flat surfaces. The bead discovered from site ORBE2 has the same seven sides, yet differs in having more ground facets, having a total of 32, making for 39 flat surfaces. The bead measures approximately .52” in length, with a fairly consistent average width of approximately .54.” This bead could have decorated any number of items, and its manufacturing process is representative of a manufacturing date ranging from anywhere between the early-nineteenth century to the present.

Brass Name Tag Holder:

What appears to be a small, rectangular, brass name tag holder was recovered from the site. The tag measures 1.7 cm by 4.9 cm, and is composed of two separate pieces of brass which have been crimped together along the edges, with one end left open to allow a slip of paper to be slid in. The back of the tag has a darkened stain which appears to be the heat stain from where the pin was soldered on. To further confirm that this is the remains of a tag, a small bit of paper is still present, and held in place along the crimp in the open end.

Hat Pin:

A long hat pin was recovered from the site. In its present bent condition, the hat pin is some 30.1 cm in length, yet when fully straightened, would probably extend to more than 35 cm in length. The pin appears to be plated iron, and is a very narrow gauge, only measuring some .1 cm in diameter. On one end, the pin is decorated with a circular flower-like pod, which is made from some type of yellow metal. Within this pod are 18 further pods, each of which would have held a small faceted piece of crystal, of which,

only 11 are still present. Dating this piece is fairly difficult, as there are no markings on it, and a multitude of hat pin styles existed around the turn-of-the-century, as is evidenced by the many styles advertised in the Montgomery Wards and Sears and Roebuck and Co. catalogs of the period. This particular one is also much longer than any of those indicated in the catalogs. Even so, it is probably safe to assume that this hat pin dates to ca. 1890 - 1920.

Body Ritual and Grooming

Comb Fragment:

The broken remnants of a black plastic comb were recovered from the site. The comb fragment is 6.7 cm long, and tapers from the break to the end, having a maximum width of approximately 1.7 cm, tapering to 1.3 cm. There are 52 teeth present on the fragment, with the end tooth being much thicker than the others. The teeth taper with the comb, with the teeth in the wider portion of the comb being longer than at the narrower portion, with a range from 1.2 cm to .7 cm. There are no markings on the comb, and since it is plastic, its date range of manufacture can probably be assigned to the late-twentieth century.

Comb Handle:

The remnants of what appears to be the handle of a yellow plastic comb were recovered from the site. The handle is flat, with an ovaloid formed end, which is bent in one direction approximately fifteen degrees away from center. No teeth exist on the comb any longer, other than on the finished end nearest the handle. The handle is approximately 5.3 cm long, is only .1 cm thick, and varies in width from 1.7 cm to .9 cm. As the comb handle is made of plastic, it is assumed that the date of manufacture for it can be assigned to the late-twentieth century.

Emery Board:

The remains of an iron-based emery board for manicuring finger nails was recovered from the site. The board is 9.9 cm long, 1.2 cm wide, and is missing one end. The complete end is slightly rounded, and this end has the only remains of the abrasive sheeting which was apparently applied to both sides of the board. Such manicure emery boards were apparently an early-to-mid-twentieth century invention, as they do not appear in turn-of-the-century catalogs. Therefore, this emery board can probably be dated to having a period of manufacture of the early-to-mid-twentieth century.

Mirror Glass Fragments:

There were a total of five pieces of mirror glass recovered from the site. Of these, four are small fragments of flat mirror glass, while one is a round piece with tapered edges. This round fragment displays an approximate diameter of 6.4 cm, with a center thickness of approximately .2 cm. The last .6 cm of the outside perimeter of the mirror tapers to a near razor edge. Due to the size and shape of this mirror fragment, it is supposed that this particular mirror was either a side rear view mirror from an early-twentieth century automobile, or perhaps a personal mirror from an item such as a compact.

Medical and Health

Aspirin Case Lid:

Artifact number 1619 is a tin aspirin case lid. The lid is rectangular shaped with rounded corners, and measures approximately 4.5 cm x 3.3 cm x .6 cm. The top of the lid is enameled in white, with dark blue lettering which reads: "...GRAIN TABLETS / ACETIDINE / EACH TABLET CONTAINS: / ACETPHE..IETIDIN / (Acetanind Derivative) 0.1176 Gm / ACET....SALICYLIC ACID 0.1764 Gm / CAFFE..... 0.0294 Gm." No reference to a product called acetidine could be found, however it is assumed that it was some type of pain relieving medication of the early-twentieth century.

Oral Thermometer Fragment:

A single fragment to an oral thermometer was recovered from the site. The thermometer fragment is graduated from “0” to “40” degrees (it is not known if this is in Celsius or Fahrenheit), with large tick marks occurring at every five degrees, and a number is also present on “20” degrees. The thermometer is composed of clear glass overall, with black gradient markers and numbers, and a white background behind these. The white portion is marked in cursive with, “rancisco,” and “MADE / USA.” These undoubtedly correspond to San Francisco, and Made in USA. The approximate diameter of the thermometer is .7 cm, and the fragment is approximately 3.3 cm long. This thermometer is definitely of twentieth century manufacture, due to the precision of the markings and the optical clarity of the glass, which denotes few impurities and no manganese; a trait of post-WWI manufacture (Jones and Sullivan, 1989: 13).

Pastimes and Recreation

Bullet Jacket, .45 Cal. Colt Automatic, Fired:

One of the oddest artifacts recovered from the site is a brass bullet jacket to a .45 Cal. Colt Automatic pistol cartridge. It is not odd to recover such bullets from historic sites, yet this particular bullet is composed of only the brass jacket, with its entire inner cavity being empty, when it should be filled with lead. It is clear that the bullet was fired, as the barrel rifling is present on the jacketing. Little distortion to the jacket is noted, and the bottom crimping is intact, which means that the lead slug from within could not have come out in a solid form. The only way the lead could have been removed without distorting the crimping or the nose of the bullet, is for a high amount of heat to have been applied to the bullet after it was fired. This means that the bullet was fired, recovered, then heated for its lead content, which would have become molten before the brass jacket. This artifact provides evidence for a strange series of events, with little explanation. It is

difficult to date a fired bullet, but being a .45 Cal. Colt Automatic, this bullet could not have originated before 1905 when it was invented, and more than likely was manufactured after 1911, when the cartridge was standardized by the U.S. Ordnance Department (Barnes, 1965: 171).

Bullet, .45 Cal. Colt Automatic, Fired:

Another .45 Cal. Colt Automatic bullet, similar to the one mentioned above, was recovered from the site. The only difference between the two is that this one has its lead core still intact. It is clear that this bullet was fired also, due to the presence of the barrel rifling on the brass jacket of the bullet. Again, little distortion is present on the bullet, and it can be guessed that the bullets were fired at a soft target on the site, then fell into context with the other artifacts.

Cartridge, Fired .22 Short Rimfire Shell Casing:

A single, fired .22 short rimfire shell casing was recovered from the site. According to Barnes, this shell casing represents the oldest American, commercial, self-contained, metallic cartridge (1965: 273). The cartridge was introduced in 1857 by Smith & Wesson, and has been used as a target practice, small game, and self-defense round ever since. The casing is marked with a "H" on its base, as well as having the firing pin mark on the rim of its base. The "H" mark is the manufacturer's mark of the Winchester Repeating Arms Company, of New Haven, Connecticut, however a date of manufacture could not be arrived at (White and Munhall, 1963: 26).

Cartridges, Fired .22 Long Rimfire Casings:

A total of three fired .22 Long rimfire cartridge casings were recovered from the site. First loaded in ca. 1871, this cartridge has been manufactured continuously ever since (Barnes, 1965: 274). Two of these casings, artifact numbers 645 and 813 are headstamped with at "P", which is attributed to the Peters Cartridge Company of Kings

Mills, Ohio, (1887-1934), or to their successors, the Peters Cartridge Division of Remington Arms Co., Inc., of Bridgeport, Conn. (1934 - to date) (White and Munhall, 1963: 33, and Barber, 1987: 64, 82). The third case is headstamped with a “U”, which according to White and Munhall is the manufacturer’s mark of all of the following: the Union Metallic Cartridge Company (1867-1911), Remington Arms-Union Metallic Cartridge Company (1911-1921), and Remington Arms Company, Inc. (1921-to date) (1963: 37).

Cartridge, Unfired .22 WRF Rimfire Round:

A single unfired .22 Winchester Rim Fire round was recovered from the site. According to Barnes, this round was introduced for the Winchester Model 1890 pump or slide-action rifle (1965: 275). The base of the round is impressed with the headstamp “US”, which according to White and Munhall, is the manufacturer’s mark of the United States Cartridge Company of Lowell, Massachusetts (1963: 37). This allows for a determinable date range of manufacture, as its production started sometime after 1890, and the United States Cartridge Company stopped producing rimfire cartridges in 1926 (Barber, 1987: 51).

Cartridges, Fired .30 WCF Casings:

Three fired .30 Winchester Center Fire, or .30-30 Winchester, casings were recovered from the site. The .30-30 Winchester, as it is now more popularly known, was designed and marketed by Winchester in 1895, and “was the first American small bore, smokeless powder sporting cartridge.” (Barnes, 1965: 34). The three cartridge casings have identical headstamps, which say, “WRA CO. / 30 W.C.F.” This headstamp is the manufacturer’s mark of the Winchester Repeating Arms Company, of New Haven, CT, although, no specific date ranges of manufacture for this specific headstamp could be found.

Cartridges, Fired .30-06 Casings:

A total of nine, fired, .30-06 casings were recovered from the site. The .30-06 round was the standard U.S. military issue from 1906 until sometime after the Korean War, and it even served, in limited use, into Vietnam. The headstamps on these casings indicate two different manufacturers, three different plants, and one year of manufacture. Five of the casings are headstamped: “RA / H / 18”. This is the manufacturer’s mark of Remington Arms Company, from their Hoboken, New Jersey plant, having been made in 1918 (Hackley, Woodin, and Scranton, 1978: 111). Two of the casings are headstamped: “RA / 18”, which is the manufacturer’s mark of the Remington Arms Company again, but this time from their Bridgeport, Connecticut plant, and again being made in 1918 (ibid.). One of the casings is headstamped: “W.R.A. CO / 18”, which is the manufacturer’s mark of the Winchester Repeating Arms Company of New Haven, Connecticut, being made in 1918 (ibid.). The final casing’s headstamp has been obliterated, so it could not be analyzed. All of these cartridges were manufactured for the military during World War I, and were probably surplused and fired by civilians between the World Wars.

Cartridge, Unfired .25-21 Round:

A single, unfired, .25-21 Stevens cartridge was recovered from the site. This cartridge was apparently developed about 1897, as a target and small game round (Barnes, 1965: 74). The cartridge is headstamped: “W.R.A. CO / 25-21”, and also has a “W” embossed within the primer. This is the manufacturer’s mark of the Winchester Repeating Arms Company of New Haven, CT, but it is not known if this marking is representative of any particular date range of manufacture.

Cartridge, Unfired .25-35 Round:

A single, unfired .25-35 Winchester cartridge was recovered from the site. According to Barnes, the .25-35 was developed by Winchester and introduced in 1895 for

the Model 94 lever action rifle (1965: 21). This particular round is headstamped: “REM-UMC / 25-35”, which is apparently representative of the Remington Arms - Union Metallic Cartridge Company, of Bridgeport, CT. This headstamp allows for a rather tight date range of manufacture, as it was only used after Remington Arms and UMC combined in 1916, and was discontinued after a new merger occurred in 1920, which created the Remington Arms Company, Inc. (Barber, 1987: 48).

Cartridge, Unfired .401 Winchester Round:

A single, unfired .401 Winchester cartridge was recovered from the site. According to Barnes, the cartridge was introduced in 1910 by Winchester for their Model 10 autoloading rifle, and both the cartridge and rifle were discontinued in 1936, although ammunition continued to be produced by some companies until after World War II (1965: 100). The cartridge is headstamped with the following: “PETERS / .401”. This is the manufacturer’s mark of either the Peters Cartridge Company, of Kings Mills OH (1887-1934), or of the Peters Cartridge Division of Remington Arms Company (1934-ca. 1962) (Barber, 1987: 83).

Shell, 12 Gauge Shotgun Shell, Unfired:

A single unfired 12 gauge shotgun shell was recovered from the site. The base of the shell is embossed with the following: “U.M.C. Co. / No. 12 / AR..... This shell was made by the Union Metallic Cartridge Company, of Bridgeport Connecticut. The Union Metallic Cartridge Company was in operation from 1867 until about 1916, when it merged with Remington Arms Company, and headstamps were changed to “REM-UMC” (Barber, 1987: 48). Therefore, this shotgun shell was manufactured between ca. 1867-1916.

Shell, 12 Gauge Shotgun Shell, Fired:

A single fired 12 gauge shotgun shell was also recovered from the site. The base of the shell is embossed with the following: "WESTERN / MADE IN USA / No 12/ FIELD." This shell was manufactured by the Western Cartridge Company, of East Alton, Illinois. The company apparently used the "WESTERN" headstamp from its opening in 1902, and well into its merger with Winchester after 1931 (Barber, 1987: 86, and White and Munhall, 1963: 207). It seems that the Winchester Western Division of the Olin Mathieson Chemical Corporation used both the "WESTERN" and the "W.R.A." markings simultaneously on different rounds until well after World War II (White and Munhall, 1963: 207, 209). Therefore, it is nearly impossible to narrow a date range of manufacture for this shot gun shell, other than saying it was produced some time between ca. 1902 and the present.

Clay Marble:

A single white clay marble was recovered from the site. The marble has an approximate diameter of 1.6 cm, and appears to have been hand formed. There are no markings or manufacturer's marks present on the marble, yet, judging from the fact that it is made of clay, it is probably of nineteenth century manufacture (Brauner, Personal Communication). Even so, this marble is probably representative of an artifact which was curated until the early-twentieth century, then lost, due to the date of the structure on the site, and the dates of manufacture for most of the other artifacts recovered from the site.

Doll's Porcelain Hand Fragment:

A single, unglazed, porcelain, broken, doll's hand fragment was recovered from the site. The fragment consists of three fingers, which were molded together in a cupped fashion. The porcelain is an off-white, and was obviously molded, due to the presence of

a mold line along the edge of the fingers. The longest finger is approximately 1.2 cm in length, and the overall width of the fragment is approximately 1.1 cm. With no further diagnostic details on the piece, it is almost impossible to date the manufacturing period of this artifact.

Doll's Porcelain Head Fragments:

Four fragments of curved, off-white unglazed porcelain have been identified as being the remains of a doll's head. Two of the fragments represent the right ear and the right upper eye of the doll's head, while the remaining two fragments are identified as belonging to the same doll's head only by their similarity of material, their gentle curvatures, and their similarity in thickness. The ear piece extends towards the parietal and temporal sections of the doll's head, with the entire ear being present. The ear measures approximately 2.3 cm from top to bottom. Again, with no further diagnostic details on these fragments, it is almost impossible to date the manufacturing period of this doll, or judge how large it was, or whether or not its body was porcelain, or a stuffed material.

Doll's Porcelain Foot Fragment:

A single, glazed, white porcelain doll's foot fragment was recovered from the site. The foot extends up to the leg, and appears to reach up to the calf, and just below the knee, where it was broken. The foot appears to be a right one, and was probably molded due to the presence of mold marks running parallel up the leg portion. The foot is relatively small, being some 1.4 cm in length, while from the breakage point above the knee to the bottom of the foot, the fragment is approximately 2.3 cm in length. With no further diagnostic details on this fragment, determining a date of manufacture, or what type of doll or figurine this fragment represents is next to impossible.

Harmonica:

The remains of a brass and wood harmonica were recovered from the site. It appears that the harmonica can be termed a ten single hole, twenty reed type, and it is composed of two brass plates, separated by small wood blocks. Most of the reeds are missing, yet those that are present appear to be made of brass which were simply pinned into position over the twenty reed slits, ten to each end plate. The harmonica is held together by two small machine screws and nuts, on either side of the body. The harmonica's dimensions are: 10.0 cm x 2.5 cm x .8 cm. Unfortunately, there are no maker's marks or decorative details present on the harmonica. Even so, by the style of the harmonica, and by the manufacturing style, it is probable that the date range of manufacture for this instrument is the late-nineteenth century. A level of increasing ornateness is noted in harmonicas advertised by Sears, Roebuck and Co. between 1897 and 1908, with this harmonica definitely resembling the earlier, more plain harmonicas in style (Sears, Roebuck & Co., 1968: 527, Sears, Roebuck & Co., 1971: 245). It must also be noted that the earliest patent date listed for these harmonicas in these advertisements is 1850.

Paint Brush Handle:

The handle to a very fine pointed paint brush was recovered from the site. The handle is made from an iron tube, fitted into a brass sleeve with a small center perforation on its otherwise closed end. The handle measures approximately 21.5 cm in length, has an iron tube diameter of .5 cm, and a brass sleeve diameter of approximately .6 cm. The iron tube measures approximately 17.1 cm in length, with the brass sleeve taking up the remainder of the total length. This tube was created by rolling the iron, and sealing the butt-seam with an unknown process. The brass sleeve has no such seams, and was probably milled from a solid brass rod. A degraded layer of black paint is observed on the iron tube portion of the handle, which extends down onto the brass sleeve for only about

.8 cm, leaving the remainder of the sleeve bare and brass-colored. The diameter of the pin-hole in the end of the sleeve is only about .15 cm, indicating that the hair bristles which it once held were probably small, and few in number. Due to the level of machine finishing which is present, and the style of the brush, the date range of manufacture for this brush can probably be labeled as the early-twentieth century.

Plastic Dart:

The remnants of a green plastic, and yellow-metal dart were recovered from the site. The dart remnants consist of a green plastic tail-fin portion, with a weighted, yellow metal projectile end. The pointed tip of the dart is missing, and presumably broken off. The dart measures approximately 6.8 cm long, while the yellow metal shaft portion is approximately .6 cm in diameter. There are four individual tail fins, and the shaft has four raised and roughened partitions encircling it, which were apparently added for a better grip while throwing. One of the tail fins is marked with raised lettering, "MADE IN ENGLAND". Due to the presence of the green plastic on the tail fins, it can be supposed that the dart was manufactured in the late-twentieth century.

Plastic Puzzle Piece:

A piece of a dimensional plastic puzzle was recovered from the site. The puzzle piece is made from a translucent green plastic, and is shaped like a three-dimensional, open-ended rectangle, with winged extensions. The piece is similar to ones produced for dimensional puzzles manufactured in the 1970s (Personal Observation).

Toy Alphabet Block:

A toy, wooden alphabet block was recovered from the site. The block has roughly hewn squared edges, having the dimensions of: 3.2 cm x 3.2 cm x 3.1 cm. Every side of the block is decorated with the following numeral or letters of the alphabet: "U / 8 / H / B / Q / D". The "U / 8 / H / B" sequence is impressed into the wood and high-

lighted with black ink. The “D” and the “Q” are on opposite sides of the block, and both are raised letters, with a raised border around them. The “D” and its border are in red, with a white background, while the “Q” and its border are in blue, with a white background. Such alphabet blocks seem to have caught on in America around the Civil War (Fraser, 1972: 202). According to Fraser, during the late-nineteenth century, “Alphabet blocks, either cut out, embossed or lithoed, were extraordinarily popular.” (ibid.). Blocks still remain as a childhood institution to this day, and because of this it is fairly difficult to date this block, although it is probably from the early-twentieth century.

Toy Bowl Fragment:

A single fragment of a toy porcelain bowl was recovered from the site. The fragment is essentially one-quarter of a bowl, from the base to the rim. The base has a raised foot, and a concave center, while the rim is undecorated. A hand-painted decorative image appears on the outer face of the body of the fragment, consisting of a song-bird sitting on a branch, with four berry-like balls, and a single, five-petalled flower. The bird and the flower are sloppily painted in yellow, with the paint extending outside of the black-outlines of the figures. The berry-like balls are simply blue dots of paint, while the branches are represented by black lines. From base to rim, the bowl fragment measures approximately 2.4 cm, and the rim is only .2 cm thick. Using a bow compass, the bowl’s reconstructed diameter is approximately 6.0 cm. Determining a date range of manufacture for this bowl is difficult. Ornately painted miniature place settings were available in Europe as early as the seventeenth century, and they are certainly available today (Fraser, 1972: 76). Even so, this bowl was probably manufactured in the early-twentieth century, due to its sloppy application of paint, which is probably representative of mass production.

Toy Buckle:

A white plastic, toy buckle was recovered from the site. The buckle is basically a double “D” type, with a large center bar with pronged belt catches, and two end bars, one on either side. The buckle measures 2.5 cm x 1.5 cm, and has a single small perforation in its center bar, with corroded iron within it, indicating the presence of an iron pin to attach it to its belt. The exact type of toy which this buckle was originally designed for is unknown; it could have come from anything from a cheap watch, to a doll. Yet, the use of plastic as a material indicates that it was manufactured in the late-twentieth century.

Toy Dart Gun Dart:

A yellow plastic dart gun dart was recovered from the site. The dart is approximately 11.5 cm long, with a shaft that is roughly shaped like a “t”, which is .9 cm x .6 cm in width. Approximately 4.6 cm from the head of the dart, on one of the shorter wings of the shaft, there is a 1 cm long triangular shaped notch, which is where the dart gun’s spring-loaded catch would lock the projectile in a firing position. The trigger assembly would release this catch, which would allow the spring to decompress, firing the dart from the gun. The head of the dart is made of a red rubber, which is shaped in a concave “suction cup” form, which when fired correctly from its gun, would allow the dart to stick to flat, smooth surfaces. This toy is definitely of late-twentieth century manufacture.

Toy Frog’s Head:

The remains of what appears to be a yellow, plastic, toy frog’s head was recovered from the site. The head appears to represent the top half of a frog’s head, from the mouth, up. The head is convex in form, has two raised eyes, two impressed nostrils, and sits flat on its mouth plane where it apparently rotated upwards from behind when it was complete. The back of the head has a projecting tab, which is probably where the

head was hinged and rotated from the rest of the toy; and a center, square-shaped projection appears to be the point where force was somehow applied to make the head rotate backwards, as if the frog's mouth were opening. The diameter of the head is approximately 4.4 cm, and the head sits about 3.0 cm tall. There are no markings or decorative features on the toy. As this toy is made of plastic, it is probably representative of late-twentieth century manufacture.

Toy Sad Iron:

A toy sad iron, modeled after a Mrs. Pott's style sad iron was recovered from the site. The iron measures approximately 9.0 cm in length, by 4.4 cm in width, and is approximately 2.7 cm in thickness (see Figure 19). The iron weighs approximately 10 oz., and this is what the 1897 Sears and Roebuck catalog lists their, "Jewel Toy Sad Iron," as weighing in at (1968: 99). The illustration for this model of toy iron (they advertised three different toy sad irons in this particular catalog), displays a permanent wood handle which attached at either end of the boat-shaped iron. The recovered iron, however, displays two socket holes in its top-center portion, which is where a removable wooden handle would have fit with a clamping lock-pin device (see Figure 19). The 1897 Sears catalog does list a toy sad iron with a removable handle, but its description says that it weighed in at 12 oz. This disparity is probably either due to oxidation and conservation procedures, or due to a variety of toy sad irons which were manufactured in different sizes and weights, and were just not advertised in this particular catalog. While the primary function of this artifact was probably as a toy, it is interesting to note that the 1897 Sears and Roebuck catalog states of a third toy sad iron, the "Lace" style, "While it is sometimes sold for a toy, it is a great favorite with the ladies for doing fine work, such as laces, etc." (1968: 99).

Toy Porcelain Tea Cup:

A single, fragmentary, white-glazed porcelain toy tea cup was recovered from the site. The cup has a foot-ring, and a rudimentary handle which appears to have been attached to the cup after the cup was molded. The cup measures 2.1 cm in height, with a foot-ring diameter of 1.7 cm, and a rim diameter of 2.4 cm. The cup is undecorated, and is not marked in any fashion. A date range of manufacture is difficult to estimate on this artifact, as the ability to make miniature place settings with great detail was present in the seventeenth century, and continues to this day (Fraser, 1972: 76). Even so, this cup is probably representative of early-twentieth century manufacture, due to the undecorated, whiteware style that it replicates.

Pocket Tools and Accessories

A single broken key head was recovered from the site. The key head appears to be copper, is oval shaped, has a single perforation for a key ring, is patterned with a roughened square pattern on both sides, and has a large “Y” embossed on one side. The key could have been to any number of styles of locks, and the “Y” probably represents the key maker’s trade-mark, or perhaps the trademark of a piece of machinery which the key may have operated.

Domestic Items

Under Sprague's functional classification system there are three sub-categories listed under the heading Domestic Items. These sub-categories are further broken down into types, with three types listed under the sub-category Furnishings, eight types under Housewares and Appliances, and a further eight listed under Cleaning and Maintenance. No new sub-categories were created with this typology, however, twelve new types were added under the sub-category Housewares and Appliances (mostly under different types of containers, and food), and one type was added under Cleaning and Maintenance. The

sample is represented by the following sub-categories (in bold) with their types and the corresponding number of artifacts: **Furnishings**: Furniture (2); Drapery, Rugs, Linen and Dry Goods (1), and Decorative (24); **Housewares and Appliances**: Kitchen Appliances (3), Culinary (2), Gustatory (4), Containers, Aluminum (3), Containers, Glass Bottles and Jars (280), Glass Bottle and Jar Closures (25), Containers, Glass Bowls (2), Containers, Glass Tumblers (7), Containers, Glass Cups (2), Containers, Enameled Iron (2), Containers, Tinned Iron (64), Ceramic Flatware and Hollow Ware (164), Food Wrapping Materials (5), Food (79), Portable Illumination (5), Portable Energy (4), and Home Education, Information and Business (4); **Cleaning and Maintenance**: Cleaning (2), Household Maintenance (7), Laundry (3), Sewing (8), Binding Materials (1), and Pet Maintenance (4).

Furnishings

Furniture

Decorative Knob Pull Base:

What appears to be the base to a decorative knob pull was recovered from the site. The base is made of brass sheet, which appears to be silver plated. The base is square with rounded corners, and has eight rouletted “teeth” on each straight edge. The center is raised and has a single circular perforation. The base measures approximately 3.7 cm x 3.7 cm, and the center perforation has a diameter of approximately .9 cm. An impressed design consisting of two paralleling squares, turning into corner roundels is also present. The larger of the two squares has a length of 2.3 cm, while the smaller has a length of 1.9 cm. A series of hashed lines exists between these two squares, at an opposing angle to them on every side. At each corner of the larger square, there is a single impressed dot, which extends through to the underside of the base, creating four raised dots on this side. These dots were probably used to give friction to the surface to which the base was

adhered to, so that it would not slip around its knob when in use. Due to the high level of finish and decoration present on this artifact, and due to the style of the decoration on it, the period of manufacture for it can probably be dated to the late-nineteenth century, and into the early-twentieth century.

Drawer or Chest Handle:

An iron D-shaped handle, apparently for a drawer or chest, was recovered from the site. The handle appears to have been cast, and is roughly 3.420" x 2.110". There is no evidence of a decorative or protective coating, and the handle has been quite corroded. There are no markings on the handle either, but it was decorated by having its pull-section scalloped out towards the edge. The handle could have been manufactured anywhere from the late-nineteenth century to the mid-twentieth century. It is interesting to note, however, that it closely resembles a chest handle advertised in the 1897 Sears, Roebuck & Co. catalog, which was advertised as being 3 1/2" (1968: 99).

Drapery, Rugs, Linen and Dry Goods

Artifact number 936 appears to be the remains of a Jacquard woven textile (Elaine Pedersen, Personal Communication). The Jacquard Loom was invented by Joseph Marie Jacquard in ca. 1805, and the invention greatly sped up production of woven textiles by eliminating the need for a drawboy (the person whose responsibility it was to control the pattern sheds during the weaving process) (Wilson, 1982: 61). The Jacquard Loom essentially mechanized the process of creating a patterned weave through the use of a rolled cylinder of cards. "First, the design was copied onto squared drafting paper. Then a card was punched for each pick to show the warp to be raised; the number of cards equaled the number of picks in one design repeat. The cards were laced together and placed on a cylinder. As the cylinder turned, each card was pressed against a set of horizontal needles, each connected to a separated vertical hook that raised or lowered the warp it

controlled." (Wilson, 1982: 63). This system had the further advantage that the cards could be stored and reused whenever a particular pattern needed to be reused. The process is similar to a player piano, or the punched card computer programming systems of the early 1970's. According to Wilson, the Jacquard Loom was first used in America in the 1820's (Wilson, 1982: 259), and its use in more mechanized forms certainly lasted into the early twentieth century.

This particular fragment is a two-toned brown piece, with a reversed color pattern from one side to the other (what is dark brown on one side is light brown on the other, and vice versa). The fragment is a surprisingly large one compared to the other textile remains found in the collection, measuring approximately 36 cm x 23 cm in its largest areas, however it is much degraded, with many convoluted edges with loose threads. One edge of the fragment appears to be an original, unfinished edge, as it is quite straight. The warp threads (the length-wise facing threads which were originally stretched between the beams in the loom) are a light brown or tan, and the microscopic analysis indicated that they are cotton.

The weft yarns are felted and are in two colors, a light brown and a dark brown. The lighter colored yarn appears to be wool after a microscopic analysis. However, the darker yarn failed to give any conclusive results as to a type of material after both a microscopic analysis and three trials of burn tests. It can be suggested that this yarn is either a much degraded wool, or a mix of two fibers which are confusing the results. The fragment has an ends per inch count (warp threads) of 36, and a picks per inch count (weft threads) of 18. The pattern on the fragment is repetitive in nature, being a series of diamonds and leafy patterns in a loose "cross" pattern, similar to a doubled tree of life pattern. With the surviving remnants of this fragment, it is difficult to say what functional form this fragment originally had. Being a jacquard woven, felted textile, it is most likely that this fragment is the remains of either a blanket, a rug, or curtains.

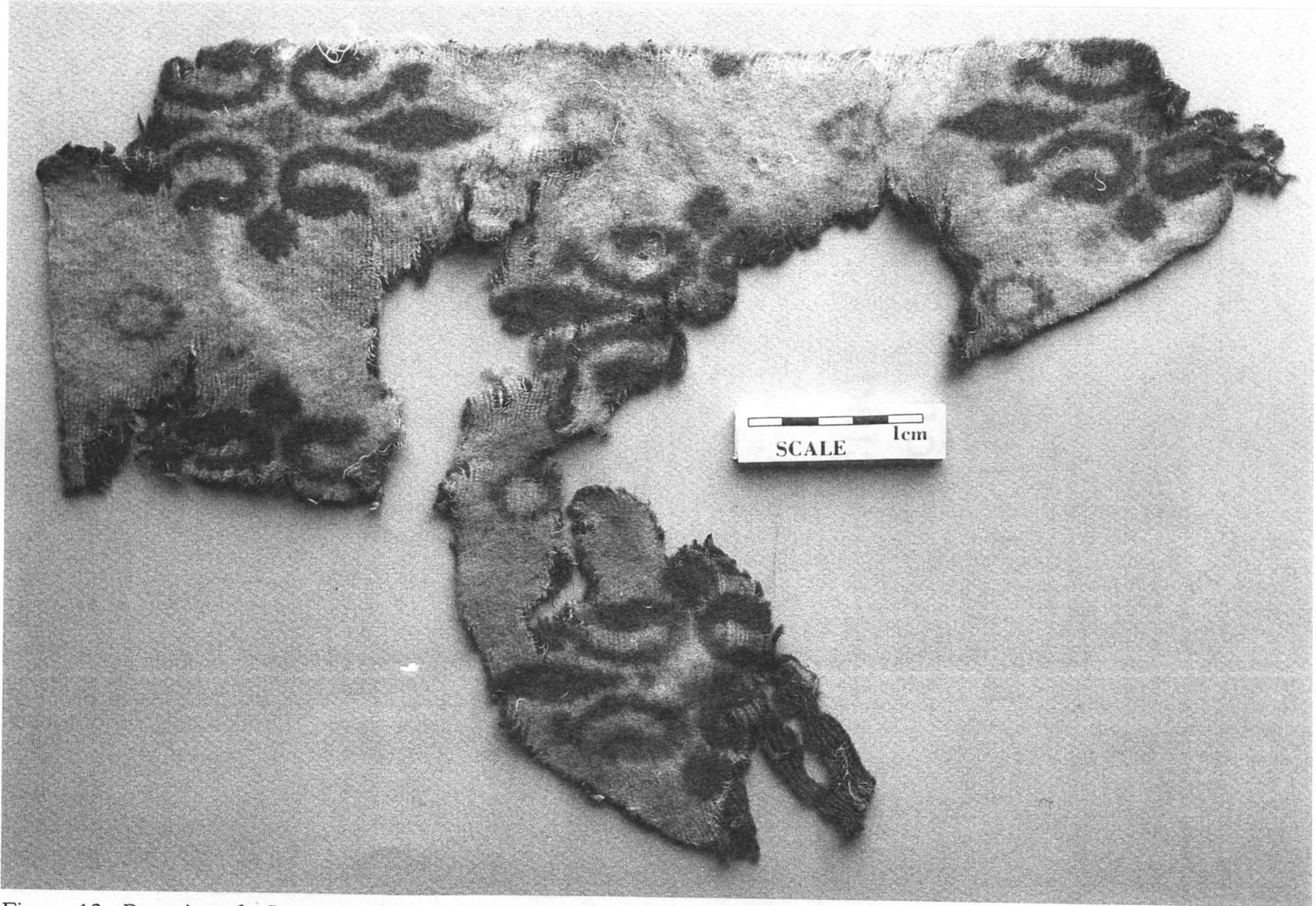


Figure 12. Remains of a Jacquard woven fabric recovered from Site ORBE2.

Decorative Furnishings

Female Figurine:

A small, pedestaled, naked female figurine was recovered from the site. The figurine is made of a cast yellow metal and is approximately 7.2 cm in height. The figurine represents a naked woman, standing erect with an arched back, her head upright, and arms apparently outstretched upwards (both arms are missing, but the right arm is present up to the elbow). There are no markings on the figurine other than the cast mold lines running up either side of the body. It is fairly difficult to date such a piece, but judging from the heavy mold lines, it was probably mass produced by machine, which probably means that it was manufactured in the early-twentieth century.

Olivella Shells:

Four Olivella, or Olivella biplicata shells were recovered from the site. All of the shells are intact, with no drilled holes or culturally caused features being present. The shells range in length from 2.1 cm to 2.6 cm, and appear to be fairly representative of those recovered on the Oregon coast in the Oregon State University faunal comparative collection. Due to the fact that these mollusks are ocean creatures, which are not typically thought of as edible, they more than likely represent a trip to the beach where they were collected to be displayed at home, until their eventual disposal.

Picture Hanging Bracket:

A small, stainless-steel picture hanging bracket was recovered from the site. The bracket is a rectangular bar, approximately 3.6 cm in length and .5 cm in width, with a single hooked projection protruding from the middle of one end. Judging from similar examples, it can be supposed that this type of bracket was mounted to a wall using a gummed-fabric strip which would have been mounted to the bar.

Red Earthenware Planting Pot:

A fragmentary, circular, red earthenware planting pot was recovered from the site. The pot tapers from the top to bottom, and there is a lipped edge around the body approximately 3.7 cm down from the top edge. Overall, the pot stands approximately 12.1 cm high, with a base diameter of 10.9 cm, and a rim diameter of 16.5 cm. The center of the base is perforated with a single 1.5 cm diameter hole, presumably to allow water out of the pot, when watering plants within it. The pot is symmetrical, and has a smooth finish, with no apparent throwing marks inside or out. In addition, the lipped edge is very sharp, which all together probably means that the pot was molded, rather than thrown. The pot definitely dates to the twentieth century, however it is not clear in what decade production started for such molded redware pots.

Red Earthenware Planting Pot Fragments:

A total of 16 red earthenware planting pot fragments were recovered from the site. Of these, nine were body fragments, four were lipped rim fragments, and three were base fragments. One of these base fragments has a reconstructed base diameter of approximately 6.0 cm. If the other dimensions of this pot remained the same as that described above, it would have been almost exactly half the size of the other example. The color, thickness, and diagnostic features of the remaining fragments indicate an identical style of pot as was described above, with the four rim fragments displaying an identical lipped edge as that above. The rest of the fragments are too fragmented to determine if they go to the same pot or not, and with the existing fragments, an MNI of two red earthenware pots of two distinct sizes can be determined from this assemblage.

Housewares and Appliances

Kitchen Appliances

Three fragments of flat, clear, ribbed glass, which are apparently the remains of refrigerator shelf glass, were recovered from the site. The glass is essentially ribbed on both sides, one side having ribs approximately 1.0 cm apart, while the other side has ribs that are less than .1 cm apart. The ribs run in the same direction on both sides of the glass. Each of these fragments is approximately .290” thick at the top of each rib, while only about .170” thick in between each of these ribs. These pieces of refrigerator shelf glass are probably from a refrigerator of the early-to-mid twentieth century.

Culinary

Kitchen Knife Blade:

A stainless steel knife blade was recovered from the site. The blade has been broken in across its width, and has three pronounced chips along its sharpened edge. The remnants of the blade measures approximately 5.7 cm long, and is 1.4 cm wide at the broken edge, tapering to a point on the other end. Along the top of the left side of the blade (with the sharpened edge facing downwards), is a ground portion, leaving an indented face, as well as the following (laser cut?) lettering, “CA 221 C / CASE XX STAI...” This last word appears to be “STAINLESS”, as the almost uncorroded condition of the blade attests to. Due to the uncorroded condition of the blade, and the apparently laser cut lettering on it, this knife blade was probably manufactured in the late-twentieth century, probably post-1980.

Measuring Cup:

A single yellow plastic measuring cup was recovered from the site. The cup is cylindrical, has a flared, concave foot ring which is wider than the most of the rest of the

cup, and two handles set on opposite sides of the cup. The cup has a rim diameter of 6.6 cm, it stands 8.1 cm tall, and has a foot-ring diameter of 6.3 cm. The outside surface of one side of the cup is graduated from one to six ounces with raised molded characters and lines. The bottom of the cup is imprinted in raised letters with the following, "MADE IN UNITED STATES OF AMERICA". Judging from the fact that the cup is made of yellow plastic, a date range of manufacture of ca. 1950-1970 can be assigned to it.

Gustatory

Table Fork:

A complete, corroded, four tined table fork was recovered from the site. The fork measures some 18.4 cm long, while the tined scooping portion of the fork has a maximum base width of 2.5 cm, tapering to a width of 1.5 cm. The two center tines are longer than the end tines, having a length of 5.1 cm, while the end tines are 5.0 cm long. The shaft of the fork has a width of approximately .5 cm, and gradually widens to an oval-ended form with a maximum width of 2.5 cm. On the back of the shaft is impressed a manufacturer's mark of, "ROYAL SILVER," with two small swords pointing at these words from either side. The fork is apparently made of brass, and was silver-plated at one time. There is probably no way to definitively date the period of manufacture of this fork due to the multitude of styles put out during the late-nineteenth and twentieth centuries, but it probably dates to the early-twentieth century due to its style.

Table Knife Handles:

Two identically styled wood and iron table knife handles were recovered from the site. The handles are both quite degraded, with their iron plate centers being highly corroded, and their wooden side plates being highly desiccated, with much cracking and splintering. Number 425 has even separated down the middle, with the two wood side plates pulling away from their iron center in a "V" shape. Artifact number 424 is slightly

longer than 425, being 9.3 cm long, as opposed to 9.0 cm long. This extra length is attributed to the remnants of the blade still being present on number 424. Number 424 is also slightly wider, being 2.1 cm wide, rather than 1.9 cm, but this appears to be due to the excess of corrosion present on the iron middle plate on this artifact. Artifact number 425 has a steel butt-plate, which is missing on number 424, although the impression of the butt-plate is still present on the wood of this artifact. Judging from the pulled apart remains of number 425, the handles were riveted together using three iron pins which pierced all three portions of the handles. Determining a date range of manufacture for these handles is quite difficult, as their degradation, and their multi-component manufacture does not allow one to determine if they were hand-made, or machine made. They are labeled as “table knives”, but as their blades are missing, this is only a guess due to their apparent high state of finish. If these knives had sharpened blades and were hand-made, then their date of manufacture can only be guessed at, and if they are table knives which were machine-made, then they probably date to the late-nineteenth century, or the early-twentieth century.

Table Spoon:

A slightly corroded table spoon was recovered from the site. The spoon measures 14.9 cm in overall length, with a shaft and handle length of 10.0 cm. The cupped holding portion of the spoon is oval in form, and is 3.2 cm wide at its widest. The shaft of the spoon is .4 cm wide, while the handle has a maximum width of 1.7 cm. The handle also curves up at its tip, which is rounded. There are no markings on the spoon, which is made of an unknown alloy which was apparently silver plated at one time. Defining a definite period of manufacture for this spoon is fairly difficult due to the multitude of styles which were present during the late-nineteenth and twentieth centuries, but it probably dates to the early-twentieth century due to its style.

Containers, Aluminum

Pull Tab:

A single, removable, aluminum beverage can pull-tab was recovered from the site. It is not discernible what type of beverage can the pull-tab came from, and there are no markings on it. The pull-tab probably dates from ca. 1963, when this type of can opening was patented, to ca. 1980, when permanent pull-tabs were patented (Petroski, 1992: 199-201).

Pull Tab Beverage Cans:

Two pull tab beverage cans, one whole, the other partial, were recovered from the site. The whole beverage can is a Hamm's Beer can produced by the Theodore Hamm Brewing Co. The can is marked, "NET CONTENTS 15 FLUID OZS.," and is approximately 6" in height, with a diameter of approximately 2 1/2." Starting from the bottom of the can, it is decorated with a broad blue band approximately 1 3/4" in height, followed by a gold band approximately 1/8" in height, followed by a white band which varies in height, and is finished with a section of vertical gold and white bands. The crimped lid is marked with the raised words, "HAMM'S / SF," and "HAMM'S," again on the opposite side. This probably means that the can was produced and filled in San Francisco, CA., one of Hamm's subsidiary brewery stations. It is also important to note that the lid of the can is missing its pull-tab, and its tear-strip, which is probably indicative of production before ca. 1980, when non-removable pull-tabs and tear strips were patented (Petroski, 1992: 203).

The other aluminum beverage can is only partially represented by its crimped lid and a small amount of the body, which has been cut through with a sharp utensil. The can is marked, "ITOEN," in white letters on a black band, and a gold band is just underneath all of this. The crimped lid is anodized in a gold color as well, and is engraved with the instructions on how to open the pull-tab can: "1 LIFT TAB / 2 PULL

FORWARD / 3 PUSH BACK.” The oval-shaped tear strip is still present, but the pull-tab is missing, having been apparently wrenched off. This appears to be a non-removable pull-tab design, which would be indicative of a post-1980 manufacture date.

Containers, Glass Bottles and Jars

There are a total of 278 glass artifacts which are representative of bottles and jars identified in the collection. 23 of these are whole glass bottles and jars. All are organized by their color, their form (bottle or jar), then by catalog number, if necessary. All descriptive terms used were pulled from, *The Parks Canada Glass Glossary*, by Olive Jones and Catherine Sullivan.

Amber, Body Fragments:

There are 45 amber glass fragments which appear to be body fragments to bottles or jars. Forty-three of these are curved or rounded enough to indicate that they were part of cylindrical based bottles originally. The remaining two appear to be body fragments to square or rectangular based bottles with rounded corners. One of these, artifact number 630, is marked with lettering, yet there is not enough present to make a decipherable letter or word.

Amber, Base Fragments:

Four of the amber glass fragments which were recovered are base fragments of cylindrical based bottles. All four fragments are different enough to conclude that they represent different bottles, and they provide the basis for a MNI (minimum number of individuals) of four. One base, artifact number 634, displays the markings, "70R," along the edge of the base and body, and it also displays an Owens suction and blow machine scar. This scar is indicative of a date of manufacture of ca. 1904 - 1950 (Jones and Sullivan, 1989: 39). Another base, artifact number 1254, displays no markings, but it

also has an Owens suction and blow machine scar. Therefore, it too shares the same date range of manufacture.

Amber, Neck Fragments:

There is only one amber glass neck fragment represented in this collection, and it is the junction of the neck and shoulder of a cylindrical bottle. There are no markings or mold seams present on the artifact, nor is there evidence as to the type of finish that it had. Due to the lack of mold seams, it can be assumed that this neck fragment either represents a hand-blown bottle, or a molded bottle that has been fire polished. The former would probably date to the late-nineteenth century, while the later would date to the early-twentieth century (Jones and Sullivan, 1989).

Amber, Neck and Finish Fragments:

The two amber glass neck and finish fragments are vastly different in form. The first, artifact number 398, has a down tooled, internally threaded finish, and displays an entire cylindrically tapered neck, ending with its juncture with a rounded shoulder. There are two mold seams present on the neck, and the finish has been fire polished to obliterate most of the mold seams on it. By the form and color which this fragment seems to represent, it can be guessed that this is the remains of a hard alcohol bottle, and by the mold seams present, and the internal threading that this was machine produced ca. 1889 - 1926 (Jones and Sullivan, 1989: 39).

Artifact number 1256 has a crown finish with the remains of some of a cylindrical neck as well. There are three mold seams present on the fragment, and there is no evidence of fire polishing. The crown finish was patented in the United States in 1892, and has remained popular ever since (Jones and Sullivan, 1989: 79). Therefore, this fragment could have been manufactured anytime within that time period. By the form and color of this piece it can be concluded that it is the remains of a beer bottle.

Amber Bottles, Whole:

Six intact amber glass bottles were recovered from the site, with two of them being retained by the contractors who excavated the site. The four that are housed in the Department of Anthropology collections at Oregon State University will be described first.

Artifact number 417 is an amber glass bottle, with a cylindrical base, sloped down shoulders, cylindrical neck, and a crown finish. The bottle measures approximately 16.0 cm in height, has a base diameter of 6.2 cm, and a finish diameter of 2.5 cm. Both the base and the finish are molded, and six different mold lines are observed on the bottle, indicating a fairly complex manufacturing process, and a late date of manufacture. The markings on the bottle confirm this, with an "I" surrounded by an oval on the bottom of the body rim indicating that the bottle was manufactured by Owens Illinois Glass Co., in Toledo, Ohio, ca. 1954 to at least 1971 (Toulouse, 1971: 403). The bottle was probably manufactured using a fully automatic bottle making machine and due to its form and color, it can be inferred that its original contents were beer.

Artifact number 418 is an amber glass bottle, with a rectangular base with rounded edges, sloped shoulders, a cylindrical neck, and a threaded finish with a tinned iron cap still present. There is a thin white film on the inside of much of the bottle, and it is apparently the remains of the original contents. The bottle measures 15.1 cm in height, with a base length of 6.6 cm, a base width of 4.4 cm, and a finish diameter of approximately 3.0 cm. The base and the finish are both molded, and there are three mold seams present on the bottle, with a "ghost" seam on the base. The bottle is marked with a 21 and a 6 on either side of two perpendicular overlapping ovals on the base. These ovals appear to be the manufacturing mark of the Olean Glass Co. (Works), of Olean, New York, and would have been used between the dates of ca. 1929-1942 (Toulouse, 1971: 400). The bottle was probably manufactured using a fully automatic machine, and by its form and color, its original contents were probably some kind of medicine.

Artifact number 420 is an amber glass bottle, with a cylindrical base, sloped shoulders, cylindrical tapered neck, and a down tooled lip with a string lip below it. The bottle measures 30.4 cm in height, has a base diameter of 8.6 cm, and a finish diameter of 2.6 cm. The base and finish of the bottle are both molded, and four mold seams are present on the bottle. The body of the bottle also displays two "ghost" seams, and the base has an Owens scar. There are no further markings on the bottle. The Owens scar indicates that the bottle was manufactured by a semi-automatic machine incorporating the Owens suction and blow process. The Parks Canada Glass Glossary dates the range of manufacture of such bottles from ca. 1904 - 1950 (Jones and Sullivan, 1989: 39). By the bottle's form and color, it can be inferred that its original contents consisted of some form of hard alcohol such as whiskey. With the dates of Prohibition from 1919 - 1933 limiting the production of alcoholic beverages and their containers, it becomes likely then that this bottle's date of manufacture can be even more localized to ca. 1904 - 1919, or ca. 1933 - 1950.

Artifact number 1255 is an amber glass bottle, with a cylindrical base, rounded shoulders, a rounded neck, and a crown finish. The bottle measures 23.8 cm in height, with a base diameter of 6.2 cm and a finish diameter of 2.5 cm. The base and the finish are both molded, and the bottle displays four mold seams with an Owens scar present on the base. The only markings on the bottle consists of a code, "R 200" placed over the base mold seam. Due to the presence of the Owens scar, it can be said that this bottle was manufactured by a semi-automatic machine incorporating the Owens suction and blow process between ca. 1904 - 1950 (Jones and Sullivan, 1989: 39). The form and color of this bottle indicate that the original content of the bottle was probably beer, and with prohibition of the sales of alcoholic beverages in the United States from 1919 - 1933,



Figure 13. Representative sample of cylindrically based, clear and amber colored bottles.



Figure 14. Representative sample of rectangularly based, clear and amber colored bottles.

one can once again narrow the probable date of manufacture of this bottle to ca. 1904 - 1919, or ca. 1933 - 1950.

Artifact number A-2 is a bottle which was retained by the contractors, which is a cylindrically based amber glass bottle, with sloped down shoulders, a cylindrical neck, and a flanged lip. The bottle is approximately 7" tall (all measurements on items retained by the contractors are very approximate, as they are taken from photographs with an inch scale in the background), and 2 1/2" in base diameter. There are no estimates on the finish diameter, or neck length. The bottle has the cursive word "Palmer" written in raised letters in an angle across the body, which indicates that the bottle was probably molded. The slightly off-centered neck, and applied finish also seem to indicate that this bottle was hand blown into a mold and hand finished. Such hand-blown into a two part mold, with separate bottom, bottles can usually be dated to the late-nineteenth and early-twentieth centuries (Jones and Sullivan, 1989: 28). The Palmer trade-mark seems to be that of the Palmer Drug Co., of Santa Cruz, California, and survived at least from 1857 to 1935, according to Fike, based upon the base-mark of the Whitall-Tatum Glass Co., who made many of the bottles for the Palmer Drug Co. (1987: 112).

Artifact number A-9 is a bottle which was retained by the contractors, which is a square based bottle with flat chamfered corners, four recessed body panels, sloped down shoulders, a cylindrical neck, and a down tooled finish. The bottle is approximately 9" tall, and is approximately 2 1/4" wide at the base. A mold mark is observed on one of the flat corner chamfers, and appears to disappear mid-way up the neck. This indicates that the bottle was probably hand-blown into a two-sided mold with a separate bottom, indicating a probable date range of manufacture of the late-nineteenth to the early-twentieth centuries (Jones and Sullivan, 1989: 28). Two of the recessed body panels are marked with raised lettering. The first side is marked, "ELECTRIC" BRAND / BITTERS", while the opposite side reads, "H.E. BUCKLEN & CO. / CHICAGO, ILL." Fike states that this product was produced as early as 1880, and was advertised as late as

1923 (1987: 33). Fike goes on to say that a paper label would have originally been affixed to one of the unmarked panels, which read, “ELECTRIC BRAND BITTERS, 18% alcohol. The Great Family Remedy For all Diseases of the Stomach, Liver and Kidneys. Guaranteed under the Pure Food and Drug Act of 1906...” (ibid.).

Black, Body Fragment:

A single diminutive piece of black glass was recovered from the site. It appears to be a curved body fragment of a jar or bottle, however, the two largest surfaces have been eroded to the point where it is difficult to even tell if it is indeed glass, yet less what type of container it may have come from.

Blue, Body Fragments:

Two fragments of blue colored, bottle body fragments were recovered. The smaller of the two has no markings, is curved, and displays little else to give definition to its original form. The other piece, however, is large enough to display a flat panel and two rounded corners, with lettering present on the flat panel portion. The only discernible letter is an "H." This piece is more than likely the remains of a square or rectangular based bottle with rounded corners, and with the blue color, this probably represents a medicinal bottle of some kind.

Clear, Body Fragments:

There are 148 clear glass body fragments of either bottles or jars represented in this collection. One-hundred-thirty-six of these were originally part of cylindrical based bottles or jars. Of these, only three displayed markings. Artifact number 62 displays several indecipherable letters, with one letter either being a "W," or an "N." There are no other distinguishable markings, and it is impossible to date this fragment, or tell what type of manufacture it displays in its current state. Artifact number 390 has the clearly legible impressed words, "ONE QUART," curved over a depressed circle. Typically,

such markings were found on Mason style jars, however, this fragment appears to display a sloped shoulder portion of a bottle. There are no mold marks, or any other distinguishing markings on the fragment, and it cannot be definitively dated or identified as to its exact function. Finally, artifact number 1055 displays the number "10," which is probably a bottle manufacturer, bottling run, identifying number. However, without a maker's mark, or even mold seams present, it is impossible to say anything else about this fragment.

The remaining 12 clear glass body fragments are all body panels to square or rectangular bottles. Ten of these are recessed body panels, while the other two are do not have enough features to say whether or not they were flat sided, or recessed body panels. One of the recessed panel fragments, artifact number 71, has the lettering, "Rex," in a cursive style within the recessed panel. There was a Rex Bitters Co., based in Chicago, Illinois, and Fike found that the company's advertisements could be found from April 22, 1909 - 1916 (Fike, 1987: 40). Certainly the company could have been open before and after the first and last advertisement dates, but it is probably not likely that it existed too far outside of these temporal boundaries, and this fragment can probably be dated fairly reliably by these dates.

Clear, Base Fragments:

There are 14 clear base fragments to either bottles or jars. Of these 14, five are fragments to cylindrically based vessels, seven are bases to rectangular based vessels with curved or flat chamfered corners, and two are ovoid bases. All but one of the cylindrically based fragments have embossed lettering on them. This solitary unembossed cylindrical bottle base has the remains of two mold marks on it. The fragment is the remains of the curve separating the body from the base, and the remains of a body mold mark, and a base mold mark are present; with the body mold mark abutting the base mold mark. More than likely, these mold marks represent a vessel which was made by a machine, with at

least a three piece mold. There are no other diagnostic details present on the fragment, and it is too small to obtain an estimated diameter.

Artifact number 206 is embossed with the following letters, "SKE... / AND..." with the "S" and the "A" back-to-back, and inverse of each other. There are no other defining features, and with just these letters, the embossing is indecipherable. Likewise, artifact number 371 has only two decipherable letters, "G ' C...." Again, there are no other defining features, and this label is completely unidentifiable.

The final cylindrical base fragment is artifact number 568, which is embossed in a circular pattern with, "WF & S / Ki / MIL." The base diameter appears to have been approximately 8.1 cm. There are two mold seams present on this fragment, and the lettering is the maker's mark for William Franzen & Son, of Milwaukee, Wisconsin, with a date of manufacture range from ca. 1900 - 1929 (Toulouse, 1971: 536). It is most likely the remains of a cylindrical bottle, however the original contents can only be guessed at.

Out of the seven rectangularly based bottle base fragments, two are too fragmentary to provide any defining features as to their manufacturer or date of manufacture range. Four of the remaining five at least have some defining features present on them.

To begin with, artifact number 48 is embossed on its base with the code, "W 9." This is probably the bottling run code, and this gives no temporal or functional information without knowledge of the bottle manufacturer. The base width of the fragment is approximately 2.4 cm, and the base length is now 4.5 cm, although one of these edges is fractured, so this does not display its original length. Only one mold seam is present around the edge of the base, and it can be said that this bottle was definitely molded.

Artifact number 65 is embossed on its base with the numeric code, "856." Once again, there is no evidence of a bottle manufacturer's mark. The fragment measures approximately 3.3 cm in base width, and the length edges are too fragmentary to obtain an

accurate measurement from. One mold seam is present, again along the edge of the base, and about the only definitive thing which can be said about this bottle is that it was molded.

Artifact number 392 is a rectangular base which co-joins with two body fragments, and is embossed on its base with the numeric code, "S108." No bottle manufacturer's mark can be found on the fragment, and only one mold seam is present. The two body fragments show that the bottle had two recessed panels. The base measures approximately 4.9 cm in length, and 2.5 cm in width, and the longest body fragment measures some 10.4 cm from the base to the top of its fractured edge.

Artifact number 1068 has enough fragmentary body portions to show that it was a rectangularly based bottle with flat chamfered corners, and three recessed body panels. The fragment is embossed with a "6" or a "9" in a circle on the base; and with the word, "....., KENTUCKY," on one of the recessed body panels. The base measures approximately 6.1 cm in length, and 3.3 cm in width. There are three mold seams present on the fragment, and the bottle was definitely molded.

These four artifacts are too fragmentary to positively identify any further, but more than likely, they represent the bases of clear, rectangularly based medicinal bottles of the early-twentieth century.

The fifth rectangular base fragment is actually a base with all four body panels represented, with all of the neck and most of the shoulder fractured away. The fragment represents a clear rectangular bottle, with flat chamfered corners, and no recessed body panels. Interestingly, the bottle fragment was also recovered with a cork closure within it, although there is no way to definitely say that it came from the finish of this bottle. The base of this fragment measures some 4.7 cm in length by 1.9 cm in width. The apparent height of the body is approximately 10.2 cm. The fragment displays three mold seams, as well as an Owens scar extending from the base, up the edges of one of the body panels. The bottle remnant is embossed on one body panel with the lettering, "FOLGER'S

Golden Gate FLAVORING.” To supplement this embossing, the remnants of a paper label are still surprisingly adhered to the opposite body panel. The label is red, with white and black lettering, most of which is now illegible. The only legible lettering appears on the bottom of the label, is in black, and is the word, “Francisco.” It is supposed that this represents the second half of the city name of San Francisco, to go along with the, “Golden Gate,” motif. The Owens scar on this bottle indicates that it was probably manufactured between ca. 1904 - 1950 (Jones and Sullivan, 1989: 39).

The two ovoid base fragments shed little light as to any definite bottle manufacturers. Artifact number 85 measures approximately 5.5 cm in length and 2.2 cm in width. The fragment displays three mold seams, with an Owens scar on the base. The only embossed marking on the artifact is the numeric code, “6” on the base. The Owens scar indicates that this bottle was manufactured between ca. 1904 - 1950.

Artifact number 339 measures some 4.5 cm in length by 2.2 cm in width. The fragment displays three mold seams, and was definitely molded. Embossed lettering is present with the words, “SHELDON,” and, “...TRACT CO. / WASH.,” appearing on the base and a body panel respectively. Interestingly, I could not find a reference to the word, “SHELDON,” being used as a manufacturer’s mark, yet that does not mean that it is a manufacturer’s mark. Even more interestingly, Fike (1987: 137), lists a “Dr. Sheldon’s Magnetic Liniment,” which was made in Boston, Massachusetts. Unfortunately, the embossed lettering of, “WASH.,” can be supposed to be representative of the state of Washington, not Massachusetts. More than likely then, these two ovoid bases probably represent medicinal bottles manufactured in the early-twentieth century again.

Clear, Finish Fragments:

There are 12 clear bottle or jar finishes in the collection. Out of these, six are apparently jar finish fragments. Two of these, artifact numbers 1051 and 1064 are jar

finishes with a flattened string lip feature, with no threading. Both are molded, and probably date to the late-nineteenth, or early-twentieth centuries. Three other fragments are threaded finishes, two having been just molded, and one having been molded with a ground lip. The ground fragment, artifact number 378, has been rough ground, leaving behind the tell-tale grayish-white frosting on the lip. This type of grinding was usually undertaken to flatten the lip, or prepare it for contact with specialized closures (Jones and Sullivan, 1989: 40). The final jar finish fragment is really the juncture of a horizontal shoulder and finish, with no evidence as to what type of finish was originally present, however it resembles the shoulder/finish juncture present on artifacts 1051 and 1064.

The remaining six finish fragments are the remains of clear bottles. Three of these are crown type finishes, all having been molded, with only one, artifact number 744, showing three complete mold seams. Of the other two, one is too fragmentary to show evidence of mold seams, while the other, artifact number 871, shows two mold seams on its tapering cylindrical neck. This neck also shows evidence of fire polishing on the finish portion. The diameter of the finish on both of these artifacts is approximately 2.6 cm, while their finish heights are 2.8 cm for number 744, and 2.7 cm for number 871. Artifact number 45 was too fragmentary from which to obtain any useful or accurate measurements from. These three fragments were manufactured anywhere between ca. 1892 to the present, while artifact number 871, with the evidence of fire polishing probably being manufacture before ca. 1920 (Jones and Sullivan, 1989: 163).

Artifact number 70 represents the remains of a small, square based bottle with rounded edges, a cylindrical neck and a prescription lip. The neck and finish height is approximately 2.5 cm, with the lip being approximately .5 cm in height, with an outside diameter of 2.0 cm. The body appears to have been about 3.0 cm wide. Two mold seams appear on the shoulders, and the neck and finish have been fire polished to remove these. Due to the form and color of this fragment, it can be interpreted as being the remains of a

small medicine bottle of the late-nineteenth century or the early-twentieth century (Jones and Sullivan, 1989: 81).

Artifact number 401 displays a two-part finish with a flanged lip, a cylindrical neck, and a scooped neck. Although very little of the body remains, it appears that it was roughly a rectangle shape. The neck to finish height is approximately 4.1 cm, while the finish itself is only 1.2 cm in height. The diameter of the finish is approximately 2.6 cm, and there is not enough of the body remaining to get an accurate estimate as to its dimensions. Two mold seams appear on the shoulder, however, the neck and finish have been fire-polished to remove such evidence. Although according to Jones and Sullivan (1989), flanged lips were common on medicine vials throughout the eighteenth and nineteenth centuries, this fragment probably represents the remains of a small medicine bottle of the late-nineteenth, early-twentieth centuries, due to its molded and fire-polished form of manufacture.

Clear, Neck Fragments:

There are three clear bottle neck fragments in the collection. All three seem to represent cylindrical, tapered bottle necks, and none have mold seams. This does not mean that they were not all molded, however, as two are too fragmentary to tell, while one, artifact number 75, may be a hand formed neck, or a molded neck which has been fire polished to remove the mold marks.

Clear Bottles, Whole:

There were 19 whole, clear bottles recovered from the site, all basically being of late-nineteenth to early-twentieth century manufacture, yet showing a diversity of probable original contents.

Artifact number 405 is a clear glass bottle, with a cylindrical base, champagne style shoulder, a tapered neck, and crown finish. The bottle measures approximately 25.7

cm in height, with a base diameter of approximately 7.0 cm, and a finish diameter of 2.5 cm. Both the base and the finish are molded, with three mold seams being present on the bottle, and evidence of fire-polishing on the finish. There are no markings on the bottle to aid in identification of the bottle manufacturer or date of manufacture, however; it can be noted that the bottle displays a slight purplish tint to it, which probably indicates the presence of Manganese. Manganese was known as the, “glassmaker’s soap,” and was used to overcome the green and yellow tints created by the presence of iron oxides (Jones and Sullivan, 1989: 13). Fortunately for those trying to date bottle glass, Manganese also turns purple after prolonged exposure to sunlight, and its usage in glass was all but eliminated during and after World War I. For these reasons, the date range of manufacture for this particular bottle is probably ca. 1893 - 1918.

Artifact number 406 is a clear glass bottle, with a cylindrical base, sloped down shoulders, a tapered, cylindrical neck, and a crown finish. The bottle has an overall height of approximately 24.3 cm, a base diameter of 6.3 cm, and a finish diameter of 2.6 cm. The base and finish are both molded, and the finish has been fire polished. There are three mold seams on the bottle, and it is marked on the base with an interconnected, “AB,” with the code B3 underneath. There is also a numeric code of, “7-8” running along the edge of the base and body. The embossed “AB” is the manufacturer’s mark of the Adolphus Busch Glass Manufacturing Co., manufactured in either Belleville, Illinois, or St. Louis, Missouri between ca. 1904 - 1907 (Toulouse, 1971: 26). This is the same Adolphus Busch of Anheiser-Busch Beer fame, and interestingly enough, he produced many of the bottles for his own beer, as well as bottles for mineral water companies. Due to the clear color of this bottle, it can be assumed that it was produced to hold mineral water (Toulouse, 1971: 26).

Artifact number 408 is a cylindrically based clear bottle, with sloped down shoulders, a rounded neck, and a crown finish. The bottle measures approximately 23.7 cm in height, with a base diameter of 6.3 cm, and a finish diameter of 2.6 cm. The bottle

displays a molded base and finish, with the finish having been fire-polished. There are four mold seams present on the bottle, as well as base markings of an interconnected, “AB,” underneath of which is the code, “P 12.” Once again, the markings indicate that the bottle was made by the Adolphus Busch Glass Manufacturing Co., having been manufactured in either Belleville, Illinois, or St. Louis Missouri, between ca. 1904 - 1907 (Toulouse, 1971: 26). Like artifact number 406, this bottle was probably produced on a semi-automatic machine, and was probably manufactured to hold a beverage like mineral water.

Artifact number 409 is a rectangularly based clear bottle, with rounded corners, two recessed body panels, a cylindrically ringed neck, a screw-on finish, and a drip bore. The overall height of the bottle is approximately 15.3 cm, with a base length of 4.7 cm, a base width of 2.5 cm, and a finish diameter of 1.8 cm. There are four mold seams present on the bottle, one “ghost” seam on the base, and both the base and finish are molded. The only marking on the bottle is the alpha-numeric code of, “10K1009” on the base. The bottle manufacturer is unknown, although it can be said that the bottle was probably made by a semi-automatic machine between ca. 1889 - 1926 (Jones and Sullivan, 1989: 39). By the form and color of the bottle, it can also be inferred that the original contents were probably medicinal in nature.

Artifact number 410 is a rectangularly based clear bottle, with rounded corners, four recessed panels, a cylindrically ringed neck, and a Perry Davis style finish. The bottle measures approximately 14.7 cm in overall height, with a base length of 4.8 cm, a base width of 2.5 cm, and a finish diameter of 1.8 cm. Both the finish and the base are molded, and the finish has been fire polished. The bottle displays three mold seams, as well as the following markings on the narrow edged, recessed body panels: “DR. S. PITCHER’S,” on one side, and “CASTORIA,” on the other. According to Fike, (1987: 177), Dr. Samuel Pitcher of Barnstable, Massachusetts received patent number 77,758 in 1868 for this castor oil. However, it was not labeled as a castoria until 1871, when

Charles H. Fletcher, a representative for Demas S. Barnes, purchased the formula. It continued to be labeled as Pitcher's Castoria under the ownership of Barnes, and later under Fletcher himself. Fletcher created the Centaur Liniment Company in 1877, and owned it until his death in 1922. The products were then produced by Sterling Products, and Pitcher's Castoria was still being advertised as late as 1948 (Fike, 1987: 177). This dates the bottle anywhere from ca. 1871 - 1948, however, the mold marks seem to represent a machine blown bottle, and the fire polishing is representative of early machine-blown bottles. This creates a more refined date range of ca. 1890 - 1920.

Interestingly, artifact number 411 represents the same form as number 410, and undoubtedly held the same basic original product. The bottle is made of clear glass, having a rectangular base with rounded corners, four recessed body panels, a cylindrical neck, and a Perry Davis style finish. The bottle measures 14.8 cm in height, with a base length of 4.9 cm, a base width of 2.5 cm, and a finish diameter of 1.9 cm. There are three mold seams on the bottle, and both the base and finish have been molded, with the finish having been fire-polished. The bottle is marked on the two smaller recessed body panels with, "Chas H. Fletcher's" in cursive on one, and "CASTORIA," on the other. As mentioned above, Chas H. Fletcher was the owner of Centaur Liniment Company between 1877 - 1922. The concoction was certainly nearly identical to that marked with, "DR S. PITCHER'S," although Centaur did not start embossing his bottles with the, "Fletcher" name until the early 1890s (Fike, 1987: 162). Fike (1987: 162), also notes that the Fletcher style bottle was marked with a paper label which identified the contents within as, "...a vegetable preparation for assimilating the food and regulating stomach and bowels of infants and children." Fletcher's Castoria was apparently advertised as late as 1985 (Fike, 1987: 162), however, the form and manufacturing marks on this bottle seem to indicate that it was probably manufactured by a machine-blown process ca. 1890 - 1920.

Artifact number 412 is a clear glass bottle, which is square based with flat chamfered corners, two recessed body panels, sloped shoulders, a bulged neck, and a prescription neck. The bottle measures some 22.3 cm in overall height, with a base width of 6.6 cm, and a finish diameter of 3.3 cm. There are three mold seams present on the bottle, and the base has been molded while the finish has been hand applied. The bottle displays interesting embossing on the recessed body panels, consisting of, "PREPARED BY / DR PETER FAHRNEY & SONS CO. / CHICAGO. ILL. U.S.A." on one panel, and "Farni's Alpenkrauter Blutbeleber" on the other. "Alpenkrauter Blutbeleber" is a German phrase, which loosely translated means, "alpine herbal blood stimulator," or, "alpine herbs which are good for the blood." Fike (1987: 59), states that, "Dr. Peter Fahrney, Chicago, began bottling the Blood Clenser & Vitalizing Pancea in the late 1860s, and by the late 1880s had simplified the name to Blood Panacea." Fike also states that possibly all of the embossed bottles made for Fahrney were probably manufactured after 1900 (Fike, 1987: 59). However, the presence of the hand applied finish and the twisting of the glass on the neck seems to indicate that the bottle was hand blown into a three piece mold, then hand finished. Such manufacturing processes, although not impossible to find during the era, can probably be dated to ca. 1850 to the mid 1920's (Jones and Sullivan, 1989: 28). Therefore, it would probably be safe to date the manufacture of this bottle to ca. 1900 - 1920.

Artifact number 413 is a clear glass bottle, with a rectangular base, flat chamfered corners, two recessed body panels, sloped shoulders, a cylindrical neck, and a patent lip. The bottle measures approximately 9.9 cm in overall height, with a base length of 3.7 cm, a base width of 1.7 cm, and a finish diameter of 1.8 cm. Both the base and finish are molded, with the finish having been fire polished, and the bottle displays three mold seams. The bottle is marked with, "THREE IN ONE," and, "3 \ IN \ ONE OIL CO." on the recessed body panels, and with a, "P" over a 26, all over a "P" in an oval on the base. The "P" within the oval appears to be the trademark for the Standard Glass Works of

Wellsburn, West Virginia, with a date of manufacture range from ca. 1892 -1900 (Toulouse, 1971: 409). This date range certainly fits the style of manufacture, as the bottle was apparently machine blown in a three piece mold, then fire-polished on the neck and finish, which would have been a popular method from ca. 1890 - 1920.

Artifact number 414 is a clear glass bottle, with a kidney shaped base, sloped down shoulders, a cylindrical neck, and a flanged lip. The overall height of the bottle is 17.3 cm, with a base length of 6.7 cm, a base width of 4.0 cm, and a finish diameter of 3.0 cm. The finish has been hand applied, while the base has been molded, and three mold seams appear on the bottle. There are no markings on the bottle, and the only datable information present on the bottle is the evidence of its type of manufacture. The hand applied finish, along with the twisting of the glass around the neck, and the three mold seams all show that this bottle was hand blown into a three piece mold, then the finish was applied. Jones and Sullivan (1989: 28), state that such bottles should probably be dated to ca. 1850 - 1920, and it should be safe to date this bottle's period of manufacture to that range.

Artifact number 415 is a clear based bottle, with a rectangular base, chamfered corners, four recessed body panels, sloped down shoulders, a cylindrical neck with one neck ring, and a patent lip. The bottle measures approximately 12.4 cm in overall height, with a base length of 4.6 cm, a base width of 3.4 cm, and a finish diameter of 2.1 cm. The base and finish are both molded, with the finish having been fire-polished. The bottle displays three mold seams, and an Owens scar on the base. The bottle is marked on one of its recessed body panels with the embossed lettering, "SPERM SEWING MACHINE OIL." The "SPERM" is clearly in reference to Sperm Whale oil, and this makes the bottle an interesting representation of the all-but-now-deceased whaling industry. Based upon the Owens scar, it can be said that the bottle was manufactured with an Owens suction-and-blow process machine, probably between ca. 1904 - 1950 (Jones and Sullivan, 1989: 39).

Artifact number 419 is a clear glass bottle, with a rectangular base, flat chamfered edges, one recessed body panel, sloped shoulders, a cylindrically tapering neck, and a Perry Davis style finish. The bottle is partially broken, missing most of a shoulder and some of the body on one panel, yet, interestingly, when recovered, had a desiccated cork within. The bottle measures some 21.3 cm in overall height, with a base length of 7.5 cm, a base width of 4.2 cm, and a finish diameter of 2.8 cm. Both the finish and the base are molded, and the bottle displays three mold seams, with one “ghost” seam on the body. The bottle is marked on the recessed body panel with a horizontal, “TRIAL MARK,” placed over the top of a vertically read, “WATKINS.” The base is also marked with an “I” within a diamond, which according to Toulouse (1971: 264), is the maker’s mark for the Illinois Glass Co. of Alton, Ill., with a date of manufacture range of ca. 1916 - 1929. According to Fike (1987: 185), a paper label would have been adhered to the opposite side of the embossing which would have read, “WATKINS STOCK DIP FOR KILLING Lice, Ticks, Mites and Vermin. For Preventing and Curing Mange, Scab and Itch. For Disinfecting and Purifying Poultry Houses, Pig Sties, Cattle Sheds, Stables, Dwellings, Sick Rooms, Water Closets, Sinks, Sewers, Etc...” The product was marketed by the J. R. Watkins Medical Co., which was established in Plainview, Minnesota in 1868, then moved to Winona, Minnesota in 1885 (Fike, 1987: 82). As a side note, the firm was still operating as late as 1986.

Artifact number 1133 is a small, clear glass bottle, with an ovoid base, sloped down shoulders, a cylindrical neck with one neck ring, and a screw finish. The bottle only measures 7.7 cm in overall height, with a base length of 3.8 cm, a base width of 2.0 cm, and a finish diameter of 1.3 cm. The whole bottle has been molded, and four mold seams appear on the bottle, as well as an Owens scar on the base. The only marking on the bottle is the embossed word, “drene” on the base of the bottle. No reference to this strange word could be found, and it is not a bottle manufacturer’s mark which could be identified in any of the sources cited. Due to the size and form of the bottle, as well as

the embossed word on the base, it seems that the original contents of the bottle was probably some sort of perfume. The Owens scar on the base shows that the bottle was manufactured by an Owens suction-and-blow machine, between the years ca. 1904 - 1950 (Jones and Sullivan, 1988: 39).

The final clear glass bottle which was recovered and kept by the Department of Anthropology at Oregon State University is artifact number 1282. The bottle displays a rectangular base with rounded corners, sloped down shoulders, a cylindrical neck, and a threaded finish. The bottle still has a black plastic cap on it, as well as a dried amber-colored film covering much of its interior, which can be assumed to be the remains of the original contents of the bottle. The overall height of the bottle is 12.5 cm, with a base length of 4.8 cm, a base width of 3.1 cm, and a finish diameter of 2.5 cm. The bottle is molded, and it displays four mold seams, as well as an Owens scar on the base. Markings consist of embossed graduations on one of the body panels, in both ounces and in cc's, as well as a, "3 OZ." over the graduations. The base is marked with the word, "ILLINOIS," on top of a "5 I 6," with the I being within a diamond, inside of an oval. These markings are the manufacturer's mark for the Owens Illinois Glass Co., of Toledo, Ohio, with a date of manufacture range of ca. 1929 - 1954 (Toulouse, 1971: 403). These dates coincide nicely with the Owens suction-and-blow machine date of manufacture range of ca. 1904 -1950. Of the original contents of the bottle, it can be said that they were more than likely medicinal in nature.

The remaining, intact, clear bottles were all retained by the contractors, and are only represented by photographs, so their dimensions are approximate. Artifact number A-3 has a rectangular base with flat, chamfered corners, four recessed body panels, sloped down shoulders, a cylindrical neck, and a patent lip finish. The bottle is approximately 8" long, and has a base that is approximately $2 \frac{2}{3}$ " long, by $1 \frac{2}{3}$ " wide. A mold line is observed on two of the flat chamfered corners, and seems to disappear along the neck, probably indicating that this bottle was hand-blown into a two piece body mold with a

separate bottom in the late-nineteenth or early twentieth centuries (Jones and Sullivan, 1989: 28). The two smaller recessed body panels are marked with raised lettering, reading, “L.M. GREEN PROP.,” on one side, and “WOODBURY N.J.,” on the other. A similar bottle with a paper label on one of the open body panels is noted by Fike as saying, “Dr. A. BOSCHEE’S SYRUP OF TAR AND WILD CHERRY COMPOUND- For Coughs, Due to Colds. Soothes the Throat, Promotes Expectoration. G.G. Green, Inc., Sole Manufacturer, Woodbury, N.J., U.S.A. PROPRIETOR, L.M. GREEN, Woodbury, N.J.” (1987: 164). Fike goes on to say that Lewis M. Green, MD, of Baltimore, MD, established a wholesale drug business in 1866, and a manufactory in Woodbury, N.J. in 1870 or 1871 (ibid.: 224). Several of his products were apparently advertised and sold as late as the 1930s-1940s.

Artifact number A-4 has a rectangular base with flat chamfered corners, four recessed body panels, sloped down shoulders, a cylindrical neck, and a Perry Davis finish. The bottle is approximately 6 1/2” long, and has a base length of approximately 2”, and a base width of approximately 1”. A mold line is observed on one of the flat chamfered corners, which seems to disappear about half way up the neck, which probably indicates that this bottle was hand-blown into a two piece mold with a separate bottom, in the late-nineteenth, or early-twentieth centuries (Jones and Sullivan, 1989: 28). One of the smaller recessed body panels is marked with raised lettering, which reads, “CASTORIA.” According to Fike, this embossing represents the product of Chas H. Fletcher’s Castoria, “...a vegetable preparation for assimilating the food and regulating stomach and bowels of infants and children.” (1987: 162). This product was apparently introduced in the early 1890’s, and surprisingly survived into the 1980s (ibid.).

Artifact number A-5 has a rectangular base with flat chamfered corners, four recessed body panels, sloped down shoulders, a cylindrical neck with one neck ring, and a patent lip. The bottle is approximately 6 1/2” long, and has a base length of 1 3/4”, and a base width of approximately 1”. There is no embossing on the bottle, and the only mark

on it is a mold line on one of the flat chamfered corners which seems to disappear on the neck. This seems to indicate that the bottle was hand-blown into a two-piece mold with a separate bottom, in the late-nineteenth, or early-twentieth centuries. Although there is no way to be positively sure, the shape and size of the bottle indicates that it was probably used for a medicinal product.

Artifact number A-6 has a rectangular base with flat, chamfered corners, four recessed body panels, a cylindrical neck with one neck ring, and a patent finish. The bottle is approximately 5 1/2" long, has a base length of approximately 2", and a base width of approximately 1". A mold line is observed on one of the flat chamfered corners, which seems to disappear about half way up the neck, which probably indicates that this bottle was hand-blown into a two piece mold with a separate bottom, in the late-nineteenth, or early-twentieth centuries (Jones and Sullivan, 1989: 28). One of the smaller body panels is embossed with the words, "VAN DUZER." This mark is apparently representative of a Van Duzer Jamaica Ginger product, or a Van Duzer Balsam (Fike, 1987: 130, 184). Both were apparently bottled in New York by a Selah R. Van Duzer in the late-nineteenth century, and were affiliated with Mrs. Allen Balsam (ibid.).

Artifact number A-8 has a rectangular base with rounded corners, a chamfered heel, a straight body with rounded edges and corners, a single-stepped-cylindrical neck, and a threaded finish. The bottle is approximately 8 1/2" long, has a base length of approximately 3 1/2", and a base width of approximately 2". Two mold marks are clearly present on either side of the body, extending to the threaded finish, and both ends at the chamfered, raised heel, which appears to be a third mold mark. An Owens suction scar is present within the chamfered heel, indicating that this bottle was produced with an Owens automatic machine between ca. 1904-1950 (Jones and Sullivan, 1989: 39). The base of the bottle is embossed with what appears to be a symbolic erupting volcano, and the word, "RAMSES", underneath of which are the symbols, "5K 4255". No reference

to the base-mark, “RAMSES”, could be found, and it is not known if this is a maker’s mark, or if it is representative of the product within. It is probably a maker’s mark, as this is commonly where such marks were placed, but it is strange that there is no reference to it in Julian Harrison Toulouse’s, *Bottle Makers and Their Marks*.

Finally, artifact number A-9 is a cylindrically based bottle, with a champagne style shoulder, a tapered neck, and a crown finish. It is interesting to note that even with the presence of a crown finish, that a desiccated cork was still inside of the bottle. The bottle is approximately 10” long, and has a base diameter of approximately 2 1/2”. No mold marks are observed in the photographs, but it is assumed by the fact that the bottle has a crown finish that it was machine-made. The base of the bottle is embossed with the following, “W.F. & S. / MIL.”, between which is the number “18”. This base mark is the mark of William Franzen & Son, of Milwaukee, Wisconsin; who made bottles from 1900-1929. Due to the bottle’s shape, it is likely that it held some type of beverage.

Clear Ink Jars, Whole

There were three ink jars recovered from the site. Interestingly, all differ in form, yet all appear to have held the same volume of ink. The first ink jar to be described is artifact number 403. The jar has a square base with rounded corners, rounded shoulders, a cylindrical neck with a single neck ring, and a flanged lip. The jar measures some 6.1 cm in overall height, with a base width of 4.8 cm, and a finish diameter of 2.9 cm. There are five mold seams present on the jar, with the an Owens scar on the base. Lettered embossing is limited to the markings, “2 OZ,” on the neck of the jar. Due to the Owens scar on the base, the jar can be assigned a date of manufacture date range from ca. 1904 - 1950.

Artifact number 404 is a square based ink jar with rounded corners, rounded shoulders, a cylindrical neck with a neck ring, and a double flanged lip. The jar measures some 5.7 cm in height, with a base width of 5.1 cm, and a finish diameter of 3.3 cm. The

jar has four mold seams, and is marked with a single embossed, “2” on the base. The mold seams indicate that the jar could have been made by either a semi-automatic or an automatic press-and-blow machine, however the form of the jar and its lack of a threaded finish probably indicate an earlier date of manufacture. Thus, it can be inferred that the jar was made by a semi-automatic machine, with a date of manufacture range from ca. 1889 - 1926 (Jones and Sullivan, 1989: 39).

The final ink jar in the collection is represented by artifact number 416. This jar is cylindrically based, with a tapered body, a shoulder ring, and a screw finish. The jar measures some 6.6 cm in height, with a base diameter of 5.1 cm, and a finish diameter of 3.8 cm. The jar displays four mold seams, and is marked on the base with the embossed lettering, “LH THOMAS CO. / CHICAGO,” which is all surrounding the number, “24” within a circle. No reference to LH Thomas as either a bottle manufacturer or dispenser of medicines or inks could be found. The jar was definitely molded by either a semi-automatic or automatic press-and-blow machine, and, due to its form, can probably be given a relative date range of manufacture from ca. 1889 - 1950 (Jones and Sullivan, 1989: 39).

Clear Jar, Fragmentary:

Artifact number 83 (which is co-joined with three other artifacts), is an entire base of a cylindrically based jar with a partial body and finish. The diameter of the base is approximately 10.0 cm, and the height of the fragmented jar from base to finish is approximately 15.0 cm. The base is marked with the following embossed letters, "BEN SCHLOSS / MANUFACTURER / PATENT APPLIED FOR / S.F. CAL." The body fragment is also embossed, being marked: “GOLDEN - S.../ PAT. DEC. 20TH 10 / S / PA... / MASO..” According to Toulouse, (1969: 135-136, and 1971: 456), these are the manufacturer’s mark for the Ben Schloss Manufacturing Co., of San Francisco, California. This style of jar was made for commercial canning operations, which were plagued by

seals which lost their vacuum over time. In 1910, Francis J. Machin reasoned that the problem had to do with the shape of the finish and so he patented a new finish design and assigned it to Ben Schloss, a local potter. Schloss had the jars manufactured by the local Pacific Illinois Glass Co., and they seem to have been manufactured between ca. 1902 - 1930. The center of the base also has a circular valve mark which is apparently caused by a valve which ejects a blank out of a mold before it is transferred to the blow mold for completion in a press and blow or blow and blow machine method (Jones and Sullivan, 1989: 39, as referenced from Toulouse, 1969: 583). This type of manufacture is consistent with the date of manufacture range given by Toulouse.

Clear Jars, Whole

There were two intact clear jars recovered from the site. The first, artifact number 1245, is cylindrically based, with a sloped down shoulder, and a continuously threaded finish. The jar measures some 16.1 cm in height, with a base diameter of 8.0 cm and a finish diameter of 8.1 cm. Four mold seams are present on the bottle, and it is marked on the base with the following: “3881 / B / 3 / 16.” The “B” is encircled, and the 3 and 16 appear below it at offset angles. The “B” marking is apparently the manufacturer’s mark of the Brockway Glass Co., of Brockwayville, Pennsylvania (Toulouse, 1971: 59). The mark had been in use from 1925 until the time of publishing for Toulouse, yet it is not known if the company survives today. By the form of the bottle, it appears that its original contents were probably mayonnaise, and by the valve mark on the base, it would appear that it was probably manufactured by a blow-and-blow process machine in the late-twentieth century (Jones and Sullivan, 1989: 39).

The second jar in the collection is artifact number 1246. The jar is cylindrically based, with no neck, and a discontinuously threaded finish. The jar measures approximately 12.2 cm in height, with a base diameter of 7.3 cm, and a finish diameter of 7.3 cm. There are four mold seams displayed on the bottle, and the base is embossed

with the following: “465-15 / Ball / 3 / 10A.” The “Ball” logo is in cursive, and is the standard Ball Brothers Co. maker’s mark since 1888 (Toulouse, 1969: 40). This, however, does not appear to be a standard Ball Mason or fruit canning jar, rather it appears that this was probably a contract manufactured food jar through the Ball Company. By its form, it can be guessed that the original content of the jar was probably peanut butter, and by the valve mark on the base, it can be guessed that it was probably manufactured by a blow-and-blow process machine in the late-twentieth century (Jones and Sullivan, 1989: 39).

Green Body Fragments

Ten green, cylindrical body fragments were recovered from the site. None of the fragments display any mold seams or embossed markings, and no diagnostic information can be yielded from them.

Green Base Fragment

A single fragment of a green bottle base was recovered from the site. The fragment displays no mold seams or embossed markings, and it seems to curve in towards the center of the base possibly indicating the presence of a kick-up. If this is indeed a kick-up, then it is the remnants of a hand-blown bottle, or of a molded bottle which had a stylized kick-up for decorative purposes. With just this small amount of evidence it is almost impossible to delineate between the types, or even give an estimate as to the date of manufacture range.

Green Finish Fragment

A single green finish fragment was recovered from the site. The fragment appears to be the remains of a molded, relatively large diameter finish. A stepped lip is in evidence along the outside rim of the fragment, yet there are no mold seams or embossed markings present.

White Jar, Threaded Finish, Whole

A single white glass jar is represented by artifact number 673 in the collection. The jar is cylindrically based, has no neck, and a threaded finish. The jar measures approximately 4.1 cm in height, with a base diameter of 5.1 cm, and a finish diameter of 5.0 cm. The jar displays three mold seams and no embossed markings. There is no doubt that this jar was molded by a machine, yet, with the absence of an Owens scar, a producer's mark, or any other definitive marking, it is nearly impossible to give a relative date range of manufacture for this artifact other than saying that it is likely of twentieth century manufacture.

White Jar Fragments

Four fragments of white opaque glass appear to be the remnants of white glass jar(s), similar in form to number 673. One fragment, artifact number 1110 is definitely the base of such a jar. There are no mold seams present on the fragment, however, the base is embossed with the following: "RESINOL / ..TO MD / ..AL CO." According to Fike, (1987: 75), this embossing is that of the Resinol Chemical Co. of Baltimore, Maryland. The product was a type of balm which was to be used for skin disease, inflammation, and irritation (Fike, 1987: 75). Again, according to Fike (1987), the company was known to have advertised this product as early as 1897, and was still advertising it as late as 1948. The company has since been purchased by the Mentholatum Co., of Buffalo, New York.

The other three fragments have somewhat less definitive identification aids, as two are curved body fragments with no mold seams or markings; while the other is what appears to be the melted remnants of a finish. The distortion is so great that it is not even possible to discern whether or not the finish had a lip, and it appears that another piece of white glass has been melted to it.

Glass Bottle and Jar Closures

Aluminum Safety Hood for a Bottle:

An aluminum warning hood for a bottle with high pressure contents (most likely champagne) was recovered from the site. The hood has been torn and flattened, and is an overall bronze or gold color with black lettering. The lettering reads: "CAREFUL! / Point bottle away from yourself & others when removing this hood & the stopper. Read warning label below before removing this hood. TO OPEN: Lift tab & tear down." This message is repeated twice on the hood, being divided by two sets of vertically facing black dots. Although an exact date as to when such warning hoods started to appear on pressurized content bottles is unknown, this hood is definitely of late-twentieth century manufacture, and is probably from post-1980.

Canning Jar Lids:

Four threaded, zinc canning jar lids, with opaque white glass liners were recovered from the site. All of the lids are basically identical in shape and dimensions, having bottom diameters of approximately 7.6 cm, a height of approximately 2.8 cm (two have been slightly flattened), and a top diameter of 6.5 cm. All appear to be Mason shoulder-seal type jar lids, the jar itself being patented on November 30, 1858, the lids having been apparently never patented (Toulouse, 1969: 429). The only real variations amongst the lids are with the opaque white glass liners within them. All of the liners are approximately 6.3 cm in diameter, yet differ with the markings on them.

Two of these liners have no maker's marks on them, yet still differ in the formation of impressed rings in their centers or on their edges. Artifact number 331 has a ring which demarcates a raised portion with a diameter of approximately 4.7 cm, then three impressed rings with the following diameters: 2.7 cm, 2.2 cm, and 1.7 cm. The final impressed ring leaves a circle with the same outside diameter of 1.7 cm. Artifact number

332 has only one ring, which demarcates a raised portion of the liner, with a diameter of approximately 4.9 cm. Towards the center of this liner is a slight depression, which moves back into a raised center.

The remaining two liners do have maker's marks on them, as well as raised and impressed rings. Artifact number 1043 has the following raised markings along its glass liner perimeter: "GENUINE ZINC CAP / FOR BALL MASON JARS". The two phrases are separated in the middle by two vertically facing diamonds. A gently raising circle is then observed with an outside diameter of 4.5 cm. At its highest point, this circle drops into a depressed center circle which has an outside diameter of approximately 2.9 cm. Artifact number 1325 is marked with following raised letters along its glass liner perimeter: "GENUINE BOYD CAP / FOR MASON JARS". This lettering appears on a generally flat, yet roughened circle, which then turns into a smooth, raised circle, with an outside diameter of approximately 4.8 cm. Within this raised area are three concentric impressed rings, with the following diameters: 2.8 cm, 2.2 cm, and 1.7 cm. Louis R. Boyd of New York City is attributed with two patents; one on March 30, 1869, and one on May 11, 1869, both of which were for the glass lining on zinc lids to protect the contents of the jar from having a metallic taste imparted to them (Toulouse, 1969: 430). These lids were apparently manufactured and used from 1869 until well into the twentieth century, and although typological differences are noted on the glass liners, no references could be found as to dating the periods of manufacture for each type.

Canning Jar Lid Liner Fragments:

A total of six, opaque, white glass canning jar lid liner fragments were recovered from the site. Only three of these fragments have outside edges which can be reconstructed for an estimate of outside diameter, and all three appear to have had an outer diameter of approximately 6.3 cm. Only one of these fragments, artifact number 123, has any markings or raised portions, with the raised letters: "YORK", followed by

an upside down “Y.”. Just inside of these letters is a raised center section, which has a reconstructed outside diameter of 4.8 cm. Of the remaining three fragments of opaque white glass lid liner fragments, one is very small and has no diagnostic features at all, and the remaining two have remnants of three impressed center rings, which are two small and fragmented to obtain reliable reconstructed diameters. Like the lids described above, these liners were patented by Louis R. Boyd in 1869, and were manufactured from that date well into the twentieth century, so their date range of manufacture can probably be listed as ca. 1869-1950.

Cardboard Milk Bottle Disks:

Four cardboard milk bottle disk closures were recovered from the site. One of the disks is fragmented, and has illegible writing on one surface. The remaining disks are basically whole, and have mostly legible writing on one surface each. The three whole disks have a diameter of 4.2 cm, and each has an incised pull tab for removal from the bottle. Two of these pull tabs are half-circles; the other one is triangular in shape.

As for markings, artifact number 255 is the least legible of the whole disks, with the words, “MILK AND CREAM”, across the middle of the disk. The disk also appears to have a circle around its edge, and illegible words across one edge of the disk. Artifact number 327 has blue markings, and also has a circle around the edge of the disk with the words, “PURE MILK AND CREAM” arranged within this circle. Two scrolls then appear, underneath of which appears, “WASH BOTTLES / RETURN DAILY”. Under all of this is a circular pull-tab, which is all in blue, with white lettering which says, “PULL / HERE”. The final disk, number 1173, appears to have black markings, starting with a circle around the edge of the disk. This circle is then bisected with two lines creating an avenue approximately 1.1 cm wide, with the words, “SUNNY-BROOK” within it. In the upper half of the circle appears, “PASTEURIZED / MILK”. And in the lower half is the phone advertisement, “PHONE / 13”. This particular disk was

apparently manufactured for the Sunny-Brook Dairy of Corvallis, Oregon, which, according to the son of the original owner of the dairy, was in operation from ca. 1921 until the time of printing (Ingles Thompson, Personal Communication).

All of these disks date to the early-twentieth century. The first American patent for these disks appears to have been applied for in ca. 1901, and they were probably used into the middle-twentieth century (Jones and Sullivan, 1989: 161). These disks were designed for returnable milk bottles, which had an internal ledge within the neck of the bottle in which these disks would sit. They were probably not intended for long distance travel or long storage, and are probably indicators of local acquisition of fresh milk (ibid.).

Plastic Bottle Stopper:

A white plastic bottle stopper was recovered from the site. The stopper is made of a white translucent plastic, with a hollow cylindrical plug section with five raised rings upon it, and a mushroom-shaped top, which has fifteen vertically facing, impressed recesses around it, apparently for gripping. Overall, the stopper is approximately 4.0 cm tall, while the inner plug has an outside diameter of 2.8 cm, and the mushroom-shaped top has an outside diameter of 3.2 cm. Due to the fact that this plug is made of plastic, its period of manufacture can probably be date to the late-twentieth century, and probably post-1980.

Lightning Style Glass Jar Liner Fragments:

A total of two, clear glass, Lightning style, jar lid rim fragments were recovered from the site. These fragments appear to be from two individual, yet similarly styled jar lids. Using a bow compass, these two fragments appear to have a reconstructed diameter of approximately 8.8 cm. Two mold seams appear on both of the fragments, one internally, and one externally along the same line, running parallel to the rounded edge of the fragments. Apparently, two part molds were used to manufacture the lids, one mold

for the main body of the lid, the other for the rim. The Lightning style jar closure was apparently first patented on April 25, 1882, by Henry W. Putnam, and was manufactured into the early-twentieth century (Toulouse, 1969: 466).

Cork Bottle Closure:

A cork bottle closure was recovered from the site. The cork is cylindrical and tapered, with an overall height of approximately 1.9 cm, a large end diameter of approximately 2.3 cm, and a tapered end diameter of approximately 2.1 cm. The cork is quite desiccated, however, and the possibility of shrinkage must be taken into account when studying the dimensions. There is no evidence of wiring, wax, a composite structure, or the use of an attached ring for removal. Dating the cork is extremely difficult, as, “Cork as a stopper seems to have become a standard closure for small-mouthed containers beginning in the 16th and 17th centuries, supplanting other sealing substances and maintaining its supremacy almost to the present day.” (Jones and Sullivan, 1989: 149).

Crown Bottle Caps:

The remains of three crown bottle caps were recovered from the site. As crown caps are basically standardized, and as these are highly degraded, no attempt will be made to metrically describe them. All are made of tinned iron, with internal plastic liners, which probably denotes late-twentieth century manufacture (Jones and Sullivan, 1989: 163). Only two of the caps have remaining external product labels. Artifact number 443 is red overall, with white lettering, which reads “Nesbitt’s / CREME / SODA”, in its center, and a list of mostly illegible words (most likely the ingredient list), along the edge of the cap. Artifact number 472 is silver in overall color, with a black, circular center logo, which appears to be a shield or crest of some kind. Around this logo are the words,

“SCHLITZ /T/ LIQUOR”. This obviously is a product of the Schlitz Malt Liquor brewing company.

Foil Lid:

The remains of a lid made of extremely thin aluminum foil was recovered from the site. The fragmented lid has a faded gold color to it, with black lettering; all fading to an aluminum silver. The only decipherable letters are, “GRA..”, which is within a vertical facing rectangle. No product name can be determined from these letters. The rounded, flattened edge appears to be crimped, and this is the likely method of attachment to its bottle finish. Similar crimped lids can still be observed on products such as juices, yet they don't appear to be popular any longer as: they won't hold carbonated items, they are difficult to replace, and are obviously easy to remove before the product is sold. More than likely, this type of lid is of late-twentieth century manufacture, and is probably representative of the ca. 1980's.

Threaded Bottle Cap:

A flattened and torn, tinned iron, threaded bottle cap was recovered from the site. The cap was cylindrical, with a rolled bottom edge, and has a roughened gripping surface around its upper surface, using a series vertical facing, impressed lines. The cap is too degraded to obtain any reconstructed measurements, and realistically could have been fit to either a glass, or tinned iron container. This cap probably has a date range of manufacture of the early-twentieth century.

Threaded Commercial Jar Lid:

The remains of a threaded, zinc, commercial jar lid was recovered from the site. The lid has been flattened, yet still has an intact cardboard internal liner. The lid has a diameter of approximately 5.7 cm, which is the reason it is labeled as a commercial jar lid, as this diameter is too small to represent a Mason or Ball canning jar. The center of the

lid is raised slightly, and has a raised product or manufacturer's mark on it. The mark is in cursive, with much of it deteriorated, and illegible. The only legible letters are, "Sta...." There appear to be anywhere from three to five more remaining letters. No specific product or manufacturer's names could be found to match these letters. By its zinc and cardboard make-up, this lid can probably be dated to a manufacture period of the early-to-mid-twentieth century.

Containers, Glass Bowls

Clear Depression Glass Bowl:

A fairly large, clear Depression Glass bowl was recovered from the site. The bowl measures approximately 21.7 cm in diameter, with an overall height of about 8.1 cm. Unfortunately, no matching pattern could be identified from depression glass collector's catalogs, so a physical description will have to suffice. The bowl appears to be molded, due to a mold line along its rim. The bowl has a series of scallops along its edge, which correspond to 14 ogive shapes, which point down, about half way down the side of the bowl. Underneath the ogives are a series of interconnecting lines which roughly trace the tipped shape of the ogives. On the bottom of the bowl is a slightly raised foot-ring, within which are a series of 14 elongated ovals, which radiate from the center of the bowl like spokes on a wheel, towards the foot-ring (see Figure 15). A date range of manufacture of ca. 1930-1940 can roughly be assigned to the bowl, as it appears that the majority of the Depression Glass made, was manufactured during this period (Weatherman, 1970: 31).

White Glass Bowl:

A single, whole, white glass bowl was recovered from the site. The bowl has an outer rim diameter of approximately 12.2 cm, with a foot-ring diameter of approximately 7.2 cm, and an overall height of approximately 5.8 cm. The bowl is marked on its base in

raised lettering: “OVEN / *Fire-King* (in cursive) / WARE / 15 / MADE IN USA.” The bowl appears to be molded due to its symmetrical nature, yet there are no mold marks on the bowl, which probably indicates that it was fire-polished (see Figure 15).

Containers, Glass Tumblers

Clear Base Fragments:

Five base fragments of what appear to be clear glass tumblers were recovered from the site. Artifact number 19 is a relatively small fragment, displaying a portion of the body, and the beginning curvature towards the base. There is a mold line present between the base and the body, and it probably went completely around the tumbler when whole. All in all, it is difficult to say what shape the tumbler originally had, other than it was cylindrical, and there is not enough of the fragment left to determine an estimated diameter of the tumbler. Artifact number 29 is a base and body fragment, which displays a tapered, cylindrical body, and a flat, foot-less base. There are no mold marks on the fragment, and there are no decorative features on it either. Using a bow compass, the fragment yields an estimated base diameter of approximately 6.8 cm. Artifact number 338 is a base and body fragment as well, consisting of half of the base, and only partial body fragments of a straight bodied, foot-less tumbler (see Figure 16). There are no mold marks present on the fragment, nor are there any decorative features. Once again, using a bow compass, the base is estimated to have had a diameter of approximately 6.0 cm. Artifact number 570 is a base fragment, which displays a curved edge between the body and base, but no foot. There is not enough of the body present to determine if it was tapered or straight, and there are no mold lines or decorative features on it. Unfortunately, there is not enough of the fragment left to determine an estimate of its base diameter. Finally, artifact number 1053 is a base fragment displaying a rounded foot, and a depressed base center. There is not enough of the body present to determine if it

was tapered or straight, and there are no mold marks or decorative features on the fragment. Once again, the fragment is too small to yield any estimates on its base diameter.

Clear Rim Fragments:

There were only two fragments which could be confirmed as being from glass tumblers, and it is not known if they are from the same vessel as any of the bases described above. Artifact number 58 displays a ring of raised, vertical facing lines that are approximately .2 cm long, and probably would have continued around the entire vessel. This ring is approximately .9 cm down from the rim, and is apparently illustrated by Parks Canada in Figure 119c, which is described as, “tumbler, commercial container, anchor closure” (1989: 143). It is assumed that, “anchor closure” refers to the similar ring of vertical facing lines on the illustrated tumbler, however, Parks Canada does not describe an anchor closure, and further references to the term could not be found. Whether or not this ring is a required element of an anchor closure, it is assumed from Parks Canada that this ring is representative of a commercial container, which, “.can be sold originally filled with contents such as peanut butter, jelly, mustard, and so on but is intended to be re-used as a tumbler” (ibid.). Once again, although not explicitly stated by Parks Canada, it is assumed by the symmetry of this ring that this style of tumbler was machine manufactured, and is of twentieth century manufacture.

The other tumbler rim in the collection is artifact number 569, which displays a plain rim and much of a body fragment. The body has the remnants of three joining, ovoid shaped, pressed panels, and seems to be representative of the tumbler displayed by Parks Canada in Figure 119b, which they describe as, “tumbler, tapered body, pressed panels” (1989: 143). This tumbler is definitely machine made, and probably of early-twentieth century manufacture (see Figure 16).

Containers, Glass Cups

Two fragments of apparently the same style, yet different individual cups were recovered from the site (see Figure 16). Artifact number 201 is the fragment of a cup, displaying a partial rim, part of a body, and a fragmented handle. The rim is gently rounded, and using a bow compass presents an estimated original diameter of approximately 7.0 cm. The handle is roughly ovoid in shape, and has a single mold line running down its center which continues on to the body in between the handle, as well as on either side of it. The body curves deeply towards where the base would have been, but there is not enough of a base to determine an estimate of the cup's height.

Artifact number 679 is very similar to number 201, displaying the same type of horizontally "wavy," clear glass, and having an identically styled rim with a diameter of approximately 7.2 cm. This fragment consists of a base, about half of a rim, and perhaps two-thirds of a body, with two sections missing, on two sides of the cup. The base has a shallow foot, and a mold line runs vertically from this foot, yet is missing on one side where it was fractured. The overall height of this cup is approximately 5.6 cm. There are no visual features of a handle, yet, as a section which should have had a mold line is missing, and as the handle described above has such a mold line running up its middle section, it is supposed that the entire handle is missing from the cup and was never recovered from the site. Due to the similarity in form, and in rim diameter measurements, it is supposed that these two fragments represent two different cups of matching style, perhaps even from the same set. Due to the presence of mold lines and the lack of hand-blowing manufacturing features, it is supposed that these two cups were machine-made in a three-piece mold, probably in the early-twentieth century.



Figure 15. Depression glass bowl, and white glass bowl recovered from Site ORBE2.

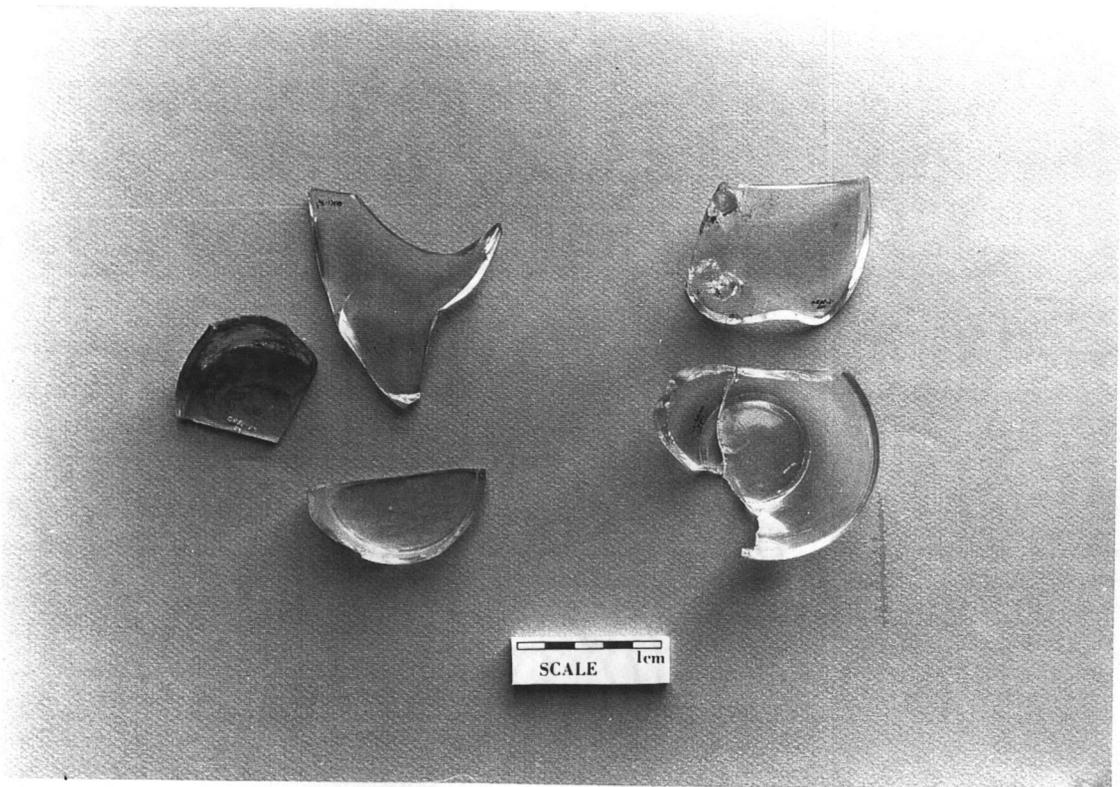


Figure 16. Examples of clear tumbler fragments (L), and clear, handled glass fragments recovered from the site.

Containers, Enameled Iron

Cup Fragment:

The rim and body fragment of what appears to be the remains of a gray enameled cup was recovered from the site. The fragment is composed chiefly of oxidized iron, with a degraded gray and white mottled enameling on the outside, and a degraded white enameling on the inside. The rim of the cup is rolled, but unfortunately, there is not enough of the base to determine how it appeared. The fragment is too degraded and bent out of shape to determine an estimated height or diameter, and there is no evidence of a handle. Such enameled iron wares were apparently common in the late-nineteenth century, and into the early-twentieth century, as they were advertised in every Montgomery Wards, and Sears, Roebuck and Co. catalog between 1895 and 1923.

Pot Lid:

A mostly intact, gray enameled pot lid was also recovered from the site. The lid is circular, with a rolled edge, a depressed ring, and a raised center. A corroded hole appears in the center of the lid, and this may be where a handle or knob was attached. The lid's outside diameter is exactly 9 1/2", however the depressed ring which indicates where the lid sat on its pot, is exactly 8" across, indicating a pot with an inner diameter of 8". There are no markings on the pot, and its period of manufacture can be dated to the late-nineteenth century or the early-twentieth century.

Containers, Tinned Iron

Can Fragments, Unknown Style:

There were 19 fragments of tin cans which were too incomplete to determine from what style of can they originated. All that can be said of these fragments is that three

were cylindrical cans, and one had at least one squared edge. The remainder were too fragmented to even determine what the original shape of the can was.

External Friction Lid Style Cans:

Two external friction lid style cans were recovered from the site, being represented by artifact numbers 946 and 1321. Artifact number 946 is quite fragmentary, although, enough of the can remains to determine that it is the remnants of a square or rectangular external friction lid style can which had been embossed. The embossing is unfortunately too deteriorated to read or decipher. No seams exist on the fragment, with the one remaining corner consisting of the single piece of tin which has been bent into shape. No guess can be made as to the can's original contents. Artifact number 1321 is much more complete, yet still is only perhaps 60% present. The can is cylindrical, having a base diameter of 8.2 cm, and an overall height of 16.6 cm. The can appears to have been double seamed, and no remains of a label are present. Due to the style of lid closure, this can's original contents were probably powdery in nature, being some sort of product which could be partitioned out over time, so that the can could be reclosed through time.

External Friction Lid Style Can Lids:

Three external friction lid style can lids were recovered from the site. Of the three, two are relatively intact, with one representing perhaps 20% of a lid. Artifact number 260 is a cylindrical lid, which has unfortunately been dented, with the estimated diameter being 6.0 cm. The lid's lip extends some 1.3 cm down from its upper edge, and it has a single embossed circular line encompassing this lip. No labeling is present on the artifact, and no guess as to its container's original contents can be made. The second lid, artifact number 279, is a partial cylindrical lid, yet its original diameter cannot be guessed due to its deteriorated state. The extreme outer edge of the lid is crimped, and its center appears to have been depressed, leaving a raised ring approximately 1.3 cm wide between the rim

and the center. Again, no labeling remains on the lid, and no guess as to the original contents of its container can be made. The final lid, artifact number 780, is rectangular shaped with rounded edges. The lid's dimensions are 8.1 cm x 5.1 cm, with a lip extending approximately 1.0 cm down from the edge. The top of the lid is embossed with the following: "WALTERBAKER&COLTD. / BREAKFAST / COCOA."

This is apparently the lid to a cocoa container of the Walter Baker & Co., whose ads can be found in many editions of the late-nineteenth century journal, *Harper's Bazar*. According to the advertisements, the company was established in 1780 in Dorchester, Massachusetts, and one of the advertisements goes as far as to describe the cocoa as, "A Perfect Food" (*Harper's Bazar* 1900: 57). It is not known when the Walter Baker & Co. went out of business or quit producing its cocoa, but one can probably date this lid to ca. the turn-of-the-century.

External Friction Lid Style Shortening Pail:

A single external friction lid style shortening pail was recovered from the site. The pail has unfortunately been smashed flat, but other than that, is in excellent condition other than for some limited surface corrosion. The pail's present overall height is approximately 15.2 cm, yet a base diameter estimate is unobtainable due to the pail's crushed state. A wire handle is still attached to one side of the pail, and two soldered side tabs are still intact, with one still holding the handle in place. Decorative labeling of the pail is an enameled finish of red over the base silver tin. Most of the pail is decorated with a series of 'jewels,' which have nine radiating lines surrounding each. Then there are two red upright rectangles, and a single red oval, within each of which there is white lettering. Within the rectangles are the words: "Swift's / Jewel / Shortening / for pastry, / for sautéing, / and for deep frying. / Swift & Company." The larger oval is unfortunately corroded, and the only decipherable lettering is: "...ENT OF AGRICULTURE" along its lower edge, which probably originally read, "DEPARTMENT OF AGRICULTURE."

No specific references to the Swift & Company or its products could be found, but it is assumed by the style of the pail, that it dates to the early-twentieth century.

Hole-in-Cap Style Cans:

There are seven hole-in-cap style tin cans represented in the collection, out of which, one is rectangular in profile, two are short and cylindrical, while the remaining four are long and cylindrical in profile.

The rectangular based can has rounded edges, and is represented by artifact numbers 249 and 276, which are apparently the remains of the same can, which has been cut in half to reveal its contents. The can's dimensions are 10.5 cm x 6.1 cm, with the lower half of the can (number 276), having a maximum height of approximately 2.9 cm, and the upper half having a maximum height of 1.6 cm. Unfortunately, the edges of the upper half of the can are so degraded that it is not possible to estimate an overall height of the original can. The can has a single side seam, appearing to be a double seam style. No type of labeling remains on the can, yet by its shape and the way it was opened, the original contents were probably some sort of food, possibly a tinned meat product. Due to the side seam style on the can, which had a process of manufacture patent date of 1899, and due to the hole-in-top style closure, this can was probably manufactured between circa 1899-1930 (Rock, 1989: 40,50).

The two, short, cylindrical hole-in-top style tin cans are represented by artifact numbers 285 and 838. Artifact number 285 sits approximately 6.3 cm high, with a base and top diameter of 10.2 cm. One of the can's lids has been cut along its rim and peeled back, and is left hanging draped over the side of the can. The soldered hole is on the opposite, intact lid, and this entire lid appears to have been hand soldered on. A single side seam is present on the can, apparently being of a double seam style. The can is relatively intact, other than a few minor corrosion holes, yet there are no remains of a label present. The original contents of the can can only be guessed at then, although some

sort of food product is a logical guess. The date range of manufacture is probably circa 1899 - 1930, due to its style of side seam, and its hole-in-top style closure (Rock, 1989: 40, 50). Artifact number 838 is a fairly similar style to 285, but has unfortunately been crushed at some time. The can's lid diameter is approximately 11.0 cm. The lid with the soldered hole has an interesting feature, with eight spoke-like indentations radiating outwards from the hole almost to the rim of the lid. The can still has portions of a paper label adhered to it, which appear to be white and red in color, but the only legible words left on the label are: "SLICE....." and, "ABOUT 4 1/2 O.." Unfortunately, the area of the can with the seam has been too badly deteriorated to interpret what type of a seam it was originally. Although there is probably no way to be absolutely sure, the can's original contents were probably a sliced meat product, due to the label, and the shape of the can.

The four remaining cylindrical, hole-in-top cans are represented by artifact numbers: 277, 292, 293, and 1320. Artifact number 277 is a much degraded can, with only approximately 50% of the can remaining, and only one lid. The lid diameter is approximately 6.2 cm, and fortunately the entire length of the can along the side seam does exist, with a measurement of 10.9 cm. The side seam is apparently of the double seam type. No remains of a label are present. Much like artifact number 277, artifact number 292 is much degraded, with only approximately 60% of the can remaining, and only one lid present. The lid measures approximately 6.6 cm in diameter, and the can measures some 10.1 cm in length. The seam is once again a double seam type, and no label remains are present. Artifact number 293 is relatively intact compared to the previous mentioned cans. About 10% of the can is missing due to degradation. Both lids are present, however, the one opposite of the soldered hole has been cut into quarters and pulled outwards, apparently to gain access to its original contents. The can measures approximately 7.5 cm in lid diameter, with an overall height of approximately 11.7 cm. The body seam appears to be machine soldered together, with one portion of the can simply overlapping the other. Both lids appear to be soldered on as well. Finally,

artifact number 1320 is the most degraded of the group, with approximately 20% of the can present, with only perhaps half of a lid. The can is too degraded to even obtain any accurate measurements as to its original dimensions, however, it can be determined that the side seam is a double seam type. By the shape and size of these cans, it is likely that the original contents were food oriented, probably being fruits or vegetables. The date of manufacture range for all but number 293 is probably ca. 1899 - 1930, with number 293 exhibiting traits of cans which have a date of manufacture range extending from ca. 1880 - 1930 (Rock, 1989: 40, 42, 50).

Hole-in-Cap Style Can Lids:

Four hole-in-cap style can lids were recovered from the site. All of the lids were badly deteriorated, and only one of them was whole enough to provide an approximate lid diameter. This lid, which unfortunately had its artifact number removed in the conservation process, measures approximately 7.5 cm in diameter. Without the other diagnostic portions of these cans, or any labels, it is very difficult to determine what the original contents of these cans were, other than guessing that they were probably food related.

Internal Friction Lid Style Cans:

Two identical internal friction lid style cans were recovered from the site. Both cans are cylindrical in nature, and have a peculiar gray tinge about them, as well as a white powdery residue frosting within. The cans measure some 13.2 cm high, with a base diameter of approximately 7.1 cm. The internal opening on the cans has a diameter of 3.7 cm. The side seams do not appear to fit the description of any known seam type,

although they can best be described as double seams which appear to be tripled over. The remains of a paper label appears on one of the cans, and is red and white with black cursive writing. The only decipherable word on the label is, "diseases." Due to their odd design, and the presence of this word, the only logical guess as to the original contents of these cans is some type of medicinal product.

Internal Friction Lid Style Can Lids:

Four cylindrical internal friction lid style can lids are represented in the collection. Of these four, one unfortunately had its catalog number removed in the stabilization process, while the other three are represented by artifact numbers 295, 867, and 1314. The unnumbered lid represents about half of a cylindrical lid, and using a bow compass, the lid has a reconstructed diameter of approximately 17.0 cm. The lid's center is depressed approximately 1.1 cm from the outer rim, and the rim has been crimped under itself. The lid is embossed with words in a circular pattern, however, the only legible word appears to read, "COTTON." Artifact number 295 has a diameter of approximately 9.9 cm, with its center being depressed approximately .8 cm from the rim. The rim is flat, not crimped, and there is no labeling or embossing on this lid. Artifact number 867 is quite deteriorated, with its entire rim portion fallen away, making for an estimated diameter reading nearly impossible. No embossing or labeling appears to be present, however it may be hidden under a thick crust of oxidation which could not be removed without destroying the artifact itself. The final lid, artifact number 1314, is nearly complete, having a diameter of approximately 12.0 cm. Its center is depressed

from its crimped rim approximately .7 cm. No embossing is present on the lid, however, a strange, bubbled, white portion may be the remains of enameling. Unfortunately, if it is enameling, no lettering or illustrations remain.

Internal Friction Lid Style Shortening Pail Lid:

A single, cylindrical, internal friction lid style, shortening pail lid was recovered from the site. The lid is incomplete, with approximately 40% of its outer rim missing due to corrosion. The lid has an approximate diameter of 18.2 cm, and its center is depressed approximately .8 cm from its crimped lip. The lid does not appear to belong to the previously mentioned pail, as it is embossed with another company's logo in its center: "REMEMBER COTTOLENE ALWAYS PLEASES / PRY UP COVER / WITH / KNIFE OR COIN."

According to an ad in the January 6, 1894 edition of *Harper's Bazar*, Cottolene was a brand of cooking oil made of, "clarified cottonseed oil and refined beef suet," which was made by the N.K. Fairbank Company (*Harper's Bazar* 1894: 20). The exact dates of manufacture for this brand of oil is not known, however it is probably safe to date the oil at around the turn-of-the-century.

Key to Key-Opened Can:

An iron key, to a key opening can was recovered from the site. The key is triangular shaped, and made of flat stock. Each side of the triangle is approximately 3.0 cm long, and this triangle is attached to a shaft approximately 4.1 cm long. This shaft would have been inserted into a catch on a key-opening can, then the key would have

been wound, removing a strip of tin from around the can, allowing for one end to be removed, and the contents to be exposed. Such key-opening cans include, but are probably not limited to: key-opening, non-reclosure cans (from ca. 1866-?, used for: sardines, hams, poultry, etc.); oblong key opening cans (dates unknown, used for: hams, luncheon meats); key-opening, reclosure cans (from ca. 1910-?, used for: nuts, coffee, shortening, and dried milk); and tapered key-opening cans (from ca. 1895-?, used for: corned beef, fresh beef, roast beef, beef tongue, boiled ham, etc.) (Rock, 1989: 174-179). Therefore, this key probably dates from the late-nineteenth century, to the late-twentieth century, and is representative of a food-related tin can.

Pocket Tobacco Can:

Two pocket tobacco style tin cans were recovered from the site. The first can, artifact number 274, is an upright pocket tin style, with a rolled bottom edge, and a lock side seam (Rock, 1989: 39, 166). It also appears that the can had an external friction lid at one time. The can has been flattened at its top, has a height of approximately 9.2 cm, and a width of 2.9 cm at its base. The can is decorated with a lithographed design which is barely visible through much corrosion. It appears that the lithograph was an overall gold color with red and black trim. A black circle with an approximate 4.2 cm diameter appears in the center of both sides. Within this circle is the bust, in side profile, of a male figure with a beard, in a red uniform with gold shoulder tassels, and a red conical hat with gold tassels. The only visible writing occurs on only one side of the can, and is quite limited and often illegible due to corrosion. Above the circle are the red letters,

“SHOR??UT..”, and below appears, again in red, “PERFECTION OF BLENDS”, and below this, “FOR PIPE”. This first word is probably “SHORTCUT”, and probably refers to the size range of the tobacco packaged within. The word “PIPE”, probably corresponds to pipe, as opposed to plug tobacco. The man in the circle may be Prince Albert of England (this would explain the red and gold uniform), but unfortunately, there are no surviving words saying Prince Albert, or the parent company, R.J. Reynolds, and a reference to a lithographed Prince Albert can exactly like this one can not be found. If this is a Prince Albert brand tobacco tin, then it dates to ca. 1907-1960 (Rock, 1989: 166-167).

The second can is really just a can fragment, consisting of the apparent body remains of another pocket tobacco can. The fragment is degraded, bent and twisted, and has no definable edges or seams. The only clue to its identity is a white lithographed background, which reads in black cursive, “PERFECTION / OF / BLENDS,” underneath of which, appears the word, “MILTS.” A reference to a Milt’s tobacco brand could not be found, however, by the style of the writing, and the supposed upright pocket tobacco style can, this can probably dates from the very late-nineteenth century, to the very early-twentieth century.

Pull Tab Style Sardine Can Lid:

A pull tab style sardine can lid was recovered from the site. The lid appears to be made from aluminum, has a copper colored coating on the inside, and has a white and blue printed design on the outside. The lid is rectangular shaped with rounded corners, and

measures roughly 9.5 cm x 6.9 cm. The printed design on the outside of the can has a white background, with a blue light house on it, around which, in blue, are the words, “Beach Cliff / MAINE / SARDINES.” Under all of this is a blue section, with a wavy border (apparently representing the ocean), which has the following printed in white, “IN SOY BEAN OIL / STINSON CANNING CO., PROSPECT HARBOR, ME. 04669 U.S.A. / NET WT. 3 3/4 OZ.” The patent date for non-separable pull-tabs on aluminum beverage cans was in 1980, and it can be assumed that the development of the “easy open oblong can” occurred soon afterwards (Petroski, 1992: 203; Rock, 1989: 173).

Sanitary Style Cans:

Eleven sanitary style tin cans were recovered from the site. Among these, ten were whole enough to allow some sort of analysis upon them. Unfortunately, three of these ten had their catalog numbers removed from them during the conservation process, and their original numbers have yet to be determined. The determinable dimensions, can maker’s sizes, and side-seam types for each of these cans is given in Table 2.

The most common style of can represented in this collection then, is the No. 300 style, which apparently makes its first appearance in can manufacturing size tables in the 1930s (Rock, 1989: 190). Rock’s tables are incomplete, however, and have gaps in them, including a gap from 1922-1934; the 1934 list was the first to have the No. 300 size listed. This makes the introduction of the No. 300 can in the mid-1920s quite possible. The 1939 table presented by Rock shows that the No. 300 can was typically packed with: vegetables, some fruits, juices, soups, meat products, fish products, and

Table 2. Dimensions, Can Sizes and Seam Styles of Sanitary Style Tin Cans Recovered from Site ORBE2

<u>Artifact Number</u>	<u>Length</u>	<u>Diameter</u>	<u>Seam Style</u>	<u>Can Size</u>
?	4 1/2"	3"	Double Seam	No. 300
?	?	?	Double Seam	?
?	5 1/2"	?	Machine Soldered	?
244	4 1/2"	?	Double Seam	?
275	4 1/2"	3"	Machine Soldered	No. 300
280	4 1/2"	3"	Machine Soldered	No. 300
294	4"	2 11/16"	Machine Soldered	No. 1
1320	4 1/2"	3"	Machine Soldered	No. 300
1331	1 1/2"	3 3/8"	None/Stamped	No. 1/2
1332	1 1/2"	3 3/8"	None/Stamped	No. 1/2

specialties (ibid.). The No. 300 appears in all of the remaining tables which appear in Rock's manuscript, and it may be assumed that they are still being produced to this day.

The two No. 1/2 size cans recovered from the site are of known late-twentieth century manufacture (probably ca. 1990). Both are stamped tuna cans, and one still has its paper label advertising it as, "STARKIST / CHUNK LIGHT TUNA / IN PURE VEGETABLE OIL." The label is green, white, and gold, and a virtually identical product can be purchased at the time of this publishing.

The one No. 1 style tin can recovered from the site is apparently representative of a popular, and long-lived can style. It appears in almost all of the canning manufacturer's tables supplied by Rock, from 1915-1970 (ibid.: 183-196). The 1939 table states that some typical products packaged in the No. 1 style cans included: vegetables, some fruits, juices, soups, meat products, fish products, and specialties (ibid.: 191).

Sanitary Style Tin Can Lids:

Six sanitary style tin can lids were recovered from the site. Of these six, one is too fragmentary to determine a diameter, and two had their catalog numbers removed during the conservation process, and have yet to have their numbers determined again.

The first of the artifacts without a known catalog number has a diameter of approximately 7.6 cm. No other diagnostic information was present on this lid.

The other artifact without a known catalog number, is the top to a key-opened coffee can. The lid has a diameter of approximately 12.7 cm, with approximately 1.1 cm of the body still attached to the lid. The remnants of the side seam appear to be of machine applied solder type, and the remnants of the body of the can are red. The words, "DRIP GRIND" appear on opposite sides of the remnants of the body, in yellow lettering with black outlines. The center of the can is depressed, and within this depression are the embossed letters, "FOR DRIP OR / GLASS / COFFEE MAKERS." Judging from the illustrations shown by Rock, this appears to be the remnants of a Maxwell House one pound coffee can, from the mid-to-late 1930s (1989: 103).

The remaining lids are hardly as diagnostic, as all that can be said about artifact numbers 288 and 1030, is that they have diameters of 7.6 cm and 9.5 cm , respectively. Artifact number 826 has a diameter of 8.5 cm, and by its lack of corrosion, and its gray color, appears to be the lid to one of the Starkist tuna cans described above.

Threaded Cap Style Can:

A single, threaded cap style tin can was recovered from the site. The can is complete, including its cap. There is no sign of labeling, however. The can is approximately 10.0 cm tall, and has a diameter of 5.6 cm. The threaded cap is approximately 1.1 cm tall, and is 2.6 cm wide. The side seam of the can appears to be a lock side seam (Rock, 1989: 39). The original contents of the can are unknown, and its date of manufacture can only be guessed as being the early-twentieth century.

Ceramic Flatware and Hollow Ware

Gray Salt-Glazed Earthenware Crock Base Fragment:

A single, gray, salt-glazed, earthenware crock base was recovered from the site. The fragment is only glazed on one side, which was apparently its inner surface. The glazed side has circular molded groove lines, which are probably indicative of the manufacture process of being thrown. The fragment is identified as the probable base of a crock due to its uni-facial glaze and its large dimensions, with a base thickness of approximately 1.5 cm, and a reconstructed base diameter of approximately 16.1 cm. Unfortunately, no body fragments to the crock were recovered to aid in reconstructing the further size and shape details of the vessel, and no manufacturer's marks are present to aid in dating the artifact.

Gray Earthenware Rim Fragments, with Olive Splatter Glaze:

Four rim fragments of what appears to be the same gray earthenware vessel were recovered from the site. The fabric appears to be a highly fired earthenware that has nearly vitrified, yet still has larger pieces of aggregate present. All four fragments display a distinctive olive colored splatter glaze, and a clear slip glaze appears to have been applied over-all. There are no markings on the fragments, and a best guess on their identity is that they are the remains of a "home-made" ceramic vessel, possibly a shallow bowl or deep plate. This possibly indicates that this vessel was manufactured in an art course, or by an artistic potter, and probably in the twentieth century.

White Undecorated Earthenware Base Fragments:

There were 27 white, undecorated, earthenware base fragments recovered from the site. Out of these, three were apparently from cups, two were from a dish, three from plates, three from saucers, and fifteen could not be identified as to a vessel type.

All three of the cup bases have foot-rings. The first, artifact number 110, has a foot-ring diameter of approximately 4.4 cm, and the edges of the fragment seem to indicate that the base was flared to widen the cup from its foot-ring diameter. Artifact number 874 closely resembles number 110, again having flared edges indicating a widening from the foot ring outwards. The artifact has a foot-ring diameter of approximately 4.7 cm. The final cup base, artifact number 144, has a less defined foot ring, and it has been broken across its diameter. Yet, using a bow compass, it was determined that the foot-ring would have had a diameter of approximately 5.2 cm. None of these fragments have any markings which may aid in their manufacturer identification, or a date range of manufacture.

Both of the dish base fragments have foot-rings. Artifact number 147 actually stretches from the base to the rim of the vessel, and gives one the basis to interpret the entire vessel form. The base and foot-ring have been broken so that there is less than half of the diameter of the foot-ring present, yet, with a bow compass it can be estimated that the foot-ring diameter was approximately 7.0 cm. In like fashion, the bow compass was used to determine an approximate original diameter of the outer rim of this dish as 14.2 cm. The other dish base is substantially less intact than number 147, and there was so little of the foot-ring present that it was nearly impossible to determine an accurate reading on the foot-ring diameter using the bow compass. There were no manufacturer's markings on either fragment to aid in determining a date range of manufacture.

The three plate base fragments all represent flat based plates with foot-rings. Artifact number 141 does not have enough of its foot-ring left to determine an accurate reading of its diameter using a bow compass. Artifact number 579 on the other hand, does, displaying an estimated foot-ring diameter reading of 12.8 cm. Interestingly, both pieces display enough similarities to have possibly come from the same type of vessel, if not the same vessel; yet they do not co-join with each other. The final fragment displays nearly half of its foot-ring, and yields a bow compass diameter reading of 9.2 cm. Once

again, none of these fragments display any manufacturer's markings which may aid in a determination of a date range of manufacture.

The remaining fifteen fragments are all relatively small in size, and highly fragmentary, yielding little information as to the type of vessel they are from (even differentiating between flat and hollow wares). All but one of the fragments display foot-rings, with the sole exception displaying two parallel, slightly raised rings, which apparently would have served the same purpose as a foot-ring. None of the foot-rings were complete enough to determine an estimate as to their diameter, and only one of the fragments displayed a maker's mark.

This fragment, artifact number 99, is imprinted on the base with an apparent ink stamp, "ERWOOD / S. GEORGE." This mark is apparently the maker's mark of the W.S. George Pottery Company, of East Palestine, Ohio, Canonsburg, Pennsylvania, and Kittanning, Pennsylvania (Cunningham, 1982: 82, and Lehner, 1988: 162). According to Lehner, W.S. George owned his own plant in Canonsburg, Pennsylvania around 1900, and started another in Kittanning, Pennsylvania around 1913 or 1914 which lasted until 1947. Mr. George also purchased the controlling interest of the East Palestine Pottery Company of East Palestine, Ohio in 1904 (Cunningham, 1982: 82). Apparently, the latest period any of the plants operated was the late 1950s (Lehner, 1988: 135). This creates the possibility of the fragment being manufactured anywhere from ca. 1900 -1955. However, the "ERWOOD," could be the pattern name, "DERWOOD," a pattern manufactured by the W.S. George Co. in the, "late 1930's and into the 1940's." (Lehner, 1988: 163).

White Undecorated Earthenware Body Fragments:

There were 39 white earthenware body fragments recovered from the site. None of the fragments display any manufacturer's mark or decorative elements (unless one

considers the curves present on each of the fragments), which may help to identify the types of vessels which the fragments may have once been.

White Undecorated Earthenware Handle Fragments:

There were four white earthenware handle fragments recovered from the site. All probably represent cup handles due to their sizes and shapes. Two of the handles display no features other than being ovaloid in shape and being curved. The other two display slight stylistic variations. Artifact number 129 represents the juncture between the base of a handle, and the wall of the vessel to which it connected. The handle is generally ovaloid in shape, while the base juncture is slightly pointed and is wider than the rest of the handle. The other handle, artifact number 381, is by far the most curved of the handles, and is shaped as an ovaloid. One-half of the ovaloid is sculpted to resemble a leaf, or at least a plant-like structure. Unfortunately, none of these stylistic features aid in the identification of a date range of manufacture.

White Undecorated Earthenware Rim Fragments:

There were 28 white undecorated earthenware rim fragments recovered from the site. Out of these, four appear to be the remnants of cups, five are from dishes or bowls, two from plates, and the remaining 17 are too fragmentary to determine what type of vessel they originally came from.

The four cup rim fragments seem to represent three different types of cups. Two of the fragments, artifact numbers 122 and 157, have similar, if not identical, types of embossed “dots,” along the outside of the rim. These “dots” appear to have originally encircled the entire rim of the cup, and these two fragments either represent the same cup, or two cups of the same design. The other two rims represent very plain, white, undecorated earthenware cups, with no embossing or decoration present on the fragments. Yet, they seem to represent two different types of cups, as artifact number 892 has a rim

which tapers and rolls outwards, while artifact number 127 has very little rim tapering, and does not roll outward.

The five rim fragments to either dishes or bowls seem to represent three different types of dishes or bowls. All of the fragments represent a dish or a bowl with an outward roll at the edge, yet none have enough of the base to determine if they were from a dish or a bowl. Three of these fragments appear to have come from the same type of dish or bowl. Artifact numbers 170, 591, and 684 all represent a vessel with an outward rolling, scalloped rim, with embossed dots and scrolled, plant-like structures encircling the inside portion of the rim. It is interesting to note that number 170 has a slightly grayer glaze than the other two, however this could be the result of discoloration from being buried. The other two fragments seem to represent two other types of bowls or dishes. Artifact number 124 represents a scalloped rimmed dish or bowl, with embossed, scrolled, plant-like structures on its inside rim. The scalloping is shorter than on the previous three fragments, and the embossing is not as finely finished. The final fragment, artifact number 895, has the largest and most defined embossing out of all of the dish or bowl rim fragments. The embossing is once again a scrolled plant-like structure encircling the interior of the rim, and the fragment also displays the most extreme outward roll of the rim out of the bunch.

The two plate rim fragments are representative of two different types of plates. Artifact number 135 has a scalloped rim and embossed hashes running outward towards the rim, as well as embossed lines following the general shape of the scalloping and intercepting the hash marks. Artifact number 886 has a scalloped edge as well, yet has a different embossing style displaying a dot pattern, which if connected with lines would represent a series of oppositely facing equilateral triangles. These series of dots are also defined with an embossed line generally following the pattern of the scalloping.

Of the undefined vessel type rim fragments, only six are embossed with patterns. To begin with, artifact number 173 displays a scalloped edge, with an embossed line along

the inner rim generally following the shape of the scalloping. Between the scalloped edge and the line, there are also embossed feathery designs. Artifact number 175 displays a rim which was apparently scalloped, with the scalloping undulating between thicker and thinner portions. To enhance the difference in thickness, there is also an embossed line running parallel with the median thickness area. Artifact numbers 176 and 590 are both limited to an embossed pattern of dots on the inner surface of their rims. While artifact number 898 displays a series of small embossed dots lining the inner rim, under which is an embossed line, and under all of this is an embossed, plant-like structure, displaying seeds, fruit of bulbous leaves. The final embossed rim fragment is number 913, which displays a simple series of embossed dots on its inner rim surface.

Two impressed rim fragments are represented in this portion of the sample. The fragments are represented by artifact numbers 736 and 1271, which both display an impressed line which generally follows the pattern of their scalloped edges.

Of the remaining nine fragments of undecorated white earthenware rim fragments, three are rolled outwards, while the remaining six display no outward rolling characteristics. These remaining six fragments can further be divided into five fragments which taper into rounded edges, while only one displays a slow taper with a basically squared edge.

White Decal Decorated Earthenware Base Fragments:

There are seven decal decorated, earthenware base fragments represented in the sample. Out of these seven, five are apparently the remains of dishes, while the other two are too fragmentary to attain an accurate guess as to their original vessel type.

The five dish fragments seem to represent three different styles of dishes. The first, artifact number 142, has a foot ring which indicates that the base was probably shaped as an oval, and it also has the faint outline of a decal of what appears to be a feathered wing. There are no maker's marks present, and the wing cannot be identified as

belonging to any specific pattern. Artifacts 153 and 168 are apparently the remains of the same type of dish, if not the same dish. Only 153 is decal decorated, yet 168 has a nearly identical form and thickness of ware, so they are apparently from the same style of decorated dish. Artifact 153 is decorated with a rose decal, displaying at least four pink roses on a scrolled stem with green leaves. The fragments display no foot-ring, and the base was entirely flat with an apparent oval shape. Artifact 153 also displays an unidentifiable, ink-stamped, base manufacturer's mark, which is composed of a lion and a unicorn on opposite sides of a vertical facing oval. The final two fragments of decorated dish fragments are apparently from the same type of dish, or more likely the same dish. Artifact number 188 has a foot-ring which appears to be forming an oval, as well as an unidentified ink-stamped maker's mark consisting of the partial lettering, "DRES..." This is more than likely the beginning of the word, "DRESDEN," yet, unfortunately, there are a multitude of maker's marks which share this word, and none of them seem to exactly match this one. The top side of artifact number 188 has the faint remains of a decal displaying a woman driving an early automobile. No identifiable pattern has been found to compare to this decal. Artifact number 606 appears to be from the same dish as it shares an almost identical foot-ring in an oval form again, as well as having the same distinctively faint decal remains of a mottled shading effect as is on number 188. This fragment extends towards the rim, which is shaped as a shallow tapering dish.

The remaining two unidentified vessel type, decorated, earthenware base fragments, are represented by artifact numbers 695 and 877. Both have foot-rings, and they mainly differ in the type of decal displayed on each. Number 695 has the faint remains of a flowering plant decal, while number 877 has a feathery green fern. Neither pattern is distinctive enough to specifically identify, and neither fragment displays a manufacturer's mark.

White Earthenware Decal Decorated Body Fragments:

There are only two decal decorated white earthenware body fragments in the collection. Neither have enough details to determine the type of vessel that they originally came from. The first, artifact number 186, is decorated with a two-tone green plant decal. The pattern is representative of many different plant decal decorated ceramics of the early-twentieth century, and no definitive pattern name can be applied to it. The other fragment is artifact number 1268, which displays a confusing jumble of what appears to be colored bands, three bands which are so faded that it is impossible to tell their original colors, and a larger orange band in the middle of the others. Again, no discernible pattern name can be determined from this fragment.

White Earthenware Decal Decorated Handle Fragment:

Only one decal decorated, white earthenware handle fragment was recovered from the site. Artifact number 115 is an ovaloid shaped handle, which exhibits a gentle curve inwards. The handle is more than likely from a cup, due to its form and size, and its decal decoration is limited to a tapering copper foil stripe on its outer convex curved surface. This copper foil decoration was common at the turn of the twentieth century, and this fragment probably dates to that period.

White Earthenware Decal Decorated Rim Fragments:

There are 26 decal decorated white earthenware rim fragments in the collection, which can be divided into four fragments from cups, two from bowls or dishes, three from saucers, and the remaining 17 which are too fragmented to determine what type of vessel they originated from.

The four cup fragments seem to indicate four different styles of cups. The first, artifact number 102, displays a simple, rounded, non-tapered edge, with a very faint copper foil rim ring. There are no other markings or decorations present on the fragment. In very similar fashion, artifact number 605 displays a rounded, slightly tapered edge,

with a blue decal rim ring underscored with a very faint copper foil rim ring. The next, artifact number 878, displays both embossing and decal decoration. The fragment gently rolls outwards towards the rim, and the edge is rounded and slightly tapered. The rim is embossed with a row of dots, underlined with a smooth wavy line. Inferior to this line is an alternating row of wavy dots, which alternate between sitting upon an apex or a base, in opposition to the wavy line. The whole series of embossed patterns is then underscored by a straight embossed line. To complete the decorative elements on this fragment, all of the embossing is then high-lighted with a garland-like decal, displaying dark pink roses with green leaves. Finally, artifact number 899 displays a slightly rolled outwards rim, which then gently tapers, and has a bulbous, yet pointed mid-section. The fragment is decorated with a copper foil rim-ring, underscored with a scrolled plant-like structure decal, with green, blue, and orange features. At the end of the scroll, a blue line picks up, and one can imagine that it probably continued across the cup until it intercepted the next scrolled plant-like structure decal. There are no other markings present on this fragment.

The two fragments from either dishes or bowls are both rolled outwards and scalloped. The only real difference between the two is in the style of decal on them. Artifact number 106 displays a flowered decal, with pink and green coloration; while artifact number 128 displays a scrolled, plant-like decal in a metallic foil (probably copper). Neither fragment displays any other markings or decorations.

There are three decal decorated fragments which probably came from saucers, due to the beginning of a depression towards the center of the vessel present on all of them. Artifact number 112 displays a rounded, tapered edge, and is decorated with two decal rim-rings, one in copper foil along the edge, and another in blue further in towards the center. This is in contrast to the decal pattern on artifact number 136. This fragment also has a rounded, tapered edge, and a copper foil rim ring. Yet, it has an extremely stylized, scrolled, plant-like structure decal, in green and orange hues, which stretches from the rim

to the depressed area on the fragment. The final fragment, artifact number 888, has embossed decorations, as well as being decal decorated. The edge is once again tapered and rounded, and the inner surface of the edge displays hashed lines radiating out from the center of the vessel. A faded plant decal completes its decorations, and it is difficult to say what type of plant it was modeled after, or what the original colors were.

The final 17 decorated rim fragments are too fragmented to determine their original vessel type, yet their stylistic differences will still be noted to show the variations of type present in this ceramic collection. These fragments can be broken down into three further stylistic categories: those decorated with copper foil decals, those decorated with colored rings, and those decorated with decals representing colored flowers.

The copper foil decorated fragments are represented by nine fragments, most of which are additionally distinctive from each other. The nine fragments seem to be representative of at least six different decoration styles. The first style is represented by artifact number 118, which displays a tapered, rounded edge, no embossing, a copper foil rim ring, and an inner green colored ring, which may actually be hand applied paint. The second style is represented by artifacts 109, 156, and 914, which all display a slight outward curved, tapered rounded edge, and a copper foil rim ring. The third style is represented by artifacts 104 and 593, which both have tapered rounded edges with no outward curve, and a copper rim ring which is placed slightly in from the rim, rather than directly on it. A fourth style is represented by artifact number 685, which is embossed with a scrolled, plant-like design, as well as having a double copper rim ring. The piece is also scalloped along its edge, and the outer rim ring is thicker than the inner. Artifact number 117 displays characteristics of the fifth style, having an indeterminate embossed pattern, as well as a tapered, rounded edge, and a single, narrow, copper rim ring. The final style is represented by artifact number 380, which is scalloped along its edge, and is also impressed to make the rim section resemble a sea-shell in unison with the scalloped edge. The decorative pattern is finished off with a single copper rim ring.

There are only five fragments which display the characteristics of colored rim ring decals. All five probably represent four separate vessels. To begin with, artifact number 111 has a slightly tapered and rounded edge, with the faint remains of a rim ring decal on the apparent interior surface of its original vessel. The decal's remains are actually only limited to an imprint in the glaze, so no color determination of the ring can be made. Artifact number 185 displays a concave form, with a distinctive outward curve towards the rim, finally ending with a slightly tapered and boxed rim edge. The fragment has a rim ring glaze impression much like number 111, which again left no trace of its original color. Artifacts 581 and 582 appear to have come from the same type of vessel if not the same vessel. Both have slightly tapering rims with squared edges, as well as a faint blue rim ring impression left in the glaze of the apparent interior surface of the vessel. Finally, artifact number 1272 has a slightly outwards pointing rim, with a tapered, rounded edge. The fragment displays two blue rings, one on the rim, and a narrower one approximately 1.4 cm under the rim ring.

The final three decal decorated rim fragments are decorated with colored flower decals, and seem to represent three separate vessels. Artifact number 138 is decorated in two ways, being embossed along its edge, and having a decal. The edge appears to have had a scalloped shape, with an embossed pattern of two rows of dots, off-set from each other to create the general image of a wave. These dots are then underscored by an embossed line. A feathery pink and green flower decal is placed on both the flat surface of the fragment and also on a portion of the embossing. Artifact number 585 also has a scalloped edge, although there is no apparent embossing. The fragment has a decal displaying leaves in two shades of green. The final fragment is represented by artifact number 1265, which has no scalloping or embossing, only a sharply tapered, rounded edge. The fragment displays the remnants of an eroded plant decal, which is only an impression on the glaze, and leaves no trace of the colors of the decal. The image in the

glaze appears to be that of a rose with leaves on a stem. None of these fragments could be identified as to a specific pattern or manufacturer.

White Earthenware, Transfer Printed:

Two transfer printed white earthenware fragments were recovered from the site. Both appear to be the remains of the same vessel; probably a shallow bowl, or a dish. The fragments are represented by artifacts 171 and 875, 171 is just a rim section, while 875 extends from the base to the rim. The base does have a foot-ring, apparently circular in original form, with a reconstructed, approximate diameter of 9.0 cm. The rim edges are scalloped, and the transfer print is a deep indigo blue. The pattern itself extends from the bottom edge of the inner base up to the rim, and can be described as being a background of layered scales or ogives, with a flowered bush on the inner side of the pattern, and a series of ivy vines encircling the rim. There are no manufacturer's marks present on either fragment, and the pattern could not be identified either. Due to its color and transfer printing, it can be guessed that these fragments were manufactured in the late-nineteenth century, probably ca. 1890.

White Earthenware Decal Decorated Cups:

There were two fragmentary, white earthenware cups recovered from the site. Both are decal decorated, with colored decals as well as copper foil decals. The first, artifact number 152, has a foot-ring with the approximate diameter of 4.7 cm, and a reconstructed rim diameter of approximately 9.3 cm. In addition, the cup is approximately 6.3 cm tall. The cup's handle is roughly ear-shaped, and has a single, tapering copper foil stripe extending down its outside edge. On the opposite side of the handle is a scrolled, plant-like design in copper foil. If viewed with the handle facing the viewer, there are colored decals to the left and the right of the handle. To the right of the handle is the decal of two sheep heading up a hill, with the with the apparent stanza of an unknown poem reading: "I LEAVE THEM ALONE / AND THEY'LL COME HOME /

AND BRING / THEIR TAILS BEHIND THEM.” To the left of the handle and roughly opposite of the previous decal is apparently the same poem and decal design. This edge of the cup is fragmentary, and much of the decal is missing, however one half of a sheep is present, with the words, “AND BRI.../ THEIR TAILS BEHIND...,” over the sheep.

The second cup, artifact number 1264, has a foot-ring which is approximately 4.5 cm in diameter, with a reconstructed rim diameter of 9.5 cm, and an overall height of approximately 6.2 cm. The cup’s rim is flared outward, and the body is gently scalloped. The handle is missing, yet the bases of the handle probably indicate that it was ear-shaped. The rim is decorated with a copper foil rim ring, and there are three copper foil decals present on the cup, with their patterned spacing indicating that there were probably a fourth on the missing portion of the cup. There are two different styles of copper foil decals represented. Using the handle as a fixed point again, the decals just to the left and right of the handle can be described as large flowers with several leaves surrounding their outer perimeters. The other decal is on the opposite side of the flower to the left of the handle, and it has been unfortunately split in half by a missing fragment. All that is present of this decal is apparently a garland tied by a large ribbon, which seems to surround some other unknown form. To finish off the decoration on this cup, a single colored decal exists, roughly centered between the flower to the right of the handle and the garland. This decal is a single, opened pink rose, which is surrounded by rose leaves, and a series of smaller white flowers.

No manufacturer’s mark appears on either of these cups, and it can only be speculated that due to their form and decoration patterns, that they were probably manufactured in the early-twentieth century.

White Earthenware Decal Decorated Bowl:

A single, intact, white earthenware, decal decorated bowl was recovered from the site. The bowl has a foot-ring, which measures approximately 7.1 cm in diameter, and the

bowl's body generally flares outward in three stepped features, ending with an overall rim diameter of 16.5 cm. The bowl measures approximately 4.3 cm in height. The bowl is marked with two simple decal applied rings, one blue ring just inside of the rim, and another, narrower ring, encircling the inner rim about .3 cm inside of the other. This narrower ring has decayed, leaving only a faint impression in the glaze, therefore, the original color of this decal is impossible to determine (see Figure 17). The bowl has no other markings or manufacturer's marks, yet its shape and style seems to indicate an estimated date range of manufacture of the last quarter of the nineteenth century, to the first half of the twentieth century.

White Earthenware Decal Decorated Plate:

A single, nearly intact, white earthenware, decal decorated plate was recovered from the site. The plate has a foot-ring with an approximate diameter of 12.7 cm, while the outside rim of the plate has an approximate diameter of 23.7 cm. The rim of the plate is scalloped, and the inner rim is embossed with a scrolled, plant-like structure which encircles the entire plate. Decorative features include both copper foil decals, as well as colored decals. The copper foil decal is limited to a rim ring, which basically follows the scalloped edge. The colored decals are represented by pink roses with green leaves, separated into four decals, placed along the rim section in four equally distanced quarters (see Figure 17). The base of the plate is marked with an ink-stamped manufacturer's mark, stating, "E.P.P.CO. / DE SOTO / CHINA." This is the marking of the East Palestine Pottery Company, of East Palestine, Ohio, which was in operation from 1884 - 1904 (Lehner, 1988: 135). The "DESOTO," marking is more than likely the name of the pattern of the decals on the plate, although no listing for its range of manufacture could be found. More than likely, this pattern was one of the last used by the E.P.P. Co., as the company was bought out by the W.S. George Company in 1904, which produced a very similar pattern called, "Blossoms," as one of its first runs (Cunningham, 1982: 82 -83).

White Porcelain Base Fragments:

There were five, white porcelain base fragments recovered from the site, and they seem to represent four different styles of vessels. Two of these fragments seem to represent small plates, while the other three are more than likely the remains of cups. The first fragment, represented by artifact number 187, seems to be the remains of a small plate. The fragment extends from the base to the rim, and it has a foot-ring. Using a bow compass, the diameter of the foot-ring can be reconstructed to have been approximately 5.1 cm. There is not enough of the rim, however, to determine such a measurement. The rim of the fragment is scalloped, and the rim is further decorated with a copper foil rim ring. The piece also appears to have been decal decorated with colored flower decals, however they have decayed, leaving only colorless impressions in the glaze.

The other apparent plate fragment, artifact number 900, has a very tall foot-ring, which, using a bow compass, can be reconstructed as having an original diameter of approximately of 5.2 cm. Unfortunately, there are no rim fragments present to reconstruct an outside diameter of the plate. The center of the plate has a shallow depression, and the outer ring of this depression is decorated with a copper foil rim ring. There are no further decorative features present on this artifact.

Artifact numbers 179 and 876 are foot ring fragments apparently from the same style of cup. The fragments are actually a very light gray, and both are too fragmented to determine a reconstructed foot-ring diameter, however it appears to have been a small diameter. The fragments have no decorative features present.

The final porcelain base fragment appears to be the remains of a cup. The fragment has a thick, scalloped foot-ring, and interestingly enough, the interior surface of the cup appears to have been scalloped as well. There are no decorative features present on the cup, and like the rest of the porcelain base fragments, there are no manufacturer's marks present on the cup.

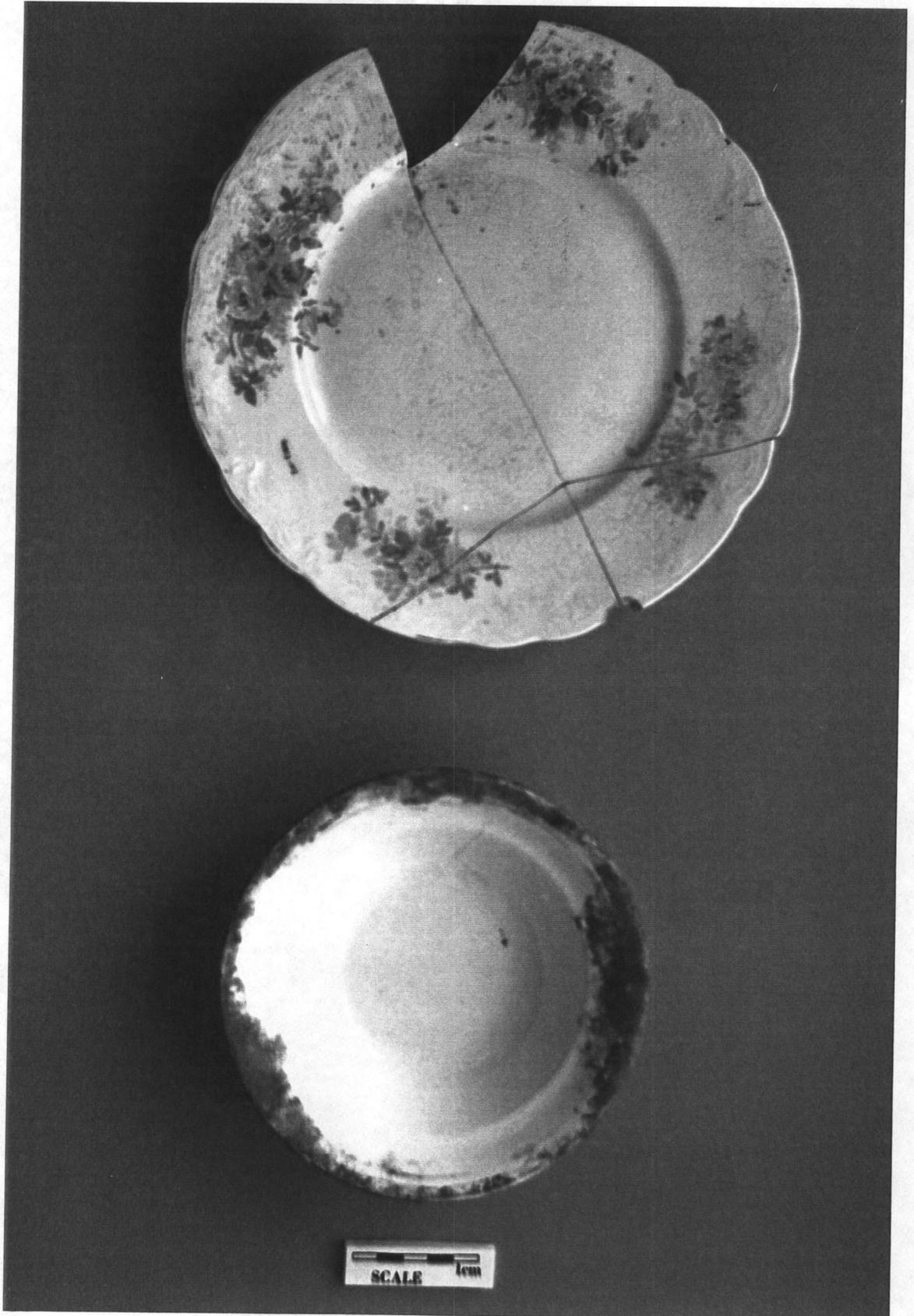


Figure 17. Decal decorated plate (top) and bowl recovered from Site ORBE2.

White Porcelain Rim Fragments:

There were five, white porcelain rim fragments recovered from the site, three of these being the remains of plates, one of a cup, and the last being indeterminate as to a vessel type. The three plate fragments seem to represent two different plate types. Artifact numbers 125 and 912 appear to be from the same type of plate, both having embossed, scroll-like figures near their rim, as well as a scalloped edge, and a copper foil rim ring. Artifact number 159 differs only in that it lacks the rim-ring, yet has copper foil decoration in the form of a stippled decal. The embossing and the scalloped edge appear to be almost identical to that on numbers 125 and 912.

Artifact number 599 appears to be the remains of a cup. The fragment displays a slightly outward facing rim, with a tapered, rounded edge, and no decorative elements. Unfortunately, the artifact is too fragmented to attain an estimated rim diameter, and no markings exist on it to identify a date range of manufacture. Finally, artifact number 694 is from an undetermined vessel form, with a tapered, rounded edge, and no forms of decorative elements.

White Porcelain Body Fragments:

There were 13 white porcelain body fragments recovered from the site, with none of the fragments identifiable as to a vessel form. These fragments can only be categorized as follows: five fragments which are of an extremely thin nature and undecorated, three which are undecorated, three undecorated fragments of a slightly gray hue, one decal decorated flat fragment, and one painted, curved fragment.

The two decorated fragments are perhaps the most diagnostic in the group, being represented by artifact numbers 651 and 909. Artifact number 651 is oddly shaped, resembling two balls melted together on an edge, then fractured on their opposite edges, as well as through their middle diameter. The fragment is hand-painted with green and white dots vaguely resembling flowers, with one on the top of each "ball." Artifact 909 is

nowhere as complex, being only a relatively flat fragment of porcelain, with a green outline decal which appears to have been painted blue and black within some of the shapes to add color. The pattern cannot be determined due to the small decorated area represented, however the green lines appear to represent a vegetated landscape.

Food Wrapping Materials

Aluminum Foil Fragments:

Three crumpled fragments of aluminum foil were recovered from the site. There is little diagnostic information contained in these bits of foil, which could have been used to wrap almost anything, and were probably manufactured after World War II.

Plastic Ice Cream Bar Wrapper:

A clear plastic wrapper with red and blue lettering stating, "NUT / SUNDAE / ON A STICK / CHOCOLATE AND NUT COVERED / ARTIFICIAL VANILLA / ICE CREAM BAR," was recovered from the site. The wrapper states that the bar was made by Cool-A-Coo Co. of Los Angeles, CA., and although no date appears on the wrapper, it can be assumed that the wrapper is no older than the late 1970's due to the presence of artificial flavoring and a computerized bar code.

Plastic Bread Wrapper:

The remains of a plastic bread wrapper was also recovered from the site. The plastic is brown in color, and is lettered in white and black, "Sonny Boy / Sliced / Whe..." Clearly, this wrapper was produced to package Sonny Boy sliced wheat bread, and it can be dated to ca. 1975 - 1985, (Personal Knowledge).

Food

California Sea Mussel Shells:

Two mollusk shells identified as California Sea Mussel Shells, or Mytilus californianus, were recovered from the site. The two shells are not from the same animal, which indicates an MNI of at least two mussels. The first, artifact number 1176, is encrusted with some type of coral structure, with its maximum dimensions being 6.0 cm x 3.7 cm x 1.3 cm. The other shell, artifact number 1177, does not have any encrustations, and is brown and luminescent in colors, having maximum dimensions of 8.9 cm x 4.5 cm x 1.0 cm.

Chicken Bones:

There were a total of seven chicken bones recovered from the site. Of the seven, one was a left coracoid, one was an innominate, one was a left femur, two were left humerus', one was a fractured right occipital / parietal section, and one was a right tibiotarsus. Only artifact number 447, the coracoid, was a whole bone, with five of the remaining bones having been broken, and one having been cut. The MNI represented by the assemblage is two chickens, and the chicken bones represent 9.6% of the total number of bones found in the site.

Cow Bones:

Thirty-four cow bones were recovered from the site. Out of these 34 bones, the following specific bones were identified: one was an atlas bone, three were femur fragments which could not be sided, one was a right femur, one was a humerus, two were innominate fragments, one was a metacarpal, one was a right radius, seven were ribs, two were scapula fragments which could not be sided, three were left scapula fragments, one was a right scapula fragment, three were tibia fragments which could not be sided, and the remaining eight were vertebra fragments. Within this assemblage, only two of the bones

were found whole, the rest either being cut (28), broken (3), or cut and broken (1). The MNI of the cow bones was at least three individuals, while the cow bones represented 46.6% of the total number of bones recovered from the site.

Corn Cobs:

There were three desiccated corn cobs recovered from the site. No measurements of the corn cobs were obtained, due to their desiccated nature, which would not allow for an accurate measure of their original size. The only feature of note about the corn cobs is that none of them are whole.

Littleneck Clam Shells:

Two mollusk shells recovered from the site were identified as being Littleneck Clams, or Protothaca staminea. The shells mate with one another perfectly, making for an MNI of one. Their approximate maximum dimensions are 5.5 cm x 4.3 cm x 1.9 cm.

Pig Bones:

There were a total of twelve pig bones recovered from the site. Out of these twelve, the following bones were identified: two were femur fragments which could not be sided, one was a right femur fragment, one was an innominate fragment, two were metacarpals, two were ribs, one was a left scapula, one was a right scapula, one was a tibia fragment which could not be sided, and one was a vertebra fragment. There were no whole bones recovered in this assemblage, with ten of the bones showing evidence of being butchered by being cut, one being broken, and only one which showed evidence of being both cut and broken. The MNI of this assemblage is only one, with the pig bones representing some 16.4 % of the total number of bones.

Turkey Bones:

Only four of the bones found in the site were identified as being turkey bones. These four bones were identified as being: one left femur, two right tibiotarsus', and one

left ulna. None of these bones were recovered in a whole condition, with one bone showing evidence of butchery through cutting, while the remaining three have been broken. The MNI for the turkey bones is two individuals, while they represent only 5.5% of the total number of bones recovered.

Unidentified Bones:

Fifteen of the 73 bones recovered from the site could not be identified, either as a specific bone, or as a species. This had to do with the condition of these particular bones, being either too fragmented, or too deteriorated to obtain an accurate determination. However, it was noted that among the unidentified bones, eight appeared to be cut (probably through butchery), four had been broken, two were cut and broken, and only one was a whole bone. The unidentified bones account for 20.5% of the total number of bones recovered from the site.

Portable Illumination

A total of five, clear glass fragments, which appear to be lamp chimney fragments, were recovered from the site. Only one of the fragments, artifact number 74, is complete enough to determine a diameter measurement of 4.8 cm. This fragment is also labeled in light gray, "MACBETH / NO 8 / PEARLGLA..." It is assumed that the last word would have been completed to spell, "PEARLGLASS." This trademark is one of many used by the Macbeth-Evans Glass Co., on their many types of lamp chimneys which they produced in the first half of the twentieth century. The company was formed in 1899 by a merger of the two major lamp chimney producers of the time, one founded by Thomas Evans in 1869, the other by George A. Macbeth in 1872 (Pyne Press, 1972: 111). As one company, Macbeth-Evans became the largest producer of lamp chimneys in the country, although it is not known when they went out of business (*ibid.*). According to the ca. 1900 Macbeth-Evans catalog reprinted by Pyne Press, a "No. 8" lamp chimney was named a "Cebre," and was designed for the "Rochester, Royal, Miller and other

Central-Draft Lamps” (1972: 120). This catalog goes on to describe this chimney as having a fitting diameter of 2 5/8 in., a bulb 3 5/8 in. (wide?), and an overall height of 9 inches.

The remaining four fragments have no labeling on them at all, with three having portions of a rim. Only two of these fragments are complete enough to yield an estimated original diameter, with artifacts 32 and 80 both yielding a bow compass diameter estimate of approximately 7.1 cm. Interestingly enough, when measured from the rim side, both of these fragments have an approximate thickness of .055.” This probably indicates that they are from the same lamp chimney. The other two fragments are too small to yield any diameter estimates, but they were measured also for their thickness, and it was found that number 57 is approximately .047” thick, while number 365 is approximately .045” thick. This does not prove that they are from the same object, and it is possible that any of these four fragments could be from some other object, such as a glass or cup.

Portable Energy

A total of four battery carbons were recovered from the site. The carbons appear to be representative of zinc / ammonium chloride / manganese dioxide / carbon style, dry-cell batteries, which were first successfully developed by Gasner in 1888 (Mantell, 1983: 34). Two of the carbons are cylindrical, while the other two are flat and rectangular. Both of the cylindrical carbons have been broken, therefore their original lengths are impossible to determine, however their diameters are: .504” for number 954, and .313” for number 1014. The two rectangular carbons are essentially the same size, with artifact number 1215a having the dimensions: 1.224” x .372” x .151”; and number 1215b having the dimensions: 1.273” x .391” x .154”. No data on identifying dry-cell sizes through the dimensions on surviving battery carbons could be obtained. This is unfortunate, and apparently little research has been done on identifying battery carbon dimension changes

through time either; as any noted dimension changes through technological developments could perhaps provide a useful dating tool on twentieth century sites.

Home Education, Information and Business

Internal Mechanisms to a Clock:

A rectangular iron plate with four triangular incisions, and a gear attached to it was recovered from the site. It is assumed that this is a portion of the internal mechanisms to a clock. The iron plate measures 6.6 cm x 5.2 cm, and has been bent in many areas. The gear, which was pinned to the plate but has since fallen off, is composed of two separate rings, an inner and an outer. The two rings are connected by four spokes, and the inner ring has a perforation where it accepted an attachment pin. The entire gear has a diameter of 2.2 cm and has 36 small teeth on its outer ring. There are no markings on the plate or the gear, and its date range of manufacture can only be guessed at as being from the late-nineteenth century, or the early-twentieth century.

Nose Cap to Pen:

A single stainless steel, internally threaded, nose cap to a ball pen was recovered from the site. The nose cap is conically shaped, and is .475 cm in length, with a small end diameter of approximately .35 cm, and a large end diameter of .75 cm. No other parts of the pen were recovered from the site, but judging from this nose cap's form it probably came from a spring-loaded, retractable type, ball pen, of late-twentieth century manufacture.

Paper Clip:

A single Gem style paper clip was recovered from the site. The paper clip is made of iron, with the remnants of its original chromed coating still being present in some areas. The paper clip measures approximately 3.4 cm long, and is approximately .8 cm wide. The Gem paper clip was never officially patented in the United States, but it

seems to have been invented sometime in the late 1890s, with the majority of them being produced during the twentieth century (Petroski, 1992: 51-71).

Plastic Self-Adhesive Label Tape:

A single strip of self-adhesive, plastic, impressed label tape was recovered from the site. The tape is 1/4" wide, and 3 1/2" long, and was apparently made for a label "gun" that took 1/4" wide tape. The tape is black overall, and the impressed letters are white, and state, "MARK & ELENA RUDISILL." According to *Polk's Corvallis City Directory*, Mark and Elana Rudisill were residents of Corvallis between 1970-1974; although they do not share the address with the structure on the site. The current owner of the lot is an Ernest Rudisill, who has owned it since 1964. It is not known whether or not the two men are related.

Cleaning and Maintenance

Cleaning

Mop Wringer Handle:

The remains of what appears to be an iron, mop wringer handle was recovered from the site. Although no direct comparison could be found from extant mops or illustrations, the handle just seems to resemble those found on mops (Brauner, Personal Communication). The handle is approximately 30.8 cm long, and is composed of a piece of .6 cm thick iron wire, which is bent into a rough "T" form. This forms the actual handle portion of the wringer, which is attached to a shovel-shaped piece of flat iron by protruding through two perforations much like a bucket handle. This shovel-shaped portion has two further sets of perforations on these sideways-facing portions which are apparently where it connected to the mop. More than likely, this mop wringer dates to a mop which was manufactured in the early-twentieth century.

Rubber Squeegee Blade:

A white rubber squeegee blade was recovered from the site. The blade is 29.4 cm long, is 1.5 cm wide, and has a single linear .3 cm wide indentation paralleling one edge approximately .2 cm in from that edge. This indentation is probably where the squeegee blade was attached to its holder and handle. Due to the white, plastic nature of this rubber blade, this rubber squeegee blade can probably be dated to the late-twentieth century, probably post-1970.

Household Maintenance

C-Vise:

An iron C-vise was recovered from the site. The vise frame appears to have been cast, then had all of its threaded parts added to it. At the base of the vise is a threaded bolt which appears to have been welded into place. This bolt is .370" in diameter, which is probably indicative of a 3/8" bolt. Using this bolt, one could then drill a 3/8" hole into a working surface and then thread the vise in for a stable platform. At the end of the shorter "C" arm is a threaded handle, with a circular, concave piece of iron attached to its end. The handle is a simple "T" form, and the threaded bolt portion is .420" in diameter, while the concave end-piece is approximately 1.042" in diameter. The handle itself is flat, oval-like, and is 2.070" long x .830" wide. Overall, the vise is approximately 4.520" long, with an outside frame width of 2.770", and an inner frame width of approximately 1.251". This is definitely early-twentieth century technology, and perhaps could have even been manufactured into the mid-twentieth century.

Claw-Hammer Head:

A single, apparently hand wrought, iron claw-hammer head was recovered from the site. The hammer head has a round striking platform, yet has a square body, and two gradually tapering rectangular claws. The striking platform is approximately 2.5 cm in

diameter, while the body is approximately 2.6 cm by 2.5 cm. Overall, the hammer-head is approximately 11.9 cm long. One of the claws is broken, while the other is bent to the point that, when looked upon from side profile, the hammer head looks like a capital “J”. The center of the body is perforated with a single oval, about 2.5 cm long, and 1.0 cm wide. This is apparently where the hammer’s handle would have been fitted. This hammer-head is apparently hand wrought due to its crude form, and its design. The square body with its handle perforation indicates that it started as two pieces of iron, which were combined in such a way as to leave the handle opening, yet left divided on one end to create the claws. Afterwards, the striking platform was rounded, then the claws were elongated and tapered to their ends (see Figure 18). Although not unheard of by the early-twentieth century, such black-smith-made items were probably rare in this time period due to the presence of industrially-made items. Therefore, a date range of manufacture of the mid-nineteenth century, or earlier, can probably be assigned to this hammer-head (David Brauner, Personal Communication).

Flat Mill File:

A single flat mill file was recovered from the site. The file is approximately 25.9 cm long, 2.0 cm wide at its base, and has a thickness of approximately .4 cm. By its symmetry, and by the uniform file lines on its surfaces, it can probably be said that this file was machine made. Such machine made flat files have apparently existed since at least 1895, (and probably earlier) when they were advertised by Montgomery Ward & Co. (1969: 360). Therefore, this file can probably be dated to the late-nineteenth century to the mid-twentieth century, due to its level of corrosion.

Hack Saw Blade Fragment:

A fragmented end to a hack-saw blade was recovered from the site. The blade end has an oval end, with a perforation approximately .5 cm from its edge. The blade measures approximately 2.8 cm x 1.5 cm, and has 17 small teeth present along one edge.

The blade appears to have been snapped somehow at the noted breaking point. The remnants of a coat of blue paint are also present on certain areas of the blade, but the blade is mostly just corroded iron now. Machine-made hack saw blades appear to have been in production by at least the late-nineteenth century, but judging from the presence of the paint on this blade, this one was probably manufactured in the early-to-mid-twentieth century.

Paint Brush Handle:

An intact wooden paint brush handle was recovered from the site. The handle is flat and ovaloid in profile, and gently increases then decreases in size from its tip, then increases once again to the brush attachment area. The brush is an overall black color, but it is not apparent if this is an original colored paint, or a degraded paint which was originally another color. An impressed number “2” appears about mid-way up the handle, and this probably corresponds with the brush size. The remnants of an iron band also exist around the brush attachment area, and this was apparently to aid in keeping the bristles on the brush. The handle is approximately 5 1/2” long, and its head size is 2” across, which probably corresponds with the number “2” impressed on the handle. It is rather difficult to date this handle, yet the use of wood rather than plastic as a primary material probably indicates that it was manufactured between the late-nineteenth century and the mid-twentieth century.

Paint Bucket:

A tinned iron paint bucket was recovered from the site. The bucket is quite degraded, with perhaps 30% of it missing to corrosion, and its lid is not present either. A thin layer of dried paint lines the bottom of the bucket, as well as one of its sides. The paint is very degraded also, as well as having picked up a substantial amount of foreign material, mostly soil. This paint ranges in color from white to dark gray, and it is difficult to tell what its original color would have been. The bucket is approximately 20.0 cm tall,

and has a base diameter of approximately 15.9 cm. The side seam of the bucket is limited to about a 5 cm length, but from this it appears that it was a double seam (Rock, 1987:

6). There are no signs of any product labeling on the outside of the bucket, so paint company differentiation is impossible, and a date range of manufacture can only be stated as being in the twentieth century.

Plaster Bucket:

A tinned iron plaster bucket was recovered from the site. The original plaster contents still occupy approximately half of the interior of the bucket, and a paper label is still present as well. The label is an overall orange color, with white bordering and black lettering. In large letters across the top of the label is the following product identifier, “.na-Tone Finish”. Underneath this within a black banner in white lettering is, “for / PERFECTION / PLASTER / WALLBOARD / The Original Plaster Wallboard of the West”. To the right of this, is the claim, “Easy / to / Apply”, and underneath is a white oval with the color definer “IVORY / NO. 2335”. To either side of this oval is the volume of the bucket and its contents, with the words, “ONE” and “GALLON” separated by the oval. Finally, on the bottom of the label is a large white rectangle which says, “RASMUSSEN & CO. / PORTLAND AND SEATTLE”. The can is approximately 18.2 cm tall, and is 17.0 cm in diameter, and it appears to have a lock side seam (Rock, 1987: 5). No references to the Rasmussen & Co. could be found, yet judging from the style of the label, the date range of manufacture for the bucket can be guessed as being in the early-twentieth century.

Push Broom Head Fragments:

Two wooden and bristle fragments to a push broom head were recovered from the site. The fragments are quite degraded, and consist of what appears to have been a wooden bar with several holes drilled in one side into which were placed bundles of hair

or plant fiber bristles. There are 13 individually drilled holes for fitting the bristle clusters into the larger fragment, while the smaller fragment has only four of these holes. Two groups of bristles are still present; they are black in color, and are approximately 2.5 cm long. The larger of the two wooden fragments has what appears to be the remnants of a threaded hole drilled through it. The hole has been broken in half, but appears to have been about 2.1 cm in diameter originally, and probably represents where the handle for the broom originally fit. Judging from the Sears, Roebuck & Co. catalog of 1897, it is apparent that similar machine-made push brooms were being manufactured in the late-nineteenth century. Due to the degree of degradation of this broom head, it is probable that the date range of manufacture for the broom can be listed as the late-nineteenth century to the early-twentieth century.

Laundry

Clothing Hanger Wire:

Two fragments of what appears to be clothing hanger wire were recovered from the site. The first fragment is quite bent, relatively short, and is only .120” in diameter. The other wire is basically intact, having only been ripped apart and bent out of form. The hanger hook for the wire is still intact, having been braided together from both ends of the wire. This wire has a diameter of approximately .145”. Due to the level of corrosion present on these hangers, and due to the heaviness of their stock, they can probably be dated to the early-to-mid-twentieth century.

Sad Iron:

A single “Mrs. Mary F. Potts,” style sad iron was recovered from the site. The iron can be described as being boat-shaped, measures approximately 15.7 cm in length, is 7.5 cm in width, and is approximately 5.0 cm in thickness (all measurements taken from the top side of the iron). The iron weighs in at exactly 5.0 lb., which after accounting for

the removal of oxidation, is close to the stated weight of 5 1/8 lb. for a No. 2 style Mrs. Potts sad iron (Sears, Roebuck and Company, 1968: 100). This style of iron was first patented on May 24, 1870, and was manufactured by the following companies: Chalfant Foundry, Enterprize Mfg. Co., American Machine Co., Kenrick & Sons (England), Grossag (Germany), and Colebrookdale Iron Foundry, which manufactured them until 1953 (Franklin, 1992: 70). Unfortunately, no foundry identification marks remain on this particular example. This style of iron had a removable oak handle, which is missing from this example, yet the two sockets which the handle would have fit into are still clearly visible on the top of the iron (see Figure 19).

Sewing

Paper Instructions for a Zipper:

A frayed and degraded piece of paper, which appears to be the instructions for sewing a zipper onto a garment, was recovered from the site. The paper is a light gray in color, and has black lettering printed on it. The printing has been torn through, but reads in part: “When the / and should be hidde.../ zipper. If any stitching.../ neatly done.” To the left of this printing is a schematic drawing of a zipper. Due to the gray paper, and the style of the printing, this artifact can probably be dated to the late-twentieth century, probably post-1980.

Paper Label to a Thread Spool:

A paper end label to a spool of thread was recovered from the site. The label is circular, and is mostly gold colored with black labeling. A black ring exists around the edge of the label, within which appears the words, “THE CLARK THREAD COMPANY”, in gold labeling. Within this ring is a gold ring with black lettering reading, “CLARK’S BEST SIX CORD”. And within this is a black circle with gold lettering,



Figure 18. Hand-wrought hammer head, and iron nut recovered from Site ORBE2.



Figure 19. A full-sized Mrs. Pott's Sad Iron (top), shown together with a toy sad iron, both recovered from Site ORBE2.

which is unfortunately indecipherable. At the bottom of the outer ring is a golden shield, within which is printed in black, the number, "50". This may correspond to the price of the spool of thread, .50 cents, or perhaps to the thread diameter. According to the Coats & Clark World Wide Web Home Page, the Clark Thread Company and J & P Coats consolidated, yet kept separate identities in 1896. They did not merge to become Coats & Clark Inc. until 1952 (<http://web.craftnet.org/coats/>, Feb. 1, 1996). Therefore, it is likely that this spool label is representative of the period when the two companies were consolidated, yet separate, and can be dated to ca. 1896 - 1952.

Safety Pin:

A broken safety pin was recovered from the site. The pin is missing the entire pin shaft, with only the safety head, the opposite shaft, and the spring being present. The pin appears to be made from iron, coated in nickel, much of which is flaking off and allowing the base iron to corrode. The remnants of the pin are 5.2 cm long. The safety pin was invented and patented by Walter Hunt of New York in 1849 (Petroski, 1992: 94). This makes it possible for this particular pin to have been produced anywhere between ca. 1850-1993, however by the level of corrosion present, it can be assumed that it was probably manufactured between ca. 1950-1993.

Wooden Thread Spools:

Four wooden thread spools were recovered from the site. The first of these, artifact number 246, is 4.9 cm long, has a single .7 cm diameter perforation through its center, and has raised ends to keep the spooled thread on. These ends have a diameter of 2.9 cm, while the inner drum has a diameter of 2.0 cm. There are no markings or labels present on the spool. The second spool, artifact number 251, appears to be a modified spool, having had its raised ends removed. This spool remnant is approximately 3.1 cm long, has a diameter of 2.1 cm, and has a center perforation .7 cm in diameter. There are no markings or labels present on this spool either. The final two spools were recovered

together, having been strung together through their center perforations on a length of narrow gauge brass or copper wire. Both of these spools are identical in shape and dimensions, with overall lengths of 3.1 cm, raised end diameters of 2.5 cm, and inner drum diameters of 2.1 cm. The wire which holds these two spools together is only .039" in diameter, and its length is unknown due to its many overlapping coils. One of these spools still has a paper label attached to one end. The label is gold and black, alternating between the background and the lettering. The label is roughly separated into two different circles, the outer of which is split in half, with a black portion, and a gold portion. The upper-half of this circle is gold, with the black markings, "J.& P. COATS". The lower-half of this circle is black, with the golden markings, "MERCERIZED". The inner circle is all in black, with the gold markings, "100 YDS". This was obviously a spool which held 100 yards of mercerized cotton thread, of an unknown color. The mercerization process of strengthening cotton cloth using sodium hydroxide was patented by John Mercer in 1850, but it did not become a commercially successful process until it was done using tension on the thread in Germany, in 1895 (Wilson, 1982: 83). In addition to this, according to the Coats & Clark World Wide Web Home Page, the Clark Thread Company and J & P Coats consolidated, yet kept separate identities in 1896. They did not merge to become Coats & Clark Inc. until 1952 (<http://web.craftnet.org/coats/>, Feb. 1, 1996). Therefore, it is likely that this spool label is representative of the period when the two companies were consolidated, yet separate, and can be dated to ca. 1896 - 1952.

Binding Materials

A piece of extremely degraded, coiled rope was recovered from the site. The rope is composed of multiple strands of apparently braided fibers, which appear to be natural, due to their lack of symmetry, and their many, frayed ends. The material is an overall dark brown, and emits a strong, petroleum-like odor. Using the burn test procedure

which was performed on the textiles, the rope's fibers have very similar characteristics of natural cellulosic fibers, such as cotton or flax (Joseph, 1981: 24-25). More than likely, however, this rope fragment represents the remains of a piece of Manila hemp rope, as Manila hemp is a natural cellulosic fiber as well. Without carbon dating, there is no definite way to determine the date range of manufacture for this artifact.

Pet Maintenance

Dog Collar:

A leather dog collar was recovered from the site. The collar is made of leather, has iron fittings consisting of a "D" style buckle, a loop (probably for a license or tag), and a spring-closing grapple hook. The collar is still looped around and closed via the buckle, and is 2 cm wide by 24.4 cm long. It must be pointed out, however, that the leather is quite desiccated, and possible shrinkage must be taken into account when considering these dimensions. The leather is looped with the hide side facing out. The buckle is approximately 2.7 cm x 3.9 cm, while the loop is an ovaloid shape with the maximum dimensions of 4.2 cm x 3.7 cm. The oval form may be intentional, but it appears more that the loop was bent out of a circular form. The spring clip is 6.7 cm long overall, and attaches to the collar via an integral "D-shaped" loop. The end is shaped like a hook, and the spring closes into the end of the hook to provide a contained loop to which a leash is attached. Judging from turn-of-the century catalogs, the spring-clip style, hooked dog leash was available and popular during that time period. Due to this, and the level of corrosion present on the iron, this collar's period of manufacture can probably be dated to the early-twentieth century.

Dog Collar Fragment:

The apparent remains of another dog collar was also recovered from the site. The fragment consists of a piece of cut leather, which is desiccated, and degraded at both ends.

The leather has been formed in a rough “U” shape, and there are two buckle closure perforations present on one end. In its present form, the collar measures approximately 7.6 cm in length, by 1.4 cm in width. The leather is looped with its hide side facing in. There are no markings apparent on the leather, and this, together with the lack of metal accouterments, makes it difficult to determine a date range of manufacture for the collar.



Dog Leash “C” Coupling:

An iron “C” coupling connected to five chain lengths, which is apparently from a dog leash, was recovered from the site. The coupling has a spring-loaded closure, as well as a pivoting attachment, where it couples with the chain lengths. The first chain length is made from .255” diameter wire, while the next three are made from .125” wire, and the final chain length is oddly composed of braided wire twisted into a loop. Overall, the entire assemblage has a length of approximately 22.4 cm. This type of spring-loaded “C” coupling seems to have been developed in the early-twentieth century, and can still be purchased today.

Architecture

There are nine sub-categories represented under the heading, “Architecture,” in Sprague’s typology. Five of these sub-categories were represented in this heading, and no new sub-categories were created. The sample is represented by the following sub-categories (in bold), with their types and their corresponding numbers of artifacts:

Construction : Materials (295), Hardware (133); **Plumbing** (40); **Fixed Illumination** (6); **Fixed Power** (31); and **Fixed Heating and Cooling** (2).

Construction

Construction Materials

Brick Fragments, Unmarked:

A total of six unmarked, fired brick fragments were recovered from the site. Only three of these fragments are complete enough to register any diagnostic measurements from. These three brick fragments will be described using as many of the typological descriptors from Karl Gurke's, *Bricks and Brickmaking A Handbook for Historical Archaeology*, as each fragment allows, with the primary descriptive categories being: manufacturer's marks, odds and ends, dimensions, and color (1987: 100-117).

To begin with, artifact number 707 appears to display the manufacturer's marks of having been a hand-made, sand-struck, soft-mud brick; as four sides of the brick display a sandy, granular surface, while one displays hollowed out gouges where the strike planed some chunkier portions of clay away (Gurke, 1987: 102-105). This brick fragment displays no features which Gurke labels as, "Odds and Ends" (ibid.: 111). Although this is only a partial fragment of a brick, there is enough of the brick left to obtain measurements in two dimensions. The intact surfaces yield original measurements of 3.97" (10.1 cm) x 2.35" (5.9 cm). These two dimensions seem to match the dimensions of a standard National Brick Makers Association of America, Norman brick, which would have had original dimensions of 12 x 4 x 2 3/8 in. (ibid.: 117). According to Gurke, Norman bricks, "are made larger generally for architectural effect and are used for face work." (1987: 117). Color-wise, the brick is what can be called a "salmon" color, and is unusually an equal color inside and out, probably indicating that the brick was very evenly fired.

The second brick fragment, artifact number 1296, displays the manufacturer's marks of also being a hand-made, sand-struck, soft-mud brick, for the reasons listed above. Once again, there are no "Odds and Ends," features, and once again, there is

enough of the brick left to obtain measurements in the last two dimensions. These surfaces yield measurements of 4.30" (10.2 cm) x 2.40" (6.1 cm). These dimensions are close to those set by the National Brick Makers Association of the United States for a Norman brick. This particular brick fragment is multi-hued, having different tones when comparing the exterior and interior surfaces of the brick. All sides are a dark "salmon," however the outer surfaces of the brick are darker than the inner surfaces, which is probably only representative of the weathering which the outside of the brick received compared to the inside.

The final unmarked brick fragment, artifact number 1297, has very similar attributes of those listed above; being a hand-made, sand-struck, soft-mud brick. The remaining two measurable dimensions of the brick come to 3.97" (10.1 cm) x 2.37" (6.0 cm), which seem to come close to the standard dimensions set for a Norman brick. This brick displays the greatest range of color variation, having some kind of white chalky staining which adheres to five sides of the brick in an almost layered affect. This is apparently due to some kind of weathering agent which the brick fragment was exposed to after it was broken. The remaining unstained portions of the brick are also an overall dark "salmon" color, however, the interior of this brick has a darker patch towards the center, which is actually darker than the exterior of the brick. This could be what Gurke refers to as a, "black core," or a darkened interior patch of a brick due to too rapid heating during the firing process (1987: 127).

Brick Fragment, Marked:

A single marked, fired brick was recovered from the site. This brick fragment seems to display the manufacturing marks of having been dry-pressed, as the outer surfaces of the brick are smooth, with larger "squished" grainy particles being present (Gurke, 1987: 111). The edges of the brick are also quite sharp, although somewhat eroded. The brick measures 4.22" (10.7 cm) x 2.49" (6.4 cm). These dimensions seem to

correspond with those given for a standard brick for the Union Brick Company, of Portland, Oregon, of 8 3/4 inches long, 4 1/4 inches wide, and 2 1/2 inches thick (ibid.: 118). Coloration seems to be an overall “salmon” color, inside and out, and this would seem to go along with the markings which indicate that this is a dry-pressed brick. Finally, the fragment displays the impressed letters, “EM,” which could be the first two letters of any number of marks listed by Gurke (ibid.: 232). These marks are listed in Table 4.

Brick, Whole:

A single, whole, perforated brick was recovered from the site. This brick has very smooth outer textures and sharp corners, and it does not display any strike features. Therefore, it is probably safe to say that this brick was dry-pressed. The brick measures 8.1” (20.4 cm) x 3.84” (9.7 cm) x 2.21” (5.6 cm). These dimensions seem to correspond to those given for a N.B.M.A. standard face brick (Gurke, 1987: 117). The brick displays an overall red-brown color, with splatterings of white mortar which are still adhered to the brick. Finally, the most distinguishing feature of this brick is that it has three evenly spaced circular perforations through it. These perforations are approximately .75” (2.9 cm) in diameter and were placed through the brick for a number of apparent reasons. Gurke lists these reasons as being: to help catch the mortar, to lighten the brick, to use less material per brick, and to ensure more even firing (1987: 112).

Chinking Fragments:

Five fragments of window chinking or caulk were recovered from the site. All of the chinking appears to be of the same material, with all of the fragments displaying the same dirty-white, or off-gray color, and hard, plastic texture. Judging from the fact that

Table 4. Embossed Brick Markings Which Start With the Letters “EM,” From Gurke, 1989

<u>Brand</u>	<u>Company</u>	<u>State</u>	<u>Dates</u>
EMBOSSSED	Streator Brick Co.	IL	1930-1931
EMBOSTEX	Streator Brick Co.	IL	1919
EMPIRE	A.P. Green Fire Brick Co.	MO	1919-1942
EMPIRE	Minor Fire Brick Co.	OH	1921
EMPIRE	Stowe-Fuller Refractories Co.	OH	1927-1930
EMPIRE	Western Brick Co.	IL	1911-1931
EMSCO	Emsco Refractories Co.	CA	1930

*Note, there are a total of 14 different “EMSCO” variations, all produced by the Emsco Refractories Co. of CA., between 1930-1942.

all of the chinking was dried in the shape of having been placed in a corner, most of the fragments were probably placed in between window panes and sashes, or between window sills and walls.

Composite Roof Tile Fragments:

The 14 composite roof tile fragments which were recovered from the site are probably the evidence of a replaced roof. The present structure on the site (as of January, 1996), has a flat sheet, aluminum roof, therefore, the composite roof tile fragments are probably representative of an earlier composite shingle roof on the structure which was torn off and replaced with the aluminum siding.

Concrete Fragment:

A single, square-edged fragment of concrete was recovered from the site. It appears that this piece of concrete is architecturally related, due to the presence of a finished seal on the flattest face. This seal is either some sort of plaster (which would indicate that this was a portion of a wall), or some type of adhesive cement. Either way, it is interesting to note that this flat face was apparently constructed to have been seen, and was finished with the largest pieces of aggregate gravel away from this face.

Flat Clear Glass Fragments:

A total of 194 flat clear glass fragments, which are probably broken window glass, were recovered from the site. Using Roenke's flat glass dating methods, all of the glass fragments were measured for their thickness in inches using a dial caliper (Roenke, 1978). The results of this analysis, and the number of fragments in their corresponding date range of manufacture using Roenke's data follows in Table 5 and Table 6.

Flat Clear Etched Glass Fragments:

Four fragments of clear etched glass were recovered from the site. The fragments are divided evenly between two patterns of etching. Artifact numbers 1079 and 1080 have a light, feathery fern pattern etched into one side of the glass, in a positive pattern (the background is clear, while the pattern is translucent). Both of the fragments also have a thickness of .120". The other fragments, numbers 224a and 364, have a plant-like pattern also, although much less natural and more stylized. This pattern is a negative one, having a hazed, translucent background, and a clear pattern. Number 224a has a thickness of .114", while number 364 has a thickness of .117". More than likely, these glass fragments represent a decorative window from the structure on the site, or decorative glass from furniture. In either case, they probably date from the early-to-mid twentieth century.

Flat Clear Wired Safety Glass Fragment:

A single fragment of internally wired, clear safety glass was recovered from the site. The fragment is .261" thick, and has thin, apparently iron, wire molded into its center. The wire appears to have been in a rough diamond form at one time. This is probably the remnants of a window from the structure on the site, and is definitely of mid-to-late-twentieth century manufacture.

Table 5. Thickness of Flat Glass Fragments Recovered From Site ORBE2

<u>Thickness</u>	<u>N Sample</u>	<u>Thickness</u>	<u>N Sample</u>
.040"	1	.098"	4
.044"	2	.099"	8
.066"	1	.100"	3
.067"	1	.101"	1
.068"	1	.102"	5
.069"	1	.103"	4
.070"	4	.104"	4
.071"	2	.105"	6
.072"	2	.106"	2
.073"	1	.107"	1
.075"	3	.109"	3
.077"	2	.111"	2
.078"	1	.113"	2
.080"	3	.114"	1
.081"	6	.115"	3
.082"	5	.116"	3
.083"	3	.118"	1
.084"	3	.119"	2
.085"	5	.120"	4
.086"	6	.122"	2
.087"	5	.123"	3
.088"	5	.125"	1
.089"	6	.128"	1
.090"	8	.130"	1
.091"	2	.131"	1
.093"	3	.132"	1
.094"	3	.133"	1
.095"	13	.144"	1
.096"	11	.146"	1
.097"	7	.147"	1

Table 6. Dates of Manufacture for Flat Glass From Site ORBE2 Using Roenke's Primary Mode Data

<u>Dates</u>	<u>Primary Mode in Use (In.)</u>	<u>N Sample</u>	<u>% of Sample</u>
1835-1845	.045-.055	3	1.55%
1845-1855	.065	4	2.06%
1850-1865	.075	15	7.73%
1855-1885	.085	47	24.23%
1870-1900	.095	64	32.99%
1900-1915	.105	29	14.99%
>1915	>.105	32	16.49%

Linoleum Fragments:

21 fragments of two different patterned linoleum floor coverings were recovered from the site. Four of these fragments have a pattern in brown, green, red, and black, which consists of fairly random straight and curved lines. Although it is difficult to say for sure, some of these patterns may resemble large, deciduous leaves. The remaining fragments of linoleum have a pattern in brown, black, yellow, and tan. Overall, the background is in brown, with black, yellow, and tan hash lines running in parallel lines, and yellow lines creating geometric patterns, such as triangles and squares. Dating these fragments without finding their exact pattern would probably be next to impossible, but one can be sure that they are post-1863, the invention date attributed to linoleum (Random House, 1992: 790).

Plaster Fragments:

Twenty-one fragments of interior wall plaster were recovered from the site. All of the fragments have a small aggregate backing, with a painted face. Two colors of paint are represented in the sample, a light yellow, and an off-white; although the possibilities of

color fading and degradation are quite possible. It is probable that these plaster chips were from an interior wall from the structure on the site, which was either repaired, replaced, or torn down at some time, resulting in the disposal of the wall fragments on the site. Due to this, these plaster chips can probably be dated to the early-twentieth century, after 1910, when the structure on the site was constructed.

Plaster-Board Fragments:

A total of 26 plaster-board fragments were also recovered from the site. All of the fragments have one face which has a degraded layer of white paint on it. It is highly probable that these plaster-board fragments, like the plaster fragments described above, were from an interior wall from the structure on the site, which was either repaired, replaced, or torn down. The resulting recovered debris can likewise be dated to the early-twentieth century, after 1910, when the structure was constructed.

Red Ceramic Tile Fragments:

Two fragments of what appears to be the same style of red ceramic tile were recovered from the site. Both of the fragments are approximately .90" in thickness, with two smooth, flat surfaces on each. These surfaces are unglazed, and both the outer and inner surfaces of the fragments are the same red hue. One of the fragments appears to have a cut, straight edge, which would seem to indicate that the tiles were square or rectangular in shape, and were therefore probably used to cover a flat surface.

Octagonal Porcelain Tile:

A single, octagonal, pink porcelain tile was recovered from the site. The tile is approximately 2.6 cm from side to side, with a thickness of .6 cm. It appears from the type and size of the tile that it would have been used to create a tiled (perhaps even a mosaic) floor. There appears to be the remains of cement on one edge, which probably

indicates that this tile was used at one point, and was either removed to replace an entire floor, or was removed after it became loose.

Siding End-Cuts, Inlayed:

Six inlayed, wooden, end-cut siding fragments were recovered from the site. The fragments appear to be the ends of the siding boards from the structure on the site, which were cut off in order to fit the boards into place. All of the fragments are inlayed on one end, while having a round ended, narrow knob on the opposite end, which would have fit into the inlay on the next board. All of the fragments are approximately 3.5" in height from the knob to the inlayed end, yet there are noticeable differences in widths and lengths. Four of the fragments are composed of boards which were approximately .75" thick, while the remaining two fragments are only about .60" thick. These two fragments are also inlayed on both of their flat surfaced sides, approximately half-way between each end. This causes the two fragments to appear as an hour-glassed shape in profile. It is supposed that these two fragments represent finer finished siding used for decorative purposes, however no similar inlayed boards have been observed on the present structure. As these end-cut fragments are representative of construction, they must date to either the original construction date of ca. 1910, or to the later additions, which were added in ca. 1920-1921.

Construction Hardware

Door Knob Fragment:

A white porcelain door knob fragment was recovered from the site. The fragment represents approximately 1/4 of a door knob, being the face of the rear end of the knob, which would have faced the latch mechanism. The knob apparently broke in half (across the diameter), and also down the middle (across the circumference). The center hole where the knob through-shaft would have been is partially present, and oddly enough it is

round, as most appear to be square (this provides better resistance when the knob is turned). Using a bow compass to estimate the original diameter of the door knob, a measurement of approximately 6.0 cm was produced.

Door Lock Catch:

An iron forged, door lock catch was recovered from the site. The lock catch is essentially rectangular in form, with two open sides, forming an “L” shaped basin with closed ends. The catch has the following dimensions: 10.3 cm x 2.3 cm x 1.8 cm. The face of the catch, which was apparently made to face outwards from the door jam, is decorated with raised lines around its edges, as well as a line which is parallel to its open facing edge, which is approximately .3 cm from that edge. There are also two .6 cm diameter perforations on either side of this face, which is apparently where the mounting screws would have been fitted. In order to mount this catch, the door jam would have required a space cut out, yet this would have provided a much more secure lock, as the lock would have been caught by iron, rather than wood. This lock catch probably has a date range of manufacture of the ca. 1900-1930, judging from the door locks available during that time period.

Gutter Bracket:

A “U” shaped, steel gutter bracket was recovered from the site. The bracket still has a coat of degraded white paint on its convex surface, as well as two wire drawn tacks still perforating either edge. The tacks measure 1.8 cm and 2.0 cm long, respectively. The bracket itself is composed of a single piece of thin steel, which is approximately 9.0 cm x 2.9 cm. Judging from several late-nineteenth century Sears & Roebuck catalogs, the type of iron gutters which this bracket seems to be from apparently dates from the late-nineteenth century. However, this particular one is probably associated with the initial 1910 construction date of the structure on the site.

Gutter Elbow Joint:

The remnants of a steel gutter elbow joint was recovered from the site. The joint is constructed of steel which has been folded in on itself along one side in several lines, in order to create a seamless bend. White paint still adheres to much of the gutter joint, although overall it is a dark, corroded iron color. Like the above-mentioned gutter bracket, this gutter elbow probably dates to the construction date period of ca. 1910, and its presence is the evidence of gutter replacement on the structure on the site.

Machine Cut Square Nails:

A total of ten machine cut square nails were recovered from the site (see Figure 20). Out of these ten: three were fragmented shafts without heads, two were whole shafts without heads, two were whole but bent, and the remaining three were whole and virtually undamaged. The three fragmented shafts without heads yielded little diagnostic information other than they were square, machine cut nails. The whole shafts with missing heads were complete enough to obtain measurements, so they are included with the rest of the nails in this analysis. Of the nails which could be analyzed, one was a 1d nail measuring only 7/8" long, while the remaining six nails were all 2 1/2" long 8d nails. All of these nails can be dated to the late nineteenth century, and probably into the first decade of the twentieth century, and are probably representative of the last of the transition from square stock nails to round wire drawn nails (David Brauner, Personal Communication).

Threaded Eye:

A screw-threaded eye was recovered from the site. The threaded eye is approximately 4.920" long, and has a shaft diameter of .250", which is representative of No. 15 gauge screw wire (Graham and Emery, 1923: 64). The screw portion of the eye is finished in a gimlet point, and the threads are approximately .310" in diameter. The eye portion has simply been turned in upon itself, and has an outside diameter of

approximately 1.195". Portions of a braided steel wire which were apparently wrapped to the eye are still present, yet give little clue as to the apparent use of this particular eye. More than likely, due to the level of corrosion present on the eye and its apparent machine-made manufacture style, its date of manufacture is probably in the early-twentieth century.

Washer:

A hand-wrought iron washer was recovered from the site. The washer is circular, and is crudely made out of iron plate which is approximately .275" thick. The outside diameter of the washer varies, with the largest reading being approximately 1.90", and the center perforation has a diameter of approximately .300". Such hand forging techniques are more representative of early-nineteenth century manufacture, but more than likely this washer was probably manufactured in the late-nineteenth century or early-twentieth century, and is representative of the transition from local black-smithing to non-local industrially manufactured hardware items.

Wire Drawn Nails:

A total of 113 wire drawn nails were recovered from the site. Thirteen different penny weights of nails are represented in this sample, as well as four different styles of nail heads. Out of this assemblage, 43 were so degraded or broken that no penny size was determinable, and 18 were so degraded or broken that no head type was discernible. These nails are most likely representative of twentieth century manufacture, and are described with the information presented in Table 7.

Table 7. Wire Drawn Nails

<u>Casing Nails</u>		<u>Common Nails</u>		<u>Flooring Nails</u>		<u>Roofing Nails</u>	
<u>(N)</u>	<u>Size</u>	<u>(N)</u>	<u>Size</u>	<u>(N)</u>	<u>Size</u>	<u>(N)</u>	<u>Size</u>
1	9d	1	3d	<u>1</u>	2d	1	2d
<u>1</u>	60d	3	4d	1		<u>3</u>	4d
2		2	6d			4	
		15	8d				
		3	9d				
		2	10d				
		5	12d				
		14	16d				
		3	18d				
		10	20d				
		<u>3</u>	40d				
		61					

Wood Screws:

Only four wood screws were recovered from the site. All of the screws are made of iron, and are probably of early-twentieth century manufacture. Due to the small sample of wood screws recovered from the site, and as their function and approximate date range of manufacture are known, the screws will not be individually described. Rather, their descriptions are limited to the information provided in Table 8.

Table 8. Wood Screws

<u>Artifact Number</u>	<u>Wire Gauge</u>	<u>Head Type</u>	<u>Tip Type</u>	<u>Length</u>
798	No. 8	Oval	Gimlet	1"
800	No. 4	Flat	Cone	2"
949	No. 20	Flat	Unknown	2"
964	No. 11	Flat	Gimlet	2"

Plumbing

Chromed Water Pipe Sections:

Four, exterior-chromed, water pipe sections were recovered from the site. These cut pipe ends appear to be the excess remnants of inlet water pipes, cut away from interior structure water fixtures. Artifact number 708 is straight, is the shortest of the four, and is only 4.0 cm in length. This pipe has an interior diameter of 1.1 cm, and a wall thickness of .1 cm. Artifact number 826 is straight also, and is approximately 8.9 cm long, with an interior diameter of 1.1 cm, and a wall thickness of .1 cm again. Artifact number 1284 is the longest of these pipes, and is over 42.5 cm long, but it is bent in many places, and if actually stretched straight would be well over 50 cm. One end of the pipe has been crushed flat, and the other end has what appears to be a pipe reducer placed on it, making it impossible to determine an original interior diameter of the pipe (Oravetz, 1968: 101). The exterior diameter, however, is approximately 1.4 cm, and it is assumed that this pipe is close in interior diameter to the others listed. The pipe reducer on the pipe is a tapering cylinder, which has a maximum exterior diameter of 2.3 cm, and a minimum of 1.9 cm. The reducer is .9 cm thick, and has an interior diameter of approximately 1.0 cm. Finally, artifact number 1045 is approximately 12.5 cm long, with an interior diameter of 1.2 cm, and a wall thickness of approximately .1 cm. As the structure on the site was constructed in 1910, these pipe sections probably do not date

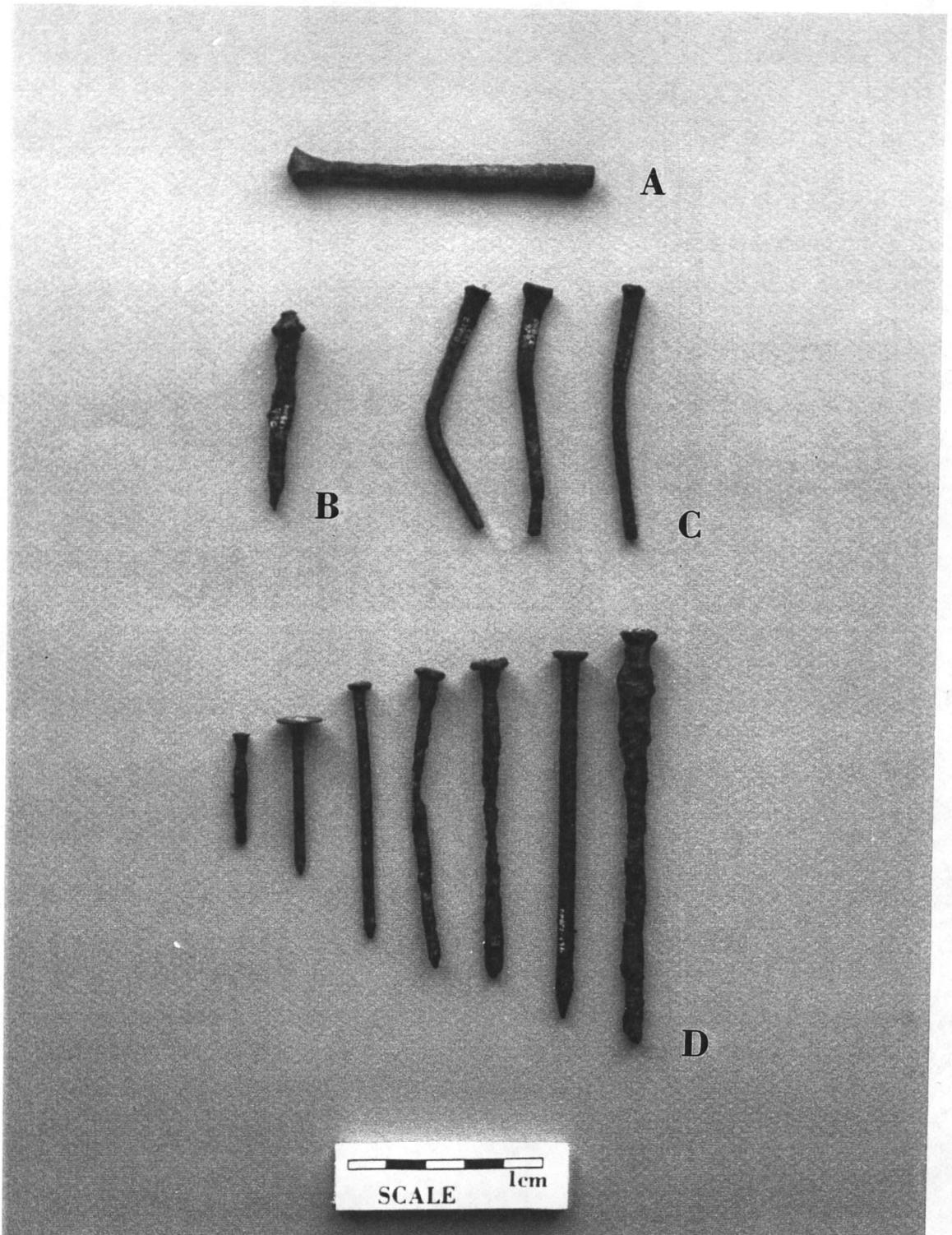


Figure 20. A representative sample of a bolt and nails recovered from the site. A. Carriage Bolt B. Hand Wrought Nail C. Machine Cut Square Nails D. Wire Drawn Nails

any earlier than this, and they are probably representative of the addition (original, or later), replacement, or repair of interior water fixtures in the structure.

Cylindrical Ceramic Drain Tile Fragments:

A total of 23 cylindrical, ceramic drain tile fragments were recovered from the site. These fragments are composed of unglazed, salt-glazed, and lead-glazed redware ceramic; and vary in diameter from three to six inches. They are in reality, better known as sewer pipe, and the numbers of each variety recovered from the site are listed in Table 8.

The city of Corvallis did not approve of the building and maintenance of a city sewer system until September 2, 1892, and it must be assumed that all sewer pipe and their fittings found in Corvallis would have to be from ca. 1893 and later (Martin, 1938: Chapter VII, 10). As the structure on the site was constructed in 1910, one can assume that these drain tiles were from the initial installation of the sewer pipes for the structure, at the time, or soon after the time of construction of the structure. More than likely then, these tiles are representative of replacement, or repair activities on the sewer pipes for the structure sometime after 1910, and the subsequent disposal of the originals (perhaps where they lay) underneath the structure.

Faucet Handle:

A cast-iron faucet handle was recovered from the site. The handle is basically six-sided, with corners which are squared on two edges, and inward curved portions adjoining each corner. There are also six spokes attaching the center of the handle with each of the inward curving portions of the handle. The resulting cavities within the spokes and the outside of the handle are also six-sided, and when looked at from above, the whole handle has a honeycombed look to it. From one corner to the other, the handle measures approximately 6.2 cm across, while from the center of each spoke to the outer portion of

Table 9. Varieties and Numbers of Redware Ceramic Drain Tile Recovered from Site ORBE2

Type of Redware	<u>3" Diameter</u>	<u>4" Diameter</u>	<u>6" Diameter</u>	<u>Indeterminate Diameter</u>
Unglazed	1	1	1	4
Salt-Glazed	2	2		10
<u>Lead Glazed</u>		<u>2</u>		
Totals	3	5	1	14

the handle measures approximately 5.2 cm across. There are no markings of any kind on the handle, and it appears to have been sheared off of its faucet somehow. Judging from the style of the handle, it appears that it was manufactured in the early-twentieth century.

Iron Pipe:

A single piece of uncoated, cut iron pipe was recovered from the site. The cylindrically shaped pipe section has a length of approximately 10.0 cm, an interior diameter of 1.2 cm, and a wall thickness of .4 cm. The pipe's wall thickness is probably indicative of a main interior water inlet pipe, which was connected to several, narrower-walled fixture pipes, like those described above. Once again, as the structure on the site was constructed in 1910, this pipe section probably does not date any earlier than this, and is probably representative of the addition (original, or later), replacement, or repair of the interior water system of the structure.

Iron Pipe Collar Fittings:

Four complete, cylindrical iron pipe collar fittings were recovered from the site. It is assumed that these pipe fittings are for sewer pipe, due to their inner diameter.

Artifact number 475 is made from cast iron, has an inner diameter of 4.9 cm, and is 8.4 cm long. The thicker, collared end is .9 cm thick, while the remainder of the pipe fitting is .5 cm thick. Artifact number 504 is also made from cast iron, and is shaped much like a bell. One end starts to enclose on itself, then has a hole cut into it. The wide end of this fitting has an interior diameter of 7.6 cm, while the cut opening has a diameter of 4.2 cm.

Overall, the fitting has a length of 7.4 cm, while the thickness of the iron remains relatively unchanged, being 1.0 cm thick on the open end, and .9 cm thick on the partially enclosed end. Artifact number 533 is apparently made from a piece of rolled flat iron, with its ends left unattached for some reason. The fitting has an internal diameter of 10.0 cm, is 5.0 cm in length, and has an overall wall thickness of .5 cm. Finally, artifact number 933 appears to be made from cast iron, has an internal diameter of 9.9 cm, is 6.2 cm long, and has a thick band of iron around one end. This band is approximately .9 cm thick, and is approximately 1.0 cm wide, while the remainder of the pipe fitting is only about .6 cm thick. Three impressed rings encircle the body of this fitting, the first about 1.0 cm in from the cut end, and each subsequent ring is spaced approximately 1.0 cm from one another. These impressed rings appear to be placed to aid in cutting the pipe fitting, as the cut end appears to have been cut through such a ring.

Iron Pipe Collar Fitting Fragments:

Four, cast iron, pipe collar fitting fragments were also recovered from the site. Artifact number 484 appears to be a similarly-styled, bell-shaped fitting such as artifact number 504 described above. The fitting has basically been broken in half, leaving only half of a cylinder which is approximately 8.5 cm long. The interior diameter to the open end of the fitting appears to have been approximately 7.2 cm, while the partially enclosed

end has an approximate diameter of 4.3 cm. The open end has a wall thickness of 1.2 cm, while the partially enclosed end has a wall thickness of .6 cm. Artifact number 506 appears to have been an elbow curved fitting, with one internally threaded end. This fitting has been basically broken in two also, yet enough remains to determine that its interior diameter was originally approximately 4.6 cm. The threaded end has a thickened external rim, extending approximately 2.0 cm from the edge, and having a thickness of approximately 1.1 cm. The opposing end has a thickness of only approximately .7 cm. Artifact number 505 represents a fairly large, elbow curved, pipe fitting, which was also broken in half. It has an estimated interior diameter of 13.0 cm within a bell-shaped housing, which apparently constricted into a cylindrical pipe which is too disintegrated to obtain an estimated diameter. This bell-shaped housing is approximately 6.5 cm tall, with the curved pipe extension extending another 6.5 cm to where it broke. A single raised mold line runs the length of the fitting, and it was apparently cast with a two-part mold. The final fragment is artifact number 527, which appears to be a portion of the broken, curved pipe extension to artifact number 505. It too has a single, raised, mold line running along its length, and it has a wall thickness of approximately .7 cm. Its edges are irregularly shaped, and interpretable dimensions are not available.

Pipe Grout:

A single fragment of pipe grout used to secure the joints between cylindrical ceramic drain tiles was recovered from the site. The grout is still dried in the form of having been compressed between two ceramic drain tiles, however, no evidence as to the finish of the drain tile is present, and the fragment is too small to determine a drain tile interior diameter.

Toilet Fragments:

Two white porcelain toilet fragments were recovered from the site. Only one of the fragments has remnants of two glazed faces present, and this fragment, artifact

number 753, has a thickness of approximately 2.4 cm. The presence of two faces in the fragment, as well as its thickness and curvature, probably indicates that this was a portion of the bowl of the toilet. This fragment is broken in many odd angles, and no other diagnostic measurements are obtainable from it. The other fragment, artifact number 379, represents only one glazed face of the toilet, and a partial depression on this face seems to indicate a 90 degree angle between two horizontal, straight faces. This could be representative of the base of the toilet, being the underside which was mounted to the floor. No markings are present on either fragment. Due to the 1910 construction date of the structure on the site, these fragments are probably no older than this date, and are probably indicative of the removal of a toilet fixture for repair, or due to wear.

Fixed Illumination

Incandescent Light Bulb:

An intact light bulb was recovered from the site, and was retained by the contractors. The light bulb was assigned the catalog number A-1, and is only represented in the collection by photographs. The bulb measures approximately 7" long, and is approximately 3" wide at its widest. The glass bulb is clear, has a tip on the end, and has the words, "EDISON / MAZDA" imprinted near the juncture of the bulb and the brass base. The interior filaments are all present, and mostly intact, and the internal vacuum seems to be intact as well. The internal glass stem is almost as long as the glass bulb itself, and is tipped with six prongs which extend, spoke-like, from the center, each of which has a filament attached to it that is run down to six other prongs extending from the base of the stem. The General Electric Company started producing Edison Mazda bulbs in 1913; the Mazda moniker coming from the ancient Persian god of light, which was used to denote the brightness at which the bulbs burned because of their use of tungsten filaments (Cox, 1979: 63). This bulb had to have been manufactured before ca. 1919,

however, as in that year General Electric developed and marketed a stronger, even more efficient, tipless light bulb (*ibid.*: 64).

Incandescent Light Bulb Base Fragments:

A total of four, incandescent, electric light bulb base fragments were recovered from the site. The first, artifact number 1017, is the remnant of the threaded brass side-wall of a light bulb base, having been some how torn away from the rest of the base, and crumpled. There is little diagnostic about this particular base, other than stating that it originated from a light bulb.

The remaining three bases are all Edison style threaded bases, made of brass with black glass insulators on their tips (see Figure 21). Artifact number 1189 is a complete base, being partitioned into the actual threaded socket portion, and a larger circumferenced portion which was joined to the bulb. The overall height of the brass portion of the base is approximately 5.4 cm, with the lower threaded portion having a standard circumference of 2.6 cm, and the larger portion having a circumference of 3.8 cm. The glass stem and leading wires are still intact within, and the stem is hand labeled in black ink with the number, "0816." For a date range of manufacture, the base post-dates 1901, due to the presence of a glass, rather than a porcelain insulator tip ring; and a *terminus post quem* of ca. 1950 can be assigned, as bases were constructed of aluminum, rather than brass after this date (Bright, 1949: 204).

Artifact number 1294 is a complete light bulb base, being a brass threaded portion, and having a black glass insulator on its tip, as well as its glass stem still within, with its two leading-in wires still protruding out. The base measures approximately 2.4 cm in height, with a standard circumference of 2.6 cm. There is still the partial remnants of a clear glass bulb adhered to the interior of the base as well. As far as dating this base, it is clear that it post-dates 1901, due to the presence of a glass insulator tip ring, rather than the earlier porcelain (Cox, 1979: 142). A *terminus post quem* of ca. 1925 can be

estimated, as the remains of the glass bulb are clear, and after this date most bulbs were interior frosted using an acid treatment (*ibid.*, 1979: 64).

Finally, artifact number 1315 is an almost identical base to number 1189. It too has a bi-partitioned base consisting of a threaded portion and a larger circumference portion which would have been joined to the bulb. The dimensions are virtually identical to number 1189, and the differences consist of markings. The larger circumference portion of the base is embossed with the following: “PAT,” and, “NOV 8 1904,” over, “NOV 22 1904.” It is interesting to note that on the opposite side of these embossings, there exists a small remnant of a mineralized textile, which is probably cotton, in a plain weave. The textile was apparently laying next to the bulb in its archaeological context, and mineralized to it leaving a three-dimensional cast of itself adhered to the base. The glass stem of the bulb is still intact, as well as the lead wires, and the interior of the glass stem is filled with an oval piece of paper with writing on it. On one side of the paper is the drawing of an incandescent light bulb with the following printed in it: “THE / MANUFACTURER OF / THIS LAMP IS LICENSED / UNDER PATENTS NOTED / ON OTHER SIDE.” The other side is marked with the same illustration of a light bulb, with the following printed within: “JAN 22, 1895,” over, “JAN 18, 1897 APRIL 16, 1893,” over, “NOV” (the rest of the date is illegible), and “APRIL 24, 1906.” Along the edge of the bulb the lettering, “N.P. 6442,” appears. Also adhered to the base is the partial remains of the clear glass bulb. A date range of manufacture for this bulb extends from some time after April 24, 1906 (the last patent date mentioned on the bulb), and ca. 1925, when most bulbs went to having frosted interiors rather than a clear bulb.

Incandescent Light Bulb, Glass Bulb Only:

A single, clear glass bulb to an incandescent light bulb was recovered from the site (see Figure 21). The bulb is missing its threaded base and glass stem, yet the diameter of

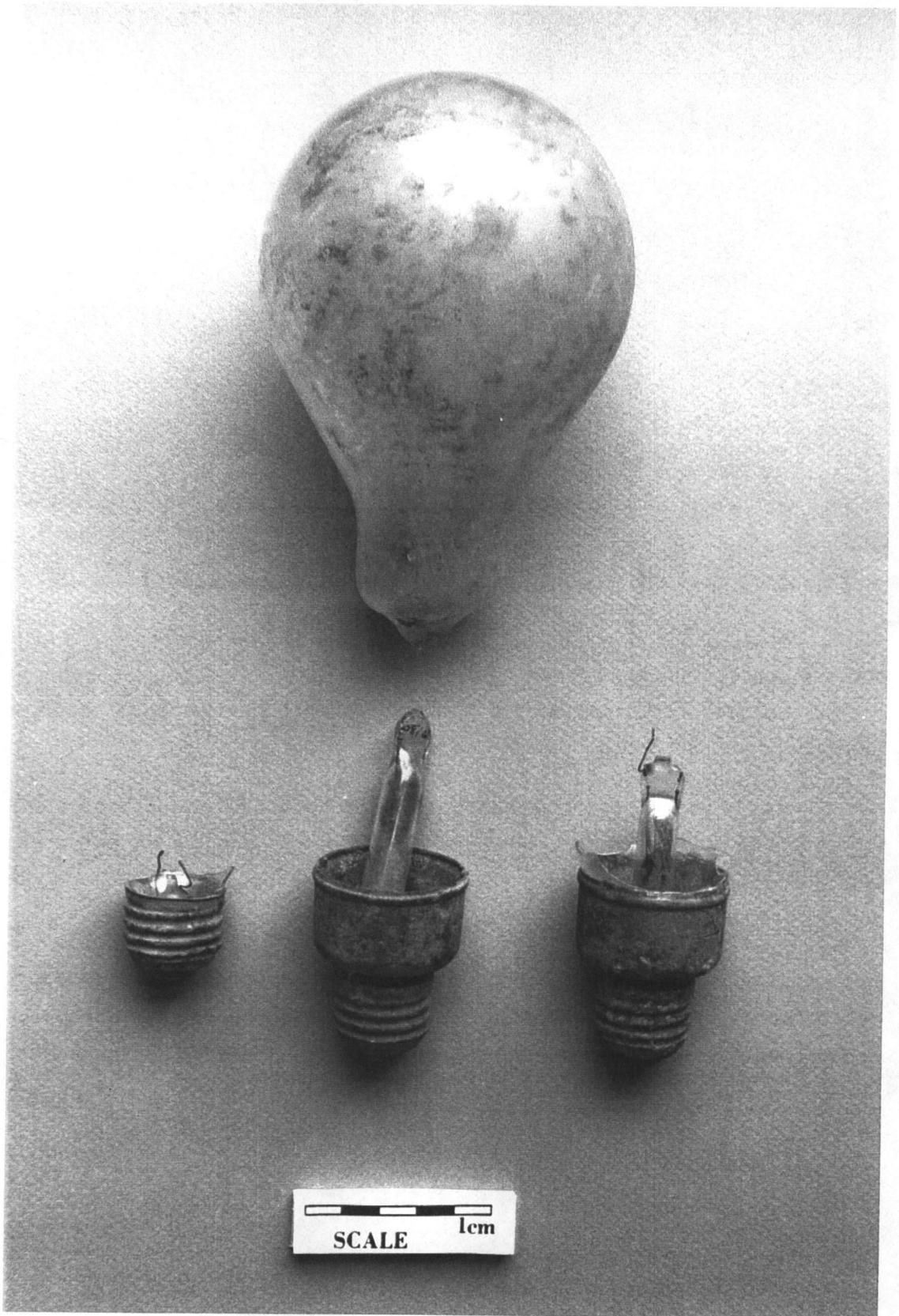


Figure 21. Incandescent light bulb fragments recovered from the site.

the bulb at the base end seems to indicate that it would have fit to a standard sized Edison threaded base. Yet, the bulb is extremely large when compared to those on a contemporary incandescent bulb with a threaded Edison base. The bulb measures approximately 14.8 cm in overall length, with a maximum diameter of 9.8 cm. There is no tip on the end of the bulb. Because of this tip-less design trait, and due to the fact that the bulb is clear rather than frosted, the bulb's date range of manufacture can be estimated to have been between ca. 1921 -1925; as tip-less bulbs were not introduced until 1921, and frosted bulbs did not come into existence until 1925 (Cox, 1979: 217).

Fixed Power

Aluminum Insulated Electrical Wire:

A single strand of aluminum insulated wire was recovered from the site. The wire is .145" in diameter, and is only 6.6 cm long. The wire insulation is a natural aluminum color, and the internal wire cannot be observed on either end. Judging from the size of the hole in the middle of the insulation, however, the wire was a No. 14 size, or smaller (Richter, 1949: 24). A reference to aluminum insulated wiring could not be located, but it is assumed that this is of mid-to-late twentieth century manufacture.

Cloth Covered Electrical Wire:

Eight strands of cloth covered electrical wire were recovered from the site. Out of these, two strands are weatherproofed, and made for outdoor applications, six are made for indoor applications, and one is of indeterminate manufacture style.

The first strand of weatherproofed wire consists of two cloth covered wires intertwined together, wrapped with a weatherproofed cloth covering which has a metallic luster to it. According to Richter, "The insulation consists of three braids of cotton, thoroughly saturated with weatherproofing and light-resisting compounds." (1949: 26).

The two strands of wire appear to be No. 14 size, indicating that this wiring was used for a low amperage application, probably over a short distance (Richter, 1949: 24-25).

The other piece of weatherproofed wire is much degraded, with only a small portion still having any weatherproofing present. The wiring is composed of seven individual strands of copper which have been braided together, then insulated with rubber, and finally a weatherproofed covering. The thickness of these strands indicates that this is probably a No. 4 size wire, probably indicative of larger amperage, or perhaps further distances to cross (*ibid.*: 24).

Out of the five strands of indoor, cloth wrapped wiring, three consist of two strands of wire intertwined together, while the remainder are represented by only single strands. All of the double wires appear to be No. 14 size wire, while the two single strands are No. 12 sized wire.

The final, indeterminate piece of wire is composed of seven individual strands of copper coiled together, with a width indicating a No. 8 wire size. A very small portion of what appears to be rubber and cloth still adheres to this wire.

All of this wiring is apparently made from copper wire, insulated with natural rubber, then coated with cloth. Due to the use of cloth covering the wire, all of this wiring can probably be dated to ca. 1900-1950, after which, the development of synthetic rubber and polyvinyl chloride wire coatings began to dominate (Black, 1983: 150). Likewise, all of this cloth covered wire is probably representative of the original wiring installed in the structure on the site, and probably at the time of its construction in 1910, or during the construction of its additions in ca. 1920-1921.

Cloth Fragments From Electrical Wiring:

Two fragments of cloth to cloth-covered electrical wiring were recovered from the site. Two samples from each fragment were burned, and their burning traits were observed using results from Joseph L. Marjory's, *Introductory Textile Science* (1981: 24-25). The results indicate that the fiber used in the textile was a natural cellulosic fiber, such as cotton or flax, which probably indicates cotton. The textile is a dark brown color, which could be an organic stain from being in the ground. The weave structure appears to be braided, as the strands are interlaced diagonally from each other (Wilson, 1982: 71). These pieces of cloth can probably be dated to ca. 1900-1950, when electrical wiring was almost wholly insulated with natural rubber, and covered in cloth.

Electrical Wiring Conduit:

Two pieces of steel, electrical wiring conduit were recovered from the site. Only one of these pieces of conduit, or "armor" is intact, the other having been unrolled into a bent, spiraling piece of steel. The whole piece of conduit has an overall length of 7.9 cm, and a diameter of 1.2 cm. These fragments are probably representative of indoor wiring, in areas that required extra protection for the wiring, and more than likely are representative of the early cloth-covered electrical wiring, ca. 1900-1950 (Richter, 1949: 24-29).

Pin Type Glass Electrical Insulator:

An intact, blue glass, pin type electrical insulator was recovered from the site. The insulator is approximately 8.3 cm tall, has an outer base diameter of 5.0 cm, a rounded tip diameter of 4.9 cm, and an internal base diameter of 3.8 cm. The only markings on the insulator consist of two vertical mold lines, and two raised stars, on opposing sides of the body. The insulator is also internally threaded for a pin, and has an impressed groove for one electrical wire. According to Cranfill and Kareofelas, this type of insulator is a Pony style, but it is on an unknown manufacturer and date (1970: 5).

All that can be said of this insulator is that it is probably of late-nineteenth-to-early-twentieth century manufacture, and is probably representative of the earliest electrical applications used on the structure on the site (see Figure 22).

PVC Insulated Electrical Wiring:

A single piece of PVC insulated electrical wiring was recovered from the site. The strand is a single wire, with a light green coating, and appears to be a No. 14 size. This probably indicates an indoor electrical wire, requiring low amperage. The use of a PVC coating probably indicates that this wire was manufactured after the Second World War, when PVC and synthetic rubbers generally replaced the rubber and cloth insulated wires.

Porcelain Cleat Insulators:

Two porcelain cleat insulators of different styles were recovered from the site. The first is made of glazed white porcelain, is rectangular in shape, and has a single perforation through it. The insulator measures approximately 3.1 cm x 1.9 cm x 1.6 cm. Two depressed sections which have raised, grill-like forms running across them are present, being on either side of the center perforation. These depressions are set in about .2 cm from the edges of the insulator, and are about .8 cm wide. These depressions are apparently where the rubber-covered electrical wires would have been placed, and cleated in with an opposite facing insulator, which would make this a two-wire cleat insulator. An exact illustration of this type of insulator could not be found, so its manufacturer, and exact date range of manufacture are not known, but it is probably of early-twentieth century manufacture (see Letter D, Figure 22).

The other porcelain cleat insulator is made of unglazed white porcelain, and it is basically a rectangular form with rounded ends. This insulator measures approximately 8.2 cm x 1.9 cm x 1.7 cm. Two perforations exist through the insulator, basically placed on either end of the insulator. The perforations have raised rings around their edges on one side, and between these two perforations is a depressed rectangular section, which

has the raised word, “BRUNT”, within it. The opposite face has two impressed, threaded, longitudinal cuts, just to the outside of the two perforations. These impressed cuts are where the electrical wires would have been placed and clamped into the insulator. According to a reprinted catalog of the G. F. Brunt Porcelain Company, of East Liverpool, Ohio, (which is of unknown date, but certainly early-twentieth century), this insulator is a “Standard No. 334, Two Wire Cleat, Unglazed” (Kareofelas, Cranful, & Fountain, 1969: 34). The Brunt Porcelain Company started making porcelain insulators in 1891, at which time, the insulators were marked with “BRUNT” (Tod, 1977: 73). This ended for a two year span, from 1895-1897, when the company changed hands, and was known as the Brunt & Thompson Company, at which time their insulators were marked, “B & T” (ibid.: 74). George F. Brunt bought out Thompson’s interest in 1897, and continued the company under the label “G. F. Brunt Porcelain Company,” again. The insulators were marked “BRUNT,” once again, and continued to be so marked even when the company changed hands again to the General Porcelain Co., in 1911, and was leased by General Electric in the 1920s. Insulator production apparently ended around ca. 1930, when the company switched back to door knob production, and was called, the Riverside Knob Co. (ibid.).

Porcelain Knob Type Insulator:

A single, glazed, white porcelain, knob type insulator was recovered from the site. The insulator consists of three cylindrical rings, divided by two depressions, all of which has a single perforation running through it. The insulator is approximately 3.7 cm tall, and has a diameter of 4.1 cm. Each of the impressed rings has a diameter of approximately 3.3 cm. Judging from illustrations in Kareofelas, Cranfill & Fountain, this insulator is a double groove knob insulator, commonly used on insulator racks (1969:

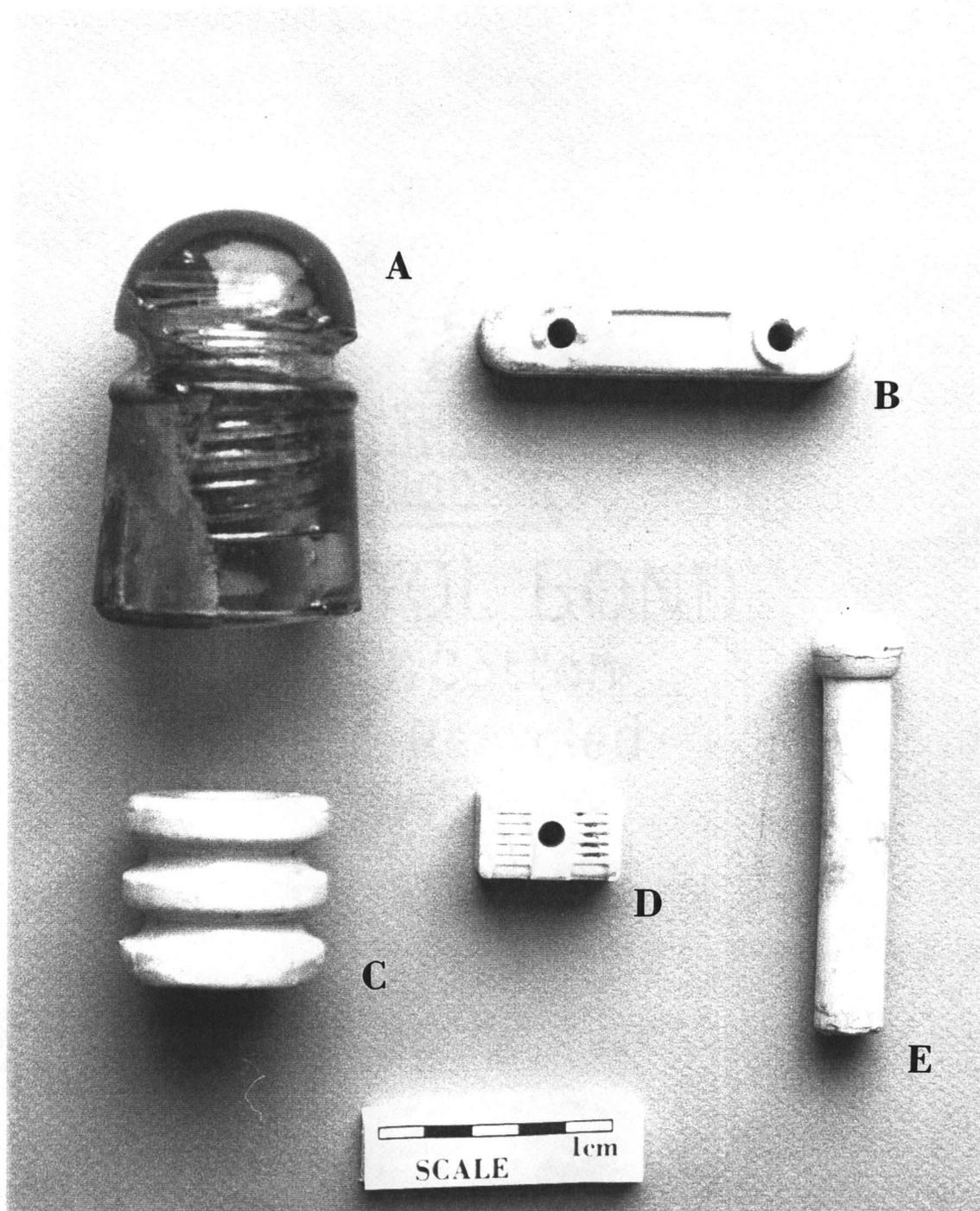


Figure 22. Various electrical insulators recovered from the site. A. Pony Style, Pin Type, Glass Insulator B. Brunt Cleat Type Insulator C. Knob Type Insulator D. Cleat Style Insulator E. Tube Style Insulator

114). This design, “Has 2 grooves, one for tying in the main circuit and the other for the service wires.” (ibid.). There are no markings present on the insulator, so a manufacturer cannot be determined (see Figure 22).

Porcelain Knob Type Insulator Fragments:

Four fragments of what appear to be the remains of glazed, white porcelain, knob type insulators were recovered from the site. All appear to represent cylindrical knob type insulators, but none are complete enough to reconstruct a diameter, or height. Only one of the fragments, artifact number 150, has any markings, having the raised lettering “G.E.C.”, on an unglazed portion of the fragment. This could be the markings of the General Electric Company, which produced porcelain insulators from a plant in Schenectady, New York, from ca. 1896-1952 (Mills, 1970: 51-55). However, I could find no information as to specific types of insulators which the General Electric Company made, so a more narrow date range cannot be applied. The most that can be said of all of these fragments then, is that they are probably of early-twentieth century manufacture, they are probably representative of the first electrical applications to the structure on the site, and they were probably replaced as they broke, or as their wiring needed replacement.

Porcelain Split Type Insulator Fragments:

Four fragments of what appear to be the remains of square, reversible, split type, white porcelain electrical insulators were recovered from the site. Three of these fragments are unglazed, the remaining one being glazed. None of the fragments are complete enough to determine useful dimensions, and their original forms and sizes can only be guessed at. The glazed fragment, artifact number 160, has the raised number “39237”, on an inner, unglazed portion. This could be a serial number, or type number of the insulator, but without information about the manufacturer, these numbers are all but useless in aiding the identification process. The most that can be said of all of these

fragments is that they are probably of early-twentieth century manufacture, they are probably representative of the first electrical applications to the structure on the site, and they were probably replaced as they broke, or as their wiring needed replacement.

Porcelain Tube Insulator:

An intact, unglazed, white porcelain tube insulator was recovered from the site. The tube is 8.8 cm long, has an inner diameter of .8 cm, and has an enlarged, knobbed end that has a maximum diameter of 2.0 cm, and is 1.2 cm long (see Figure 22). The tube is stamped, "THOMAS", twice, in a straight line running the length of the tube. This is almost certainly the mark of the R. Thomas & Sons Co., of East Liverpool, Ohio, which was a ceramics business, that made ceramic whitewares and porcelain insulators (Mills, 1970: 41). The company was started in 1873, and did not go out of business until 1957 (ibid.: 41-50). It did not start making ceramic insulators until ca. 1893, but some sources say they may have been producing them as early as the 1880s (ibid.: 42). These tubes were used to insulate electrical wires when they passed through timber, and were commonly used in the knob-and-tube electrical systems of the early-twentieth century (Richter, 1949: 80-81).

Television Cable Stand-Offs:

Two iron television cable stand-offs were recovered from the site. The stand-offs consist of a piece of iron wire, which has had one end formed into a loop within which is an apparent carbon plug. These plugs have a small laceration cutting through them, through which the television cable was passed. The stand-offs are approximately 12.4 cm long, have a loop that has a diameter of 2.7 cm, and are made of wire that is .5 cm in diameter. One of the stand-offs, artifact number 498, still has a layer of wrapped weatherproofing on a portion of its shaft. According to a former employee of a telephone company, these stand-offs were used to keep the television cable away from the building,

when they were strung up the side of the building, and probably date to ca. 1950-1970 (Waldron Littlefield, Personal Communication).

Television Roof Antenna Arm:

An aluminum arm from a television roof antenna was recovered from the site. The antenna is made from rolled aluminum that has a diameter of 1.0 cm, and is over 69 cm long. One end is crimped flat, and the other end is missing, and appears to have been snapped off. This style of antenna is definitely of mid-to-late-twentieth century manufacture, and probably dates to ca. 1950-1970.

300 OHM Twin Pad Wire Strand:

A strand of 300 OHM twin pad wire was recovered from the site. The wire appears to be made from plastic, is approximately 1.0 cm wide, and is of an indeterminable length due to bends in the wire. The plastic insulation is marked with impressed lettering with, "300 OHM". This type of wiring was apparently used for television reception cable, and is apparently of mid-to-late twentieth century manufacture.

Fixed Heating and Cooling

Heating Stove Maker's Plate:

A cast iron maker's plate, apparently for a heating stove, was recovered from the site. The center of the plate is depressed and is marked in raised lettering, "E.A. SCHWIENING / PLUMBING & HEATING / CORVALLIS ORE." The plate's shape is hard to describe, yet most resembles a curved hot dog with straight sides. A pair of swivel bosses exist on the upward facing ends of the plate, and two .143" diameter perforations are present underneath these bosses. The plate is bent in the middle, resulting in a slight rise to one side, which probably also shortened the length of the plate,

as it is now just short of 4 1/2". From the tip of the swivel bases, to the other side of the plate measures some 2.135", and the plate is approximately .127" thick.

E.A. Schwiening apparently worked in a number of different professions in the Corvallis area during the early-twentieth century. The earliest listing for him is as a plumber in the 1913 Polk's Benton County Directory, and he is also listed as a plumber in the 1913-1914 Washington State Gazetteer and Business Directory. By ca. 1920-1922, his business is listed as the Schwiening Vulcanizing Shop, so he apparently switched into the rubber business by this date (The Pacific Telephone Company, ca. 1920-1922: 13). Strangely, Mr. Schwiening is not listed in the 1924 Corvallis Phone Directory. By 1934, he has switched professions again, as he owns the Schweining Sheet Metal Works, which was located at 320 South 2nd St. (Maxson Business Service, 1934: 52). Notice that the spelling of the last name has changed, the "i" and the "e" having been transposed in order. This listing continues until 1938, but by 1947 there is no mention of an E. A. Schweining, and according to the director of the Benton County Historical Society, the county has no record of his death (Judy Juntunen, Personal Communication). It can be assumed then, that the E.A. Schwiening Plumbing & Heating shop was probably in existence sometime between the ca. 1913-1920 dates, when he still spelled his name as Schwiening, and was apparently still doing plumbing.

Stove Damper Handle:

A stove damper handle was recovered from the site. The handle is made of two pieces of iron, one being a diamond profiled shaft, the other being a piece of wound wire. The handle measures approximately 10.4 cm in overall length, the shaft being about 9.0 cm of this, the wire extension making up the remainder. The wire extension is wound like a cork-screw around the end of the shaft, making two full revolutions. Then it is curved up, and back around creating another loop suspended away from the shaft. This loop forms a handle, which would have been a little more isolated from potential convection

heat from the stove, as it is made of a separate piece of iron attached to the shaft. There are no markings on the handle at all. The handle appears to be machine-made, due to the symmetry of the shaft's sides. Due to this, the handle's date range of manufacture can probably be put in the late-nineteenth century, through the early-twentieth century.

Personal and Domestic Transportation

This heading is represented by three sub-categories in Sprague's typology, and only two of these were used to describe this collection. This heading is represented by the following sub-categories, with their corresponding numbers of artifacts: Vehicles (10), and Vehicle Maintenance (2).

Vehicles

Automobile Head-Lamp Lens Fragment:

A single fragment of what appears to be a clear glass automobile head-lamp lens was recovered from the site. The fragment is slightly curved, and on its concave surface, displays a grid-work of raised rectangles. These rectangles are approximately .6 cm wide, yet not enough of any one is present to obtain a length. The fragment is broken in a rough triangle shape, which allowed for the survival of two rows of these rectangles, with the longest row having seven rectangles present. Four of these rectangles are flat to the surface of the lens other than their raised outline, but the remaining three have their width edges raised further than the others, making a slight wave pattern. These edges were apparently raised further than the rest in order to change the refraction of light passing through this area, probably to help focus the differing levels of light between a high beam and a low beam. If this is so, then this lens post-dates 1924, when General Electric introduced such head-lamps for automobiles (Cox, 1979: 81).

Automobile Tail-Light-Bulb Base Cover:

The remnants of what appears to be the base cover to a small automobile tail-light-bulb base cover was recovered from the site. The cover is made of a yellow metal, and is cylindrical and flat on both sides, with an inner circular opening. The cover has been distorted by being flattened, so an accurate measurement of its original diameter is not possible, however its largest diameter measurement is now approximately 1.9 cm, and its largest height measurement is approximately .6 cm. Although no base cap is present, it is assumed that the center hole is where it would have originally fit. As there are no other remains of the bulb present, no estimate as to the bulb's type, color, or years of manufacture are possible.

Bicycle Bell:

The apparent remnants of a chromed iron bicycle bell was recovered from the site. The bell is composed of two separate cylindrical concave portions, each of which has a central stem on its concave surface. The stem on artifact number 1011 appears to be broken, while the stem on artifact number 1012 is hollow and threaded. The bell would have been connected via this threaded stem, which has apparently been broken, and may be the reason why this bell was discarded. The complete bell is not present, as the bell actuating lever, and handlebar mount are missing. The dimensions of artifact number 1011 are: 2.227" in diameter, and .867" in height; while artifact number 1012 measures some 2.298" in diameter, and .876" in height. As for a date range of manufacture, bicycle bells seem to have become a fashion in the 1890's, and Montgomery & Ward's was selling five different types in 1895 (1969: 557). Although they are still sold today, they appear to have gone out of fashion in the 1960s, which puts a probable date of manufacture range of ca. 1890-1960.

Bicycle Handlebar Stem:

An iron bicycle handlebar stem was recovered from the site. The stem is basically “L” shaped, is hollow, and has a bolt and nut closure for the handlebar fitting. The stem’s head-tube fitting is approximately .895” in diameter, while the handlebar fitting section is approximately .955” in diameter. The stem’s length from handlebar-end to “L” joint is 4.245”, while the length from the headset end to the “L” joint is 2.991”. The stem is of a threaded headset type, which is still manufactured today, and its “L” form seems to have been available as early as 1908, as is evidenced by its presence in the Sears, Roebuck & Co. catalog of that date (1971: 171).

Bicycle Adjustable Headset Locking Cone:

An adjustable locking cone of a bicycle headset was recovered from the site. The locking cone is made of iron, and was apparently chromed at one time. The cone is cylindrical, is internally threaded, and has a roughened outside edge for greater gripping power when tightening it to the headset lock-nut. The outside diameter of the cone is 1.647”, while the inside diameter is .942”. Dating this bicycle component is rather difficult, as this type of headset has been used since the first “safety” bicycles of ca. 1885, and is still present in a refined form, today (Ritchie, 1975: 129). More than likely, however, this particular cone was manufactured between ca. 1900-1950.

Bicycle Leather Saddle Cover:

A bicycle leather saddle cover was recovered from the site. The saddle cover is desiccated, and is bent over backwards, with its interior (which is rough-sided) facing outwards. The original exterior face is smooth and darkened, and was probably tanned black originally. The center line of the saddle was raised in an ovoid shape, apparently for rider-ergonomics, and this raised section is impressed with a cursive label, “Star”. The cover was apparently originally tacked to its saddle, as there are two round stocked iron tacks still protruding through the rear of the saddle, and there are small perforations on

the nose of the saddle which would have been conducive for such tacks as well. Dating this saddle cover is fairly difficult, as the saddle shape is hard to reconstruct with just the cover, and the cover is so desiccated that it does not readily lend itself to manipulation. The “Star” trademark is of little help either, as no specific reference to this trademark can be found. Still, it would appear that this is definitely not of recent manufacture, and by the raised center section, the cover can probably be dated to the early-twentieth century.

Carriage Bolt:

A hand wrought carriage bolt was recovered from the site. The bolt is made from round stock, which is approximately .202” in diameter. The bolt is 3.90” long, has a squared, flattened head, and has narrow-cut threading which extends only .475” up the shaft. Judging from the diameter of the shaft, the bolt was designed for a 1/5” nut. Such bolts were typically used to close two pieces of wood together without the need of tacking them together with nails, lessening their chance of splitting. If Sears & Roebuck and the Montgomery Wards catalogs of the 1890s can be believed, then most carriage bolts at the turn of the century period were machine made. As this bolt is hand-wrought, its period of manufacture can probably be dated to the early-to-mid-nineteenth century. Due to this early date of manufacture, it can be assumed that this bolt was a part of a larger, unknown artifact, manufactured in the early-to-mid-nineteenth century, which was curated, and deposited at the site during the early-twentieth century with most of the rest of the artifacts. This larger artifact then degraded, leaving only the bolt as a sign of its presence.

Valve to an Internal Combustion Engine:

An iron valve to an internal combustion engine was recovered from the site. The valve is approximately 6 1/2” long, has a rod diameter of .372”, and a valve diameter of 1.628”. From all appearances, the valve is slightly bent near the connection of the valve portion and its rod. This may account for its presence in the site, and the lack of any

other engine parts. According to a local car mechanic, judging from its size, the rod appears to be from an early flat head engine, perhaps from a tractor, a truck, or some kind of an industrial engine (Clayton Rasmussen, Personal Communication).

Schraeder Air Valve Cap:

A black plastic, Schraeder style air valve cap, to a pneumatic rubber tire was recovered from the site. The cap is cylindrical, internally threaded, and has vertical ribbed flanges to aid in gripping power for removal. The valve cap is approximately 1.3 cm tall, and has a base diameter of 1.0 cm. Since it is made from plastic, the cap probably dates to the late-twentieth century.

Vehicle Maintenance

Oil Container Seal:

A white plastic seal to a late-twentieth century plastic oil container was recovered from the site. The seal measures 1.00” in diameter. The circular seal is marked with five orange stars with a “T” in the center of each. Underneath each of these stars is also the company name, “TEXACO.” This is obviously from a motor oil container produced by the Texaco Oil Co.

Spanner Wrench:

A rather large and crude form of a spanner wrench was recovered from the site. The wrench is simply a piece of round iron stock, which has been bent in a “U” form, then had its tips bent at a 90 degree angle in such a way so that when looked upon in profile, they cannot be seen. The points of these bent ends are sharpened as well. The wrench is approximately 15.6 cm long, has a span of approximately 4.7 cm, and is composed of wire stock which is approximately .165” in diameter. The spanner fixture which this wrench was designed for can only be guessed at, and a date of manufacture can only be guessed as being early-twentieth century.

Commerce and Industry

This heading is represented by eleven sub-categories in Sprague's typology, out of which, only three were used to describe this sample. The artifacts described under this heading are represented under the following categories: Fishing (1); Mass Media, Informational Services (27); and Transportation Construction (4).

Fishing

A relatively large, iron, barbed fishing hook was recovered from the site. The hook measures some 11.9 cm in overall length, and is apparently a size 3/0. The hook appears to be a ringed style, with a shank that is a regular round cross section style, and a speared barb (Evanoff, 1961: 184-186). The eye is a ball style. All in all, this is a very standard hook, other than its size, which indicates that it would have been used for relatively large fish, such as halibut, or sturgeon.

Mass Media, Informational Services

Newspapers:

A total of five relatively intact newspapers were recovered from the site. All five of these newspapers are from the Oregon Journal, of Portland, Oregon, and all are from 1938. The following dates are represented among the newspapers: Wednesday, February 2; Sunday, February 13; Tuesday, February 15; and Wednesday, March 30. Three of these newspapers were handed to this researcher by the foundation contractors at the site, who said that they had found them wrapped around the water-pipes under the house as a form of insulation. The remaining two were recovered from Pile B, but were likely wrapped around pipes as well. As all of the newspapers date from 1938, it probably indicates that the pipes underneath the structure were either added at that time, or perhaps replaced, or just had insulation applied or replaced in that year.

Newspaper Fragments:

At least 22 newspaper fragments were recovered from the site. Unfortunately, their degradation, and clumped condition during recovery results in an ever-increasing amount of newspaper fragments. Very few of these newspaper fragments have headings or dates on them, but judging from the formats, the stories, the advertisements, and the comic strips in them, it can be supposed that most are from ca. 1938, like the whole newspapers described above. This probably indicates that the fragments were parts of whole newspapers which were also applied to the water pipes underneath the house as insulation.

Transportation Construction

Machine Made Railroad Spikes:

A total of three machine-made railroad spikes were recovered from the site. Two of these spikes are approximately 5" long by 1/2" wide (length measured from under the head). Both of these are of identical style, having a chisel shaped point oriented in an opposing direction of the head, which is flat, with one side extending approximately 1/2" away from the shank, and the opposite side being non-existent. The third spike measures approximately 5 1/2" long by 1/2" wide (length again measured from underneath the head) and shares nearly the same form as the other two, only having a wider, more oval-like head. All of these spikes were probably manufactured during the early-twentieth century.

Hand-Wrought Railroad Spikes:

A single hand-wrought iron railroad spike was recovered from the site. The spike is approximately 5.940" long, and is made of iron stock .365" thick, which was cut 1.105" wide at the head, and tapers to .685" wide at the tip. The tip is flattened and widened, apparently from being driven into a material which was harder than it was. Due to this

flattening, it can be assumed that this spike was manufactured to be approximately 6” long. The head of the spike is shaped like a rounded rectangle, which is 1.325” long, by .860” wide. Since this spike was hand-wrought, its date range of manufacture probably dates to the nineteenth century, and since the first railroad was not laid in Corvallis until 1881, one can date this spike to ca. 1881-1900 (Martin, 1938: Chapter VI, 6).

Group Services

There are six categories under this heading used in Sprague’s typology. Only two of these categories were used to describe the artifacts under this heading, and they are: Education (1), and Utilities, Communication Systems (4).

Education

A translucent, clear, plastic, conical centrifuge tube was recovered from the site. The tube is externally threaded for a cap on its open end, and is pointed towards its tip. The tube is internally graduated to 50 ml, and is approximately 11.4 cm long, with an outer diameter of 2.8 cm. A nearly identical centrifuge tube can still be purchased from the 1996 Cole-Parmer Instrument Company Catalog, and due to this fact, and also due to the tube being made of clear plastic, this tube was probably manufactured in the late-twentieth century (Cole-Parmer, 1996: 885).

Utilities, Communications System

Rotary Phone Dialing Mechanism:

The internal dialing mechanism of a rotary style phone was recovered from the site. The mechanism consists of a steel ring with ten raised dots of varying size around its center, and a rubber gasket which covers the ring, yet allows the dots to come through. A small hook is also present, which is a part of the steel ring, and curves over the black rubber faced side, covering one of the dots. This probably represents the stopping mechanism, which the rotary dial returned to after each number was dialed, which would

indicate that the dot underneath it represents the number “0”. The ring has an outer diameter of 4.5 cm, and an inner diameter of 2.1 cm. There are no markings present on the ring, and it is assumed that it represents a rotary telephone, of early-to-late-twentieth century manufacture.

Taplock Utility Lock:

A green plastic taplock, or utility box lock was recovered from the site. The lock consists of a piece of flat green plastic, and a narrow gauge (less than .1 cm in diameter) piece of steel wire. The plastic is squared on one end, and rounded on the other, and is approximately 3.8 cm long, by 2.1 cm wide. The plastic is impressed on one side with “TAPLOCK / BUDCO-TULSA”, and in an opposing direction with, “PATENT / 3485521”. On the opposing side is a supposed impressed serial number of “TN048893.” According to a fellow student, these taplocks are placed on utility meter boxes to insure that the user of the utility does not tamper with the meter. The use of such a thin wire on the lock is intentional, as it would be to the detriment of the utility user to tamper with or remove the taplock (Steve Kramer, Personal Communication). These taplocks are definitely of late-twentieth century manufacture, and are still apparently used today.

Telephone Box Cover:

A pressed aluminum telephone box was recovered from the site. The box has rounded edges, and is impressed with the words, “BELL / SYSTEM,” underneath of which are two impressed lines, and finally, “305A2”. The box is approximately 9.2 cm x 7.8 cm x 5.1 cm. According to a veteran worker of a telephone company, these boxes are used to protect the exterior telephone lead into the house, and have been used since ca. 1975, and are still used today (Waldron Littlefield, Personal Communication).

Telephone Box Lightning Surge Protector:

A telephone box lightning surge protector was recovered from the site. The protector, or “carbon”, was identified by Waldron Littlefield (Personal Communication). It is made of a cylindrical piece of copper, that has a straight screw-driver blade head, a stop ring, threading, and finally an end with eight prongs, and a carbon center. The surge protector is approximately 2.8 cm long, has a screw-end diameter of 1.3 cm, a stop-ring diameter of 1.4 cm, and a threaded end diameter of 1.1 cm. The carbon on the end has a diameter of approximately .4 cm, and each of the prongs is approximately .3 cm tall. According to Mr. Littlefield, these surge protectors were screwed into specially threaded holes on telephone pole boxes, and they were commonly used from the mid-twentieth century and probably continuing to the present.



Figure 23. A representative sample of some of the more interesting “Unknown” category artifacts.

Conclusions and Syntheses

Conclusions on the Structure

There are relatively few conclusions to deduce about the structure on the site. As stated earlier, the structure appears to have been constructed in 1910, and was significantly changed in ca. 1920-1921. The artifacts which were typologically labeled as architectural in function cannot be used to verify these dates, but do yield some interesting chronological data about the construction material itself.

Both machine cut square nails and wire drawn nails were recovered from the site, in quite disproportionate numbers. A total of 123 iron nails were recovered from the site; of which, ten were machine cut square nails, while 113 were wire drawn nails. The machine cut nails were recovered from only two of the back-dirt piles, Pile A (4), and Pile F (6), while wire drawn nails were recovered from every back-dirt pile on the site. The numbers and distribution of the different types of nails seems to support the documentary findings on the dates of construction and addition to the structure. If the original structure was constructed in 1910 as the county records indicate, then it is quite possible that machine cut nails were used in its manufacture. However, it is probably more likely that a mixture of both wire drawn and machine cut nails were used in the initial construction of the structure. The turn-of-the-century seems to have been a transitional period between the use of machine cut and wire drawn nails, as wire drawn nails were apparently less expensive, yet machine cut nails were seen as having more holding power than the wire drawn nails (Graham, 1923: 24).

It is possible then, that the carpenters who constructed the original structure used machine cut nails in situations where they believed more holding power was required, while using the less expensive wire drawn nails in most other applications. It is also possible that the differentiation in nail types could show an age difference and preference

Table 7. Distribution of Wire Nails From Site ORBE2

<u>Back Dirt Pile</u>	<u>(N) Sample</u>	<u>(%) Sample</u>
Pile A	20	17.7%
Pile B	1	.88%
Pile C	1	.88%
Pile D	5	4.42%
Pile E	6	5.31%
<u>Pile F</u>	<u>80</u>	<u>70.8%</u>
Totals	113	100%

amongst the carpenters who built the structure. For, older carpenters may have been more prone to using the machine cut nails, while younger carpenters of the period may have shown less resistance to using the less expensive, yet poorer holding quality wire nails.

It is also interesting to note that the machine cut nails were only discovered in Piles A and F. The lack of machine cut nails in Piles B, C, and D on the Northeast side of the structure supports the findings that the Northeast portion of the structure was constructed between 1919-1920. It is assumed that wire drawn nails were probably used almost exclusively in construction activities by this time.

The only other bulk artifact type in the Architecture category which is datable are the flat, clear glass, window glass fragments. Although dating window glass fragments by using the modes of thickness in inches was first propositioned by Karl Roenke in, *Flat Glass: Its Use As A Dating Tool for Nineteenth Century Archaeological Sites in the Pacific Northwest and Elsewhere* (1978), it seems that few other sites (especially out of the Pacific Northwest), have had similar analyses performed on them. It must also be admitted that Roenke only attempted to create a dating tool for nineteenth century sites, and his study only creates datable glass up to ca. 1915. Any glass with thickness modes greater than .105" can only be attributed to the twentieth century, with no narrowed date ranges possible as of yet. Roenke concludes his study with the statement that, "It is probably safe to say that, generally twentieth century window glass is thicker than late nineteenth century glass, but single-strength glass today can also be purchased in a variety of sizes measuring 1/16 (0.063) in. in thickness." (1978: 118). Therefore, it is interesting to use these dating

techniques on this site, as the construction date of the structure of 1910, and continual occupation to the date of recovery of the artifacts yields some interesting results.

As is shown in Table 6, and in Figure 24, the probable dates of manufacture for most of the window glass recovered from the site seems to be earlier than the 1910 construction date of the structure. The predominance of numbers of glass within the date range of ca. 1855-1900 seems to indicate that the original 1910 structure had window glass that had been manufactured well before the structure was constructed. This can possibly be explained by the fact that window glass was mostly manufactured in Europe and on the East Coast of the United States in the late-nineteenth century. Roenke states that there were 58 window glass producing plants in the United States in 1880, and that, "Fifty-six were located east of the Mississippi River and two were located to the west; one in Iowa and the other in Missouri." (1978: 26). Without a doubt, transporting fragile window glass from Europe or the East Coast to Oregon would have been an expensive affair in the late-nineteenth century, and bulk orders were probably placed to help mitigate these expenses. Some of these late-nineteenth century bulk window glass orders could have been locally warehoused for extended periods of time, which leads to the interesting possibility of having late-nineteenth century window glass used in the construction of a ca. 1910 structure.

Yet, this is certainly not the only possibility of why and how nineteenth century window glass ended up in context with a 1910 structure. Other possibilities include: the recycling of window glass from earlier structures, the presence of a dump on the site before the construction of the structure, the presence of an earlier structure on the site, or the possibility that Roenke's data is faulty.

The idea that the window glass was recycled is seemingly more plausible than the postulation that the glass was warehoused for up to 40 years before its installation. Any businessman would much rather sell a product quickly and remove it from expensive storage, thereby paying off the debt of having to place such a bulk order, rather than store it

for extended periods of time. Beyond this, recycling of manufacturing materials is always a preferable, and less expensive option than buying new materials, and the discussion of the relative expense of window glass certainly lends further credence to this idea.

The possibility of an early dump on the site before the structure was constructed is dealt with more in the section on conclusions about the deposition processes on the site below. However, it must be stated that this is a relevant possibility, as at least one oral history seems to indicate that open lots were tempting targets to dump non-odorous trash in the late-nineteenth, and early twentieth centuries (Bates, Personal Communication). Certainly, the numbers of artifacts dated to the late-nineteenth century allows for the possibility of such a dump, although it would have been a small one, with a disproportionate number of window glass fragments (see Figure 25).

An even less likely possibility for the presence of the late-nineteenth century window glass in the site collection, is the possibility of an earlier structure being present on the site in the late nineteenth century. In short, there are not enough artifacts dating to the late nineteenth century to support this possibility, and the county tax assessment records do not record the presence of any improvements to the property until 1910, when the known structure was constructed on the site. Therefore, it is highly unlikely that an earlier structure existed on the lot, or that the late-nineteenth century window glass can be attributed to an association with such a structure.

Finally, there is always the possibility that these window glass fragments do not date to the late-nineteenth century at all, but are in fact twentieth century glass fragments which have been incorrectly identified as nineteenth century glass. This could be the result of Roenke's data being weak, or faulty, especially towards the late-nineteenth and early-twentieth centuries; or that the fragments were incorrectly measured. As to the former possibility, there have been few (if any at all), other historic sites which have had their glass fragments analyzed using Roenke's methods. Until more sites are analyzed using these methods, there will be no way to show whether or not Roenke's data or conclusions

are correct, or incorrect. As to the possibility of this collection's glass being incorrectly measured, a slim possibility exists, yet every measure was taken to guard against error. All fragments were measured at least three times, or until the largest thickness measurement was attained twice (preferably twice in-a-row). In this way, it was hoped to attain the most accurate measurement of the thickest area of each fragment.

However one explains these dates, it must be admitted that nearly all structures suffer broken windows at some point in their history, and this broken window glass is the result of such episodes. After the noted predominance of late-nineteenth century window glass, a sharp dip in numbers in the ca. 1900-1915 mode is noted, which is followed by a slight rise in numbers again after ca. 1915. This is easily explained by the continual occupation of the structure since its construction, and by the construction of the additions in ca. 1919-1920. The windows with the likeliest odds of having been broken, due to the simple fact of having been installed in the structure for the longest amount of time, are the nineteenth century windows which were installed in 1910, which results in the predominance of nineteenth century glass recovered from the site. The glass installed in the 1920-21 addition sequence was probably of ca. 1900-1915 manufacture, while the glass used to replace any of these earlier windows which may have been broken was probably manufactured after 1915. The relative similarity in numbers of these two modes seems to indicate that the addition windows and the replacement windows were suffering a similar attrition rate.

Conclusions on Artifact Disposal and Deposition

Perhaps the most interesting conclusions which can be drawn from this site involve the chronology of artifact disposal. One can state that the majority of the artifacts recovered from this site were probably disposed of soon after their designed functional purpose had been fulfilled. It is virtually impossible to determine the amount of time any one artifact may have been curated before disposal, yet it seems that the function of most of the artifacts

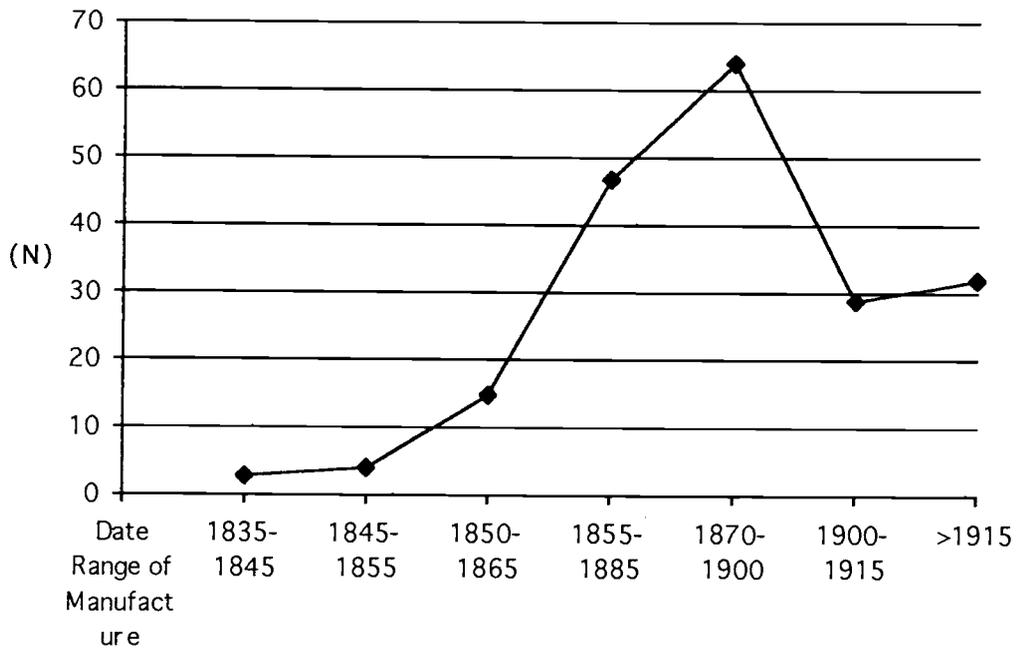


Figure 24. Numbers of Window Glass Fragments Within Roenke's Date Range of Manufacture Modes

indicates a relatively short time between manufacture, purchase, and disposal. Either the product was used, and its container or remnants were disposed of, or the product was broken or worn out, and disposed of.

In order to determine the likely date ranges of disposal for these artifacts it was necessary to determine their function and date ranges of manufacture. The typological description of the artifacts showed that out of the 1514 artifacts recovered from the site, 1385 were identified as to function, and of these, approximately 306 had determinable date ranges of manufacture. When all of these dated artifacts are graphed, an interesting pattern appears. As is illustrated in Figure 25, the numbers of artifacts within each date range progressively increases from the mid-nineteenth century, 1840-1870 (23 artifacts), to the late nineteenth century, 1870-1900 (105 artifacts), to the early-twentieth century, 1900-1930 (138 artifacts). The numbers then take a plummeting fall in the mid-twentieth

century, 1930-1960 (only 6 artifacts), followed by a slight rise again in the late-twentieth century, 1960-1990 (34 artifacts).

Since site occupation has been continual since ca. 1910, this patterning may be attributable to changing cultural patterns of artifact disposal. The historic records of garbage disposal in Corvallis seems to support this interpretation. The earliest recorded trash disposal service in Corvallis appeared in a July 27, 1915 edition of the local newspaper, *The Daily Gazette Times*. According to the article, entitled, "City Provided with Dumping Ground," the city police chief, Chief Wells, found an open field on the east side of the Willamette River where citizens of Corvallis could haul their trash. This dumping ground is apparently where the current Martin Luther King, Jr., Corvallis City Park is now. The article goes on to state that, "Parties wanting to cross the river for this purpose can get the key to the boat from Chief Wells at any time and make their own trips. This will enable those who make a business of collecting garbage to dispose of it at one known place, instead of having to cart it around any where and everywhere as has been the custom." (Daily Gazette Times, July 27, 1915).

This last comment seems to indicate that there were those at this time who specialized in trash disposal, yet they had no specific dumping ground. The article also seems to indicate that trash removal by those who make a business of it was very much an optional service, as the keys to the ferry to cross the river to the dumping point were available to anybody. So it is apparent that before 1915 at least, there was no established, regular trash pick-up, or disposal in Corvallis. The current trash disposal company in Corvallis, Corvallis Disposal Co., was established in ca. 1928 (Corvallis Disposal Co., Personal Communication). Even then, however, it is not apparent whether regular, weekly trash pick-up became available for all inhabitants of Corvallis or not. According to an employee of the Benton County Public Health Department, a county statute requiring weekly, house-to-house trash pick-up and disposal was not approved until ca. 1964 (Gordon Brown, Personal Communication).

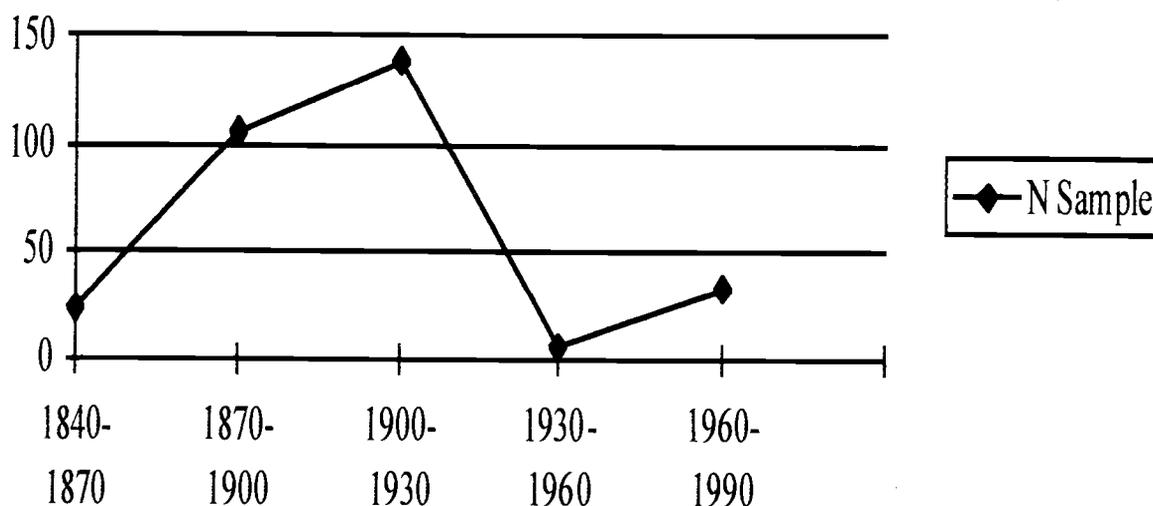


Figure 25. Numbers of Artifacts in Known Date Ranges of Manufacture

According to Mr. Benjamin Bates, a 75 year old, life-long resident of Corvallis, trash was taken during the 1920s-1930s to a, “small organization,” along the Willamette River (Bates, Personal Communication). This organization may be the Corvallis Disposal Co., which according to Mr. Bates, dumped its trash directly into the Willamette River. Mr. Bates also states that during this time it was not uncommon for Corvallis residents to have trash pits on their own property and burn much of their rubbish. He goes on to note that many open lots were prone to have trash disposed on them, as long as, “it wouldn’t be anything of odorous nature” (ibid.).

This sets the stage for describing the observed patterning of the date ranges of manufacture for the artifacts as also being the likely date ranges of deposition of the artifacts. To begin with, the artifacts were excavated by the foundation contractors from underneath the structure. This indicates that most of the artifacts would have had to have been deposited before the structure and its additions were constructed. Therefore, artifacts which were manufactured after ca. 1920 were probably deposited immediately around the perimeter of the foundation after the structure was complete.

In order to support this hypothesis that the date ranges of manufacture on many of these artifacts can be used to define the date range of deposition of the artifacts, it is essential to note the numbers of artifacts within each typological category. "Personal Items" may have been more likely to have been curated longer before disposal than most of the utilitarian "Domestic Items." Table 8 shows that there is a large preponderance of Domestic Items within the assemblage. This seems to show relatively short curation periods between manufacture, use, and disposal for many of the artifacts. The other major category within the sample is "Architecture," with roughly one-third of the artifact total. As discussed above, these artifacts may be explained either through waste and disposal of construction materials during periods of construction, or through breakage and replacement activities. This makes the period of deposition much harder to understand, which is why they were dealt with separately.

By combining the information on the areas of excavation by the contractors, with the date ranges of manufacture of the artifacts, as well as the historic records of trash disposal in Corvallis, five main periods of artifact deposition on the site appear to be indicated. The first likely period of deposition is pre-1910, when the site was an open lot. Mr. Bates indicates that in the 1920s-1930s open lots were tempting targets for dumping non-odorous rubbish, and it can be assumed that the same can be said of the pre-1910 era. This period of deposition is apparently represented by the gradual climb in the numbers of artifacts with date ranges of manufacture within the mid-nineteenth and late-nineteenth century, as well as into the early-twentieth century. Any of these nineteenth century artifacts could have been curated, and dumped after 1910 when the structure was constructed.

The second period of deposition can be tightly dated to 1910, the year the structure was constructed, and can be directly attributed to the carpenters who constructed the structure. Many of the architectural artifacts recovered from the site were likely to have been deposited at this time due to the waste created on construction sites. In addition,

Table 8. Site ORBE2 Artifact Typology Distribution

Typological Category of <u>Artifact</u>	<u>N Sample</u>	<u>% of Sample</u>
Personal Items	123	8.12%
Domestic Items	709	46.83%
Architecture	504	33.29%
Personal and Domestic Transportation	12	.79%
Commerce and Industry	32	2.11%
Group Services	5	.33%
<u>Unknowns</u>	<u>129</u>	<u>8.52%</u>
Totals	1514	100%

many personal or domestic artifacts which the carpenters could have used during the construction process, such as a beer bottle, could have been used and deposited underneath of the structure, as the construction of the structure would have concealed this trash. In short, this period of deposition seems to indicate that the carpenters were prone to dispose of trash directly on their construction site, since it was likely to be covered over by the structure that they were building anyway.

The third range of deposition can be tentatively dated to ca. 1910-1925, when the structure was being actively used as a residence, and when no organized trash pick-up was available in Corvallis. This time period presented residents of Corvallis with three options for disposing of their trash: hauling it themselves across the Willamette River, having certain unknown private enterprises haul the trash away to unknown locations or to the dump site across the river, or disposing of the trash themselves--on their own property, or on adjoining empty lots. Since this third range is represented by a majority of the datable artifacts recovered from the site, and since many of these artifacts represent personal, and domestic rubbish, it can be assumed that this was the period of major deposition on the lot, and that this trash deposition was created by John and Clara Heeszal, and Alice S. and S. F. Williams. Since the Williams' sold the property in 1925, and since the Bauers and Jacksons did not apparently live in the structure, the artifacts disposed of in this range are probably most attributable to the Heeszals and the Williams.

Two-hundred-sixty-six of the artifacts which were datable to within 30 year ranges pre-date ca. 1930, and thus had a possibility of being deposited on the site in this period. This is approximately 86.9% of the total of artifacts which are datable within 30 year ranges, and it must be noted that a further 140 artifacts are datable within a 60 year range of ca. 1870-1930. It is also necessary to note that 138 of the datable artifacts (45.1% of 30 year period datable artifacts) are datable to ca. 1900-1930, and are probably most representative of trash deposition in this period.

This period is also interesting in that the structure was substantially altered by the Williams' in ca. 1920-1921. The alterations to the structure allow for the possibility of earlier deposited trash to have been disturbed, and certainly covered by later additions to the structure. Note that in the Sanborn Fire Insurance Map of 1912, and the ensuing artist's reconstruction of the early structure, that the back of the house was narrower than the front. This allowed for dumping of trash around this narrower Northeast portion of the structure, which would have then been covered over by the later addition. The early North-side entry-way apparently had a porch as well, and any space between the porch and the ground would have been a tempting area to dispose of non-odorous rubbish; which would also have had the opportunity to have been covered by the later additions to the structure.

Perhaps one of the most tightly dated artifact types in the collection, which also lends further evidence to the differentiation of deposition periods on the site, are the whole glass bottles. Interestingly enough, the bottles are all categorized under, "Domestic Items," and many of these bottles date to ca. 1900-1930. They fit the hypothesis of quickly deposited artifacts as they appear to have had original contents which would have been used rather quickly, leaving an empty bottle which was easily disposed of soon afterwards. As is shown in Figure 26, the date ranges of manufacture for these bottles span almost the entire twentieth century, as well as part of the late-nineteenth century with little determinable patterning. This is to be expected, since the site has been continually occupied since 1910. Yet, when the mean date range of manufacture of each of these

bottles is plotted on a time line, in temporal order, an interesting pattern does appear (see Figure 27). Essentially six plateaus, or horizons, appear in Figure 27, although the two horizons between ca. 1915-1927 can probably be combined as one, which supports the third period of deposition dates of ca. 1910-1928.

The fourth and fifth periods of deposition are not as strongly supported by the bottle dates, but are rather dependent upon the dates of manufacture of all artifacts again. These last two periods basically correspond to the assigned 30 year periods of the mid-twentieth (1930-1960), and late-twentieth century (1960-1990). The fourth period of deposition, ca. 1930-1960, is only represented by six datable artifacts, or less than 2% of datable artifacts. This marked drop is most easily explained by the establishment of the Corvallis Disposal Co., in 1928. Even if they weren't necessarily picking-up the trash from residences, it was fairly convenient to at least have a known company who would dispose of the trash once it was taken to them. In addition to this, the structure became an apartment from ca. 1925 on, and appearances would have to be kept up to attract new tenants from year to year. This, in addition to the fact that much of the lot was built over with the structure after ca. 1920-1921, which would have limited dumping space on the lot, all combined to dramatically lessen the amount of garbage dumped on the lot.

The fifth and final period of deposition, ca. 1960-1990, again has a noted rise in datable artifacts, up to 34, or approximately 11% of the total of datable artifacts. At first, this seems to be a contradiction of the established pattern from the fourth period of deposition. Indeed, house-to-house pick-up of garbage was apparently made mandatory in ca. 1964, which should have lessened the amount of garbage deposited on the site rather than increased it. Yet, one must note that this was an incredible age of production of mass-merchandised material, which was produced and packaged for convenience of the customer. The types of artifacts in this date-range speak for themselves: tuna cans, beer bottles, removable pull-rings from aluminum beverage cans, and aluminum beverage cans themselves. Items such as the removable pull-rings are notorious for having not been

disposed of properly, and were thus recovered from this site, rather than ending up in a land-fill with the majority of trash in this date range.

Finally, the worsening condition of the structure must be taken into account as well. For, as Figures 3 and 4 show, the structure is not well kept up by any means, as the required replacement of the foundation in 1993 attests to. Most of the artifacts in this date range are from post-1980, and it is this researcher's opinion that with the worsening condition of the structure becoming much more noticeable after this date, the tenants became more prone to depositing random items of garbage around the structure, rather than into a garbage can for proper disposal.

Conclusions

In conclusion, Site ORBE2 is hardly a unique site. There are probably thousands of similar sites scattered across the world, in urban and rural settings, where improvements and construction activities disturb associated archaeological materials. Cultural resource laws do little to protect such sites on private lands, and there is admittedly a continually shrinking base of funding to create opportunities to study construction disturbed sites. The only unique factor about this site is the analysis that was performed on it, even though the artifacts were recovered in a disturbed state.

This thesis was successful in achieving its four main goals listed in the introduction. To begin with, this thesis added another body of archaeological data based upon an early-twentieth century Euro-American site. As was stated in the introduction, relatively few early-twentieth century Euro-American sites have been archaeologically analyzed, and this thesis adds more needed data, to a period which is sure to be increasingly studied in the future. In addition, this thesis developed a history of the site, and its community. This history developed the sequence of occupation of the structure and the site, as well as providing a better understanding of the boundaries of the early-twentieth century German community in Corvallis. If this history had not been developed now, then

Figure 26. Date Ranges of Manufacture of Whole Bottles Recovered from Site ORBE2

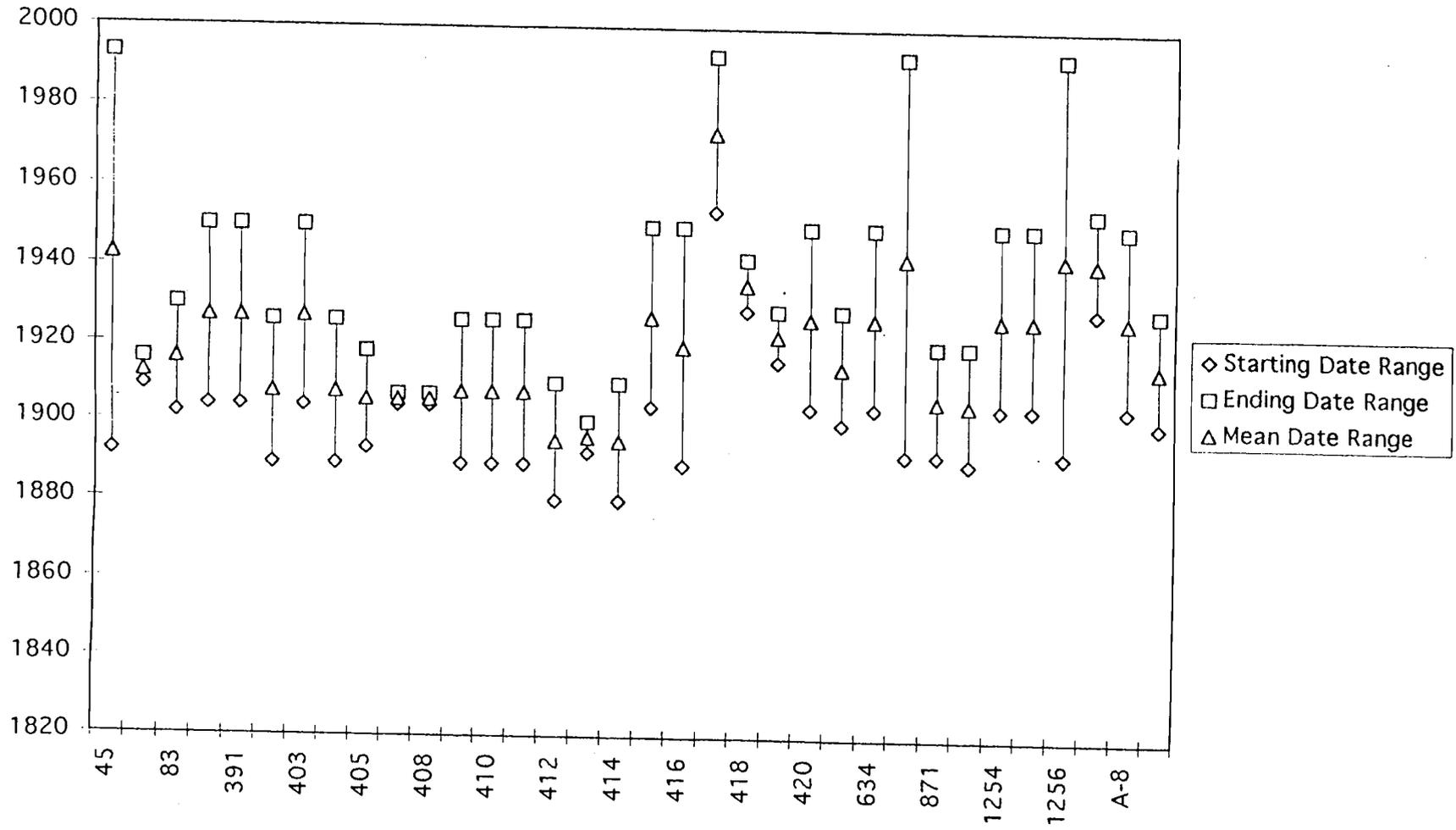
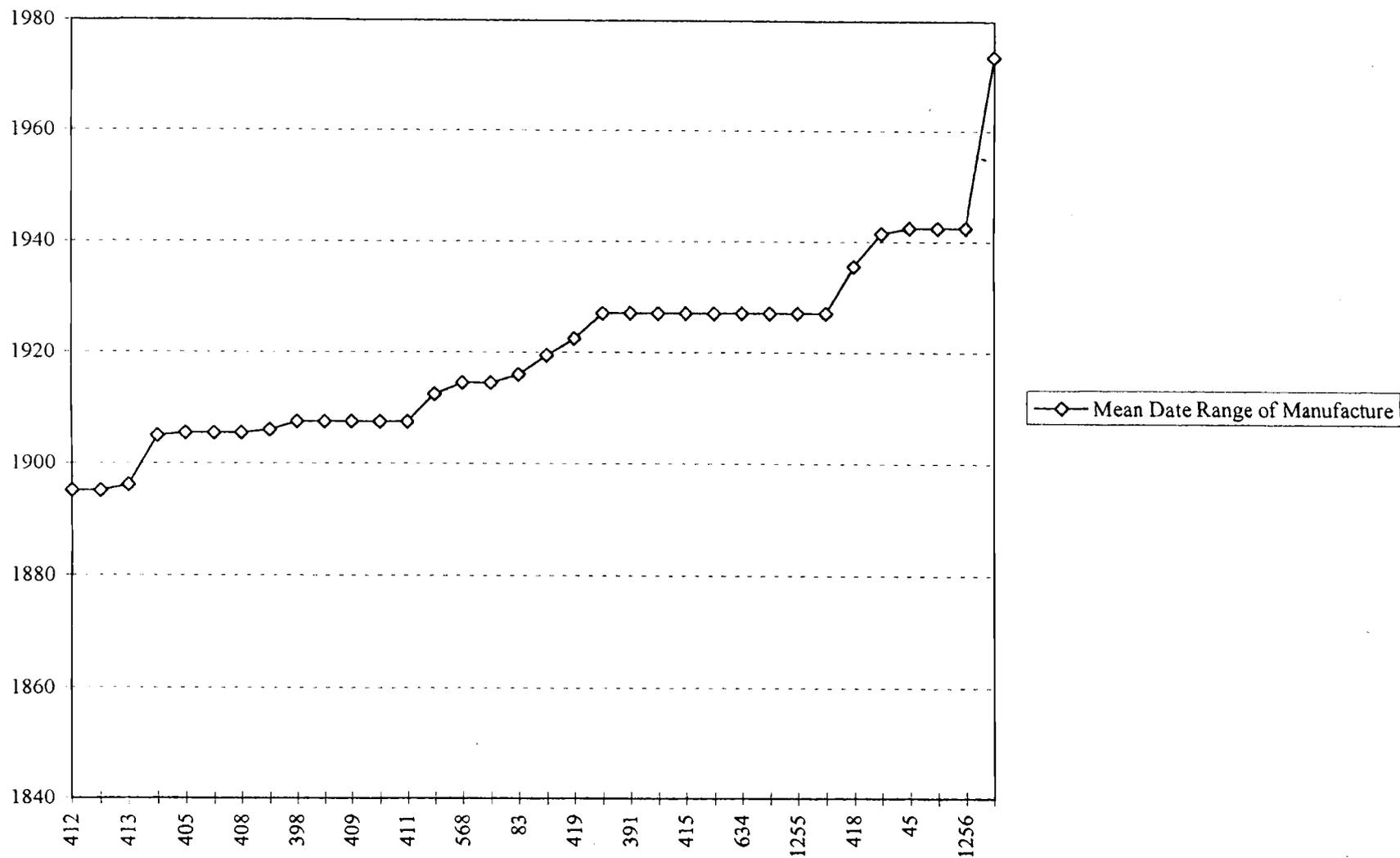


Figure 27. Mean Date Ranges of Whole Bottles Recovered from Site ORBE2



the data obtained through the use of living oral informants may have been lost, as the informants will eventually pass away. Furthermore, this thesis successfully combined the results of the history and the analysis of the artifacts from functional and chronological perspectives, thereby creating cultural contexts. The conclusions derived from all of the different data sets developed cultural contexts about structural construction material and their age when utilized, as well as the changing cultural behaviors of trash disposal due to expanded public disposal services. The cultural contexts on the structural construction materials show some interesting possibilities of the power of new manufacturing technologies to influence the choice of items as mundane as nail types, while the use of window glass thickness dating shows the many possibilities for older construction materials to be used in new structures. The changing trash disposal behaviors displayed at the site are perhaps some of the most interesting findings in the analysis, providing a glimpse at cultural change within a narrow time range, which could lead to further studies on how and why Euro-American culture changed so rapidly in the early-twentieth century. Finally, this thesis shows the utility of the act of performing an archaeological analysis on a construction disturbed site, where artifacts are recovered with provenience limited to a lot or site association. The proof of the utility of this analysis was shown when cultural contextual conclusions about the occupants of the site were developed, thereby proceeding to the final objective of Walter Taylor's (1983: 43) definition of archaeology.

The obvious question which is left from this analysis, is that even if such a construction disturbed site can yield archaeologically derived conclusions, as was shown above, should money and effort be put into similar sites? This researcher's only answer would be, that it would depend upon the site and the situation. This analysis was not funded, and only occurred in order to complete a thesis to meet the requirements for a master's degree. If the site had not yielded as many artifacts as it did, the artifacts might have been merely curated as teaching examples for the university, and might not have been analyzed. Certainly, if another opportunity to analyze a similar site were to arise, and

funding and facilities for analysis and curation were available, then this researcher would attempt another such analysis. Yet, it seems highly unlikely that a similar situation will be presented to fellow archaeologists who have the time and funding to attempt another such analysis.

A number of very specific circumstances occurred for this site to have even been noticed by somebody with archaeological training, and if this group of contractors is similar to others, then few contractors are likely to report such finds to archaeologists. Indeed, these contractors have quite a collection of bottles and curios which they have discovered under various structures around the Willamette Valley. If these artifacts had not been recovered by the Department of Anthropology at Oregon State University, then they would have ended up as back-fill around another structure's foundation when the contractors hauled the back-dirt away. Imagine the possibilities of inter-site mixing which may occur every time artifacts are hauled from one site and used as back-fill for another.

To conclude, it is probably safe to say that not every construction disturbed site *should* be analyzed archaeologically, yet it is likely that most construction disturbed sites *could* yield valuable archaeological information.

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