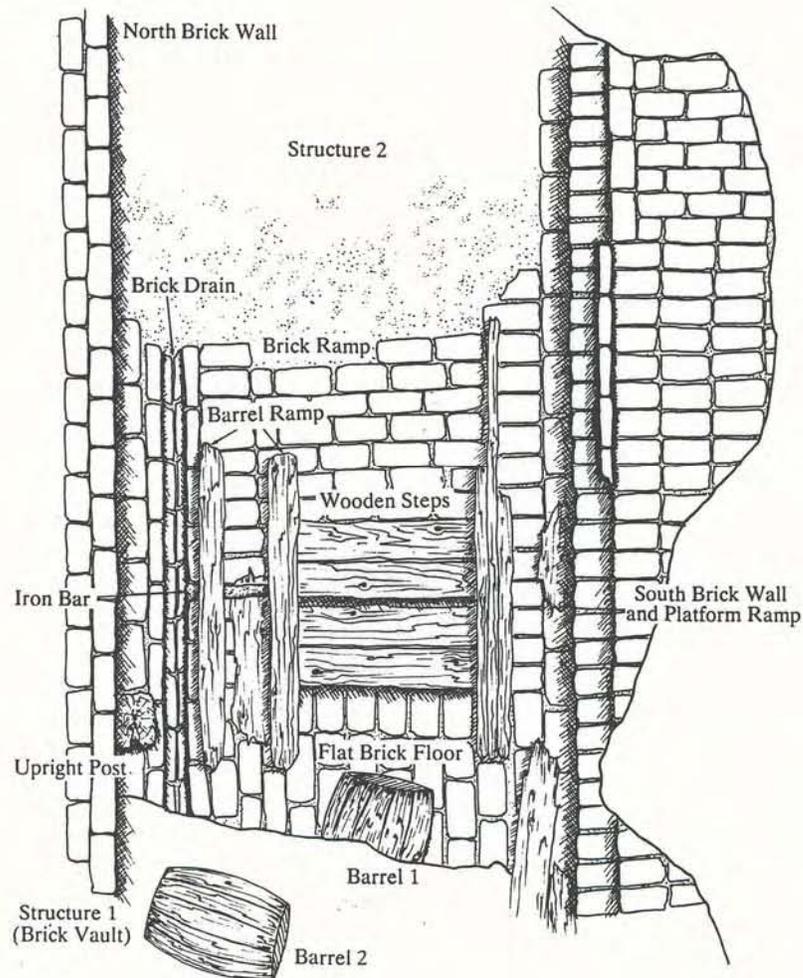


"THE RECEPTACLES WERE EMPTIED OF THEIR CONTENTS"

Archaeological Testing of Area II-B
of the Carlyle Property and
Excavation of the Shuter's Hill Brewery Site
(44AX35), Alexandria, Virginia.



July 1996

Submitted to:

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**"The Receptacles Were Emptied of Their Contents":
Archaeological Testing of Area II-B of the Carlyle Property
and Excavation of the Shuter's Hill Brewery Site (44AX35), Alexandria, Virginia.**

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July 1996

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PUBLIC SUMMARY

ARCHAEOLOGY AT SHUTER'S HILL BREWERY

From October 1993 to January 1994, Engineering-Science conducted archaeological testing on a portion of the Carlyle Property in Alexandria, Virginia. These excavations sought to explore the history of the West End of Alexandria within an approximately 10-acre area on the south side of Duke Street. The principal historical significance of Area II-B is its existence as part of the unincorporated village of West End from c.1796 to 1915.

West End developed along the east-west trending Little River Turnpike and the northeast-southwest trending Colchester Road, both of which were important routes for transportation of people and goods between Alexandria and points to the south and west. The earliest commercial development at West End occurred near the intersection of the two then-rural routes to serve travelers on those routes, but West End industry and settlement were most influenced by proximity to Alexandria proper. Agricultural products from hinterlands, particularly meat, were processed at West End and marketed in Alexandria. West End accordingly developed a character somewhat less genteel than that of Alexandria proper: a strip development along the Little River Turnpike/Duke Street that included slaughter houses, saloons, hotels, blacksmith and carriage shops, general stores, a slave auction, a candle factory, a bakery and a brewery. In later years this strip village contained a bottle factory and a greenhouse that also primarily served the local Alexandria market.

The population of West End reflected the agricultural/merchant character of the village: butchers, store and tavern keepers, chandlers and shoemakers, farmers, market gardeners, dairymen, and laborers. The population was ethnically mixed but dominated by persons of German, Irish and English national origins; several residents of West End had slaves in their households prior to the Civil War, and several African Americans resided in the village after the Civil War. The construction of a railroad service complex and a glass bottle factory beginning in 1900 brought skilled and semi-skilled workers to the village to be near their jobs. This provided the incentive for the construction of rental housing. By 1915, West End had lost its social and economic autonomy as a peripheral zone to Alexandria and had become a lower middle class neighborhood integrated into the functioning of Alexandria as a whole.

The archaeological testing showed that while the area had been badly disturbed during the 20th century, the remains of a 19th century brewery and saloon appeared to survive intact. This brewery, the Shuter's Hill Brewery, was then excavated more intensively. The excavations at the brewery found remnants of the brewery basement, the partially filled remains of the underground lager beer cellar, and a partially collapsed and filled passageway connecting the two. The Shuter's Hill Brewery was founded in the late

1850s; it became successful during the Civil War, but languished in the years following the war. During much of its history, it was accompanied by a saloon that sold the brewery's beer. But even during its heyday, Shuter's Hill brewery was constantly in debt, and its financial difficulties led to the property changing ownership many times throughout its 34 year history. Ultimately, these financial woes, a lack of innovation, and changes in the brewery industry forced it out of business in the 1890s.

The brewery site is significant for several reasons.

- It was probably the earliest lager brewery in Virginia, and it was one of the few sites remaining from the early, pre-Civil War period of lager beer brewing in America.
- It was the largest Virginia brewery of the Civil War period.
- It is one of the few American breweries with an intact masonry beer cellar that has been studied by archaeologists, and the best preserved brewery site excavated in Alexandria, or the region.

Brewing

Brewing in Alexandria began prior to the American Revolution. Area plantations are thought to have produced some beer for their own use as early as the 1730s. By 1771, a truly commercial brewery was established by Andrew Wales in a leased public warehouse on Point Lumley at the foot of Duke Street that produced "Strong and Small Beer" until 1802. Two others opened during this time, but had closed by 1821.

Success for American brewers was difficult. They had to compete not only with British imports but also with a multitude of alternative fermented and distilled beverages. Hard spirits, especially whiskey, remained more popular than beer until the mid nineteenth century. During the eighteenth and early nineteenth centuries, much of the beer and ale consumed in America was made in the British brewing centers of London, Burton-on-Trent, and Glasgow. British beers were regarded as superior and could be produced cheaply, but shipment across the Atlantic added to the cost and permitted spoilage. American brewers hoped to compete on the basis of cost, freshness, and the ready availability of their supply, though their efforts were often frustrated by the limited availability of ingredients and bottling supplies.

Starting a brewery was difficult. The partners had to bear the initial costs of the equipment and rent plus ingredients, ice, cooperage, and possible additional labor costs. Competition came from British imports and from breweries in Washington and other eastern cities. Personal differences too, often contributed to the downfall of partnerships. For these reasons, early brewery proprietorships were often short-lived. For most of the 1820s there was no beer produced in Alexandria, and one brewery that had opened by

1831 was lost to fire in 1854. When the Shuter's Hill Brewery was established in 1858, there was only one other brewery in operation in Alexandria.

Construction of the Shuter's Hill Brewery commenced in 1858 when two Germans, Alexander Strausz and John Klein, leased an old frame building on Duke Street in West End. The Shuter's Hill Brewery takes its name from nearby Shuter's (or Shooter's) Hill, which stands west of Old Town Alexandria, and around which King and Duke Streets now extend. Their brewery was the first to introduce the brewing of lager beer to Alexandria and to the state of Virginia east of the Appalachians. Alexandria brewers prior to this time had produced the older, English-style varieties of beer, including ale and porter. These, being top-fermented, did not require particularly cold temperatures for manufacture. Lager beer, on the other hand, uses a different type of yeast, and needs temperatures in the vicinity of 40 degrees Fahrenheit. This yeast, and the new techniques were introduced to America from Germany in 1840. The low temperatures required by lager beer were provided by Strausz and Klein's deep cellar and copious amounts of ice.

The brewery had three proprietors during its 34 year history. Strausz and Klein dissolved their partnership in 1860, after only a year of operation and Strausz sold his interest in the lease and equipment to Klein for \$2000. John Klein retained proprietorship until his death in 1865. After that, the brewery was operated by Henry Englehardt until it was forced to close in 1891 or 1892. Englehardt may have worked for Strausz and Klein since the beginning of their firm.

In contrast, ownership of the brewery changed hands several times. During the war, Richard Rotchford—John Klein's landlord—was accused of being "engaged in armed rebellion against the Government of the United States," and the brewery, was seized by the U.S. Marshal. Thomas Dwyer of Alexandria bought the brewery at auction, but then returned the property to Rotchford in 1865 for \$300. Rotchford then sold the brewery to Klein for \$1000 ten days later. Francis Denmead, a Baltimore maltster and Klein's major creditor, bought the brewery at auction following Klein's death in 1865. Denmead rented the brewery to Robert Portner, with Henry Englehardt, a former Klein employee, as brewmaster. Denmead then conveyed the property to Henry Englehardt and his wife Carrie for \$5000 in 1872. On July 20, 1892 the brewery was sold for the last time, to Christopher Dickson (Englehardt's brother-in-law) of Washington for \$1200, in partial satisfaction of outstanding debts.

Alexandria's breweries increased production and capacity during the Civil War because the presence of Union troops created an unprecedented demand for beer, despite the prohibition of the sale of liquor and beer within the city limits. Between September 1862 and October 1865, Alexandria's three breweries produced and sold nearly nine thousand barrels of lager beer and ale. The Shuter's Hill Brewery had made nearly half of this total, selling more than 2000 barrels in 1864 alone, its best year ever. That level of production required the enlargement of the plant. Archaeologically identified alterations to the brewery that may have occurred at this time consisted of changes to the floor supports of the basement, construction of a brick feature along the east wall of the

basement (possibly the brew kettle location), and extension of the beer cellar from 30 feet to 50 feet. In addition, it seems that Klein brewed every month through much of the war—a very unusual practice for the time, given the changes of season and difficulty in providing reliable "natural" refrigeration.

Despite the fact that beer was commanding inflated prices (up to \$16 a barrel), the Alexandria breweries did not necessarily prosper. The war created circumstances difficult for business. Persistent problems with drunkenness and rowdiness among the soldiery and populace led the military government to ban the sale of alcoholic beverages within Alexandria's city limits. This closed to Klein and his competitors a major segment of their market. They likely then concentrated on sales outside the city, probably mainly to soldiers. During the war, Klein owed Francis Denmead thousands of dollars for malt and hops, and his business sank further into debt as a result of higher costs for materials, labor, and transport brought on by the war.

The demand for beer fell sharply with the end of the Civil War. By the early 1870s, several Alexandria breweries had gone out of business. The Shuter's Hill Brewery, now under the proprietorship of Henry Englehardt, continued much as it had before, but with production significantly decreased from wartime levels. Robert Portner, who had established a brewery in 1862, had purchased a new site on North St. Asaph Street where he built a large modern brewery and cellars. These two breweries would illustrate the contrast between the new and the old in the brewing industry: large scale versus small; innovation versus conservatism and tradition; expansion versus stasis; economies of scale and vertical integration versus high unit cost of production; regional versus local marketing; and above all, adequate versus inadequate capitalization. While the Robert Portner Brewing Company would be one of the greatest Southern breweries before prohibition, the Shuter's Hill Brewery would limp along for two decades, thanks largely to the leniency of its creditors. Annual production of the former eventually exceeded 75,000 barrels; the latter's never reached 500.

Englehardt's production never exceeded 500 barrels during the post-war years, possibly because brewers had to purchase a new license annually that doubled in price from \$50 to \$100 if production exceeded 500 barrels. These levels represented approximately one tenth of the average yearly production of American breweries at the time. In comparison, the Portner brewery was producing more than 10,000 barrels annually in the late 1870s, and by the 1890s this figure exceeded 60,000 barrels annually. Englehardt clung to traditional methods and settled on satisfying a limited local market, probably reached largely through his saloon. Portner, on the other hand, constantly improved and enlarged his brewery, added the latest brewing, refrigeration, pasteurization and bottling technology to increase production, and established depots in distant cities to broaden his market area.

Nineteenth-Century Brewing

Beer consists of three main ingredients: barley malt, hops, and water. Malt (barley grains that have been forced to germinate, then dried) supplies the starch, which, through mashing and fermentation, is eventually converted to alcohol. Hops, a member of the nettle family, contain a bitter substance that flavors and helps clarify and preserve beer. Water is the main ingredient by volume, and is necessary for the dissolution of the malt starch and for boiling. Brewer's yeast is also temporarily added to ferment the beer.

Barley malt was first crushed in a malt mill, then put into a large tub called a mash tun for mashing. Hot water--between 140 and 190 degrees, depending on the type of beer being made--was pumped into the mash tun, and the mixture was agitated. Agitation of the mash helped release the malt's starch from the kernels and broke down this starch into a fermentable sugar. After the first mash, the resultant liquid, called wort, was released into a vessel called the underback or into a brewing kettle. At this point hot water was again added to the same malt in the mash tun and it was agitated. This procedure was usually repeated at least three times in order to extract as much starch as possible.

After being drained from the mash tun to the brew kettle, the wort was ready for brewing or boiling. Boiling served to reduce the wort to its proper strength through evaporation and to separate out from the liquid some of the unwanted particles. Until after the Civil War most brew kettles were made of copper and were heated from below by wood fires. Fire brewing was eventually superseded by the use of steam coils to heat the kettle. Steam brewing was found to be more even, steadier, cleaner, and more fuel-efficient, though some brewers long claimed that fire-brewed beer was superior.

The wort was typically boiled for a time before hops were added. Hops is a vine of the nettle family whose female blossoms have at their base "a granular, resinous, bitter substance," lupulin, which imparts to beer its bitter flavor and certain preservative qualities. The addition of hops also serves to clarify the wort. Generally, boiling continued until the wort was completely "broken," that is, until unwanted particles had clumped together and the wort had clarified. This required about three hours on average. The wort was then drained through a hopjack, which strained out the hop leaves.

The hot wort had to be cooled to a temperature proper for the introduction of yeast. The earliest method was to allow the wort to cool slowly in open tanks. However, this took several hours and could expose the wort to "wild" yeasts that could spoil its taste. The most widely adopted solution to this problem was to expose the wort to pipes filled with ice water. A device based on this principle invented by the Frenchman Baudelot was almost universally employed until ice water was replaced by other coolants, notably brine and ammonia.

When sufficiently cooled, the wort was ready for the fermenting tuns and the last step of manufacture. Brewers found that different yeast cultures promoted different tastes, and performed their function better at different temperatures. Many brewers, particularly the English, fermented beer at temperatures between 55 and 65 degrees

Fahrenheit. During the process, the yeast (*Saccharomyces cerevisiae*) would rise to the surface of the beer, where it was skimmed off for future use. By the end of the eighteenth century, however, the Germans had begun using a yeast (*Saccharomyces carlsbergensis*) that sinks to the bottom of the tun as it ferments. This process was conducted at significantly lower temperatures, just above 40 degrees. Though American brewers had generally followed the English practice of top fermentation, bottom fermentation quickly caught on after the introduction of lager beer from Germany in 1840.

The relatively higher temperatures at which the English-style beers could be fermented permitted their production at ambient atmospheric temperatures in most parts of Great Britain and the United States during much of the year. In contrast, lager beer, which became increasingly popular with each passing decade, needed a cool environment in which to complete fermentation successfully. Brewers were generally restricted to operating in the colder months and, prior to the invention of artificial refrigeration, they used underground cellars and liberal amounts of ice to achieve and maintain the requisite temperatures. Beer cellars were made from modified natural caves, were excavated and constructed of masonry, or were cut out of solid rock. Subterranean cellars offered cool--but never freezing--temperatures and a degree of insulation. By the addition of natural ice to the cellar, brewers and their cellar-men could further lower the temperature.

Generally, fermentation consists of three stages: the principal fermentation, in which the bulk of saccharine matter is converted to alcohol and carbonic acid; the secondary fermentation, during which a slow after-fermentation "ripens" the beer, carbon dioxide builds up, and many impurities are eliminated; and the fining stage, in which the beer is finished, becoming clarified and fully "ripe." Primary fermentation was conducted in large vats called fermenting tuns. Open tuns were traditional for German brewers. These vessels could be located inside or outside of the cellar. Fermenting tuns beyond the refrigerated environment of the beer cellar could be cooled by the introduction of attemperators or "swimmers." Attemperators were essentially large metal buckets of ice that floated in the wort. Upon completion of the primary fermentation, the beer was "racked over" into large *ruh* casks for the secondary fermentation, during which some of the yeast and other sediment would settle out, and the carbon dioxide content would increase. These first two fermentation stages would generally take from seven to ten days. Finally, the beer was transferred to another set of casks, the chip casks, for clarification or "fining." These casks were partially filled with beech or maple chips, to which unwanted particles, sediment, and leftover yeast would adhere.

At the end of fermentation the beer was finished. It could then be racked off into wooden barrels or bottles for storage, sale or transport. Late nineteenth-century advances in bottle manufacturing, pasteurization, closures, and mechanized bottling speeded the preparation of beer for sale, and made possible a much increased durability and broad distribution of a company's product.

Archaeology of the Shuter's Hill Brewery

G.M. Hopkins's 1879 map depicts the Shuter's Hill Brewery as a large building actually somewhat deeper than wide. Upon excavation, the dimensions of the building's brick foundation were determined to be roughly 35 feet long (parallel to Duke Street) by 30 feet wide. The cellar was said to have been able to hold a total of 500 barrels (15,500 gallons) of beer (*Alexandria Gazette*, September 14, 1865). The capacities of the large and small brew kettles were 30 barrels, and ten barrels, respectively.

The range of material recovered during excavation of the site provided some insight into the architecture of the brewery building. Brick and wood were probably the dominant structural elements of the building. The brewery was probably roofed with slate. Flat copper alloy and iron fragments found during excavations may have served as sheathing on the roof. The brick walls of the building were plastered and whitewashed. Some use also was made of a synthetic tile, generally consisting of a wood backing with a cream-colored or orange covering. Fragments of floor tile composed of what appears to be a rubber compound also were found. Some of the wood fragments recovered appeared to be from wooden paneling. Other architectural material included window glass and some miscellaneous items such as drainpipe, sandstone, and marble fragments as well as nails, tacks, hooks, hinges, spikes, bolts, staples, a screw, locks, and two agateware doorknobs.

The brewing apparatus was arranged to take advantage of gravity, thereby saving labor. Milled malt was typically elevated to hoppers at the highest level of the brewhouse. It was then dropped into the mash tun with water, and from there the beer, as it underwent each stage of preparation, was drained from each vessel to the next lower vessel.

Though the malt may have been stored elsewhere, the entire brewing process must have been conducted in the basement and beer cellar. The brewing fixtures were simply too large and heavy to have been located on the first or second floors. Filled, each of the fermenting tuns alone would weigh at least two thousand pounds. The brew kettles and mash tuns would weigh still more. There is no archaeological evidence of heavy posts or other structural reinforcement. Though arranged on one floor, it is likely that the brewers were using gravity to move the wort through each successive stage of production. Varying levels were undoubtedly created through the construction of platforms and the excavation of the rear sub-basement, ramp, and cellar.

The presence of false bottoms in the records of the brewery indicate that Klein and Englehardt practiced upward mashing--the introduction of hot water to the mash tun from below--and probably used the decoction process, in which the broken malt is poured into water, heated, "partly withdrawn into the copper, boiled, and then re-added to the remaining mash, which procedure is repeated...until the mash is finished." (H. S. Rich & Co. 1903:83) As was common, Klein had two coppers, the larger for brewing, and the smaller probably reserved for heating water for mashing. Irregularities in the brickwork and a grate-like feature in the east foundation of the basement almost certainly point to

the location of the kettles. These coppers would have been encased in brick atop wood-burning furnaces. The smaller "hot-water tub" copper would have been connected by pipes to the water inlet, the large copper, and the mash tubs.

Beyond the coppers must have stood a hopjack or strainer and the wort coolers. The coolers would have consisted of tubes or coils set into the wort through which ice water was circulated. For rapid cooling, they were often positioned in the back or upper sections of breweries, separated from the outside air only by louvered vents for maximum convection. One possible location for these coolers then, would be the rear sub-basement found during excavation. However, for ease of processing and a lack of space in the beer cellar, it is possible that the primary fermentation took place in this sub-basement instead. As the lowest level in the basement and connected by pipe to the cellar, it could have been a location for the fermenting tuns. The six tuns, each standing perhaps five feet tall and equally wide, could have been accommodated within this area. The sub-basement appears to have been partitioned from the rest of the basement. Archaeologists found evidence of an aperture meant to permit the passage of a pipe through the partition near the head of the stairs. This pipe would have connected with another set into a recess in the bricks of the cellar ramp. By this means the coolers or fermenting tuns could be linked to tuns or casks in the cellar for the final phases of fermentation.

John Klein was apparently able to brew throughout the year during the Civil War. This was unusual for the time, and must have required very great outlays for ice. The wartime demand may have made this worthwhile, but the product was likely inconsistent in quality as a result of temperature fluctuation. It is not clear where the ice was stored, or how it was brought into the cellar. There is no evidence for the existence of an ice house at this brewery, and access to the cellar may have been difficult. It seems that ice must have been brought down the stairs/ramp, though this was probably difficult. Another possibility is that ice was lowered by crane through a ventilation shaft found during excavation of the cellar.

By the 1880s the emerging artificial refrigeration technology was available only to breweries with sufficient capital for its purchase. Many small firms were unable to make such an investment, and continued as well as they could using old methods. From the available historical evidence it would seem that Henry Englehardt was one of these brewers. Not only did he experience chronic financial difficulties, but there is no evidence of the retrofitting of his cellar with pipes that would have carried the popular early refrigerants such as brine or ammonia. He probably retained much of the same equipment and methods employed since he began to work for Klein. There was no apparent attempt on his part to fight for market share and to expand his market area to increase demand.

While much of his lager was undoubtedly kegged for sale or tapped in his saloon, Englehardt sold both lager and weiss beer in bottles. It is uncertain where or how he bottled his product. He may have had a small, hand-operated, mechanical bottling device, but it is likely that he did not do the bottling himself. Federal regulations required that bottling take place across a public road from a brewery—transportation across a public

road ensured that an excise tax stamp could be affixed to the barrels before the beer was bottled and sold. It is more likely that he contracted out his bottling operations to a local bottler. Many of the bottles recovered at the site bear the embossed names of breweries other than Englehardt's. It is possible that these represent bottles of beer that were served in the saloon. On the other hand, if he operated a small bottling device on site, the presence of his competitor's bottles may be the product of bottle reuse by Englehardt.

From the last quarter of the nineteenth century through WWI, the supply of bottles was limited relative to the demand. Although technological improvements in bottle manufacture had greatly increased the supply, the demand for bottles increased at a greater rate. The resulting high price of bottles made bottle reuse commonplace. Bottle reuse by individuals has been common for as long as there have been bottles, but the advent of large bottling operations created sufficient demand to spur the development of used bottle dealers. At the same time, bottlers developed the returnable bottle system to help alleviate the problem. Bottles were considered to be the property of the bottler, and consumers were required by law to return them. Bottlers included the phrase "This Bottle Not To Be Sold" or "This Bottle is Never Sold" on their bottles to emphasize the point. However, many individuals kept the bottles for themselves, and worse—from the perspective of bottlers—some used bottle dealers illegally sold their bottles to competitors. Careless, or unscrupulous saloon keepers were singled out for criticism in bottle association trade papers for participating in the illegal trade of trademarked bottles. The returnable bottle system, and its attendant problems remained in place until the production of glass bottles in America finally caught up with demand around WW I.

Saloon

Englehardt did not limit his business to brewing. Like most early German-American brewers, Englehardt sought to establish a restaurant, saloon, or beer garden as a subsidiary concern. The beer hall and beer garden were already old traditions and allowed the brewer to introduce and sell more of his product, as well as to bring in more money through service and the sale of food. By May 1868 Englehardt and Gottlieb Kaercher had opened a beer garden on King Street at the foot of Shuter's Hill. Depending on the location and on the character of the proprietor, beer gardens could be sites for church picnics or for gambling and prostitution. At the very least, the owner ran the risk of occasional drunken unruliness.

Though the beer garden enterprise did not last, Englehardt remained in the restaurant/saloon business. He is listed in the 1870 and 1871 Alexandria directories as having a restaurant, not on King Street, but on Duke Street in West End, probably in or near the frame building that housed the brewing operation. Englehardt would run a saloon there continuously or intermittently for the rest of his life.

Aside from its dimensions, archaeological excavation has shed little light on the saloon's appearance, although most of the artifacts recovered probably result from the building's use as a saloon. The saloon must have occupied the first floor of the brewery

structure, and therefore, all trace of it was probably destroyed in the 1893 fire and subsequent demolitions. Quarter-barrel kegs of lager would have been carried up the cellar stairs or pushed up the adjoining ramp to be tapped behind the bar. Saloons already had hand pumps and counter-pressure taps for drawing beer, even directly from a cellar.

Excavation of the brewery site recovered thousands of glass and ceramic bottles. Most of the bottles found at the Shuter's Hill site came from the Robert Portner Brewery. Two types of Portner beer were found, "Tivoli" and "Hygeia", with "Tivoli" being the most common. Stoneware bottles and fragments were also numerous. The majority of these bottles were slipped cream-and-gold bottles made in Britain, and used for ginger beer, or mineral water. The remaining stoneware bottles and bottle fragments were made up of a variety of American slipped bottles, probably made locally. Other objects related to drinking included glass beer mug fragments and glass tumblers.

Unless unearthed bottles represent Englehardt's heavy reuse of containers from other brewers and bottlers, malt liquors served in his bar included Portner's, Schnell's, "Bridwell's Tonic Beer," the Washington Brewery Company's "Champagne Lager," and other Washington and Baltimore beers. Of particular interest among the artifacts that were recovered was a ¼ keg found intact at the base of the stairs in the saloon and brewery basement. The keg—measuring 15 inches long and 9.5 inches in diameter at the ends—was carved "W.B.C./Washington D.C.," the initials of the Washington Brewery Company, in operation from 1890-1917. The barrel was coated on the inside with a pale yellow pitch—a pine resin probably used in waterproofing the barrels. Also recovered was what appears to be a copper alloy barrel tap.

It seems unusual that so many brands of beer might have been sold in a small saloon, given the byzantine beer distribution system of the time. Instead of a modern system consisting of independent distributors carrying many competing brands, distribution in the late nineteenth century was characterized by a redundant network of agents and depots representing a single brewery or a few manufacturers. Large breweries, like Portner's, often maintained rail-accessible depots in major markets. Others, without the same means or at a greater distance, might contract with a local provisioner or bottler as agent. Such a system undoubtedly raised the marketing costs for manufacturers and the transaction costs for saloons. Therefore, although there were more brewers in operation 100 years ago, because of shipping and marketing barriers, one could buy fewer brands in any location.

It was difficult for a beer salesman to place his product in a tavern alongside established brands. He had to contend with more than a proprietor's brand loyalty, he had to placate thirsty saloon patrons at the time of the sale's pitch as well. Washington brewer Christian Heurich, wrote that salesmanship was expensive, "for in those days a beer, whiskey, or wine salesman was looked upon by the customers in a saloon as some sort of Croesus washed up on the rocks of the tavern counter for their especial benefit; if he didn't set up the drinks for the house every five minutes or so, his sales talk to the boss would be interrupted with all styles of jokes, from lewd to unfunny, and his product

would come in for a noisy razzing..." (Heurich n.d.:46). In the 1880s, beer cost 5¢ for a small glass, and 10¢ for a large glass, while a barrel sold for \$12 in the mid 1870s.

The presence of tumblers, wine bottles, and flasks indicate that wine and whiskey were served in the saloon in addition to beer; but the preponderance of beer bottles makes it clear that this was the primary beverage served. Not surprising, given the presence of the brewery, but this pattern also fits trends in drinking behavior during the nineteenth century. While the per capita consumption of wine remained largely unchanged during the course of the nineteenth century, the consumption of hard alcohol dropped from a high of 9.5 gallons/year in 1830 (for people over age 15) to 1.8 gallons in 1895; meanwhile the consumption of beer rose from 1.3 gallons in 1810 to 23.4 gallons in 1895 (Rorabaugh 1979:233). Notably, the consumption of beer doubled approximately every fifteen years after 1840, the year lager beer was first introduced in America (Rorabaugh 1979:233). While Rorabaugh's figures cannot be regarded as exact, an overall trend is clearly indicated.

In addition to a variety of beers and other beverages, patrons of Englehardt's saloon probably enjoyed a modest free lunch. Serving free lunch was an institution in nineteenth-century saloons. Designed to attract customers, most saloons had a side board loaded with food patrons could help themselves to with the purchase of a drink. At fancy establishments the food could be lavish, while modest saloons, as Englehardt's surely was, were remembered for serving "a humble spread of ham, baked beans, pretzels, dried herring, pickles, head cheese, hot dogs, stews, chowders, and hot soups, all heavily salted to inspire another round of drinks" (Grimes 1993:74). Others may have had nothing more than cheese and stale crackers. Evidence for free lunches has been found on saloon sites in Sacramento that produced faunal assemblages dominated by roast cuts. "The economics of the free lunch dictated that the minimum possible time and effort be invested in the preparation and serving of food but that it be available in quantity. Both of these conditions were met by the use of roasts, which could be placed in the oven (or on the stove to boil) in the morning and left to cook unattended, then be removed at noon and sliced on demand at the counter by the bartender" (Shulz and Gust 1983:49). The collection of faunal materials from the saloon may be the remains of clams, oysters and roasts served in the saloon as part of a free lunch served on the modest collection of ceramics found at the site.

Demise of the Brewery and Saloon

Englehardt's inability to adapt to the changing nature of the brewing industry aggravated his chronic financial problems. Eventually Englehardt had to sell his home to pay his debts. Worse, Englehardt had never made any payments to Francis Denmead toward the purchase price of the brewery! Perhaps satisfied that Englehardt had been (barely) able to stay current in his malt purchases, Denmead did not press the financially strapped brewer too hard for his money. Twice in 1891 he was fined for selling alcoholic beverages on a Sunday and without a city license, once in May for \$500 and then again in

September for \$400. These enormous sums were beyond Henry Englehardt's means. Englehardt's financial problems eventually came to a head. On July 20, 1892 Englehardt and his creditors agreed to sell the brewery to Christopher Dickson of Washington for \$1200, in partial satisfaction of the outstanding debt, bringing an end to the brewery operation.

Then disaster struck. On the morning of August 18, 1893 fire was discovered in the west end of the brewery building. In about an hour the brewery burnt to the ground. The *Alexandria Gazette*, August 18, 1893, described the event.

Englehardt Brewery Destroyed By Fire In The West End.

A Blaze in West End -- The usual quietness of West End was disturbed this morning by the burning of the building formerly used by Mr. Henry Engelhardt as a brewery, together with his dwelling house, on the south side of Duke Street extended, about half a mile from the city's limits. Fire was discovered in the west end of the building about ten o'clock, and a telephone message was sent to this city for assistance. Both steam fire engines and the truck were soon thundering toward the scene and upon their arrival got to work immediately. The pipes from the reservoir run past the old brewery, and there was but little difficulty experienced in getting water. The building, however, was constructed mostly of wood, and burned fiercely. It was soon realized that it was doomed to destruction, and that about all that could be done was to confine the conflagration within safe limits. This was successfully done, and the contiguous houses in Alexandria's growing suburb escaped injury. In about one hour's time but little remained of the former building except a few feet of a wall. The origin of the fire is a mystery. The building is owned by Mr. Engelhardt's brother-in-law, Mr. C. Dixon, of Washington. It was worth probably \$2,000 and is said to have been insured. Most of the furniture and brewing fixtures in the building which were also insured, were destroyed. There were between ten and fifteen barrels of lager beer in the place and the bulk of it was saved. When the fire had been extinguished most of those who had been attracted by the excitement crowded like bees around the barrels, and before the crowd left the receptacles were emptied of their contents. Mr. Engelhardt had not been engaged in the brewing business for some time.

[Courtesy: T. Michael Miller; Alexandria Gazette: 8/18/1893]

Much of the stratigraphy found within the collapsed brewery/saloon basement was filled with charcoal, ash, rubble and burned artifacts. These deposits clearly reflect the destruction of the structure by the fire. It also shows that after the fire, whatever remained of the structure was then torn down, and dumped into the slumped-in basement. The property had been valued at between \$1500 and \$2000, and was certainly insured. The saloon was immediately rebuilt, but after a few years, Englehardt died of a brief but severe illness on August 23, 1898. The following obituary appeared the same day in the *Alexandria Gazette*:

DEATH OF AN OLD RESIDENT.--Mr. Henry Englehardt, an old resident of West End, died about half-past 12 o'clock to-day. The deceased had been critically ill for several days and his chances of recovery had been regarded as slim. Mr. Englehardt was born in Bavaria about 65 years ago, and came to this country when about 7 years old. He took up his residence in Baltimore, where he remained until 1852, when he came to Alexandria and began the manufacture of pop and mineral waters with Mr. Jacob West. Later he, with the late Mr. Cline, established a brewery in West End which was operated up to the time of Mr. Cline's death. Of late years Mr. Englehardt had conducted a saloon on the site of the brewery, which was destroyed by fire some years ago (Alexandria Gazette, August 23, 1898).

Only a week later, Christopher Dickson conveyed the former brewery property to his daughter Katherine Lansdale. Dickson, his daughter, or her husband—Harry Lansdale, a real estate agent—had already found an interested party to rent the building. On the same day as Katherine received it, she and Harry rented the lot to Constant Ponnet for a three-year term. Constant Ponnet was a recent immigrant from France who had settled in West End. He and his wife Felicite set up gardens and greenhouses for a wholesale florist and truck gardening business on property to the south and west of the old brewery. About the time of Englehardt's death, Ponnet opened a saloon business on the same neighboring land. In spite of some problems with creditors, Ponnet ran his saloon at least until 1907. The structure built by Dickson at 2012 Duke Street became the Ponnet home, possibly during or after serving as Ponnet's saloon. Although Constant Ponnet must have died between 1907 and 1915, it remained the Ponnet's home until at least the late 1940s.

The Remains of the Brewery and Saloon in 1996

By the end of 1951, the house, greenhouses, and neighboring structures had been razed for the construction of a series of steel and concrete-block government and commercial warehouses. It was when these, in turn, were demolished in 1979 that a bulldozer struck the ventilation shaft of Strausz and Klein's beer cellar and the brewery was rediscovered. The beer cellar of the brewery still survives. Its present location can be seen in Figure 43 (at the end of the technical report). After having been thoroughly excavated and studied, the vault interior was filled with flowable fill concrete. The vault was then buried under 21A stone, and dirt; and now lies under the southwest corner of Duke and Dulany Streets.

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ABSTRACT

Engineering-Science conducted Phase II testing of Area II-B of the Carlyle Property in Alexandria, Virginia, and Phase III data recovery of Site 44AX35 (The Shuter's Hill Brewery), which was reidentified during the testing. The research design for the Phase II testing was based on historical research aimed at identifying areas of high potential for historical occupation and areas that had the greatest information potential. The project area was located in what was the unincorporated village of West End from ca. 1796-1915. West End grew as a transshipment point for the initial processing for agricultural products coming into Alexandria.

The Phase II testing showed that Area II-B had been extensively disturbed by twentieth-century grading. The stratigraphy throughout the area consisted of a thin humic layer of natural subsoil. Some surviving resources were encountered that were associated with a nineteenth-century brewery/saloon, the Shuter's Hill Brewery (44AX35), which had been previously identified in 1979, late nineteenth- and twentieth-century rowhouses, and a late nineteenth- and twentieth-century glass factory. Twentieth-century concrete foundations were also encountered. Of the encountered resources, only the Shuter's Hill Brewery Site (44AX35) was felt to have sufficient information potential to warrant Phase III data recovery.

The testing at 44AX35 encountered remnants of the brewery basement, the subterranean lager beer cellar, which had been partially filled, and a partially collapsed and filled passageway connecting the two. The brewery had been destroyed by fire in 1893.

The Phase III data recovery had three goals:

- Complete exposure of the basement, followed by sampling and removal of the debris within the basement.
- Excavation of the interior of the passageway.
- Entry into and recording of the interior of the lager beer cellar.
- Historical research into the brewery and its place in Alexandria's economy.

The material that filled the basement and passageway dated from the destruction of the brewery/saloon in 1893 or shortly thereafter. Most of the artifacts appear to result from the use of the building as a saloon. Surviving architectural features provided information on the probable layout of the brewery operations and the scale of these operations.

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ACKNOWLEDGMENTS

This work was funded by the Norfolk-Southern Corporation. We are grateful to Wiley Mitchell and Charles Strickland of Norfolk Southern for their interest in and support of this project. Francine Bromberg of Alexandria Archaeology provided oversight and advice. We are also grateful to Dr. Pamela Cressey and Dr. Steven Shephard of Alexandria Archaeology for their suggestions and help in accomplishing the archaeology. Mr. Bill McCullough of Alexandria Transportation and Environmental Services provided invaluable assistance in ensuring the archaeological work conformed to City ordinances. This research also was made possible by Kurt Schweigert's efforts. His historical research and assistance were invaluable. The work of Walter V. Barbash and T. Michael Miller also greatly contributed to this research. Dr. Paul Shackel of Harpers Ferry National Historical Park and Louise Akerson of the Baltimore Center for Urban Archaeology supplied copies of their research on breweries. Last, and certainly not least, the archaeological crew worked admirably under sometimes difficult conditions, especially as winter approached. The interest of the many citizens of Alexandria who visited the site was stimulating and greatly appreciated.

SECTION I: INTRODUCTION

I. INTRODUCTION

In October and November 1993, Engineering-Science conducted Phase II testing of Area II-B of the Carlyle Property in Alexandria, Virginia (*Figures 1 and 2*). This testing identified one site that possessed sufficient information potential to warrant Phase III data recovery. This site was the Shuter's Hill Brewery Site (44AX35), which was discovered in 1979 during construction activities. The Phase II testing exposed a portion of the subterranean vaulted beer cellar, which previously had been identified. In addition to the beer cellar, the testing exposed a vaulted passageway leading to the beer cellar, and the east end of the passageway, the remnants of a building basement. The basement and passageway were filled with burned debris and rubble. The artifacts recovered were consistent with the historically documented date of 1893 for the destruction of the brewery by fire. A letter report was submitted (Walker 1993) summarizing the Phase II findings and a data recovery program for 44AX35 was formulated with Alexandria Archaeology.

The data recovery was conducted from November, 1993, to January 1994. The goals of the data recovery were exposure and recording of the beer cellar, passageway, and basement. Units were hand excavated in the basement in order to recover a sample of the artifacts and to assess the stratigraphy within the basement. After the fill was sampled it was removed with a backhoe to expose the interior of the basement. The vaulted passageway was exposed and the roof was removed. The fill and the debris within the passageway were sampled and removed with a backhoe. Removal of this fill and the water within the passageway allowed access to the interior of the beer cellar. Photographs and preliminary measurements were taken, but detailed recording was not conducted due to safety concerns.

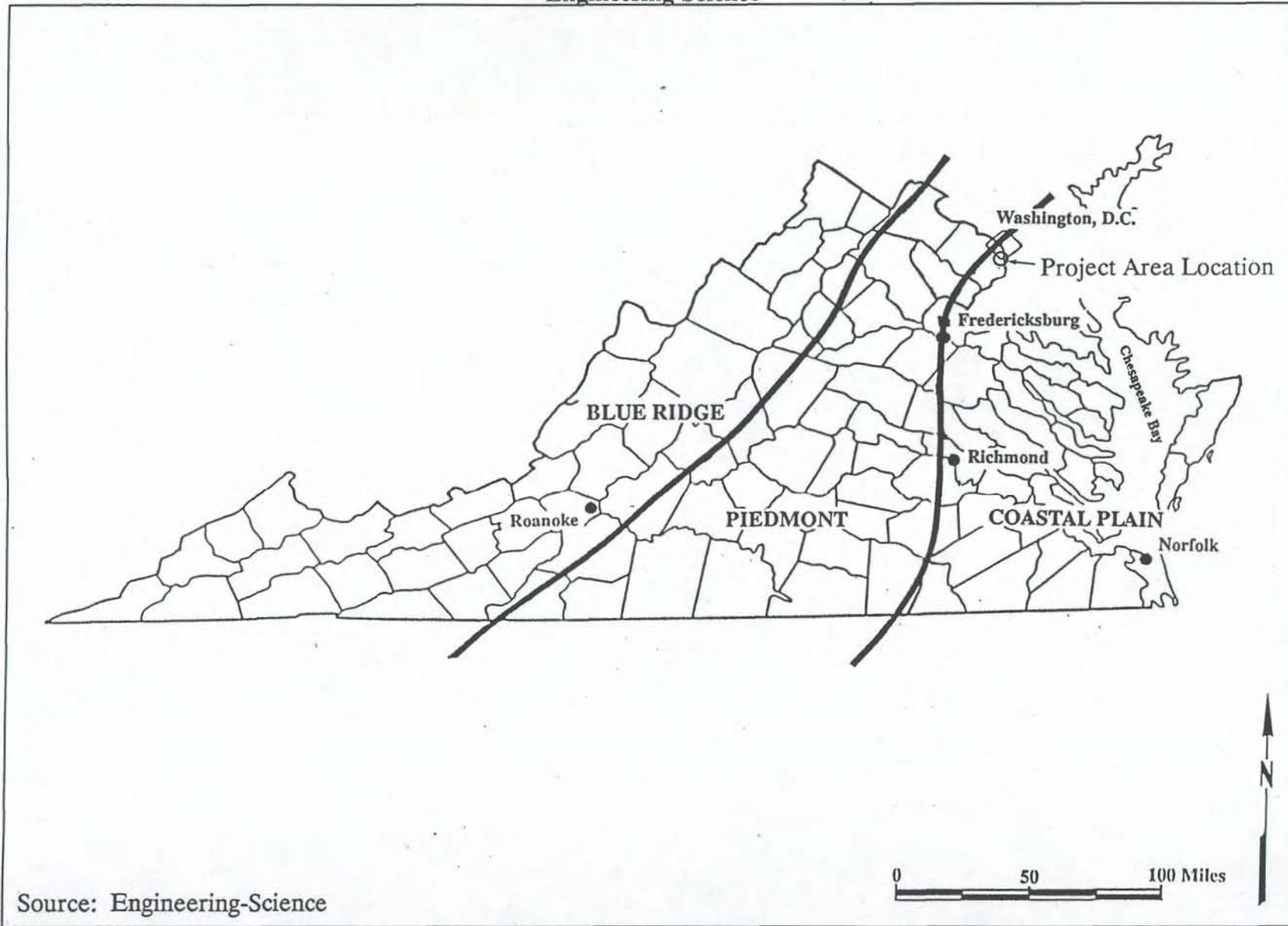
In operation from 1859 to 1892, the brewery was significant for several reasons.

- According to the available information, it was the earliest lager brewery in Virginia; and it was one of the few sites remaining from the early, pre-Civil War phase of lager beer brewing in America (Bull et. al. 1984:306-307).
- It was the largest Virginia brewery of the Civil War period (Internal Revenue Assessment Lists).
- It was one of the few existing or excavated American breweries that has an intact masonry beer cellar.
- Of the dozen brewery sites in Alexandria, it was the only one thus far excavated found to contain significant structural features and objects definitively identified with brewing. Three other brewery locations have been archaeologically investigated; only one of the eight remaining is likely to have much physical evidence of brewing activity. Brewery properties excavated by Alexandria Archaeology consist of: the Union/Entwisle Brewery (44AX126) at 100 Wolfe Street; the Irwin ale brewery

(44AX114) at the southeast corner of Union and Wolfe (the 400 block of S. Union St.); and the Wales tavern/brewery area at 115 South Union Street.

- The Shuter's Hill Brewery was typical of the small-scale manufactory--brewery or nearly any other type of plant--that failed in the late nineteenth century because of an inability to keep pace with innovation in—and industrialization of—its industry.

This report presents the findings from the Phase II testing of Area II-B of the Carlyle Property and the Phase III data recovery at the Shuter's Hill Brewery Site (44AX35). The work was conducted according to the standards of the City of Alexandria.

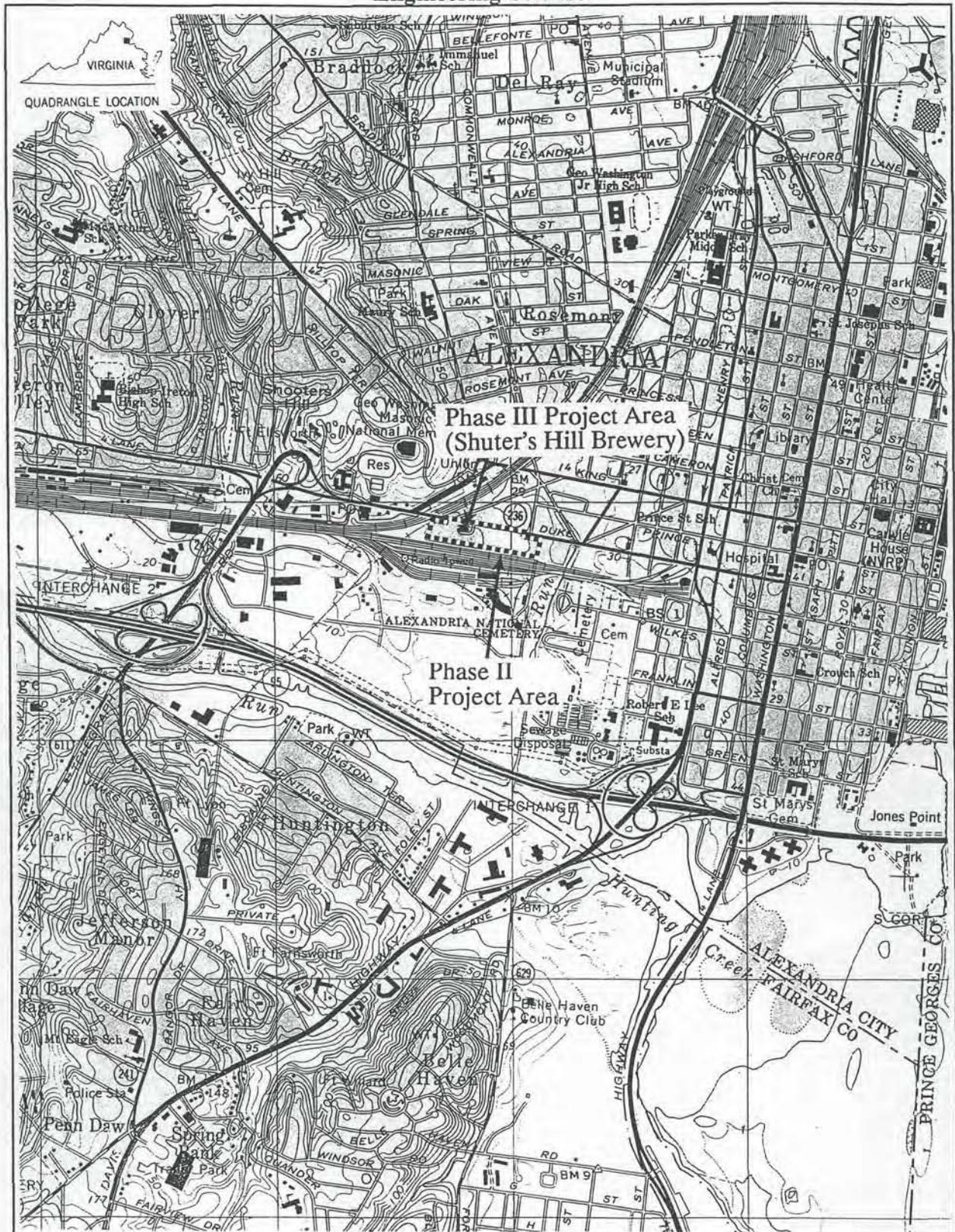


Source: Engineering-Science

Carlyle Phase III

FIGURE 1.
PROJECT AREA LOCATION.

Engineering-Science



Source: USGS Alexandria, VA Quadrangle

1:24,000

Carlyle Phase III

FIGURE 2.
PROJECT LOCATION MAP.

II. HISTORICAL BACKGROUND

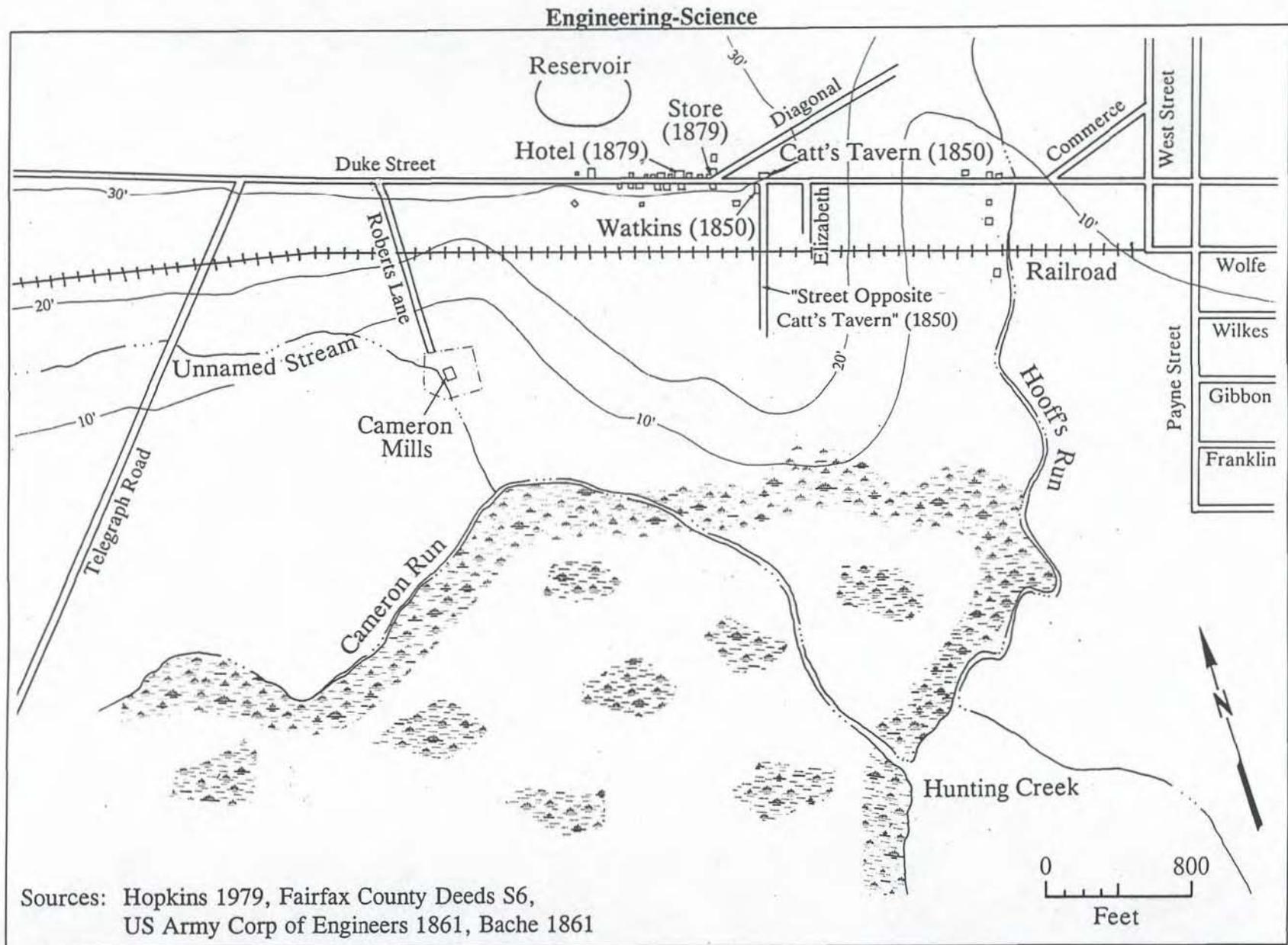
A. West End

Area II-B is that part of the Carlyle development area located between Duke Street and the northern edge of the former railroad right-of-way. This area could contain archaeological resources related to prehistoric occupation and historic occupation prior to 1796, but evidence has not been found in documentary sources or archaeological contexts to indicate that resources of these early periods are likely to exist in Area II-B.

The principal historical significance of Area II-B as a whole is its existence as part of the unincorporated village of West End from about 1796 to 1915. West End developed along the east-west trending Little River Turnpike (now Duke Street) and the northeast-southwest trending Colchester Road (present day Telegraph Road, more or less), both of which were important routes for transportation of people and goods between Alexandria and points to the south and west (*Figure 3*). Initial commercial development at West End occurred near the confluence of the two then-rural routes to serve travelers on the routes, but West End industry and settlement were most influenced by proximity to Alexandria proper. Agricultural products from hinterlands, particularly meat, were processed at West End and marketed in Alexandria. West End accordingly developed a character somewhat less genteel than that of Alexandria proper: a strip development along the Little River Turnpike/Duke Street that included slaughter houses, saloons, hotels, blacksmith/carriage/wagons shops, general stores, a slave auction, a candle factory, a baker and a brewery. In later years this strip village contained a bottle factory and a greenhouse that also primarily served the local Alexandria market.

The population of West End reflected the agricultural/merchant character of the village: butchers, store and tavern keepers, chandlers and shoemakers, farmers, market gardeners, dairymen, and laborers. Several residents of West End had slaves in their households prior to the Civil War, and several African Americans resided in the village after the Civil War (the II-B area does not appear to have had resident Free Blacks prior to Emancipation or a concentration of African Americans after the War). The White population was ethnically mixed but dominated by persons of German, Irish and English national origins. The construction of a railroad service complex and a glass bottle factory beginning in 1900 somewhat changed the population of West End, as skilled and semi-skilled workers moved to the village to be near their jobs. This probably provided the incentive for construction of the rental housing mentioned above. By 1915 West End had lost its social and economic autonomy as a peripheral zone to Alexandria and had become a lower middle class neighborhood integrated into the functioning of Alexandria as a whole.

Many Quakers also settled in the West End during the nineteenth century. The 1827 Map of the Middle Turnpike shows an area known as "Quaker Hill" on the north side of the Little River Turnpike and west of the Leesburg Road (Netherton *et al.* 1978:197). Robert F. Roberts, a Quaker who had migrated from Medford, New Jersey, purchased Cameron Mills in 1848. In a letter written the same year, he expressed his



Carlyle Phase III

FIGURE 3.
THE WEST END OF ALEXANDRIA DURING
THE MIDDLE NINETEENTH CENTURY.

views regarding business in the West End with Alexandria as a market. He stated that "the grist grinding of the town is a good business and this mill being the nearest must do if the people are accommodated." He also explained that the 150 acres of land making up his farm could be used to graze cattle and that "Alexandria [was] poorly supplied with milk and a good business [could] be done with a dairy" (Roberts Family Papers). In 1851, the Roberts brothers sold one of their mills to the Alexandria Water Company, whose president was Benjamin Hollowell another Quaker. The company needed the mill to feed water to the reservoir on Shuter's Hill and pump water to Alexandria (Knepper and Pappas 1990:10).

Perhaps the earliest commercial ventures in the West End were the establishment of two taverns along this westward road during the 1780s, on land which had belonged to John West, Jr. One of the taverns was operated by William Ward and located on the south side of the road, west of its intersection with the north-south Colchester Road (Telegraph Road). Ward's Tavern was advertised in 1807 as being "near the old settlement of Cameron about one and 1/2 miles from Alexandria" (Miller 1992:219). The other tavern, operated by William Simpson, was located on the north side of Duke Street, west of the intersection with Diagonal road (Miller 1992:125). These taverns were probably established to accommodate the growing traffic of farmers and traders traveling to Alexandria from points to the north, west and south. These taverns also became social centers for the local residents and the travelers.

By 1795 the flow of traffic was such that a group of private investors formed the "Company of the Fairfax and Loudoun Turnpike Road" in order to finance the improvement of the road leading west from Duke Street in Alexandria. This road was later known as the Little River Turnpike. One of the investors was John Ricketts, an owner of Cameron Mills, whose business would benefit from the road's construction (Knepper and Pappas 1990:6). The thirty-four mile turnpike was completed in 1806. It began on the Alexandria waterfront, extended west along Duke Street and continued to the Little River in Aldie (Board of Public Works c. 1802; Netherton *et al.* 1978:192). The annual meetings of the Little River Turnpike Company were held at William Simpson's Tavern, where the first turnpike gate was located (Board of Public Works 1801-12). The development of this road probably helped to spur on further development of West End.

In October 1796, John West subdivided 24 acres of his land, located west of Hooff's Run and south of the turnpike, into 33 half-acre lots. This subdivision was planned to contain two parallel roads, Wolfe and Wilkes Streets; and five perpendicular roads, John, George, Catherine, Sarah and Elizabeth (named after family members) (Cromwell and Hills 1989:37-38). West intended to increase residential and commercial development. A portion of one block was reserved for public use and a market house stood there for a brief time. The remaining lots were leased for a yearly ground rent and the understanding that a house would be constructed within two years (Fairfax County Deed Book Z:222 cited in Cromwell and Hills 1989:37). One of the first lessees on West's subdivision, was Charles Jones, an Alexandria carriage maker with a shop on

Duke Street. He built and operated the West End Tavern, at Elizabeth and Wolfe Streets, from 1796-99 (Fairfax County Deed Book Z:195; Cromwell & Hills 1989:77).

Over the years, West End would become associated with a variety of light industries. Among the first of these to locate in the area was the slaughtering and tanning industry, which found its beginnings during the 1790s. Two Alexandria butchers moved to the West End during this decade. One was Lawrence Hooff who purchased a seven-acre lot (north of Duke street and east of Hooff's Run) in 1792 and constructed a slaughter house (Fairfax County Deed M:70; X:548 cited in Cromwell & Hills 1989:59. He probably used the remainder of his property as a stock yard (Cromwell & Hills 1989:59). By 1796, Jacob Heineman had constructed a slaughter house on the west side of Hooff's Run, north of Duke Street (Fairfax Deed Book Y:533; E5:449 cited in Cromwell & Hills 1989:59). More butchers moved into the area following the December 1803 law passed by the Alexandria Common Council which forbade the butchering of animals within the town limits "for the purpose of being exposed to sale" (*Alexandria Gazette* 12/22/1803; Cromwell & Hill 1989:59).

In the first decades of the nineteenth century, several new slaughter houses were established. A slaughterhouse was first identified in 1804 on the property of Thomas Wigham, but may have been there earlier (Fairfax County Deed Book E-2:155; cited in Cromwell & Hills 1989:61). By 1810, another Alexandria butcher, Howard, had constructed a slaughter house on the west side of Hooff's Run, north of Duke Street (Fairfax County Deed Book D-2:200). Another was built on the south side of Duke Street, west of Hooff's run by either William Richards or John Zimmerman (Cromwell & Hills 1989:60). Many butchers resided in the West End and kept shops there. By 1859, at least 20 butchers resided in the West End (Sprouse 1987). Drovers "bringing their cattle to market, stopped [in the West End], and sold their beeves, sheep and hogs, on the hoof" (*Alexandria Gazette* September 15, 1868).

Commercial Decline (1820-1845) and Economic Expansion (1845-1861)

The economy of the entire country suffered as a result of the trade embargoes during the years before the War of 1812, and with the war itself. The value of land in Fairfax County declined dramatically and during the early nineteenth century many farms were advertised for sale in the local newspapers at a fraction of their former value. Many of these sales were conducted as a last resort in order to settle a deceased owner's debts (Netherton *et al.* 1978:165). The value of the land reached such a low during the 1830s and 1840s that some farms were actually abandoned. During the early 1840s, much Fairfax County land was no longer under cultivation (Abbott 1968).

During this period, the County's population declined, but by the mid-nineteenth century, the economic situation in all of Fairfax County began to improve as the county's land came under cultivation once more. The steadily increasing population of Washington and Alexandria provided a market for grains, oats, potatoes, fruits and vegetables and beef. Settlers from the northern states took advantage of the low-priced land available and began cultivating small diversified farms (Netherton *et al.* 1978:170).

During the late 1840s, five railroad construction projects were begun in Alexandria (Griffin 1984:117). Two of these projects took place just beyond the northern boundary of the project area. One of these was the Orange and Alexandria Railroad (O&A) designed to connect Alexandria with the fertile farmlands of the Shenandoah valley by way of Orange and the other was to extend a line from Alexandria south to Aquia Creek in order to connect with the Richmond, Fredericksburg and Potomac Railroad (RF&P) (Griffin 1984:117; Naisawald 1970:30). The O&A was chartered on March 27, 1848. Construction began in 1850 and was completed to Manassas by 1853 (Griffin 1984:118). The O&A tracks were laid through the West End on Wolfe Street. This railroad "promised to bring trade, freight and passengers" to Alexandria (Sharrer 1977:30).

During this period, the West End served primarily as a transshipment point for processing grain and butchering livestock from the hinterlands intended for the market and ports of Alexandria, Georgetown, and the City of Washington. A variety of other industries and other services were also being established: stores, brickworks and potteries, a distillery, a glass factory, a bakehouse, a coach manufactory, and a blacksmith shop (Artemel et al. 1987:41; Cromwell and Hills 1989:10).

Local business was conducted at Catts' Tavern which had replaced Simpson's in 1815. In 1817, Samuel Catts purchased a lot to the west of Simpson's original tavern and built a larger hotel. The tavern was well known in the county for its "good fare and accommodations" (*Alexandria Gazette* September 28, 1868). It also served as a meeting hall—where elections and political meetings for the eastern part of Fairfax County were held—and auction house. The tavern came to be known as Drover's Tavern because all cattle sales for the District of Columbia, on the Virginia side of the Potomac, were held there for over a century (Miller 1991:64). Ewing's 1845 Map indicates some of the structures along the Little River Turnpike and the location of Drover's Tavern. The tavern is located well to the west of the project area (*Figure 3*).

The West End also served as a major inter state slave trading center from 1828 to the Civil War and the largest center for the annual hiring of hands in the county from 1815 to the Civil War. One well-known West End slave dealer was Joseph Bruin; his frequent advertisements in the *Alexandria Gazette* indicated that he would pay cash and was in the market year round (Netherton et al. 1978:262). The partnership of Franklin and Armfield also traded in enslaved people; they constructed the Alexandria Slave Pen located at 1315 Duke Street (Artemel et al. 1987:41).

The annual hiring out of free and enslaved African Americans took place at Catt's Tavern on New Year's Day. This scene was described by a Boston newspaper correspondent in 1861 as a gathering of "men, women and children, mechanics, field hands, dining-room servants, cooks and house servants" who were all dressed in "their new suits of full cloths and linsey woolseys." Those doing the hiring were contractors, small farmers, city dwellers hunting for a porter or house servant, and spinsters or childless widows (Netherton et al. 1978:275).

Civil War and Reconstruction (1861 - 1875) and Urbanization

On May 23, 1861, the majority of Virginians voted for secession. All but one of the votes cast in the West End were for secession (Netherton *et al.* 1978:320). That night, eleven regiments of Union soldiers crossed the Potomac and took control of Alexandria. The Union soldiers met no resistance because Virginia and Confederate officials believed Alexandria was undefendable and Confederate troops had already departed for Manassas (Netherton *et al.* 1978:320-321). For the next four years, Alexandria was under military occupation and would serve as a supply and hospital center and as a camp for the Union soldiers fighting in Virginia. Many private homes, churches, and local public buildings were commandeered for military barracks, hospitals and prisons (Smith and Miller 1989:84; Barber 1988:15). The Union also took possession of the O&A railroad and used its shop complex as the headquarters for the U.S. Military Railroad (Williams 1977:59). This facility occupied a twelve-block area on upper Duke Street near Henry (east of the project area) (Smith and Miller 1989:84). In addition, the Union troops built a ring of forts along the Alexandria-Fairfax line in order to protect Washington from Confederate attacks (Netherton *et al.* 1978:320-321). Several of these forts were close to the project area; Fort Ellsworth stood to the northwest, Fort Williams lay beyond it and Fort Lyon stood to the south.

This sudden occupation of Alexandria created havoc and disorder, but was brought under control by General John P. Slough, the appointed military governor of Alexandria from August 1862 to July 1865. Slough wrote in 1862 that there had been "a reign of terror in Alexandria for a few days. The streets crowded by intoxicated soldiery; murder was of almost hourly occurrence and disturbances, robbery and riot were constant" (*Alexandria Gazette* 12/10/86; Smith and Miller 1989). Civilian travel was restricted, passes were required for traveling to Washington, farm goods were confiscated and those suspected of being disloyal to the Union were often arrested and placed in jail (Smith and Miller 1989:84). The Alexandria Slave Pen, on the north side of Duke Street, served as a Union prison for soldiers and civilians (Artemel *et al.* 1987:41). A landowner's property could be confiscated for disloyalty to the Union. This happened to Richard Rotchford, a West End resident, who owned the property upon which Shuter's Hill Brewery was located. He was accused of "engaging in armed rebellion against the Government of the United States, and in aiding and abetting such rebellion" (Barbash and Dennee 1993:11).

The vast number of wounded and ill soldiers arriving in Alexandria posed a problem for the army as well as the town. By fall of 1862, sick and wounded men from the Peninsula, the battle of Cedar Mountain, and the Bull Run campaign were arriving by trains, boats and in horse-drawn ambulances over the Little River Turnpike. As the fighting continued, there were more wounded soldiers than there were beds and many were being treated and fed on the town's sidewalks before being moved to Northern hospitals. In order to provide accommodations for these men, churches, schools and a number of large private residences were converted into hospitals (Barber 1988:35). However, as the war continued, temporary facilities were erected to meet the increasing needs (Hurd 1989).

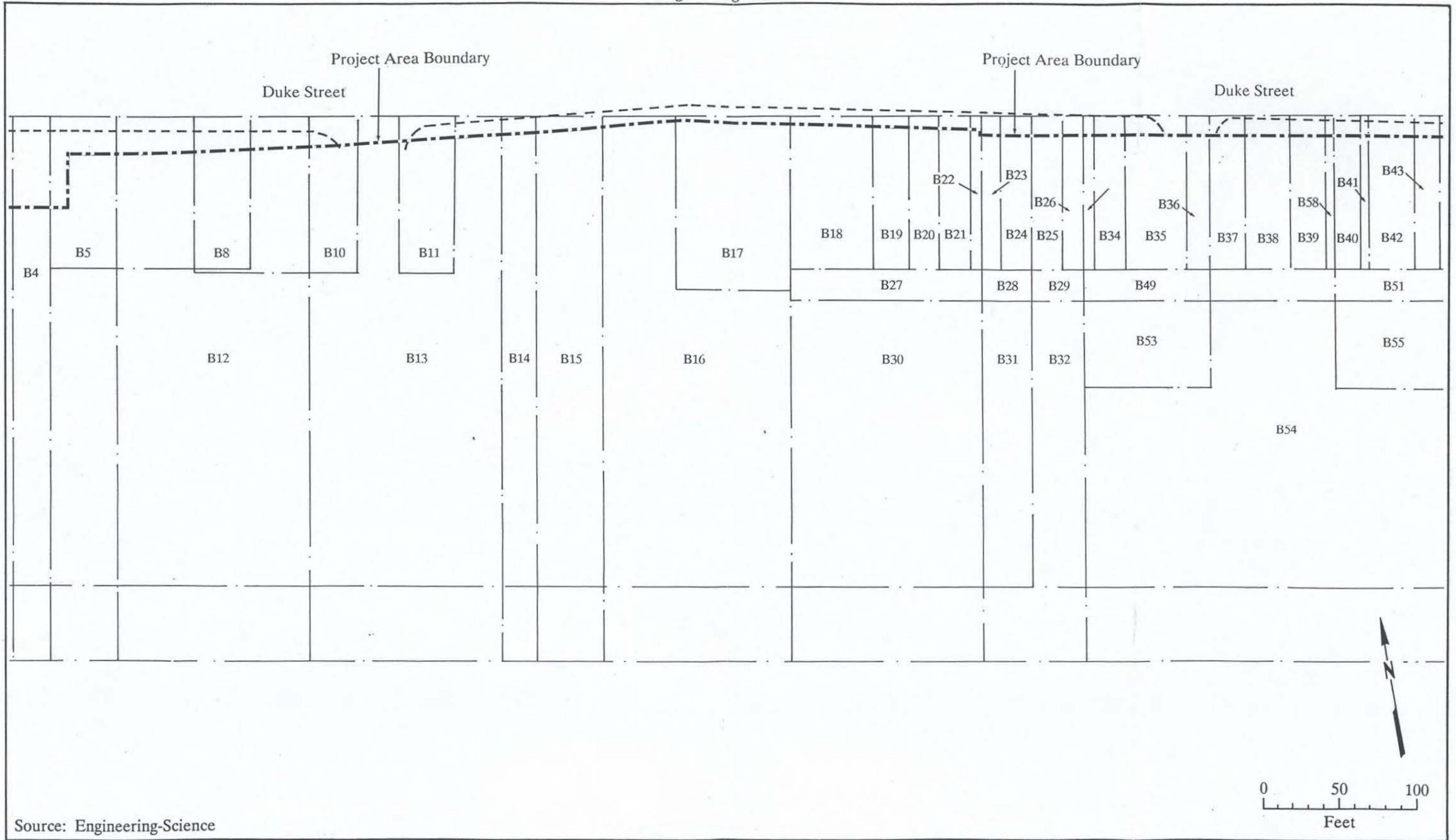
Many citizens moved out of the city as a result of the general war-time turmoil. An article appearing in the *Gazette* in 1863 recorded that "not one third of the original [Alexandria] inhabitants now remain and many of the old mansions were deserted by their owners and are now used as barracks and offices" (Netherton *et al.* 1978:329). Once Lee surrendered to Grant, in April 1865, Alexandria began a long process of recovery. In July 1865, the office of the military governor was abolished and during the summer months outlying forts, blockhouses and army camps were dismantled and sold at public auction (Smith and Miller 1989:88). The retreating Union army left a city in need of much repair and the surrounding countryside denuded of trees (Smith and Miller 1989:88).

An article published in the *Alexandria Gazette* in September 1868 described the West End as being "worthy of local notice, not only for its good people, and good citizens, but for other things it contains." These other things were the slaughtering and milling businesses, the reservoir, and Catt's Tavern. The article also explained that the West End had developed by 1810 and that since then it "[had] altered very little in appearance although some new houses [had] taken the place of old ones, and several well-built and handsome residences [had] been erected in the last twelve or fifteen years. The country around [was] divided into lots, highly cultivated by industrious and thriving citizens." The article described the boundaries of the village as being Hooff's Run on the east, Shuter's Hill on the north, Cameron Run on the south, and Cameron Mills on the west (*Alexandria Gazette* September 16, 1868).

Gazetteers and business directories of the period list various merchants in the West End village, including Clinton Bollinger, general merchant in 1897 (*Chataigne's Gazetteer*). In addition to the commercial and industrial enterprises in the West End, entertainment was provided on occasion. For example, in September 1897, the "Lailson Circus performed masterly feasts of horsemanship, vaulting etc..." there (Miller 1992:245). In the 1906 gazetteer, three general stores, Carlin Bros., S.A. Staples, and C.C. Walters & Co., and Thos. Hillier, carpenter and builder, were listed (Hill, *Virginia Business Directory and Gazetteer*).

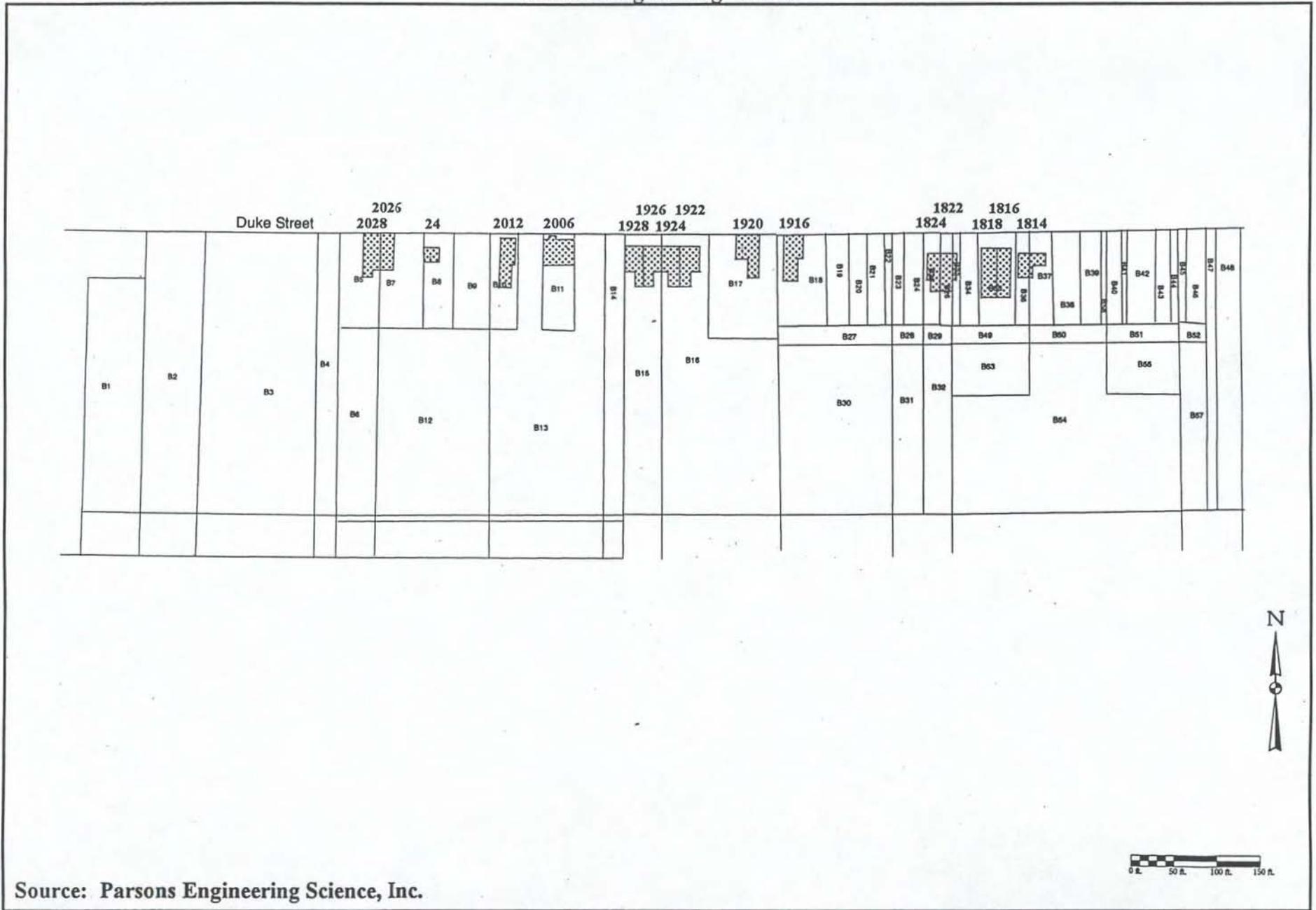
B. History of the Project Area

In 1796 John West subdivided the portion of West End containing the II-B area and began leasing and selling lots, and the earliest known settlement in the II-B area occurred in 1796 consequent to provisions of quit-rent leases. The land use pattern in II-B from 1796 to the late 1890s was strongly influenced by the presence of the Little River Turnpike/Duke Street: homes and businesses typically fronted on Duke Street, and outbuildings, pastures, and other use areas extended southward from the principal structures. Some homes and businesses remained on Duke Street from the late 1890s to 1915, but during this period much of the area of II-B away from Duke Street was used for glass manufacturing, rental housing, and greenhouse production of flowers and vegetables. The location of the lot numbers, and past land use within the project area can be seen in Figures 4-6.



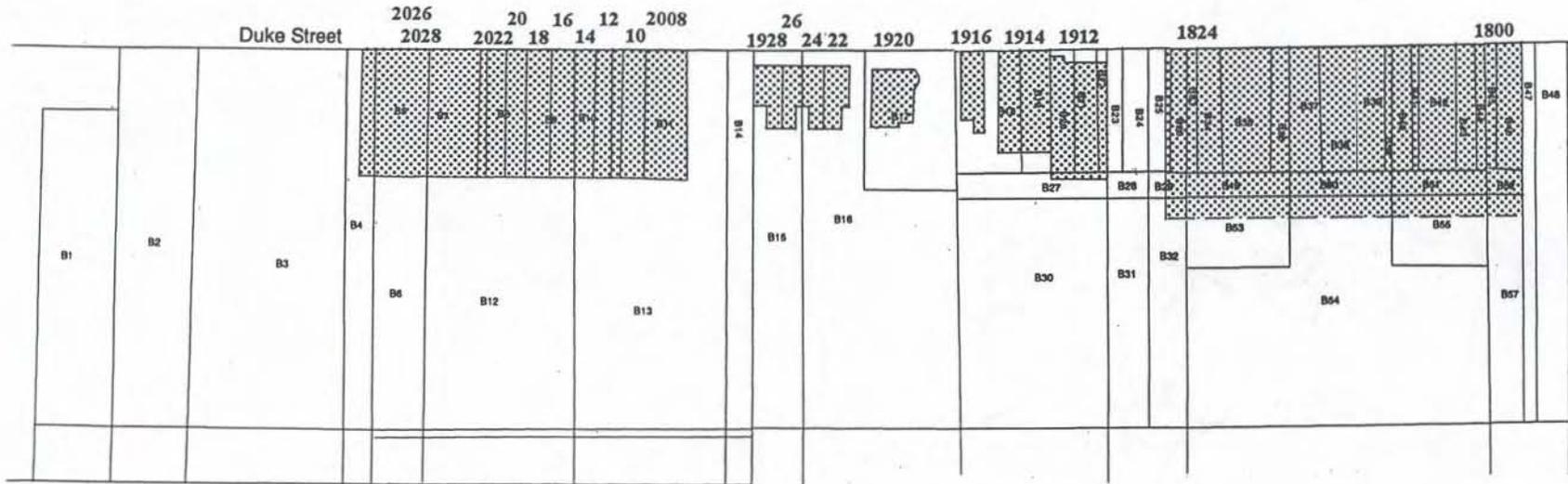
Source: Engineering-Science

FIGURE 4.
HISTORICAL LOTS.



Source: Parsons Engineering Science, Inc.

FIGURE 5.
PROJECT AREA LOTS
AND ADDRESSES IN 1907.



Source: Parsons Engineering Science, Inc.

FIGURE 6.
PROJECT AREA LOTS
AND ADDRESSES IN 1941.

Development within the project area was fairly sparse until the middle of the nineteenth century. Houses were built in a number of locations within the project area during the late eighteenth and early nineteenth centuries. Lot B16 had a house on it prior to 1797 occupied by Charles Jones; Lot B7 also had a house before 1797. B17 may have had a house from this time period as well, or it may have been located on neighboring Lot B16. Lots B18-22, B27 and B30 contained a house, stable and outhouse by 1808. Richard Hewitt built a house somewhere on Lots B37-38-39-58, between 1796 and 1806. Much of the rest of the project area away from Duke Street persisted as farmland for many years.

Taverns were an early feature of the general project area. One tavern was operated by William Ward and located on the south side of the Little River Turnpike, west of its intersection with the north-south Colchester Road (Telegraph Road). The other tavern, operated by William Simpson, was located on the north side of Duke Street, west of the intersection with Diagonal road (Miller 1992:125). Catt's Tavern (1815-1861+) replaced Simpson's Tavern. Zimmerman's Tavern operated from 1841 to 1849. More than the selling of liquor was carried out in these places. Catt's and Zimmerman's taverns were both locations for the hiring out of slaves. The Mount Vernon Clay Club met at Zimmerman's Tavern in 1849 to urge the nomination of Henry Clay. In addition to the taverns, the West End became home to a small brewery that opened in the 1850s, but burned down in 1893.

The Shuter's Hill Brewery was founded in 1858; it became successful during the Civil War, but languished in the years following the war. During much of its history, it was accompanied by a saloon that sold the brewery's beer. But even during its heyday, Shuter's Hill brewery was constantly in debt, and its financial difficulties led to the property changing ownership many times throughout its 34 year history. Ultimately, these financial woes, a lack of innovation, and changes in the brewery industry forced it out of business in the 1890s.

Construction of the Shuter's Hill Brewery commenced in 1858 when two Germans, Alexander Strausz and John Klein, leased an old frame building on Duke Street in the "suburb" of West End. The Shuter's Hill Brewery takes its name from nearby Shuters (or Shooter's) Hill, which stands west of Old Town Alexandria, and around which King and Duke Streets now extend. Their brewery was the first to introduce the brewing of lager beer to Alexandria and to the state of Virginia east of the Appalachians. Alexandria brewers prior to this time had produced the older, English-style varieties of beer, including ale and porter. These, being top-fermented, did not require particularly cold temperatures for manufacture. Lager beer, on the other hand, uses a different type of yeast, and needs temperatures in the vicinity of 40 degrees Fahrenheit. This yeast, and the new techniques were introduced to America from Germany in 1840. These temperatures were provided by Strausz and Klein's deep cellar and copious amounts of ice.

The brewery had three proprietors during its 34 year history. Strausz and Klein dissolved their partnership in 1860, after only a year of operation and Strausz sold his interest in the lease and equipment to Klein for \$2000. John Klein retained proprietorship until his death in 1865. After that, the brewery was operated by Henry Englehardt until it was forced to close in 1891 or 1892. Englehardt may have worked for Strausz and Klein since the beginning of their firm.

In contrast, ownership of the brewery changed hands several times. During the war, Richard Rotchford—John Klein's landlord—was accused of being "engaged in armed rebellion against the Government of the United States," and the brewery, was seized by the U.S. Marshal. Thomas Dwyer of Alexandria bought the brewery at auction, but then returned the property to Rotchford in 1865 for \$300. Rotchford then sold the brewery to Klein for \$1000 ten days later. Francis Denmead, a Baltimore malster and Klein's major creditor, bought the brewery at auction following Klein's death in 1865. Denmead rented the brewery to Robert Portner, with Henry Englehardt, a former Klein employee, as brewmaster. Denmead then conveyed the property to Henry Englehardt and his wife Carrie for \$5000 in 1872. On July 20, 1892 the brewery was sold for the last time, to Christopher Dickson (Englehardt's brother-in-law) of Washington for \$1200, in partial satisfaction of outstanding debts.

Englehardt did not limit his business to brewing. Like most early German-American brewers, Englehardt sought to establish a successful restaurant, saloon, or beer garden as a subsidiary concern. The beer hall and beer garden were already old traditions and, on a practical level, allowed the brewer to introduce and sell more of his product, as well as to bring in more money through service and the sale of food. By May 1868 Englehardt and Gottlieb Kaercher had opened a beer garden on King Street at the foot of Shuter's Hill. Though the beer garden enterprise did not last, Englehardt remained in the restaurant/saloon business. He is listed in the 1870 and 1871 Alexandria directories as having a restaurant, not on King Street, but on Duke Street in West End, probably in or near the frame building that housed the brewing operation. Englehardt would run a saloon there continuously or intermittently until his death in 1898.

Butchery was an important industry in the West End during the nineteenth century, and this is reflected in the histories of several lots. Lot B3 (2032 Duke Street) was occupied by the butcher George L. Watkins from 1870 to 1917. The butcher John Bright lived on Lot B16 in 1823. The butcher John H. Zimmerman, who died in 1854, resided on Lots B16 and B17. Zimmerman owned storehouse on the site as well, and may have used this for meat.

Other commercial activities that took place within the project area included glass manufacture and commercial greenhouses. Two greenhouses were in operation within the project boundaries during the 1890s. One belonging to the Frenchman Constant Ponnet was located in Lots B6, B12, 13. Another belonging to George West was located in Lots B16-17. The partners of the Christie/Bordner/Virginia Glass Company purchased Lot B32 in 1893, and began construction of a glass factory soon after. Improvements to the glass factory involved Lots B32, B53, B55, and B57 as well.

In keeping the light industrial character of the west end, nineteenth-century housing within the project area appears to have included modest, rental properties. Tenements were located on Lot B56, and on the property that was broken into Lots B18-B22, B27 and B30 in the twentieth century during the second quarter of the nineteenth century (at this time, the word tenement simply meant a subdivided place of residence, it did not yet have the connotation of crowded worker housing that it was to acquire later in the century). Lots B15 and B16 included a number of small frame houses built between 1902 and 1912 as rental properties, mostly for railroad workers.

III. METHODOLOGY

A. Phase II Field Methodology

Phase II Research Orientation

The goal of the Phase II testing was to determine the boundaries, integrity, and significance of potential archaeological remains associated with resources identified by archival research. The project area, designated as Area II-B, was an approximately 10-acre area on the south side of Duke Street, extending to the old railroad right-of-way. The principal historical significance of Area II-B was its existence as part of the unincorporated village of West End from c.1796 to 1915.

West End developed along a road running west from Alexandria that was improved to become the Little River Turnpike in 1806. The turnpike operated until 1896. West End lay just outside Alexandria's nineteenth-century city limits, extending from Hooff's Run west along the turnpike to the turnpike tollgate. West End was a transitional area between urban Alexandria and the surrounding rural area. Cattle, and probably swine, destined for the Alexandria, Georgetown, and D.C. market, were driven along Little River Turnpike to West End. It was at West End that the initial processing, such as butchery and tanning, was conducted. While this was the economic mainstay of West End in the nineteenth century, other commercial and light industrial enterprises also moved here. The resources associated with the village of West End as a whole were expected to include homes, businesses, a slave pen, taverns, a brewery, slaughterhouses, butchers, and the tollgate (*Report on the City of Alexandria Archaeological Protection Ordinance* 1989).

Based on the archival research, eight areas containing potentially significant archaeological resources were identified, designated Test Areas 1-8. The criteria used for choosing the test areas were (a) the research potential of the resources, (b) the rarity of the resources, and (c) the potential for the test area to address more than one research question. The potentially significant archaeological resources identified within Area II-B were:

- late eighteenth- to early twentieth-century residences;
- a nineteenth-century lager brewery;
- nineteenth-century butchers;
- a late nineteenth- to early twentieth-century florist;
- a nineteenth-twentieth century saloon;
- a nineteenth-century restaurant;
- a late nineteenth- to early twentieth-century bottle-making company;
- a nineteenth-century grocery;
- a late eighteenth- to early nineteenth-century blacksmith.
- Coach Manufactory (1797-1803)
- "West End Tavern" (pre ca. 1799)
- Soap and Candle Manufactory (1805-1814+)

The archaeological investigations at Area II-B of the Carlyle Property were driven by research questions derived from the historical research conducted prior to excavation. The research questions focused on the community of West End; its growth, its relationship with the surrounding area; its social and economic composition, and how these changed through time. Research questions were developed based on the anticipated resources within the project area. As will be shown below, only a few of the anticipated resources were actually discovered.

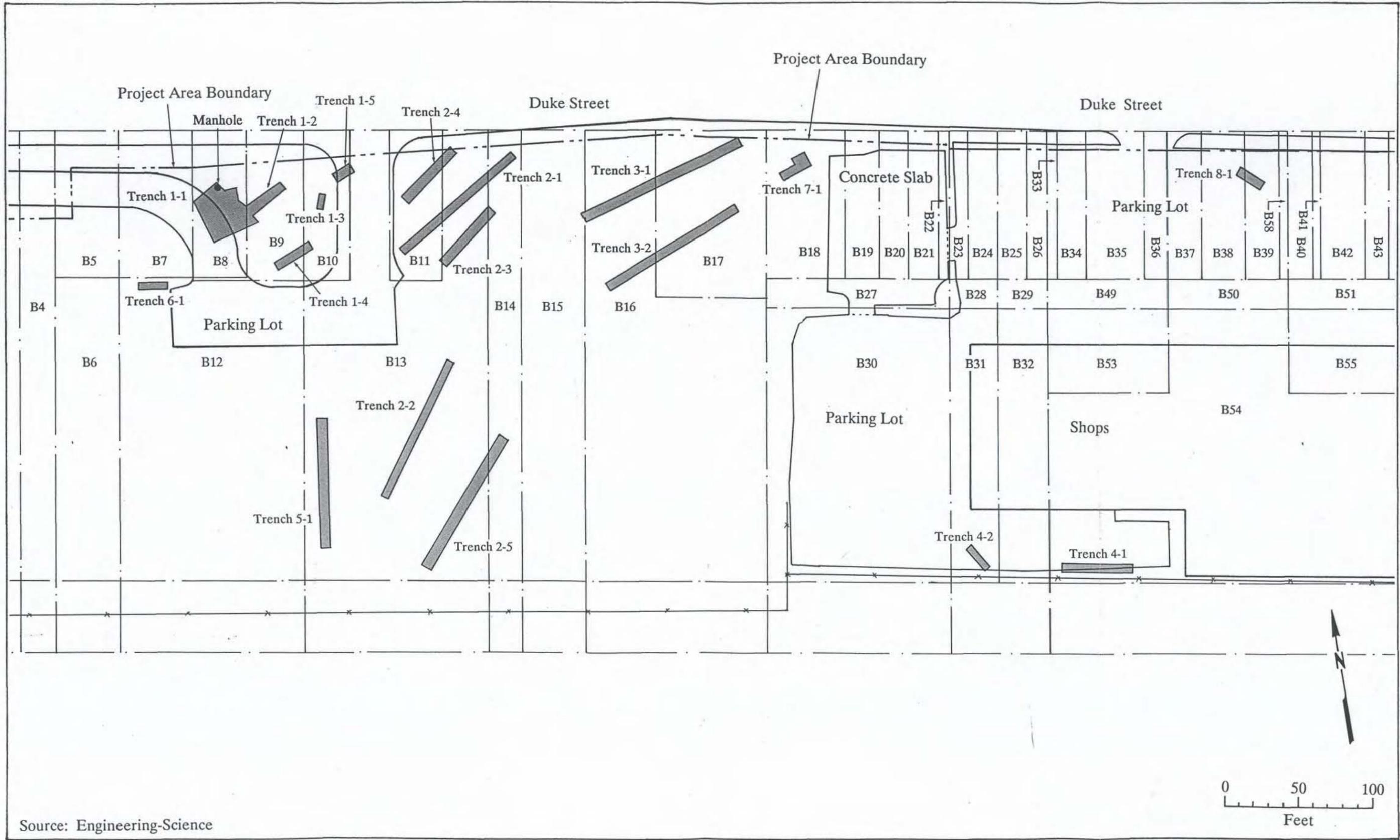
Residential/Domestic Research Questions

Residential structures were expected in Test Areas 1, 2, 6, 7 and 8. Test areas are described below, and shown in *Figure 7*. These span the period from the late eighteenth century to the early twentieth.

How did the ways of life of the residents of West End differ from those of Alexandria and the surrounding region?

This question was to be addressed through comparison of the architectural evidence and artifact assemblages recovered from West End with those recovered from sites in Alexandria and other comparable sites in the Mid-Atlantic region. In some of the test areas, such as Test Area 7, there was the potential for slave houses. If slave sites had been identified, the assemblages would have been compared to those from rural and plantation slave sites. Specific areas of research would have been diet, material consumption, and architecture and space. Diet would have been studied using evidence from faunal and botanical remains, ceramic and bottle vessel types, and bottle embossing. Patterns of material consumption would be studied using: Miller's economic scaling and the identification of ceramic sets to estimate ceramic assemblage cost; identification of ceramic maker's marks and bottle embossing to identify trade networks and preferred manufacturers; and vessel forms to identify preferred vessel types and ceramic use.

Analysis of architecture and the use of space was to be made through study of architectural assemblages in order to identify differences in materials used; and architectural features to identify differences in house sizes, layout, and construction techniques. The use of space was to be analyzed through the distribution of artifacts and features in order to identify activity areas and landscapes. Once patterns had been identified, more specific research questions would then have been formulated to address the origin of the pattern whether through ethnicity, economic disparities, different positions in the regional market hierarchy, or other influences.



Source: Engineering-Science

Carlyle Phase III

FIGURE 7.
PHASE II TRENCH LOCATIONS.

How did the ways-of-life in West End change through time? Are the social and economic dislocations of the Civil War and Reconstruction evident in the material assemblage?

The same methods discussed above were to be used in addressing these questions, but the comparative assemblages would have been derived from sites within West End, but from different chronological periods. This would have allowed a diachronic perspective revealing general trends in the evolution of West End through time and how it changed both socially and economically in response to wider changes in North American society.

Are there differences in the assemblages that are due to socio-economic position, such as differences between tenant and owner occupations?

The same methods discussed above were to be used in addressing this research question, but with an emphasis on synchronic or spatial rather than chronological patterns. Assemblages from different households dating to roughly the same time periods were to be compared in order to investigate occupational, social, economic, and, if possible, ethnic, differences in West End at any one time.

Commercial/Industrial Research Questions

Commercial/industrial resources are expected in Test Areas 1-6. Specific research questions were proposed for each commercial/industrial resource. The residential/domestic research questions would have been applicable to many of the commercial/industrial resources in considering occupational differences, or workers' housing.

Slaughtering operations

The following research questions were to be addressed through archaeological investigations of Test Area 3, where a butcher was located from 1823 (possibly as early as 1802) until 1890. Butchery and tanning was one of the economic mainstays of West End in the nineteenth century. Investigation of this area was to provide insight into specific aspects of the butchery industry in West End during the nineteenth century. To what extent was the meat processed on-site before being transported to Alexandria? Was the meat smoked, salted, or dried on-site? Were final cuts produced here, or was there further processing by butchers in Alexandria? Were only cattle being processed, or were other species, such as swine and fowl, as well, and in what proportions? Are kill-off patterns evident in the faunal remains that would indicate seasonal slaughtering or preferences for certain age grades?

Retail/Commercial

A grocery was located in Test Area 6 from 1870 (possibly 1855) until c.1915. What range of goods was sold at the grocery? What trade networks are evident in the grocery assemblage? How do the types of goods sold at the grocery compare to other similar establishments? What was the effect of the Civil War on the business?

Brewery

A brewery was located in Test Area 1 from c.1858-1890. There was also a frame dwelling on the site. A brick vault that is thought to be the beer cellar is located in the test area. What was the configuration of the beer cellar and how was it constructed? How does it compare to other beer cellars? Do other features remain that might shed light on other aspects of the brewing process? Are changes in brewing technology reflected in the cultural material of the site? Are the social and economic dislocations of the Civil War and Reconstruction evident in the material assemblages of this site?

Saloons and restaurants

One late nineteenth to early twentieth-century saloon may have been located in Test Area 1. Test Area 1 may also have contained a restaurant in 1870-71. There also may have been a saloon in Test Area 2 dating from the early nineteenth century. What can be determined of the "character" of these establishments, compared to those elsewhere: do these establishments exhibit a "rougher" character than the taverns of genteel Alexandria? What beverages tended to be served (i.e., predominantly liquor, as opposed to beer or wine)? What wares did the saloons and restaurants use, and do the use of these wares reflect the economic or social status of the clientele? Were the ceramic manufacturers represented in the assemblage local? Were there preferred manufacturers? These research questions can be addressed through the analysis of the architectural, faunal, ceramic, and bottle remains.

Florists/ Greenhouses

Although two late nineteenth-century "Green Houses" were located in Lot B16 or B17, these research questions can best be addressed through the investigation of Test Area 5, where there was a late nineteenth- to early twentieth century florist, as this was a larger scale enterprise with a longer time span. How were commercial greenhouses constructed? How do the West End greenhouses differ from earlier and later ones? Can pollen remaining in the soil indicate the plants grown in the greenhouses? These research questions could have been addressed through examination of the structural remains and analysis of pollen in soil core samples.

Bottle making

A late nineteenth to early twentieth century bottle manufacturing facility, the Virginia Glass Company, lay within Area II-B in Test Area 8. During this period, the bottle manufacturing industry was revolutionized by the introduction of the Owens automatic bottle-making machine in 1903, with the result that commercial glass-blowing operations had essentially ceased by the 1920s. Do remains of the furnace exhibit the initial glass-making process, and how did the mechanization of the industry affect the West End operation? If wasters are present on-site, numerous avenues for research are available. Were there changes in manufacturing technique? What were the markets for the glass company? Were new markets sought after the introduction of the Owens machine? These research questions were to be addressed by examination of the furnace and glass-blowing areas of the complex and by collection and analysis of a sample of wares produced at the complex.

Coach Manufactory

A coach making operation was probably located in Test Area 2. Although this enterprise was not in operation very long, it could have left substantial remains, especially if there was a blacksmith or farrier on-site. Expected features included foundations from the buildings, the forge, and waste areas. The waste would have included byproducts, that could have provided information on the stages of manufacture, and possibly scrap products, that could have provided information on the types of carriages being manufactured, as well as supplementary manufacturing activities. What types of carriages were being manufactured? Was there a specific market? How much was produced on-site? Were parts being purchased from other manufacturers?

Soap and Candle Manufactory

An extensive candle and soap making factory was probably located in Lots B10, B11, and B13 (Test Area 2). This operation was probably linked to the importance of butchery and animal processing in West End, as it would have utilized tallow. As such it was an important aspect of West End's economy. Expected features included foundations and features associated with soap, and possibly candle, making, such as vats. The soap or candle manufactory very likely operated in buildings previously used for the carriage manufactory.

Were the animals being processed elsewhere and the tallow brought to the site, or was much of the processing done on-site? What animals were used? Analysis of faunal remains and organic residues could have provided information on this question. What was the scale of the operation? How was it organized? Is there pronounced spatial segregation of activities or specialization evident in the layout of the manufactory? Was the operation a craft or industrially based one? One enslaved person was known to have worked there. Are there features of the layout that would reflect an unfree, as opposed to

free, workforce? If owners, workers, and enslaved people lived on site, the domestic research questions described above could also have been addressed.

Phase II Testing Strategy

Based on consultation with Alexandria Archaeology, the Phase II testing of Area II-B of the Carlyle Property was limited to a sample of areas in which historic activities were known to have occurred, particularly those areas which had (1) the only known occurrence of an activity in the project area and/or (2) documented and long-term association with one or more themes of West End's history. The identification of these areas was based on historical research conducted by Kurt Schweigert of the Oliver Carr Company (Schweigert 1993).

The integrity of the resources within the project area was unknown as no subsurface investigations had been conducted prior to the Phase II work. Two sets of test areas were defined for the Phase II testing: primary testing areas and alternative testing areas. Primary testing areas had well-documented associations with residential settlement or commerce/industry, so that structural and other cultural resources could be interpreted in the light of substantial biographical and other documentary information. Alternative testing areas were those areas that were known to have been used for residential and/or commercial/industrial purposes from 1796 to 1860, but these areas had weaker biographical/historical documentation.

Testing (*Figure 7*) was initially conducted only in primary testing areas, with the alternative areas being tested only as the primary areas were found to be disturbed. Due to the need to alter the testing strategy as circumstances changed, Alexandria Archaeology was consulted on a daily basis.

Test trenches were excavated by a backhoe with a grading bucket. They were excavated down to the sterile subsoil or, where these were encountered, to intact historical strata or features. Diagnostic artifacts were sampled from each stratum as it was excavated. Excavation of the trenches was monitored at all times by an archaeologist. When potentially significant historical deposits were encountered, 3-foot square hand-dug test units were excavated.

Test trenches were 6 feet wide. When the depth of the trench exceeded 4 feet and entry into the trench was necessary, the sides of the trench were sloped to maintain a 1:1 slope. A representative column profile was drawn of each trench. When necessary, a full profile was drawn. Trenches were designated by the test area in which they were excavated, followed by a number assigned in the order of excavation, e.g., Trench 3-1 was the first trench excavated in Test Area 3).

The excavation units were 3-foot square and were excavated down to the natural subsoil. The units were excavated by 0.3 foot levels within the natural strata. All soil was screened through ¼ inch mesh hardware cloth. All artifacts recovered were bagged by provenience with complete provenience information recorded in indelible ink.

Primary Test Areas

Test Area 1

This area contained Lots B8, B9, and B10. It was the site of the Strausz and Klein brewery from c.1858-1890. There was also a frame and a brick dwelling on the site. A brick vault that is thought to be the beer cellar is located in the test area. There may have been a restaurant in the test area in 1870/71 and a saloon from 1895-1907. Expected features included architectural features, such as foundations and builders' trenches, the beer cellar, and deposits such as middens, trashpits, privies, and wells.

Five backhoe trenches were excavated in Test Area 1. The initial scope of work called for three trenches each 10 feet long, one trench 20 feet long, and one trench 50 feet long, as well as the full exposure of the beer cellar roof. The trenches were to be excavated diagonally northeast to southwest across the historical lots. The size of the beer cellar, the identification of the entry passage and the brewery basement, and the presence of utilities entailed minor revisions to the placement and extents of the trenches.

Test Area 2

Test Area 2 consisted of Lot B11 and the northern and eastern portions of Lot B13. The goal of the testing was to identify whether features and deposits associated with a coachmaking business from ca.1797-1805, a soap and candle factory from 1805-1814+, and a 1799 house/saloon survived. The testing consisted of the excavation of three 100 foot long trenches (Trenches 2-1, 2-2, and 2-5) and two 50 foot long trenches (Trenches 2-2 and 2-4). Trenches 2-1, 2-3, and 2-4 were excavated in the northern, streetfront, part of the test area, and Trenches 2-2 and 2-5 were excavated in the southern part of the test area.

Test Area 3

Test Area 3 consisted of the portions of Lots B16 and B17 that lay within the Carlyle project area. This area was occupied by 1797 and may have been the site of a butchery operation. Two trenches oriented northeast-southwest were excavated in this area, one 120 feet long (Trench 3-1) and one 100 feet long (Trench 3-2).

Test Area 4

Test Area 4 consists of Lots B32, B53, B54 B55 and 56. The main structures of the 1893 Virginia Glass Co. were located in this area. Testing was limited to the rear of an existing building that probably overlay the original glass factory. Expected resources were refuse from the manufacturing process. Two trenches were excavated in this area. One was 50 feet long and oriented east-west and the other was 20 feet long, oriented northwest-southeast. The placement and orientation of these trenches was determined in part by the presence of utilities and the need to maintain access to the loading dock of the building.

Test Area 5

Test Area 5 lay within Lots B6, B12, and in the western half of Lot B13. The main expected resources in this area were greenhouses dating to ca.1891-1912. There was also a lesser potential for structures associated with the soap and candle factory in Test Area 2.

A single 100 foot long trench was excavated in Test Area 5 to attempt to identify soil horizons or features associated with the greenhouses. While the trench was initially planned to be 50 feet long, it was extended because of the amount of historical material recovered within the trench and also on the surface of the surrounding area.

Alternative Test Areas

Test Area 6

Test Area 6 was the portion of Lot B7 within the project area. A house was built on Lot B7 before 1798. After ca. 1870 a grocery was also located on the property. Expected significant resources were features and deposits associated with the residential occupation and with the grocery. A single 20-foot long trench oriented east-west was placed in this area.

Test Area 7

Test Area 7 was made up of Lots B18-B22, B27, and the northern 56 feet of Lot B30. There may have been a residence on the property by 1799. The property was certainly occupied by 1808. Expected resources were features associated with an early nineteenth century residential occupation. A single 25 foot long trench oriented northeast-southwest was excavated. On encountering a stone foundation, the northeast end of trench was expanded to expose the foundation corner.

Test Area 8

Test Area 8 consisted of Lots B37-B39, B50, and B58. A house was probably built in this area between 1796 and 1806. Expected resources were features and deposits associated with the early nineteenth-century occupation. A single 20-foot long northwest-southeast trench was excavated in this area.

B. Phase III Field Methodology

Phase III data recovery was recommended only within Test Area 1 as significant features associated with the operation of a nineteenth-century brewery and saloon were encountered there. The goal of the Phase III data recovery was to fully expose and record the beer cellar (Structure 1), the entryway (Structure 2), and the surviving brewery/saloon basement (Feature 6) (*Figure 8*). Due to the thickness of the overburden over the basement, beer cellar, and entryway, it was necessary to use a backhoe.

Major questions for the data recovery operations included: what was the configuration of the beer cellar and how was it constructed? How did it compare to other beer cellars? Did other features remain that might shed light on other aspects of the brewing process? Were changes in brewing technology reflected in the cultural material of the site? Are the social and economic dislocations of the Civil War and Reconstruction evident in the material assemblages of this site? What can be determined of the "character" of the saloon, compared to those elsewhere: did it exhibit a "rougher" character than the taverns of genteel Alexandria? What beverages tended to be served (i.e., predominantly liquor, as opposed to beer or wine)? What wares did the saloon use, and did the use of these wares reflect the economic or social status of the clientele? Were the ceramic manufacturers represented in the assemblage local? Were there preferred manufacturers? These research questions were to be addressed through the analysis of the architectural, faunal, ceramic, and bottle remains.

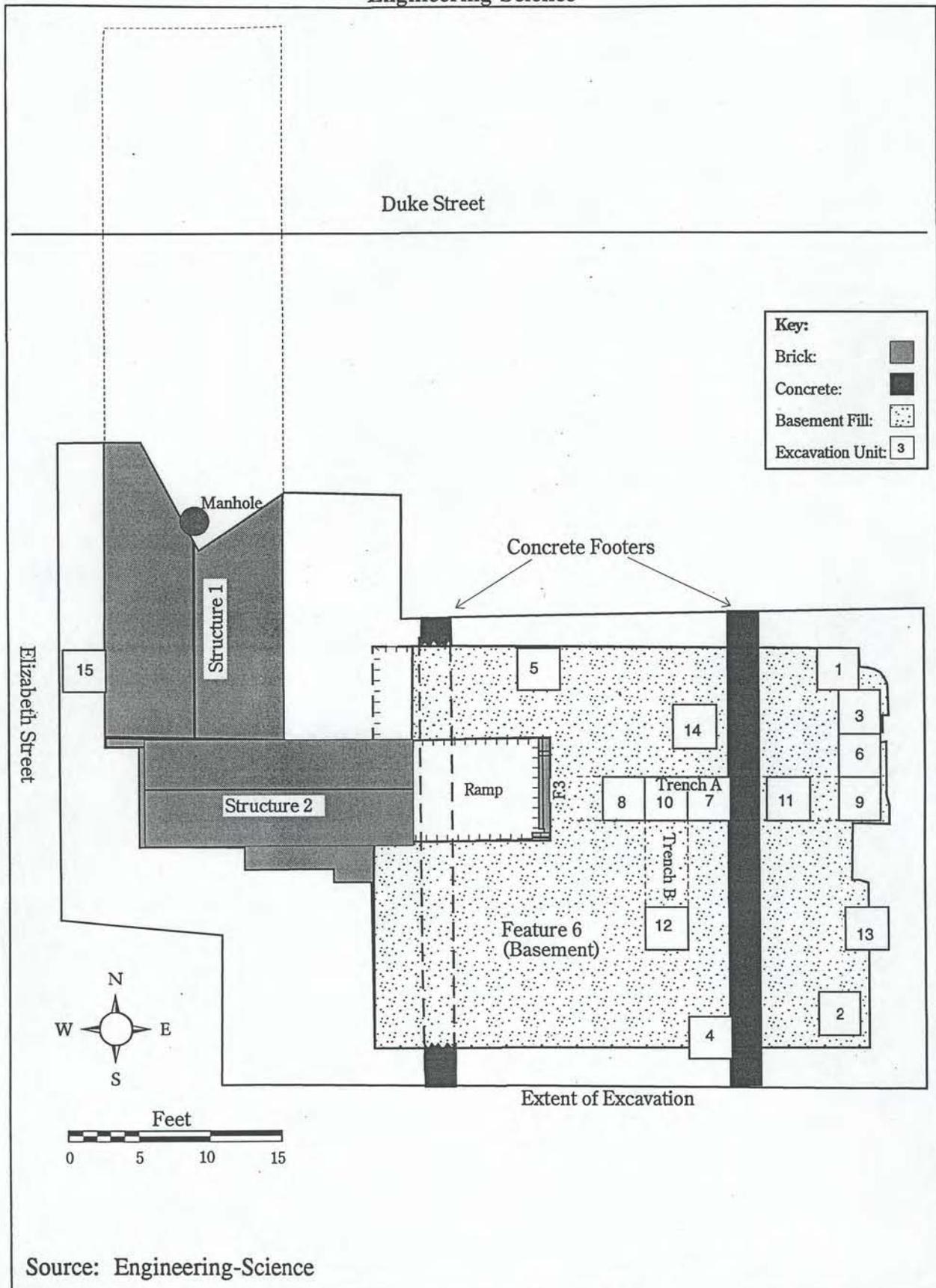
Structures 1 and 2

The material over the beer cellar (Structure 1) consisted primarily of fill, deposited in the nineteenth century to bury the cellar. Over this was another foot to 2 feet of modern fill and roadbed. Most of that portion of Structure 1 that was available for study had been exposed during the Phase II work. During the Phase III excavation, an additional 8 feet was removed to the west, entailing the removal of a portion of Elizabeth Lane. This was sufficient to expose the west vertical wall of Structure 1 and to identify the west edge of Feature 1, the beer cellar's construction pit. The fill within Feature 1 was sampled with Excavation Unit 15.

The bulk of the fill over Structure 2 consisted of original nineteenth-century fill that was used to bury the entryway. This was overlain by a series of later fills, including one that was debris from the demolition of the brewery/saloon building. The debris stratum had been dug out between the Phase II and III archaeological work by looters, presumably hunting for bottles. Four buckets of their backdirt were screened in order to sample this material. The modern fill was removed with a backhoe without being sampled. The nineteenth-century fill beneath the looted stratum was also removed by backhoe as much as possible. Four buckets of this material were screened to sample the artifacts incorporated into the fill and to date the filling episode.

It was necessary to remove the vaulted roof of the passage in order to gain access to the interior of Structure 2 and remove the interior fill with the backhoe. It was not possible to remove this material by hand as it was all that was holding up the roof. Four buckets of fill were sampled and screened. When intact wooden features were exposed, as much of the remaining fill that could be safely removed by hand was removed. Due to safety considerations, it was not possible to remove all the fill at the bottom, west end of the entryway. The floor of the structure was 15 feet below the current ground surface and it was not possible to slope the trench walls back enough to be safe as it was necessary to maintain traffic access on Elizabeth Street. Consequently, the western six feet of Structure 2 remain unexcavated.

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Carlyle Phase III

FIGURE 8.
PHASE III UNIT LOCATIONS.

Both Structure 1 and Structure 2 had approximately 8 feet of water in them. It was necessary to pump out the water from Structure 1. As this was done, Structure 2 drained. Removing the water from both structures entailed the pumping out of approximately 24,000 gallons of water. Once the water was pumped out, it was possible to enter the rear portion of Structure 1. Wooden artifacts that had been preserved by the water were left *in situ*.

Feature 6

A backhoe was used to remove the twentieth-century fill from the top of Feature 6 in order to define the dimensions of the brewery basement. The basement was initially apparent as a rectangular area of dark ashy fill in the sterile clay subsoil. Once the basement was fully exposed, the fill within was sampled through the excavation of 14 3-foot square excavation units. These units provided a 15% sample of the basement fill and also served to define the stratigraphy within the basement.

Units 1, 2, and 3 were placed to define the northeast and southeast corners of the basement. It was not possible to place one in the southwest corner of the basement as this was where a ramp was being maintained to allow access to excavation area for the backhoe. The western part of the basement had also been disturbed by twentieth-century grading and by the placement of a concrete footer. The northwestern part of the basement, where Unit 5 was placed, was only 6-12 inches deep. The northwestern edge of the basement had been removed during the Phase II exposure of Structure 1.

Unit 6 was placed to uncover Feature 20, a brick structure in the north east corner of the basement. Units 7 to 11 were placed to provide an east-west section (Trench A) through the basement fill. Unit 4 was placed to examine the relationship between the east concrete footer and the basement wall to ensure that the footer was in fact a later intrusion. Units 13 and 14 were placed to provide coverage of the basement. Unit 12 identified a deeper sub-basement within the basement. The area between Unit 12 and Unit 10 was shovel stripped (Trench B) to identify the edge of the sub-basement.

Once the units were completed and the basement stratigraphy had been defined, the strata that were identified as burn and demolition debris were removed with the backhoe down to stratigraphic contexts that were interpreted as dating to the period of the building's occupation. Throughout most of the basement, the undisturbed strata were signaled by a layer of sand fill (designated as Stratum V). Once this stratum was exposed, it was cleaned to expose potential stains or features, and then it was shoveled off and screened. The subsoil was then cleaned off and any features exposed were recorded.

Stratigraphy

While the unit excavations were in progress, the strata within the units were given unique designations; i.e. the unit number then letter designations assigned in the order in which the strata were excavated within each unit. As more of the basement became

uncovered, the strata were tied together in a site-wide sequence and were given site-wide or universal designations that differed from the provisional unit designations. Although only the universal designations are used in the Phase III discussion in this report, the unit designations and their universal equivalents are presented below (Table 1) to allow reference to the original excavation field notes.

Universal Stratum	Excavation Unit													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
A	A		A	A	A/B	A	A		A			A-C	A-C	
B								A		A				
D								B		B				
E											A			
F								B		C				
G						B								
H		A/B		B			B	C		C		D	D	A/B
J														
K														
L														
M	B		B		C				B				E	
N												E		
O														
P														
Q														
R														
S													H	
T	C		C			C			C				I	
U	D													
V	E	C	D		D/E	D	C	D	D	D	B		F	F
W						E			E				J	
X	F	D	E	--	F	F	--	--	F	--	--	G	G/K	G

Table 1: Universal and Field Unit Stratum Designations

C. Laboratory Methodology

The artifacts were processed following the standards of Alexandria Archaeology. After their arrival in the laboratory, the artifacts were cleaned, bagged, catalogued and stored. All artifacts were cleaned in plain water, with the exception of fragile organic and metal objects, which were dry-brushed. Within each provenience, the artifacts were assigned unique bag and artifact numbers to facilitate individual artifact reference and retrieval.

The artifacts were cataloged using dBase III Plus data base management software. The inventory includes full provenience and descriptive information, allowing for statistical analysis of artifact distributions. The artifact description fields include class, material, typology, function and segment, as well as "sub-technology" fields that include data such as ceramic decoration and glaze types and bottle closure types. Due to the bulk of material recovered, only a sample of the nails in the Phase III collection was examined

to determine manufacturing technique. The sample consisted of 200 nails from Test Units 4 and 7 (artifact bag numbers 75,80,83 and 91).

The artifacts were grouped following a system based generally on the typology developed by Stanley South (1977). However, in the analysis of the material from Area 1, the brewery/saloon and possible residence, the artifacts were divided into groups more appropriate to that area. It was not always possible to separate the artifacts that related to the brewery/saloon from those from that may have been from a residence. Therefore, rather than group the bottles as "Domestic" or "Industrial," for example, the general grouping "Beverage Related" is used in the discussion. The artifacts that were recovered from Phase 1, 2 and 3 test units are discussed separately from those artifacts which were recovered from contexts which may pre- or post-date the brewery/saloon. A listing of the systematically sampled Phase 1, 2 and 3 contexts is found in the Analysis portion of Section III.

All artifacts are stored in resealable polyethylene bags by provenience unit. The site name, site number, provenience and bag number are written on each bag in indelible ink. An acid-free tag with the same information is placed in each artifact bag. The artifacts are stored in bag number order in labeled acid-free boxes. At the completion of the project, the artifacts and the field and laboratory records will be transferred to Alexandria Archaeology.

SECTION II: PHASE II EXCAVATIONS IN THE WEST END (AREA IIB)

IV. PHASE II FINDINGS.

A. Test Area 1: Lots B8, B9, and B10

Test Area 1 consisted of Lots B8, B9, and B10. The expected resources in this area consisted of features and structures associated with a brewery that operated on the property from 1858 until ca. 1895, and also with an 1890s saloon and 1870s restaurant. An underground brick structure was encountered during construction in the 1970s that was interpreted as the beer cellar for the brewery. Phase II excavations in this area encountered remains of the Shuter's Hill Brewery, which will be discussed in detail in Section III of this report.

B. Test Area 2: Lot B11 and Lot B13

Test Area 2 consisted of Lot B11 and the northern and eastern portions of Lot B13. The goal of the testing was to identify whether features and deposits associated with a coach making business from ca.1797-1805, a soap and candle factory from 1805-1814+, and a 1799 house/saloon survived. The testing consisted of the excavation of three 100 foot long trenches (Trenches 2-1, 2-2, and 2-5) and two 50 foot long trenches (Trenches 2-2 and 2-4). Trenches 2-1, 2-3, and 2-4 were excavated in the northern, streetfront, part of the test area, and Trenches 2-2 and 2-5 were excavated in the southern part of the test area.

These lots were once a part of property that included Lots B7 to B13. Charles Jones, a carriage maker, occupied this larger property from 1797 to about 1805. In addition to his carriage business, Jones and his wife ran the "West End Tavern." The next occupant, James Sheehy, had a soap and candle manufactory in the immediate vicinity. Since the parcel at this time also included Lots B7 to B13, there is no definitive evidence where these activities occurred. However, a frame structure standing by 1858 may have been associated with these uses and was possibly Jones's tavern and home (Schweigert 1993:3-6, 22, 23).

Title and tax records do not indicate that structures were built on this property prior to 1892, when the Brooks home was definitely constructed on Lot B11. The tract appears to have been used for agricultural purposes, as part of the larger West and Rotchford farms until 1889. The Brooks house is shown as a T-plan, 2 story wood frame structure on fire insurance maps dating from 1902 to 1941. The house, at 2006 Duke Street, was occupied at least from 1903 to 1924 by the Brooks family; the men of the Brooks family held semi-skilled jobs with the Southern Railway. Documentary sources therefore show weak historical associations for Lot B11 and no indications of potential historical archaeological resources dating before the 1892 Brooks house.

Lot B13 appears to have been open farmland until Constant Ponnet built a greenhouse complex on the property around 1891; documentary sources do not indicate a likelihood that structures were located on Lot B13 before 1891. A 1902 fire insurance

map shows five large greenhouses in Lots B12 and the western portion of B13. The eastern three greenhouses, which extended into Lot B13, were expanded and combined by 1907 and appear on fire insurance maps until 1941, when the buildings are shown as "Dilap'd". A smaller packaging and storage building was located to the north of the eastern end of the three greenhouses. Lot B13 therefore has apparent historical associations limited to the greenhouse complex.

No historical remains were recovered in any of the trenches excavated in Test Area 2. Throughout most of the area, sterile clay subsoil lay immediately beneath the topsoil or was exposed on the surface. Some filling was encountered at the northern end of Trench 2-2. The fill contained gravel and concrete, and was probably associated with the construction of the Elizabeth Street entrance to the WMATA substation in the 1970s.

No further work was recommended in Test Area 2

C. Test Area 3: Lots B16 and B17

Test Area 3 consisted of Lots B16 and B17. Expected significant resources consisted of features and deposits associated with residential occupations from 1799 until ca.1860. A 120 foot long trench (Trench 3-1) and a 100 foot long trench (Trench 3-2) were excavated in this area.

Lot B16 almost certainly contained a 24' x 28' wood frame dwelling in 1797, and that structure appears to have remained on the property until at least 1823. The house was occupied in 1797 by Charles Jones, who leased land to the west, and in 1823 by John Bright, a butcher. The structure was located adjacent to a vacant lot owned by Rotchford, which is the same general location of a small frame dwelling shown on an 1879 map and on a 1902 fire insurance map. The original building may have been replaced and the exact location of the 1797/1823 building is not known, but the northwest corner of Lot B16 appears to have been occupied for much of the period 1797-1907.

John Zimmerman constructed a substantial brick house somewhere in adjoining Lots B16 or B17 in 1850, very likely the structure shown on an 1879 map as belonging to or occupied by "Elizs. Zimmerman" and fronting on Duke Street. Tax records suggest that this structure was destroyed between 1890 and 1892.

Between 1902 and 1907 Clinton and Frank Ballenger constructed two 2-story brick duplex dwellings near the northern end of Lot B15 and eastward in Lot B16. The houses were set back about 10 feet from Duke Street, and each of the four units had an outbuilding, possibly a stable, about 30 feet to the south of the dwellings. The Ballengers also began developing a series of 2 story frame dwellings in the southern area of Lot B16. All of the units were apparently constructed as rental property, and most of the identified tenants were railroad workers.

Several of the persons associated with the property were butchers, including John Bright who resided on the property in 1823 and John H. and Wilmer Zimmerman. The

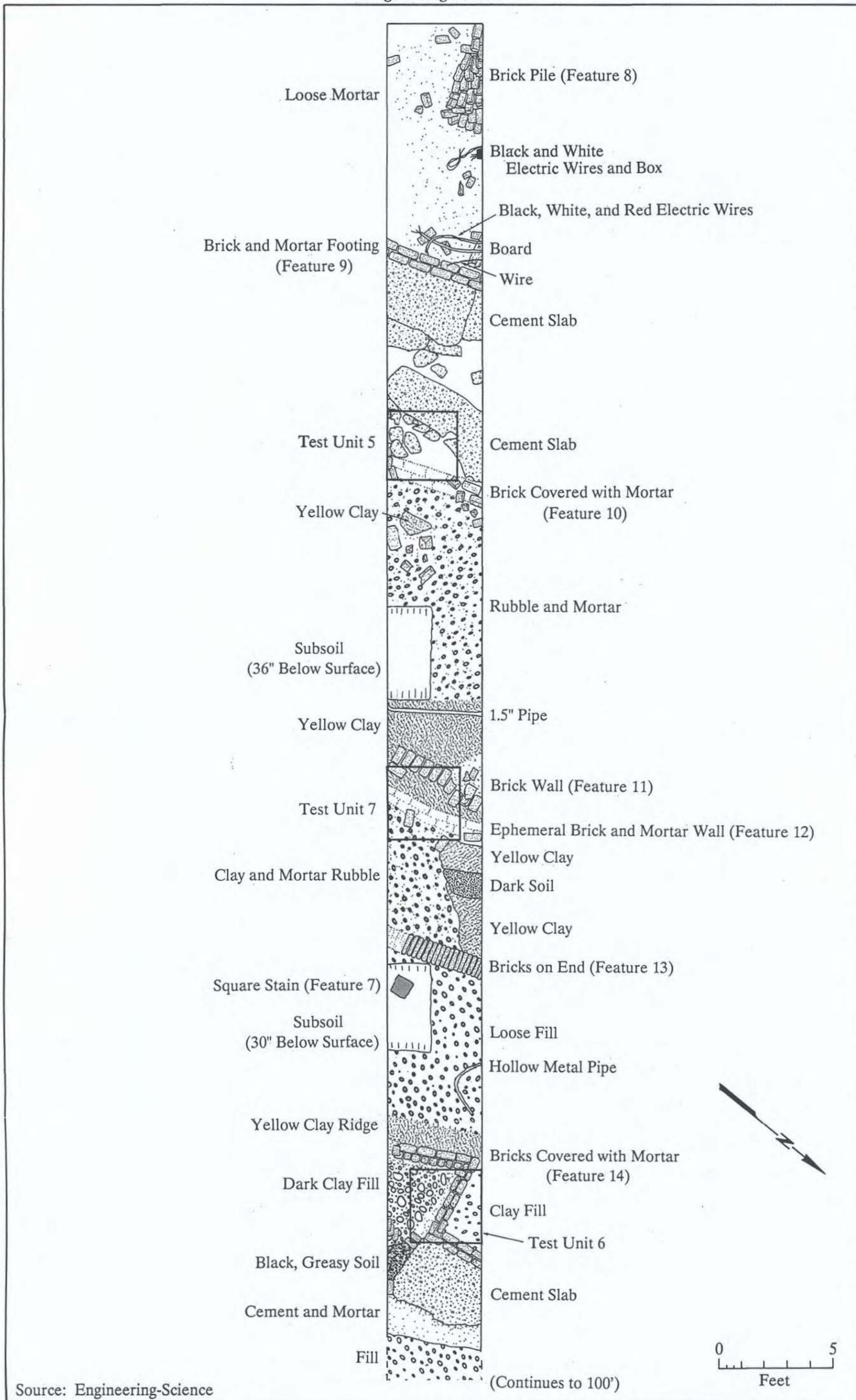
property was also associated with greenhouse gardening: George West had at least two greenhouse buildings on Lots B16 and/or B17 in 1895. Lot B16 has strong associations with initial settlement and butchering and lesser association with gardening and farming. Potential historical archaeological resources identified in documentary sources are (1) at least one structure on the site at least from 1797 to 1823, (2) greenhouse ca. 1895, and (3) rental housing units constructed between 1902 and 1912. Lot B16 may also contain remains of outbuilding and other features associated with the butchering industry from at least 1823 to 1890, and possibly as early as 1802.

Lot B17 probably contained a 20' x 16' house in 1797, but it is possible that this structure was located in Lot B16. This structure stood on Lots B16-B17 in 1823, and it may have remained until at least 1849, when two tenements were reported on these lots. In 1850, John H. Zimmerman built a substantial brick house and other buildings on Lots B16-B17, and in 1854 he "died seized of a valuable estate, consisting of a store house, dwelling house and lot of one acre, lying in [West End]." This description of Zimmerman's estate may indicate that the two older tenements on Lots B16-B17 had been removed by that date. Zimmerman was a butcher, and the "store house" may have been used for storage of meat or possibly for retail sale of meat. Conflicting descriptions of Zimmerman's estate leave a question of whether a tavern was operated on this property, but the "Zimmerman's Tavern" was almost certainly located to the west of the Carlyle project area, near the second location of the toll gate on Little River Turnpike. Tax records show high values for buildings on Lots B16-B17 until 1890, and it is likely that the ca. 1850 complex of buildings remained until around 1900.

George West constructed two greenhouses somewhere in Lots B16-B17, possibly between 1892 and 1894 when value of buildings on the property rose. Greenhouses are not shown on either a 1901 railroad map or a 1902 fire insurance map.

Trench 3-2 contained twentieth-century concrete foundations. These are not thought to be significant resources. Trench 3-1 contained a series of six parallel brick walls (*Figure 9*), interpreted as the foundations of rowhouses. Four of these were investigated with three test units. Features 10, 12, and 14 were cut through nineteenth century fill layers. Feature 11 was a single brick course overlying nineteenth-century fill. Feature 13 was likewise a single course over nineteenth-century fill.

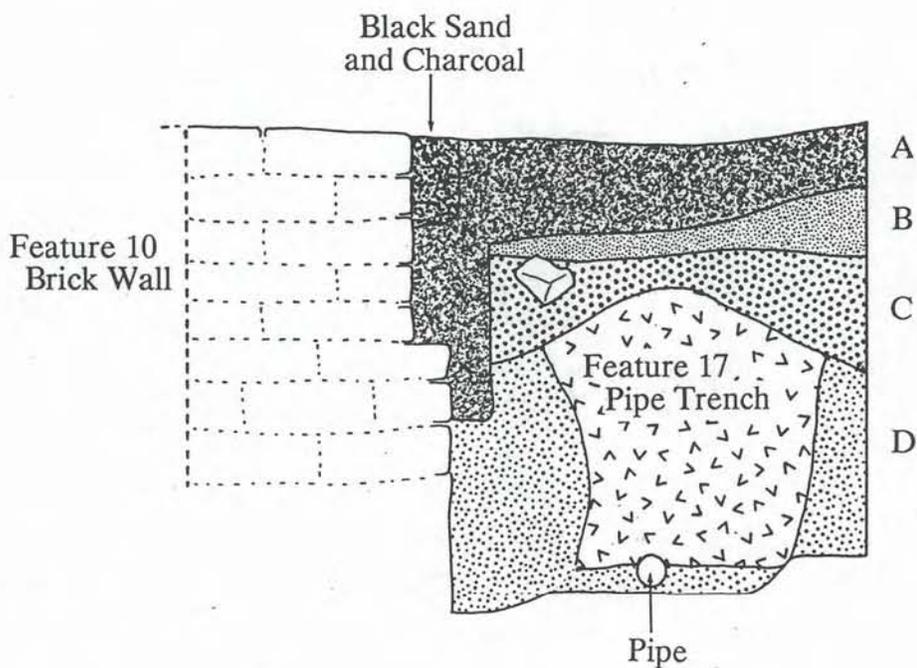
Test Unit 5 (*Figure 10*) was excavated to investigate Feature 10. The top stratum, Stratum A, was a layer of mixed yellowish brown (10YR 5/4) and dark greyish brown (10YR 4/2) silty clay, and black (10YR 2/1) sand and charcoal. This was fill for the builder's trench of Feature 10. This stratum contained 98 artifacts. Domestic material was 52% (n=51) of this assemblage. Refined earthenware ceramic sherds (n=30) were 59% of the domestic material. The refined earthenwares were made up of creamware (1762-ca.1820) (n=3), pearlware (ca.1780-1820) (n=6), whiteware (ca.1820+) (n=9), ironstone (ca.1800+) (n=7), Rockingham/Bennington (ca.1830-1930) (n=2), yellow-ware (ca.1830-1930) (n=3), and Jackfield (ca.1751-1818) (n=1) (Ketchum 1983; Magid 1990; Miller 1991; Noël Hume 1969; South 1978). Six sherds of grey salt-glazed stoneware



Source: Engineering-Science

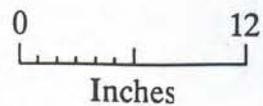
Carlyle Phase III

FIGURE 9.
TRENCH 3-1, PLAN VIEW.



Key:

- Stratum A: 10YR 5/4 yellowish brown mottled with 10YR 4/2 dark grayish brown silty clay with black sand and charcoal
- Stratum B: 10YR 5/4 yellowish brown mottled with 10YR 4/2 dark grayish brown silty clay
- Stratum C: 10YR 4/2 dark grayish brown silty clay
- Stratum D: 10YR 5/6 yellowish brown mottled with 2.5Y 5/2 grayish brown silty clay



Source: Engineering-Science

FIGURE 10.
TRENCH 3-1, TEST UNIT 5,
SOUTH PROFILE.

were also recovered. The rest of the domestic assemblage was made up of lamp glass (n=2), vessel glass (n=1), bottle glass (n=11), and jar glass (n=1).

Architectural material (n=19) was 19% of the Stratum A material. This group was composed of window glass (n=7), cut nails (n=2), a wire nail, and a sample of brick and mortar. The remaining material from Stratum A was made up of bone (n=5), oyster shell (n=3), a kaolin tobacco pipe bowl, clinker (n=10), coal (n=2), unidentifiable iron (n=2), copper alloy (n=2), and melted glass (n=2).

Strata B and C were fill layers deposited over a pipe trench (Feature 17) that had been cut into the subsoil. The pipe trench was filled with a yellowish brown (10YR 5/6) mixed with a greyish brown (2.5Y 5/2) silty clay, designated as Stratum D.

Stratum B was 1 to 3 inches of yellowish brown (10YR 5/4), mixed with dark greyish brown (10YR 4/2), silty clay. It yielded a total of 117 artifacts consisting of 44% (n=51) domestic artifacts, 25% (n=29) architectural artifacts, 21% (n=24) domestic/industrial artifacts, 10% (n=12) faunal remains. A copper alloy buckle fragment was also found.

The domestic material was made up of mold-blown bottle glass (n=25), refined earthenware sherds (n=13), porcelain (n=2), stoneware (n=3), redware (n=1), and vessel glass (n=30). The refined earthenware consisted of pearlware (n=2), whiteware (n=1), ironstone (n=8), and yellow-ware (n=2). One of the ironstone sherds had a Knowles, Taylor, and Knowles makers' mark datable from 1890 to ca.1907 (Gates and Ormerod 1982). The architectural artifacts were comprised of window glass (n=24) and cut nails (n=5). The faunal remains were bone fragments (n=4) and oyster shell (n=8). The rest of the assemblage was made up of coal (n=6), clinker (n=3), and unidentifiable iron (n=4) and glass (n=11).

Stratum C varied in thickness from 1 to 5 inches and consisted of dark greyish brown (10YR 4/2), mottled with yellowish brown, (10YR 5/4) silty clay. A total of 43 artifacts were recovered from Stratum C: 44% (n=19) domestic, 12% (n=5) architectural, 26% (n=11) domestic/industrial, and 16% (n=7) faunal. A rubber shoe sole was also found. The domestic artifacts were made up of 13 bottle glass fragments (9 mold-blown), 3 sherds of ironstone, and a piece each of pearlware, redware, and vessel glass. The architectural artifacts consisted of 3 pieces of window glass, a brick fragment and a single handwrought nail. The faunal remains consisted of 2 bone fragments, a tooth, and 4 oyster shells. The rest of the assemblage was unidentifiable iron (n=8), along with two pieces of coal, and a piece of melted glass.

Stratum D was the fill within Feature 17, which was a pipe trench cut into the subsoil. A total of 28 artifacts were recovered from Stratum D. Ten of these were domestic items, 7 were architectural, and the rest were made up of coal (n=3), oyster shell (n=3), and a piece each of slag and shoe leather. The domestic artifacts consisted of pearlware (n=2), whiteware (n=4), and bottle (n=2) and vessel glass (n=2). The architectural artifact consisted of window glass (n=3) and brick (n=4).

In summary, Test Unit 5 revealed a sequence of late nineteenth-century fills that had been cut by the Feature 10 foundation.

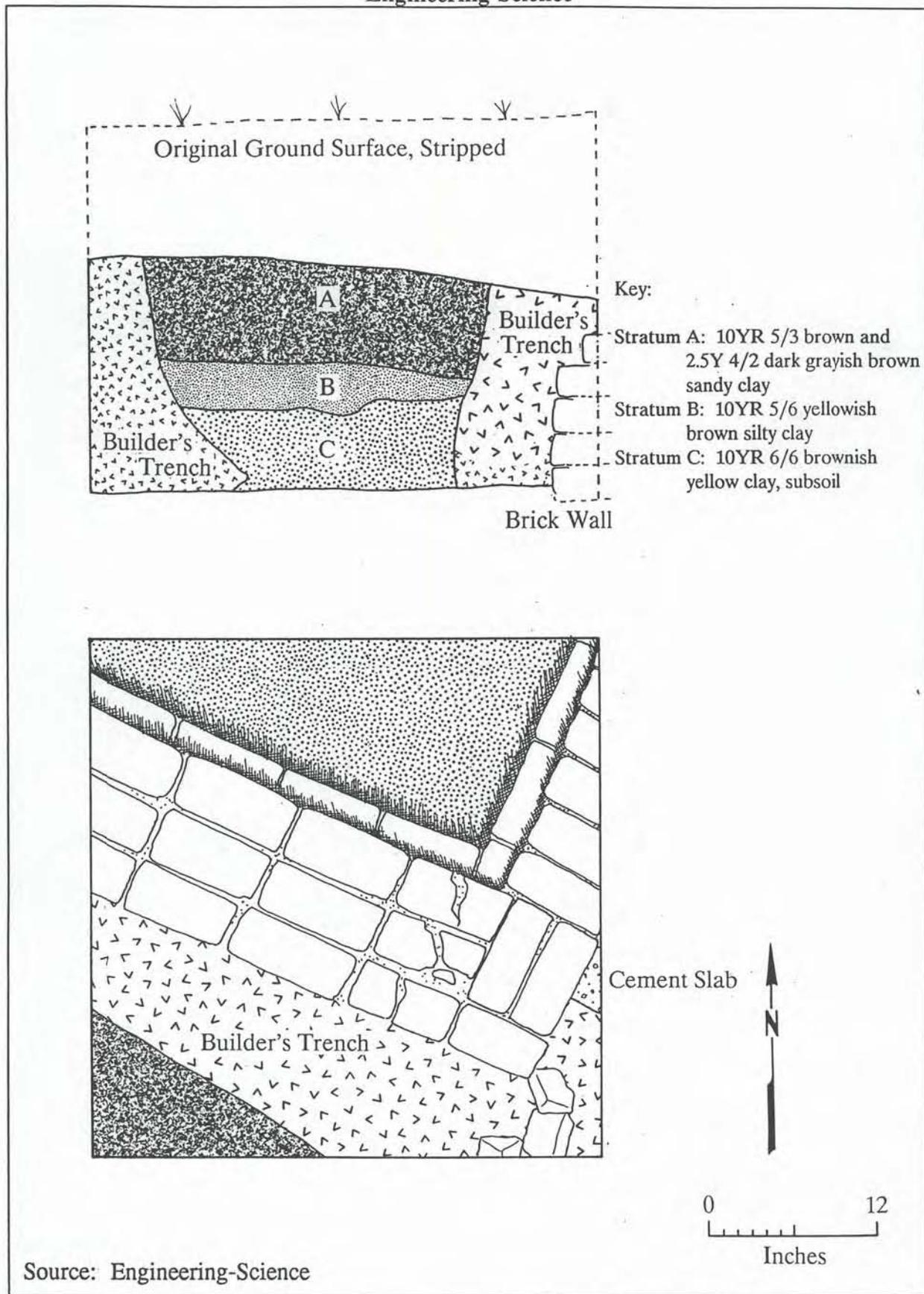
Test Unit 6 (*Figure 11*) was placed to investigate a corner of Feature 14, which was a brick foundation. Four main contexts were identified. These consisted of the builder's trench of the foundation located to the north of Feature 14 and designated as Stratum A. Stratum A consisted of brownish yellow (10YR 6/6) clay. It cut through Strata B and C and into Stratum D. Stratum B appears to be an *A* and *B* horizon -- a zone of natural soil formation. It was 8 inches thick and consisted of 2-4 inches of dark greyish brown (2.5Y 4/2 sandy clay phasing into 4-6 inches of brown (10YR 5/3) sandy clay. Stratum C was 1-3 inches of yellowish brown (10YR 5/6) silty clay, and appears to be the interface between Stratum B and the natural subsoil, Stratum D.

Stratum A contained 111 artifacts: 47% (n=52) architectural artifacts, 33% (n=37) domestic artifacts, 9% (n=10) faunal remains, 7% (n=8) domestic/industrial artifacts, and 4% (n=4) personal artifacts. The architectural material comprised window glass (n=25), nails (n=170) (5 cut and 1 wire), and a sample of brick and mortar (n=10). The domestic artifacts were comprised of bottle glass (n=6), creamware (n=2), pearlware (n=13), whiteware (n=3), redware (n=3), porcelain (n=1), stoneware (n=1), and lamp (n=1) and vessel (n=7) glass. Except for a bone fragment and a cockle shell, the faunal remains were all oyster shell. The domestic/industrial material was clinker and coal (n=6), and a piece each of unidentifiable iron and glass. The personal artifacts were made up of three fragments of a 4-hole bone button, and a kaolin pipe stem spall.

Stratum B yielded 57 artifacts: 53% (n=30) architectural, 32% (n=18) domestic, 9% (n=5) domestic/industrial, and 7% (n=4) faunal. The architectural material was made up of cut (n=1) and square-shanked (n=11) nails, window glass (n=14), and a sample of brick and plaster (n=5). The domestic artifacts consisted of creamware (n=2), pearlware (n=1), whiteware (n=7), porcelain (n=1), redware flowerpot (n=1), and bottle glass (n=5). The 5 domestic/industrial artifacts consisted of single fragments of coal, cinder, unidentifiable glass, a nut, and a bolt. Three shells and a bone fragment made up the faunal items. The cultural material within Stratum B was concentrated in the top part of the stratum with 77% (n=44) of the artifacts coming from the top 4 inches and 23% (n=13) coming from the bottom 4 inches. Stratum C contained only 4 artifacts: a brick fragment, a piece of coal, a sherd of undecorated ironstone (ca.1840+) (Miller 1980), and an oyster shell.

In conclusion, Test Unit 6 demonstrated that Feature 14 was constructed after the deposition of Strata B and C, which are nineteenth-century layers. The recovery of a sherd of undecorated ironstone from the earliest cultural stratum, Stratum C, provides a *terminus post quem* of ca. 1840 for the deposition of Stratum B, the construction of Feature 14, and the deposition of Stratum A.

Test Unit 7 was placed to investigate Features 11 and 12. Four cultural contexts were identified in Test Unit 7: Features 11 and 12, and Strata A and B. Stratum C was the natural subsoil. Stratum B was the earliest context, consisting of approximately 6



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FIGURE 11.
TRENCH 3-1, TEST UNIT 6,
NORTH PROFILE.

inches of dark yellowish brown (10YR 4/4) silty clay overlying the subsoil. Feature 11 was merely a single course of bricks resting directly on the surface of Stratum B. It may have been a garden feature. Feature 12 was a brick foundation resting in a builder's trench that was cut through Stratum B into the natural subsoil. This builder's trench was filled with Stratum A, which was a dark yellowish brown (10YR 3/4), mottled with brownish yellow (10YR 6/6) slightly sandy loam and silty clay. Stratum A had been extensively disturbed by a rodent burrow running through the builder's trench parallel to the foundation.

Stratum A, which was the disturbed builder's trench, yielded 53 artifacts: 34% (n=18) architectural, 45% (n=24) domestic, 13% (n=7) domestic/industrial, and 8% (n=4) faunal items. The architectural artifacts consisted of square-shanked nails (n=2), window glass (n=2), and a sample of brick, mortar, plaster, wood, and slate. The domestic artifacts were made up of bottle glass (n=6), a Mason jar lid liner, vessel glass (n=4), and ceramics (n=13). The ceramics consisted of Chinese porcelain (n=1), creamware (n=1), ironstone (n=1), pearlware (n=3), whiteware (n=3), redware (n=1), and grey salt-glaze stoneware (n=2). The remaining artifacts consisted of coal (n=4), oyster shell (n=3), and a single piece each of clinker, unidentifiable glass, textile, and bone.

Stratum B contained 31 artifacts: 16% (n=5) architectural, 55% (n=17) domestic, 19% (n=6) faunal, and 10% (n=3) coal. The architectural artifacts consisted of 2 pieces of brick and 3 sherds of window glass. The domestic artifacts were made up of bottle glass (n=6), porcelain (n=2), creamware (n=4), pearlware (n=2), and one sherd each of white salt-glazed stoneware, redware, and vessel glass. The faunal material was all bone fragments.

The *terminus post quem* for Stratum B is provided by a fragment of transfer printed pearlware, which dates the stratum to after ca.1795 (South 1978). Stratum A and Feature 12 can be dated to after 1869 on the basis of the canning jar lid liner recovered from the bottom 4 inches of the builder's trench (Colonial Williamsburg Foundation 1984).

In conclusion, these features are all remnants of later nineteenth-century rowhouses. These are not a rare resource in Alexandria. The degree of disturbance to the surrounding area indicates that the yard deposits exist only in lenses in isolated areas that avoided grading. No further work is recommended in Test Area 3.

D. Test Area 4: Lots B32, B53, B54, B55, and B56

Test Area 4 was made up of Lots B32, B53, B54, B55, and B56. This area was the location of a glassmaking operation from 1894 to ca.1915-1921. The purpose of the testing was to identify refuse deposits that might contain wasters and other residue from the glass-blowing operations. Two trenches were placed in Test Area 4; one 50 foot long trench and a 20 foot long trench. While these trenches were placed as much as possible to intercept historically open areas where refuse was likely to be deposited, the avoidance

of utilities and the maintenance of access to the nearby loading docks was also a consideration.

Lot B32 was a part of Catherine Street until the eastern half of the street was usurped by Thomas Javins. Lot B32 remained an indistinct part of larger tracts from 1669 to after 1915; it is the western 33' of the tract sold by Winston to the partners of the glass company in 1893.

It is unlikely that substantial buildings were constructed in Lot B32 at least until 1869 when it was first conveyed as an extension of the property to the east. Substantial buildings had been constructed somewhere on the 2+ acre property which included Lot B32 by 1875, but it is relatively unlikely that these structures were located in Lot B32, part of which may have been used as a street or lane. Construction on the property began soon after the purchase of the property by the partners in the Christie/Bordner/Virginia Glass Company in 1893, and the value of buildings in the glass works continued to rise until at least 1915.

Lot B53 remained an indistinct part of the larger 1/3 acre and 2+ acre properties from 1797 until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B53 was thereafter a part of a tract of about 1-1/2 acres that Winston sold to the partners of the glass company.

Tax records indicate that Lot B53 did not contain buildings at least from 1809 to 1868. By 1871 substantial buildings had been constructed within the 2+ acre area including Lot B53, but the location of these structures is unknown. It is possible that Lot B53 had buildings between 1876 and 1893, but again the building represented in tax records could have been anywhere within a 2+ acre tract and were most likely located along Duke Street. Lot B53 was probably open farmland until it was improved as part of the Virginia Glass Company complex. Fire insurance maps of 1902, 1907, and 1912 show packaging buildings in Lot B53; a 1921 fire insurance map shows all buildings associated with the glass factory removed from the property.

Lot B54 was most of a 1-1/3 acre tract leased by John West in 1797 and later became part of a 2+ acre property. In 1892 William Winston subdivided property he had purchased from Ida Watkins. Lot B54 was combined with Lots B32, B53, B55, and B57 and sold to the partners of what became the Virginia Glass Company.

A house was probably built on Lots B37-38-39-58 between 1796 and 1806 by Richard Hewitt (who was required to build a house under terms of his lease). This house or another probably remained on Lot B37-38-39-58 until 1835; in 1833 a house formerly occupied by Frederick Trydal remained on the Lot. The house and a tract running 70' behind the house were reserved from a lease in 1835, hence the lack of buildings in the tax records of George Keating and William Burton Richards for this property from 1835 to 1850. Richards may have obtained a lease for the entire 2-acre block including Lot B54 by 1847, and if so, the buildings may have been gone by that time. However, it is possible that the ca. 1796-1806 buildings remained on the tract until 1915. It is equally possible that the original buildings were replaced in the 1870s, and that the 1870s

buildings remained on the tract until 1915. The northern neck of Lot B54 was a part of the backyard area for buildings in Lots B37-39 and B58.

Lot B55 was approximately the southern third of a 1/3 acre tract leased by John West in 1797, and it later was incorporated in a 2+ acre property until 1892, when William Winston subdivided property he had purchased from Ida Watkins. In 1893, Winston sold to the partners of what would become the Virginia Glass Company, a tract of about 1-1/2 acres which contained Lot B55.

Evidence has not been found that structures were built in Lot B55 before 1819, and a tax record of that year indicates that there were no buildings on the lot at that time. It is remotely possible that structures existed on Lot B55 between 1821 and 1835, but the buildings reported in tax and deed records were almost certainly located in lots B37-38-39-58 to the west of Lot B51. Tax records indicate that buildings were not present on Lot B55 between 1835 and 1850. Tax records also indicate that structures might have existed on Lot B55 from 1871 to 1875 and possibly later, but the reported structures existed somewhere within a 2+ acre area, probably near Duke Street.

The company that became the Virginia Glass Company began operations on Lot B55 about 1893, and by 1894 the company had buildings worth \$1000 on the tract including Lot B55. Fire insurance maps of 1902-1912 show an expanding and sprawling complex of furnaces, machine shops, packaging and storage facilities, offices, and other features. A 1921 fire insurance map show no buildings on the property, however, indicated the buildings had been razed sometime between 1912 and 1921. Tax records indicate the property was still expanding in 1915. Fire insurance maps do not show only the eastern end of a small building extending into the area of Lot B55 during the time the glass factory was operating.

Deed and tax records indicate that a substantial building or building were constructed on Lot B56 and/or in tracts to the immediate east between 1819 and 1821, and it is likely that the same "tenements" remained on the property in 1847. The relatively constant value of buildings from 1876 to 1915 could indicate that the same buildings were present throughout that period. However, fire insurance maps of 1902-1941 show a house on this property which had a set-back from Duke Street identical to that of other dwellings built between 1892 and 1910. The building, at 1724 Duke Street, was therefore probably built after Charles Nichols bought the property in 1902. The older buildings reflected in the deeds and tax records probably were located on a lot about 16' to the east of Lot B56.

The two trenches excavated in Test Area 4 encountered fill with artifacts ranging from the nineteenth into the twentieth centuries. While some of the material appears to be wasters from the glass factory, the context is a disturbed one. The fill deposits are not significant. A brick foundation was encountered in Trench 4-1 at a depth of approximately 2.5 feet below the current grade (*Figure 12*). Trench 4-1 appears to have encountered the edge of a brick lined basement that was filled in the twentieth century. A total of 128 artifacts were sampled from the backhoe backdirt during the excavation of

the fill layer (Stratum F). Glass bottle and canning jar fragments accounted for 44% (n=55) of this material. Twenty of these were from machine-made items (post ca.1903) (Miller and Sullivan 1984) and 16 were from mold-blown ones. Eleven blobs of melted glass were recovered that appear to be manufacturing residue, because of the evidence of cutting and tooling. The rest of the material was predominantly ironstone and porcelain ceramic sherds. The fill within the basement appears to consist of a mixture of domestic debris as well as debris from the glassmaking operation.

Trench 4-2 also encountered a filled excavation. However, no structural remains were encountered. Ten artifacts were recovered from the fill. Except for one piece of ironstone and melted glass, these were all bottle fragments. One bottle was mold-blown.

In conclusion, no intact waster or refuse deposits from the glass factory were encountered in Test Area 4. This area is thought to have limited research potential. There may be higher potential for features associated with the glass works beneath the Station Shops. No further work was recommended outside the Station Shops.

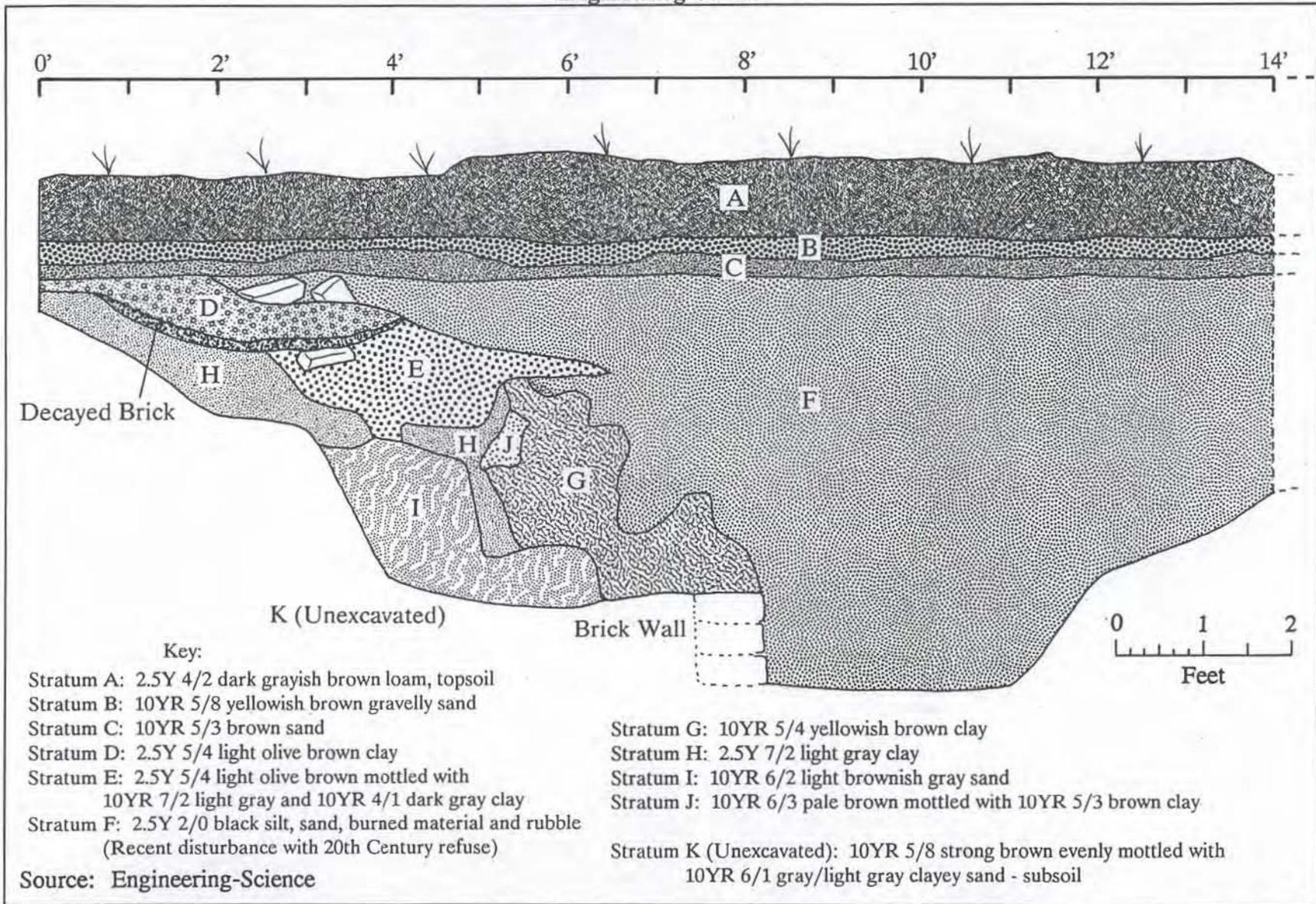
E. Test Area 5: Lots B6, B12, and Lot B13

Test Area 5 lay within Lots B6, B12, and in the western half of Lot B13. The main expected resource in this area were greenhouses dating to ca.1891-1912. There was also a lesser potential for structures associated with the soap and candle factory in Test Area 2.

Lot B6 was a part of the original Elizabeth Street that was usurped by Richard Rotchford, and for that reason Lot B6 is unlikely to have contained substantial structure before 1872. Lot B6 might have contained structures between 1878 and 1880, but the structures listed in the tax records for the entire 2+ acre tract (of which Lot B6 was a part) were most likely located to the north of B6. Constant Ponnet probably began building his substantial greenhouse complex on the 2+ acre parcel in 1891, and some of the greenhouse buildings remained on the property until at least 1941. Fire insurance maps indicate one of the major greenhouse buildings was within Lot B6 in 1902, 1907 and 1912, but not thereafter.

Lot B12 appears to have been open farmland until Constant Ponnet built a greenhouse complex on the property around 1891; documentary sources do not indicate a likelihood that structures were located on Lot B12 before 1891. A 1902 fire insurance map shows five large greenhouses in Lot 12 and extending eastward into Lot 13. A heater building and another small unidentified structure with brick chimney are shown near the southern edge of the house and greenhouse, appear on 1902, 1907 and 1912 maps but not after the latter date. The eastern three greenhouses were expanded and combined by 1907 and appear on fire insurance maps until 1941, when the buildings are shown as "Dilap'd." Lot B12 appears to have historical associations only with the greenhouse operation.

Engineering-Science



Carlyle Phase III

FIGURE 12.
TRENCH 4-1, SOUTH PROFILE.

Lot B13 appears to have been open farmland until Constant Ponnet built a greenhouse complex on the property around 1891; documentary sources do not indicate a likelihood that structures were located on Lot B13 before 1891. A 1902 fire insurance map shows five large greenhouses in Lots B12 and the western portion of B13. The eastern three greenhouses, which extended into Lot B13, were expanded and combined by 1907 and appear on fire insurance maps until 1941, when the buildings are shown as "Dilap'd". A smaller packaging and storage building was located to the north of the eastern end of the three greenhouses. Lot B13 therefore has apparent historical associations limited to the greenhouse complex.

A single 100 foot long trench was excavated in Test Area 5 to attempt to identify soil horizons or features associated with the greenhouses. While the trench was initially planned to be 50 feet long, it was extended because of the amount of historical material recovered within the trench and also on the surface of the surrounding area.

The stratigraphy within Trench 5-1 consisted of approximately 1.5 feet of mixed ashy fill over sterile clay subsoil. A total of 98 artifacts were recovered from the fill layer. The artifacts covered a wide date range. The earliest ceramics consisted of four sherds of pearlware (ca.1780-1840), one of Jackfield (ca.1740-1780), and one of German stoneware (ca.1650-1775) (Magid 1990; South 1978). Other ceramics included Rockingham/Bennington (ca.1830-1930), ironstone (ca.1800+), whiteware (ca.1820+), American stoneware, and bathroom porcelain. The bottle glass recovered included mold-blown bottles as well as machine-made ones. Two of the mold-blown bottles were embossed. One was embossed "[DR. KILMER'S/ SJWAMP ROOT/ [KI]DNEY LIVER/ AND BLADDER CURE/ BINGHAMTON/ NY USA". This was a nationally distributed product (e.g., Adams 1991), and generally datable to the late nineteenth and early twentieth century. The other was embossed "Trade Mark", with an "F" in a diamond, which was the trade mark of Frank H. Finley and Son, and "N[OT T]O B[E S]OL[D]" on the base. Frank H. Finley & Son was a Washington DC based bottling company that operated in the late nineteenth and early twentieth century. Numerous glass lumps were recovered from both within the trench and on the surface that are probably the residue of glass production from the glass-making factory to the east (see Test Area 4 discussion).

The artifact-bearing strata in Test Area 5 are interpreted as fill, either transported in from elsewhere, or piled in the area from the grading of the surrounding vicinity. No features or intact cultural deposits were identified. No further work was recommended in Test Area 5.

F. Test Area 6: Lot B7

Test Area 6 consisted of Lot B7. The principal expected resources were features and deposits associated with a late eighteenth- to early nineteenth-century residential occupation and a later nineteenth-century grocery.

A house was built on Lot B7 before 1798, and the lot and house may have been continuously occupied from 1798 to around 1850. The lot was occupied by a grocery

store from at least 1870 to 1915, and it may have been used for this purpose from 1855 to 1870. Fire insurance maps published 1902-1921 show a 2 story structure fronting directly on Duke Street, with a 1 story warehouse appended to the west side and 1-1/2 and 2 story appendages on the south side of the main structure. The eastern portion of the main structure was used as a dwelling, and a porch extended into the area of Duke Street on the north side of the store building and warehouse. A 1 and 1-1/2 story warehouse extends across the southern end of the lot, and three other small 1 story buildings are located within the lot. The grocery store is designated 2028 Duke Street, the dwelling is designated 2026 Duke Street, and the warehouse on the southern end of the block is designated 2028-1/2 Duke Street. Structures are not shown in Lot B7 on the 1931 fire insurance map, indicating that the structures were removed between 1921 and 1931. A 1958 fire insurance map shows a steel frame structure occupying Lot B7.

A single 20 foot long trench was excavated in this area. The stratigraphy consisted of a thin layer of twentieth century fill over graded natural subsoil. No further work is recommended in Test Area 6.

G. Test Area 7: Lots B18-B22, B27, and B30

Test Area 7 consisted of Lots B18-B22, B27, and the northern 56 feet of B30. Residential structures were recorded in this area in 1808 that may have been in existence in 1799. A single 20 foot long trench (Trench 7-1) was excavated in the northern part of the test area diagonal to Duke Street.

The £60 paid for the 1-acre tract (including Lots B18-22, B27 and B30) in 1799 may indicate that building may have existed on the property at that time, but Thomas Crandle's tax records do not reflect any value for buildings on the property. In 1808 the 1-acre tract contained a house, stable, outhouse on one half-acre lot, almost certainly the lot fronting on Duke Street (which includes Lots B18-22, B27 and the northern 56'7" of Lot B30). A brick dwelling was on this 1-acre tract in 1819, a "tenement" remained in 1833, and it is possible that a dwelling on this tract was occupied in 1864 when the property was confiscated by the United States. Tax records indicate that one or more buildings remained on the tract until about 1892, and that another dwelling was built around 1893. In 1904 a 2-1/2 story brick dwelling existed in Lot B18 at 1916 Duke Street; this structure was occupied by William Winston's widow in 1903 and at least from 1907 to 1924 by Theodore Ale, a glassblower. This structure is shown on a 1902 fire insurance map at the northwest corner of Lot B18.

Lot B19 did not become a distinct tract until 1904, when the Chancery Court of Fairfax County subdivided lands remaining in the estate of William H. Winston. At that time, Lot B19 was designated to be a 20' wide alley.

Lot B20 was first designated to be a distinct tract in 1904, when the Chancery Court of Fairfax County subdivided lands in the estate of William H. Winston. The Court extended westward a subdivision scheme begun by Winston, creating four 20' x 100' lots including Lot B20. Buildings did not exist on Lot B20 in 1904.

Lot B21 was first designated as a distinct tract in 1904, when the Chancery Court of Fairfax County subdivided lands in the estate of William H. Winston. The Court extended westward a subdivision scheme begun by Winston, creating four 20' x 100' lots including Lot B21. Buildings did not exist on Lot B21 in 1904.

The Chancery Court of Fairfax County subdivided and sold the lands remaining in the estate of William H. Winston in 1904, including four lots of 20' x 100'. Lot B22 is the portion of one of these lots to the west of the original west edge of Catharine Street as laid down by John West ca. 1796. Lot B22 apparently did not contain buildings in 1904.

Lot B27 was first designated to be a distinct tract in 1904, when the Chancery Court of Fairfax County subdivided lands in the estate of William H. Winston. The Court extended westward a subdivision scheme begun by Winston, including extension of a 20' wide alley which is Lot B27. Buildings did not exist on Lot B27 in 1904.

In 1904 the Chancery Court of Fairfax County subdivided lands in the estate of William H. Winston. Lot B30 is the western of a lot designated by the Court; it is the portion of the court-defined lot to the west of the original western edge of Catharine Street as laid down by John West ca. 1796. Lot B30 apparently did not contain buildings in 1904.

The natural subsoil was encountered approximately two feet below the surface. The soil above consisted of modern mixed fills. The southeast corner of a stone-lined basement was encountered in Trench 7-1. The trench was expanded to the north to expose enough of the foundation to investigate safely. This feature was designated as Feature 18. Feature 18 consisted of a stone-lined basement filled with brick rubble. The floor of the basement lay approximately two feet below the top of the surviving wall. The walls of the basement had been built right against the subsoil, so there was no builders' trench to sample to provide a *terminus post quem* for the building. A pre-twentieth century date is presumed as the rough-hewn blocks of the basement wall were mortared with shell mortar. The blocks were of only minimally shaped granite fieldstones. The floor of the basement was made up of a material that was initially thought to be concrete, but on closer inspection was found to be of a material that seemed to be comprised of concreted ash and cinders. The sample that was taken contained fragments of coal, mold-blown bottle glass, pebbles, brick and ash.

The debris that filled the basement yielded numerous artifacts, that latest of which were a twentieth-century automobile shock absorber and concrete fragments. The sampled artifacts included painted wall plaster, window glass, cut and wire nails, glass slag (probably from the glass factory), mold-blown bottle glass, and a fragment of pearlware ceramic. The mixture of artifacts indicate that the structure was occupied in the nineteenth and twentieth centuries.

No further work is recommended on Feature 18. This test area has been graded to the subsoil, thus eliminating the possibility of associated yard deposits and features other than deep ones. The basement itself possesses limited research potential. The absence of

a builders' trench makes it difficult to date with certainty, and the fill within the basement, although containing nineteenth-century artifacts, was deposited in the twentieth century.

H. Test Area 8: Lots B37, B38, B39, B50, and B58

Test Area 8 consisted of Lots B37, B38, B39, B50, and B58. There was the potential for features and deposits associated with a late eighteenth- to early nineteenth-century occupation. A single 20 foot long trench was excavated.

Lots B37, B38, B 39, B50 and B58 remained indistinct parts of the larger 1/3 acre and 2+ acre properties from 1797 until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B37 is the eastern 24'6-2/3" of a 40' x 100' lot defined and sold by Winston. Lot B39 is the western 22'6" of a 45' x 100' lot defined and sold by Winston. The 45' wide lot remained intact until divided in half in 1910. Lot B50 is a portion of a 20' wide alley established by Winston. Lot B58 is the western 5'2-2/3" of the eastern half of a 45' x 100' lot defined and sold by Winston. The 45' lot remained intact until divided in half in 1910.

A house was probably built on Lots B37-38-39-58 between 1796 and 1806 by Richard Hewitt (who was required to build a house under terms of his lease). This house or another probably remained on Lot B37-38-39-58 until 1835; in 1833 a house formerly occupied by Frederick Trydal remained on the Lot. The house and a tract running 70' behind the house were reserved from a lease in 1835, hence the lack of buildings in the tax records of George Keating and William Burton Richards for this property from 1835 to 1850. Richards may have obtained a lease for the entire 2-acre block including these lots by 1847, and if so, the buildings may have been gone by that time. however, it is possible that the ca. 1796-1806 buildings remained on the tract until 1915. It is equally possible that the original buildings on Lots B37-38-39 were replaced in the 1870s, and that the 1870s buildings remained on the tract until 1915. It is possible that the original buildings on Lot B58 were replaced in the 1870s, and were destroyed before a new structure was built on Lot B39-58-40 about 1896. The dwelling built about 1896 was a duplex centered on the lot; in 1910 the lot was split and the common wall between the units was used as the dividing line. Lot B50 was a part of the back yard area of buildings located in Lots B37-39 and B58.

The stratigraphy consisted of a thin layer of modern fill deposited over graded natural subsoil. No further work is recommended in Test Area 8.

I Other Lots Within the Study Area

Lot by Lot Summaries

(Compiled by Kurt Schweigert)

Information has not been found in deeds, wills, court records, or tax records to indicate settlement or development of any of the tracts in Area II-B prior to the 1790s, when John West began leasing and selling lots. The historical lots are depicted in *Figure 4*.

Lot B1

Title and tax documents do not show construction of buildings on this property before 1856. At least one substantial structure was built on either Lot B1 or B2 (same ownership) and existed until at least 1874. The principal structure was probably built adjacent to Duke Street, which would probably mean the building was at the north end of Lot B2 (Lot B1 did not front on Duke Street). The northern edge of the Carlyle II-B area is at least 50 feet south of the original line of Duke Street/Little River Turnpike in Lots B1 and B2, and it is likely that the principal building(s) on this property 1856-1874+ were located to the north of the Carlyle project area. It is possible, however, that outbuildings were located in the II-B area during this period.

Lot B2

Title and tax documents do not show construction of buildings on this property before 1856. At least one substantial structure was built on either Lot B1 or B2 (same ownership) and existed until at least 1874. The principal structure was probably built adjacent to Duke Street, which would probably mean the building was at the north end of Lot B2 (Lot B1 did not front on Duke Street). The northern edge of the Carlyle II-B area is at least 50 feet south of the original line of Duke Street/Little River Turnpike in Lots B1 and B2, and it is likely that the principal building(s) on this property 1856-1874+ were located to the north of the Carlyle project area. It is possible, however, that outbuildings were located in the II-B area during this period.

Lot B3

The title and tax information do not specifically indicate that Lot B3 contained buildings before 1874, but the lease with option to buy for \$1000 in 1868 is a good indication that the 1 acre lot contained one or more substantial buildings. The consistence of valuation from 1874 to 1915 further indicates that the same substantial structure(s) remained on the property throughout that period. George L. Watkins and possibly Thomas Skinner are the only persons known to have resided on the property, and

therefore the industrial/occupation associations of the lot are to (1) butchering and (2) possibly to contracting/building.

Lot B4

Lot B4 was a part of Elizabeth Street that was usurped by Richard Rotchford in 1868, and thereafter attached to Lot B3. It is unlikely that Lot B4 contained a substantial structure at any time to 1915, but it is possible that the lot contained outbuildings after 1868. The lot is associated with (1) butchering and possibly (2) contract/building.

Lot B5

Lot B5 was a part of the original Elizabeth Street that was usurped by Richard Rotchford. Title and tax records do not indicate that buildings were constructed on this property at least until 1915. However, fire insurance maps dating from 1902-1921 indicate that a portion of the grocery store/dwelling of Frank and Clinton Ballenger was located in the eastern portion of Lot B5 and Lot B7, fronting on Duke Street. The date of construction of this building is unknown, but the relatively consistent valuation of buildings in Lot B7 indicates the structure was present in some form at least by 1866. Fire insurance maps of 1902-1921 also show 1 and 1-1/2 story frame warehouses along the southern edge of Lot B5, extending eastward into Lot B7. A 1912 fire insurance map labels one of these warehouses "endive ho," indicating use as part of the Ponnet greenhouse operation to the south.

Lot B14

Lot B14 was the western 23'2" of Sarah Street, as laid down by John West ca. 1796. The streets in West End were never dedicated to the public or conveyed to private individuals by John West or his heirs. Richard Rotchford usurped the area and first conveyed it to Rosier D. Catts in 1871. The lot was part of property owned by the Ponnet family, who operated a large greenhouse from about 1891 to after 1924. Lot B14 therefore appears to have very weak historical associations, and documentary sources do not indicate a likelihood for existence in the Lot of historical archaeological resources dating before 1915.

Lot B15

Lot B15 was the eastern 42'10" of Sarah Street, as laid down by John West ca. 1796 and usurped by John H. Zimmerman and his heirs. Because this tract was supposed to be a public street, it is unlikely that substantial buildings were constructed on the tract before it was first conveyed in a deed in 1851. However, a 14' x 18' frame house was supposed to be located on adjacent Lots B16 or B17 in 1797, and a frame structure with the same dimensions was located adjacent either on or immediately adjacent to Lot B15

in 1823. An 1879 map seems to show a small structure at the approximate northern end of Lot B15, and a 1902 fire insurance map shows a small frame dwelling there. The structure had been removed by 1907.

John Zimmerman constructed a substantial brick house somewhere in adjoining Lots B16 or B17 in 1850, very likely the structure shown on an 1879 map as belonging to or occupied by "Elizs. Zimmerman." In 1902, the westernmost 15 feet of Lot B15 was occupied in an alley, and this alley was known as Ballenger's (or Ballinger's) Alley until about 1917 and from that date to at least 1958 as Elizabeth (Lane/Alley). Between 1902 and 1907 Clinton and Frank Ballenger constructed two 2-story brick duplex dwellings near the northern end of Lot B15 and eastward in Lot B16. The houses were set back about 10 feet from Duke Street, and each of the four units had an outbuilding, possibly a stable, about 30 feet to the south of the dwellings. The Ballengers also began developing a series of 2 story frame dwellings in the southern area of Lots B15 and B16, mostly in Lot B16; these structures faced Elizabeth Lane/Alley. By 1912, three 2-story double duplex and one 2-story single dwellings had been built. The front yards of these structures extended from east to west across Lot B15, and by 1941 a porch had been built on one unit into Lot B15. These units were apparently constructed as rental property, and most of the identified tenants were railroad workers.

Lot B15 therefore appears to have weak association with the major themes of West End's history, but Lot B15 was appended to Lots B16 and B17 to the east, which have strong historical associations. Possible historical archaeological resources in Lot B15 indicated by documentary sources are (1) a small frame dwelling of unknown origin or occupancy, ca. 1879-1902 and possibly as early as 1797, and (2) rental housing units constructed between 1902 and 1912.

Lot B23

Lot B23 was a part of Elizabeth Street as laid down by John West ca 1796; this area was usurped by Richard Rotchford and first conveyed in 1893. In 1904 the Chancery Court of Fairfax subdivided lands in the estate of William H. Winston, including a creation of four 20' x 100' lots. Lot B23 is the eastern 12'10" of one of the court-defined lots.

Because Lot B23 was within the area of Elizabeth Street, it is unlikely that substantial structures were built on the lot during the initial ca. 1796-1810 building period in West End, and it is relatively unlikely that substantial structures were built in the Lot until after the tract was first conveyed in 1893. The property apparently did not contain structures in 1904.

Lot B24

Lot B24 was a part of Elizabeth Street as laid down by John West ca 1796; this area was usurped by Richard Rotchford and first conveyed in 1893. In 1904 the

Chancery Court of Fairfax subdivided lands in the estate of William H. Winston, including a creation of four 20' x 100' lots. Lot B24 is the easternmost of those court-defined lots.

Because Lot B24 was within the area of Elizabeth Street, it is unlikely that substantial structures were built on the lot during the initial ca. 1796-1810 building period in West End, and it is relatively unlikely that substantial structures were built in the Lot until after the tract was first conveyed in 1893. The property apparently did not contain structures in 1904.

Lot B25

Lot B25 was a part of Catherine Street until the eastern half of the street was usurped by Thomas Javins. It is unlikely that substantial buildings were constructed on Lot B25 at least until 1869 when it was first conveyed as an extension of the property to the east. Substantial building had been constructed somewhere on the 2+ acre property that included Lot B25 by 1875, but it is relatively unlikely that these structures were located in Lot 25, part of which may have still been used as a street or lane. Lot B25 remained an indistinct part of the larger 2+ acre property until 1892, when William Winston subdivided property that he had purchased from Ida Watkins. Tax records indicate that Lot 25 contained at least one building by 1908, and a substantial rise in the value of buildings in 1907 indicates substantial new construction about that date.

Lot B26

Lot B26 was a part of Catherine Street until the eastern half of the street was usurped by Thomas Javins. Lot B26 remained an indistinct part of the larger 2+ acre property until 1892, when William Winston subdivided property he had purchased from Ida Watkins; Lot B26 is the western 13'2" of a 20' x 100' lot defined and sold by Winston.

It is unlikely that substantial buildings were constructed in Lot B26 at least until 1869 when it was first conveyed as an extension of the property to the east. Substantial buildings had been constructed somewhere on the 2+ acre property that included Lot B26 by 1875, but it is relatively unlikely that these structures were located in Lot 26, part of which may have still been used as a street or lane. Deed and tax records do not indicate that Lot B26 ever contained a building until after 1915.

Lot B28

Lot B28 was a part of Elizabeth Street as laid down by John West ca 1796; this area was usurped by Richard Rotchford and first conveyed in 1893. In 1904 the Chancery Court of Fairfax subdivided lands in the estate of William H. Winston, including extension of a 20' wide alley; Lot B28 is a part of the area of the alley.

Because Lot B28 was within the area of Elizabeth Street, it is unlikely that substantial structures were built on the lot during the initial ca. 1796-1810 building period in West End, and it is relatively unlikely that substantial structures were built in the Lot until after the tract was first conveyed in 1893. The property apparently did not contain structures in 1904.

Lot B29

Lot B29 was a part of Catherine Street until the eastern half of the street was usurped by Thomas Javins. Lot B29 remained an indistinct part of the larger 2+ acre property until 1892, when William Winston subdivided property he had purchased from Ida Watkins

It is unlikely that substantial buildings were constructed in Lot B29 at least until 1869 when it was first conveyed as an extension of the property to the east. Substantial buildings had been constructed somewhere on the 2+ acre property which included Lot B26 by 1875, but it is relatively unlikely that these structures were located in Lot 26, part of which may have still been used as a street or lane.

Lot B31

Lot B31 was a part of Elizabeth Street as laid down by John West ca 1796; this area was usurped by Richard Rotchford and first conveyed in 1893. In 1904 the Chancery Court of Fairfax subdivided lands in the estate of William H. Winston, including a creation of a lot supposed to be 153'5" x 233'2". Lot B31 is the eastern 33' of the court-defined lots.

Because Lot B31 was within the area of Elizabeth Street, it is unlikely that substantial structures were built on the lot during the initial ca. 1796-1810 building period in West End, and it is relatively unlikely that substantial structures were built in the Lot until after the tract was first conveyed in 1893. Lot B31 apparently did not contain structures in 1904.

Lot B33

Lot B33 remained an indistinct part of the larger 1/3 acre and 2+ acre properties from 1797 until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B33 is a 20' x 100' lot defined and sold by Winston.

It is unlikely that substantial buildings were constructed in Lot B33 at least until 1869 when it was first conveyed as an extension of the property to the east. Substantial buildings had been constructed somewhere on the 2+ acre property which included Lot B33 by 1875, but it is relatively unlikely that these structures were located in Lot 33, part

of which may have still been used as a street or lane. Deed and tax records do not indicate that Lot B33 ever contained a building until after 1915.

Lot B34

Lot B34 remained an indistinct part of the larger 1/3 acre and 2+ acre properties from 1797 until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B34 is a 40' x 100' lot defined and sold by Winston.

Tax records indicate that Lot B34 did not contain buildings at least from 1809 to 1868. By 1871 substantial buildings had been constructed within the 2+ acre area including Lot B34, but the location of these structures is unknown. It is possible that Lot B34 had buildings between 1876 and 1893, but again the buildings represented in tax records could have been anywhere within a 2+ acre tract. Lot B34 almost certainly did not contain buildings between 1896 and 1914, and thereafter it may have contained a building worth \$300.

Lot B35

Lot B35 remained an indistinct part of the larger 1/3 acre and 2+ acre properties until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B35 is a 40' x 100' lot defined and sold by Winston.

Tax records indicate that Lot B35 did not contain buildings at least from 1809 to 1868. By 1871 substantial buildings had been constructed within the 2+ acre area including Lot B35, but the location of these structures is unknown. It is possible that Lot B35 had buildings between 1876 and 1893, but again the buildings represented in tax records could have been anywhere within a 2+ acre tract. Lot B35 almost certainly did not contain buildings in 1893, and in 1894 Mrs. L.E. Winston built one or more structures worth \$1000, which remained on Lot B35 until at least 1915.

Lot B36

Lot B36 remained an indistinct part of the larger 1/3 acre and 2+ acre properties from 1797 until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B36 is the western 15'5-1/3" of a 40' x 100' lot defined and sold by Winston.

Tax records indicate that Lot B36 did not contain buildings at least from 1809 to 1868. By 1871 substantial buildings had been constructed within the 2+ acre area including Lot B36, but the location of these structures is unknown. It is possible that Lot B36 retained the same buildings from 1872 to at least 1915; values for buildings in the entire 2+ acre tract between 1871 and 1893 are very similar to the value of buildings known to have been on Lot B36 from 1893 to 1915.

Lot B40

Lot B40 was a part of the larger 1/3 acre and 2+ acre properties from 1797 until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B40 is the eastern 17'3-1/3" of a 45' x 100' lot defined and sold by Winston. The 45' wide lot remained intact until divided in half in 1910.

Lot B41

Lot B41 was a part of the larger 1/3 acre and 2+ acre properties from 1797 until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B41 is a 5' x 100' lot defined and sold by Winston; it was thereafter attached to Lot B42 to the east.

Evidence has not been found that structures were built in Lot B41 before 1819, and a tax record of that year indicates that there were no buildings on the lot at that time. It is remotely possible that structures existed on Lot B41 between 1821 and 1835, but the buildings reported in tax and deed records were almost certainly located in lots B37-38-39-58 to the west of Lot B41. Tax records indicate that buildings were not present on Lot B41 between 1835 and 1850. Tax records also indicate that structures might have existed on Lot B41 from 1871 to 1875 and possibly later, but the reported structures existed somewhere within a 2+ acre area. There appear to have been buildings on Lots B41-B42 when Norman Curtiss bought the property in 1892-1893, and it is possible that these same buildings are reflected in tax records dating from 1872.

Lot B42

Lot B42 was a part of the larger 1/3 acre and 2+ acre properties from 1797 until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B42 was a 30' x 100' lot defined and sold by Winston; it was thereafter attached to Lot B41 to the west.

Evidence has not been found that structures were built in Lot B42 before 1819, and a tax record of that year indicates that there were no buildings on the lot at that time. It is remotely possible that structures existed on Lot B42 between 1821 and 1835, but the buildings reported in tax and deed records were almost certainly located in lots B37-38-39-58 to the west of Lot B42. Tax records indicate that buildings were not present on Lot B42 between 1835 and 1850. Tax records also indicate that structures might have existed on Lot B41 from 1871 to 1875 and possibly later, but the reported structures existed somewhere within a 2+ acre area. There appear to have been buildings on Lots B41-B42 when Norman Curtiss bought the property in 1892-1893, and it is possible that these same buildings are reflected in tax records dating from 1872.

Lot B43

Lot B43 was a part of the larger 1/3 acre and 2+ acre properties from 1797 until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B43 was a 16' x 100' lot defined and sold by Winston.

Evidence has not been found that structures were built in Lot B43 before 1819, and a tax record of that year indicates that there were no buildings on the lot at that time. It is remotely possible that structures existed on Lot B41 between 1821 and 1835, but the buildings reported in tax and deed records were almost certainly located in lots B37-38-39-58 to the west of Lot B43. Tax records indicate that buildings were not present on Lot B41 between 1835 and 1850. Tax records also indicate that structures might have existed on Lot B41 from 1871 to 1875 and possibly later, but the reported structures existed somewhere within a 2+ acre area. There appear to have been buildings on Lots B41-B42 when Norman Curtiss bought the property in 1892-1893, and it is possible that these same buildings are reflected in tax records dating from 1872.

Lot B44

Lot B44 was a part of the larger 1/3 acre and 2+ acre properties from 1797 until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B44 is the western 14' of a 16' x 100' lot defined and sold by Winston.

Evidence has not been found that structures were built in Lot B44 before 1819, and a tax record of that year indicates that there were no buildings on the lot at that time. It is remotely possible that structures existed on Lot B44 between 1821 and 1835, but the buildings reported in tax and deed records were almost certainly located in lots B37-38-39-58 to the west of Lot B44. Tax records indicate that buildings were not present on Lot B41 between 1835 and 1850. Tax records also indicate that structures might have existed on Lot B44 from 1871 to 1875 and possibly later, but the reported structures existed somewhere within a 2+ acre area. A duplex dwelling existed on this property and the adjoining Lots B43 and B45 in 1898; the relatively low value of each of the halves of the duplex may indicate the structure was quite old at that time. The interior partition wall between halves of the duplex was the dividing line between Lots B43 and B44.

Lot B45

Lot B45 was a part of the original George Street as laid down by John West ca 1896. All of George Street was usurped by Thomas Javins, who owned lands on both sides of the street, about 1869. Lot B45 was a part of a 2+ acre tract from ca. 1869 to 1892, when William Winston subdivided lands he had purchased from Ida Watkins. Lot B45 is the eastern 2' of a 16' x 100' lot defined and sold by Winston.

It is unlikely that substantial structures were built in the area of George Street prior to its usurpation ca 1869. Tax records also indicate that structures might have

existed on Lot B45 from 1871 to 1875 and possibly later, but the reported structures existed somewhere within a 2+ acre area. A duplex dwelling existed on this property the attached Lot B44 and the adjoining Lot B43 in 1898; the relatively low value of each of the halves of the duplex may indicate the structure was quite old at that time.

Lot B46

Lot B46 was a part of the original George Street as laid down by John West ca. 1896. All of George Street was usurped by Thomas Javins, who owned lands on both sides of the street, about 1869. Lot B46 was a part of a 2+ acre tract from ca. 1869 to 1892, when William Winston subdivided lands he had purchased from Ida Watkins. Lot B46 is a 24' x 100' lot defined and sold by Winston.

It is unlikely that substantial structures were built in the area of George Street prior to its usurpation ca 1869. Tax records also indicate that structures might have existed on Lot B46 from 1871 to 1875 and possibly later, but the reported structures existed somewhere within a 2+ acre area. A 2 story brick dwelling is shown on Lot B46, at 1800 Duke Street, on fire insurance maps of 1902-1941; this structure is set back from Duke Street the same distance as other buildings constructed after the 1892 subdivision. This house was occupied by a number of renters, including meat cutters and railroad workers, and it is likely that Joseph Ramsey constructed this building as rental housing.

Lot B47

Lot B47 was a part of the original George Street as laid down by John West ca 1896. All of George Street was usurped by Thomas Javins, who owned lands on both sides of the street, about 1869. Lot B47 was a part of a 2+ acre tract from ca. 1869 to 1892, when Ida Watkins established a 12' wide alley running from Duke Street to the railroad right-of-way (which is Lot B47).

It is unlikely that substantial structures were built in the area of George Street prior to its usurpation ca 1869. Tax records also indicate that structures might have existed on Lot B47 from 1871 to 1875 and possibly later, but the reported structures existed somewhere within a 2+ acre area. Fire insurance maps show a 12' wide alley or land in 1902-1912, and a 15' wide lane in 1921-1958; the alley was known as "John Lane" in 1941-1958, and is very near the current "George's Lane." Lot B47 therefore has minimum historical associations, and documentary sources do not indicate that historical archaeological resources may exist in Lot B47.

Lot B48

Lot B48 was a part of the original George Street as laid down by John West ca 1896. All of George Street was usurped by Thomas Javins, who owned lands on both sides of the street, about 1869. Lot B48 was a part of a 2+ acre tract from ca. 1869 to

1892 and part of a tract of about 1 acre until 1902. Lot B48 is the western 28' of an 80'6" wide lot running from Duke Street south to the railroad right-of-way.

It is unlikely that substantial structures were built in the area of George Street prior to its usurpation ca 1869. Tax records also indicate that structures might have existed on Lot B48 from 1871 to 1875 and possibly later, but the reported structures existed somewhere within a 2+ acre area. Fire insurance may show a 2 story brick and frame dwelling on Lot B48 and attached Lot B56 from 1902 to 1941; this building was set back from Duke Street the same distance as other structures built after 1892, and therefore it is likely that this structure dates after 1892. Charles Nichols lived in this house by 1903.

Lot B49

Lot B49 remained an indistinct part of the larger 1/3 acre and 2+ acre properties from 1797 until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B49 was a part of a 20' wide lot laid out by Winston.

Tax records indicate that Lot B49 did not contain buildings at least from 1809 to 1868. By 1871 substantial buildings had been constructed within the 2+ acre area including Lot B49, but the location of these structures is unknown. It is possible that Lot B49 had buildings between 1876 and 1893, but again the buildings represented in tax records could have been anywhere within a 2+ acre tract. It is also likely that any principal buildings on the 2+ acre lot would have been located to the north of Lot B49, near Duke Street. Lot B49 almost certainly did not contain buildings between 1892 and 1915, and the tract is shown as an alley on fire insurance maps from 1902 to 1958.

Lot B51

Lot B51 was a part of the larger 1/3 acre and 2+ acre properties from 1797 until 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B51 is a part of a 20' wide alley established by Winston.

Evidence has not been found that structures were built in Lot B51 before 1819, and a tax record of that year indicates that there were no buildings on the lot at that time. It is remotely possible that structures existed on Lot B51 between 1821 and 1835, but the buildings reported in tax and deed records were almost certainly located in lots B37-38-39-58 to the west of Lot B51. Tax records indicate that buildings were not present on Lot B51 between 1835 and 1850. Tax records also indicate that structures might have existed on Lot B51 from 1871 to 1875 and possibly later, but the reported structures existed somewhere within a 2+ acre area. Structures very likely did not exist in the area of Lot B51 in 1892 and certainly did not exist in the alley from 1902 to at least 1958.

Lot B52

Lot B52 was a part of the original George Street as laid down by John West ca 1896. All of George Street was usurped by Thomas Javins, who owned lands on both sides of the street, about 1869. Lot B52 was a part of a 2+ acre tract from ca. 1869 to 1892, when William Winston subdivided property he had purchased from Ida Watkins. Lot B52 is a portion of a 20' wide alley established by Winston.

It is unlikely that substantial structures were built in the area of George Street prior to its usurpation ca 1869. Tax records also indicate that structures might have existed on Lot B51 from 1871 to 1875 and possibly later, but the reported structures existed somewhere within a 2+ acre area, probably somewhere along Duke Street to the north of Lot B52. Buildings probably did not exist in the area of the alley in 1892, and fire insurance maps show no buildings in Lot B52 from 1902 to 1958. Lot B52 therefore has minimum historical associations, and documentary sources do not indicate that historical archaeological resources may exist in Lot B52.

Lot B57

Lot B57 was a part of the original George Street as laid down by John West ca. 1896. All of George Street was usurped by Thomas Javins, who owned lands on both sides of the street, about 1869. Lot B57 was a part of a 2+ acre tract from ca. 1869 to 1892, when William Winston subdivided lands he had purchased from Ida Watkins. Lot B57 then became a part of a tract of about 1-1/2 acres sold by Winston to the partners of what became the Virginia Glass Company.

It is unlikely that substantial structures were built in the area of George Street prior to its usurpation ca 1869. Tax records also indicate that structures might have existed on Lot B57 from 1871 to 1875 and possibly later, but the reported structures existed somewhere within a 2+ acre area, probably somewhere along Duke Street to the north of Lot B57. Buildings probably did not exist in the tract in 1892, when Winston conveyed the property to the glass makers. By 1894 the entire tract contained buildings worth \$1000, and fire insurance maps show an extensive industrial complex on the tract between 1902 and 1912. Lot B47 was the eastern periphery of the tract, and it contained the company office and a shed for "storage of crated ware." Tax records indicate the company operated at least until 1915, but a 1921 fire insurance map shows no buildings in the entire area formerly occupied by the glassworks.

SECTION III: ARCHAEOLOGY OF THE SHUTER'S HILL BREWERY

V. HISTORICAL BACKGROUND

A. The Brewing Industry in Alexandria

As a locus of brewing activity, Alexandria was typical of many medium-sized American cities. Through its early history it had multiple, and often competing, breweries. In fact, the full range of businesses typical of a port town of the period were to be found in Alexandria. In the early years, industrial organization typically consisted of the artisan, often in a home/shop environment, assisted by slave, apprentice, and/or wage labor. Entrepreneurs attempted to provide goods that, if shipped from a distance, were expensive or perishable. It was in such an environment and for such a purpose that the brewing industry arose. With increasing industrialization and mechanization, however, the size of breweries in Alexandria increased as their numbers fell. In this sense, Alexandria was a microcosm of the nation.

As in most industries, the state of Virginia and the entire South always lagged far behind the cities of the Northeast and midwest in the production of malt liquors. While Alexandria could claim the largest Southern brewery in the mid 1890s, its production was dwarfed by plants in New York, Milwaukee, St. Louis, Cincinnati, Brooklyn, Philadelphia, and other urban centers (Wedderburn 1907; H.S. Rich & Co. 1903).

The reasons for the lesser importance of the Alexandria brewing industry in a national context are tied to the city's history as a Southern port town. Established as a trans-shipment center to benefit inland northern Virginia tobacco farmers, the city quickly diversified by the late eighteenth century into a mercantile center with small-scale industry. However, Alexandria, an urban center within a predominantly agrarian region, never grew at the same rate or to the same extent as many other mid-Atlantic cities. It never reached the levels of population necessary for an expansive local market, nor did it attract a large proportion of German immigrants, who provided the greatest share of beer consumers and producers in other U.S. cities.

During the eighteenth and early nineteenth centuries, much of the beer and ale consumed in America was made in the British brewing centers of London, Burton-on-Trent, and Glasgow. British ales were regarded as superior and could be produced at a lower unit cost due to the economies of scale of the British breweries and the availability there of necessary materials and labor. Shipment across the Atlantic, however, added significantly to cost and permitted spoilage. American brewers hoped to compete on the basis of cost, freshness, and the ready availability of their supply, though their efforts were often frustrated by the limited availability of ingredients, glass bottles, and bottle closures. Without the proper containers, the marketing of beer was largely confined to within localities until well after the arrival of the Railroad Age.

Brewing in Alexandria began prior to the American Revolution. Area plantations are thought to have produced some beer for their own use as early as the 1730s

(Netherton 1982; Washington 1757-1760).¹ By 1771, a truly commercial brewery was established by Andrew Wales in a leased public warehouse on Point Lumley at the foot of Duke Street (Moore n.d.:69). By 1775 he had probably relocated to a site along Wales Alley, between Lee and Union Streets (Moore n.d.:70, 84, 85, 88; Fairfax Deed Book J:429). The Wales brewery, though undergoing several changes of management in the 1790s, continued to produce "Strong and Small Beer" until 1802 (*Alexandria Gazette*, January 4, 1790, May 26, 1801, and November 16, 1802). By that time, two other breweries had sprung up, the Potowmack Brewery at the foot of Oronoco Street, and the Union Brewery at the southwest corner of Union and Wolfe Streets (Fairfax Deed Book X:593; *Alexandria Gazette*, March 14, 1793). These businesses also knew a number of proprietors before closing in 1807 and 1821, respectively (*Alexandria Gazette*, May 27, 1807 and July 14, 1821).

Especially at a small scale, it was difficult to become successful at brewing. American breweries had to compete not only with British imports but also with the multitude of alternative fermented and distilled beverages. Hard spirits, especially whiskey, remained more popular than beer until the mid-nineteenth century (Clark 1929:481). Brewery proprietorships were often short-lived; ads offering to rent or sell breweries or their equipment were common during the Federal period. One such Alexandria brewery of very brief duration was opened by John Oates, a former maltster to the King of England's brewery, on the outlying estate called Howard, now the Episcopal High School (*Alexandria Gazette*, November 25, 1817). Begun in 1817, Oates' operation probably closed the following year (Fairfax Personal Tax Assessment Books 1817-1820).

For most of the 1820s, it seems, there was no beer produced in Alexandria. By 1831 the brothers James and William Henry Irwin started an ale brewery on the waterfront across from the former Union/Entwisle brewery (Alexandria Deed Book T-2:56). Their business quickly grew and, at an eventual 3000 barrels annual production (one barrel equals 31 gallons) and a market area of about 1000 square miles, it was said to be the largest brewery in the South (*Alexandria Gazette*, June 14, 1843 and May 4, 1839; Hurst 1991:12, 15; Elliott & Nye 1852).² Major northern breweries notwithstanding, by

¹ Colonel John Colville had established a plantation called "Cleesh" south of Great Hunting Creek by 1731. A map compiled from early surveys and published in Netherton's *Montebello at Mount Eagle* labels Colville's plantation distillery a "Brew House." Colville also obtained a license to keep an ordinary. Later, George Washington almost certainly had beer--small beer at least--brewed at Mount Vernon or at his Dogue Run Farm.

² The figure for the Irwins' market area was approximated by calculating the area between the cities--Alexandria, Leesburg, Warrenton, and Winchester--in which William H. Irwin advertised. This does not even include ale which was shipped to the West Indies for sale (*Alexandria Gazette*, June 14, 1843).

the standards of the day this was indeed a large operation. In the early 1800s, breweries that made "not more than 150 or even 100 barrels a year were not uncommon. It was quite a sizable business that made 300 or 400 barrels annually (Siebel and Schwarz 1933:62)," though the largest produced maybe 20,000. Unfortunately, the Irwin plant was lost to fire in 1854 (*Alexandria Gazette*, November 4, 1854).

Only a few years elapsed before new establishments took the place of the Irwin brewery. Henry S. Martin, possibly a former Irwin employee, opened a small ale brewery at the corner of Commerce and Fayette Streets (Alexandria Deed Book R-3:414; *Alexandria Gazette*, March 15, 1860; Barber 1988:9; *Alexandria, Virginia Directory* 1870). And in 1858 Alexander Strausz and John Klein, leased an old frame building on Duke Street in the "suburb" of West End, and commenced the construction of an adjacent brick-vaulted beer cellar (Fairfax Deed Book A-4:347). Their Shuter's Hill Brewery was significant in that it was there that the brewing of lager beer was introduced to Alexandria and to the state of Virginia (within its post-Civil War boundaries). Compared with the ales and porters popular until after the Civil War, lager beer required a different type of yeast and colder temperatures for fermentation and aging. The requisite methods and yeast were introduced to America from Germany in 1840, where they were still a relatively recent development (H.S. Rich & Co. 1903:99, 100, 207).

The Civil War was a time of rapid but temporary expansion in the local brewing industry. The presence of Union troops created an unprecedented demand for alcoholic beverages of all types, despite the prohibition of the sale of liquor and beer within the city limits (*Alexandria Gazette*, August 25, 1862). The two existing breweries increased production and capacity. A third brewery, Portner & Company, was established in 1862 by a partnership of four men who had arrived during the Union occupation hoping to prosper from wartime demand for provisions and beer (Internal Revenue Assessment Lists 1862-1866; Portner; Erickson 1988:21). Between September 1862 and October 1865, these three breweries produced and sold nearly 9000 of lager beer and ale (Internal Revenue Assessment Lists 1862-1866; see Appendix B). Also capitalizing on wartime prosperity, two other entrepreneurs, Christian Pogensee and George Steuernagel, opened very small restaurant/brewery operations after hostilities had ceased (Internal Revenue Assessment Lists 1862-1866; Alexandria Deed Book X-3:430; Fairfax Deed Book F-4:434). These two businesses were short-lived, one apparently failing, and the other parlayed into a larger restaurant at a new location (*Alexandria Gazette*, July 8, 1868; *Alexandria, Virginia Directory*, 1870:430, 434; Fairfax Deed Book G-4:219; Alexandria Deed Book A-4:215).³

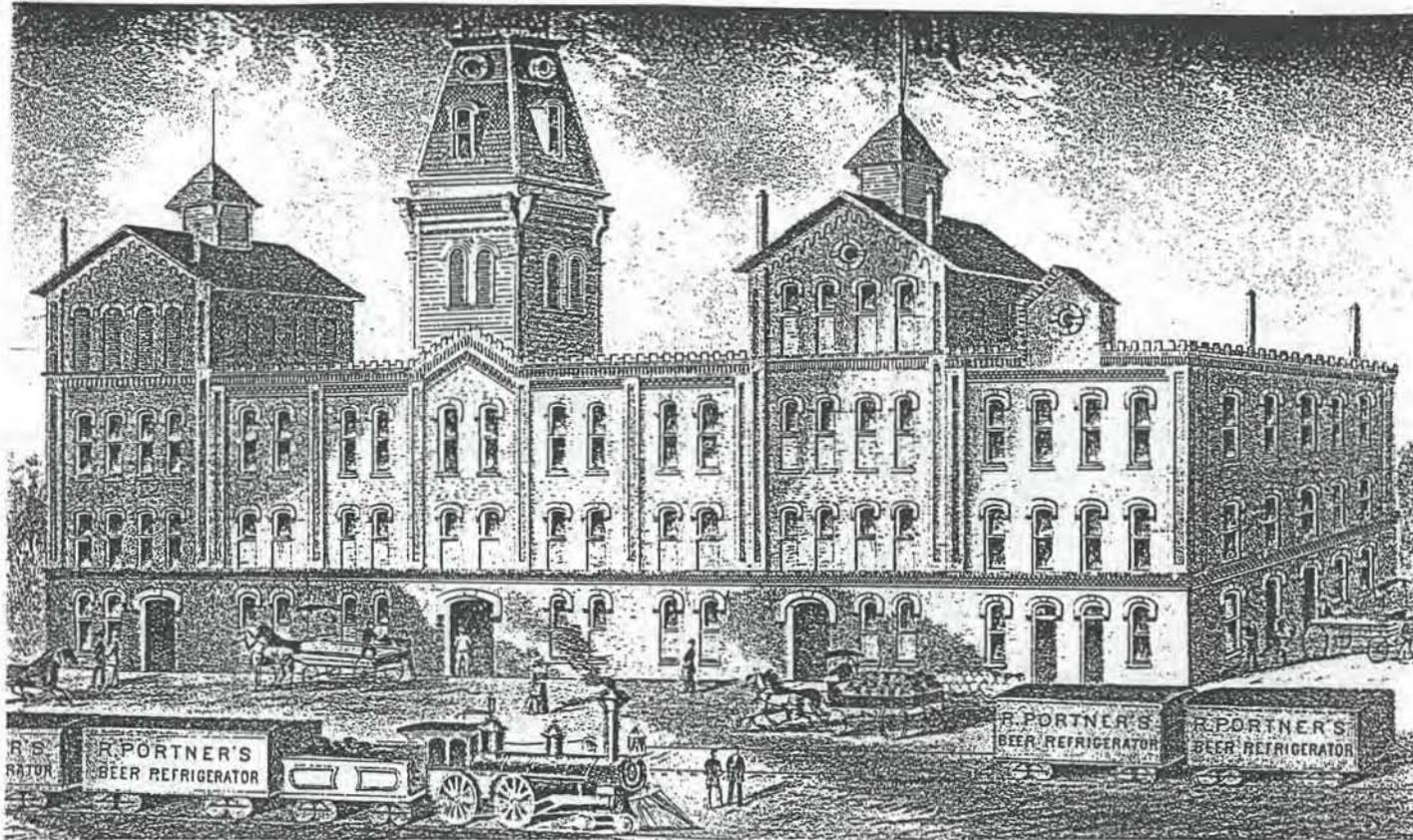
³ Steuernagel moved to Royal Street and then Prince Street, and may actually have continued brewing until at least 1873. Pogensee's brewery and equipment were bought by Dr. Charles C. Lieberman of Washington. Lieberman may have operated the brewery thereafter. Pogensee's brewery may also have been the site of Englehardt and Kaercher's beer garden.

By the early 1870s the Martin, Steuernagel, and Pogensee breweries were no longer in operation (*Alexandria, Virginia Directory for 1871*; Fairfax Deed Book G-4:219). John G. Cook briefly had a small operation in Fairfax County, possibly in the vicinity of West End (United States Census Population Schedules and Census of Manufactures 1870).⁴ Portner & Company had dissolved, and Robert Portner, now sole owner, had purchased a new site on North St. Asaph Street and constructed there a large modern brewery and cellars (Portner n.d.) (*Figure 13*). The Shuter's Hill Brewery continued much as it had before, only now under the proprietorship of Henry Englehardt, a former employee of John Klein, and with production significantly decreased from wartime levels. In fact, these latter two breweries would illustrate the contrast between the new and the old in the brewing industry: large scale versus small; innovation versus conservatism and tradition; expansion versus stasis; economies of scale and vertical integration versus high unit cost of production; regional versus local marketing; and above all, adequate versus inadequate capitalization. While the Robert Portner Brewing Company would be, prior to Prohibition, one of the greatest Southern breweries, the Shuter's Hill Brewery would limp along for two decades, thanks largely to the leniency of its creditors. Annual production of the former eventually exceeded 75,000 barrels; the latter's never reached 500. A fire in 1893 would ultimately claim the little Shuter's Hill Brewery (*Alexandria Gazette*, August 18, 1893).

By the turn of the twentieth century, Alexandria's port had largely died. Larger ports like Baltimore had become the termini for the bulk of mid-Atlantic shipping, and railroads provided an increasing share of domestic transport. Alexandria's waterfront and Old Town district deteriorated while the middle and upper classes removed to Washington and to Alexandria's western suburban developments. The remaining important industries were few, and included Portner's brewery, glass bottle factories, lumber mills, a tannery, and large wholesale florists (Wedderburn 1907). When Virginia became one of the 23 states to adopt Prohibition by the end of 1916, the Robert Portner Brewing Company, Alexandria's largest employer and last brewery, closed its doors for good.

⁴ While no location for Cook's business is given, in the census, his household is listed in proximity to such West End families as the Zimmermans, Cattses, Watkinses, and Bontzes. Cook's brewery may also have been that earlier run by Christian Pogensee. Cook later opened a brewery in Washington, D.C. (Bull, Friedrich and Gottschalk 1984:48).

Engineering-Science



Source: Engineering-Science

Carlyle Phase III

FIGURE 13.
ROBERT PORTNER'S 1868 PLANT.

B. The Development of the Brewing Industry in the Nineteenth Century

1. The Process

Although the nineteenth and twentieth centuries saw enormous changes in the machinery and implements used for brewing, the essential process remained much the same as it had for centuries. The following is a simplified description of the basic steps of brewing as was practiced in the United States through the Civil War period (refer to Figures 14, 15, and 16 for a general understanding of the layout of a small-scale, brewery of the era). This account will give some idea of the variety and change in brewing practices during the nineteenth century.

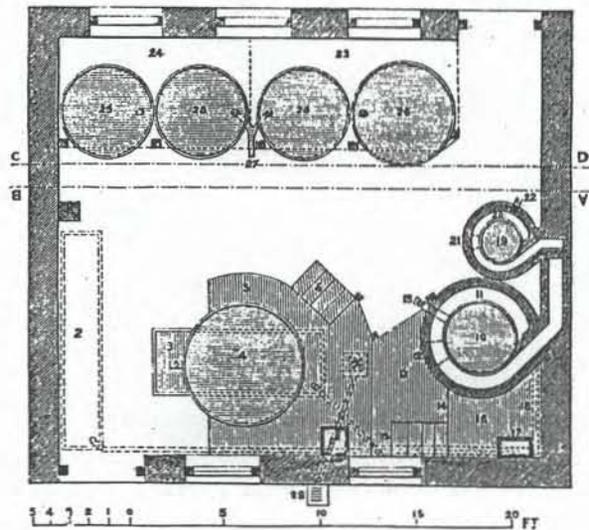
Beer consists of three main ingredients: barley malt, hops, and water. Malt supplies the starch, which, through mashing and fermentation, is eventually converted to alcohol. Hops, a member of the nettle family, contain a bitter substance that flavors and helps clarify and preserve beer. Water is the main ingredient by volume, and is necessary for the dissolution of the malt starch and for boiling. Brewer's yeast is also temporarily added during the brewing process to ferment the beer, that is, to convert its sugar to alcohol.

The basic steps involved in brewing have not changed since antiquity. A source of carbohydrates (traditionally barley, though many substitutes have been used) is placed in hot water and agitated to release its starches or sugars. The resulting solution is boiled, cooled, and then fermented with yeast (or in the earliest times, airborne microorganisms would "magically" convert the sugars to alcohol).

The first operation in the manufacture of beer is the *malting* of barley. This process involves the forced germination of barley grains.⁵ Germination breaks up the husks of the grain and produces the enzymes diastase and peptase, instrumental in the release and dissolution of the barley starch and its breakdown into maltose (malt sugar) during mashing. As practiced in the mid-nineteenth century, barley was normally steeped in wooden tanks of water for 40 to 60 hours. When sufficiently steeped, the grain was laid several inches deep on a malting floor to dry. The drying period varied greatly, though it usually took less than a week. The malt was periodically turned with shovels until it had dried enough to sprout rootlets. At that point, it was necessary to prevent further growth. The malt was placed into a drying kiln, removed, and placed into another in which the drying process was completed and the malt was somewhat roasted. Finally, rootlets, dust, broken kernels, and other foreign matter was sifted out, and the malt was sacked and shipped to the brewery. Malt was then stored in grain bins or elevators until needed (H.S. Rich & Co. 1903:58-62; Kears Publishing Co. 1907:9; Ronnenberg 1993:61).

⁵ Rice and corn are often used in addition to barley, especially in the United States. Wheat too, has been added to certain German varieties of beer.

DIAGRAM 1.
Ground-plan of the Brewhouse.



EXPLANATION OF THE GROUND-PAN ON DIAGRAM 1.

- 1, Liquor pump. 2, Liquorback, or cistern for water.
- 3, Underback. 4, Mash-tun. 5, Lower platform. 6, Steps to ascend ditto. 7, Mouth of drain under lower platform.
- 8, Raised sink and liquor tap on lower platform. 9, Raised pavement level with lower platform. 10, Bottom of large copper. 11, Bottom of flue round ditto. 12, Furnace door of large copper. 13, Tap and tube of large copper. 14, Entrance to recess for coals. 15, Steps to upper platform.
- 16, Upper platform. 17, Wort pump on upper platform. 18, Pipes from liquorback and underback to copper. 19, Bottom of small copper. 20, Bottom of flue round small copper. 21, Furnace door of small copper. 22, Tap and tube of ditto. 23, Upper cooler. 24, Lower cooler. 25, Fermenting tuns. 26, Large fermenting tun. 27, A junction of branch pipes with main pipe (see page 26). 28, Grating of drain outside of brewhouse.

Source: Pitt 1864

DIAGRAM 2.
Section on the line A B.—See Diagram 1.

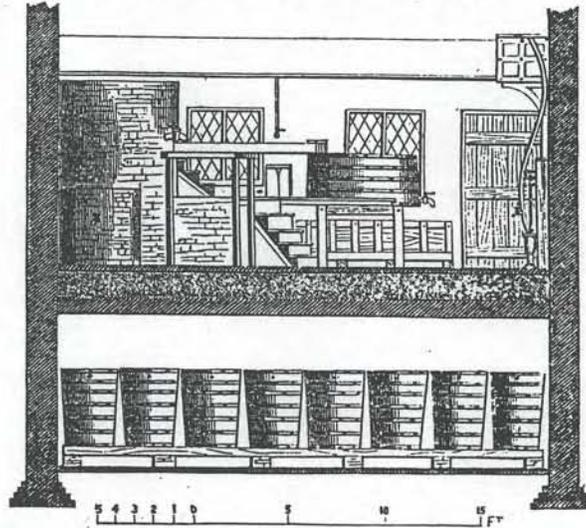
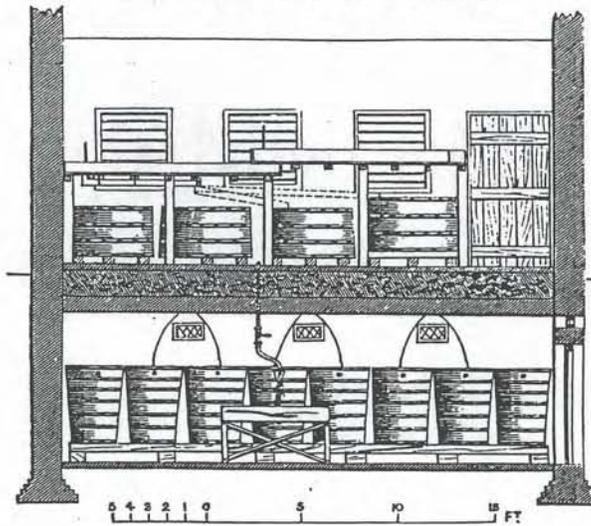


DIAGRAM 3.
Section on the line C D.—See Diagram 1.

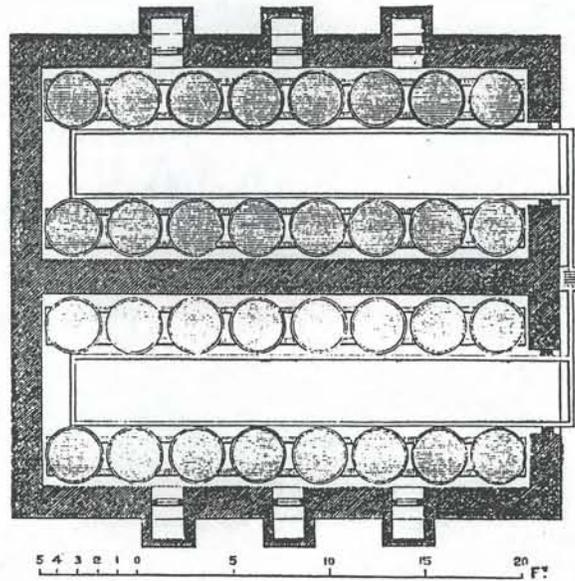


Source: Pitt 1864

Carlyle Phase III

FIGURE 15.
SECTIONS THROUGH A SMALL-
SCALE BREWERY AND BEER CELLAR.

DIAGRAM 4.
Ground-plan of the Cellars.



Source: Pitt 1864

Carlyle Phase III

FIGURE 16.
PLAN OF A SMALL-SCALE
BREWERY BEER CELLAR.

For most of the nineteenth and twentieth centuries malt was purchased by breweries from independent maltsters.⁶ Eighteenth-century brewers were more likely to do their own malting, though by the end of the 1800s, many large breweries had vertically integrated by purchasing malt houses. Although the basic process did not change, malting was improved greatly after the Civil War. The use of thermometers to monitor floor drying was widespread. New floor materials, steeping casks, drying fans, and kilns were invented and brought into use. By the end of the nineteenth century, floor malting had been largely discontinued in favor of mechanical pneumatic and drum-malting systems (H.S. Rich & Co. 1903:63-75).

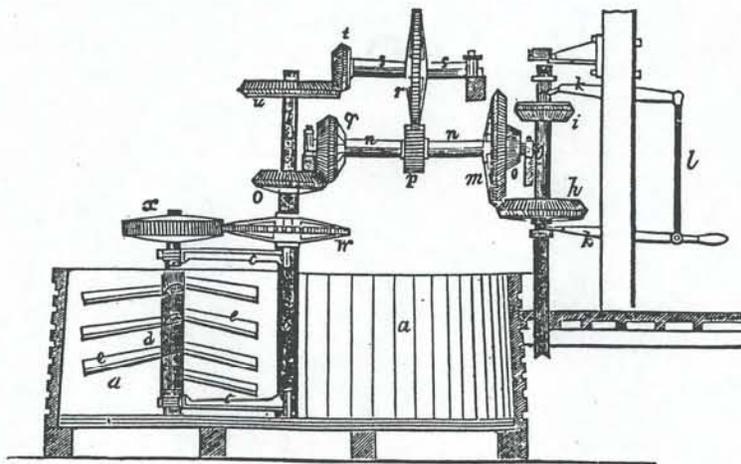
Even in small-scale operations, brewing was arranged to take advantage of gravity, thereby saving labor. Milled malt was typically elevated to hoppers at the highest level of the brewhouse. It was then dropped into the mash tun with water, and from there the beer, as it underwent each stage of preparation, was drained from each vessel to the next lower vessel.

Barley malt was first crushed in a malt mill, then put into a large tub called a mash tun for mashing. Hot water--between 140 and 190 degrees, depending on the type of beer being made--was pumped into the mash tun, and the mixture was agitated. Agitation of the mash helped release the malt's starch from the kernels and broke down this starch into maltose, a fermentable sugar. The earliest method of mashing involved stirring by hand with a large oar. Mechanical gear-driven devices for this purpose were first employed in the eighteenth century and could be powered by hand, horse, or steam engine (*Figure 17*). They quickly replaced the old hand-stirring system. After the first mash, the resultant liquid, called wort, was released into a vessel called the underback or into a brewing kettle. At this point hot water, usually five to ten degrees hotter than for the first mash, was again added to the malt remaining in the mash tun and it was agitated. This procedure was usually repeated at least three times in order to extract as much starch as possible (H.S. Rich & Co. 1903:81-82; Ronnenberg 1993:64).⁷ It was the common practice in the early nineteenth century to keep the wort from the first and subsequent mashes separate. The first wort would obviously contain the greatest amount of starch, and went toward the brewing of the strongest beer; later mashes produced weaker beer.⁸ Lager beer brewers, however, mixed the worts from successive mashes.

⁶ None of the Alexandria breweries founded in the 1850s or later did their own malting. In fact, they may have all been supplied by Francis Denmead's City Malt House in Baltimore. Denmead's operation used the floor malting system until at least the turn of the century (H.S. Rich & Co. 1903:586).

⁷ In the "downward" system of mashing water was added to the tun from above, and the second mash temperature was lower than the first.

⁸ Hence, one finds breweries advertising having for sale "strong," "table," and "small" beer, these being successively weaker.



[Fig. 10.]

Source: Pitt 1864

Carlyle Phase III

FIGURE 17.
AN ENGLISH MASHING APPARATUS PATENTED
AT THE END OF THE EIGHTEENTH CENTURY.

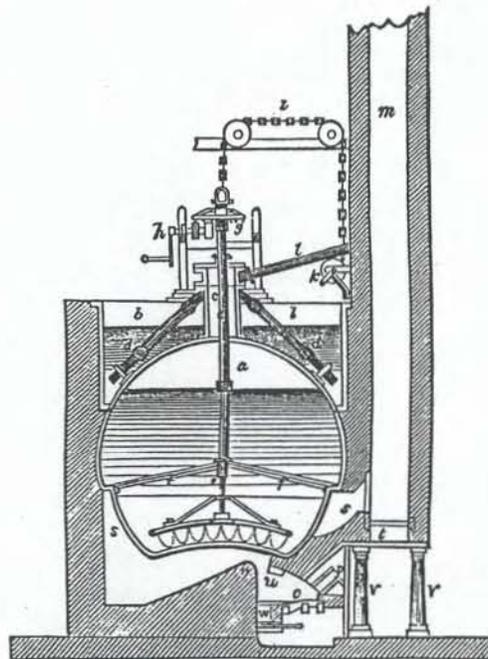
Brewers experimented much with the mashing process. The Scots, for instance, devised a method called sparging, which involved a prolonged first mash followed by the sprinkling of water over the malt several times so as to remove the remaining starch. A later innovation was the heating of the mash tun by steam coils. Also important was the invention of the perforated "false bottom," or secondary bottom, for the tun, which allowed the introduction of water from below and the easy drainage of the wort to the brew kettle. Other practices, such as the addition of milled raw grain to the malt and the use of corn and rice as additives were generally taken up by American brewers in the late nineteenth century (H.S. Rich & Co. 1903:78-79, 82-85). After being drained from the mash tun to the brew kettle, the wort was ready for *brewing* or *boiling*. Boiling served to reduce the wort to its proper strength through evaporation and to separate out from the liquid some of the unwanted particles. Brew kettles or "coppers" varied in size, shape, and whether they were open or closed vessels depending on the scale of production and the traditions and predilections of the brewer. Until after the Civil War most brew kettles were made of copper and were heated from below by wood fires. They were commonly encased in brick structures which contained a furnace whose flue rose and encircled the copper (*Figure 18a and 18b*). Fire brewing was eventually superseded by the use of steam coils to heat the kettle. Steam brewing was found to be more even, steadier, cleaner, and more fuel-efficient, though some brewers long claimed that fire-brewed beer was superior (H.S. Rich & Co. 1903:87-89).

The wort was typically boiled for a time before hops were added. Hops (*Humulus lupulus*) is a vine of the nettle family whose female blossoms have at their base "a granular, resinous, bitter substance," lupulin, which imparts to beer its bitter flavor and certain preservative qualities. The addition of hops also serves to clarify the wort (H.S. Rich & Co. 1903:55). The question of the timing of the addition of hops was much disputed. "Gradually the conviction became general that long boiling would extract the coarser tastes from the hops while dispelling the more volatile and finer ones, shorter time of boiling became more general, hops were added in several lots, and the finest flavored ones left to the last" (Siebel and Schwarz 1933:91).

Generally, boiling continued until the wort was completely "broken," that is, until unwanted particles had clumped together and the wort had clarified. This required about three hours on average, or generally between one and five hours (H.S. Rich & Co. 1903:89; Ronnenberg 1993:64). The wort was then drained through a hopjack, which strained out the hop leaves. The hot wort had to be cooled to a temperature proper for the introduction of yeast and the beginning of fermentation. The earliest method was to allow the wort to cool slowly to atmospheric temperature in open tanks or "backs." However, this took several hours and could expose the wort to "wild" yeasts that could spoil its taste. As a result, many alternatives to open cooling were tried. The most widely adopted solution was run the wort over pipes through which circulated ice water (*Figure 19a*). A more sophisticated device based on this principle was invented by the Frenchman Baudelot (*Figure 19b*) and became almost universally employed until ice water was replaced by other coolants, notably brine and ammonia.



A: 12-barrel brew kettle from the Lemp Brewery, St. Louis, MO.
Source: H.S. Rich & Co. 1903



B: Brew kettle with surrounding masonry structure and flue.
Source: Pitt 1864

When sufficiently cooled, the wort was ready for the fermenting tuns and the last step of manufacture, which would transform it to beer. *Fermentation* is the process of the conversion by yeasts or other organisms of sugar to alcohol and carbon dioxide. It provides beer with its mild alcoholic content and foamy head. Though it certainly can be said for the whole of the brewing process, the conduct of fermentation especially had long been more of an art than a science. Brewers kept and propagated yeast cultures for the purpose, but they understood neither the nature nor agency in fermentation of the yeast organism. In fact, it was not until the researches of Louis Pasteur and Emil Christian Hansen that pure yeast was isolated and the two types of brewer's yeasts were identified. Pasteur's work on microbiology finally explained the previously inexplicable sourness of many a new batch of beer in terms of exposure to "wild" yeasts and other microorganisms in the air (H.S. Rich & Co. 1903:96; Kelley 1965:444-445).

Before Dr. Hansen identified the brewer's yeasts, brewers had found that different yeast cultures acted differently, promoted different tastes, and performed their function better at divergent temperatures. Many brewers, particularly the English, fermented beer at temperatures between 55 and 65 degrees Fahrenheit. During the process, the yeast (*Saccharomyces cerevisiae*) would rise to the surface of the beer, where it was skimmed off for future use. By the end of the eighteenth century, however, the Germans had begun using a yeast (*Saccharomyces carlsbergensis*) which sinks to the bottom of the tun as it ferments. This process was conducted at significantly lower temperatures, just above 40 degrees. Though American brewers had generally followed the English practice of top fermentation, bottom fermentation quickly caught on after the introduction of lager beer from Germany in 1840.

The relatively higher temperatures at which the English-style beers could be fermented permitted their production at ambient atmospheric temperatures in most parts of Great Britain and the United States during much of the year. In contrast, lager beer, which became increasingly popular with each passing decade, needed a cool environment in which to complete fermentation successfully. Brewers were generally restricted to operating in the colder months and, prior to the invention of artificial refrigeration, they used underground cellars and liberal amounts of ice to achieve and maintain the requisite temperatures. Beer cellars were made from modified natural caves, were excavated and constructed of masonry, or were cut out of solid rock. Subterranean cellars offered cool--but never freezing--temperatures and a degree of insulation.⁹ By the addition of natural ice to the cellar, brewers and their cellarmen could further lower the temperature.

Generally, fermentation consists of three stages: the principal fermentation, in which the bulk of saccharine matter is converted to alcohol and carbonic acid; the secondary fermentation, during which a slow after-fermentation "ripens" the beer, carbon

⁹ The temperature could be kept below about 55 degrees year-round. With the addition of natural ice, the temperature could be brought into the proper range for lager beer fermentation.



A: Wort cooler ca. 1825.
Source: Ham 1829

**BAUDELLOT'S
IMPROVED
BEER REFRIGERATOR.**



B: Improved version of Baudelot's 1856 wort cooler.
Source: The Western Brewer, June 1880

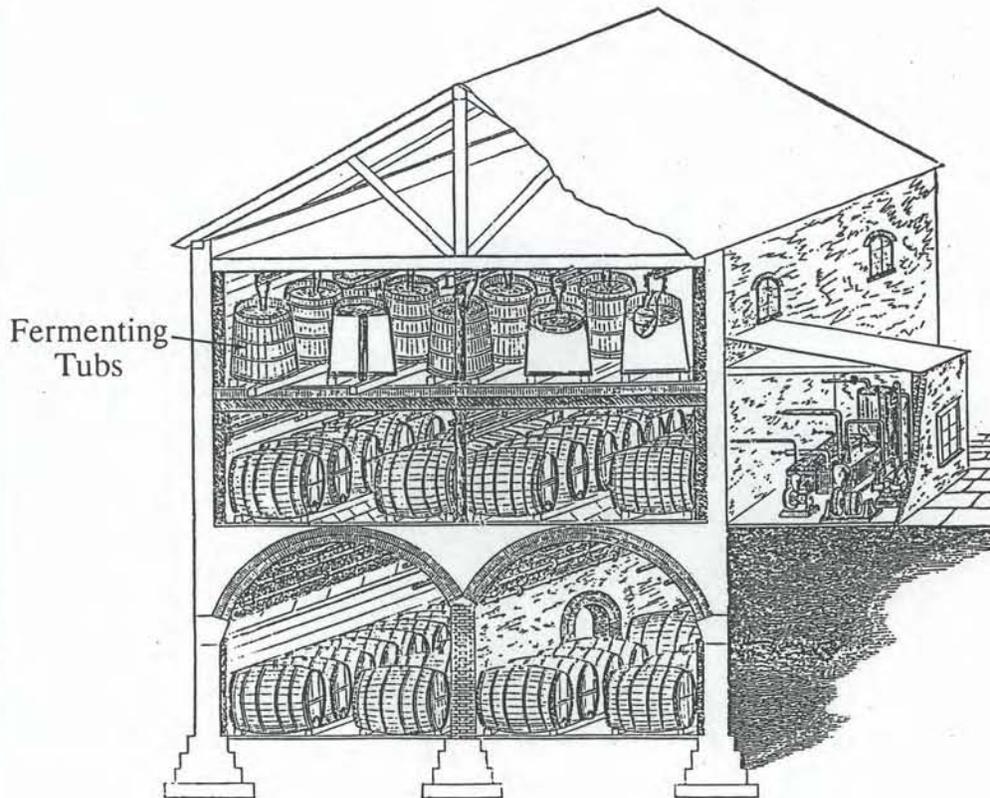
dioxide builds up, and many impurities are eliminated; and the fining stage, in which the beer is finished, becoming clarified and fully "ripe." (H.S. Rich & Co. 1903:98) Primary fermentation was conducted in large vats called fermenting tuns (*Figure 20*). Open tuns were traditional for German brewers. These vessels could be located inside or outside of the cellar. Fermenting tuns beyond the refrigerated environment of the beer cellar could be cooled by the introduction of attemperators or "swimmers." (Thevenot 1979:76; H.S. Rich & Co. 1903:101) Attemperators were essentially large metal buckets of ice that floated in the wort and cooled it by conduction. Upon completion of the primary fermentation, the beer was "racked over" into large *ruh*--or rest--casks for the secondary fermentation, during which some of the yeast and other sediment would settle out, and the carbon dioxide content would increase. Freshly brewed wort was often added to beer during the secondary fermentation in order to "freshen" it and create a more effervescent product. This process is called *kraeusening*. These first two fermentation stages would generally take from seven to ten days (H.S. Rich & Co. 1903:101). Finally, the beer was transferred to another set of casks, the chip casks, for clarification or "fining." These casks were partially filled with beech or maple chips, to which unwanted particles, sediment, and leftover yeast would adhere. Fining by chips was an American innovation of about 1860, though the Germans and English had previously used the gelatinous substance isinglass (manufactured from the air bladders of sturgeon) for clarification (H.S. Rich & Co. 1903:102).

At the end of fermentation the beer was finished. It could then be racked off into wooden barrels or bottles for storage, sale or transport. Late nineteenth-century advances in bottle manufacturing, pasteurization, closures, and mechanized bottling speeded the preparation of beer for sale, and made possible a much increased durability and broad distribution of a company's product.

2. Lager Beer

Clear and gold in color, somewhat dry and moderately-hopped, lager beer is by far the most popular variety in the United States and has been for more than one hundred years. At the time the Shuter's Hill Brewery was established, lager beer was a relatively new German import. The Philadelphian John Wagner was the first to brew lager in America in 1840 (H.S. Rich & Co. 1903:207). Most immigrant German brewers from the 1840s on opened lager breweries. While lager consumption grew rapidly, it did not make serious inroads into the popularity of the English-style beers until the mid-1850s (Revenue Assessment Lists 1862-1866). By 1860 lager beer production still constituted less than one quarter of the total malt liquor production in the United States (Ronnenberg 1993:12; Siebel and Schwarz 1933:57). Not surprisingly, lager was most favored by German-Americans. During the Civil War, German soldiers' demand for beer encouraged the establishment of lager breweries (like Portner & Company) in the southern states, and non-Germans were exposed--some for the first time--to the new beer (Schluter 1910:58) (*Figure 21*).

The primary difference between lager beer and other varieties is its fermentation process. Lager beer requires a slow bottom fermentation at low temperature. Bottom



Source: The Western Brewer, June 1880

Carlyle Phase III

FIGURE 20.
A MECHANICALLY COOLED
ICE HOUSE, CIRCA 1880.

fermentation refers to the use of the yeast *Saccharomyces carlsbergensis*, which sinks to the bottom of the tun during the process. Traditionally, the process was conducted at 41 to 43 degrees Fahrenheit (H.S. Rich & Co. 1903:100).¹⁰ The principal fermentation would occur in three stages lasting a total of perhaps 25 to 30 hours. The beer was then moved to large casks for a long period of "rest" and secondary fermentation. There it gained alcoholic and carbonic acid content. Subsequent aging and fining took place in a cellar at a temperature of about 40 degrees (H.S. Rich & Co. 1903:99-102; Thevenot 1979:76). Thereafter, lager beer was kegged or bottled, and was always best when kept and served at around 40 degrees (Thomas 1887:17).

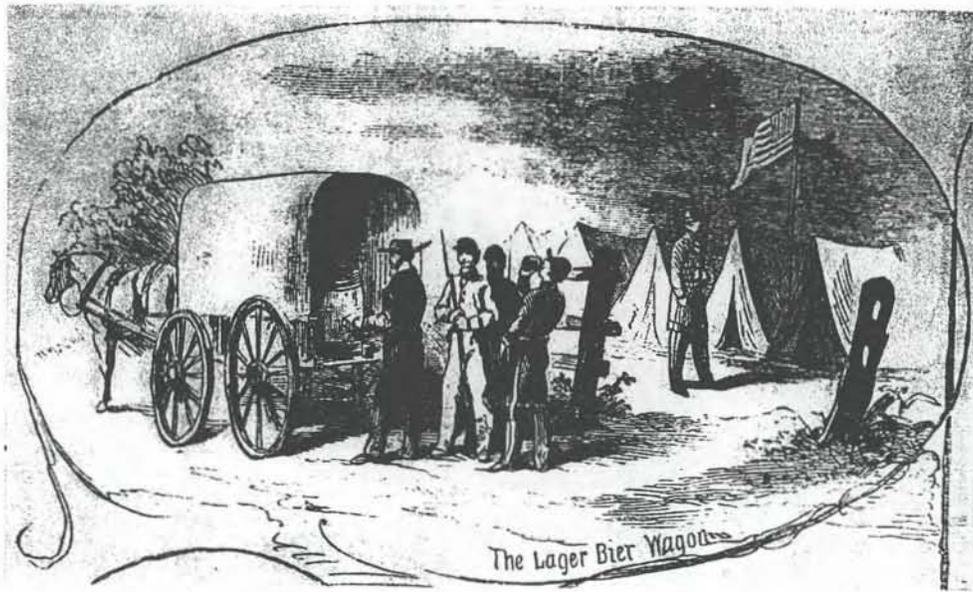
When first introduced to America, bottom-fermented beers were of two types, winter beer and summer beer, named for the seasons during which they would be drunk. Summer beer wort was cooled to a lower temperature than winter beer, and its principal fermentation was conducted somewhat more slowly. For this reason summer beer was brewed in the coldest months of December, January, and February, while winter beer was produced in the comparatively warmer months of October, November, March, and April. Technically, only summer beer was true lager. However, the distinction between summer and winter beer was soon forgotten in the U.S.; bottom fermentation quickly became synonymous with lager beer (H.S. Rich & Co. 1903:100).

Ultimately, it was the introduction of artificial refrigeration which permitted year-round production of lager beer anywhere in the world and secured its universal popularity. The particular tastes of the American public, however, have encouraged the production of lager that is much paler and more lightly-hopped than that of the mid nineteenth century and with less alcohol, less sediment, and a more lasting head of foam. Since the late 1800s, most American brewers have added rice and corn to their barley malt to provide a cheap, plentiful and quick source of fermentable starch, and a lighter golden color.

3. *Weiss Beer*

Weiss beer is a particularly Bavarian variety and was produced by Alexandria brewers Henry Englehardt, Christian Pogensee, and George Steuernagel (Internal Revenue Assessment Lists 1862-1866). For centuries the right to brew weiss beer had been reserved by the dukes of Bavaria. Once the beer of the aristocracy, its popularity in southern Germany had quickly waxed and waned by the end of America's Civil War era as it became available to the masses. It was largely due to the Bavarian Georg Schneider and through pioneer German-American brewers that the weiss beer brewing tradition was preserved in the two countries (Warner 1992:5, 15-16). It is once again very popular in Germany, though now rare in the United States.

¹⁰ This is the temperature to which summer beer was cooled for fermentation. Winter beer was fermented at between 51 and 55 degrees.



Beer for German troops on Union side during the Civil War.

Source: Harper's Weekly

Carlyle Phase III

FIGURE 21.
'THE LAGER BIER WAGON'--
GERMAN-AMERICAN SOLDIERS
BUYING LAGER BEER.

Weiss beer differs from lager in many respects. Its name, weiss, or "white," refers to its milky, somewhat golden color. Nowadays it has twice the carbon dioxide content of lager, more sediment, and slightly more alcohol (Warner 1992:21). Weiss beer in late nineteenth-century America may have had slightly less alcohol than lager, however (H.S. Rich & Co. 1903:616). Most responsible for the coloration and cloudiness are its ingredients. Unlike most beers, weiss beer is made with wheat meal instead of or, usually, in addition to barley malt. Among German brewers a minimum content of 50 percent wheat in the fermentable solids is an unwritten law (Warner 1992:56). Also, leftover yeast is present in the bottles of weiss beer, a result of its bottle conditioning without a tertiary "fining" stage.

Like the English beers, but in contrast to lager, weiss beer is top fermented. Consequently, the process is conducted at a relatively warm temperature, usually between 54 and 58 degrees, but sometimes as high as 64 degrees. It goes through its principal fermentation in about three days. Weiss beer brewers still commonly use open fermenting tuns, an old Bavarian tradition, believing that the resultant quality of the beer is better (Warner 1992:71, 73-74; H.S. Rich & Co. 1903:99).

The beer is then stored at cooler temperatures--between 39 and 49 degrees--for five days to four weeks to allow settling and clarification (Warner 1992:74). Weiss beer is mostly bottled, and it is in bottles that it undergoes a secondary fermentation or "bottle conditioning" responsible for its carbonation (H.S. Rich & Co. 1903:99; Kelley 1965:395; Warner 1992:81). Most carbon dioxide produced during fermentation escapes from the open tuns. To compensate for this, the beer is usually krausened in the bottle with bottom fermenting yeast. The standard modern practice is to store the bottles first at about 68 degrees to begin the build up of carbon dioxide, and then at about 77 degrees for a vigorous secondary fermentation. This is followed by cold storage before sale or consumption (Warner 1992:21, 75).

4. *Technological Innovation*

As for many other industries, the Civil War was the great divide in the evolution of technology in America's breweries. The war was the impetus for a boom in the rate of technological innovation. It spurred capital accumulation and improvements in transportation, agriculture, metallurgy, machine tools, and chemicals. These ultimately encouraged the growth of the brewing industry.

The full range of variations in and improvements of the brewing process in the nineteenth century are too numerous, and often too technical, to explore fully here. However, there were several salient inventions and innovations which revolutionized the American brewing industry.

It was during the eighteenth century that the first moves toward "scientific" brewing were made. The thermometer and saccharometer were first put to use to monitor the temperature and specific gravity of the wort through each stage of its processing. The steam engine, useful for a variety of tasks, was introduced to some of the large British

and New England breweries before the turn of the century (Baron 1962:157-158). The same is true for mechanical mashing.

Among the nineteenth-century "high points" of brewing innovation enumerated by Siebel and Schwarz are the isolation of pure yeast; the introduction of steam power; mashing by machine; the development of the infusion process of mashing (using rice and corn); steam boiling; mechanical refrigeration; and bottling on a large scale (Siebel and Schwarz 1933:86). Some of these have been mentioned briefly elsewhere in this report. Their general effect was to make the process and product more controllable, reliable and consistent, and to reduce labor costs. The isolation and propagation of pure strains of brewer's yeast were first accomplished by Dr. Emil Christian Hansen at the Carlsberg Brewery in Copenhagen. Pure yeast enabled close control of fermentation, and eliminated other microbes which could sour beer.

Possible applications of steam power included the operation of grain elevators, hoists, pumps, malt mills, and mash stirrers. Steam engines could also control the movement of the wort between each stage of production. Steam boilers were far more efficient and controllable than wood fires for boiling mash water or wort in the brewing copper. Some Alexandria brewers possessed steam engines before the end of the Civil War, but this was not true of the Shuter's Hill Brewery. Steam brewing and the use of the steam engine became nearly universal, but only by the end of the nineteenth century. In the twentieth century electricity would replace steam for many purposes.

Until the 1880s, natural ice was the only source of refrigeration. The effects on production of the cost and labor intensity of the use of ice cannot be underestimated. Ice was packed in cellars, used in attemperators, and provided frigid water for the wort coolers. Its provision and "maintenance" were probably the most difficult aspects of the brewing process. Ice in cellars required constant packing and repacking--back-breaking work in penetratingly damp conditions. Within the cellars brewers had to deal with excess water, mold and other residue, and often stale or unpleasant odors which could only be ameliorated by cleaning, forced ventilation, and the passage of time. Brewery employees were also subject to radical ambient temperature changes as they moved to and from the brewery and the cellar. Under these conditions, cellarmen often complained of respiratory illnesses (Kelley 1965:200, 317; Hull-Walski and Walski 1993). Once brewers had gained confidence in the new artificial refrigeration devices they were able to cut labor costs and to make more advantageous use of the cellar space for storage. They could also make a better product, since temperatures could be controlled more exactly. In fact, reliable year-round operation, and consequently much higher production, of lager beer was made possible by refrigeration (Kelley 1965:200, 317; Thevenot 1979:76).

Advances in industries related to brewing also had extremely important implications. Most important, perhaps, was the improvement of glass bottle manufacturing. Shortly after the Civil War the production and price of glass bottles became competitive with those of stoneware containers. Glass, a lighter and transparent material, was a better alternative for the transportation and sale of beer. Improvements in molding (culminating in the invention of automatic bottle-making machines at the turn of

the century) (Miller and Sullivan 1984) made bottled beer for individual consumption a virtually new, but ubiquitous, product (Siebel and Schwarz 1933:86).

Relatively cheap, plentiful, and quality glass bottles would not have been as significant if it were not for other advances. Even in bottles, beer (especially lager beer) always ran the risk of spoiling by becoming stale, flat, or bad-tasting. Pasteur's work on microbiology taught brewers the causes for spoilage and suggested remedies. The importance of eliminating or keeping away from beer "wild" yeasts and other microbes became clear. Most brewers converted to the use of closed brewing vessels and fermentation tuns. From Pasteur they also learned that the application of heat could kill "germs." Brewers and inventors developed variations of a device called the pasteurizer, used to rapidly heat (to about 150 degrees) and cool bottled beer to destroy any microbes remaining within (Kelley 1965:445). Rapid cooling was important, as heat can also damage the taste and durability of beer. Anheuser-Busch's early adoption of pasteurization gave the company an immediate advantage in the shipping and sale of its beer over a broad area. Efficient filtration systems were also devised for bottled and kegged beer, adding to its preservation.

Hundreds of ideas for new bottle closures were patented after the Civil War in order to replace the inadequate cork. Before the turn of the century the most popular types were the Hutchinson and lightning stoppers, both invented in the 1870s (Lief 1965). These stoppers efficiently sealed glass bottles against seepage and the admission of foreign microbes. In 1892 an even more reliable alternative--the crown closure or modern bottle cap--was patented. It eventually replaced other closures in the bottling of beer.

Year-round mass production, pasteurization and filtration, and the availability of bottles and efficient closures all combined with the expansion of rail transport to provide a large supply of beer which could be kept for a relatively long period of time and shipped to distant points. Such advances were responsible for the success of large breweries and the creation of regional and national markets.

5. Growth of the Industry

Prior to the Civil War, brewing in the United States could not have been considered a significant industry (Siebel and Schwarz 1933:62). In 1850 the aggregate value of the output of America's 431 breweries was only \$5,728,568. Thanks primarily to the proliferation of breweries, the total value of the product had almost quadrupled by the eve of the war, although this was but a fraction of what was to come (Schluter 1910:56). While the per capita consumption of hard liquors remained flat during this period, beer consumption increased about nine times (H.S. Rich & Co. 1903:607-609). Beer--lager beer--was becoming the national beverage. To supply this demand the average annual production of the breweries continued to rise steadily (Schluter 1910:71). At only 2,596,803 barrels in 1863, total U.S. production of malt liquors quadrupled over the next fifteen years. Sales topped \$100,000,000, or 12,800,900 barrels, by 1880. By the time

the Shuter's Hill Brewery closed in 1892, total annual production in the United States had reached 31,474,519 barrels.

The number of breweries increased sharply before reaching a peak of 4,131 in 1873 (Siebel and Schwarz 1933:74). This increase belies the difficulty of successfully running a brewing operation. Firms started up, they failed, they turned over, and partnerships formed and dissolved. The depression of 1873 was the proximate cause for the failure of many ventures, but microeconomic trends played a greater role thereafter. Only through increased production could brewers reduce marginal costs and realize significant profits. Prior to the employment of artificial refrigeration, volume and profits had primarily been limited by the changes of season and reliance on ice. For innovative firms, refrigeration and mechanization permitted steady year-round manufacturing and cut out labor costs formerly incurred in the movement and packing of ice and other activities (Kelley 1965:375). The 1880s saw a wave of incorporation of the larger breweries, which allowed owners to increase capitalization (and, therefore, mechanization) and limit personal financial liability.

Larger scale led to reduced unit prices, and pasteurization and advances in transportation and in bottle and closure manufacturing allowed major breweries to exploit wide market areas. Distant breweries became able to compete with small local businesses in price and quality. As a result, larger and better-capitalized firms prospered at the expense of smaller, obsolescent ones. The latter type of firm was typically the first to fail. Large breweries increasingly came to be in direct and vigorous competition with each other, however, sometimes engaging in cutthroat price wars. This was a phenomenon prevalent in those major cities that had a surfeit of beer and breweries. In the 1890s, several English syndicates tried to break into the American market, buying and merging numerous American plants. U.S. companies were forced to do the same. In order to gain market share and recoup their large capital outlays they initiated price slashing (Baron 1962:272). In spite of a growing market, large breweries realized economies of scale, causing inefficient "surplus" firms to close.

Total U.S. production had increased enormously by the turn of the century, with a mere 1,758 plants selling nearly 37,000,000 barrels (at a 22,458 barrel per brewery average). Brewing had become one of the nation's largest industries, encouraging the growth of subsidiary industries like the manufacture of ice, barrels, brewing vessels, boilers, bottles, etc. (Schluter 1910:70-71; H. S. Rich & Co. 1903:609).

C. The Shuter's Hill Brewery Site

The Shuter's Hill Brewery takes its name from nearby Shuters (or Shooter's) Hill, which stands west of Old Town Alexandria, and around which King and Duke Streets now extend. It was also called Klein's brewery or Englehardt's brewery after two of its proprietors. The brewery was established in what was the unincorporated village of West End (*Figure 22*), a "suburb" of Alexandria across the nineteenth-century boundary of Fairfax County. The core of West End arose from the late eighteenth-century subdivision

of a large parcel belonging to John West, scion of one of the oldest Alexandria families. Mainly developing along the east-west Little River Turnpike (Duke Street), West End was a small community whose economy was based largely on the processing of meat and other products for consumption in Alexandria. Representative businesses over the years included numerous butchers, cattle pens, a tannery, a hotel to serve cattle drovers, a distillery, and soda water manufacturers. A blacksmith shop and general store provided for the needs of residents and travelers.

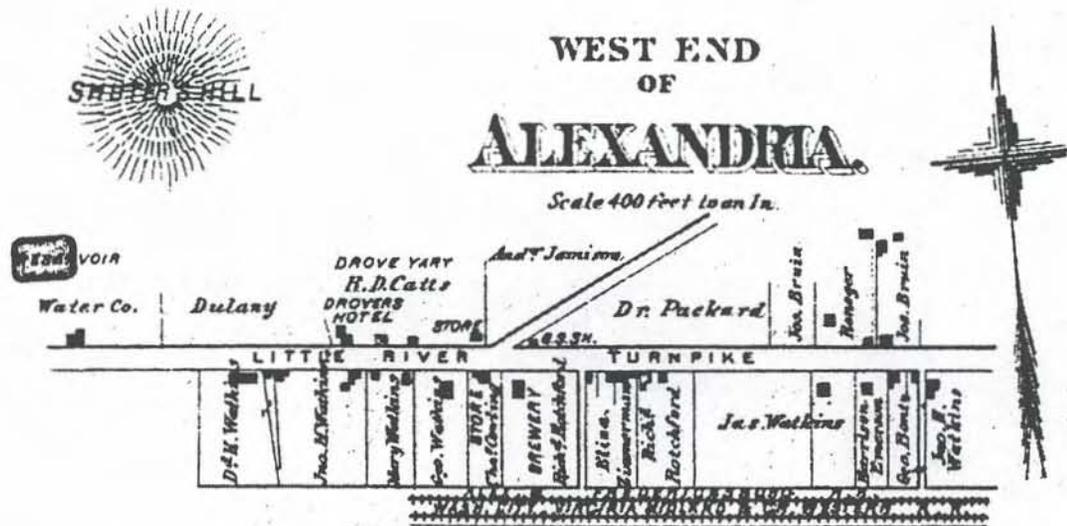
The lots on which the brewery was eventually opened had changed hands, through lease, several times since their ownership by John West (see Appendix A). Charles Jones, a carriage maker, occupied the site from 1797 to about 1805. In addition to his carriage business, Jones and his wife ran the "West End Tavern." The next occupant, James Sheehy, had a soap and candle manufactory in the immediate vicinity. Since the parcel at this time also included Lots B7 to B13, there is no definitive evidence that these activities occurred on the eventual brewery lot. However, a frame structure standing by 1858 may have been associated with these uses and was possibly Jones's tavern and home (Schweigert 1993:3-6, 22, 23).

Bartholomew Rotchford purchased Lots B7 to B13 from the daughters of John West in 1824 (Schweigert 1993:23; Fairfax Deed Book W-2:1). Over the next thirty years Rotchford amassed a great deal of West End land which, at his death, was conveyed to his son Richard (Schweigert 1993:23; Alexandria Will Book 7:196). Very shortly thereafter Richard Rotchford sought tenants for the idle land.

On November 1, 1858 Richard Rotchford leased to brewers Alexander Strausz of Washington and John Klein of Fairfax County a nearly square lot 102 feet deep and running 105 feet along the Little River Turnpike (Lots B8-B10) south of land owned by James Griggs. On this lot stood a frame house--possibly a building surviving from Charles Jones's or James Sheehy's tenure (Schweigert 1993:39). In addition, "a deep Lager Bier Cellar" was already being dug by Strausz and Klein. The lessees were granted a renewable five-year lease for an annual rent of \$60, payable in quarterly installments. According to the agreement, the land could be acquired in fee simple at any time for a payment of \$1000 (Fairfax Deed Book A-4:347).

The construction of the lager beer cellar was quite significant. Alexandria brewers prior to this time had produced the older, English-style varieties of beer, including ale and porter. These, being top-fermented, did not require particularly cold temperatures for manufacture. Lager beer, on the other hand, needs temperatures in the vicinity of 40 to 45 degrees Fahrenheit for the purpose of fermentation and aging. These temperatures could be provided by Strausz and Klein's deep cellar and copious amounts of ice. Lager brewing, a process recently introduced from Germany, was not yet being practiced in Virginia east of the Appalachians (i.e. within the post-Civil War boundaries of the state; Bull et. al. 1984:306-307). The beer cellar was probably completed in early 1859, with brewing commencing soon after. The firm had at least produced beer by the

Engineering-Science



Source: Hopkins 1879

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FIGURE 22.
HOPKINS'S 1879 MAP OF WEST END
SHOWING THE BREWERY LOT.

winter of 1859-1860, as the 1860 deed for the sale of Strausz's interest to Klein mentioned "the brewing business lately carried on by them." (Fairfax Deed Book C-4:129)

Setting up in the West End was a reasonable decision. Rents were undoubtedly lower than those in town, and there was plenty of room for potential expansion and for the construction of the cellar. Brewers still followed the "established practice of locating their plants on the perimeter of the city, and close to streams [Hooff's Run in this case] to dispose of their effluent" (Kelley 1965:251). A more convenient source of water was secured when the brewery was hooked up to an Alexandria Water Company main (Erickson 1988:21). From a Civil War-period photograph, the brewery building appears to have been a two-story, three-bay, frame structure--just large enough to house a small-scale brewery (Plate 1).

One should not underestimate the difficulties involved in starting such a business. The partners had to bear the initial costs of the equipment plus rent, ingredients, ice, cooperage, and possibly wages for hired laborers (unlike some other local antebellum breweries, there is no evidence that Strausz and Klein had ever used slave labor). There was already another brewery in Alexandria--Martin's, opened in 1856--although it produced ale. Competition came also from British imports and from breweries in Washington and other eastern cities. Personal differences too, often contributed to the downfall of partnerships. Whatever the reasons, Strausz and Klein dissolved their partnership in 1860, after only a year of operation. Strausz sold his interest in the lease and equipment to Klein for \$2000 (Fairfax Deed Book C-4:129).

On the same day, John Klein signed a deed of trust to secure, with the appurtenances of his brewery as collateral, a current and potential debt for malt to Francis Denmead, the Baltimore maltster. The document provides a thorough list of the brewery equipment. Klein had two copper brew kettles, two mash tubs, six fermenting tuns, and various other implements, casks, and barrels. A horse and wagon and "One Transportation Hogshead with hose" were also included. This deed of trust was also the first known instance of the business being referred to as the "Shooter's Hill Brewery" (Fairfax Deed Book C-4:132).

By the end of 1860 Klein claimed to have improved the brewery and sought to drum up business. He advertised "Having made the most approved and modern improvements for the successful manufacture of LAGER BEER..." (Alexandria Gazette, November 27, 1860).

Following the outbreak of the Civil War in April 1861, strategically important Alexandria was occupied by Union forces. Most of the city's residents were sympathetic to the Southern cause; those most active or outspoken in defense of the South suffered most from the occupation. Richard Rotchford--John Klein's landlord, who had probably joined the Confederate army--was accused of being "engaged in armed rebellion against the Government of the United States, and in aiding and abetting such rebellion." By a Congressional act of July 17, 1862 the property of those so engaged was to be confiscated

Engineering-Science



Source: National Archives

Carlyle Phase III

PLATE 1.
CIVIL WAR PERIOD PHOTOGRAPH
TAKEN FROM SHUTER'S HILL.
(ARROW INDICATES BREWERY)

in order to suppress the rebellion and punish those involved. As a result, on October 1, 1863 Rotchford's lands in West End, including the brewery property, were seized by the U.S. Marshal for the Eastern District of Virginia. Naturally, Rotchford did not appear before the court to contest the seizure, and eventually the land was offered for sale at auction (Barbash 1985:3-4; Alexandria District Court, Confiscation Cases). The highest bidder for the brewery parcel was Thomas Dwyer of Alexandria, who acquired the lot for \$195 on July 19, 1864 (Fairfax Deed Book C-4:309, 311). The seizure and subsequent sale affected Klein's business little. He was careful to keep up his rent payments--turning the money over to the U.S. Marshal for the time being--and to renew his lease under the terms of his original agreement with Rotchford (Barbash 1985:4; Alexandria District Court, Confiscation Cases).

Other events related to the war likely had a greater negative effect on the Shuter's Hill Brewery. Despite limited available transport, wholesale and retail liquor businesses brought into northern Virginia more beer and spirits from distant producers (Internal Revenue Assessment Lists 1862-1866). A third local brewery, Portner & Company, was opened by four partners seeking to take advantage of wartime prosperity and the demand for beer. In addition, persistent problems with drunkenness and rowdiness among the soldiery and populace led the military government to ban the sale of alcoholic beverages within Alexandria's city limits (Alexandria Gazette, August 25, 1862). This closed to Klein and his competitors a major segment of their market. They likely then concentrated on sales outside the city, probably mainly to soldiers. Portner & Company, for instance, sold to the forts west of the city and sent beer and provisions, by ship and wagon, south to meet the army (Portner n.d.).¹¹ John Klein and Henry Martin probably did the same.

By the fall of 1865 Alexandria brewers had made and sold nearly 9000 barrels of beer and ale. The Shuter's Hill Brewery had produced nearly half of the total, making it the most productive brewery in Virginia. Its best year ever was 1864, during which Klein sold more than 2000 barrels (Internal Revenue Assessment Lists 1862-1866). That level of production required the enlargement of his plant, an expansion which was completed by the end of 1864 (Alexandria Gazette, January 3, 1865). In addition, it seems that Klein brewed every month through much of the war--a very unusual practice for the time, given the changes of season and difficulty in providing reliable "natural" refrigeration (Internal Revenue Assessment Lists 1862-66). As a result of year-round brewing, Klein's product may have been inconsistent in quality. It is certain that the brewery must have consumed a great deal of ice in the process.

To outsiders Klein's business appeared to be "a large and successful establishment" (*Alexandria Gazette*, May 4, 1865). Unfortunately, despite the fact that beer was commanding inflated prices (up to \$16 a barrel), the Alexandria breweries did not necessarily prosper (Portner n.d.). Robert Portner was in heavy debt (Portner n.d.;

¹¹ Portner & Company had had two wagons captured by the Confederates near White House Landing, Virginia.

The Western Brewer, June 15, 1880; Alexandria Deed Book X-3:513).¹² Klein owed to Francis Denmead more than \$4000 for malt and hops, a debt contracted entirely during the war (Fairfax Deed Book F-4:188). These surprising results were likely due to higher costs of materials, labor, and transport--all directly attributable to the war. In Klein's case, he may have diverted his profits from repaying his suppliers to capital investment in expansion and to saving for the outright purchase of the brewery. He and the others may have overestimated the duration of the armed conflict.

The end of the war brought a collapse in the demand for beer. Also significant for Klein was the return of Richard Rotchford. Thomas Dwyer's ownership of the brewery parcel had been of little value while Klein still occupied it. On July 7, 1865 Dwyer agreed to return the property to Rotchford for \$300 (Fairfax Deed Book E-4:363). Rotchford soon turned a tidy profit, selling the brewery outright to Klein for \$1000 ten days later (Fairfax Deed Book E-4:380).

Klein did not long enjoy ownership. He died on August 7, leaving his personal possessions to his wife, but with the brewery still in trust to maltster Francis Denmead (*Alexandria Gazette*, August 9, 1865; Fairfax Deed Book C-4:131 and F-4:188). As Klein's indebtedness had only increased since the deed of trust, and his estate was of insufficient value to satisfy the debt, Denmead and Catherine Klein, John's widow and administrator of his estate, agreed that it would be in everyone's best interest to sell the brewery at auction. Advertisements in Alexandria, Baltimore and Philadelphia newspapers, however, failed to produce a higher bidder than Denmead. For a total of \$7,876 he purchased the land, improvements, equipment, and Catherine Klein's interest in the property (Fairfax Deed Book F-4:188). The auction advertisements give further valuable information about the brewery: the premises then included a dwelling, frame building (these were probably one and the same), and a stable. The cellar or vaults could hold 500 barrels of beer. In addition, the capacity of the two brew kettles is given as 30 barrels and 10 barrels (*Alexandria Gazette*, September 14, 1865) (*Figure 23*).

The acquisition of a brewery by a maltster through foreclosure or trust sale was not unusual. Denmead had captured most of the malt market in eastern Maryland, northern Virginia and the District of Columbia soon after opening his City Malt House on West Falls Avenue in Baltimore in 1857 (*Evening Star*, August 5, 1857; Portner n.d.; Historical Society of Washington, D.C., Juenemann Collection). Not only did Denmead supply Klein (and later Henry Englehardt), but also Robert Portner and a number of Washington brewers. Malt and hops suppliers tended to be a brewer's largest creditor. Brewers often "became mortgaged to malt manufacturers for malt bills and had to relinquish their plants to them. In this way, several malt manufacturers became brewers, or had brewery workers man foreclosed plants for them." (Kelley 1965:174) The Shuter's

¹² Portner stated in his memoirs that prices from \$12 to \$16 per barrel could be had. However, as in Klein's case, Portner & Company was not an unalloyed success. The firm was heavily in debt by the end of the war, and Portner considered it a failure.

LAGER BEER BREWERY, NEAR ALEXANDRIA, VA., FOR SALE.—By authority of a deed of trust executed by John Klein, bearing date of May 8th, 1860, duly of record among the Fairfax County Land Records, and by consent of parties interested, the subscriber, the trustee appointed by said deed, will sell at Public Auction, on SATURDAY, the 30th day of September, 1865, at 12 M., on the premises, the SHOOTER'S HILL BREWERY, situated at West End, near the city of Alexandria, Va., owned by the late John Klein.

The brewery is supplied with two kettles, the smaller one brewing ten barrels and the larger one thirty barrels—capacity of the vaults five hundred barrels. On the premises is a comfortable dwelling, frame building, suitable for a store; also, a stable. The whole establishment is very complete, is supplied with water from the Alexandria Water Works, and is in a condition for immediate use. Terms—CASH.

sep 14-eodts

GEO. W. BRENT, Trustee.

Source: Lloyd House

Hill Brewery would become one of the latter. Francis Denmead had acquired at least two Baltimore breweries, Schreier's and the Albion Brewery, in a similar fashion and had, at times, held mortgages to other firms (Kelley 1965:174-175, 399).

Francis Denmead quickly rented the Shuter's Hill Brewery to Robert Portner, now sole owner of the former Portner & Company brewery. Portner used the facility to add to his capacity over the winter of 1865-1866, until the post-war diminution in beer sales almost ruined his business (Portner n.d.).

As with his Albion Brewery, Denmead may have decided to retain Shuter's Hill and "put it on a profitable basis" by leaving a brewer in charge to conduct the business for him (Kelley 1965:174). He apparently kept on Henry Englehardt, a former Klein employee, as brewmaster or manager. Englehardt was born about 1833 and had emigrated to Baltimore from Bavaria at the age of seven. In 1852 he moved to Alexandria and worked with Jacob West in the manufacture of "pop and mineral waters." He may have worked for Strausz and Klein since the founding of their firm (United States Census, Population Schedules, 1860, 1870 and 1880; *Alexandria Gazette*, August 23, 1898, "Death of an Old Resident").

Englehardt did not limit his business to brewing. Like most early German-American brewers and Alexandrians Portner, Steuernagel and Pogensee, Englehardt sought to establish a successful restaurant, saloon, or beer garden as a subsidiary concern (Kelley 1965:257; Portner; Fairfax Deed Book F-4:434; Alexandria Deed Book X-3:430). The beer hall and beer garden were already old traditions and, on a practical level, allowed the brewer to introduce and sell more of his product. As Englehardt was not then owner of the Shuter's Hill Brewery, he probably wished to establish a secure business under his own name. By May 1868 Englehardt and Gottlieb Kaercher, the former brewmaster for Portner & Company, had opened a beer garden on King Street at the foot of Shuter's Hill. This site may have been that occupied by Christian Pogensee's restaurant/brewery in 1865. Their "attractive summer resort" was "fitted up for the season" for "all desiring pleasant recreation, and quiet and congenial entertainment." Perhaps most importantly, "[Liquid] refreshments of all kinds [were] on hand." (*Alexandria Gazette*, May 25, 1868) Beer gardens were usually pleasant, shady, park-like settings, often with "flower terraces, a bandstand, a bowling alley and tavern where, on Sunday afternoons" people--most of German descent--could come to relax, listen to music, eat "assorted wurst sandwiches," and enjoy beer (Kelley 1965:257). Depending on the location and on the character of the proprietor, beer gardens could be sites for church picnics or for gambling and prostitution (Kelley 1965:407). At the very least, the proprietor ran the risk of occasional drunken unruliness. Robert Portner's beer garden drew many Washingtonians and made his beer known in that city, "although it caused a lot of trouble" (Portner n.d.).

Although the beer garden enterprise did not last, Englehardt remained in the restaurant/saloon business. He is listed in the 1870 and 1871 Alexandria directories as having a restaurant, not on King Street, but on Duke Street in West End. It was almost certainly in or near the frame building that housed the brewing operation. Englehardt

would run a saloon there continuously or intermittently for the rest of his life (Barbash 1985:10; Internal Revenue Assessment Lists for Taxpayers 1874-1910; Richmond and Company 1895:91, 245; Richmond and Company 1897:95, 261).¹³ Henry Englehardt and his family probably also lived in the "dwelling" mentioned in the September 14, 1865 *Alexandria Gazette* advertisement. They did not purchase a separate home until 1880. With post-war production much lower than what it had been, more space would have been freed for other uses. Significantly, the drop in local demand seemed to provide no compelling incentive to invest in new brewing equipment or to expand capacity. The limited cash flow of such a small business was also an impediment to expansion.

By 1872 Francis Denmead was seeking to liquidate some of his business interests (Heurich 1974:604).¹⁴ His ownership of the Shuter's Hill Brewery may have been a liability; Denmead probably believed that he could profit more by its outright sale and from continuing to supply malt. On October 1, 1872 he conveyed the property to Henry Englehardt and his wife Carrie for the sum of \$5000, payable in fifteen annual installments of \$333 each, plus interest (Fairfax Deed Book M-5:595). They immediately placed the property in trust to protect Denmead from default (Fairfax Deed Book P-4:180).

In retrospect, 1872 seems to have been an inopportune time to begin a business. The following year the United States entered a sharp depression. The number of breweries, which had been increasing rapidly until this time, peaked in 1873, then fell (Siebel and Schwarz 1933:74). Most of those that failed were smaller operations that did not keep up with technological innovations.

With ownership, the brewing operation became Englehardt's main line of business. It was an activity that he would continue until about 1892. By 1876, he was brewing weiss beer in addition to lager (Chataigne 1876:4). In a sense, weiss beer was an easier product to make. It did not need the extremely cool temperatures that lager did. Hence, it did not require as much ice--and the labor involved with its handling--and could more easily be brewed at various seasons of the year. Furthermore, its total fermentation time was shorter. Weiss beer did, however, require bottling for its preparation and sale (Kelley 1965:395; Warner 1992:81). Having been in the soda water industry, it was a reasonable endeavor for Englehardt to engage in, as some beverages, like ginger pop and root beer, were routinely fermented in those days (Byrn 1852:162-164).

While much of his lager was undoubtedly kegged for sale or tapped in his saloon, Englehardt offered both lager and weiss beer in bottles (Chataigne 1876:4) (*Figure 24*).

¹³ With the exception of the 1893 fire at least. Federal tax assessments suggest that Englehardt had a saloon license during the 1880s, and local directories and his obituary state the same thereafter.

¹⁴ Denmead even offered his malt house for sale as a brewery to Washingtonians Christian Heurich and Paul Ritter.

It is unclear where or how he bottled his product. He may have had a small, hand-operated, mechanical bottling device, but it is likely that he did not do the bottling himself. The contemporary federal regulations were such that they required bottling to take place across a public road from the brewing activity (H.S. Rich & Co. 1903:113; Baron 1962:245-246). The reason for this was related to taxation and not to any regard for health and safety. Until 1890, beer was to be put in barrels so that the federal excise tax stamp could be affixed. Transportation across a public road was to ensure that this was done before the beer was bottled and sold. It is therefore likely that Englehardt contracted out his bottling operations to a local bottler, thus raising his costs. This could be supported by the rarity of bottles found on the site (or excavated elsewhere in Alexandria) embossed with his name, in contrast to the presence of numerous examples from Alexandria and Washington brewers and bottlers. Eventually, Englehardt's product may have been bottled by O'Sullivan and Greene, Alexandria grocers, bottlers, and local agents for the Pabst Brewing Company and Washington Brewery Company (Richmond & Company 1895:155; Richmond & Company 1897; *Alexandria Gazette*, August 23, 1898). A barrel of the Washington Brewery Company's product was discovered during the Phase III excavations outside Englehardt's beer cellar. The late date of Alexandria bottling works might explain the dearth of "Englehardt" embossed bottles--all of which could date to the early 1890s--and the plenitude, on the other hand, of stoneware bottles. The presence of competitors' bottles could be explained by their reuse by Englehardt, their sale in his saloon, or their production or use as cullet in the nearby Virginia Glass Company from 1893 on.¹⁵

Henry Englehardt eventually decided to move his family out of the brewery structure and to buy a house some distance removed. In 1880 he and his wife purchased the old "Tan Yard Lot" east of Hooff's Run and south of the stone railroad bridge, straddling the Alexandria city/Fairfax County boundary (Fairfax Deed Book A-5:52; Alexandria Deed Book 9:24). They paid much of the price in cash, but signed a deed of trust to guarantee payment of the rest (Barbash 1985:9; Alexandria Deed Book 9:53). Until this time the Englehardt household had included not only their three children, but also two employees. By the time of the 1880 census, Frederick Hauney, a 51-year old immigrant Swiss "servant" who worked in the brewery, and John M. Clewes, a 38-year old native Virginian who acted as clerk, were living with the Englehardts (United States Census, Population Schedules, 1880).¹⁶ Clewes had been hired sometime during the 1870s, but Hauney had lived with, and possibly worked for the family for at least a

¹⁵ This factory appears as a "Glass Bottling Works" on Hopkins's 1894 map. It was located southeast of the brewery, across Elizabeth Street. However, the business made bottles, and did not bottle beer.

¹⁶ The complete household list included Henry Englehardt, head, age 43; Carrie, wife, age 31; Margaret, daughter, age 10; Catherine, daughter, age 5; John H., son, age 2; Frederick Hauney, servant, age 51; and John M. Clewes, age 38, clerk.

HENRY ENGLEHARDT,
Bottled Lager and Weiss Beer
BREWERY,
WEST END  CE STREET.
ALEXANDRIA, VA.

Source: Chataigne 1876

decade (United States Census, Population Schedules, 1870).¹⁷ The presence of these two employees suggests that operation of the brewery had grown either successful enough or difficult enough to require assistance (Barbash 1985:9). With young children in the house Carrie Englehardt was undoubtedly less able to assist her husband with the business, and was probably very happy to move from their cramped quarters.¹⁸ Subsequent events suggest that it was crowding rather than prosperity that spurred the move.

Very few figures are available on the post-war production of the Shuter's Hill Brewery. Sales for 1878 totaled 328 barrels. The following year they reached 480 barrels (Salem 1880:259). It is unclear whether this represents a trend of increasing production or is merely evidence of significant annual fluctuation. However, it is certain that Englehardt's production never exceeded 500 barrels (Barbash 1985:10; Internal Revenue Service Assessment Lists for Taxpayers 1874-1910). These levels represent approximately one tenth of the average yearly production of American breweries at the time (Siebel and Schwarz 1933:74). Federal tax policy discouraged small-scale brewers from breaking the 500-barrel "barrier." In addition to a one dollar per barrel excise, brewers had to purchase a new license annually. For those who produced less than 500 barrels annually, the license cost \$50. Those who made more were charged \$100. Therefore, the marginal cost of a few barrels over 500 was quite high.

For the purpose of comparison, during the same years of 1878 and 1879, the production figures for the Portner brewery were 10,366 barrels and 12,192 barrels respectively (Salem 1880:259). In fact, by the last year of the Shuter's Hill operation, the Robert Portner Brewing Company was making about 60,000 barrels annually (*Alexandria Gazette* clipping, n.d.). The reasons for this great disparity are clear. Englehardt clung to traditional methods and settled on satisfying a limited local market, probably reached largely through his saloon. Portner, on the other hand, constantly improved and enlarged his brewery, added the latest brewing, refrigeration, pasteurization, and bottling technology to increase production, and established depots in distant cities to aggressively broaden his market area. Portner incorporated his business in 1883 and sold stock in order to increase capitalization.

¹⁷ Hauney was identified as a farmhand in the 1870 census. At that time he may have only boarded with the Englehardts.

¹⁸ Carrie Englehardt assuredly helped her husband run the business though she was listed as "keeping house" by the censuses. Carrie's brother, Christopher Dickson, was a Washington brewer with an ale brewery and restaurant in operation from 1866 to 1882. It is unlikely that Carrie would not have had some exposure to and knowledge of the brewery/restaurant/saloon business (Boyd 1867:229; and Boyd 1882). There is no information on employees other than Hauney and Clewes, though Gottlieb Kaercher is a possible candidate.

It was through increased production that brewers were really able to enjoy appreciable profits. Increased scale brought improved efficiency; overhead costs per unit of production decreased. Technological advances reduced labor costs. The use of artificial refrigeration and scientific brewing methods ensured higher, more consistent, and more predictable production. It became possible for brewers to brew, bottle, and transport a beer to another city, and then to sell it for less than a comparable product made by an indigenous small-scale firm. Within Alexandria itself there was no contest; Portner could outsupply and probably undersell Englehardt. But that was not the whole story. By the 1890s, beers from Washington, Baltimore, St. Louis, Milwaukee, Rochester and other cities were reaching Alexandria, although Portner products seem to have reined supreme (Alexandria Archaeology artifact collection; Richmond & Company 1895; Ketz and Reimer 1990; Johnson 1983).¹⁹

Englehardt's inability to adapt to the changing nature of the brewing industry was likely both the cause and the effect of financial problems which were now becoming chronic. In 1882 he made certain to claim the state homestead exemption to prevent future claims on his family's property (Alexandria Deed Book 10:525). Seven months later, however, he put the home in trust to secure a loan probably used for his business (Barbash 1985:10; Alexandria Deed Book 12:8; Fairfax Deed Book T-5:141). Eventually Englehardt had to sell the house to make good this debt, and it is probable that the family moved back to the brewery lot (Fairfax Deed Book T-5:634). Most significant, however, is the fact that although he had occupied the brewery for many years, Englehardt had never made any payments to Francis Denmead toward the purchase price! Perhaps satisfied that Englehardt had been (barely) able to stay current in his account for malt, Denmead did not press the financially strapped brewer too hard for his money.

Englehardt's difficulties only increased. His wife Carrie died of cancer at the age of 41 in the fall of 1888 (Barbash 1985:10; *Alexandria Gazette*, September 24, 1888). Then, in 1891 he was arrested twice for violations of Alexandria's liquor laws. That May he was fined the enormous sum of \$500 for selling alcoholic beverages on a Sunday and without a city license, and in September he was re-arrested and fined \$400 for again violating the Sunday law (*Alexandria Gazette*, May 13, 1891, May 14, 1891, September 28, 1891, October 2, 1891, October 9, 1891, October 10, 1891, and October 15, 1891; and *Fairfax Herald*, October 2, 1891 and October 16, 1891).²⁰ It is not known if the beverages in question were his beer or some spirit sold across the bar. The charges caused something of a constitutional dispute, as Englehardt actually did business in

¹⁹ Portner bottles are by far the most heavily represented pre-Prohibition bottles in the Alexandria Archaeology collection. Advertisements for other brands do show up in contemporary directories and newspapers. Henry Johnson, an elderly local resident, recalls the ubiquity of Portner beers in local establishments before Prohibition.

²⁰ The various articles present somewhat conflicting accounts of the offenses and the fines charged.

Fairfax County. The City of Alexandria had previously claimed police jurisdiction a mile beyond the corporation limits, and Englehardt's lawyer argued that this law was illegal. The lower court upheld the law, and Englehardt appealed (*Alexandria Gazette*, October 9, 1891; *Fairfax Herald*, October 16, 1891).

Although Englehardt had violated the local liquor laws, one can see his point of view in doing so. First, the argument could be made that since he did not conduct business in Alexandria, the city licensing provision should not apply to him. Second, the fines assessed seem extreme. Third, the passage of "Sunday laws," and other saloon regulations backed by zealous prohibitionists, particularly hurt his type of business. His brewery/saloon was not located in the city, and therefore, during the week it would tend to be little frequented. On the other hand, workers at that time typically put in six-day weeks, leaving only Sunday afternoons for recreation. Englehardt's patrons, despite having no moral reservations about drinking on Sunday (or any other day), were prohibited from doing so, at least outside of their own homes. Furthermore, the nature of lager beer itself demanded considerable patronage for the saloon. Best when freshly tapped, lager beer can rapidly become stale and unusable if not consumed quickly. According to Schluter, "A rapid consumption can take place only where many people congregate....Only on Sundays and holidays, when Germans got together to spend their free hours, was this the case" (Schluter 1910:54). For this reason, sales to individual taverns by Washington breweries, for instance, typically occurred two or three times a week, in amounts of only an eighth- or quarter-barrel each time (Heurich 1873-1874; Heurich n.d.:51).

On the other hand, Englehardt may have taken pleasure in defying the authorities. It seems that he was known to have a temper. During a "disturbance" on Christmas 1874, he "struck a colored man on the head with a fence rail, and had his throat cut, but not seriously, with a razor" (*Alexandria Gazette*, December 26, 1874). And not only was he guilty of multiple violations of the liquor laws, he refused to pay the fines, until three of his acquaintances--"responsible citizens"-- vouched for him and secured his release on bail (*Alexandria Gazette*, October 9, 1891, October 12, 1891, and October 15, 1891). It should not be forgotten, however, that Englehardt was not alone in violating the laws. In the same session at which he appeared, the grand jury returned two other indictments against tavern keepers (*Alexandria Gazette*, May 13, 1891).

The evidence suggests that the sums demanded for the fines were beyond Henry Englehardt's means. The fines and his losses arising from the curtailment of his business hours may have directly led to the failure of the brewery. These factors, or the failure of his suppliers to extend further credit, would close the brewery in 1891 or 1892.

Englehardt's financial problems finally seemed inescapable. The maltster Francis Denmead died in 1891, at which time his son, Francis Jr., assumed control of the malting company and reorganized it, with some of the leading Baltimore brewers as stockholders (H.S. Rich & Co. 1903:586; Sheriff 1893:361). That, and a fire the following year which destroyed the original malt house probably made the younger Denmead call in all outstanding debts (Kelley 1965:174). As the Denmeads had still not been paid anything

toward the principal or interest owed from the 1872 purchase of the Shuter's Hill Brewery lot, Francis Denmead Jr. forced its sale. On July 20, 1892 the parties agreed to sell the brewery to Christopher Dickson of Washington for \$1200, in partial satisfaction of the outstanding debt (Fairfax Deed Book M-5:596). And so, it seems, ended brewing in West End. By the next summer Englehardt had not been brewing "for some time" (*Alexandria Gazette*, August 18, 1893, "A Blaze in West End"). This may refer only to a typical seasonal cessation of brewing. After all, we will see that there was still potable beer in the cellar that August. However, identifiable barrels found during the archaeological excavations originated at other local breweries, and not at Shuter's Hill.

Christopher Dickson's motives for the purchase of the brewery are not clear. He was Englehardt's brother-in-law and was probably trying to bail him out of a difficult situation (*Alexandria Gazette*, August 18, 1893). By this time Dickson was a real estate investor, but he had a business background similar to Englehardt's (Boyd 1892, 1895 and 1905). He had had a small ale brewery and restaurant in southwest Washington, D.C. from 1867 to 1882, and maintained a saloon for a short time after that (Boyd 1867:229; Boyd 1883). It is doubtful that Dickson intended to continue the antiquated operations at West End, but more likely that he would back Englehardt in the continuation of the saloon, possibly as a means of social security now that Englehardt was alone and approaching old age. Meanwhile, Dickson remained living in the Washington home of his daughter and son-in-law (United States Census, Population Schedules, 1900; Boyd 1884, 1892, 1893, 1895, and 1905).

Once again disaster struck. On the morning of August 18, 1893 fire was discovered in the west end of the brewery building. In about an hour the brewery burnt to the ground. The *Alexandria Gazette*, August 18, 1893, described the event.

Englehardt Brewery Destroyed By Fire In The West End.

A Blaze in West End -- The usual quietness of West End was disturbed this morning by the burning of the building formerly used by Mr. Henry Engelhardt as a brewery, together with his dwelling house, on the south side of Duke Street extended, about half a mile from the city's limits. Fire was discovered in the west end of the building about ten o'clock, and a telephone message was sent to this city for assistance. Both steam fire engines and the truck were soon thundering toward the scene and upon their arrival got to work immediately. The pipes from the reservoir run past the old brewery, and there was but little difficulty experienced in getting water. The building, however, was constructed mostly of wood, and burned fiercely. It was soon realized that it was doomed to destruction, and that about all that could be done was to confine the conflagration within safe limits. This was successfully done, and the contiguous houses in Alexandria's growing suburb escaped injury. In about one hour's time but little remained of the former building except a few feet of a wall. The origin of the fire is a mystery. The building is owned by Mr. Engelhardt's brother-in-law, Mr. C. Dixon, of Washington. It was worth probably \$2,000 and is said to have been insured. Most of the furniture and brewing fixtures in the building which were also insured, were destroyed. There were between ten and fifteen barrels of lager beer in the place and the bulk of it was saved. When the fire had been extinguished most of those who had been attracted by the

excitement crowded like bees around the barrels, and before the crowd left the receptacles were emptied of their contents. Mr. Engelhardt had not been engaged in the brewing business for some time.

[Courtesy: T. Michael Miller; Alexandria Gazette: 8/18/1893]

The property had been valued at between \$1500 and \$2000, and was certainly insured (Schweigert 1993:27; Alexandria Gazette, August 18, 1893; Barbash 1988:11; Fairfax Deed Book P-4:180). Dickson must have rebuilt immediately, as is suggested by tax assessments and Englehardt's continued use of the property as a saloon (Schweigert 1993:27; Richmond & Company 1895:91, 245). Later maps show near the former brewery location a two-story brick residence (2012 Duke Street) with a one-story rear ell or addition (Sanborn Map Company 1907, 1931, and 1941).

After a few years of saloon keeping, Henry Englehardt died of a brief but severe illness on August 23, 1898. The following obituary appeared the same day in the Alexandria Gazette:

DEATH OF AN OLD RESIDENT.--Mr. Henry Englehardt, an old resident of West End, died about half-past 12 o'clock to-day. The deceased had been critically ill for several days and his chances of recovery had been regarded as slim. Mr. Englehardt was born in Bavaria about 65 years ago, and came to this country when about 7 years old. He took up his residence in Baltimore, where he remained until 1852, when he came to Alexandria and began the manufacture of pop and mineral waters with Mr. Jacob West. Later he, with the late Mr. Cline, established a brewery in West End which was operated up to the time of Mr. Cline's death. Of late years Mr. Englehardt had conducted a saloon on the site of the brewery, which was destroyed by fire some years ago (*Alexandria Gazette*, August 23, 1898).

Only a week later, Christopher Dickson conveyed the former brewery property to his daughter Katherine Lansdale (Fairfax Deed Book B-6:250; United States Census, Population Schedules, 1900). Dickson, his daughter, or her husband--Harry Lansdale, a real estate agent--had already found an interested party to rent the building. On the same day as Katherine received it, she and Harry rented the lot to Constant Ponnet for a three-year term. Ponnet agreed to pay \$120 annually, with an option to buy for \$2000 at the expiration of the term (Fairfax Deed Book D-6:550).

Constant Ponnet was a recent immigrant from France who had settled in West End (United States Census, Population Schedules, 1900). He and his wife Felicite had already accumulated by purchase or lease a good deal of land south and west of the old brewery property, upon which they had set up gardens and greenhouses for a wholesale florist and truck gardening business. About the time of Englehardt's death, Ponnet opened a saloon business on the same neighboring land. The Washington Brewery Company, one of Englehardt's suppliers in the early 1890s, supplied Ponnet with lager beer. In spite of some problems with creditors, Ponnet ran his saloon at least until 1907 (Sanborn Map Company 1907; Fairfax Deed Book T-5:170, 171; Internal Revenue Assessment Lists for Taxpayers 1874-1910; United States Census, Population Schedules, 1900; Schweigert 1993:39-40) (*Figure 5*).

The structure built by Dickson at 2012 Duke Street became the Ponnet home, possibly during or after serving as Ponnet's saloon (Schweigert 1993:39-40; Sanborn Map Company 1907, 1931). Constant Ponnet must have died between 1907 and 1915, when Felicite purchased the house and lot from the Lansdales (Alexandria Deed Book 64:311; United States Census, Population Schedules 1920). It remained the Ponnet's home until at least the late 1940s (Alexandria Deed Book 220:5). By the end of 1951, the house, greenhouses, and neighboring structures had been razed for the construction of a series of steel and concrete-block government and commercial warehouses (Sanborn Map Company 1941 [with later corrections]) (*Figure 6*). It was when these, in turn, were demolished in 1979 that a bulldozer struck the ventilation shaft of Strausz and Klein's beer cellar and the brewery was rediscovered by Alexandria Archaeology.

VI. PHASE II FINDINGS, 44AX35

Definite evidence has not been found that Lots B8-B10 contained buildings prior to 1858. In 1858, these three lots were released and incorporated into a larger lot measuring 102 feet south from Duke Street and 105' fronting on Duke Street. Lots B8-B9-B10 contained a small frame dwelling by 1858, and because Lots B9 and B10 had not been previously distinguished from the West/Rotchford farm lands, it is possible that this structure dated from the initial 1796-1805 lease period for Lot B8 (construction of a dwelling was a requirement of leases issued by John West). In 1858 Strausz and Klein dug a deep beer cellar and probably constructed at least one building for use as a brewery. John Klein had two tax listings in 1868-1870, one "from Strausz, at West End" and one "from Rotchford, at West End"; but these listings appear to have been for the same property and were combined beginning in 1872. It is therefore likely that Klein lived on the property in addition to using the property for brewing purposes. The brewery, possibly the first lager type brewery in North America, may have operated from 1858 to around 1895, when brewer Henry Englehardt is last reported to be operating a "saloon" at West End. Englehardt also apparently operated a restaurant on the property in 1870-71, and it is possible that the restaurant operated in conjunction with the brewery. The consistency of high values for buildings on the property may indicate the brewery/dwelling and possibly other buildings remained on Lots B8-B9-B10 until at least 1912. The rise in value of buildings on Lots B8-B9-B10 in 1893 may reflect the construction or improvement of a brick dwelling at 2012 Duke Street, in Block 10. This house was occupied at least from 1900 to 1924 by the Ponnet family, who operated a large greenhouse complex to the south. It is possible that the house at 2012 Duke Street was built before 1893 and was associated with the brewing complex.

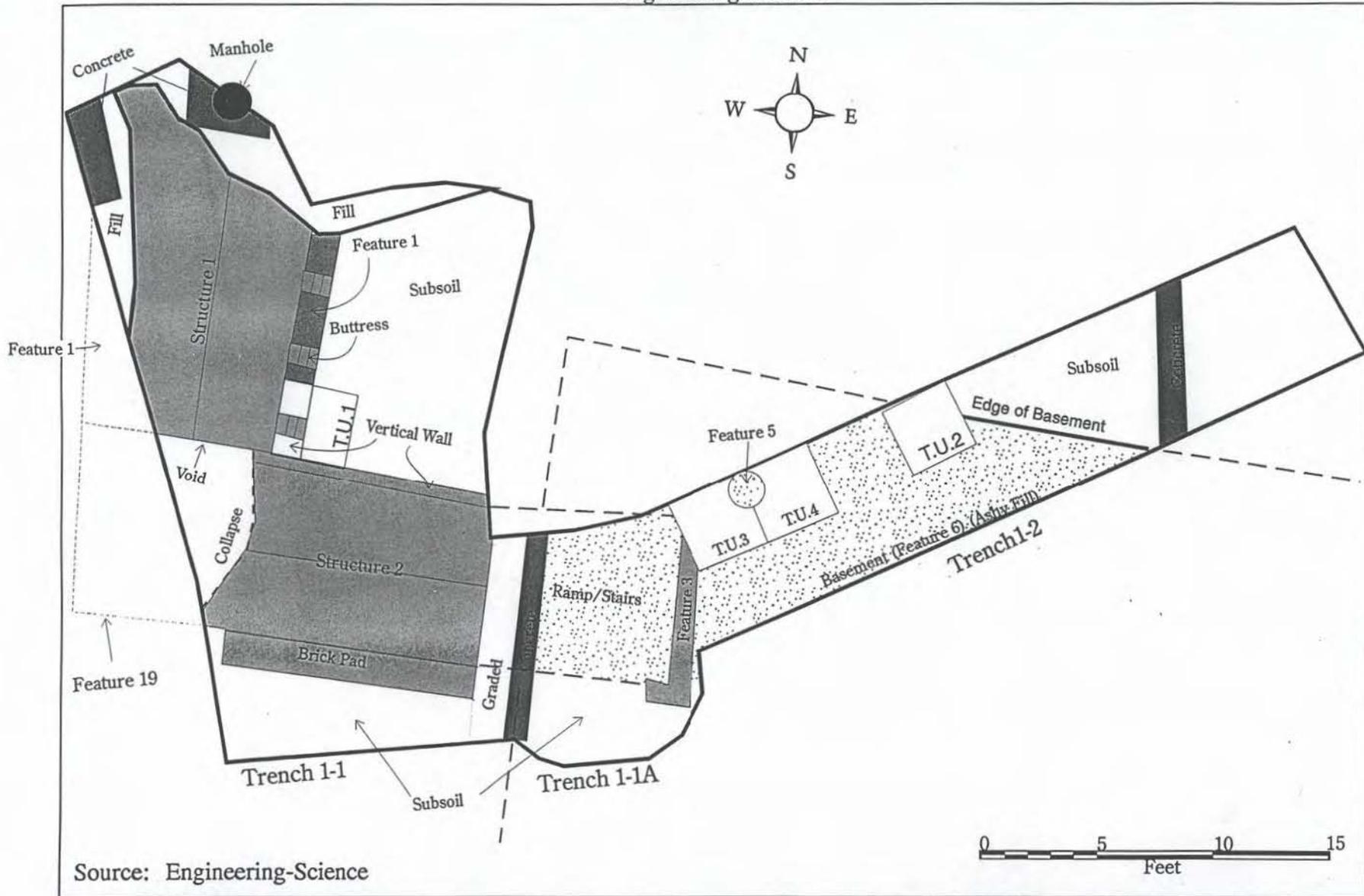
The goal of the testing in Test Area 1 was to expose the underground structure found during the 1970s to determine its dimensions and mode of construction. In addition to the exposure of the cellar, an additional five trenches were to be excavated throughout the area to assess whether other features and deposits survived elsewhere. Three of the trenches were to be 10 feet long, one was 20 feet long and one was 50 feet long. As the investigation of Test Area 1 progressed, it was necessary to revise the testing strategy as our knowledge and expectations of the site changed.

The exposure of the brick vault, designated here as Structure 1 (*Figure 25, 26, and 27*), led to the exposure of a second brick vault, designated as Structure 2 (*Figures 25 and 28*) (*Plate 2*). Approximately a 10 foot by 10 foot section of Structure 1 was exposed. Expansion of the trench (Trench 1-1) any further to the north or west was not possible due to the presence of Elizabeth and Duke Streets. The south end of Structure 1 was uncovered. The end of the vault was constructed, rather than being the result of collapse or demolition. There was an opening into the structure at that end. It had been partially filled with sequences of nineteenth-century, and early to late twentieth-century debris. Entry into the structure to take measurements was not attempted due to safety reasons. The construction pit in which Structure 1 was built (Feature 1) was identified along the east edge of the vault. To the south, Feature 1 ended against another construction pit, designated as Feature 19. The Feature 1 ventilation shaft would have originally extended to the ground surface, although grading and filling had altered the elevation of the surface. The top of Feature 1 at the time of the archaeological investigations lay beneath 1 to 2 feet of modern fill at an elevation of 42 feet Above Sea Level (ASL). The fill within Feature 1 ranged from a brown (7.5YR 5/4) to a yellowish brown (10YR 5/4) sandy clay (Strata G, H, and I) (*Figure 29*). This fill was removed with a backhoe to expose Structure 1. At an elevation of 37.8 feet ASL along the east side of Structure 1, 4.2 feet below the top of Feature 1, three buttresses were exposed within Feature 1 at two foot intervals. Backhoe excavation halted at this level.

Test Unit 1 was then placed to sample the builders' trench fill and to examine a buttress. About a foot below the top of the buttress, the arch stopped on top of a vertical brick wall that had been built against the subsoil. Feature 1 ended on top of this wall. The latest artifacts recovered from Feature 1 were five pieces of whiteware (post ca. 1820).

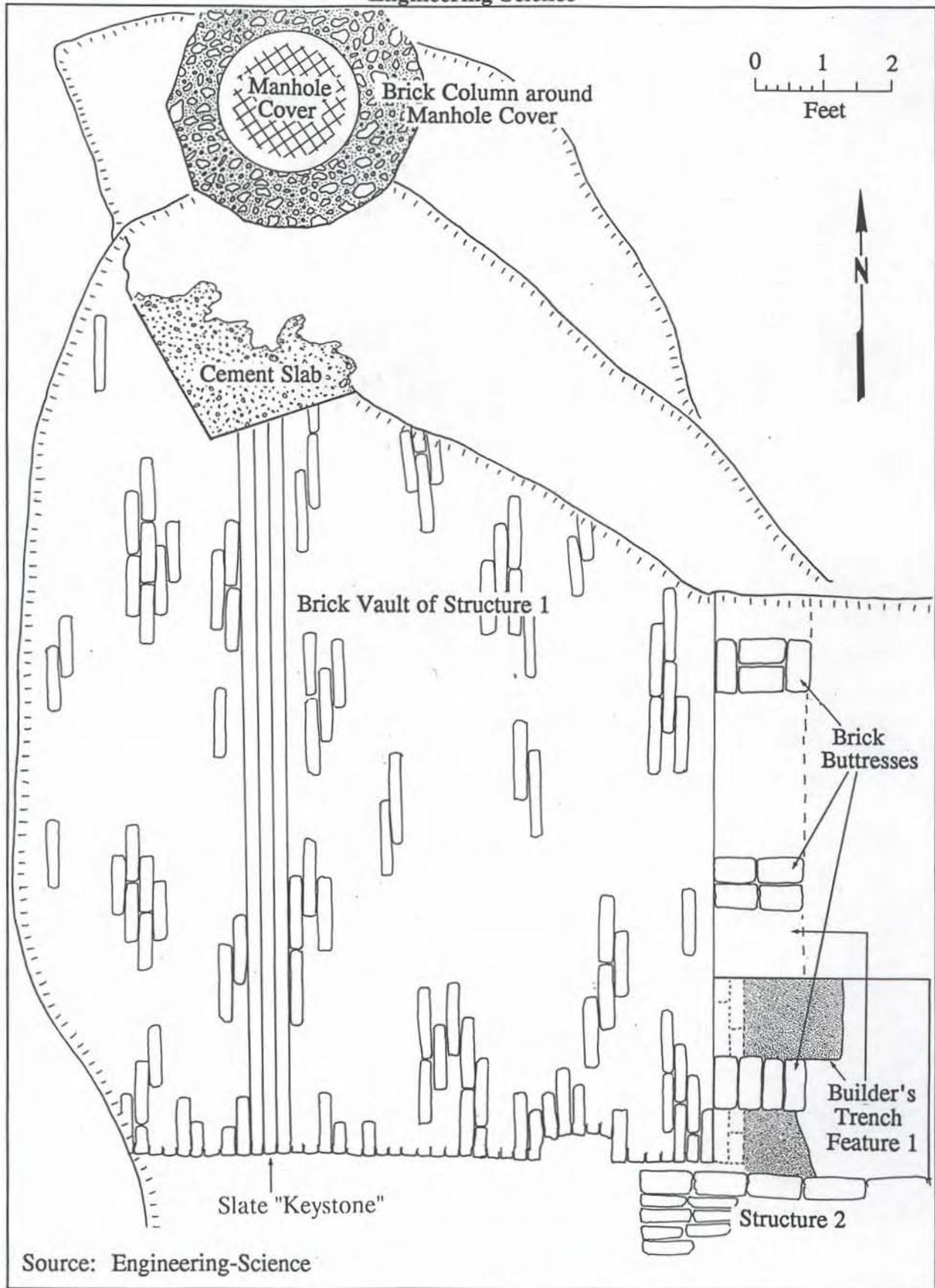
A total of 208 artifacts were recovered from the fill within Feature 1. Of these, 46% (n=95) were architectural artifacts, consisting of brick fragments (n=69), plaster fragments (n=4), window glass (n=12), and nails (n=9). One nail was handwrought, and 8 were either cut or wrought. Domestic material (n=52) was 69% of the assemblage. This group was made up of wine bottle glass (n=4), ceramic sherds (n=46), and vessel glass (n=2). Of the 46 ceramic sherds recovered, 28% (n=13) were creamware (1762-ca.1820), 57% (n=26) were pearlware (ca.1780-1820), and 11% (n=5) were whiteware. One piece each of American stoneware and unidentifiable porcelain were also found. The diagnostic artifacts suggest a construction date in the early decades of the nineteenth century. A mean ceramic date (South 1978) of 1809 was calculated. This date is early for the known construction of the brewery. It is probable that the fill within the builder's trench was incorporated from an earlier occupation or site.

The remaining material from Feature 1 consisted of faunal material (n=39; 19%) and domestic/industrial material (n=20; 10%). Two fragments of possibly natural wood and a kaolin pipestem were also recovered. The faunal remains consisted of oyster shell (n=12), bone fragments (n=23) and teeth (n=4). The domestic/industrial material was made up of coal (n=2), clinker (n=1), and unidentifiable iron (n=17).



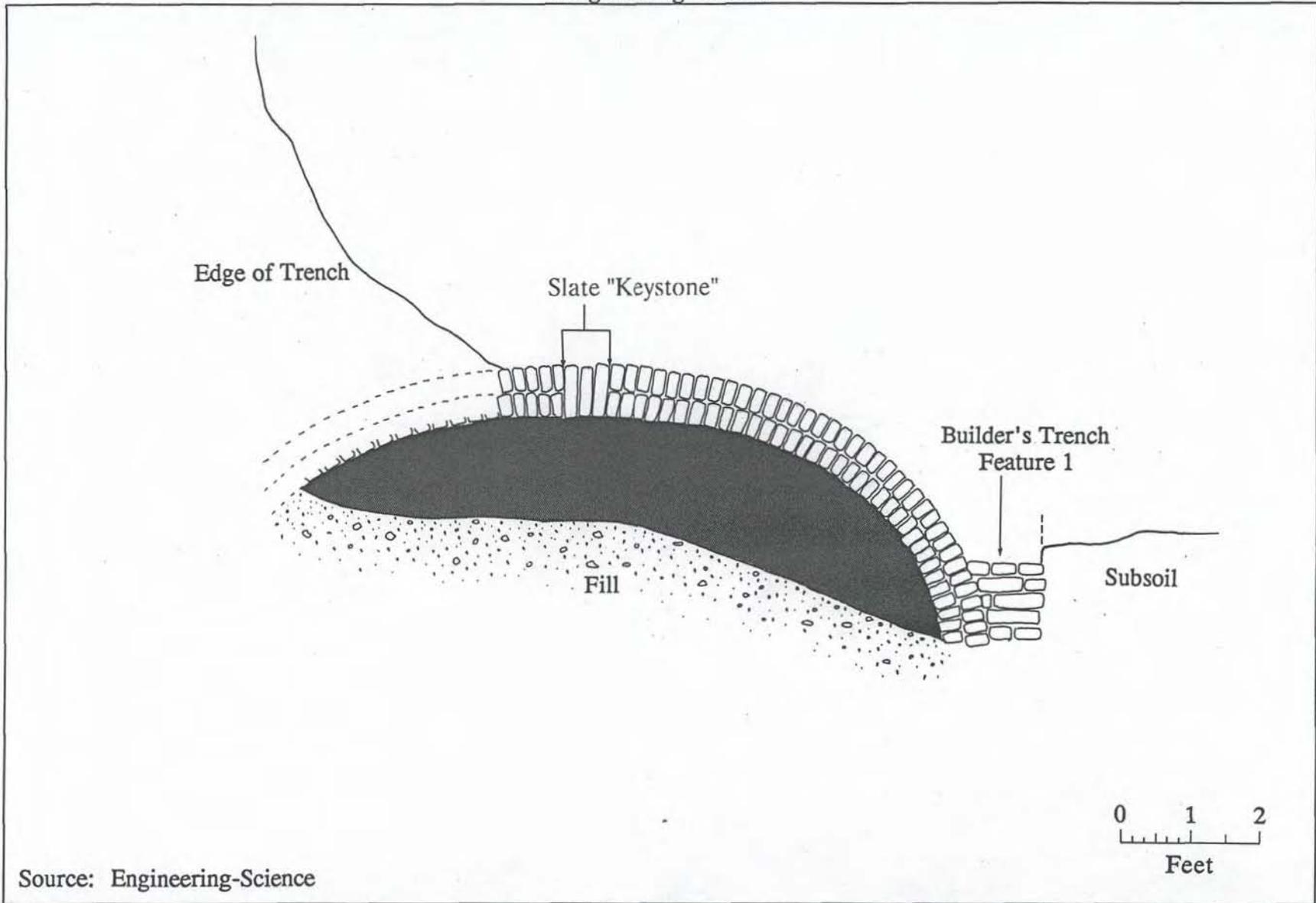
Carlyle Phase III

FIGURE 25.
SHUTER'S HILL BREWERY SITE (44AX35),
PLAN VIEW AFTER PHASE II TESTING.



Carlyle Phase III

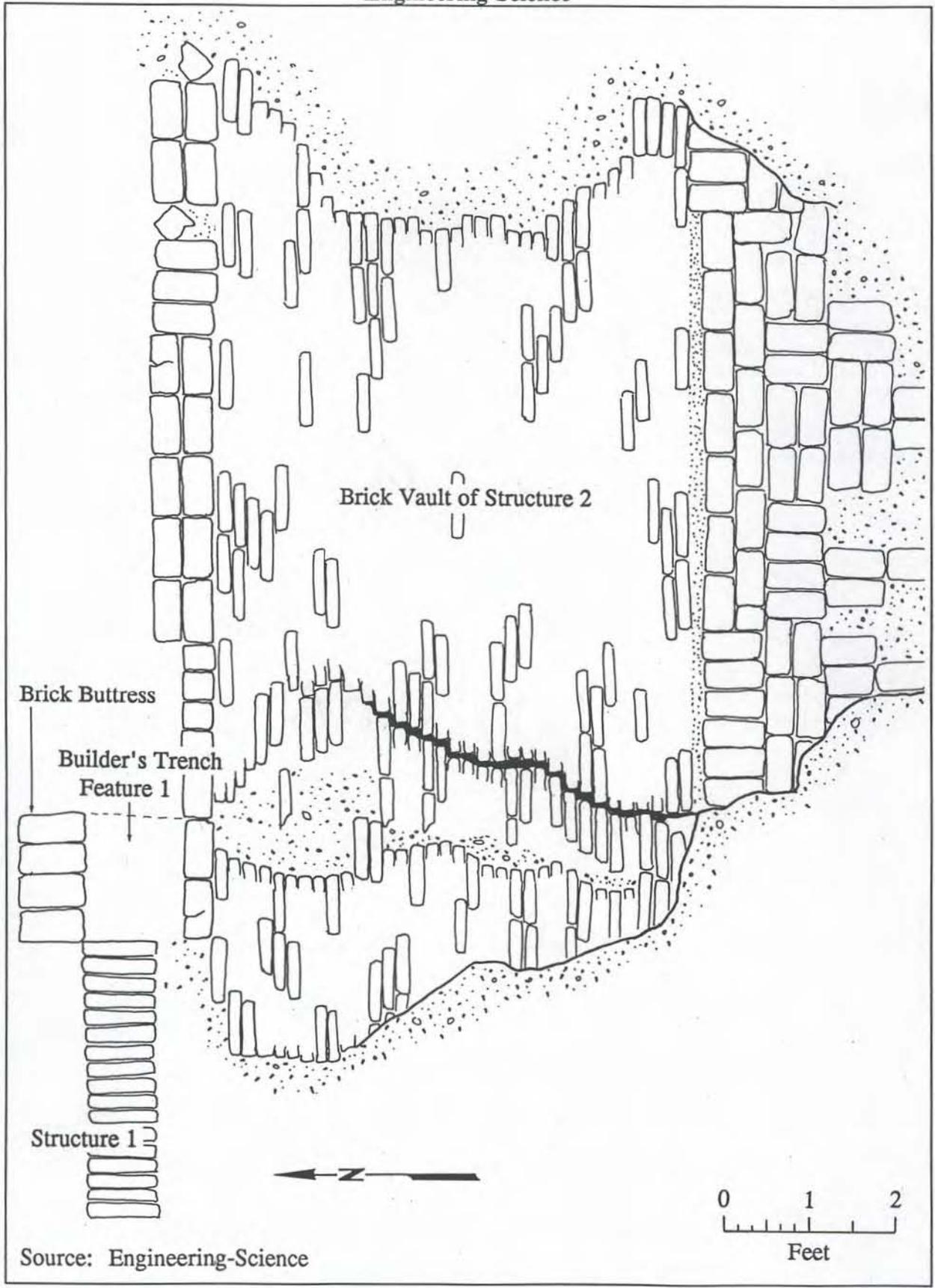
FIGURE 26.
STRUCTURE 1 (BEER CELLAR),
PLAN VIEW.



Source: Engineering-Science

Carlyle Phase III

FIGURE 27.
STRUCTURE 1 (BEER CELLAR),
SOUTH ELEVATION (ENTRY).

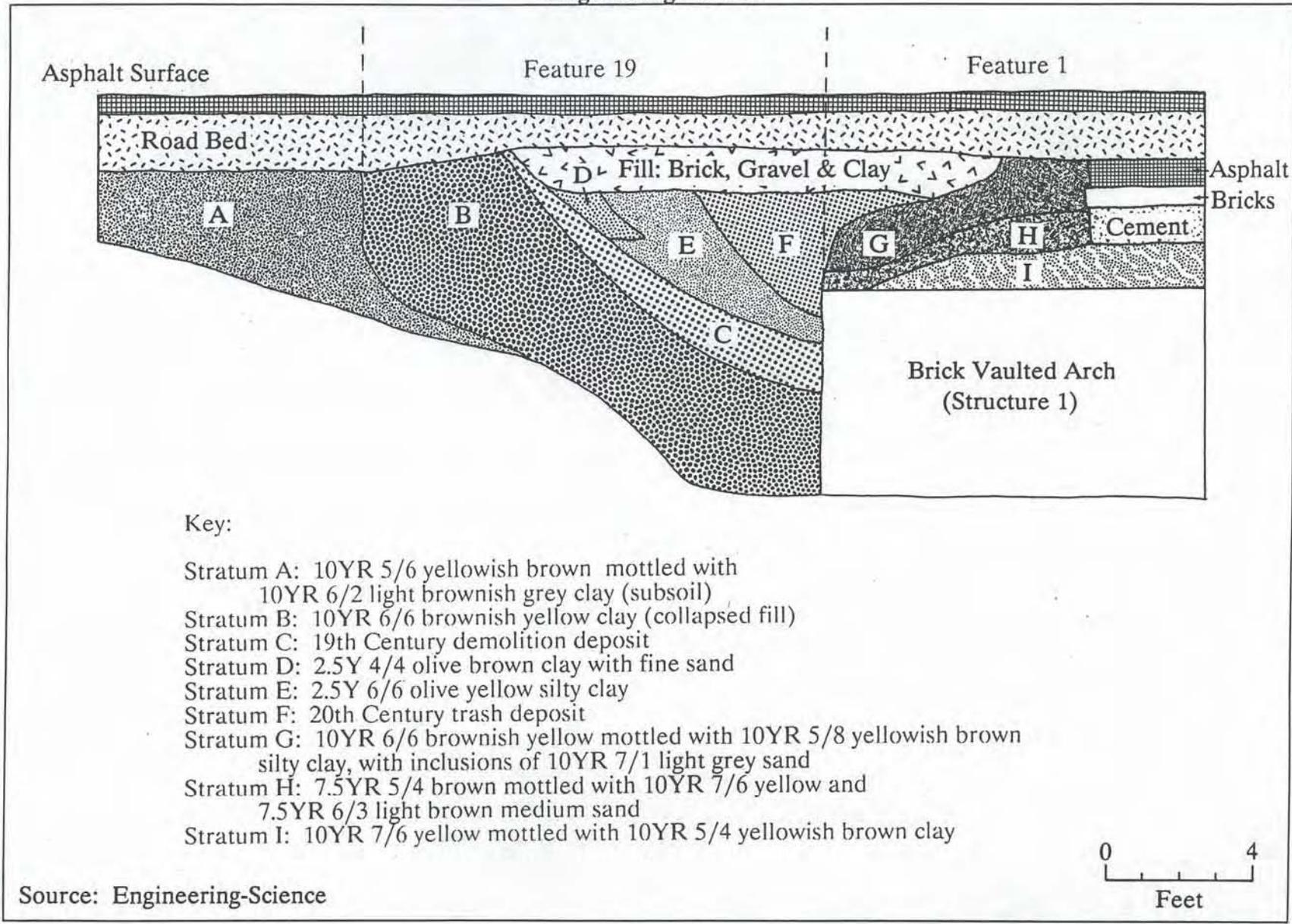


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Carlyle Phase III

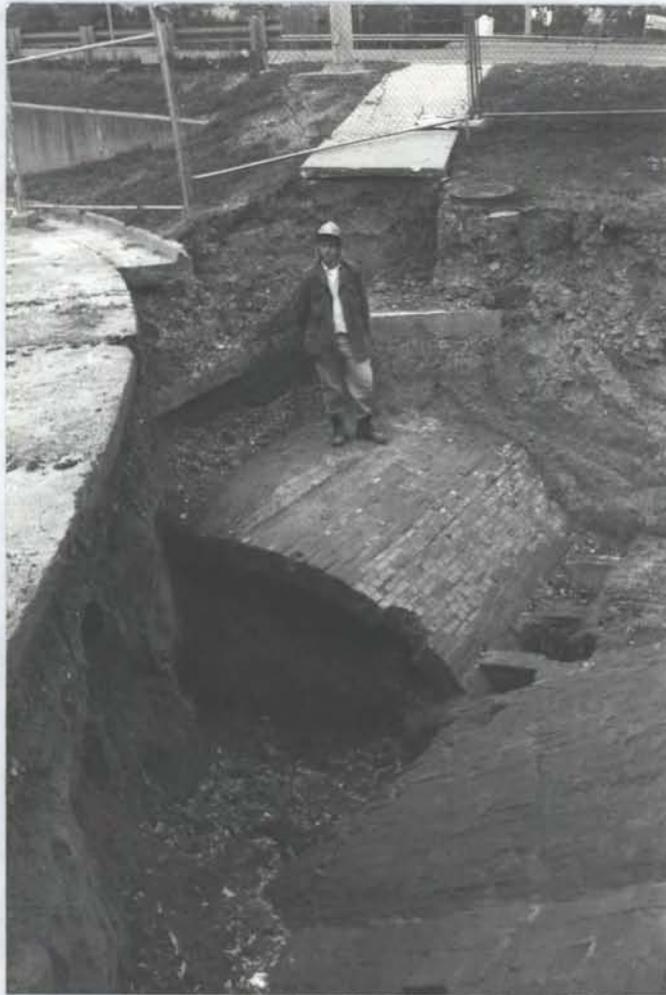
FIGURE 28.
STRUCTURE 2 (ENTRYWAY),
PLAN VIEW.

Engineering-Science



Carlyle Phase III

FIGURE 29.
TRENCH 1-1, WEST PROFILE.



Structures 1 and 2, facing north



Source: Engineering-Science

Structures 1 and 2, facing east

Carlyle Phase III

PLATE 2.
STRUCTURE 1 AND STRUCTURE 2
AFTER PHASE II TESTING.

Structure 2 sloped down from the east to meet the open south end of Structure 1. The construction was similar to that of Structure 1 except that the arch was shallower and was not buttressed. The construction pit for Structure 1 was designated as Feature 19. Although it joined Feature 1, the construction pit for the beer cellar, it was distinguished from Feature 1 as the stratigraphy was discontinuous between the two features (*Figure 29*). It is possible that this discontinuity was due to the collapse of Structure 2 and consequent downward movement of the overlying fill strata. It is also possible that Structure 2 was built, or rebuilt, after Structure 1 had been buried.

The collapse of Structure 2 was most severe at the west end, where it met Structure 1 (*Figures 25 and 28*). The depression left by this collapse and the slumping of the Feature 19 fill was filled with a series of strata deposited over a period of at least several decades (*Figure 29*). The first of these strata deposited into the depression was Stratum C, which was a layer of burn debris. Stratum C was redesignated after the Phase III investigation as Universal Stratum B. The ongoing erosion of this material into the open void of Structure 1 led to later filling episodes, with another layer of clay (Stratum E) being deposited and then a layer of early twentieth century trash (Stratum F). Stratum F was redesignated in the Phase III as Universal Stratum Y. Stratum C appeared to represent the remains of a burnt structure. The volume of bottle glass and the numerous glass beer mugs recovered suggest that it may be the remnants of Englehardt's 1890 era saloon. This stratum was interpreted as debris from the demolition of the brewery/saloon after it burned in 1893.

Artifacts were non-systematically sampled from these strata as they were removed with the backhoe. Of interest are those artifacts that were recovered from Stratum C, the demolition layer. A total of 49 artifacts were recovered from this stratum, which was the debris from the demolition of the brewery structure. Most of this material consisted of bottles and bottle fragments (n=18), 12 of which were glass, and 5 stoneware. A rubber bottle stopper gasket was also found. The bottle glass was all from mold-blown bottles, and included wine, beer, and carbonated beverage bottles as well as a cologne bottle ("Hoyt's Nickel Cologne"). One wine bottle was embossed "JOHANN HOFF", and one beer bottle was embossed "[ROBERT PORTNER/ BREWING CO./ TRADE/ TIVOLI/ MARK/ ALEXANDRIA, VA." and "THIS BOTTLE NOT TO BE SOLD". Two carbonated beverage bottles had embossing. One was embossed "RETURN TO JAMES MCCUEN/ALEXANDRIA/VA", and the other "THE NORTHWESTERN BOTTLING WORKS/ 1601 5TH ST. N.W./ J. H. SCHLUETER/ WASHINGTON D.C." and "THIS BOTTLE IS NEVER SOLD". Robert Portner operated from ca. 1861 to 1915, while James McCuen is recorded in the City Directories from 1895-1915, and the Northwestern Bottling Works from 1890 to 1905. These bottles date the deposition of Stratum C to the years immediately following the burning of the brewery in 1893. The stoneware bottles consisted of three cream-and-gold bottles and two grey stoneware bottles. One grey bottle was stamped "B/NUM. 7" AND A CREAM AND GOLD BOTTLE WITH ".../GLASGOW". Among the other artifacts recovered from the Stratum B backdirt were three glass beer mug fragments and a 1.25 kg lump of charred pine resin. The resin was probably used for sealing the interior of the beer barrels and kegs during the brewery operation.

The highest end of Structure 2, the east end, had been graded off in the twentieth century. An intrusive concrete and cinderblock foundation ran across it from north to south. A trench (Trench 1-1A) was excavated to the east of the cinderblock foundation to determine if Structure 2 continued. Trench 1-1A showed that the subsoil in this area had been excavated at a sharp slope. A course of mortared bricks (Feature 3) that lined up with Structure 2 was identified at the top of the slope. Feature 3 is interpreted as the edge of the floor of Structure 2 where Structure 2 met the basement of the brewery. The angle of some of the Feature 3 bricks indicate that at least part of the Structure 2 floor may have been a ramp, rather than steps. The remains of a gutter could also be seen at the north end of Feature 3. Test Unit 3 was placed to investigate Feature 3. This unit encountered a mortar layer to the east of Feature 3 that was probably the floor of the brewery basement. Set into the floor was a 2.5 foot diameter pit (Feature 5), filled with ash. Test Unit 4 was placed to expose more of Feature 5. After excavation Feature 5 was identified as the remnants of a barrel or wood-lined vat or tub that had been set into the floor. The purpose is unknown. The cultural material recovered from Feature 5 is discussed in the Phase III findings section of this report.

Trench 1-2 was then excavated 30 feet northeast from Feature 3 to determine whether the basement to which Structure 2 was presumably attached survived. A thick layer of ash and rubble that contained numerous bottles and bottle fragments, none of which were identifiable as twentieth century in date, extended from the cinderblock foundation, across Feature 3, and approximately 15 feet along Trench 1-2. This ash was deposited within the basement, which was designated as Feature 6. Following the Phase III investigation, this stratum was given the designation of Universal Stratum J. Universal Stratum J was probably contemporary with the deposition of Universal Stratum B and was a demolition layer. The edge of Stratum J formed a sharp line against the natural subsoil in the northeastern part of Trench 1-2. A concrete foundation had been poured into the subsoil a little further to the east.

Test Unit 2 was placed to investigate the edge of the basement. Three cultural strata were identified in this unit (*Figure 30*). Unit Stratum A was approximately a foot thick and consisted of very dark grey (10YR 3/1) to black (10YR 2/1) sand, charcoal, and ash, mixed with brick rubble. Unit Stratum B was eight inches thick and described as grey (10YR 5/1) to dark grey (10YR 4/1) sand, charcoal, and ash, mixed with brick rubble. These two strata are interpreted as part of the same depositional episode resulting from the demolition of the brewery, and are grouped together as part of Universal Stratum J. The bottom stratum in Test Unit 2, Unit Stratum C, was a layer of light yellowish brown (10YR 6/4) sand that was 2-4 inches thick. This stratum is part of Universal Stratum V, and is part of a layer of sand deposited across the entire basement floor during the occupation of the brewery building. This stratum was not recognized during excavation, but was identified in the section. The artifacts from Universal Stratum V were included with those from Universal Stratum J. A shallow mortar-filled depression (Feature 4) ran along the base of the edge of the basement. This was probably bedding for a robbed-out brick wall.

Universal Stratum J in Unit 2 yielded a total of 1,578 artifacts. Of these, 24% (n=372) were architectural artifacts, 70% (n=1,112) were domestic artifacts, and 5% (n=74) were domestic/industrial. The remaining 1% was comprised of faunal remains (n=14), personal artifacts (n=2), and a charcoal sample (n=4).

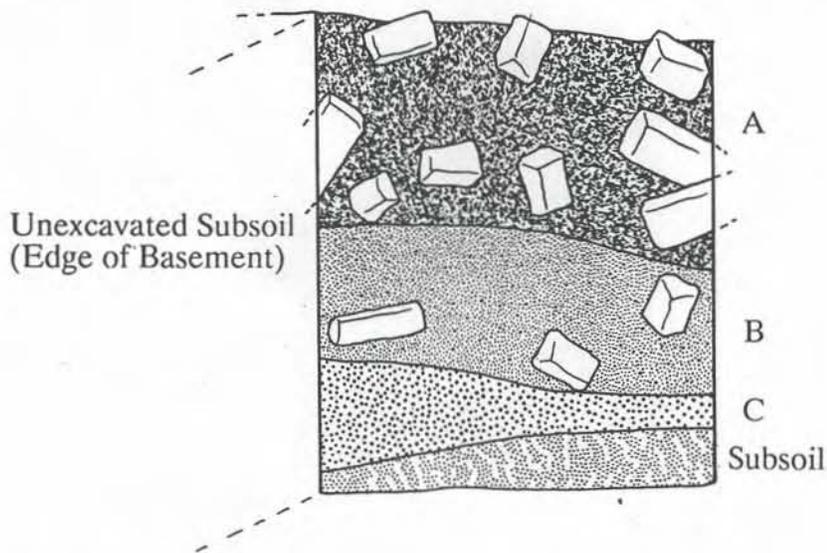
Most (85%) of the architectural artifacts were nails (n=317). These consisted of one wire nail and 310 cut nails. Six nails were identifiable only as square-shanked. The rest of the architectural material consisted of window glass (n=17), ceramic drainpipe (n=5), an iron bracket, and a sample of brick, plaster, and mortar.

The domestic material was dominated by bottle glass (n=824). The mode of manufacture could be identified for 743 of the bottle glass fragments. These were all mold-blown. Three of the bottles had the internal gasket for the stopper still in place. The identifiable embossing included Robert Portner "TIVOLI" and "HYGEIA" bottles (ca.1861-1915), a George Bauernshmidt bottle (ca.1864-1900), and a Rumford's baking soda bottle. A total of 244 stoneware bottle fragments were recovered from Stratum J. These were predominantly cream-and-gold bottles manufactured by Grosvenor in Glasgow. One "GEO. SCHNELL" bottle and one "...N/PREUSSEN" bottle were also recovered. The remaining 44 domestic artifacts consisted of vessel glass (n=11), including eight beer mug fragments, ceramic sherds (n=24), and nine pieces of melted bottle or vessel glass. The ceramics were made up of seven sherds of ironstone (ca.1800+) (Miller 1991), one piece of whiteware (ca. 1820+), seven sherds of Rockingham/Bennington (ca.1830-1930) (Ketchum 1983), two pieces of unidentifiable refined earthenware, and six sherds of stoneware jug.

The domestic/industrial group consisted mainly of melted glass (n=41). Coal (n=4), slag (n=1), porcelain electrical insulator (n=2), and corroded iron (n=7) made up the rest of this group. The faunal material (n=14) was made up of clam shell (n=3), oyster shell (n=5), and bone fragments (n=6) including one cow femur. The personal artifacts consisted of a 4-hole glass button and a kaolin pipebowl.

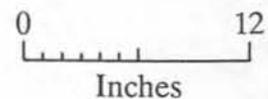
The other trenches in Test Area 1 (Trenches 1-3, 1-4, and 1-5) did not encounter significant archaeological remains. In all cases the stratigraphy consisted of modern fill deposited over graded subsoil.

Further work was recommended at the brewery site as significant archaeological remains were encountered in Test Area 1. These are resources associated with the nineteenth-century brewery and saloon.



Key:

- Stratum A: 10YR 3/1 very dark grey mottled with 10YR 2/1 black medium sand with high ash content, mixed with brick rubble and burned material
- Stratum B: 10YR 5/1 grey mottled with 10YR 4/1 dark grey sandy ash, mixed with brick rubble and burned material
- Stratum C: 10YR 6/4 light yellowish brown medium sand



Source: Engineering-Science

VII. PHASE III FINDINGS FOR 44AX35

The goals of the excavations of the Shutters' Hill Brewery Site (44AX35) were to fully expose the brewery basement (Feature 6) and the associated structures -- Structure 1 and Structure 2. Structures 1 and 2 had been exposed during the Phase II work, and Feature 6 had been identified in an exploratory trench (Trench 1-2), with the edge of the basement being identified in Test Unit 3 and a wooden tub set in to the ground of Feature 6 being located in Test Unit 2. During the Phase II work, the east side builder's trench for Structure 1 (Feature 1) was investigated with Test Unit 1. The exploratory trench also exposed a line of brick (Feature 3) aligned with the east end of Structure 2 at the top of a ramp that sloped down to the west into Structure 2. Feature 3 was the edge of Structure 2 where it joined the floor of Feature 6.

A. Stratigraphic Discussion

During the Phase III investigations of Feature 6, a total of 14 units were excavated to sample the deposits within the basement prior to their removal by backhoe. This allowed a sample of the artifacts within the basement fill to be recovered and provided an accurate idea of the stratigraphy of the basement deposits, permitting the phasing of the deposits into four main phases: construction, fire, demolition, and post-demolition filling (*Figures 31 to 34*). To accomplish the phasing of the strata, the individual unit strata were correlated across the site and given Universal Stratum designations (*Tables 2 to 3*).

B. Phase 1 Contexts

The Phase 1 contexts are those strata and features that were deposited during the construction of and alterations to the brewery/saloon structures (*Figure 35*). As such, they are the earliest cultural deposits on the site and are architectural in origin. A total of 18 stratigraphic contexts are classed as Phase 1 deposits.

The earliest cultural events archaeologically identifiable at 44AX35 were the excavation of the brewery basement (**Feature 6**) and sub-basement (**Feature 26**), and the excavations for the beer cellar (**Structure 1**) and the entryway to the beer cellar from the basement, designated as **Structure 2** (*Figure 36*). These features were excavated directly into the subsoil (**Stratum X**). Structure 1 was constructed before Structure 2. It was not possible to determine relative chronological position of Feature 6 in relation to the other two structures. After the construction of Structures 1 and 2, they were then buried. The Structure 1 construction pit was designated as **Feature 1**, and the Structure 2 pit as **Feature 19**. It was not possible to determine whether the differences in the stratigraphy between Feature 1 and Feature 19 were due to the subsidence of Feature 19 or because Feature 19 was excavated after Feature 1.

Stratum	Description	Interpretation	Phase
A	10YR 5/8 yellowish brown, mixed with 10YR 7/6 yellow, clay	20th c. fill	4
B	7.5YR 2/0 black charcoal, ash, planks, and rubble over Feature 19	Demolition debris	3
D	2.5Y 3/2 very dark greyish brown sand and concrete rubble	20th c. fill	4
E	10YR 5/4 yellowish brown sand	20th c. fill	4
F	10YR 5/6 yellowish brown clay	20th c. fill	4
G	10YR 2/1 black sand, charcoal, and concrete rubble	20th c. disturbance	4
H	10YR 6/6 brownish yellow silty clay	20th c. fill	4
J	10YR 3/2 very dark greyish brown silty sand and charcoal in F.6 and Structure 2	Demolition debris	3
K	10YR 3/1 very dark grey charcoal and ash in F.6	Burn debris	2
M	7.5YR 2/0 black charcoal, ash, and rubble in F.6	Burn debris	2
N	10YR 2/1 black charcoal, ash, and brick rubble in F.26	Burn debris	2
O	7.5YR 2/0 black charcoal, ash, and rubble in Structure 2	Burn debris	2
P	10YR 6/6 brownish yellow, mixed with 10YR 5/8, clay and brick rubble in Structure 2	Collapsed construction fill and subsoil	2
Q	2.5Y 4/2 dark greyish brown sandy loam and ash in north central F.6	Burn Debris	2
R	10YR 6/6 brownish yellow mixed with 10YR 5/4 yellowish brown clay, southern east edge of F.6	Construction Fill	1
S	Decayed mortar, southern east edge of F.6	Construction debris	1
T	10YR 6/6 brownish yellow, mixed with 10YR 7/2 sand, in NE corner of F.6	Fill	1
U	7.5YR 6/6 reddish yellow, mottled with 7.5YR 7/4 pink, clay, in NE corner of F.6	Fill	1
V	10YR 6/4 light yellowish brown sand throughout F.6 and F.26	Sand fill	1
W	10YR 5/8 yellowish brown and 10YR 6/4 light yellowish brown silty clay along southern east edge of F.6	Trampled subsoil	1
X	10YR 5/8 brownish yellow clay, mottled with 10YR 7/2 light grey clayey silt	Subsoil	
Y	Bottle glass, ceramics, iron, bone, and coal	20th c. trash dump	4

Phase 1: Construction and occupation of the brewery and saloon.
 Phase 2: Burning of the brewery and saloon building (1893).
 Phase 3: Demolition of the building after the fire.
 Phase 4: Post-demolition filling and construction

Table 2: Description, interpretation, and phasing of the Universal Strata

Feature	Description	Interpretation	Phase
Structure 1	Subterranean brick vault	Beer cellar	1
Structure 2	Semi-subterranean sloping brick vault and wooden stairway	Basement-beer cellar passage	1
1/19	Pit filled with 10YR 5/4 yellowish brown and 10YR 6/6 brownish yellow sandy clay.	Structure 1 and 2 construction pit	1
5	3.5 ft. diameter wood lined hole in F.6	Vat or tub	1
6	35' x 30' x 1.5' excavation	Brewery building basement	1
20	Brick feature	Unknown	1
21	Wooden planking in F.26	Floor	1
22	Brick line in F.26	Floor support	1
23	Buttressed brick line along northern east edge of F.6, and builder's trench filled with 10YR 5/6 sandy silty clay	Wall footing and builder's trench	1
24	7 inch diameter hole 3 inches deep	post hole	1
25, 27, 28	Line of three iron stains on Stratum V in F.26	Unknown	1
26	Rectangular excavation in F.6	Sub-basement	1
29	Line of brick impressions in subsoil, along north edge of F.6	Robbed wall footing	1
30	East-west line of brick impressions in subsoil, in interior of F.6	Robbed wall footing?	1
31	Line of bricks and brick impressions in subsoil along southern east edge and interior of F.6	Partially robbed wall footing	1
32	Brick impressions in subsoil, interior of F.6	Robbed floor or floor support	1
33	Brick line in F.6 at east end of F.26	Wall footer?	1
34	Brick impressions above south and west edges of F.26	Wall footer	1
35	Iron Pipes and pipe trench in southeast corner of F.6	Water pipes	1

Phase 1: Construction and occupation of the brewery and saloon.
 Phase 2: Burning of the brewery and saloon building (1893).
 Phase 3: Demolition of the building after the fire.
 Phase 4: Post-demolition filling and construction

Table 3: Description, interpretation, and phasing of features

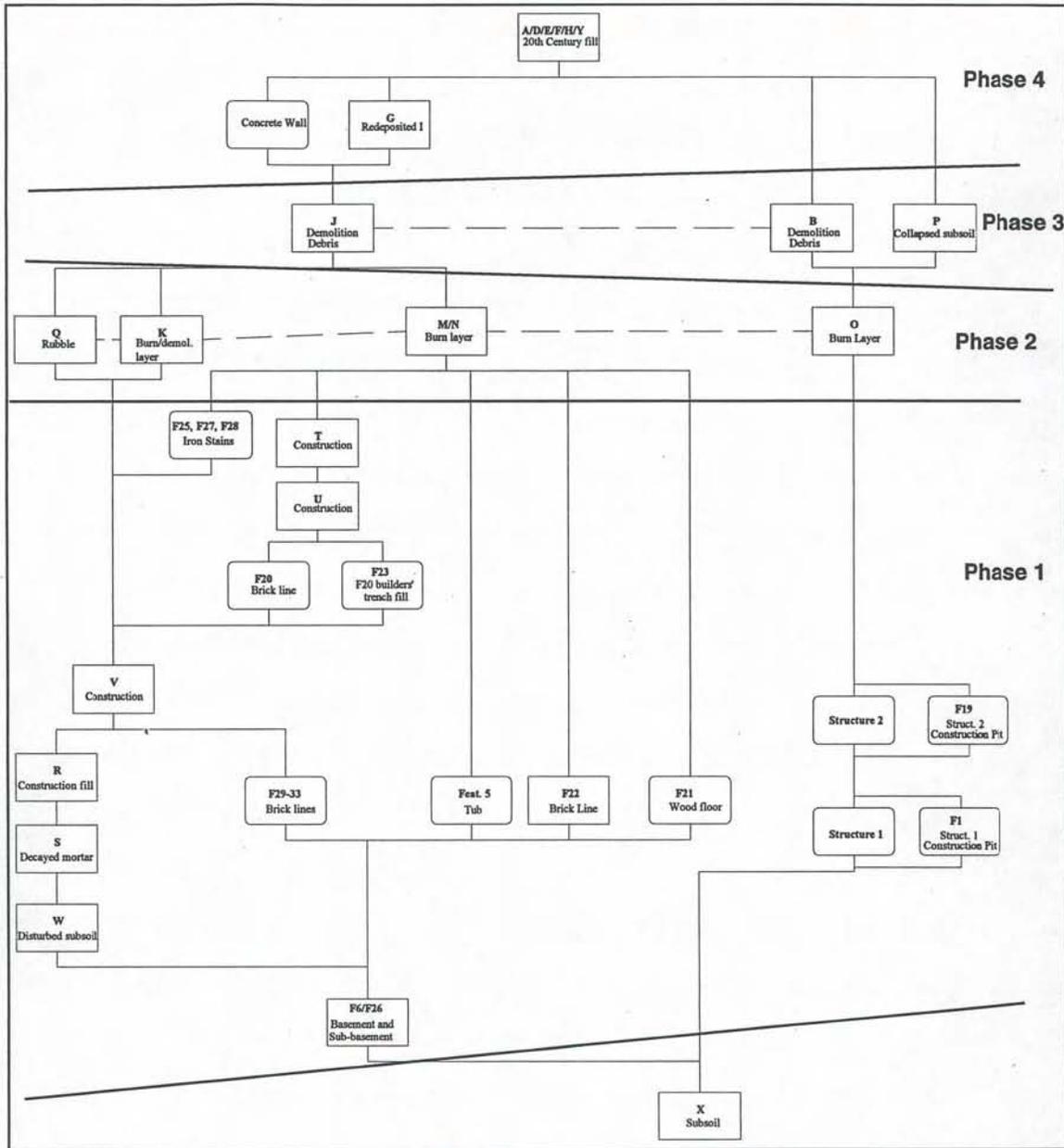
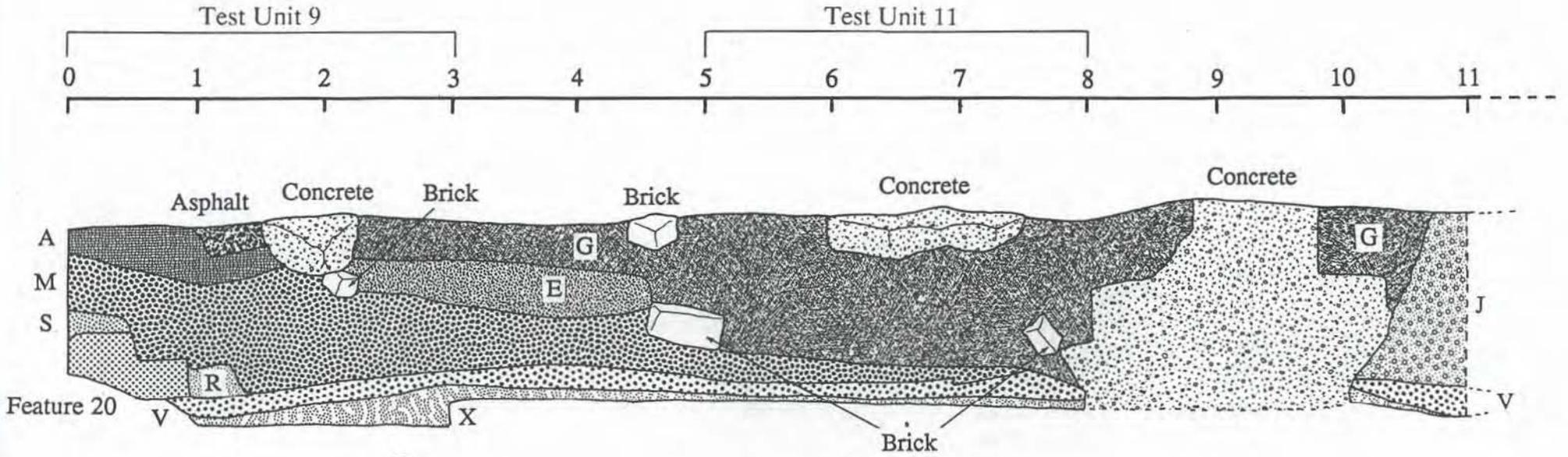


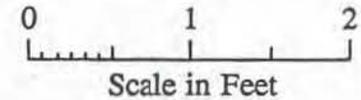
Figure 31.: Chronological sequence of the 44AX35 strata

Engineering-Science



Key:

- Stratum A: 10YR 5/8 yellowish brown, mixed with 10YR 7/6 yellow, clay
- Stratum D: 2.5Y 3/2 very dark greyish brown sand and concrete rubble
- Stratum E: 10YR 5/4 yellowish brown sand
- Stratum F: 10YR 5/6 yellowish brown clay
- Stratum G: 10YR 2/1 black sand, charcoal, and concrete rubble
- Stratum J: 10YR 3/2 very dark greyish brown silty sand and charcoal
- Stratum M: 7.5YR 2/0 black charcoal, ash, and rubble
- Stratum R: 10YR 6/6 brownish yellow mixed with 10YR 5/4 yellowish brown clay
- Stratum V: 10YR 6/4 light yellowish brown sand fill
- Stratum X: 10YR 5/8 yellowish brown clay mottled with 10YR 7/2 light grey clayey silt

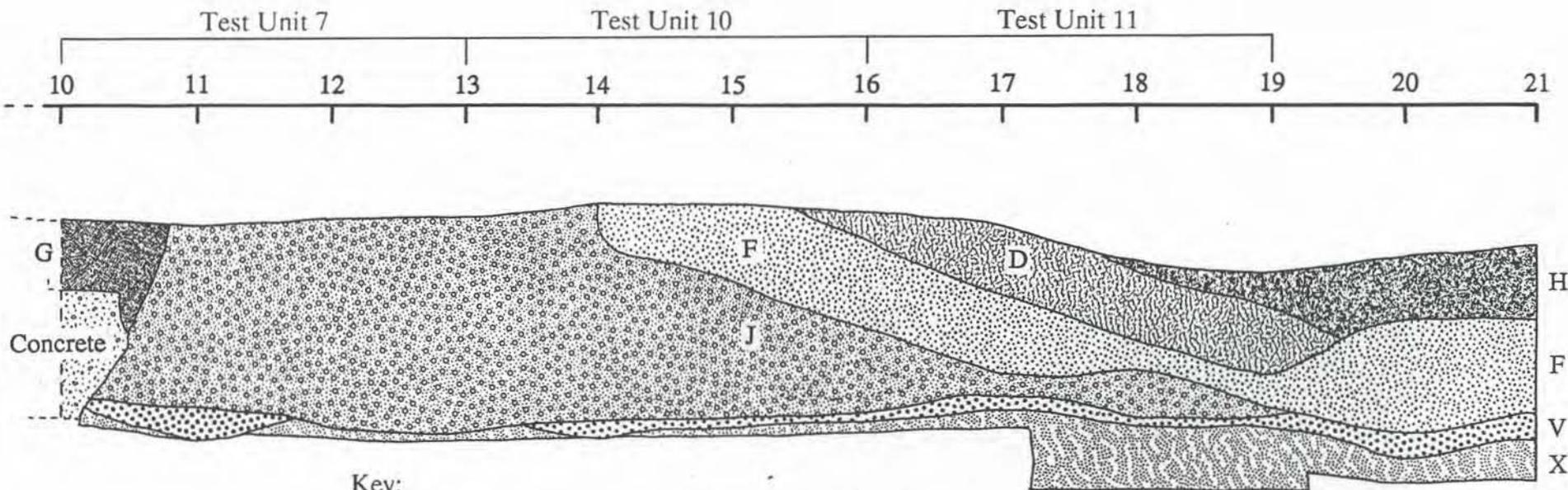


Source: Engineering-Science

Carlyle Phase III

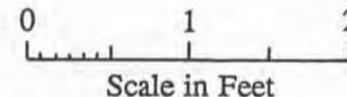
FIGURE 32.
TRENCH A, SOUTH PROFILE.

Engineering-Science



Key:

- Stratum A: 10YR 5/8 yellowish brown, mixed with 10YR 7/6 yellow, clay
- Stratum D: 2.5Y 3/2 very dark greyish brown sand and concrete rubble
- Stratum E: 10YR 5/4 yellowish brown sand
- Stratum F: 10YR 5/6 yellowish brown clay
- Stratum G: 10YR 2/1 black sand, charcoal, and concrete rubble
- Stratum J: 10YR 3/2 very dark greyish brown silty sand and charcoal
- Stratum M: 7.5YR 2/0 black charcoal, ash, and rubble
- Stratum R: 10YR 6/6 brownish yellow mixed with 10YR 5/4 yellowish brown clay
- Stratum V: 10YR 6/4 light yellowish brown sand fill
- Stratum X: 10YR 5/8 yellowish brown clay mottled with 10YR 7/2 light grey clayey silt

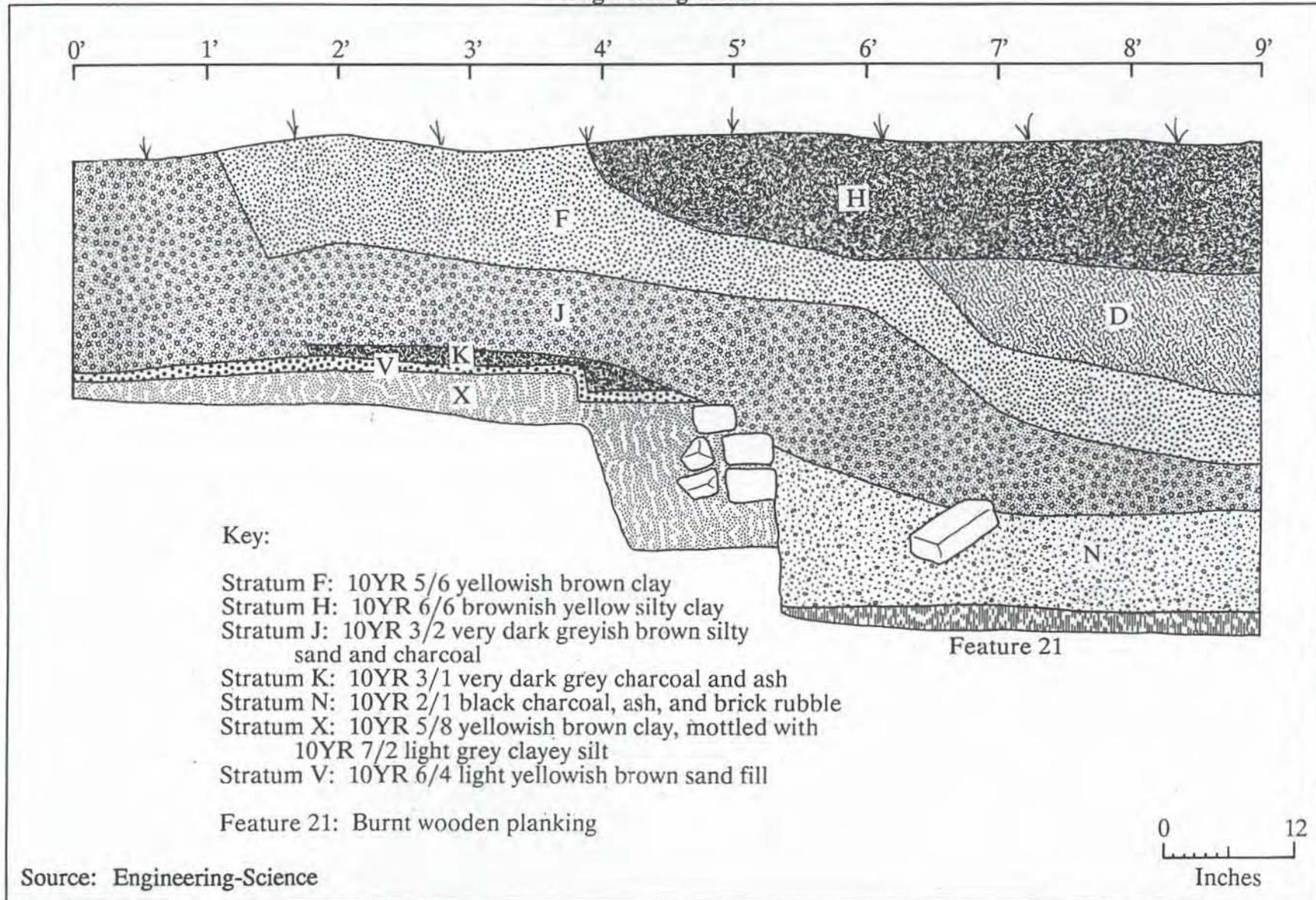


Source: Engineering Science

Carlyle Phase III

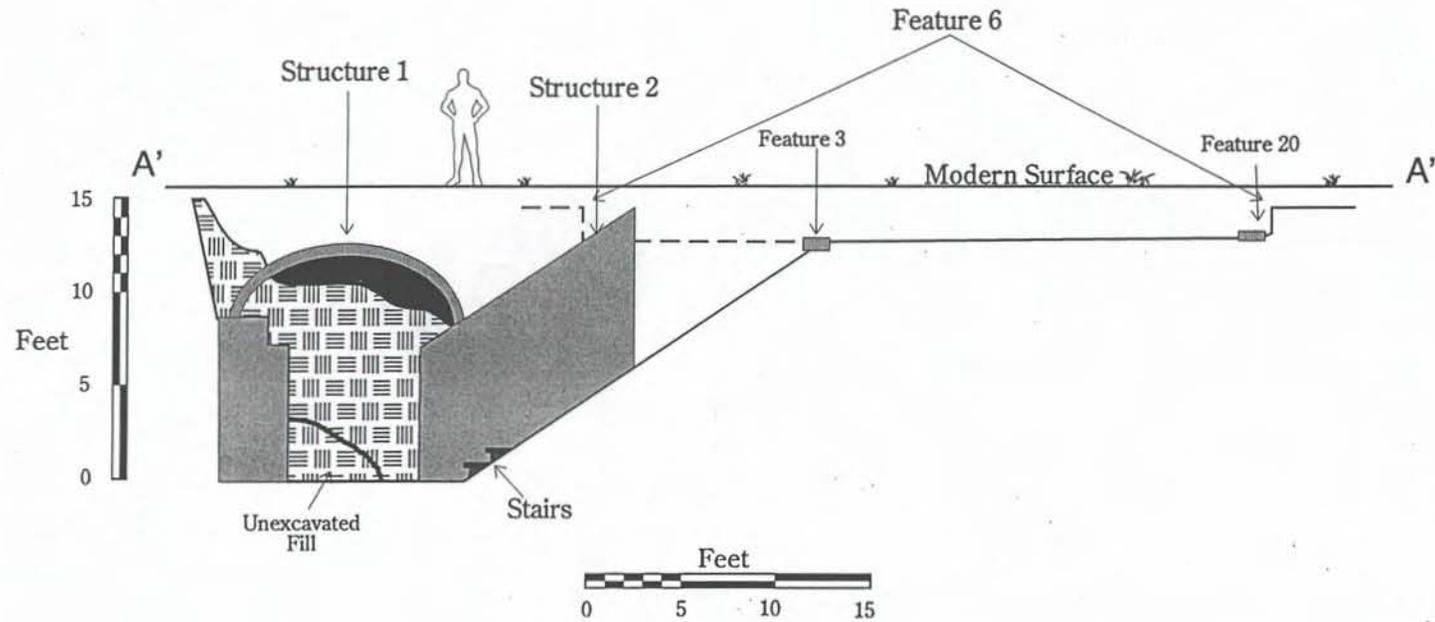
FIGURE 33.
TRENCH A, SOUTH PROFILE.

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Carlyle Phase III

FIGURE 34.
TRENCH B, EAST PROFILE.



Source: Engineering-Science

Carlyle Phase III

FIGURE 36.
SHUTER'S HILL BREWERY,
CROSS-SECTION A'-A'.

Within the basement (Feature 6), brick features (**Features 22, 29, 30-33**), the remains of wall footings and possibly floors, were set directly into the subsoil. In some cases, such as Features 29, 30, and 32, the bricks were entirely removed, leaving only impressions in the subsoil. **Feature 24** was a small depression excavated into the subsoil in the southeast corner of the basement. **Feature 21** consisted of wood planking in association with Feature 22, that was set directly on the subsoil. There were localized areas of trampling and disturbance to the subsoil along the east edge of Feature 6. These were designated as **Stratum W**. In the southeastern corner of Feature 6, Stratum W was overlaid by a thin band of decayed mortar (**Stratum S**), which was in turn overlain by a band of clay, charcoal and brick fragments, and mortar (**Stratum R**).

Deposited across the basement and over the above contexts was a layer of sand fill, designated as **Stratum V**. As Stratum V overlay areas where bricks had been removed, it probably represents part of a later alteration to the Feature 6 building, rather than being part of the original construction. **Feature 5** was a wood-lined hole excavated into the basement floor. It was not possible to determine whether it pre- or post-dated the deposition of Stratum V.

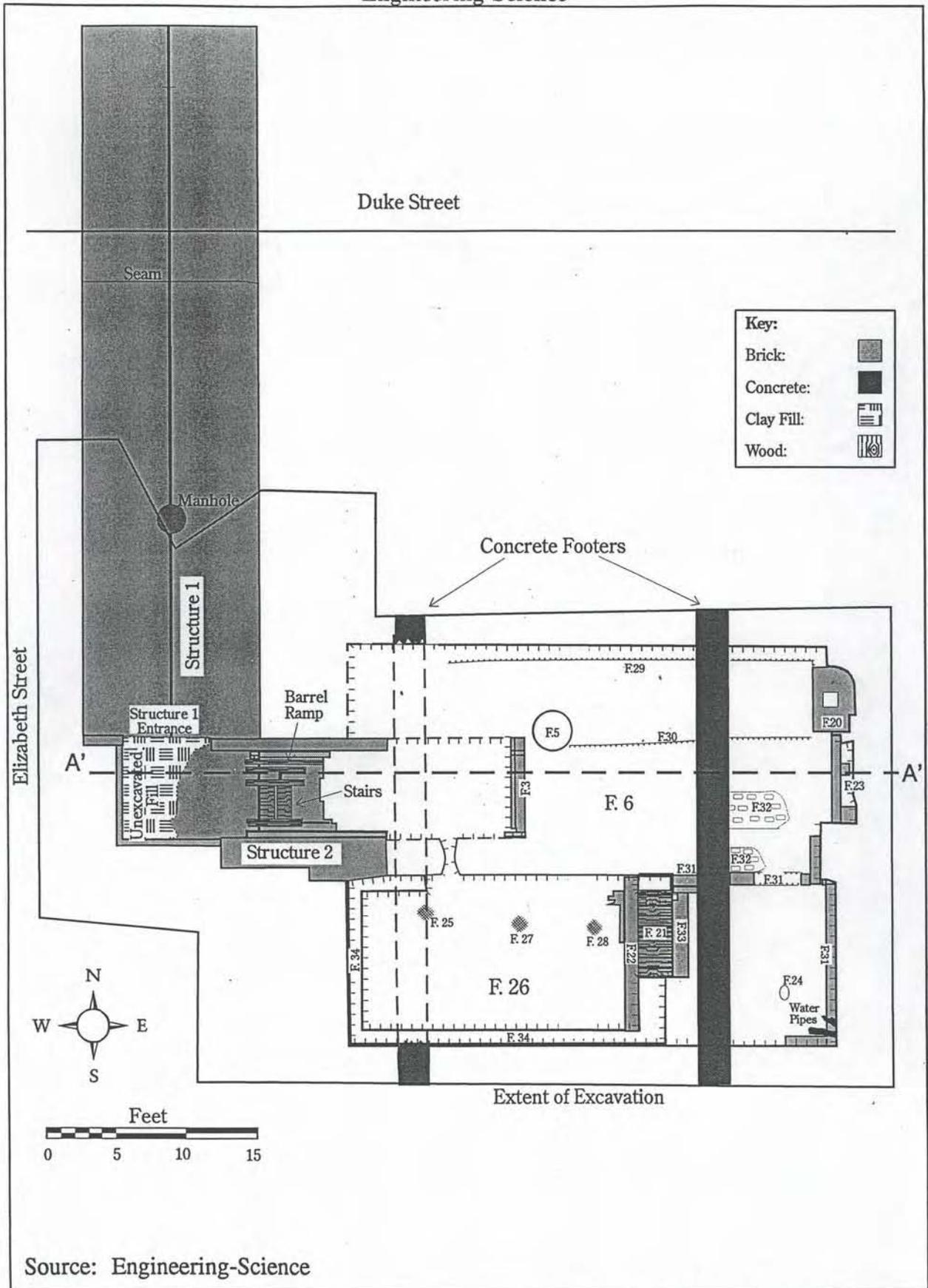
Post-dating the deposition of Stratum V was a linear arrangement of three areas of iron staining (**Features 25, 27, and 28**) within the sub-basement, and a brick feature along the east wall (**Feature 20**). Some additional filling was conducted in the northeast corner of Feature 6. This filling consisted of a layer of redeposited subsoil (**Stratum U**), which was in turn overlaid by mixed clay, brick rubble, and decayed mortar (**Stratum T**). Stratum T was deposited over Feature 20.

Feature Descriptions

Structure 1 and Feature 1 (Beer Cellar and Construction Pit)

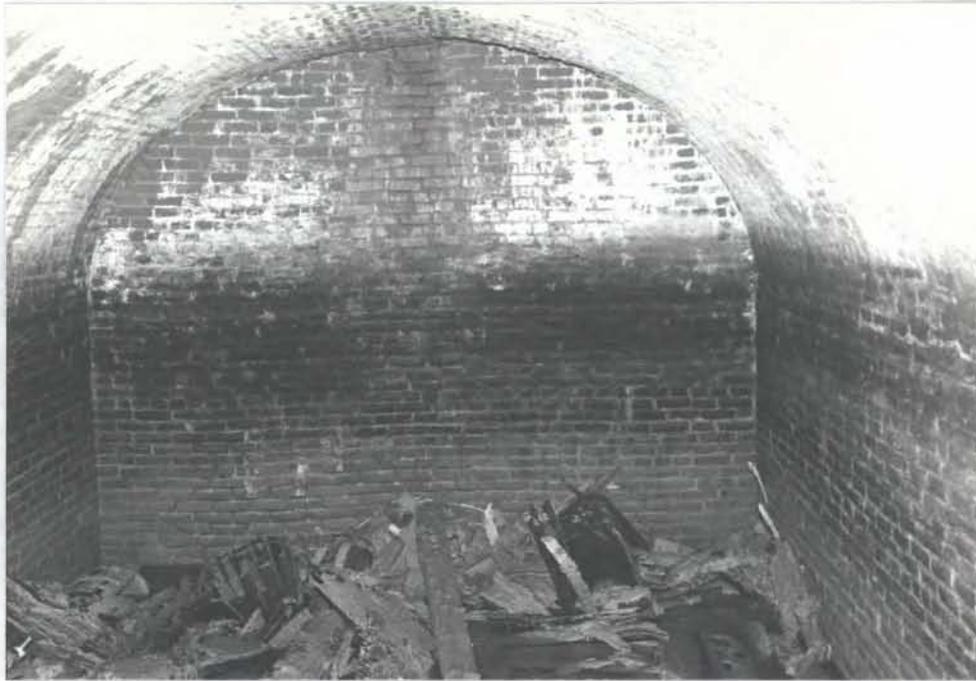
Structure 1 was the beer cellar for the Shuter's Hill Brewery. This structure was a subterranean vault measuring 50 feet north-south and 12 feet east-west. In the interior, it measured approximately 12 feet from the peak of the vault to the floor. It was this structure that led to the initial identification of the brewery in 1979, when the air vent was exposed by heavy equipment. After the site was recorded and assigned a designation as Site 44AX35, the vent was sealed with a manhole. At some point after its discovery, a large amount of rubble, fill, and other rubbish was poured into the cellar through the manhole. This material formed a pile that filled over 75% of the cellar (*Plate 3*). Entry to the cellar during the archaeological investigations was possible from the south end by crawling along the edge of the debris pile. It was only possible to expose the southern 15 feet of the cellar, as exposing the rest would have meant intruding into and undermining Duke Street.

Examination of the interior revealed a seam in the brickwork 32 feet from the south end of Structure 2. Presumably the cellar was extended at some point, with the northern 18 feet being added after the original construction. Two opposed 8 inch wide joist holes were also noted in the east and west walls 17.5 feet from the cellar entrance.



Carlisle Phase III

FIGURE 35.
SHUTER'S HILL BREWERY,
PHASE I CONTEXTS, PLAN VIEW.



Structure 1 interior showing waterline, facing north



Structure 1 interior showing fill pile, facing south

Source: Engineering-Science

These joist holes would have been 6.5 feet above the original floor surface. No other holes were evident in the brickwork. A line of three eyehooks could also be seen at the peak of the arch approximately each four feet apart. These have served to suspend lighting or have been used in the movement of kegs and barrels.

There was an estimated 7-8 feet of water in the cellar at the time of this investigation. The materials exposed once this water was pumped out indicate that it had been there since the 1890s (*Plates 3 and 4*). The floor of the cellar was covered with the decayed remains of wooden barrels and kegs. Also evident were wooden beams that may have been architectural. Some of these beams were lying on the later fill, either because they had been introduced with the fill or had been floating and were deposited there when the water was pumped out during the archaeological investigations.

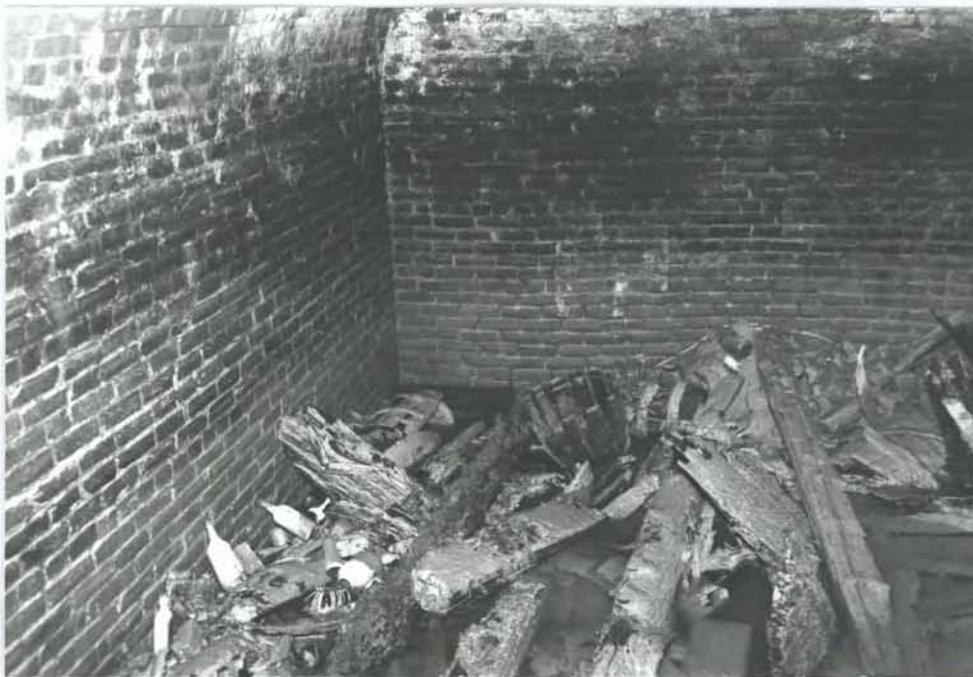
Although all the barrels and kegs were either in pieces or were in the process of falling apart, some were intact enough to form some idea of their dimensions. At least three kegs could be seen that were approximately 15 inches long with endpieces that measured 9.5 inches in diameter. These were the same dimensions as a keg that was recovered from the base of the stairway in Structure 2. The collapsed remains of at least two large barrels were also evident. The endpieces were approximately 3.5 feet in diameter and the staves were at least four feet long. There was also a single two foot diameter vat or tub. Systematic recording of the wooden material within the vault was not possible due to safety considerations. The rear (north) wall and ceiling was unstable, as much of the mortar between the bricks had been eroded. There had been a minor collapse of the ceiling against the north wall, possible due to the continual vibration from Duke Street overhead. Some more recent material was noted within the cellar. Some of this had no doubt been dumped in through the manhole, but much of it had eroded in from the 1930-1940 trash deposit outside the south end. The cellar itself was constructed of normal building bricks (8.25 x 4 x 2.25 inches) laid in American common bond. The east and west walls were vertical for seven feet and joined with a vault. The vault itself was constructed of normal bricks with a "keystone" improvised by inserting four rows of slate between the six courses of brick that comprised the peak of the vault. As the Structure 1 vault was still standing, this appears to have been an effective construction method.

Structure 1 was constructed in a narrow pit, with the east and west walls built right up against the sides of the pit. After the structure was completed, the pit was filled in, burying the cellar. The pit fill was sampled with Test Unit 1, excavated during the Phase II testing of the site and with Excavation Unit 15, excavated during the Phase III data recovery work. The pit and its fill were designated **Feature 1**.

Test Unit 1 and Excavation Unit 15 recovered a total of 354 artifacts from Feature 1. Of these 31% (n=111) were architectural remains, consisting of 65% brick fragments (n=72), 14% window glass (n=16), 13% nails (n=14), 6% shell plaster fragments (n=7), and 2% slate (n=2). One of the nails was handwrought, nine were either handwrought or cut, and four were too corroded to be identifiable.



Structure 1 interior, facing north



Structure 1 interior, northwest corner

Source: Engineering-Science

Carlyle Phase III

PLATE 4.
STRUCTURE 1 INTERIOR

Domestic material was 42% (n=147) of the Feature 1 assemblage. This comprised 3% bottle glass (n=5), 1% vessel glass (n=2), and 95% ceramics sherds (n=140). The ceramics consisted of 29% creamware (n=40) (1762-ca.1820), 54% pearlware (n=75) (ca.1780-1840), and 8% whiteware (n=11) (ca.1820+). The remaining 9% consisted of lead-glazed redware (n=4), blue-and-grey salt-glazed stoneware (n=2), unidentifiable porcelain (n=3) and refined earthenware (n=4), and a single sherd of Rockingham/Bennington ware (ca.1830-1930). The Rockingham/Bennington sherd provided a *terminus post quem* for the filling of Feature 1 of ca. 1830. The mean ceramic date (South 1978) for this assemblage was 1807.8 with a standard deviation of 20.2 years. This date is rather early compared to the ca. 1858 date that we have for the construction of the beer cellar from the historical record. The most likely explanation for this is that the material used to fill over the cellar is redeposited from an earlier occupation, possibly from the Jones or Sheehy occupation.

Faunal remains (n=68) were 19% of the total assemblage. These comprised 59% mammal bone fragments (n=40), 18% teeth (n=12), and 23% oyster shell (n=16).

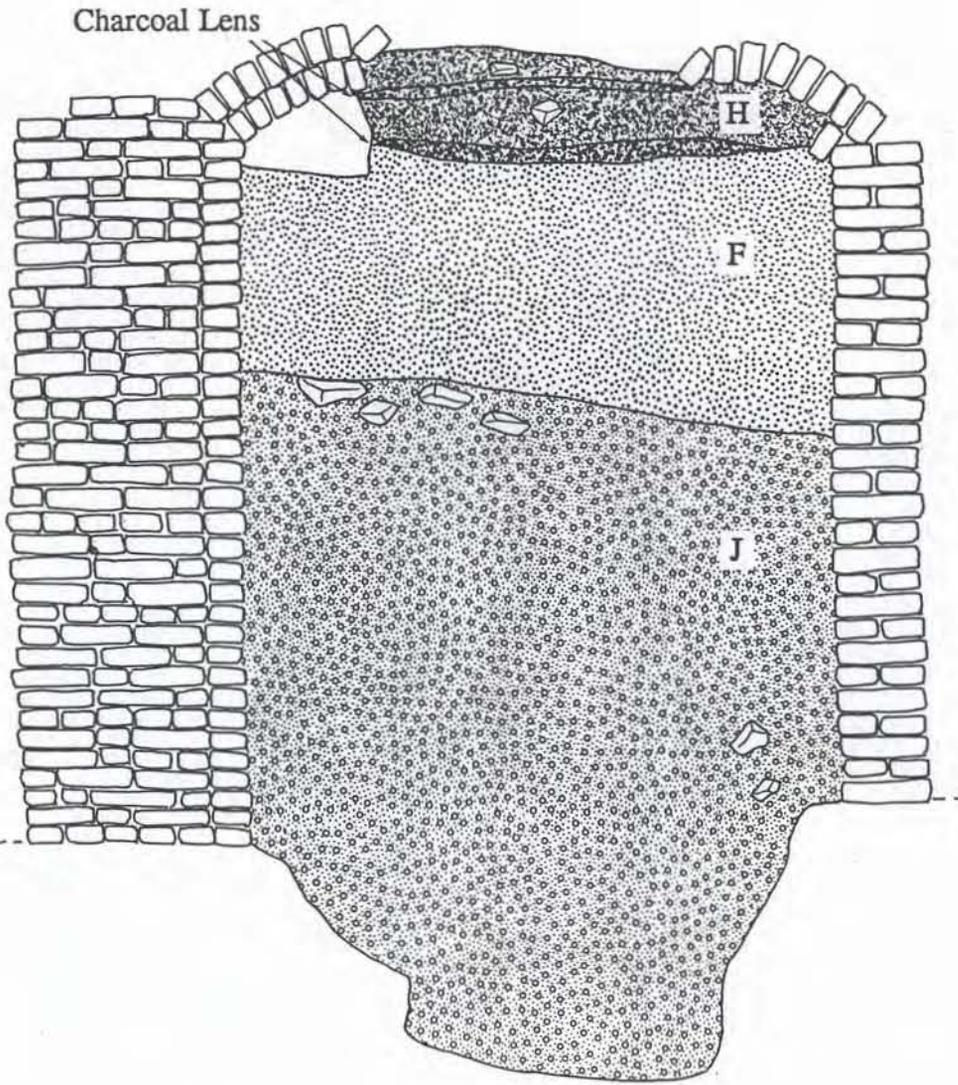
The remaining 8% of the sampled Feature 1 assemblage was made up of kaolin pipe stems (n=3), wood fragments (n=2), a sample of coal and clinker (n=4), and unidentifiable iron fragments (n=17).

As constructed, Structure 1 was completely open at the south end, with Structure 2 being added later. The two structures did not bond together, and as Structure 2 cut through Feature 1, it was obviously later. How much later is not possible to determine. The time lapse may have been only a matter of days, although the different architectural styles of Structure 1 and 2 argue against this. As has been noted there was discontinuity between the stratigraphy of Feature 1 and that of Feature 19. This may have been because Feature 19 was excavated through Feature 1. It may also have been due to the subsidence of the Feature 19 strata as Structure 2 collapsed.

Structure 2 and Feature 19

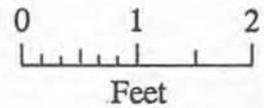
Structure 2 was originally a passageway running from the basement of the brewery building (Feature 6) to the beer cellar. Like the beer cellar it was a subterranean brick structure with a vaulted roof (*Figure 37*), constructed in an open pit and then buried. This passageway actually had a three-part structure (*Figure 38*).

The first part was the top ten feet of the ramp, extending from the vertical walls of Structure 2 to Feature 3. All that remained of the passageway here was a sloping (55°) excavation in the subsoil. It had a brick floor at one point, and may have had brick north and south walls, although all the brick, other than Feature 3, had been removed prior to the demolition of the burnt building, and possibly even before then. Feature 3 was a line of brick that was identified during the Phase II testing of the site. This feature is actually a remnant of the Structure 2 brickwork. There was part of a gutter at the north end of Feature 3. Access to the passageway was most probably by a large trapdoor set into the floor of Feature 6. There was an 8 inch wide slit in the subsoil of the south wall between



Key:

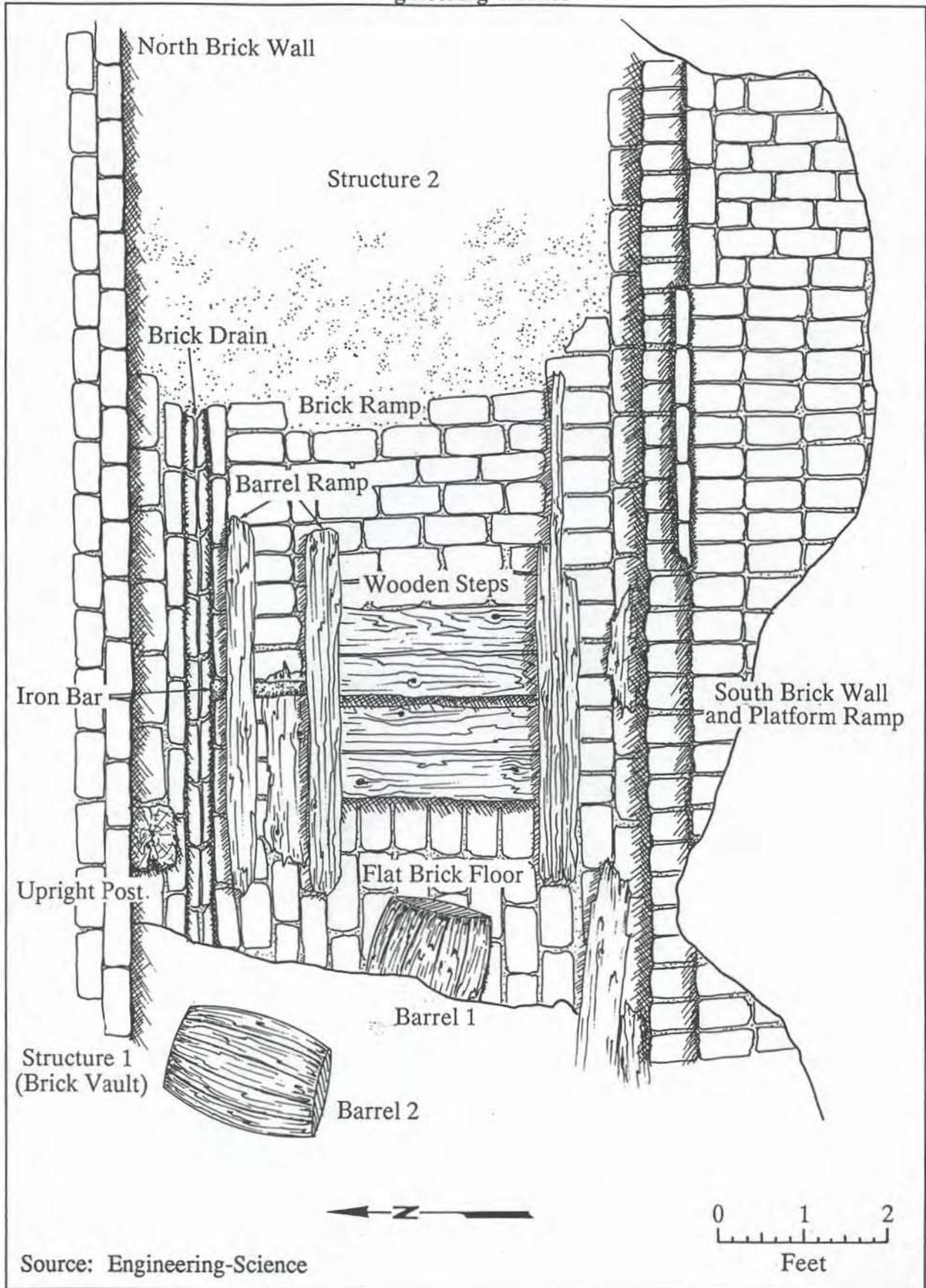
- Stratum F: 10YR 5/6 yellowish brown clay
- Stratum H: 10YR 6/6 brownish yellow silty clay
- Stratum J: 10YR 3/2 very dark greyish brown silty sand and charcoal



Source: Engineering-Science

Carlyle Phase III

FIGURE 37.
STRUCTURE 2,
EAST ELEVATION (ENTRY).



Carlyle Phase III

FIGURE 38.
STRUCTURE 2, PLAN VIEW
AFTER EXCAVATION.

the top part of Structure 2 and the north wall of Feature 26. The purpose of this slit is unknown. It may have served for pipes or a pulley system.

The second part of Structure 2 was a 10 foot long brick ramp that sloped down to the underground entrance of the beer cellar. The ramp had north and south walls joined by an east-west vault. The top half of the brick floor had been robbed out. The lower part of the floor may have been left intact because that part of the structure had already collapsed or looked as if it might collapse. That area may also have been underwater at the time.

At the base of the ramp was the third part of Structure 2, a small chamber with a level brick floor -- the entry to the beer cellar. This chamber measured ten feet east-west by seven feet north-south. It was roofed by a north-south running vault. The east half of this vault intersected the vault for the ramp, forming a groin. The remains of two large wooden posts survived against the north and south walls where the ramp met the entry chamber. These probably served as supports for the east part of the chamber vault.

While the east-west vault of the ramp survived in an intact, albeit very unstable, state, the vault over the entry chamber had completely collapsed. It was possible to determine that it was vaulted from surviving brick in and the configuration of the south and west walls. The archaeological excavation of the interior of this portion of Structure 2 entailed the removal first of the fill that had been used to bury the structure and which landed in the structure when the vault collapsed, and then the mixed brick rubble, fill, and subsoil from the collapsed vault. It was not possible to complete the excavation of the entry chamber due to safety considerations. The freezing, thawing, and waterlogging of the surrounding soils and the brick walls due to the early winter weather rendered the excavation unsafe to work in. As it was not possible to excavate into the adjacent road, the trench wall could not be stepped back enough to allow safe working conditions. Approximately 50% of the floor of the entry chamber was left unexcavated.

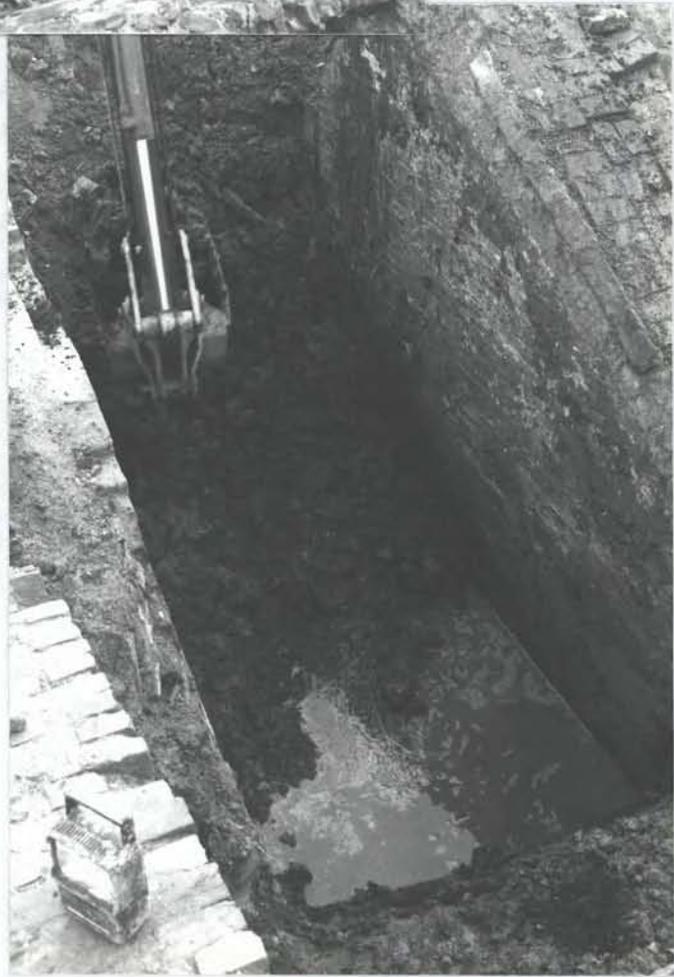
The walls of Structure 2 stood eight feet high. The arch of the vaults roofing the structure was a very shallow barrel vault, with the highest point only 8.75 feet above the floor. This shallowness, combined with the lack of even an improvised keystone, such as Structure 1 had, and the use of wooden support posts, may have contributed to their instability.

The small height and width of Structure 2 compared to Structure 1 resulted in a doorway to the beer cellar that was only 6 feet wide and 8.75 feet high at the highest point. The gaps between the two structures were bricked up, leaving the doorway open.

As with Structure 1, Structure 2 was filled with 7-8 feet of water (*Plate 5*). This drained as Structure 1 was pumped out, allowing excavation to continue. The presence of the water combined with the deposition of the clay fill when the bottom part of the structure collapsed resulted in excellent conditions for the preservation of organic material in the lower (west part) of Structure 2. The remains of wooden steps were exposed along with two parallel wooden beams extending up the ramp alongside the steps (*Plate 6*). These beams are interpreted as a barrel ramp. The kegs and barrels would be



Excavation of Structure 2, facing west



Excavation of Structure 2, interior facing east

Source: Engineering-Science

Carlyle Phase III

PLATE 5.
STRUCTURE 2 DURING EXCAVATION



Structure 2 interior showing stairs and barrel ramp, facing east



Structure 2 interior, showing keystone, stairs, and barrel ramp, facing west

Source: Engineering-Science

Carlyle Phase III

PLATE 6.
STRUCTURE 2 INTERIOR
AFTER REMOVAL OF FILL

retrieved from the cellar by being pulled or lowered up and down the beams on their sides. There was probably a pulley in the basement above Feature 3. A gutter ran along the outside of the barrel ramp that was aligned with the gutter on Feature 3. This gutter probably served to drain beer leaking from the barrels as they were in transit to and from the cellar.

Other wooden features encountered were the remains of two posts clamped to the north and south walls at the base of the ramp. These posts probably supported a lintel for the support of the north-south arch. Collapsed wood planking was noted in the fill at the bottom of the ramp, but it was not possible to excavate the planks before conditions became unsafe for work. The brick floor of Structure 2 was not encountered above the water line. Presumably the bricks had been robbed at some point after the fire.

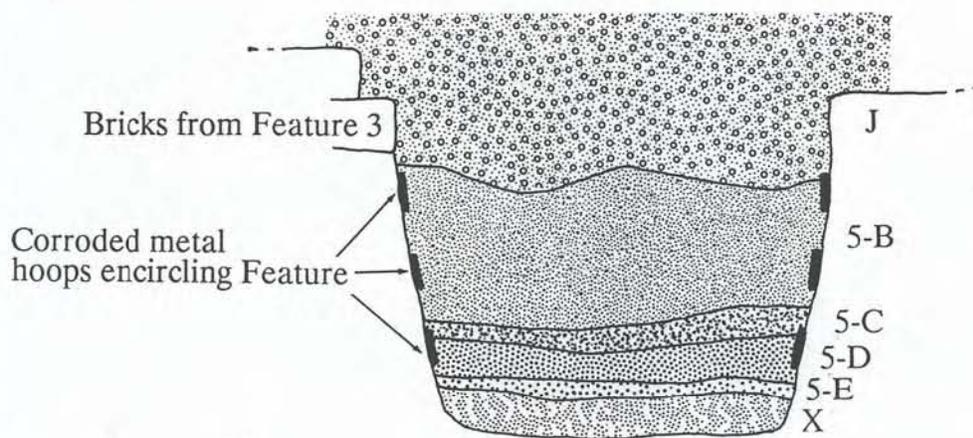
The pit in which Structure 2 was constructed was designated as **Feature 19**. Most of Feature 19 was excavated with a backhoe during the Phase II work in order to expose the Structures 1 and 2. There was twentieth-century disturbance to the feature by the construction of a concrete footing and the construction of Elizabeth Lane to the west. There was also some disturbance due to the collapse of Structure 2 and the consequent subsidence of the fill.

The original pit appears to have been shored with wood planking, presumably for safety reasons while the vault and entryway were being constructed. Remnants of the shoring were exposed during the Phase III work. Four buckets (20 gallons) of the Feature 19 fill was sampled. This material yielded a total of 49 artifacts, of which 39% (n=19) were architectural artifacts, 14% (n=7) were domestic artifacts, 18% (n=9) were floral and faunal remains, and the remaining 29% (n=14) were coal, clinkers, and unidentifiable iron fragments.

The 19 architectural artifacts were composed of unidentifiable nails (n=6), brick fragments (n=4), mortar and plaster fragments (n=6), and a single piece each of sandstone and window glass. A copper alloy tack was included with the architectural material. The domestic artifacts were made up of unidentifiable bottle glass (n=3), pearlware (n=2), and a sherd each of whiteware and blue-and-grey American salt-glazed stoneware. The whiteware provides a *terminus post quem* for the filling of Feature 19 of ca. 1820. The remaining artifacts from the Feature 19 sample consisted of clinker (n=9), coal (n=2), unidentifiable iron fragments (n=3), oyster shell (n=4), small mammal bones (n=3), one tooth, and a piece of charcoal.

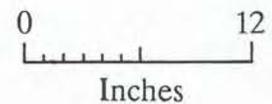
Feature 5

Feature 5 was a 2.5 foot diameter and 20 inch deep pit excavated into the subsoil in Feature 6 (*Figure 39*). It seems to have been cut through Feature 30, which was a line of brick impressions, indicating that the excavation of Feature 5 post-dated the removal of the bricks. A vat or barrel had been set into Feature 5. The remains of the wooden staves could be seen where they had been replaced by corrosion from the iron hoops (*Plate 7*). There were a total of four hoops spaced at four inch intervals. Feature 5 may have been a drainage feature associated with the Structure 2 gutter.



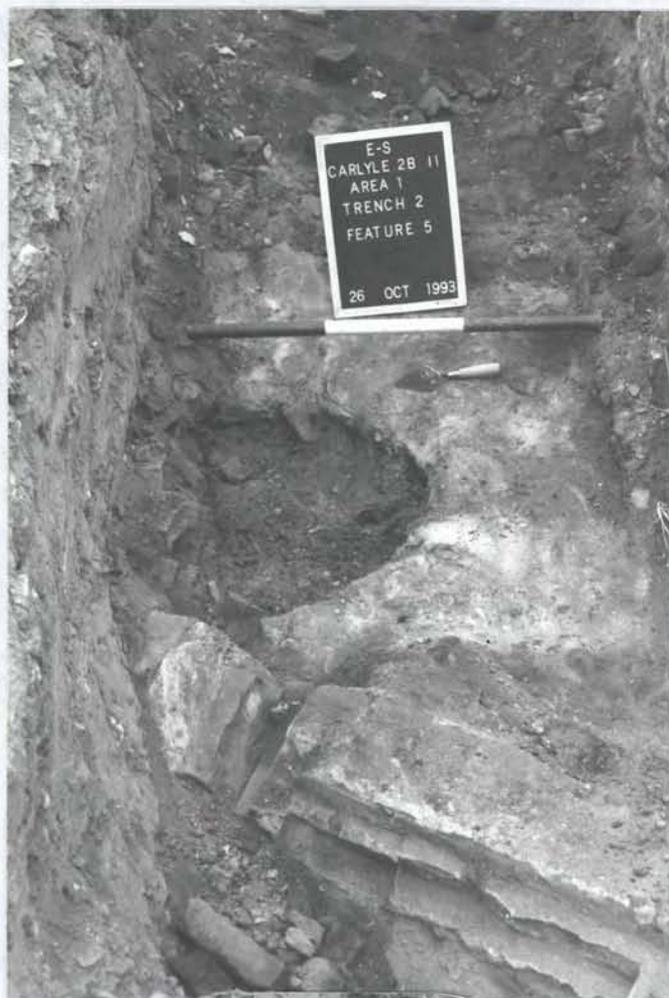
Key:

- Stratum J: 10YR 3/2 very dark greyish brown silty sand and charcoal
- Stratum 5-B: 10YR 6/1 light grey/grey mottled with 10YR 6/2 light brownish grey ash, charcoal, and sand
- Stratum 5-C: 10YR 4/3 brown/dark brown sand
- Stratum 5-D: 10YR 6/6 brownish yellow clay mixed with 10YR 8/4 very pale brown decayed mortar
- Stratum 5-E: 10YR 7/3 very pale brown sand
- Stratum X: 10YR 5/8 yellowish brown clay, mottled with 10YR 7/2 light grey clayey silt



Source: Engineering-Science

Engineering-Science



Feature 5, facing northeast



Source: Engineering-Science

Feature 5 after bisection, facing northeast

Carlyle Phase III

PLATE 7:
FEATURE 5.

The fill within the pit had four main divisions. The top five inches of fill was demolition material (Stratum J). The material recovered from within Feature 5 will be discussed in this section rather than as part of Stratum J as the Feature 5 artifact assemblage appears to be distinct. The material within the feature contained far more nails and bottle stoppers than the rest of Stratum J.

A total of 116 artifacts were recovered from Stratum J within Feature 5. Of this, 52% (n=60) was architectural material, 43% (n=50) was domestic material, and 5% (n=6) were domestic/industrial artifacts. The architectural material was made up of 52 cut nails, one nail that was either cut or hand wrought, one screw, and six pieces of window glass. The domestic material was all bottle related, consisting of 11 bottle fragments and 39 rubber stoppers, probably from a lightning-type closure.

The next stratum of Feature 5, which was designated in the field as Feature Stratum 5-B, consisted of approximately eight inches of light grey to grey (10YR 6/1), mixed with light brownish grey ash, charcoal, and sand.

Excluding a sample of 20 pieces of charcoal, Stratum 5-B yielded 237 artifacts. Of these, 59% (n=139) were architectural artifacts, 33% (n=78) were domestic artifacts (all bottle fragments or related items), and 8% (n=20) were unidentifiable artifacts. The architectural artifacts were almost entirely cut nails (84%, n=117). The rest of the architectural material was composed of three pieces of window glass, an iron bracket, and a sample of 17 piece of plaster and two pieces of brick.

The domestic material was predominantly made up of rubber lightning-type bottle stoppers (85%, n=66). A single porcelain marble, which was most probably part of a codd-type stopper, was also recovered. The rest of the domestic material was bottle glass (n=11), including one fragment of a Robert Portner bottle.

The rest of the Stratum 5-B assemblage was made up of 15 pieces of melted glass and five pieces of unidentifiable iron and copper alloy.

Feature Stratum C was a thin (1-1.5 inches thick) layer of brown to dark brown (10YR 4/3) sand. Excluding a sample of four pieces of charcoal, it yielded 56 artifacts, of which 57% (n=32) were architectural artifacts and 43% (n=24) were domestic artifacts. The architectural material consisted of a sample of brick (n=5), wood (n=4), and plaster (n=8), along with unidentifiable nails (n=8) and window glass (n=7). The domestic material was all bottle related material. One piece of stoneware bottle and one rubber lightning stopper were found. The rest of the domestic artifacts were all bottle glass fragments (n=22).

Feature Stratum 5-D consisted of 2-3 inches of brownish yellow (10YR 6/6) clay mixed with very pale brown (10YR 8/4) sand. Five architectural artifacts came from this stratum -- a single cut nail and four pieces of plaster. The bottom stratum (Feature Stratum 5-E) was an inch thick layer of very pale brown (10YR 7/3) sand. This material is probably the same as universal Stratum V. It yielded a single piece of plaster.

Feature 6

Feature 6 was the basement of the above-ground brewery building. It was joined to the beer cellar (Structure 1) by Structure 2. Structure 2 would have been entered through the floor of the basement. It was probably originally covered with a large trapdoor. The surviving remnant of Feature 6 consisted of a rectangular excavation approximately 1.5 feet deep and 35 feet east-west by 30 feet north-south (*Plate 8*). It was not possible to date the construction of the basement archaeologically as all that remains of it was constructed through the removal rather than the deposition of soil. Any datable contexts associated with the construction of the brewery building were probably removed by later disturbance.

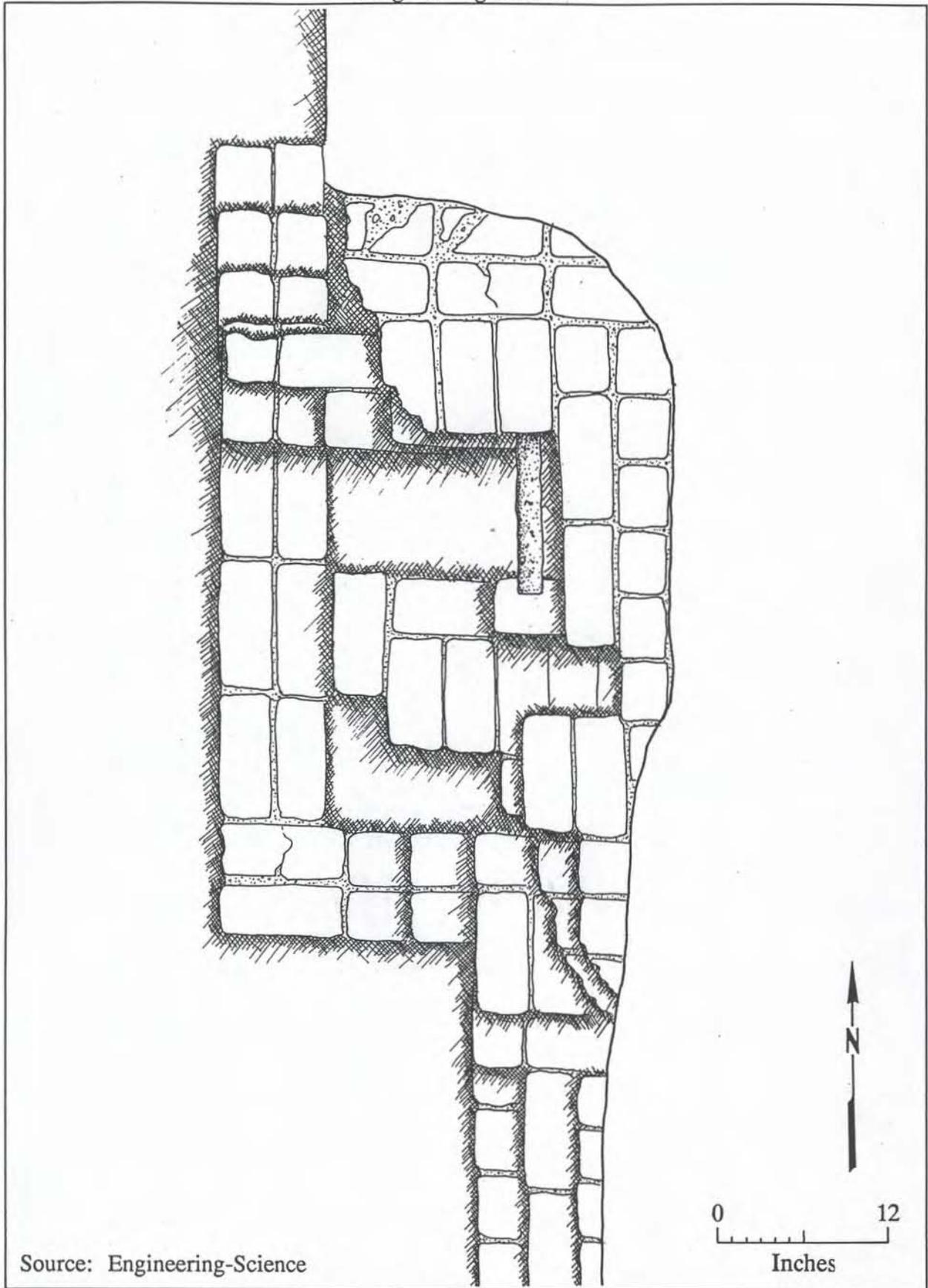
Feature 6 appears to have had brick walls, although much of this brick was removed, possibly prior to the destruction of the building. Shallow trenches with brick impressions in them were identified in the subsoil along the north (Feature 29) and south walls (Feature 34). These trenches were covered with a layer of pre-demolition fill (Stratum V), indicating that they were removed as part of a building alteration. A brick feature (Feature 20) was constructed along the east wall of the basement over Stratum V as part of this alteration or as part of a later one. Cast-iron water pipes (Feature 35) entered the basement from the southeast corner.

The lines of brick impressions indicate that Feature 6 originally may have had a tripartite structure, with the divisions running along the east-west axis. Each division ran the full width of the basement. The northernmost division was defined by the north wall of the basement and Feature 30 to the south. It was approximately 35 feet long (east-west) and seven feet wide (north-south). The middle division was about 10 feet wide and was defined to the north by Feature 30, which was a line of brick impressions, and to the south by Feature 31 (a brick line) and by Feature 26, the sub-basement. To the west, the middle division ended against the Structure 2 entrance. The southern division was about 13 feet wide and was defined to the north by the edge of Feature 26 and by Feature 31.

It is uncertain what these divisions of the basement represent. Features 30 and 31 may have actually been walls. This seems likely in the case of Feature 31 and also Feature 26. Presumably the sub-basement would have had a wall for safety reasons, unless it was floored over. Feature 32 may not represent the remains of a wall footing as the room to the north would be only seven feet wide. It may be the remnants of a drain, as it lines up with the Structure 2 gutter.

Features 20 and 23

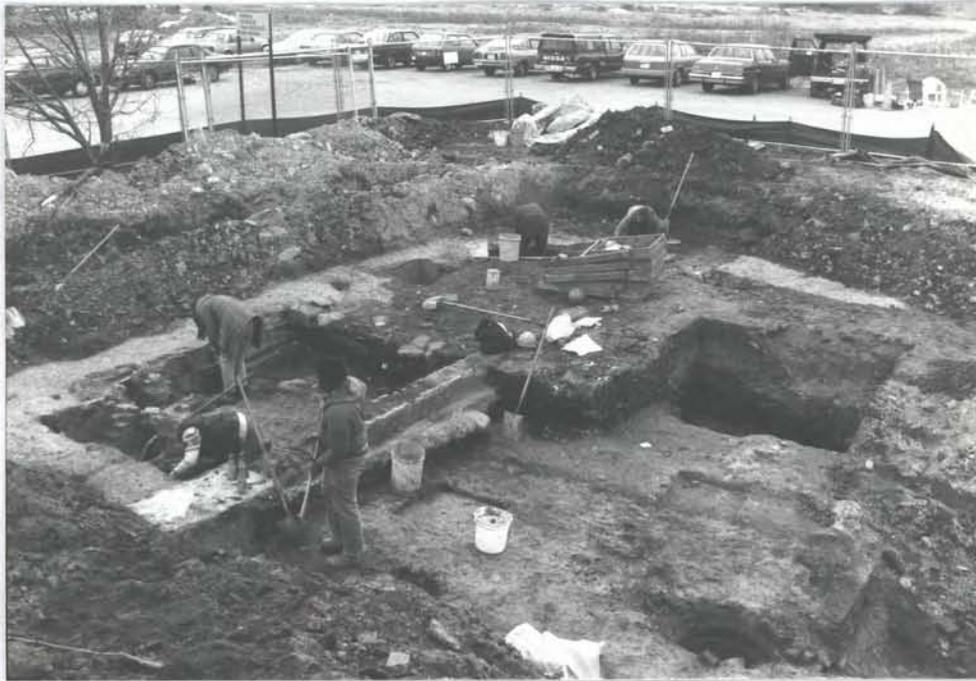
Feature 20 was a brick feature at the north end of the east wall (*Figure 40*). It post-dated the deposition of Stratum V, and appeared to post-date the removal of the Feature 29 wall. The function of this feature was not identifiable. It had two main components. The northern component was a 4.5 by 3 foot feature built into the east wall of the basement. It probably was originally about six courses of brick deep (about 14 inches). There was an opening in the middle of Feature 20 that had at least one iron bar lying across it. Another bar was recovered within the opening that may also have laid



Source: Engineering-Science

Carlyle Phase III

FIGURE 40.
FEATURE 20, PLAN VIEW.



Excavation of Feature 6/26, facing southeast

Source: Engineering-Science

Carlyle Phase III

PLATE 8.
EXCAVATION OF FEATURE 6.

across. It is possible that this opening represents the remnants of a firepit with Feature 20 serving a heating function.

Extending south along the east basement wall, the rest of Feature 20 was a line of bricks. This part of the feature consisted of a course of headers overlying Stratum V. Over this was another course consisting of a single line of stretchers set along the east edge of the bottom course. The top course was a course of quarter bricks -- bricks that had been split along the long axis of the header side and then broken in half, resulting in a brick measuring approximately 4 by 1 by 4 inches. This last course apparently served to cap the brick line. The brick line sloped slightly to the east. There was a filled space between this line and the edge of the basement. This was designated as Feature 23.

Feature 23 was about 8 inches wide at the top and sloped down to the base of Feature 20. It was filled with redeposited subsoil. Removal of this material exposed two brick buttresses attached to Feature 20. They were probably necessary due to the eastward inclination of Feature 20. The only artifacts recovered were five brick fragments, one of which was glazed.

Feature 21

Feature 21 was a burnt wood floor in the indentation at the east end of Feature 26. It overlay the subsoil and was probably contemporary with Stratum V. The floor was, at the time of excavation, little more than a mass of charcoal. It was removed and screened. A total of 41 artifacts were recovered during this operation. If Feature 21 was originally elevated above the subsoil, as seems likely, this material may represent accumulation in the space beneath the floor. Of these, 44% (n=18) were architectural items, 32% (n=13) were domestic, 10% (n=4) were faunal, and 7% were domestic/industrial. A sample of three pieces of charcoal was also saved.

The architectural artifacts consisted of brick fragments (n=3), mortar (n=11), window glass (n=2) and corroded nails (n=2). The domestic artifacts were all bottle fragments, 10 of which were glass and three of which were stoneware. The faunal material consisted of four oyster shell fragments, and the domestic/industrial artifacts were made up of a piece of tar and two pieces of coal.

Feature 22

Feature 22 was a line of a single tier of header bricks set into the floor of the sub-basement (Feature 26). Feature 22 was abutted by Feature 21 to the east and the Stratum V sand fill to the west. The original purpose of Feature 22 is unknown. A possible interpretation is that it may have served to support a wooden floor for the sub-basement.

Features 25, 27, and 28

Features 25, 27, and 28 were a row of three iron stains on the surface of Stratum V in the sub-basement. While they are traces of iron objects that once rested there, it is not possible to determine what those objects were.

Feature 26

Feature 26 was a sub-basement excavated within the southwest quadrant of Feature 6. Feature 26 was approximately 1.55 feet deep (below the floor of Feature 6) and measured approximately 20 feet east-west and 10 feet north-south. There was a one foot wide ledge running around the east, south, west, and the western five feet of the north edge of the Feature 26. The ledge was set about 0.5 feet below the surface of Feature 6. Brick impressions were evident along the south and west ledges and *in situ* bricks (Feature 33) were exposed in the east. It probably served as the footing for a wall.

At the east end of Feature 26 was a 2.5-foot by 6-foot indentation. It had a wooden plank floor (Feature 21), which ended against a line of bricks (Feature 22) set into the floor along the east edge of Feature 26.

Stratum Descriptions

Stratum R

Stratum R was only encountered in Unit 13. This was a thin lens of brownish yellow (10YR 6/6) mixed with yellowish brown (10YR 5/4) clay fill overlying Stratum S. Six artifacts were recovered from this stratum: three pieces of plaster, two pieces of window glass, and a piece of coal.

Stratum S

Stratum I was a thin lens of decayed mortar overlying Stratum W. It was only encountered in Unit 13. No artifacts were recovered from this stratum. Stratum I is probably construction debris.

Stratum T

Stratum T was a layer of clay and rubble fill deposited over Stratum V, Stratum U, and over all of Feature 20 except for the very top course. This stratum was encountered in Units 1, 3, 6, and 9 and was 100% excavated.

It yielded 111 artifacts; 19% (n=21) architectural artifacts, 66% (n=73) domestic artifacts, 3% (n=3) faunal items, and 13% (n=14) domestic/industrial and unrecognizable objects. The architectural artifacts were made up of ten nail fragments, two pieces of window glass and slate, and a sample of seven brick fragments. The domestic material was composed of 81% (n=73) bottle glass fragments, 7% (n=5) stoneware bottle fragments, 7% (n=5) ceramic sherds, and 5% (n=4) lamp chimney glass. The ceramic sherds consisted of two pieces of pearlware, two of whiteware, and a sherd of a redware flowerpot. Two of the lamp chimney fragments were hand-crimped. Decorated lamp chimney tops became popular in the 1870s, suggesting a *terminus post quem* for the deposition of this stratum of ca. 1870.

The faunal remains were made up of two pieces of oyster shell and a probable bird bone fragment. The remaining artifacts from Stratum T consisted of six pieces of cinder, seven pieces of slag, and a corroded iron strip.

Stratum U

Stratum U was a pad of clay fill, consisting of redeposited subsoil built up around the base of the north end of Feature 20. It overlay Stratum V. A total of 13 artifacts were recovered from this stratum. These consisted of brick fragments (n=5), mortar fragments (n=3), unidentifiable nails (n=3), and ceramic sherds (n=2). The ceramic sherds consisted of a single piece each of creamware and whiteware.

Stratum V

Stratum V consisted of approximately 2 inches of light yellowish brown (10YR 6/4) coarse sand. Stratum V was artificially deposited and probably served to either level the floor of the basement or to provide drainage. Stratum V was laid after the bricks that were part of Features 29-32 had been removed. This indicates that the laying of this sand was part of an alteration of the existing brewery structure rather part of the original construction. As this was an intact deposit dating to the occupation of the brewery building, it was exposed with the backhoe and was then cleaned off with trowels and 100% screened.

A total of 397 artifacts were recovered from Stratum V. These consisted of 39% architectural artifacts (n=153), 44% domestic artifacts (n=174), 8% domestic/industrial artifacts (n=31), 7% faunal remains (n=29), 2% charcoal (n=7), 1% kaolin tobacco pipestems (n=2) and 1 prehistoric chert flake fragment. The 153 architectural artifacts consisted of 52% nails (n=80), 1% staples (n=2), a piece of wire and a bolt (1%), 20% window glass (n=30), and a sample of 15 brick fragments (10%), 10 pieces of mortar (7%), two pieces of plaster (1%), five pieces of slate (3%), and seven pieces of synthetic material (5%) that appears to be wall or floor tiling. Of the nails, 81% (n=65) were cut nails, one (1%) was a wire nail, and 18% (n=14) were unidentifiable. Cut nails date from the 1790s on, and were the predominant nail used in construction for much of the nineteenth century. Wire nails can date as early as ca.1850, but were not economical until the 1890s with the development of Bessemer process steel. The predominance of cut nails in this assemblage accords well with our knowledge of the dates of operation of the brewery and saloon.

The domestic assemblage was 60% bottle glass (n=104), 31% refined earthenware (n=53), 8% stoneware bottle sherds (n=14), 3% utilitarian stoneware and coarse earthenware vessel sherds (n=6), 4% porcelain (n=7), and 1% vessel glass (n=2). The technologically diagnostic bottle glass was all blown-in-mold. The refined earthenware sherds were comprised of 15% creamware (n=8), 37% pearlware (n=19) 37% whiteware (n=19), 2% each of ironstone (n=1) and yellow-ware (n=1), and 10% unidentifiable sherds (n=5). The undecorated ironstone sherd provides a *terminus post quem* of ca. 1840 for the deposition of Stratum V. The mean ceramic date (after South 1978) for this stratum was 1828.4.

Stratum W

Among the earliest of the Phase 1 deposits, Stratum W was a limited area of disturbed and trampled subsoil and was identified in Excavation Units 6, 9, and 13. It consisted of approximately 1-1.5 inches of yellowish brown (10YR 5/8) and light yellowish brown (10YR 6/4) clay, and was distinguishable from the subsoil primarily on the presence of artifacts. The 16 artifacts recovered from Stratum W consisted of 44% brick fragments (n=7), including one glazed fragment, 25% nails (n=4), 19% bottle glass (n=3), 6% slate (n=1), and 6% window glass (n=1).

Stratum X (Natural Subsoil)

Stratum X was the natural subsoil, consisting of a yellowish brown (10YR 5/8) clay, veined with a light grey (10YR 7/2) clayey silt. No artifacts were recovered from this stratum. The brewery basement (Feature 6), beer cellar (Structure 1), and the passage between the two (Structure 2) were excavated into the subsoil, and together comprise the extent of the Shuter's Hill Brewery Site.

C. Phase 2 Contexts

The Phase 2 contexts are those strata that are interpreted as having been deposited during the burning of the saloon and can be dated to August 18, 1893 or shortly thereafter. These contexts consisted primarily of lenses and discontinuous layers of charcoal, ash, and brick rubble. These contexts consist of Strata K, L, M, N, and O, and possibly Q. **Stratum K** was a thin lens of ash and cinders above the north edge of Feature 26. **Stratum M** was a thick layer of charcoal and ash occurring along the east side of Feature 6. **Stratum Q** consisted predominantly of brick rubble mixed with charcoal and ash. **Stratum N** was a layer of ash, charcoal, and brick rubble within Feature 26. **Stratum O** was a layer of ash and charcoal within Structure 2, where it met Structure 1. This was overlaid by **Stratum P**, a mixed layer of Feature 19 fill, brick rubble, and redeposited subsoil, the result of the west end of Structure 2 collapsing during or shortly after the fire.

*Stratum Descriptions*Stratum K

Stratum K was a thin (1 to 2 inches thick) lens of charcoal and ash identified just north of Feature 31 and west of the (n=19). It is probably remnant Stratum M, left after the construction of the concrete footer. No artifacts were recovered from this stratum as it was identified in the profile during the removal of the material from Feature 6 by backhoe.

Stratum M

Stratum M was a discontinuous layer of charcoal, ash, and rubble. It lay to the east of the eastern concrete footer, and was encountered in Units 1, 3, 5, 9, and 13. It had been disturbed by the construction of the concrete footer. Stratum M was approximately a foot thick along the east edge of the basement and thinned out to nothing beneath the concrete wall.

A total of 1,855 artifacts were recovered from the unit excavations of Stratum M. These were made up of 21% (n=382) architectural artifacts, 73% (n=1,347) domestic artifacts, 5% (n=96) domestic/industrial and unidentifiable artifacts, and 1% (n=19) faunal remains (18 oyster shells and a bone fragment). The remaining 1% (n=11) was a sample of nine pieces of charcoal, and an agate marble and kaolin tobacco pipe fragment.

Much of the architectural material was sampled items; brick (n=6), mortar (n=13), plaster (n=9), wood (n=2), and slate (n=37). The rest of the architectural assemblage was made up of nails (n=233), window glass (n=72), marble slab (n=4), and synthetic flooring tile (n=2), as well as a ceramic floor tile, an iron railroad spike, a bolt, and an iron hook.

None of the domestic artifacts were sampled. Of the 1,347 domestic objects, 50% (n=672) were glass bottle sherds and 44% (n=593) were stoneware bottle sherds. The remaining 6% of the domestic artifacts were ceramic sherds (n=76), internal gasket bottle stoppers (n=3), and vessel glass (n=2).

All the identifiable bottle glass was mold-blown. Twenty-nine of the sherds had embossing. One said Carter's and was probably an ink bottle, and another was a baking soda bottle embossed Rumford's. The remaining sherds were from two bottles that said THIS BOTTLE NOT TO BE SOLD and seven Robert Portner bottles, one of which was identifiable as a "TIVOLI" trademark bottle. Other than 12 sherds, the stoneware bottles were all from the cream-bodied, gold-topped bottles so common on this site. Seven of the cream and gold bottles had identifiable stamps. Three had a stamp consisting of GROSVENOR, then a number ("3", "6", and "13"), then GLASGOW. It is not known what these numbers represent. They do not represent capacities as the bottles are all roughly the same size. Of the other four bottles, one was stamped "2" or "Z", the next ones were "P" and "...URRAY", and the last one was "GROSVENOR".

The other ceramic sherds (n=76) were made up of redware flowerpot sherds (n=16), porcelain (n=10), creamware (n=2), whiteware (n=5), ironstone (n=2), Rockingham/Bennington (n=1), unidentified white refined earthenware (n=29), and 11 stoneware sherds.

The domestic/industrial artifacts were predominantly unidentifiable iron and copper alloy items (n=32) and melted glass (n=55). The rest of this group was a sample of clinker (n=5), coal (n=1), and slag (n=1), and a piece of textile.

Stratum N

Stratum N was a 1.5 to one foot layer of charcoal, ash, and rubble within Feature 26. It was similar to Stratum M. It was initially distinguished from Stratum M as there was no physical connection between the two strata, and also because the artifacts recovered from Stratum N may have revealed the use of the sub-basement.

This stratum was sampled in Unit 12, and through the screening of six buckets of soil (30 gallons). Excluding 40 artifacts that were sampled during the backhoe removal of this stratum, a total of 507 artifacts were recovered. Of these, 42% (n=213) were architectural artifacts, 37% (n=188) were domestic artifacts, and 17% (n=84) were unidentifiable or domestic/industrial items. The remaining 4% (n=22) were charcoal samples (n=17), faunal remains (n=4) (three mammal bone and one oyster shell), and a single tobacco pipe fragment.

The architectural artifacts consisted mainly of 81% (n=172) nails and 7% (n=14) window glass. The rest of the material was made up of a sample of bricks (n=5), mortar (n=6), and slate (n=7), along with one and one iron brass hinge, two screws, two pieces of iron pipe, and two agateware doorknobs.

The domestic artifacts consisted of 69% (n=130) bottle glass fragments, 21% (n=40) stoneware bottle fragments, 4% (n=8) vessel glass fragments, and 5% (n=10) ceramic sherds. The identifiable bottle glass was all mold-blown. A minimum of ten bottles had embossing. The only legible embossing on three of these was "THIS BOTTLE NOT TO BE SOLD". Four were Robert Portner bottles (two identifiable as "TIVOLI" brand and one as "HYGEIA"). One bottle was from "THE ARLINGTON BOTTLING CO./WASHINGTON D.C." The embossing on the remaining two bottles consisted only of fragmentary lettering. Except for two sherds, the stoneware bottles were all from cream-and-gold bottles. The two of the vessel glass fragments were from beer mugs and the remaining six sherds could not be functionally identified.

The ten ceramic sherds consisted of whiteware (n=3), ironstone (n=1), porcelain (n=1), redware flowerpot (n=1), grey stoneware (n=1), and unidentifiable refined earthenware (n=3).

The domestic/industrial group was made up of melted glass (n=19), corroded iron (n=34), a sample of wood (n=23), unidentified copper alloy fragments (n=5) and coal (n=2), and a single piece of lead.

A total of 40 artifacts were sampled non-systematically from the backdirt as Stratum N was being removed. Most of this material was domestic items, which were 32 of the 40 recovered items. The domestic items included 14 fragments of a porcelain vase, part of an "umbrella" inkwell, a complete pharmaceutical bottle embossed "JNO. COLE & CO./DRUGGISTS/ALEXANDRIA, VA", a whole cream-and-gold stoneware bottle, and a number of pieces of transfer-printed and hand-painted whiteware and pearlware. One of the more interesting artifacts found was a copper alloy barrel tap.

In summary there is little to distinguish this stratum from Stratum M. If there was a functional distinction between the sub-basement (Feature 26) and the rest of the basement, it is not reflected in differences in the artifact assemblages of Strata M and N.

Stratum P

Two wooden quarter kegs were exposed at the base of the ramp. One was in a relatively poor state of preservation and was missing its top half, possibly because of the use of a backhoe to remove the fill. The second keg was completely sealed in **Stratum P**. While the iron bands had corroded, the wood was in an excellent state of preservation, and the keg could be lifted out intact. The keg was 15 inches long and 9.5 inches in diameter at the ends. The endpieces were carved with "W.B.C./WASH. D.C.". This was the "WASHINGTON BREWERY COMPANY", which operated from 1890-1917 (Turner and Ketz 1990). This was most probably a saloon related artifact. It may have been dropped during the fire, or it may have floated out from the cellar before Structure 2 collapsed.

Other artifacts recovered from Stratum P during the excavation of the wooden steps were some brick, mortar and slate along with an iron hinge, a leather shoe, a barrel bung-plug, part of a lightening bottle stopper and five bottles. Two of the bottles were stoneware. One of these was a white and yellow bottle, typical of those found on the site, and the other was a brown salt-glazed bottle stamped "P & W". The other three bottles were blown-in-mold glass bottles. One was embossed "J.F. WEISSNER & BRO./ BREWING CO./BALTIMORE, MD." And "THIS BOTTLE IS NEVER SOLD".

Stratum Q

Stratum Q was a localized area of brick rubble mixed with charcoal and ash. This stratum was encountered in Unit 14 and yielded 602 artifacts. This large assemblage was made up of 27% (n=164) architectural material, 54% (n=328) domestic material, 5% (n=31) faunal items, and 12% (n=74) domestic/industrial and unrecognizable objects. A sample of charcoal (n=3) and two shoe parts made up the rest of the Stratum Q assemblage.

The architectural assemblage comprised 59% (n=97) nails, 29% window glass, and 12% a sample of brick (n=3), slate (n=1), plaster (n=1), and mortar (n=15). The domestic assemblage was 71% (n=232) glass bottle sherds, 24% (n=78) stoneware bottle sherds, 4% (n=12) ceramic sherds, and 1% (n=5) vessel glass. The identifiable bottle glass was all mold blown. A minimum of nine bottles were embossed. Two were Robert Portner bottles, three were from Washington breweries or bottlers, and the remainder were unidentifiable. Of the 78 stoneware bottle fragments, 71 were from cream-and-gold bottles. Two of these were stamped; one with a "T", and the other, "...AT-DUNDAS/[GLAS]GOW/[BREW]ERY CO." The remaining seven stoneware bottles were all grey salt-glazed bottles. One was stamped "GEO. SCHNELL". The other ceramics were whiteware (n=4), coarse earthenware (n=2), salt-glazed stoneware food storage vessel sherds (n=6). The five drinking vessel sherds included two beer mug fragments and two tumbler fragments. The faunal material was made up of 21 pieces of mammal bone and

10 oyster shell fragments. The domestic/industrial group was predominantly (58%) unidentifiable iron fragments (n=43). The rest of the material was clinker (n=26) and coal (n=5).

D. Phase 3 Contexts

The Phase 3 contexts are those deposits that date to the demolition of the burned structure and the initial filling of the cellar hole and Structure 2 with the demolition material. This phase is generally represented by a thick layer of very dark greyish brown loam mixed with ash and brick rubble, designated as **Stratum J**. Stratum J is broken up into that portion within Feature 6 and that within Structure 2. **Stratum B** was a layer of burnt wooden planks, copper alloy sheets, nails, bottle glass, and other debris that was deposited into the depression left on the surface by the subsidence of Structure 2. This material was debris from the demolition of the brewery/ saloon building.

Stratum B

This was a stratum of demolition debris that was encountered over Structure 2. Due to the subsidence of Structure 2, Stratum B sloped down to the north. It was approximately a foot thick and almost entirely composed of burnt planking, copper sheeting, and corroded iron. Unfortunately, between the Phase II and III work, this stratum was entirely excavated by looters, presumably looking for bottles. During the Phase III, we screened a 20 gallon sample of the looter's backdirt. This yielded a total of 175 artifacts. Of these 20% (n=35) were architectural, 45% (n=79) were domestic/industrial, 30% (n=53) were domestic, 4% (n=7) were faunal, and 1% (n=1) were shoe leather.

The architectural material (n=35) consisted of 40% (n=14) nails, along with a sample of wood, mortar, plaster, and slate. The rest of the architectural material was made up of a single piece of window glass, a padlock, and an iron T-bolt. The domestic industrial artifacts (n=79) were mainly (92%) pieces of corroded iron sheet (n=73), which are probably roofing related, four pieces of coal, and a single piece each of slag and melted glass.

The domestic artifacts (n=53) were 68% (n=36) bottle glass, 19% (n=10) stoneware bottle sherds, 9% (n=5) lamp chimney glass, and 4% (n=2) ironstone sherds. Surprisingly, three intact whole bottles were found, and one whole bottle that had been broken in to two pieces. The presence of intact bottles in a looter's backdirt pile was surprising. This may have been due to the speed at which the looter's were working as well as poor lighting, if they were working at night. The whole bottles consisted of a Robert Portner "TIVOLI" bottle, embossed "ROBERT PORTNER BREWING CO./ TRADE/ TIVOLI/ MARK/ ALEXANDRIA, VA", with "EHE CO." on the heel, a baking soda bottle embossed "THE POTTER PARLIN CO.", a pharmaceutical bottle and a strapped flask. The identifiable bottle glass was all blown-in-mold. The 10 stoneware bottle sherds were all cream-and-gold sherds. One was stamped "GROSVENOR/ 2/ GLASGOW", and another "...KENNEDY". The faunal remains consisted of three bones and four oyster shells.

Stratum J

Stratum J was an extensive layer of dark greyish brown (10YR 3/2) silty sand and mixed ash, charcoal, and brick rubble. It was encountered in Units 2, 4, 7, 8, 10, 13, and 14. It probably once filled the basement, but was disturbed by the construction of the concrete in the twentieth century. It also appears to have been graded to the south and west. The surviving thickness ranged from 1.5 feet just to the west of the east footer and from there it thinned out faded out to the south and west. Stratum J survived in discontinuous patches to the west of the west footer. Much of it was dug out when the footer was placed.

Within Feature 6, the unit excavations of Stratum J yielded a total of 3,069 artifacts. Of these, 20% (n=615) were architectural artifacts, 69% (n=2,107) were domestic artifacts, 4% (n=124) were faunal remains, and 6% (n=177) were unidentifiable. The remaining 1% was made up of a sample of charcoal (n=7), a horseshoe, barrel band fragments (n=6), and 11 personal items. The personal items consisted of shoe parts (n=4), one porcelain 4-hole button, two pieces of a porcelain collar button, Rockingham/Bennington spittoon fragments (n=3), and a porcelain figurine.

The architectural material (n=615) was made up of 67% (n=378) nails, 21% (n=121) window glass, 10% (n=66) a sample of brick, mortar, slate, plaster, wood paneling, and synthetic floortile. The domestic material (n=2,107) was predominantly (74%) bottle glass (n=1,548), followed by 20% (n=410) stoneware bottle sherds, and 5% (n=101) ceramic sherds. The remaining 2% of the Stratum J domestic assemblage was made up of one rubber gasket and iron bottle stopper fragments (n=3), both probably from a lightning or internal gasket system, a copper alloy teaspoon, glass jar sherds (n=2), lamp chimney glass (n=10), and vessel glass (n=31). Ten of the vessel glass fragments could be identified as beer mug sherds.

The mode of manufacture could be identified for 583 of bottle glass fragments. All these sherds were from blown-in-mold bottles. Embossing could be seen on 196 sherds that formed approximately 97 different embossments. Of these, 29 were Robert Portner bottles, seven of which were Tivoli brand bottles. The specific brands of the remaining Portner bottles were unidentifiable. The rest of the identifiable brands were "SPL" (n=1), "...T/ BRIDWELL" (n=1); "[GEO.] SCHNE[LL]" (n=1), "E.B. Co." (n=1), "E.B.G.../ C.../ ...tesvill..." (n=1), "WORCE[STERSH]IRE S[AUCE]" (n=1), and three Baltimore brands.

Of the stoneware bottle fragments (n=410), 89% (n=364) were cream-and-gold bottles. There were five identifiable stamps: "GROSVENOR/ 6/ GLASGOW", "MURRAY & BUCHAN/ POTTERY/ PORTOBELLO", "HIR.../ RA.../ GLASGOW", "5", and "D". The remaining stoneware sherds were from salt-glazed (n=18) and Albany-slipped (n=28) bottles. There were four identifiable stamps: "...TTO PORTNER", "...OLLIN...", "...MW/ AF...", and "A.../ Num. 42...". The other ceramics (n=101) were comprised of whiteware

(n=28), ironstone (n=14), pearlware (n=14), creamware (n=6), Rockingham/Bennington (n=7), redware (n=4), and saltglazed stoneware (n=26).

The faunal remains consisted of mammal bones (n=87), one bird bone and fish scale, oyster shell (n=37), clam shell (n=5), and one mussel shell. The domestic/industrial group was 64% unidentifiable glass, wood, and copper and iron alloy fragments (n=113), and 33% (n=58) coal and clinker. The rest of this assemblage was composed of rubber hose (n=2), tacks (n=2), and a screw.

Stratum J (within Structure 2)

The excavation of the ramp part of Structure 2 during the Phase III work entailed the removal of the vaulted roof with the backhoe. As the roof had partially collapsed and was supported by the fill inside the structure, excavation of the fill from the inside was not feasible. Once the roof was removed, the interior fill (which was part of **Stratum J**) was excavated with the backhoe and a sample of 20 gallons of soil was screened.

The sample of Stratum J fill within Structure 2 yielded 62 artifacts. Although most of the cultural material within Stratum J was of architectural origin, due to burning and demolition of the brewery, most of the brick, mortar, and plaster fragments were not saved. The 62 artifacts from the saved from the screened sample were made up of 35% architectural artifacts (n=22), 35% domestic/industrial artifacts (n=22), 18% faunal and floral remains (n=11), 8% domestic artifacts (n=5), and 3% personal artifacts (n=2).

The architectural material included a sample of two brick fragments and a piece of mortar. The rest of the material consisted of a piece of window glass and 18 nails. The domestic/industrial material consisted mainly of unidentifiable copper and iron alloy fragments (n=9) and melted glass (n=8). Three pieces of leather strap and a piece of cellophane made up the rest of this group. The cellophane may be intrusive. The faunal and floral remains were made up of four butchered animal bones, three oyster shells, a clam shell, and a sample of three charcoal pieces. The domestic artifacts consisted of two sherds of pearlware, and a sherd each of stoneware and porcelain. A fragment of bottle glass was also recovered. The remaining artifacts from the sample were two kaolin tobacco pipe stems and an iron barrel band fragment.

E. Phase 4 Contexts

Phase 4 consisted of those contexts that resulted from twentieth-century activities on the site. The first of these activities consisted of leveling the site through the deposition of additional layers of fill (**Strata E, F, D and H**), and the construction of two poured concrete footers resulting in localized disturbance to the strata in Feature 6 (**Stratum G**). There was deposition of twentieth-century trash (**Stratum Y**) into Structure 1 through an opening left by the subsidence of Structure 2. The latest activities consisted of the demolition of the twentieth-century structure followed by grading and filling (**Stratum A**) of the site. In the 1970s, the roadbed for Elizabeth lane was laid down over the western part of Features 1 and 19.

Stratum Descriptions

Stratum A

Stratum A was a layer of fill deposited over the basement. It consisted of yellowish brown (10YR 5/8) silty clay. This stratum overlay the concrete footers indicating that it was deposited after the building that sat on those footers was demolished. As with the earlier fill layers, this fill consisted of redeposited material from the site. Mixed in with concrete, plastic, and asphalt, was a considerable amount of historical material.

A total of 2,202 artifacts were recovered from Stratum A. Of these, 33% (n=731) were architectural, 4% (n=90) were domestic/industrial, 59% (n=1,295) were domestic, 3% were faunal, and 1% (n=17) were personal. A lead bullet and a sample of five pieces of charcoal made up the rest of the assemblage.

The architectural material was 63% (n=459) nails and 25% (n=180) window glass, with the rest of the material being brick, mortar, slate, PVC and stoneware drainpipe, and synthetic flooring tile. The PVC pipe dates the deposition of this stratum to the twentieth century. The domestic/industrial group included plastic, asphalt, and melted glass, as well as corroded iron fragments, coal and clinkers.

The domestic material was 55% (n=708) bottle glass, 28% (n=365) stoneware bottle fragments, 16% (n=206) ceramics, and 1% (n=14) vessel glass. A hutchinson bottle stopper and a Mason jar lid were also recovered. The identifiable bottle glass was all blown-in-mold. A number of them were embossed. The only identifiable trade marks were Robert Portner marks. The stoneware bottles were 96% cream-and-gold bottles, with the rest being salt-glazed and Albany slipped bottles. The identifiable stamps on the cream-and-gold bottles were all "GROSVENOR/GLASGOW" bottles. There were no stamps on the other bottles. The ceramics recovered from Stratum A were redware (n=8), stoneware (n=40), whiteware (n=57), pearlware (n=52), creamware (n=13), ironstone (n=5), porcelain (n=18), yellow-ware (n=2), Rockingham/Bennington (n=5), and Jackfield (n=1). Four refined earthenware sherds were unidentifiable.

The faunal material was bone(n=32), oyster shell (n=27), clam shell (n=3) and mussel shell (n=1). The personal artifacts were made up of pipestems, a pipe bowl fragment, all of kaolin, a Rockingham/Bennington spittoon sherd, three porcelain buttons and a glass button.

Strata E, F, G, D, and H

Strata E, F, D, and H are fill strata deposited after the occupation of the brewery. Stratum G was an area of Stratum J that had been disturbed during the construction of the east concrete footer. Although there are separate layers of fill, they are, for purposes of this analysis, grouped together as they post-date the period of significance of the site. Much of this material was also graded away as part of later construction on the and also as part of the archaeological investigations. Most of the artifacts from these strata dated

to the occupation of the brewery suggesting that this material was redeposited from the site rather than being brought in from elsewhere. This material was however mixed with concrete and plastic demonstrating its twentieth-century deposition. Although the context is disturbed, the artifacts from these strata will be briefly described as they mostly date to the occupation of the brewery.

A total of 3,311 artifacts were recovered from the units. Of these, 15% (n=488) were architectural, 5% (n=155) were domestic/industrial, 77% (n=2,537) were domestic items, and 2% (n=88) were faunal remains. The rest of the fill material (1%) was a charcoal sample (n=31), one horse shoe, and personal items (n=11).

The architectural artifacts were 60% (n=291) nails and 19% (n=91) window glass. The rest of the architectural was sampled and included brick fragments, mortar, plaster, slate, marble, stoneware drainpipe, and synthetic floortile. A plastic screw was also recovered. The domestic/industrial included large amounts of corroded iron, along with wire, plastic, coal, and clinker.

The domestic material was 56% (n=1,410) bottle glass, 40% (n=1,027) stoneware bottle fragments, and 4% (n=91) ceramic sherds. Nine pieces of vessel glass were also found. The identifiable bottle glass was all blown-in-mold. This is surprising, given the presence of plastic and concrete in these strata. It is likely that there was little deposition of artifacts during the twentieth-century filling of the site. The embossed bottles were mainly Robert Portner bottles (both "TIVOLI" and "HYGEIA" brands). A single bottle embossed "[E]NGLEHAR[RDT]" was also recovered that probably dates to when the brewery was operational. The only other identifiable brand recovered was Pabst.

The stoneware bottles (n=1027) were mainly (92%) cream-and-gold bottle sherds. The stamped sherds were predominantly "GROSVENOR/ GLASGOW" bottles. The rest of the stoneware bottles included a Selter's Nassau bottle and a "GEO. SHNELL" one. The other ceramics were mainly whiteware (n=25), pearlware (n=14), and stoneware (n=26), along with smaller amounts of porcelain, coarse earthenware, and unidentifiable refined earthenware.

The faunal remains were made up of bone (n=56) oyster shell (n=27) and clam shell (n=5). The personal items consisted of a plastic comb, a leather shoe heel, one glass and one porcelain button, five pipestems and a pipe bowl.

VI. ANALYSIS

The primary artifact analysis is concentrated on those artifacts from the systematically sampled Phase 1, 2, and 3 contexts that date to the operation of the brewery. This includes artifacts systematically collected from the following universal strata: B, J, P, Q, K, M/N, O, F25, F27, F28, T, U, F20, F23, and V. Not included in the primary analysis are the artifacts from construction contexts that likely pre-date the operation of the brewery, including Phase 1 Universal Strata R, S, W, F29-33, F5, F22, F21, STR2, STR1, F19, F1, F6 and F26. Also not included are the 20th century and mixed strata in Phase 4 contexts, which post-date the brewery, including Universal Strata A, D, E, F, H, Y, G, and I. The artifacts from these contexts are discussed separately, following the primary analysis.

Excluding a single prehistoric flake, a total of 6,792 artifacts were recovered during the archaeological data recovery at 44AX35 from the systematically sampled contexts to be discussed in the primary analysis.

Artifact Group	Frequency	Percent
Food and Beverage	4,274	63%
Architecture	1,688	25%
Faunal	232	3%
Lighting/Heating	150	2%
Personal	19	< 1%
Other	19	< 1%
Unidentified	410	6%
Total	6,792	100%

Table 4: Frequencies and Percents of Artifact Groups at 44AX35

A. Architectural Material

Architectural artifacts accounted for 25% of the assemblage. Although this material was non-systematically sampled in the field, the range of material recovered does provide some insight into the architecture of the brewery building. Brick and wood (now in the form of charcoal) were probably the dominant structural elements of the building.

Material	Frequency
Brick*	60
Charcoal/wood*	96
Mortar*	57
Plaster*	26
Slate*	72
Synthetic Tile	15
Window Glass	294
Hardware	1,048
Other	20
Total	1,688

*Sampled class

Table 5: Architectural Material from Site 44AX35

The brewery was probably roofed with slate. The flat copper alloy and iron fragments classed into the unidentified group may also have served as sheathing on the roof. The brick walls of the building were plastered and whitewashed. Some use was also made of a synthetic tile, generally consisting of a wood backing with a cream-colored or orange covering. The specific synthetic was not identifiable. Fragments of floor tile composed of what appears to be a rubber compound were also found. One fragment was printed, "SO.../ ...TOS FLO..." and "STI.../ FLOO...". Some of the wood fragments recovered appeared to be from wooden paneling. The remaining material was window glass and some miscellaneous items such as drainpipe, sandstone, and marble fragments.

The architectural hardware was 98% nails (n=1,023). A sample of 200 nails from Test Units 4 and 7 was examined to determine manufacture technique. Of these, 78% (n=155) were cut nails. Cut nails began being manufactured in the 1790s and almost completely replaced hand wrought nails in the first decades of the nineteenth century. Five nails (3%) were identifiable as wire nails, which were not generally used until the 1890s (Fontana 1965; Howard 1989). The rest of the nails were unidentifiable. The remainder of the architectural material was made up of six tacks, two hooks, three hinges, two spikes, two bolts, three staples, three screws, two locks, and two scroddled (agateware) doorknobs.

A total of 85 architecture artifacts were recovered from Phase 1 contexts dating from the initial construction of the brewery (these artifacts may date from the original construction, or be related to earlier structures in the area). This included 17 pieces of brick, 2 pieces of cement, 3 pieces of charcoal, 13 mortar fragments, 1 piece of plaster, 5

pieces of shell plaster, 1 piece of sandstone, 3 pieces of slate, 9 pieces of window glass, 9 pieces of wood, 1 tack, and 21 nails.

Unsystematic backhoe collections from the Phase 2 and 3 contexts (dating from the operation of the brewery/ saloon) included 24 architecture artifacts: one piece of brick, three pieces of charcoal, one piece of mortar, one piece of slate, one piece of wood, one hinge, two spikes, and 14 nails. Collections from Phase 4 contexts (post dating the operation of the brewery and saloon) included 1275 architecture artifacts: 30 pieces of brick, 29 pieces of floor tile (ceramic, marble, and synthetic), 34 pieces of charcoal, 3 pieces of daub, 1 piece of marble, 21 pieces of mortar, 36 pieces of plaster, 62 pieces of slate, 273 pieces of window glass, 3 pieces of wood, 12 pieces of drain pipe, 765 nails, 1 tack, 3 screws, 1 spike, and 1 knob.

B. Food and Beverage Related

The artifacts in the Food and Beverage Related group (n=4,274) accounted for 63% of the 44AX35 assemblage. The proportions of the various artifact classes within this group strongly reflect the activities carried out at 44AX35 (Figure 41). Bottle fragments accounted for 92% (n=3,943) of the assemblage. Of these, 71% (n=2,780) were glass bottle sherds and 29% (n=1,163) were stoneware bottle sherds. Seven bottle stopper parts were also recovered. Only 7% of the Food and Beverage Related assemblage was not related to the storage of liquids.

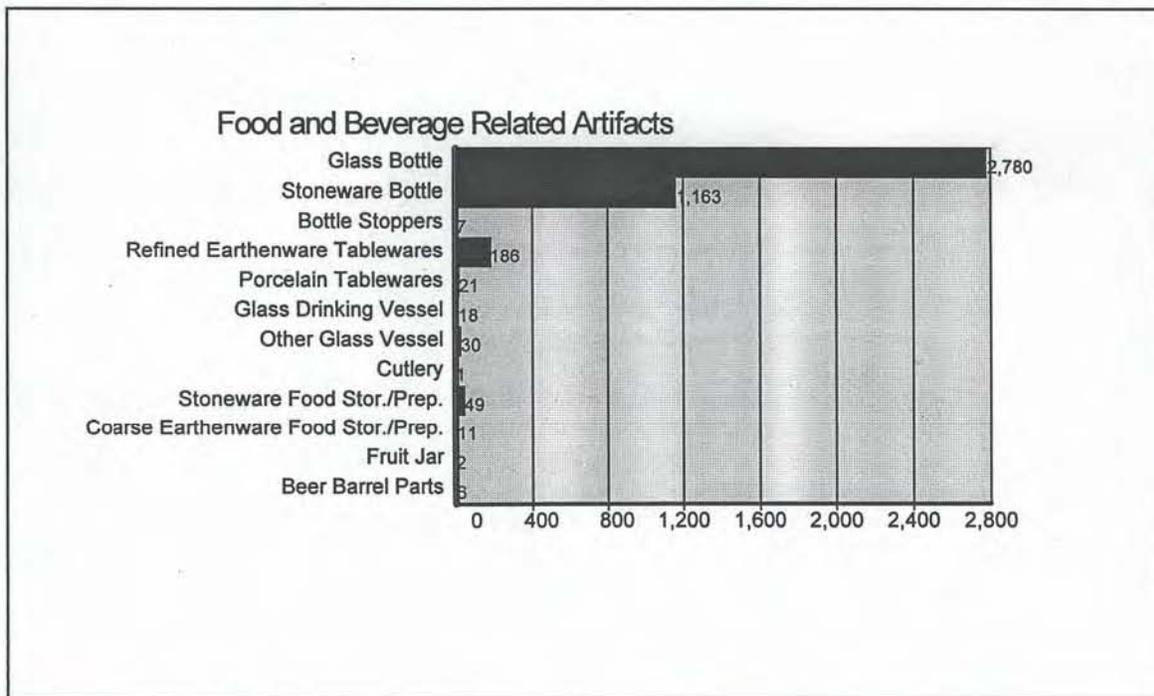


Figure 41.: Frequencies of food and beverage related artifact types

Bottle Glass

Bottle glass was 65% (n=2,780) of the total Food and Beverage Related assemblage. The approximate mode of manufacture could be identified for 26% (n=726) of the glass bottle sherds. These were all blown-in-mold, a technique of manufacture that lasted into the twentieth century. The last commercial bottle blowing enterprises went out of business in the 1920s (Miller and Sullivan 1984).

The bottle glass fell into four color groups: 73% aqua (n=2,038), 10% olive (n=288), 10% clear (n=275), 6% amber (n=165), and 1% green (n=14). Two main closure types were identifiable, cork and internal gasket closures. Of the 93 sherds for which the closure types could be identified, 79% (n=73) were internal gasket closures, 20% (n=19) were cork closures, and one was a crown cap closure.

It can be seen from Table 6 that there is an association between closure type and glass color. Aqua and clear bottles tended to have internal gasket closures whereas amber bottles tended to have cork closures. In the small sample of olive glass, half were cork closures and half were gasket closures. The variety of internal gasket closures found can be seen in *Plate 9*.

Color	Gasket	Cork	Crown	Total
Aqua	60 94%	4 6%	0 0%	64 100%
Olive	3 50%	3 50%	0 0%	6 100%
Clear	6 75%	2 25%	0 0%	8 100%
Amber	4 29%	9 64%	1 7%	14 100%
Green	0 0%	1 100%	0 0%	1 100%
Total	73 79%	19 20%	1 1%	93 100%

Table 6: Closure Type and Glass Color

There was also an association between bottle color and embossing (*Table 7*). Aqua bottle glass sherds tended to be embossed the most (13%). None of the olive bottle glass was embossed, and clear glass was embossed very rarely. Six percent of the amber sherds were embossed, and seven percent of the green sherd were embossed.

Color	Embossed	Not Embossed	Total
Aqua	254 13%	1784 87%	2038 100%
Olive	0 0%	288 100%	288 100%
Clear	2 1%	273 99%	275 100%
Amber	10 6%	155 94%	165 100%
Green	1 7%	13 93%	14 100%
Total	267 10%	2513 90%	2780 100%

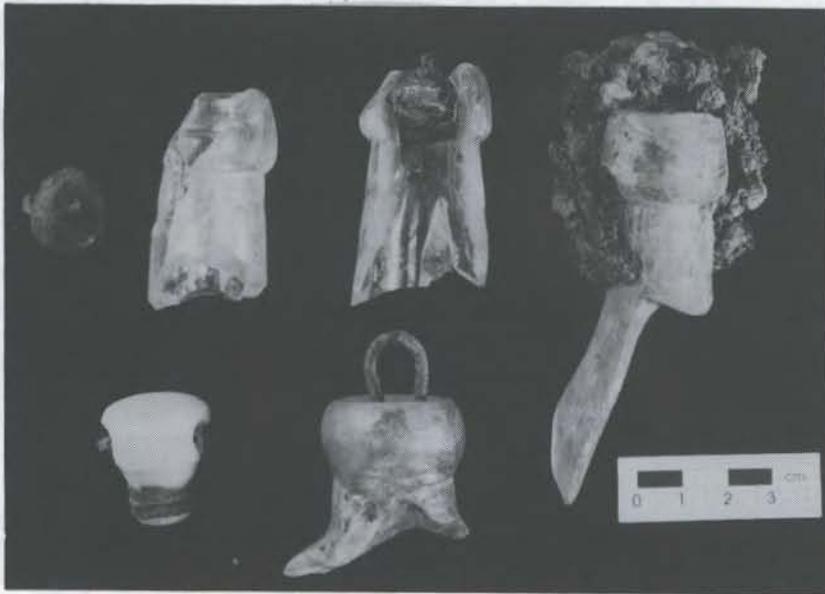
Table 7: Embossing and Glass Color.

The differences in glass color, closure type, and embossing are indicative of different contents. Aqua-colored bottles tend to have internal gasket stoppers, indicating contents under pressure -- carbonated beverages such as beer, soft drinks, mineral water, or ginger beer. These bottles also tended to be embossed more often than the other colored bottles. The olive colored bottles by contrast are almost never embossed and are more lightly to be corked. These bottles most probably held wine and champagne. In the late nineteenth century, as now, paper labels appear to have been the appropriate way of designating the contents of wine bottles, while embossed bottles were more appropriate for beverages such as beer and soft drinks.

Embossed Bottle Glass

The aqua glass had a minimum count of 47 legible embossments (*Table 8*). Of these, 35 were either on beer bottles or were embossed with brewer's trade marks. A total of 29 of the embossments were from Robert Portner bottles -- 23 "Tivoli" trade mark bottles, two "Hygeia", and four where the specific brand could not be identified (*Plate 10*). The other aqua glass embossments indicated three other brewers -- The National Brewing Co. in Baltimore and two other brewers, one of which was located in Washington. The remaining beer bottles were marked either with the bottler's name or were unidentifiable.

Of the 12 remaining embossed aqua glass bottles, one contained a carbonated beverage, possibly beer, but possibly also soft drink or ginger beer, two were baking soda bottles, and one was an ink bottle. The embossing on the rest of the aqua bottles was unidentifiable.



Top. Rubber Gasket, Closures for Rubber Gasket, and Lightning Closure

Bottom. Porcelain Lightning Stopper and Hutchinson Stopper

PLATE 9. INTERNAL GASKET CLOSURES.



Left. "Hygeia" Trademark

Right. "Tivoli" Trademark

PLATE 10. ROBERT PORTNER BOTTLES.

Source: Parsons Engineering Science, Inc.

Carlyle Phase III

PLATES 9 AND 10

A minimum of five amber bottles were embossed. Four of these were beer bottles and one was unidentifiable. Three of the beer bottles embossments were Robert Portner trade marks. Two of these were "TIVOLI" brand beer, and were embossed "EHE Co." on the heel. This probably refers to the Edward H. Everett Glass Co. in Newark, Ohio, which operated from 1893-1904 (Toulouse, 1971). The remaining beer bottle had a fragmentary Baltimore mark on it.

The only identifiable trade mark on green glass was Lea and Perrins Worcestershire sauce. The clear glass and olive-colored glass from the systematically sampled contexts had no trademarks.

The preponderance of Robert Portner bottles, as well as the number of bottles from other breweries, suggests that the 44AX35 assemblage is saloon, rather than brewery, related material, although some of the assemblage may also be the result of reuse of other brewers bottles by Englehardt. The market dominance of the Portner brewery is evident in this assemblage. Of the minimum count of 53 embossed bottles from the systematically sampled contexts at 44AX35, 32 (60%) were Portner beer bottles. The two types of Portner beer that seem to have been purchased were "TIVOLI" and "HYGEIA", with "TIVOLI" being the most popular. Twenty-five "TIVOLI" bottles were identified, as opposed to only two "HYGEIA" bottles. The "TIVOLI" trademark dates from after 1877. The "HYGEIA" may represent a brand of mineral water that Portner began to market in 1891.

Consideration of the embossed bottles from the non-systematically sampled and post-fire fill contexts also provides valuable information (Table 9). They are considered separately as there is the potential that later material was incorporated into the fill. The collection of material from the backhoe fill was biased towards larger and more obvious objects. In spite of these caveats, this material seems to reflect the proportions of the material from the systematically sampled contexts, and does in fact provide some additional information. This discussion excludes the bottles from the twentieth-century trash deposit.

A minimum of 76 embossed bottles was recovered; 52 aqua-colored bottles, 14 amber bottles, 3 olive bottles, and 7 clear bottles. The probable contents of the 52 aqua bottles were beer (n=37), carbonated beverages (n=12), and a single example each of baking soda and pharmaceutical bottles. One bottle was unidentifiable. The aqua-colored beer bottles were mainly Portner bottles (n=24). Of these, 16 were "TIVOLI" brand (including one embossed "TIVOLI CABINET") and five were "HYGEIA" brand. The other identifiable breweries from the remaining 13 beer bottles were the Geo. Bauernshmidt Co. (n=2), the National Brewing Co. (n=2), J.F. Weissner and Co. (n=1), all located in Baltimore, the Pabst Brewing Co. (n=1) (Washington branch), and Henry Englehardt (n=2). The Englehardt bottles are obviously significant as brewery-related items.

Embossing	Manufacturer	Date Range	Probable Bottle Function	Minimum Count
Aqua Glass Embossing				
Robert Portner Brewing Co./Alexandria, VA/ Trade/Tivoli/Mark	Robert Portner	1883-1916 ¹	Beer	10
Robert Portner Brewing Co./Alexandria, VA/ Trade/Tivoli/Mark This bottle not to be sold (heel)	Robert Portner	1883-1916 ¹	Beer	13
Robert Portner Brewing Co./Alexandria, VA/ Trade/Hygeia/Mark	Robert Portner	1891(?) - 1916 ¹	Beer	2
...Co./Alexandria, VA	Robert Portner	1883-1916 ¹	Beer	4
Saml. C. Palmer/Washington D.C. (front) SCP (back) This Bottle is registered (heel)	Samuel C. Palmer Inc.	1871-1915 ²	Beer	1
National/Brewing Co./1022 Fawn St./ Baltimore, MD. (front) This Bottle is not to be sold (back)	National Brewing Co.	1891-1904	Beer	1
The Arlington Bottling Co./Washington D.C.	Arlington Bottling Co.	1886-1915 ³	Beer	1
Brewery.../Washington	Unknown	Unknown	Beer	1
Ge.../Brewing Co./W/B/	Unknown	Unknown	Beer	1
...Georgetown, D.C.	Unknown	Unknown	Beer	1
M.T. Bridwell/363 M St. S.W./ Washington D.C.	Moses T. Bridwell	ca.1890 ²	Carbonated Beverage	1
Rumford	Rumford Chemical Works	Unknown	Baking Soda	1
The Potter Parlin Co.	Potter Parlin Co.	Unknown	Baking Soda	1
...Carter's Ink	Carter's	1858-1932 ³	Ink	1
...ling Co./Washington D.C.	Unknown	Unknown	Unknown	1
I.B.../Bottle Works/Baltimore MD (front) This Bottle not to be Sold (back)	Unknown	Unknown	Unknown	1
E.B.G. Co./Charlottesville	Unknown	Unknown	Unknown	1
Bo.../Baltimore	Unknown	Unknown	Unknown	1
...schn	Unknown	Unknown	Unknown	1
...nia	Unknown	Unknown	Unknown	1
Bergne.../F.../Ch...	Unknown	Unknown	Unknown	1
Bo.../Baltimore	Unknown	Unknown	Unknown	1
Amber Glass Embossing				
Robert Portner Brewing Co./Alexandria, VA/ Trade/Tivoli/Mark (front) EHE Co. (heel) [Edward H. Everett]	Robert Portner	1893-1904 ³	Beer	2
Robert Portner...	Robert Portner	1862-1915 ¹	Beer	1
...Baltimore, MD U.S. (front) Pat. Aug 24/Baltimore/MD (base)	Unknown	Unknown	Beer	1
...Baltimore, MD. U.S. (front)	Unknown	Unknown	Unknown	1
Green Glass Embossing				
Worcestershire Sauce	Lea and Perrins	1880+ ⁴	Condiment	1

Table 8: Embossing on bottles from systematically sampled contexts. References: 1: Portner nd; 2: Ketz and Reimer 1990; 3: Cheek et. al. 1991; 4: Balicki 1991, 5. Toulouse, 1971.

Twelve of the 15 remaining aqua-colored bottles contained carbonated beverages. With one exception, a bottle of "aerated water" from Dublin or Belfast, these bottles were all from Washington or Alexandria. The remaining three aqua bottles were a baking soda bottle ("Rumford's"), a patent medicine bottle ("DR. KILMER'S SWAMP ROOT, KIDNEY, LIVER, AND BLADDER CURE"), and an unidentifiable bottle.

The amber colored embossed bottle glass (n=14) was, like the aqua glass, predominantly beer bottle (n=10). The only identifiable brewer was Robert Portner. The Portner trade mark made up eight of the ten beer bottle embossments. Four of these were "TIVOLI" brand, and the rest could not be more specifically identified. The two remaining beer bottles originated in Georgetown and Alexandria. Of the four remaining bottles, one was functionally unidentifiable, one was a baking soda bottle, and two were pharmaceutical bottles.

Embossing	Manufacturer	Date Range	Probable Bottle Function	Minimum Count
Aqua Bottle Embossing				
Robert Portner/Alexandria VA/Trade/Tivoli/Mark (front) Tivoli Cabinet Beer (back)	Robert Portner	1877-1916 ¹	Beer	1
Robert Portner Brewing Co./Trade/Tivoli/Mark/Alexandria, VA	Robert Portner	1883-1916 ¹	Beer	11
Robert Portner Brewing Co./Trade/Hygeia/Mark/Alexandria, VA	Robert Portner	1883 (1891?) - 1916 ¹	Beer	4
Robert Portner Brewing Co./Trade/Tivoli/Mark/Alexandria, VA (front) This bottle not to be sold (heel)	Robert Portner	1883-1916 ¹	Beer	4
...Co./Alexandria, VA	Robert Portner	1883-1916 ¹	Beer	1
Robert Portner/Washington...	Robert Portner	1876-1890 ¹	Beer	1
Robert Portner Brew Comp/Trade/Hygeia/Mark/Alexandria, VA (front) This bottle not to be sold/Return when empty (back)	Robert Portner	1883 (1891?) - 1916 ¹	Beer	1
The Geo. Bauernshmidt/Brewing Co./Special Export/Trade Mark/Registered/Baltimore, MD/This Bottle Not to be Sold/AGW [American Glass Works]	George Bauernshmidt and family	1877-ca. 1880 ⁴	Beer	2
Englehardt../Alexandria..	Henry Englehardt	1872-1893 ²	Beer	2
National/Brewing Co./1022 Fawn St./Baltimore, MD. (front) This Bottle is not to be sold (back)	National Brewing Co.	1891-1904	Beer	2
[Bud?]weiser	Budweiser?	Unknown	Beer	1
NBCO, Northwestern Bottling Works/1601 5th St. N.W./J.H. Schluter/Washington D.C./This Bottle Never Sold.	Northwestern Bottling Works	1890-1905 ²	Beer	1
Pabst/Brewing Co./Washington/Branch This bottle not to be Sold	Pabst Brewing Co.	1890-1915 ²	Beer	1
Saml. C. Palmer/Washington D.C. (front) SCP (back) This Bottle is registered (heel)	Samuel C. Palmer Inc.	1871-1915 ²	Beer	2
J.F. Weissner & Bro./Brewing Co./Baltimore, MD (front) This Bottle is Never Sold (back)	John F. Weissner & Bro.	1888-1899	Beer	1
This Bottle not to be Sold (side) BB & Co. (base) [Berney-Bond Glass Co.]	Unknown	ca. 1900 ⁴	Beer	2
Not to be Sold Trade Mark F (in diamond on heel)	Frank H. Finley and Son	ca. 1904 ³	Carbonated Beverage	2

Lewis Young/Alexandria/VA	Lewis Young	ca.1895 ²	Carbonated Beverage	2
M.T.B/363 M St. S.W./Washington D.C. This Bottle not to be Sold (base)	Moses T. Bridwell	ca.1890 ²	Carbonated Beverage	2
M.T. Bridwell/363 M St. S.W./ Washington D.C.	Moses T. Bridwell	ca.1890 ²	Carbonated Beverage	1
F.W. Brawner and Co./Trade/Mark/Registered/ Alexandria, VA	F.W. Brawner and Co.	1897-1905 ²	Carbonated Beverage	1
Return to James McCuen/Alexandria/VA	James McCuen	1895-1903 ²	Carbonated Beverage	1
J.D. O'.../B...	John D. O'Meara	1890-1915 ²	Carbonated Beverage	1
Northwestern Bottling Works/1601 5th St. N.W./J.H. Schluter/Washington D.C./This Bottle Never Sold.	Northwestern Bottling Works	1890-1905 ³	Carbonated Beverage	1
See That Each Cork is Branded/Cantrell/Cochrane (heel) Dublin/&/Belfast (base)	Thos. J. Cantrell	1870s- 1880s ⁵	Carbonated Water	1
Rumford	Rumford Chemical Works	Unknown	Baking Soda	1
Dr. Kilmer's/Swamp Root/Kidney liver/and Bladder Cure/Binghamton/NY USA	S. Ardrel Kilmer	Unknown	Pharmaceutical	1
...ling Co./Washington D.C. (front)	Unknown	Unknown	Unknown	1
Amber Bottle Embossing				
Robert Portner Brewing Co./Alexandria, VA/ Trade/Tivoli/Mark EHE Co. (heel) [Edward H. Everett]	Robert Portner (brewer)	1893-1904 ⁴	Beer	3
Robert Portner Brewing Co./Trade./Mark/Alexandria, VA.	Robert Portner	1883-1916 ¹	Beer	1
Robert Portner...	Robert Portner	1862-1916 ¹	Beer	3
Robert Portner Brewing Co./Trade/Tivoli/Mark (front)	Robert Portner	1883-1916 ¹	Beer	1
...Georgetown D.C. (front)	Unknown	Unknown	Beer	1
...mers & A.../Alexandria/Virginia	Unknown	Unknown	Beer	1
Dixon	Unknown	Unknown	Baking Soda	1
...r's Cufo.../...ain Fo.../Washington	Unknown	Unknown	Pharmaceutical	1
...Hazeltime...	Unknown	Unknown	Pharmaceutical	1
Trade/W/Mark	Unknown	Unknown	Unknown	1
Olive Bottle Glass				
Robert Portner Brewing Co/Alexandria, VA./Trade/Tivoli/Mark (base)	Robert Portner	1883-1916 ¹	Beer	1
.../Tivoli/Mark/Alexandria, VA (front) This bottle not to be sold (back)	Robert Portner	1877-1915 ¹	Beer	1
Johann Hoff	Unknown	Unknown	Wine	1
Clear Bottle Embossing				
Hoyt's Nickel Cologne	E.W. Hoyt and Co.	1872-1915 ³	Cologne	1
McCormick & Co., Extracts, Spice and etc. (front) Extracts (sides)	McCormick & Co.	Unknown	Condiments	1
Bastine & Co./Manufacturers (front) New York (side)	Unknown	Unknown	Unknown	1
Albert Br...	Albert Brewing Co.	1895-1898 ²	Beer	1
Federal Law Forbids Sale/or Reuse of this Bottle (front) D126/57-40/Made in USA (base)	Unknown	Unknown	Liquor	1
Korm.../New York	Unknown	Unknown	Unknown	1
JNO. T. Cole & Co./Druggists/Alexandria VA (front) W.T. & Co. (base)	Tatum and Co.	Until 1935 ⁴	Pharmaceutical	1

Table 9: Embossing on bottles from non-systematically sampled contexts. References: 1: Portner nd; 2: Ketz and Reimer 1990; 3: Cheek et. al. 1991; 4. Toulouse, 1971. 5. Schuyler, 1984.

The olive bottle glass (n=3) consisted of one wine bottle embossed "JOHANN HOFF", and two Portner "TIVOLI" beer bottles. The clear glass embossed bottles (n=7)

had a very different functional profile from the other colors of bottle glass. Three were unidentifiable, and the remaining four consisted of a cologne bottle ("HOYTS NICKEL COLOGNE"), a liquor flask, a pharmaceutical bottle ("JNO. T. COLE & CO., DRUGGISTS, ALEXANDRIA, VA."), and a spice or extract bottle.

Stoneware Bottles

Stoneware bottles and fragments of stoneware bottles (n=1,163) were 27% of the Food and Beverage Related assemblage from the systematically sampled contexts. The majority (94%) of these bottles are cream-and-gold colored bottles (n=1,093). The bodies are covered in a Bristol glaze, and the neck and shoulders are dipped in a thin ferruginous slip (*Plate 11*). When they are marked, it is with a stamp on the heel. The remaining 70 stoneware bottles and bottle fragments are a variety of slip-glazed and salt-glazed bottles that are in most cases of North American origin (*Plate 12*), whereas the cream and gold bottles originated in the U.K. All of the stoneware bottle closures are designed to contain effervescent liquids, having a wide lip to support a wire to hold a cork or lightning stopper. The North American bottles probably were used primarily to contain beer, ale and ginger beer. The British bottles most probably were used for ginger beer or mineral waters. It is unlikely, but possible, that they were being exported empty to U.S. breweries (Greer, 1981).

A total of 25 (2%) of the cream and gold bottles were stamped. The 23 identifiable stamps recovered from systematically excavated contexts are listed in Table 10. Of these, 78% (n=18) are from Glasgow companies: "GROSVENOR" (n=14), "H. Kennedy" (n=3), and "...rt Dundas" (n=1). "GROSVENOR" most probably refers to F. Grosvenor and Son, a Glasgow pottery that operated from ca.1869 to 1926 (Kovel and Kovel 1986).

Stamp	Count
Grosvenor/1/Glasgow	2
Grosvenor/3/Glasgow	1
Grosvenor/6/Glasgow	7
Grosvenor/13/Glasgow	1
Grosvenor/15/Glasgow	1
Grosvenor/16/Glasgow	1
Grosvenor/.../Glasgow	1
H. Kennedy/Barronfield/9/Pottery/Glasgow	1
H. Kennedy/Barronfield/10/Pottery/Glasgow	2
Murray & Buchan/Pottery/Portobello W/4	2
...rt Dundas/[Gla]sgow/...ery Co.	1
P	1
T	1
E	1

Table 10: Cream-and-gold stoneware bottle stamps from systematically sampled contexts.



PLATE 11. SELECTED CREAM AND GOLD STONEWARE BOTTLES.



PLATE 12. SELECTED SLIP-GLAZED AND SALT-GLAZED STONEWARE BOTTLES.

Source: Parsons Engineering Science, Inc.

The cream and gold bottles from non-systematically sampled or disturbed contexts are listed in Table 11. These mirror the proportions of bottles from Table 11, and provide a broader sample of the purchased types.

Stamp	Count
Grosvenor/1/Glasgow	1
Grosvenor/2/Glasgow	1
Grosvenor/4/Glasgow	3
Grosvenor/5/Glasgow	1
Grosvenor/6/Glasgow	4
Grosvenor/8/Glasgow	1
Grosvenor/9/Glasgow	1
Grosvenor/10/Glasgow	2
Grosvenor/11/Glasgow	1
Grosvenor/14/Glasgow	1
Grosvenor/16/Glasgow	1
Grosvenor/18/Glasgow	1
Grosvenor/.../Glasgow	4
H. Kennedy/Barronfield/11/Pottery/Glasgow	1
H. Kennedy/Barronfield/12/Pottery/Glasgow	1
H. Kennedy/Barronfield/14/Pottery/Glasgow	1
Murray & Buchan/Pottery/1/Portobello W/4	1
...n:Preussen	1
Price/Bristol	1
r	1
C	1
G	1
GG	1
D	1

Table 11: Cream-and-gold stoneware bottle stamps from non-systematically sampled and disturbed contexts.

We are uncertain as to the significance of the numbers that appear in the stamps. They do not refer to capacity, as the bottles are all approximately the same size. Nor do they seem to refer to bottle type. In order to determine whether the number might refer to bottle style, the complete Grosvenor bottles were analyzed by comparing the shape and closure type of the bottle with the stamped number. This analysis showed little correspondence (*Table 12*). Ten complete Grosvenor bottles were recovered (*Plates 13 and 14*). These could be divided into two main types on the basis of the finish. Type I



PLATE 13. COMPLETE GROSVENOR STONEWARE BOTTLES.



PLATE 14. CLOSE-UP OF GROSVENOR STONEWARE BOTTLE STAMP.

Source: Parsons Engineering Science, Inc.

had a three part finish consisting of a shallow rounded lip with two rounded string rims below. Type II bottles had a two-part finish consisting of a tall slightly angled flat lip with a v-shaped string rim below.

Bottle Style	Stamp Number					
	1	4	6	10	13	15
Type I			3			
Type II	2	2		1	1	1

Table 12: Grosvenor bottle types and stamped numbers

While there does seem to be a correspondence between bottles stamped "6" and a certain style of finish, this association does not exist for the other numbers. The most likely explanation is that the number represents a date or batch number for the manufacture of the bottle.

The remaining stoneware bottles and bottle fragments (n=70) appeared to be mainly of local manufacture. Of these, 26 were stamped. These yielded a minimum count of eight legible stamps (Table 13). "GEO. SCHNELL" may refer to a Washington brewer, George Schnell. One problem with this assignation is that George Schnell's brewery only operated until 1872, when it was bought by Christian Heurich. The bottles from this brewery may have remained in use through recycling or recovery from a dump (cf. Busch 1987), although 20 years does seem to be a long time for bottles -- even ones as sturdy as stoneware ones -- to remain in circulation. The "[O]TTO PORTNER" stoneware bottle is also interesting. Otto Portner was one of Robert Portner's brothers. He did not, however, own his own brewery. It is possible that he operated the Shuter's Hill Brewery while Robert Portner was renting it in the winter of 1865 to 1866. Although it is speculative, the bottle may date to this period.

The glass bottles indicate that Robert Portner used a wide variety of bottles for his product. He may have also used stoneware bottles. This does of course assume that this is the same Portner. Of the remaining bottles, "C.G. MUEDEN" could not be identified. The three bottles stamped with numbers all appear to be from the same manufacturer. The numbers, as with the Grosvenor bottles, are probably batch or date designations.

The bottles from non-systematically sampled and secondary contexts are included

Stamp	Count
Geo. Schnell	3
B/Num.7	1
A/Num.42	1
.../Num.93	1
[O]tto Portner	1
C.G. Mueden	1

Table 13: Stamped stoneware bottles from systematically sampled primary contexts.

Stamp	Count
Geo. Schnell	3
Myer's Rum	1
Li... & Sitz	1
Selters/...thum	2
Na[ssau]	
...sternagel	1
P & W	1

Table 14: Stamped stoneware bottles from non-systematically sampled and secondary contexts.

here (*Table 14*) as some of these bottle show the range of products. "Myer's Rum" is a name that is familiar today, while Selter's Nassau was a brand of mineral water. Other than the three "Geo. Schnell" bottles, the remaining stamps could not be identified.

Vessel Glass

Of interest as a part of the functioning of the saloon were 18 fragments of drinking vessel glass. The identifiable fragments consisted of 14 beer mug fragments (*Plate 15*) and 4 tumblers. An additional 30 unidentifiable glass vessel fragments were found from the systematically collected contexts, some of which may have been for beverages, and other for food service, containers or presentation. No vessel glass was found in the Phase 1 contexts predating the brewery and saloon, nor was any found in the nonsystematic Phase 2 or 3 contexts; however, seven drinking glass fragments were found in contexts post dating the brewery and saloon, including two goblet pieces, four mug pieces, and one tumbler sherd. Twenty pieces of vessel glass were recovered from the Phase 4 contexts that could not be identified by function, and may not have been intended for beverages.

Brewery Related Artifacts

Six ferrous barrel strap fragments were found in the systematically collected contexts. Of particular interest among the artifacts that were recovered from non-systematically sampled contexts was a ¼ keg that was recovered intact at the base of the stairs in Structure 2. The keg measured 15 inches long and was 9.5 inches in diameter at the ends. Each end-piece was carved "W.B.C./Washington D.C." (*Plate 16*). This was the Washington Brewery Company, which operated from 1890-1917. The barrel was coated on the inside with a pale yellow pitch. The lumps of pine resin recovered during the Phase II investigations were probably used in waterproofing the barrels. Other kegs and barrels were noted inside the beer cellar, but were very decayed. It was not possible to determine if there were names carved into the visible endpieces. Also recovered was what appears to be a copper alloy barrel tap (*Plate 17*).

Food Related Artifacts

A total of 267 ceramic sherds were recovered from systematically sampled primary contexts. This category excludes the stoneware bottles, which are treated as functionally identical to the glass bottles; however, the ceramics may include tea wares which could not always be distinguished from plates and bowls because of the small size of the sherds. The ceramics discussed in this section are those that are related to food preparation, storage, and consumption. The majority of these were refined earthenware sherds (n=186). The refined earthenwares types are shown in *Table 15*. Most of these were undecorated (n=124), and transfer prints were few (n=16). Although they were found in strata that date to the operation of the brewery and saloon, the small amount of

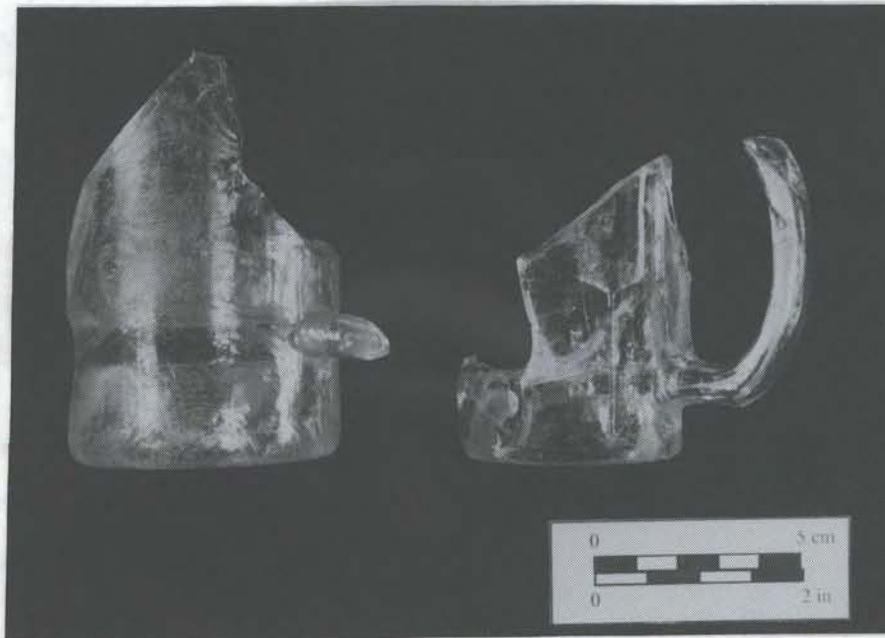


PLATE 15. GLASS BEER MUGS, ARTIFACTS #126-48 AND #126-49.

Source: Parsons Engineering Science, Inc.



Keg disassembled for conservation



Source: Engineering-Science

Keg endpieces



PLATE 17. BARREL TAP, ARTIFACT #148-14.

Source: Parsons Engineering Science, Inc.

Carlyle Phase III

PLATE 17

creamware and pearlware probably predates the brewery and saloon, suggesting that there may be a small amount of early material mixed in with the brewery/saloon contexts.

Type	Date Range	Count	Percent
Creamware	1762-1820 ¹	17	9%
Pearlware	1780-1840 ¹	36	19%
Whiteware	1820+ ¹	65	35%
Ironstone	1800+ ²	21	11%
Rockingham/Benn.	1845-1900 ¹	9	5%
Yellow ware	1828-1930s ³	1	< 1%
Unrecognizable	----	37	20%

Table 15: Refined Earthenware Types from 44AX35 References: 1 South 1977; 2 Godden 1966; Ketchum 1983.

The refined earthenwares sherds tended to be small, and 25% were spalled. Only one sherd dating to the use of the saloon contained a maker's mark, and it was not legible. The refined earthenwares that could be identified by function included six carafe sherds, 85 flatware sherds, 41 hollowware sherds, three plate fragments, and one saucer sherd. The porcelain included a sherd of bone china, and one of Chinese export. The rest of the porcelain was hard paste, but could not be typed more specifically. The remaining ceramics were 49 pieces of stoneware and 11 sherds of coarse redware. The stonewares were mainly salt glazed utilitarian hollow-wares, used for food storage. The redwares were glazed and probably used for food storage and preparation. Two Mason jar fragments would also have played a role in food storage. Also recovered was a single silver-plated teaspoon.

A total of 98 food related artifacts were found in the Phase 1 contexts predating the operation of the brewery and saloon. These included two sherds of porcelain, 90 sherds of refined earthenware tablewares (including 27 sherds of creamware and 51 sherds of pearlware), four redware sherds, and two stoneware sherds. Unsystematically collected food related artifacts from the Phase 2 and 3 contexts totaled 20 artifacts, and included: 14 sherds of refined earthenwares, and six stoneware sherds. A total of 305 food related artifacts was recovered from the contexts post dating the saloon and brewery. This included: one fruitjar fragment, one utensil handle, 22 pieces of porcelain, 204 refined earthenware tableware sherds, 10 sherds of coarse earthenwares for food preparation, and 67 stoneware food storage sherds.

C. Faunal Remains

The faunal remains (n=232) were made up of bone fragments (n=112), teeth (n=14), and a sample of shell (n=104), as well a single fish scale and a piece of horn. Other than 11 bird bones, the bones were all from mammals. Identification of the bones was not conducted beyond this level of analysis. Although the assemblage was very

fragmentary, butchery marks were identified on 17% (n=19) of the bone fragments. Of these, 9 were from roasts (long pieces, generally cut), and the other 10 from steak cuts (short, sawn sections of bone). It is likely that many of the bone fragments without definite evidence of butchering were also from roasts. The shell was mainly oyster shell (n=90), with smaller amounts of clam (n=7), mussel (n=1), conch (n=4) and snail shells (n=2). The presence of the bones and oyster shells suggests that some food was served on the site. One possibility is that this material relates to the occupation of the site by the Englehardts. Another possibility is that these are the remains of free lunches offered in the saloon to attract customers—a common practice in American saloons of the day. The Phase 1 contexts predating the brewery and saloon produced 41 faunal fragments, including: 20 mammal bones, nine mammal teeth, and 12 oyster shells. Only one mammal bone was collected from the unsystematic collections from Phase 2 and 3 contexts. A total of 153 faunal remains were recovered from the Phase 4 contexts, including: eight clam shells, one mussel shell, 55 oyster shells, and 89 mammal bones.

D. Personal Artifacts

A total of 19 personal artifacts were recovered. Three of these were kaolin tobacco pipe stems having bore diameters of 4/64", 5/64" and 6/64". Eight leather shoe parts were also recovered. The rest of the personal artifacts were made up of a porcelain bisque figurine, a black agate marble, a rubber comb, a porcelain darning egg, and three buttons. The comb was stamped "I. R. Compco. Goodyear 1851". The buttons were of porcelain. One was a 4-hole button, and the other two were collar buttons. Two pipe stems were recovered from the contexts predating the brewery and saloon. Personal artifacts from unsystematically collected contexts included: two pipestems, one porcelain figurine, one marble, one shoe fragment, and two glass buttons. Personal artifacts from contexts post dating the brewery and saloon included: one shoe, one buckle, six buttons, one plastic comb, and 16 pipestems.

E. Lighting/Heating

A total of 150 artifacts were class as Lighting/Heating Related artifacts. The bulk of this material (86%) was residue from lighting/heating, including coal, cinders, clinkers, and slag. Lamp chimney glass (n=21) made up the rest of the Lighting/Heating assemblage. In addition, 9 pieces of clinker and six pieces of coal were found in the Phase 1 contexts predating the brewery and saloon. No lighting or heating related artifacts were found in the unsystematically collected Phase 2 and 3 contexts. Two pieces of slag, 31 pieces of clinker, and 33 pieces of coal were collected from the contexts postdating the saloon and brewery.

F. Other Artifacts (Activities, Ammunition, Furniture, etc.)

These consist of 14 terra cotta flower pot fragments, 1 porcelain bisque vase sherd, one ferrous horseshoe, and 3 Rockingham/Bennington spittoon sherds. The

unsystematically collected Phase 2 and 3 contexts also included 14 porcelain vase fragments, one glass inkwell, and one stoneware inkwell. Contexts post dating the brewery and saloon included: one bullet, five flowerpot sherds, three porcelain castors, four Rockingham/Bennington spittoon sherds, and two horseshoes. The spittoons may well have been used in the saloon, the inkwells could have been used in the brewery or saloon business, and the vases and castors may have been part of the furniture for either the Englehardt dwelling, the brewery or the saloon.

G. Unidentified Material

This group consists of material that could not be specifically typed due to burning or great fragmentation or corrosion. The largest category of materials in this group are small, flat, corroded ferrous fragments (n=238) which may have been parts of tin cans, roof sheathing, or brewery-related items.. Melted glass (n=80) was the next largest class of material. The melted glass is probably the remains of bottles from the fire. Unidentified hardware (n=7) included springs, wire, a screw and two tacks. Also unidentified are fragments of copper (n=63), lead (n=1), synthetic (n=10), leather (n=6), textile (n=2), and rubber hose (n=2). Unidentified artifacts from the contexts predating the brewery and saloon included three pieces of iron, and one piece of tar. Those from the unsystematically collected Phase 2 and 3 contexts included one bone, seven cupreous fragments, two iron fragments, nine pieces of glass, and one piece of plastic. Material from the contexts post dating the brewery and saloon included: eight pieces of cloth, 12 pieces of wire, one iron bar, one nut, 31 pieces of cuprous metal, 110 pieces of ferrous metal, one iron strap, one iron tube, three pieces of lead, three pieces of plastic, five pieces of porcelain, and two pieces of tar.

VIII. INTERPRETATION

Four kinds of assemblages appear to be represented among the collected artifacts. The architectural remains relate to the construction, repair, and demolition of the brewery/saloon structure. The rest of the material recovered from the Phase II and III contexts relates to the operation of the site as a brewery, a saloon, and a residence. To complicate matters, it may be difficult to distinguish between Brewery and Residence material.

As was discussed above, non-systematically sampled architectural remains can provide some insight into the architecture of the brewery building. Brick and wood (now in the form of charcoal) were probably the dominant structural elements of the building. The brewery was probably roofed with slate. The brick walls of the building were plastered and whitewashed. Some use was also made of a synthetic tile, generally consisting of a wood backing with a cream-colored or orange covering. Floor tile composed of what appears to be a rubber compound were also used. Wood paneling was probably also used.

Objects recovered that may relate to the operation of the brewery include fragments of barrels, a barrel tap, and a large array of glass and stoneware bottles. There was also an assortment of unidentifiable hardware that may have been related to brewery apparatus. As was noted above, most of the bottles recovered from site 44AX35 bear the embossed names of other breweries than Englehardt's. It is possible that these represent bottles of beer that were served in the saloon. This would likely be the case if Englehardt did not bottle his own beer on site, but sent it away to be bottled, or primarily served the beer from kegs in his saloon. On the other hand, if he operated a small bottling device on site (illegal at the time), the presence of his competitors' bottles may be the product of illegal bottle reuse by Englehardt.

From the last quarter of the nineteenth century through WWI, the supply of bottles was limited relative to the demand, therefore bottle reuse was common. Although technological improvements in bottle manufacture had greatly increased the supply, the demand for bottles increased at a greater rate. The resulting high price of bottles made bottle reuse commonplace. Bottle reuse by individuals has been common for as long as there have been bottles, but the advent of large bottling operations created sufficient demand to spawn the development of used bottle dealers. At the same time, bottlers developed the returnable bottle system to help alleviate the problem. Bottles were considered to be the property of the bottler, and consumers were required by law to return them. Bottlers included the phrase "THIS BOTTLE NOT TO BE SOLD" or "THIS BOTTLE IS NEVER SOLD" on their bottles to emphasize the point. However, many individuals kept the bottles for themselves, and worse—from the perspective of bottlers—some used bottle dealers illegally sold their bottles to competitors. Bottle loss during this period has been estimated to be as high as 65%. Careless, or unscrupulous saloon keepers were singled out for criticism in bottle association trade papers for participating in the illegal trade of trademarked bottles. The returnable bottle system, and its attendant problems

remained in place until the production of glass bottles in America finally caught up with demand around WW I (Busch 1987).

At the time that the saloon and brewery burned down it was noted that the brewery had not been in operation "for some time" (Courtesy: T. Michael Miller; *Alexandria Gazette*: 8/18/1893). This fact, and the quantity of bottles from other bottlers, and the presence of bottles used to serve beverages other than beer (whiskey, wine, soda, and mineral water) suggest that this saloon assemblage may relate primarily to the operation of the saloon. This assertion is born out by comparison of the Carlyle assemblage with that of another late nineteenth-century saloon, the Elk Horn, of Silver Reef Utah.

The Elk Horn Saloon operated in the small mining town of Silver Reef Utah from ca. 1876 until it burned down in 1892. Fully excavated by Robert Schuyler of the University Museum of the University of Pennsylvania, the Elk Horn Saloon produced over 40,000 artifacts. Like the Carlyle assemblage, this material was dominated by artifacts related to eating and drinking, especially glass bottles. Bottle glass composed 27% of the total assemblage (41% at 44AX35). Faunal remains represented 2.7% of the assemblage, compared to 3% at 44AX35. Pipestems were scarce at both, composing .04% of the 44AX35 assemblage, and .01% of the Elk Horn assemblage. The sites differ in ceramics; while ceramic table wares composed less than 1% of the Elk Horn assemblage (Schuyler 1984; personal communication), they composed 4% at 44AX35, although the figure drops to 3% if creamware and pearlware are excluded. Some similarities are also seen in the ratio of drinking artifacts to food related artifacts: 12.8:1 at the Elk Horn Saloon, and 13.2:1 at 44AX35. Both of these ratios contrast sharply with those of some colonial era taverns: 4.7:1 at the Lovelace Tavern in New York; 1.4:1 at the Jamestown Tavern; 0.02:1 at John Earthy's Tavern in Pemaquid, Maine; and 0.08:1 at the Wellfleet Tavern, Massachusetts (Rockman and Rothschild 1984). This is probably a reflection in the differences in roles played by colonial taverns, and nineteenth-century saloons. The former were often among the few public buildings in a given town, and provided food, drink and lodging to travelers, as well as a place to meet. During the course of the nineteenth-century, these functions were slowly taken on by specialized establishments—hotels, restaurants, bars, meeting halls, etc. This was propelled partly by growing populations, and by technological innovations (like the James Cookstove in 1815, and the increased availability of ice after the 1820s) that fueled the development of specialized restaurants, like the renowned Delmonico's, which opened in New York in 1837 (Mariani 1991, Grimes 1993). Hence the lower prominence of food related artifacts in nineteenth-century saloons as compared to colonial taverns, as these establishments focused more on beverages, and served food only as a secondary item.

Serving free lunch was an institution in nineteenth-century saloons. Designed to attract customers, most saloons had a side board loaded with food that patrons could help themselves to with the purchase of a drink. At fancy establishments the food could be lavish, while modest saloons, as Englehardt's surely was, were remembered for serving "a humble spread of ham, baked beans, pretzels, dried herring, pickles, head cheese, hot dogs, stews, chowders, and hot soups, all heavily salted to inspire another round of

drinks" (Grimes 1993:74). Others may have had nothing more than cheese and stale crackers. Evidence for free lunches has been found on saloon sites in Sacramento that produced faunal assemblages dominated by roast cuts. "The economics of the free lunch dictated that the minimum possible time and effort be invested in the preparation and serving of food but that it be available in quantity. Both of these conditions were met by the use of roasts, which could be placed in the oven (or on the stove to boil) in the morning and left to cook unattended, then be removed at noon and sliced on demand at the counter by the bartender" (Shulz and Gust 1983:49). The collection of faunal materials from 44AX35 may be the remains of clams, oysters and roasts served in the saloon as part of a free lunch served on the modest collection of ceramics found at the site.

The presence of tumblers, wine bottles, and flasks indicate that wine and whiskey were served in the saloon in addition to beer; but the preponderance of beer bottles makes it clear that this was the primary beverage served. Not surprising, given the presence of the brewery, but this pattern also fits trends in drinking behavior during the nineteenth century. While the per capita consumption of wine remained largely unchanged during the course of the nineteenth century, the consumption of hard alcohol dropped from a high of 9.5 gallons/year in 1830 (for people over age 15) to 1.8 gallons in 1895; meanwhile the consumption of beer rose from 1.3 gallons in 1810 to 23.4 gallons in 1895 (Rorabaugh 1979:233). Notably, the consumption of beer doubled approximately every fifteen years after 1840, the year lager beer was first introduced in America (Rorabaugh 1979:233). While Rorabaugh's figures cannot be regarded as exact, an overall trend is clearly indicated.

Lastly, site 44AX35 also served as the residence of Henry Englehardt and his wife. However, this is difficult to see in the assemblage. As has already been discussed, there are relatively few ceramics on this site, and there are also very few personal objects. These consist of eight leather shoe parts, a porcelain figurine, a marble, a comb, a porcelain darning egg, and three buttons. It may be that the quantity of objects belonging to the Englehardt's was relatively small, and is overwhelmed by the quantity of objects associated with the saloon. It is also possible that material associated with the Englehardt's may have been deposited elsewhere on the site.

IX. CONCLUSIONS

The Phase II testing of Area II-B of the Carlyle Property identified one site that retained sufficient research potential to warrant Phase III data recovery. This was the Shuter's Hill Brewery Site (44AX35), which had been previously identified during construction activities in 1979. The goals of the Phase III data recovery were exposure of the brewery basement, the beer cellar, and the passage between the two.

Due to fire, demolition, and grading, only the basement of the original structure remained largely intact below ground (see *Figure 35*). It was connected to the extant, 50-foot long, deep, brick-vaulted beer cellar by a wooden stairway and barrel ramp contained within their own sloping brick vault. Other interesting features revealed through excavation of the basement include what may be the original Alexandria Water Company pipes at the southeast corner, a sunken barrel-shaped vat at the head of the stairway, some irregular brick features connected to the east foundation wall, and a sub-basement at the rear.

Beyond the presence of kegs and casks in the beer cellar, the artifacts retained no spatial patterns indicative of specialized activity areas. Within the basement, this is due to a number of factors. The primary contexts (the Phase 1 contexts) were all probably within a shallow space beneath the floor boards of the original building. The joists for the floor would have been supported on the brick lines identified. Elevation of wooden floors above the ground is a standard architectural practice to allow drainage and to slow decay of the floor. The cellar floor depicted in *Figure 15* probably shows a similar construction technique to that encountered in Feature 6. A second reason is that, with the exception of a layer of sand fill in the basement, almost all the strata within these structures were secondary contexts, redeposited as a result of the fire that destroyed the brewery in 1893, and the subsequent demolition and grading of the building remnants.

Although the artifacts were, for the most part, not recovered from primary contexts, the material, used in conjunction with the historical documentation, yielded valuable information on the activities that occurred at 44AX35. The surviving architectural features provided information on the layout of the brewery operations and on the scale of those operations, as well as alterations to the plant itself. The artifacts themselves appear, for the most part, to be related to the operation of the building as a saloon, consisting mainly of bottles from a wide range of local breweries and soft drink companies. While some of the bottles are from the brewery, such as the two Englehardt bottles, and there was no doubt some re-use of other manufacturers' bottles (Busch 1987), the most obvious explanation for the variety of brand names or manufacturers' names on bottles found at the site is that they were served in the saloon. However, it is also likely that the presence of some of the bottles was the result of Englehardt reusing the bottles of competitors and local bottlers for economic reasons.

A. The Brewery

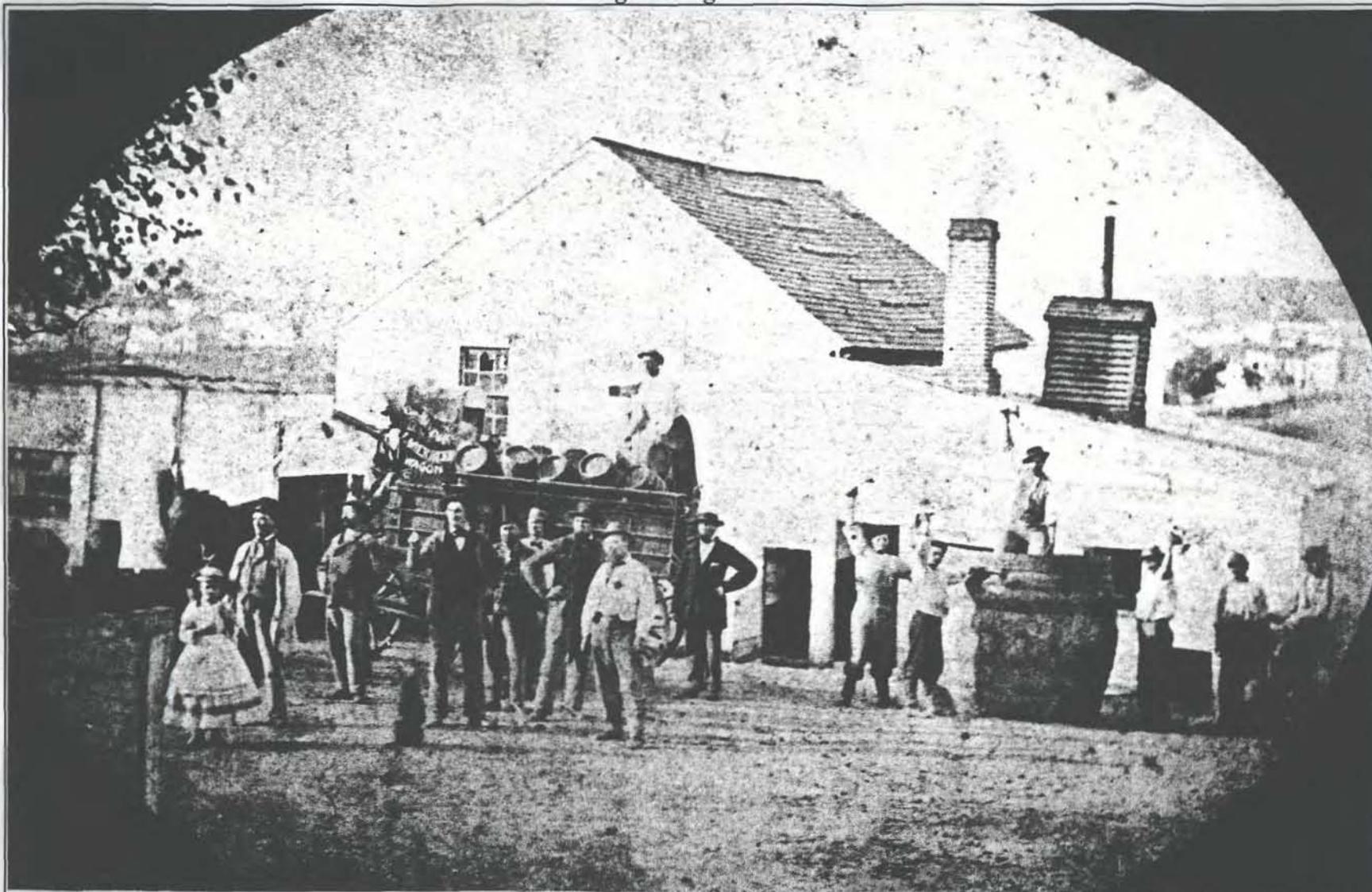
The Shuter's Hill Brewery site demonstrates the value of archaeology in understanding vanished industrial facilities. No detailed photographs, plans or descriptions of the brewery are known to survive. However, by comparing the historical and archaeological evidence, we may construct a picture of the brewery and brewing operations. Comparisons may also be made with photographs and descriptions of contemporary breweries (see *Figure 13*; *Plate 18*) as well with research conducted on other breweries, such as the Harpers Ferry brewing and bottling works in West Virginia (Hull-Walski and Walski 1993).

Only one extant photograph showing the Shuter's Hill Brewery is known. In this Civil War-era photo taken from Shuter's Hill, the building is partially obscured in the distance (see *Plate 1*). It appears to be a two-story, three-bay frame house, with a shed roof sheltering a front porch, and some type of structure located at the east end. The 1865 auction advertisement suggests that this smaller structure was a stable (*Alexandria Gazette*, September 14, 1865). The same ad mentions "a comfortable dwelling, frame building..." although these were probably one and the same. The Kleins and Englehardts probably used the second and attic floors, and at times, the first, as their residence. Upon excavation, the dimensions of the building's brick foundation were determined to be roughly 35 feet long (parallel to Duke Street) by 30 feet wide, consistent with the photographic evidence. G.M. Hopkins's 1879 map depicts as the brewery a large building actually somewhat deeper than wide (see *Figure 22*). This may suggest some sort of less substantial rear addition, possibly the stable, though Hopkins maps are often too inaccurate to trust absolutely, usually neglecting to depict outbuildings, for instance, so the fact that a separate stable does not appear is not conclusive.

The rapid increase in the demand for beer in the neighborhood of Alexandria during the Civil War led John Klein to improve and expand his operation (*Alexandria Gazette*, January 3, 1865). There is no record or solid evidence of what Klein's expansion and improvements might have entailed. Archaeologically identified alterations to the brewery consisted of changes to the floor supports of the basement, construction of a brick feature along the east wall of the basement (possibly the brew kettle location), and extension of the beer cellar from 32 feet to 50 feet in length. It is possible that these alterations were made by Klein.

To understand the brewing practices of John Klein and Henry Englehardt, one must first examine the records which describe their brewing fixtures and implements. The most thorough list of equipment is provided in a schedule attached to the 1860 deed of trust. It included:

1 Large Copper Kettle	7 Hogsheads 1 Barrel Capacity
1 Copper Still	Three half barrels
1 Small Copper Kettle	Five 5 Gallon Kegs
1 Mash-tub 25 barrel capacity	170 8 Gallon Kegs



Source: Historical Society of DC, Jeunemann Collection

Carlyle Phase III

PLATE 18.
GEORGE JEUNEMANN'S WASHINGTON LAGER BREWERY,
ESTABLISHED IN THE MID-1850'S. THE LOUVERED CUPOLA
INDICATES THE LIKELY LOCATION OF THE WORT COOLERS.

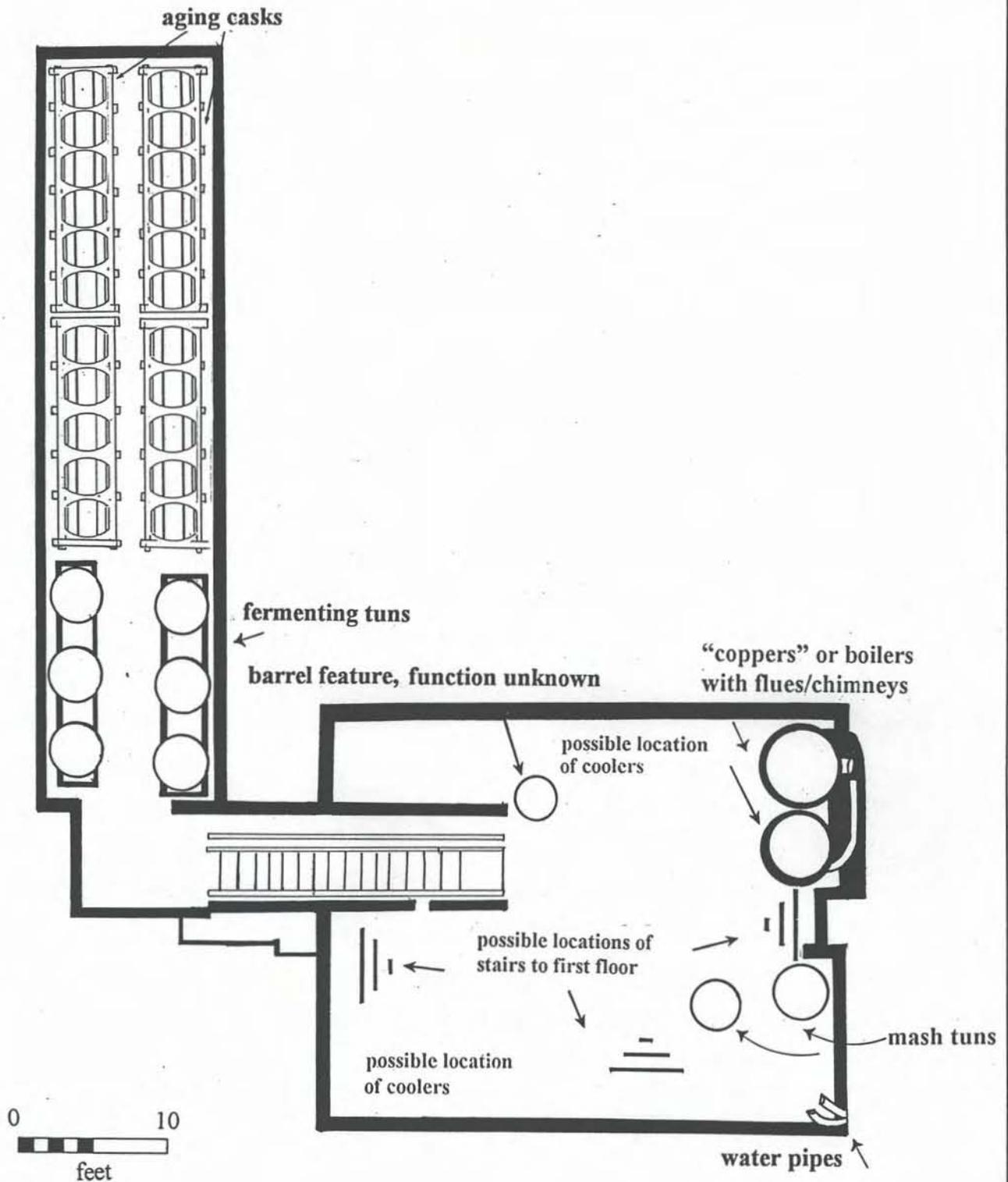
1 Mash-tub 10 barrel capacity	80 4 Gallon Kegs
1 Copper second bottom	Two Coolers
1 Iron second bottom	Four Brass Spiggots
18 Hogsheads 18 Barrels Capacity	One horse and Wagon
8 Hogsheads 9 Barrels Capacity	Six Fermenting tuns of
4 Hogsheads 6 Barrels Capacity	14 Barrels capacity
10 Hogsheads 2 Barrels Capacity	One Transportation Hogshead with hose." (Fairfax Deed Book C-4:132)

The capacities of the large and small brew kettles were 30 barrels and ten barrels, respectively. The cellar was said to have been able to hold a total of 500 barrels (15,500 gallons) of beer (*Alexandria Gazette*, September 14, 1865). The "Copper Still" suggests that Klein might have done a small amount of distilling in addition to brewing. The "second bottoms," or false bottoms, were set in the mash tubs. The "Coolers" referred to wort coolers, probably of the Baudelot type or a similar but more primitive design. Those hogsheads above two-barrel capacity were undoubtedly ruh casks and chip casks used in fermentation; the remainder were containers for sale and distribution. The "Transportation Hogshead with hose" may have been used for delivery or for transporting beer to a bottler, or it may have been for the transfer of wort between fermenting casks and "transportation packages," i.e. barrels that were sold.

Although the malt may have been stored elsewhere, the entire brewing process must have been conducted in the basement and beer cellar. The brewing fixtures were simply too large and heavy to have been located on the first or second floors. Filled, each of the fermenting tuns alone would weigh at least two thousand pounds. The brew kettles and mash tuns would weigh still more. There is no archaeological evidence of heavy posts or other structural reinforcement.

Klein's brewery was not unlike John Pitt's design for a small-scale or family brewery (see Figures 14, 15, and 16), although the capacities of the vessels were roughly double those of Pitt's (Pitt 1864:2-7). It is possible that Klein was influenced by the publication of Pitt's book in his 1864 expansion of the facility. Though arranged on one floor, it is likely that the brewers were using gravity to move the wort through each successive stage of production. Varying levels were undoubtedly created through the construction of platforms and the excavation of the rear sub-basement, ramp, and cellar. A conjectural reconstruction of the brewery layout can be seen in *Figure 42*.

The false bottoms suggest that Klein and Englehardt practiced upward mashing--the introduction of hot water to the mash tun from below--and that they also used the decoction process, in which the broken malt is poured into water, heated, "partly withdrawn into the copper, boiled, and then re-added to the remaining mash, which procedure is repeated...until the mash is finished." (H. S. Rich & Co. 1903:83) As was common, Klein had two coppers, the larger for brewing, and the smaller probably reserved for heating water for mashing (H. S. Rich & Co. 1903:87). Irregularities in the brickwork (Feature 20) and a grate-like feature in the east foundation of the basement



Source: Parsons Engineering Science, Inc.

FIGURE 42.
CONJECTURAL RECONSTRUCTION OF
THE SHUTER'S HILL BREWERY LAYOUT.

almost certainly point to the location of the kettles (see *Figure 40*). These coppers would have been encased in brick atop wood-burning furnaces or fireboxes. The smaller "hot-water tub" copper would have been connected by pipes to the water inlet, the large copper, and the mash tubs.

Beyond the coppers must have stood a hopjack or strainer and the wort coolers. The coolers circulated ice water through tubes or coils over which the wort was poured. For rapid cooling, they were often positioned in the back or upper sections of breweries, separated from the outside air only by louvered vents for maximum convection (see Plate 18). One possible location for these coolers then, would be the rear sub-basement (Feature 26), although they may also have been near the brew kettles. However, for ease of processing and a lack of space in the beer cellar, it is possible that the primary fermentation took place in this sub-basement instead. As the lowest level in the basement and connected by pipe to the cellar, it would be a possible location for the fermenting tuns. The six tuns, each standing perhaps five feet tall and equally wide, could be accommodated within this area. The sub-basement appears to have been partitioned from the rest of the basement. There is archaeological evidence of an aperture, seemingly meant to permit the passage of a pipe, through the partition near the head of the stairs. This pipe would have connected with another set into a recess in the bricks of the cellar ramp. By this means the coolers or fermenting tuns could be linked to tuns or casks in the cellar for the final phases of fermentation.

Stairs and a barrel ramp provided access for ice to the cellar and allowed the retrieval of beer barrels for use or sale and the removal of casks for cleaning.

Inside or outside of the cellar, lager fermentation normally required a great deal of ice. It was packed in cellars, used in attemperators, and was the source of ice water for the wort coolers. The characteristic dampness of cellars from the use of ice was responsible for mold build up, runoff of excess water, and periodic unpleasant smells. To ameliorate these problems, Strausz and Klein's cellar was provided with a broad ventilation shaft. Although the floor of the cellar was not exposed due to the amount of debris and water, it is expected to have shallow gutters along the sides to carry away waste water.

John Klein was apparently able to brew throughout the year during the Civil War (Internal Revenue Assessments; see Appendix B). This was unusual for the time, and must have required very great outlays for ice. By way of comparison, during the Civil War Franz Schlaffer was recorded as being the first Baltimore brewmaster to make "beer of quality in summer sufficiently desirable to keep." (Kelley 1965:200). The wartime demand may have made this worthwhile, but the product was likely inconsistent in quality as a result of temperature fluctuation. The amounts of ice required raise questions of its source and the way in which it was brought into the cellar. It is impossible to know who supplied the ice. Before artificial refrigeration was introduced, some natural ice was produced locally. Later, Alexandria had several ice manufacturers. Many eastern brewers imported natural ice from Maine (Kelley 1965:375; Engineering-Science, Inc. 1991:50). Furthermore, it was common practice for brewers to have an ice house in

addition to their cellars. There is no evidence for the existence of such a structure at this brewery, however. Cellar access is another problem. It seems that ice must have been brought down the stairs/ramp, although this was probably needlessly difficult. The only alternative suggested by the archaeological evidence would be lowering the ice through the ventilation shaft by way of a "crane."

By the 1880s the emerging artificial refrigeration technology was available only to breweries with sufficient capital for its purchase. Many small firms were unable to make such an investment, and continued as well as they could using old methods. From the available historical evidence it would seem that Henry Englehardt was one of these brewers. Not only did he experience chronic financial difficulties, but there is no evidence of the retrofitting of his cellar with pipes that would have carried early refrigerants such as cold brine or ammonia (as in the lowest level of the icehouse depicted in *Figure 20*).

Similarly, there is no evidence that Englehardt ever acquired the labor-saving and efficient steam engine or steam boiler. Unfortunately, the Shuter's Hill Brewery never appears in the Census of Manufactures, a source that would give a more accurate idea of brewery equipment and materials. By contrast, Henry Martin had added a steam engine to his ale brewery by 1860, and Robert Portner installed an eight-horsepower engine in his St. Asaph Street plant in 1868 (United States Census, Non-Population Schedules, Census of Manufactures, 1860 and 1870). As his was a very limited market, it would not seem as necessary to Englehardt to make sacrifices to acquire technology like a steam engine, pasteurization, or glass-lined vacuum fermentation tanks, which would save labor or prolong the life of his beer. Englehardt apparently performed much of the labor himself and settled for a local market, served largely through his saloon. He probably retained much of the same equipment and methods employed by Klein. There was no apparent attempt on his part to fight for market share and to expand his market area to increase demand.

While much of his lager was undoubtedly kegged for sale or tapped in his saloon, Englehardt offered both lager and weiss beer in bottles (Chataigne 1876:4). It is uncertain where or how he bottled his product. He may have had a small, hand-operated, mechanical bottling device, but the contemporary federal regulations were such that they required bottling to take place across a public road from the brewing activity (H. S. Rich & Co. 1903:113; Baron 1962:245-246). It is, therefore, more likely that he contracted out his bottling operations to a local bottler, thus raising his costs. This could be supported by the rarity of bottles found on the site (or excavated anywhere in Alexandria) embossed with Englehardt's name, contrasted with the presence of numerous examples from Alexandria and Washington bottlers. In addition to the sherds of two bottles from 44AX35, there are sherds of only one "H. Englehardt" bottle in the collection of Alexandria Archaeology (from 44AX30). The late date of most Alexandria bottling works could also explain the dearth of "Englehardt" embossed bottles--all of which could date to the early 1890s--and the abundance, on the other hand, of stoneware bottles. The presence of competitors' bottles could be explained by their reuse by Englehardt, or their sale in his saloon.

B. The Saloon

Little is known about Henry Englehardt's saloon. Aside from its dimensions, archaeological excavation has shed little light on its appearance, although most of the artifacts recovered probably result from the building's use as a saloon. The saloon must have occupied the first floor of the brewery structure, and therefore, all trace of it was probably destroyed in the 1893 fire and subsequent demolitions. Quarter-barrel kegs of lager would have been carried up the cellar stairs or pushed up the adjoining ramp to be tapped behind the bar. Saloons already had hand pumps and counter-pressure taps for drawing beer, even directly from a cellar (Thomas 1887:17-18).

Mention of a saloon or restaurant run by Henry Englehardt goes back to the Alexandria directory of 1870. Though the citation does not give the restaurant's exact location on Duke Street, some of the stoneware bottle fragments recovered support the conclusion that the brewery building was indeed its site. Several stoneware bottle sherds, for instance, carry the impressed mark of George Schnell, whose Washington brewery operated from 1864 to 1872 (Bull et. al. 1984:49). The restaurant then may have been founded contemporaneously with or shortly after the establishment of Englehardt and Kaercher's beer garden.

From 1873 until 1895 there is no further mention of Englehardt's saloon in local directories, and it is not entirely clear if the saloon remained in operation throughout this period. During the intervening years, city directories mention only brewing as his primary or, perhaps, sole business. Most of the bottles found on site, even many of the stoneware ones, could easily date to the 1890s. In addition, at least some of them were probably used by Englehardt to bottle his beer rather than to serve that of his competitors. However, tax records of the mid 1880s strongly suggest that Englehardt had licenses for both brewing and saloon keeping at that time (Barbash 1985:10). In addition, Englehardt was twice arrested and fined for selling alcoholic beverages on a Sunday in 1891, clearly showing that his saloon was in operation before the fire.

Unless unearthed bottles represent Englehardt's heavy reuse of containers from other brewers and bottlers, malt liquors served in his bar included Portner's, Schnell's, "BRIDWELL'S TONIC BEER," the Washington Brewery Company's "CHAMPAGNE LAGER," and other Washington and Baltimore beers. At least one quarter-keg barrel from the Washington Brewery Company survived the 1893 fire and is extant (see Plate 16).

It seems unusual that so many brands of beer might have been sold in a small saloon, given the inefficient beer distribution system of the time. Instead of a modern system consisting of independent distributors carrying many competing brands, distribution in the late nineteenth century was characterized by a redundant network of agents and depots representing individual breweries, or a few manufacturers. Large breweries, like Portner's, often maintained rail-accessible depots in major markets. Others, without the same means or at a greater distance, might contract with a local provisioner or bottler as agent. Such a system undoubtedly raised the marketing costs for manufacturers and the transaction costs for saloons. Therefore, although there were more

brewers in operation 100 years ago, because of shipping and marketing barriers, one could buy fewer brands in any location. According to one source, for instance, it was difficult to purchase any brand but Portner's locally before Prohibition (Johnson 1983).

It was difficult for a beer salesman to place his product in a tavern alongside established brands. He had to contend with more than a proprietor's brand loyalty, he had to placate thirsty saloon patrons at the time of the sale's pitch as well. Washington brewer Christian Heurich wrote that salesmanship was expensive, "for in those days a beer, whiskey, or wine salesman was looked upon by the customers in a saloon as some sort of Croesus washed up on the rocks of the tavern counter for their especial benefit; if he didn't set up the drinks for the house every five minutes or so, his sales talk to the boss would be interrupted with all styles of jokes, from lewd to unfunny, and his product would come in for a noisy razzing..." (Heurich n.d.:46). In the 1880s, the retail cost of beer was 5¢ for a small glass, and 10¢ for a large glass, while the wholesale cost of a barrel was \$12 in the mid 1870s (Heurich n.d.:51).

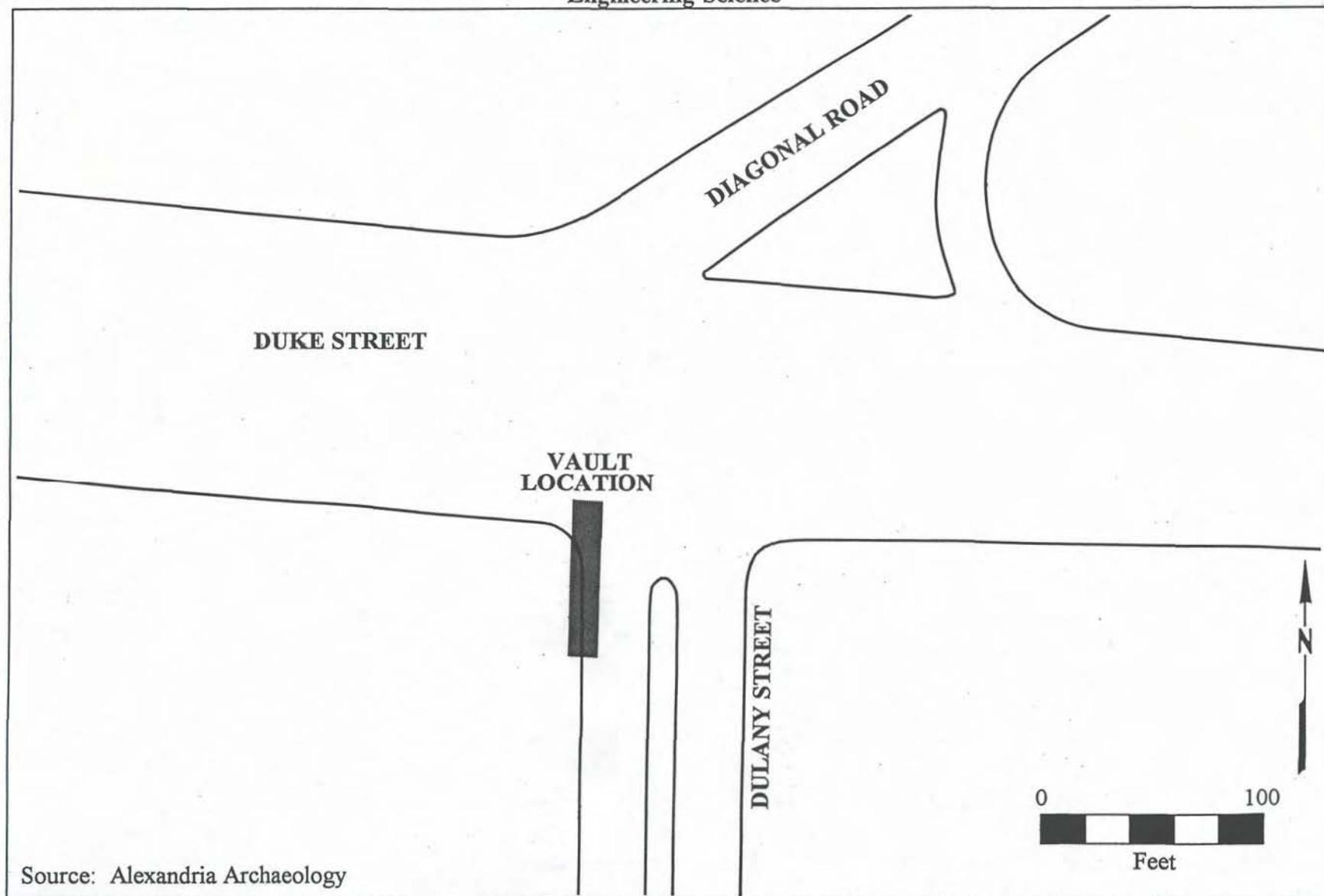
In addition to a variety of local beers, the artifact assemblage from the saloon suggests that small amounts of whiskey and wine were also served. The assemblage suggests that the quantities of these beverages served was modest in comparison to the beer, which is in keeping with trends in American drinking behavior. While whiskey and apple cider were the alcoholic beverages of choice in the eighteenth and early nineteenth centuries, they were supplanted in popularity by beer by the end of the century. As in many saloons of the day, patrons of Englehardt's saloon probably also enjoyed a free lunch of roasts and oysters laid out on a side board, and served on the modest assortment of ironstone plates found at the site.

In conclusion, the archaeological and historical research into the Shuter's Hill Brewery has provided insight into the operations of a small-scale brewery operating at a time when the brewing industry was becoming increasingly dominated by highly capitalized industrial concerns. Unable to compete with brewers such as Robert Portner, the Shuter's Hill Brewery was always a marginal operation, and was eventually forced to cease operations altogether as it moved deeper into debt. The fate of the Shuter's Hill Brewery was in many ways typical of small breweries. From a high of 4,131 breweries in the United States in 1873 (Siebel and Schwarz 1933), there were 1,732 in 1895 (Hull-Walski and Walski 1993), even though the annual production increased dramatically throughout this period. A total of 2,596,803 barrels were produced in 1863. By 1895, this total was 33,237,650. Clearly, brewing was becoming dominated by a few large-scale industrial concerns with much greater productive forces at their command. This pattern was true not only of the brewing industry, but was repeated in nearly all fields of manufacture as the United States economy became increasingly industrialized.

C. The Saloon and Brewery in 1996

The surviving structures around the former brewery (including a house, and greenhouses) had been razed by the end of 1951 for the construction of a series of steel and concrete-block government and commercial warehouses. It was when these, in turn,

were demolished in 1979 that a bulldozer struck the ventilation shaft of Strausz and Klein's beer cellar and the brewery was rediscovered. The beer cellar of the brewery still survives. Its present location is shown in Figure 43. After having been thoroughly excavated and studied, the vault interior was filled with flowable fill concrete. The vault was then buried under 21A stone, and dirt; and now lies under the southwest corner of Duke and Dulany Streets.



Source: Alexandria Archaeology

Carlyle Phase III

FIGURE 43.
PRESENT LOCATION OF
BREWERY VAULT (STRUCTURE 1)

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July 14, 1821

May 4, 1839

June 14, 1843

November 4, 1854

March 15, 1860

November 27, 1860

August 25, 1862

January 3, 1865

August 9, 1865

September 14, 1865

May 25, 1868

July 8, 1868

August 24, 1888

May 13, 1891

May 14, 1891

September 28, 1891

October 2, 1891

October 9, 1891

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October 15, 1891

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APPENDICES

APPENDIX A

Chain of Title to Lots B8, B9, and B10.

Sources: Kurt Schweigert, Carlyle Area II-B Historical Information by Lot/Tract, in Research Design for Area II-B Archaeological Investigations, Carlyle Development, Alexandria, Virginia, (Washington, D.C: Engineering-Science, Chartered, 1993); Fairfax County Circuit Court Deed Books; Alexandria Circuit Court Deed Books; Alexandria Will Books.

Document (Liber:Folio)	Instrument	Parties	Date
Fairfax Deed A-2:85	Quit rent lease	Patrick and Margaret Byrne to Charles Jones	6/10/1797
Fairfax Deed F-2:91	Quit rent lease	Charles Jones to James Sheehy	ca. 1805
Fairfax Deed F-2:97	Unknown, to confirm quit rent lease?	James Sheehy to Charles Jones and John West	ca. 1805
Fairfax Deed Q-2:126	Quit rent lease	James Sheehy estate to Richard Libby	1817
Fairfax Deed Q-2:124	Quit rent lease	Richard Libby to Bartholomew Rotchford	1818
Fairfax Deed W-2:1	Deed	William and Catherine Minor and Lewis and Sarah Sewell to Bartholomew Rotchford	11/2/1824
Alexandria Will 7:196	Bequest	Bartholomew Rotchford estate to Richard Rotchford	4/7/1858
Fairfax Deed A-4:347	Lease	Richard Rotchford to Alexander Strausz and John Klein	11/1/1858
Fairfax Deed C-4:129	Sale of interest	Alexander Strausz in lease, brewery to John Klein and fixtures	5/8/1860
Fairfax Deed C-4:131	Trust to secure malt debt	John Klein to George Brent, trustee	5/8/1860

Document (Liber:Folio)	Instrument	Parties	Date
Fairfax Deed E-4:309	Deed	John Underwood, U.S District Court, Eastern District of Virginia to Thomas Dwyer	7/19/1864
Fairfax Deed E-4:363	Deed	Thomas and Susan Dwyer to Richard L. Rotchford	7/7/1865
Fairfax Deed E-4:380	Deed	Richard L. and Permelia Rotchford to John Klein	7/17/1865
Fairfax Deed F-4:188	Release of trust and deed	George Brent, trustee and John Klein estate to Francis Denmead	9/30/1865
Fairfax Deed M-5:595	Deed	Francis and Rosalie V. Denmead to Henry and Carrie Englehardt	10/1/1872
Fairfax Deed P-4:180	Trust to secure notes for the purchase of the brewery	Henry and Carrie Englehardt to Samuel Ferguson Beach, trustee	10/1/1872
Fairfax Deed M-5:596	Release of trust and deed	Morgan Beach, Henry Englehardt and Francis Denmead, Jr. to Christopher Dickson	7/20/1892
Fairfax Deed B-6:250	Deed	Christopher Dickson to Katherine C. Lansdale	8/30/1898
Fairfax Deed D-6:550	Lease	Katherine C. and Harry V. Lansdale to Constant Ponnet	8/30/1898
Alexandria Deed 64:311	Deed	Katherine C. and Harry V. Lansdale to Felicite Ponnet	4/9/1915
Alexandria Deed 64:311	Trust to secure loan for land purchase	Felicite S. Ponnet to Thomas Brown, trustee	4/9/1915

Document (Liber:Folio)	Instrument	Parties	Date
Alexandria Deed 72:196	Release of trust	Thomas Brown, trustee to Felicite S. Ponnet	4/5/1921
Alexandria Deed 72:191	Trust	Felicite S. Ponnet to John D. Normoyle, trustee	4/7/1921
Alexandria Deed 112:51	Release of trust	John D. Normoyle, et. al., trustees to Felicite S. Ponnet	9/7/1932
Alexandria Deed 111:541	Trust to secure debts	Felicite S. Ponnet to L.H. Dudley and Charles A. Davis, trustees	9/7/1932
Alexandria Deed 220:5	Release of trust	L.H. Dudley and Charles A. Davis, trustees to Felicite S. Ponnet	9/15/1945

Appendix B

Monthly Beer Production of the Shooter's Hill Brewery From
September 1862 to August 1865, Compared With Other Alexandria Breweries*

Source: Internal Revenue Service, Internal Revenue Assessments, 1862-66, Virginia. National Archives and Records Administration, Microfilm series M793, Roll 3.

* John Klein died in September 1865.

Year	Month	Shooter's Hill (bbls lager)	Portner & Co. (bbls lager)	Henry S. Martin (bbls ale)
1862	Sep-Dec	120	120	120
1863	Jan-Feb	80	80	0
	Mar-Apr	67	66	100
	May	33	34	50
	Jun	144	98	0
	Jul	131	78	0
	Aug	105	0	0
	Sep	61	0	0
	Oct	135	0	0
	Nov	163	200	0
	Dec	286	109	210
1864	Jan	346	100	--
1864	Feb	68	100	--
	Mar	15	100	270 (Jan-Mar)
	Apr	26	78	7
	May	63	105	62
	Jun	88	63	96
	Jul	59.5	0	0
	Aug	87	0	0
	Sep	115	20.25	0

Year	Month	Shooter's Hill (bbls lager)	Portner & Co. (bbls lager)	Henry S. Martin (bbls ale)
	Oct	80	42.5	143.5
Nov		81	42.5	121
	Dec	79.25	50	115
1865	Jan	78.25	43	95
	Feb	96	46	105
	Mar	178	63	178
	Apr	149.5	64.5	112
	May	141	82	177
	Jun	140	90	113
1865	Jul	7	75.75	116
TOTALS		4,121	1,948	2,190

APPENDIX C

Glossary

- Albany Slip** Dark brown slip-glaze found on vessels of American stoneware, first produced in Albany, New York in the early nineteenth century.
- American Stoneware** Highly-fired ceramic with a gray, vitrified body, often decorated with cobalt blue and given a salt glaze. Though first produced as early as 1720, it was popular as a utilitarian ware after the turn of the nineteenth century.
- Annular Decoration** Concentric bands of colored slip applied by lathe to ceramics before glazing, popular in the late eighteenth and early nineteenth centuries.
- Automatic Machine-Made Glass** Modern, mechanical technique of glass manufacture introduced in the early twentieth century.
- Blown-in-Mold** Process of glass container manufacture in which glass was forced by means of air pressure from a blowpipe into a mold the desired shape of the finished container. Certain types of mold-blown glass can date to as early as 1750 (2-part mold), or to the 1850s (3-part vertical body mold), but the use of molds in general continued until the advent of machine manufactured glass.
- Bristol Slip** Light gray slip-glaze on the exterior of nineteenth century lead-glazed stoneware vessels.
- Clinker** Burned or partially burned pieces of coal or coal impurities.
- Coarse Earthenware** Ceramic with a soft, water absorbent paste fired at 1000-1900°F. Coarse wares, whether red or buff-bodied, were usually used in food preparation and storage.
- Common Cable** Decoration of cloud-like swirling lines, usually in black, blue and white, popular in the early nineteenth century on annular wares.
- Creamware** Refined earthenware with a buff body and a clear lead glaze producing a cream colored surface. Creamware was originally manufactured by Thomas Astbury and Thomas Whieldon in England in the mid-eighteenth century, and was produced in America until around 1820.
- Crown Finish** Two-part bottle finish patented in 1892 for carbonated beverages.
- Cut Nail** Nail cut from sheet iron, first produced c.1790, which gradually replaced the hand wrought nail.
- Davis Finish** Common late nineteenth to early twentieth-century two-part finish found mostly on medicine bottles. The lip has a rounded profile and flat or rounded top, and the string rim can be down-tooled, rounded or V-shaped.
- Delft** Tin-glazed earthenware with a soft pink or buff colored paste manufactured in England and Northern Europe from the seventeenth to the nineteenth century. Early delft decoration often imitated Oriental porcelain.
- Embossed** Having molded letters, numbers or designs in raised relief.
- English Brown Stoneware** Thin, dense, usually salt-glazed stoneware made in the late seventeenth and eighteenth centuries.

Feather Edge Rim decoration first produced by Wedgwood c.1765 of relief molded fronds.

Flow Blue Form of transfer printing in which an excessive amount of ink was employed and allowed to bleed beneath the glaze.

Free Blown Blown glass which is not shaped in a mold, but is manipulated manually with measuring and shaping tools. This glass usually predates the American Revolution.

Iron Oxide Wash Thin, brown mixture used to decorate stoneware vessels.

Ironstone Hard, refined earthenware with a white body under a clear glaze. First introduced in 1800, it is often grouped with whiteware under terms such as "Stone China" or "White Granite." Ironstone is still manufactured today.

Jackfield Gray or purple-bodied refined earthenware with a dark brown to black lead glaze, produced in Shropshire and Staffordshire in the second half of the eighteenth century.

Kaolin Fine white clay used for making tobacco pipes and wig curlers.

Kaolin Pipe Stem Measurement Following the "Harrington Theory" (Hume, 1976), different stem hole diameters (gauged by 1/64") can represent five successive time periods from 1620 to 1800.

Lead Glaze Coating of silica and lead oxide that becomes glassy when applied to hardened clay and fired.

Lightning-Type Closure Popular closure patented in 1875 which used a bail and lever wire to lock a rubber or porcelain stopper. For sealing jars, this closure was used with a glass liner which held the wire in position.

Lipping Tool Clamp-like device used to finish the neck of a hand-blown or mold-blown bottle. Lipping tools were initially used in the mid-nineteenth century, and their use continued until the introduction of mechanical bottle manufacture in the early twentieth century.

Milk Glass Opaque white glass popular from the late nineteenth century onward for use in table wares, wide-mouthed containers, lidliners and buttons; the color was produced by the inclusion of tin oxide or calcium-rich compounds.

Mocha Brown fern-like decoration, often found on annular ware, created from a mixture of tobacco juice and urine. Mocha decorated ceramics were made throughout most of the nineteenth century.

Mortar Mixture of lime, coarse sand and water used in brick wall construction. Early mortar was chalky, with visible oyster fragments, whereas later mortar, or Portland cement (dating from 1899), was harder and grayer, with less shell and more sand.

Milk Glass Opaque white glass popular from the late nineteenth century onward for use in table wares, wide-mouthed containers, lidliners and buttons; the color was produced by the inclusion of tin oxide or calcium-rich compounds.

Owens Suction Scar Mark on a bottle base left by the shearing of the glass from the mold, characteristic of the first successful fully automatic bottle-making machine developed by Michael Owens in 1903. It had widespread use through the 1920s, with production ending by the late 1940s.

Patent Lip One-part bottle finish, exhibiting a narrow lip, flat top and sides, and slightly rounded underside. The patent lip generally occurred on medicine or extract bottles of the late nineteenth or early twentieth century.

Pearlware Refined earthenware, considered a technological improvement over the yellow-hued creamwares. A small amount of crushed flint was added to the paste for a whiter body, and cobalt was added to the glaze to produce a white, if slightly blue-tinted, surface. The generally accepted date range for pearlware is 1780 to 1820. A variety of decorative techniques were applied to the ware: shell edging, annular decoration, transfer printing among others. Each has a specific date range within the overall pearlware range.

Plaster Mixture of lime, coarse sand and water used in interior wall construction. As with mortar, the earlier plaster had a higher shell content than the later plaster.

Pontil Rod attached to the base of a glass container during manufacture allowing the blowpipe to be removed and the lip or finish produced; empontilling was an integral part of glass container manufacture until the introduction of the snap case.

Porcelain Highly fired vitreous ceramic which is translucent in strong light. Chinese porcelain dates from the T'ang Dynasty (A.D. 618-906) onward and is found on colonial sites from the mid-sixteenth century onward; however, European porcelain was not produced until the mid-eighteenth century.

Prescription Lip One-part bottle finish with a flat top often beveled toward the bore, flattened sides and beveled underside; used on medicine bottles in late nineteenth and early twentieth centuries.

Redware Red-bodied earthenware.

Refined Earthenware Ceramic with a soft, absorbent body fired between 1400-1900°F. Refined earthenwares include Jackfield, creamware, pearlware and whiteware, and are commonly used as tableware.

Ricketts Mold Three-piece mold in which the body of the vessel was formed in a dip mold, and neck and shoulders with separate mold halves, leaving a characteristic horizontal seam at the shoulder and two vertical seams partway up the shoulder and neck; patented by Henry Ricketts in 1821, though many non-patented versions were in use through the end of the nineteenth century.

Rockingham/Bennington Buff-bodied refined earthenware with a mottled yellow and brown glaze. Rockingham ware was first manufactured in Swinton, England during the late eighteenth century. The ware was first manufactured in North America in Bennington, Vermont by Norton and Fenton in the early 1840s, and was produced into the twentieth century.

Salt Glaze Ceramic glaze usually found on stoneware achieved by throwing salt into the kiln during firing.

Shell Edge Rim decoration consisting of a combination of relief molding and painting emanating from the rim edge.

Slip Mixture of fine clay and water used in decoration and luting.

Spall Glass or ceramic fragment which has splintered off.

Sponge Ware Ware having a mottled decoration applied by sponge or soft rags.

Stoneware Vitreous, often salt-glazed ceramic fired at 2100-2400°F.

String Rim Ring on the neck of a bottle just below the lip; it was usually smaller than the lip and formed of added glass.

Tin Glaze Thick opaque white glaze resulting from the addition of tin oxide to a siliceous lead glaze. Maiolica, faience and delft are tin-glazed wares.

Trailed Slipware Liquid slip is dripped onto earthenware to make design. This decoration was popular in England and America from the late seventeenth to the nineteenth century.

Transfer Print Design from an inked copper engraving which is transferred to a glazed ceramic surface. This technique for mass production was first used in the 1750s and continues today.

White Salt-Glazed Fine, all white English stoneware commonly used as tableware, developed in the early eighteenth century. Common patterns for this ware, such as "Barley" and "Dot, Diaper and Basket", post-date the late 1730s, when block molds for stonewares were introduced.

Whiteware Hard-bodied refined earthenware seen as having evolved technologically from pearlware, as the body, was made harder and whiter, and the amount of cobalt subsequently reduced. Researchers often consider whiteware as part of a continuum begun with the introduction of cream-colored wares in the eighteenth century and developing through pearlware to whiteware. The accepted date for the introduction of whiteware is between 1820 to 1830, and it is still produced today.

Willow Oriental style of decoration transfer printed on English earthenware which contains a boat, bridge, pagoda and person in the design.

Wire Nail Round shafted steel nail not produced in great numbers until the late nineteenth century.

Yellowware Yellow-bodied refined earthenware with a clear glaze producing a characteristic dull yellow surface. The ceramic was first produced in the late 1820s and was manufactured into the first quarter of the twentieth century.

Note: Sources for the material presented include: Ingersoll 1971; Jones and Sullivan 1985; Luckman 1984; Majewski and O'Brien 1987; Noel Hume 1976; South 1977

APPENDIX D

Inventory Abbreviations

The artifacts from the Site 44AX35 were catalogued in a ranked system originally based on an artifact typology developed by Stanley South (South 1977). The present taxonomy represents modifications made to tailor the typology to the types of artifact encountered on nineteenth century sites in the Mid-Atlantic region. Artifacts are grouped hierarchically on the basis of technological and functional characteristics. Many of the inventory entries consist of words which are self-explanatory. Others were too lengthy to fit into the fields of the inventory format and have been abbreviated. Explanations of the abbreviated codes follow.

COLUMN HEADINGS:

STR	Stratum
USTR	Universal Stratum
LV	Level
FEA	Feature Number
MATER	Raw Material
BAT	Batch (Number of Specimens)
SUB	Subtechnology
BCOL	Body Color
GCOL	Glaze Color
DCOL	Decoration Color
BAG	Bag Number
ART	Artifact Number

CLASS (Cont.)

FSTOR	Food Storage
FURN	Furniture
G/H	Grooming and Hygiene
G/MM	Glass/Metal Manufacturing
HARD	Hardware
L/H	Lighting and Heating
LGMAM	Large Mammal
MAMM	Mammal
MUSS	Mussel
OYS	Oyster
REC	Recreation
S/T	Sewing/Tailoring
STAT	Stationery
TOB	Tobacco
UNREC	Unrecognizable
VESS	Vessel

COLUMN DATA:

GROUP

ACT	Activity
ARCH	Architectural
D/I	Domestic/ Industrial
DOM	Domestic
ELECT	Electric
FAUN	Fauna
FLOR	Flora
IND	Industrial
PER	Personal
PREH	Prehistoric

CLASS

AMMO	Ammunition
BOTT	Bottle
C/F	Clothing/Footwear
CM	Construction Material
CONTR	Container
D/P	Drainage/Plumbing
FAST	Fastener
FC/S	Food Consumption/Serving
FPREP	Food Preparation

MATERIAL

BRICKG	Glazed Brick
CA	Cupreous Alloy
CE	Coarse Earthenware
CER	Ceramic
CHCO	Charcoal
CLINK	Clinker
CONC	Concrete
FA	Ferrous Alloy
LEATH	Leather
MPEARL	Mother of Pearl
PLASTR	Plaster
PORC	Porcelain
PRESSB	Pressboard
QU	Quartz
RE	Refined Earthenware
RW	Redware
SANDST	Sandstone
SHPL	Shell Plaster
SW	Stoneware
SYN	Synthetic
WG	Window Glass

T TYPOLOGY

2P	2-Piece Mold
2P/SEP	2-Piece Mold, Separate Base
3PC	3-Piece Mold
AMSW	American Stoneware
AUTO	Machine Made
BLOWN	Blown in Mold
C&G	Cream and Gold Stoneware
CW	Creamware
FREE	Free Blown
HOTEL	Hotel China
IS	Ironstone
JACK	Jackfield
PRESS	Press Molded
PW	Pearlware
RB	Rockingham/Bennington
RW	Redware
SCRODDL	Scroddled
SW	Stoneware
TERRA	Terra Cotta
WSG	White Salt-Glazed
WW	Whiteware
YW	Yellow Ware

F FUNCTION

BAKESODA	Baking Soda
CARTRDGE	Cartridge
CHAMPAGN	Champagne
COFFCUP	Coffee Cup
CONDIMNT	Condiments
DPIPE	Drain Pipe
FLOWER	Flower Pot
FTILE	Floor Tile
FW	Flatware
GINGBEER	Ginger Beer
HORSSHOE	Horseshoe
HW	Hollow Ware
INSULATR	Electrical Insulator
LTBULB	Lightbulb
MINERAL	Mineral Water/Soft Drink
PHARM	Pharmaceutical

S SEGMENT

BOD	Body
FRAG	Fragment
HAND	Handle
SH	Shoulder

S SUB 1

BRI/I	Bristol Slip-Glazed Interior
CCAP	Crown Cap Closure
CORKC	Cork Closure
G/I	Glazed Interior
HUTCH	Hutchison Closure
LG/I	Lead Glaze Interior
LIGHT	Lightning Closure
SCREW	Screw Closure
SG/I	Salt Glaze Interior
SLG/I	Slip-Glazed Interior
TG/I	Tin-Glazed Interior
UG/I	Unglazed Interior
W/I	Wash Interior

S SUB 2

ALB/E	Albany Slip-Glazed Exterior
BRI/E	Bristol Slip-Glazed Exterior
G/E	Glazed Exterior
GRND	Ground Lip
HTOOL	Hand Tooled
LG/E	Lead-Glazed Exterior
LTOOL	Lipping Tool
SG/E	Salt-Glazed Exterior
SLG/E	Slip-Glazed Exterior
TG/E	Tin-Glazed Exterior
UG/E	Unglazed Exterior
W/E	Wash Exterior

S SUB 3

ANN	Annular
ANN/CAB	Annular/Common Cable
ANN/MOC	Annular/Mocha
BAND	Banded
BLOB	Blob Top
BURST	Burst-Off Lip
CHAMP	Champagne Finish
CRIMP	Crimped Lip
CROWN	Crown Cap Lip
DAVIS	Davis Lip
DTOOL	Down Tooled Lip
FE	Feather Edged
FLOW	Flow Blue
GILD	Gilded
HP	Hand Painted
IRONOX	Iron Oxide Slip
PATENT	Patent Lip
PRESCR	Prescription Lip
RP	Rim Painted
SCRODDL	Scroddled

SUB3 (Cont.)

SE Shell Edged
SLIPDEC Slip Decorated
STRT Straight Lip
TOLIP Turned-Out Lip
TP Transfer Printed
UNDEC Undecorated
VLIP V-Shaped Lip

WHT
YEL

White
Yellow

SUB 4

GEO Geometric
GTIP Glass-Tipped Pontil
HIST Historic
LAND Landscape
ORIENT Oriental
OWENS Owens Scar
PASTOR Pastoral
SANDT Sand-Tipped Pontil
VALVE Valve Mark

SUB 5

BURN Burned
BUTCH Butchered
COMP Composite Material
EMBOS Embossed
ETCH Etched
INCIS Incised
MMARK Maker's Mark
MOLD Molded
MOLT Molten
OG Overglaze
SPALL Spalled
STAMP Stamped

**COLOR: BODY, GLAZE AND
DECORATION**

AMB Amber
AQU Aqua
BLK Black
BLU Blue
BUF Buff
BRN Brown
CLR Clear
GLD Gold
GRN Green
GRY Grey
OLV Olive
ORG Orange
PNK Pink
POL Polychrome
PUR Purple

APPENDIX E

Artifact Inventory

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
1			0	B-F	0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	LIP/BOD					CRM	CLR	GLD	STRUCTURE 1	2	10	
1			0	B-F	0	0	1	BOTT	STONEWARE		GINGERBEER	LIP/SH	SLG/I	SLG/E			GRY	BRN		STRUCTURE 1	2	11	
1			0	B-F	0	0	2	FC/S	RE-EARTH	IS	SAUCER	BASE/RIM			TP	FLORAL	BMARK		GRN	STRUCTURE 1, "6/ MERION/ TRADE MARK/ W.H.CRINDLEY & CO ENGLAND/ R NO. ..." WITH GLOBE AND BANNER	2	12	
1			0	B-F	0	0	2	HARD	CERAMIC		DOORKNOB	WHOLE			SCRODDL	COMP	POL	CLR		STRUCTURE 1, RED/YELLOW SCRODDLED, WITH FERROUS ATTACHMENT	2	13	
1			0	B-F	0	0	5	CONTR	CS-EARTH	TERRA	FLOWERPOT	BASE/BOD	UG/I	UG/E					MOLD	STRUCTURE 1, TEXTURED BODY, APPLIED SCENE AND STAMPED GEOMETRIC RIM BORDER	2	14	
1			0	B-F	0	0	1	CONTR	RE-EARTH	IS	FLOWERPOT	BASE/BOD			HP				MOLD	STRUCTURE 1, YELLOW, GREEN BASKET PATTERN RELIEF-MOLDED DECORATION	2	15	
1			0	B-F	0	0	1	PIG	TOOTH											STRUCTURE 1, LENGTH=3.5"	2	16	
1			0	B-F	0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	RIM			HP	FLORAL			BLU	STRUCTURE 1, THICK LINE FLORAL EXTERIOR, BAND INTERIOR	3	1	
1			0	B-F	0	0	1	G/H	RE-EARTH	IS	BASIN	RIM			UNDEC				MOLD	STRUCTURE 1, FLORAL RELIEF-MOLDED EXTERIOR	3	2	
1			0	B-F	0	0	1	BOTT	GLASS	BLOWN	EFFERVESC	WHOLE	HUTCH	LTOOL	BLOB				EMBOS	AQU	STRUCTURE 1, "LEWIS YOUNG/ ALEXANDRIA/ VA", FACETED LOWER PORTION, WIRE LOOP IN PLACE	3	3
1			0	B-F	0	0	1	BOTT	GLASS	2P/SEP	BEER	WHOLE	LIGHT	LTOOL	BLOB				EMBOS	AQU	STRUCTURE 1, "ROB. PORTNER/ ALEXANDRIA, VA/ TRADE/ TIVOLI/ MARK" AND "TIVOLI CABINET BEER" ON SIDES, FERROUS REMNANTS BELOW LIP	3	4
1			0	B-F	0	0	1	BOTT	GLASS	2P/SEP	BEER	SH/BASE							EMBOS	AMB	STRUCTURE 1, "ROBERT PORTNER BREWING CO./ ALEXANDRIA, VA/ TRADE/ TIVOLI/ MARK" ON SIDE, "EHE CO" ON HEEL	3	5
1			0	B-F	0	0	1	BOTT	GLASS	2P/SEP	BEER	SH/BASE							EMBOS	AQU	STRUCTURE 1, "THIS BOTTLE NOT TO BE SOLD" ON SIDE, "BB & CO" ON BASE	3	6
1			0	B-F	0	0	1	BOTT	GLASS	2P/SEP		SH/BASE							EMBOS	AQU	STRUCTURE 1, "THIS BOTTLE NEVER SOLD" ON HEEL	3	7
1			0	B-F	0	0	1	BOTT	GLASS	BLOWN		BODY							EMBOS	CLR	STRUCTURE 1, RECESSED PANEL, ON SIDE "NEW YORK", ON FACE "BASTINE & CO./MANUFACTURERS"	3	8

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
1			0 B-F	0	0	1	BOTT	GLASS	BLOWN	BEER	NECK/LIP	CORK	HTOOL	STRT			AMB			STRUCTURE 1, BULGED LONGNECK, FLATTENED STRING RIM	3	9
1			0 B-F	0	0	1	BOTT	GLASS	BLOWN	CHAMPAGNE	SH/LIP	CORK	HTOOL	STRT		SEAL	GRN			STRUCTURE 1, GLASS SEAL ON SHOULDER STAMPED "... PERNOD..." W/ A CROSS, FLATTENED STRING RIM, REMNANTS OF LEAD FOIL	3	10
1			0 B-F	0	0	1	BOTT	GLASS	BLOWN	WINE	BASE						OLV			STRUCTURE 1, 3-PIECE?	3	11
1			0 B-F	0	0	1	BOTT	GLASS	FREE	DEMIJOHN	NECK/LIP	CORK	HTOOL	DTOOL			AMB			STRUCTURE 1	3	12
1			0 B-F	0	0	1	BOTT	GLASS	AUTO		WHOLE	CORK			OWENS		CLR			STRUCTURE 1, 3.2" HIGH	3	13
1			0 B-F	0	0	1	BOTT	GLASS	2P/SEP	PHARMACEUT	WHOLE	CORK	LTOOL	PRESCR			AQU			STRUCTURE 1, SQUARE WITH CHAMFERED CORNERS	3	14
1			0 B-F	0	0	1	VESS	GLASS	AUTO	JAR	WHOLE	SCREW			OWENS		CLR			STRUCTURE 1, 4-LUG SCREW CLOSURE	3	15
1			0 B-F	0	0	1	VESS	GLASS	MOLD	BEERMUG	LIP/BASE						CLR			STRUCTURE 1, SPUR HANDLED, 6" HIGH	3	16
1			0 B-F	0	0	1	BOTT	GLASS		STOPPER				GROUND			CLR			STRUCTURE 1, VERTICAL OVAL FINIAL	3	17
1			0 B-F	0	0	1	L/H	GLASS		LAMP	CHIMNEY						CLR			STRUCTURE 1, PIE-CRUST MOLDED RIM	3	18
1			0 B-F	0	0	1	CONTR	GLASS	MOLD	FRUITJAR	LIDLINER	SCREW				COMP	WHT			STRUCTURE 1, MILKGLASS LIDLINER, ZINC LID AND AQUA GLASS JAR FRAG	3	19
1			0 B-F	0	0	1	HARD	FER-ALLOY		HORSESHOE	WHOLE									STRUCTURE 1	3	20
1			0 B-F	0	0	1	MAMM	BONE			VERTEBRA									STRUCTURE 1	3	21
1			0 B-F	0	0	1	C/F	LEATHER		BOOT	UPPER					COMP	BRN			STRUCTURE 1, LACE-UP, 11 COPPER GROMMETS	3	22
1			0 B-F	0	0	1	C/F	LEATHER		BOOT	UPPER					COMP	BLK			STRUCTURE 1, LACE-UP, 12 COPPER GROMMETS	3	23
**																						
*																						
1			1 A	1	1	1	TOB	BALLCLAY	5/64	PIPE	STEM										6	1
1			1 A	1	1	5	FC/S	RE-EARTH	CW		BODY			UNDEC		SPALL					6	2
1			1 A	1	1	2	FC/S	RE-EARTH	PW		BODY			HP	FLORAL	SPALL			ORG		6	3
1			1 A	1	1	9	FC/S	RE-EARTH	PW		BODY			UNDEC		SPALL					6	4
1			1 A	1	1	1	FC/S	RE-EARTH	PW		RIM			SE						BLU	6	5
1			1 A	1	1	2	FC/S	RE-EARTH	WW		RIM/BOD			HP						BLK	6	6

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
1		1 A	1	1		1	FC/S	RE-EARTH	WW	PLATE	RIM			TP	FLORAL					BLU		6	7
1		1 A	1	1		1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			TP	GEO					BLU		6	8
1		1 A	1	1		1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	UG/I	SG/E				RED	GRY				6	9
1		1 A	1	1		7	CM	GLASS	.05"	WINDOW							AQU					6	10
1		1 A	1	1		1	VESS	GLASS			BODY						CLR					6	11
1		1 A	1	1		1	VESS	GLASS			BODY						WHT			MILK GLASS		6	12
1		1 A	1	1		1	BOTT	GLASS			BODY						AMB					6	13
1		1 A	1	1		1	BOTT	GLASS		WINE	BODY						OLV					6	14
1		1 A	1	1		1	HARD	FER-ALLOY	WROUGHT	NAIL												6	15
1		1 A	1	1		7	HARD	FER-ALLOY	CUT/WRT	NAIL												6	16
1		1 A	1	1		6	UNREC	FER-ALLOY													THIN CORRODED FRAGS	6	17
1		1 A	1	1		33	CM	BRICK														6	18
1		1 A	1	1		1	L/H	COAL														6	19
1		1 A	1	1		1	L/H	CLINKER														6	20
1		1 A	1	1		10	OYS	SHELL														6	21
1		1 A	1	1		2	MAMM	BONE								BURN						6	22
1		1 A	1	1		8	MAMM	BONE														6	23
1		1 A	1	1		2	MAMM	TOOTH														6	24
1		1 A	2	1		4	FC/S	RE-EARTH	CW		BODY			UNDEC			SPALL					7	1
1		1 A	2	1		3	FC/S	RE-EARTH	PW		BODY			UNDEC			SPALL					7	2
1		1 A	2	1		3	CM	GLASS	.05"	WINDOW							AQU					7	3
1		1 A	2	1		1	BOTT	GLASS		WINE	HEEL						OLV					7	4
1		1 A	2	1		1	HARD	FER-ALLOY	CUT/WRT	NAIL												7	5
1		1 A	2	1		1	UNREC	FER-ALLOY													THIN CORRODED FRAG	7	6
1		1 A	2	1		5	CM	BRICK														7	7
1		1 A	2	1		2	OYS	SHELL														7	8
1		1 A	2	1		8	MAMM	BONE														7	9
1		1 A	2	1		1	UNREC	WOOD														7	10
1		1 A	3	1		1	FC/S	RE-EARTH	PW		BODY			HP	FLORAL	SPALL				BLU		8	1
1		1 A	3	1		6	FC/S	RE-EARTH	PW		BODY			UNDEC		SPALL						8	2
1		1 A	3	1		1	BOTT	GLASS		WINE	BODY						AQU					8	3
1		1 A	3	1		9	CM	BRICK														8	4
1		1 A	3	1		4	UNREC	FER-ALLOY													CORRODED FRAGS	8	5

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
1		1 A	3	1			1 MAMM	TOOTH														8	6
1		1 A	3	1			1 UNREC	WOOD														8	7
1		1 A	4	1			4 FC/S	RE-EARTH	CW		BODY			UNDEC								9	1
1		1 A	4	1			3 FC/S	RE-EARTH	PW		BODY			UNDEC								9	2
1		1 A	4	1			1 FC/S	RE-EARTH	WW		RIM			TP					BLU			9	3
1		1 A	4	1			1 FC/S	PORCELAIN			BODY			UNDEC								9	4
1		1 A	4	1			2 CM	GLASS	.05"	WINDOW							AQU					9	5
1		1 A	4	1			2 CM	PLASTER														9	6
1		1 A	4	1			6 UNREC	FER-ALLOY												THIN FRAGS		9	7
1		1 A	4	1			2 CM	BRICK												GLAZED		9	8
1		1 A	4	1			16 CM	BRICK														9	9
1		1 A	4	1			4 MAMM	BONE														9	10
1		1 A	4	1			1 L/H	COAL														9	11
1		1 A	5	1			1 FC/S	RE-EARTH	PW		BODY			UNDEC								10	1
1		1 A	5	1			4 CM	BRICK														10	2
1		1 A	5	1			1 MAMM	BONE														10	3
1		1 A	5	1			1 MAMM	TOOTH														10	4
*																							
1		1 B	5	1			2 CM	PLASTER														11	1
**																							
*																							
1	1		0	SF	0	0	1 BOTT	GLASS	BLOWN	WINE	LIP/SH	CORK	H TOOL	STRT			OLV			INSIDE STRUCT. 1		59	1
1	1		0	SF	0	0	1 BOTT	GLASS	BLOWN	EFFERVESC	BAS/NECK		L TOOL				EMBOS	AQU		INSIDE STRUCT. 1, "SAML.C.PALMER/WASHINGTON/D.C." ON SIDE, "THIS BOTTLE IS REGISTERED" ON HEEL		59	2
1	1		0	SF	0	0	1 BOTT	GLASS	BLOWN	LIQUOR	LIP/NECK	CORK	L TOOL	D TOOL			CLR			INSIDE STRUCT. 1, FLUTED SHOULDER PORTION		59	3
1	1		0	SF	0	0	1 BOTT	GLASS	MOLD	LIQUOR	NECK						CLR			INSIDE STRUCT. 1, THREE NECK RINGS		59	4
1	1		0	SF	0	0	3 CONTR	FER-ALLOY		BEERCAN	WHOLE	CROWN								INSIDE STRUCT. 1, 5.2" HIGH, CONICAL		59	5

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART						
*																												
1	1		0	B-F	0	0	1	BOTT	GLASS	BLOWN							EMBOS	AQU		"M.T.B./363 M. ST. S.W./WASHINGTON D.C." & "THIS BOTTLE/NOT TO/BE SOLD" ON SIDES, "C" ON BASE (MOSES T. BRIDWELL)	30	1						
*																												
1	1		0	C	0	0	1	FC/S	RE-EARTH	IS	PLATE						UNDEC		MOLD		RELIEF MOLDED EDGE	57	1					
1	1		0	C	0	0	1	G/H	RE-EARTH	IS	BASIN						UNDEC		BMARK		"GOODWIN BROS.", IRONSTONE SANITARY WARE	57	2					
1	1		0	C	0	0	1	FC/S	RE-EARTH	IS	COFFEECUP						UNDEC					57	3					
1	1		0	C	0	0	1	FC/S	PORCELAIN	CHINESE	HOLLOWWARE								HP		BLU	LATER CHINESE PORCELAIN	57	4				
1	1		0	C	0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE									BRI/I	BRI/E		57	5				
1	1		0	C	0	0	2	FSTOR	STONEWARE	AMSW	JUG											BUF	ALBANY SLIP-GLAZED UPPER HALF, UNGLAZED LOWER, LOOP HANDLE	57	6			
1	1		0	C	0	0	1	VESS	GLASS	BLOWN													57	7				
1	1		0	C	0	0	1	BOTT	GLASS	BLOWN	COLOGNE												WHT	"HOYT'S NICKEL COLOGNE" ON RECESSED PANEL, 2.5" HIGH (PHILA. PA)	57	8		
1	1		0	C	0	0	1	BOTT	GLASS	BLOWN	BEER													AMB	LONG BULBOUS NECK	57	9	
1	1		0	C	0	0	1	BOTT	GLASS	BLOWN	CHAMPAGNE														OLV	BELL-SHAPED PUSH-UP	57	10
1	1		0	C	0	0	1	BOTT	GLASS	BLOWN	WINE														EMBOS	"JOHANN HOFF" ON SHOULDER	57	11
1	1		0	C	0	0	1	BOTT	GLASS	3P	WINE														EMBOS	RICKETS-TYPE, "B 12" ON BASE	57	12
1	1		0	C	0	0	1	BOTT	GLASS	BLOWN	EFFERVESC														EMBOS	"THE NORTHWESTERN BOTTLING WORKS/1601 5TH ST.N.W./J.H.SCHLUETER/WASHINGTON D.C." ON SIDE, "THIS BOTTLE NEVER SOLD" ON HEEL, FINISHED W/INTERNAL STOPPER SEAT	57	13
1	1		0	C	0	0	1	BOTT	GLASS	BLOWN	BEER														EMBOS	"[ROBERT POJRTNER/[BREWING CO./TRADE/TIVOLI/MARK/ALEXANDRIA, VA." ON SIDE, "THIS BOTTLE NOT TO BE SOLD" ON HEEL	57	14

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
1	1		0	C	0	0	1	BOTT GLASS	BLOWN	EFFERVESC	WHOLE	HUTCH	LTOOL	BLOB		EMBOS	AQU			"RETURN TO/JAMES McCUEN/ALEXANDRIA/VA" ON SIDE	57	15
1	1		0	C	0	0	1	VESS GLASS	MOLD	BEERMUG	BAS/HAND						CLR			FACETED LOWER PORTION	57	16
1	1		0	C	0	0	1	VESS GLASS	MOLD	BEERMUG	BAS/HAND						CLR				57	17
1	1		0	C	0	0	1	BOTT RUBBER		STOPPER										LIGHTNING-TYPE	57	18
1	1		0	C	0	0	1	UNREC CUPR-ALLOY			RIM									SCALLOPED RIM, POSS LAMP PART	57	19
1	1		0	C	0	0	1	UNREC LEATHER			FRAGMENT									SEWN LEATHER FRAG	57	20
1	1		0	C	0	0	5	D/P RUBBER		HOSE	FRAGMENT						BLK			1.1" DIAMETER RUBBER HOSE	57	21
1	1		0	C	0	0	1	UNREC FER-ALLOY												2.8 x 2.3 SQUARE BAND, W/ ROD FOR ATTACHMENT	57	22
1	1		0	C	0	0	2	D/P FER-ALLOY		DRAINPIPE											57	23
1	1		0	C	0	0	1	D/P FER-ALLOY		DRAINPIPE										PIPE JOIN TO LARGER OPENING	57	24
1	1		0	C	0	0	2	MAMM BONE								BUTCH				CUT AND SAWN	57	25
1	1		0	C	0	0	1	PINE RESIN												1250 g., BROKEN INTO SMALLER PIECES	57	26
1	1		0	C	0	0	1	UNREC FER-ALLOY			WHOLE									22.5" LONG, 1.6" WIDE FERROUS STRIP WITH FIVE 2.5" LONG LARGE-HEADED RIVETS	57	27
1	1		0	C	0	0	1	HARD FER-ALLOY		WIRE										4 STRANDS OF .2" DIAMETER WIRE	57	28
*																						
1	1		0	F	0	0	1	BOTT GLASS	BLOWN	WINE	LIP	CORK	HTOOL	DTOOL							58	1
1	1		0	F	0	0	1	BOTT GLASS	BLOWN	WINE	LIP	CORK	HTOOL	STRT							58	2
1	1		0	F	0	0	1	BOTT GLASS	BLOWN		LIP	CORK	HTOOL	STRT							58	3
1	1		0	F	0	0	1	BOTT GLASS	2P/SEP	BAKINGSODA	WHOLE	CORK	LTOOL	PATENT		EMBOS	AQU			"DIXON" ON SHOULDER	58	4
1	1		0	F	0	0	1	BOTT GLASS	BLOWN	EFFERVESC	WHOLE	HUTCH	LTOOL	BLOB		EMBOS	AQU			"F.W.BRAWNER & CO./TRADE/MARK/REGISTERED/ALEXANDRIA , VA" (MARK=FWB & CO MONOGRAM), STOPPER INSIDE W/ "W H & S" STAMPED ON WHITE METAL STOPPER BOTTOM (W.HUTCHINSON & SON)	58	5
1	1		0	F	0	0	1	BOTT GLASS	BLOWN	EFFERVESC	WHOLE	HUTCH	LTOOL	BLOB		EMBOS	AQU			"M.T.BRIDWELL/363 M ST.S.W.WASHINGTON,D.C.", (MOSES T. BRIDWELL), STOPPER INSIDE W/ "PAT.APR.8.REIS[.JUNE17,79 W.H.H]" STAMPED ON WHITE METAL STOPPER BOTTOM (W.H.HUTCHINSON)	58	6

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
1	1		0	F	0	0	1	BOTT GLASS	2P	EFFERVESC	BASE/BOD					EMBOS	AQU			"[SEE THAT] EACH CORK IS BRAN[DED]/CANTRELL/[COCHR]ANE" ON HEEL, "DUBLIN/&/BELFAST" ON ROUND BOTTOM	58	7
1	1		0	F	0	0	1	BOTT GLASS	BLOWN	EFFERVESC	BASE/BOD					EMBOS	AQU			"..[RE]TURN TO/.. & YOUNG/[ALEXAND]RIA/[VA]"	58	8
1	1		0	F	0	0	1	CONTR GLASS	MOLD	FRUITJAR	BASE/BOD					EMBOS	AQU			".. MA[SONS] ../PATE[NTED] .."	58	9
1	1		0	F	0	0	1	VESS. GLASS	BLOWN	DECANTER	BASE/BOD				PONTIL		CLR			PATTERN BLOWN AND EXPANDED, VERTICAL RIBBING	58	10
1	1		0	F	0	0	1	VESS GLASS	PRESS		LID						CLR			LARGE, FACETED, W/ FLAW ON FINIAL	58	11
*																						
1	1A		0	C	0	0	1	FC/S RE-EARTH	PW		BODY			TP	FLORAL			BLU		STRUCTURE 2, ASH PIT	4	1
1	1A		0	C	0	0	3	HARD FER-ALLOY	CUT	NAIL										STRUCTURE 2, ASH PIT	4	2
1	1A		0	C	0	0	1	BOTT STONEWARE			BASE	SLG/I	SG/E				GRY	CLR		STRUCTURE 2, ASH PIT, BROWN SLIP-GLAZED INTERIOR	4	3
1	1A		0	C	0	0	1	BOTT STONEWARE			BODY		SLG/E			STAMP	GRY	BRN		STRUCTURE 2, ASH PIT, CURSIVE "B / Num. 7"	4	4
1	1A		0	C	0	0	1	BOTT STONEWARE	C&G	GINGERBEER	WHOLE						CRM	CLR	GLD	STRUCTURE 2, ASH PIT, LIGHTNING STOPPER CLOSURE	4	5
1	1A		0	C	0	0	1	BOTT STONEWARE	C&G	GINGERBEER	BASE/SH						CRM	CLR	GLD	STRUCTURE 2, ASH PIT	4	6
1	1A		0	C	0	0	1	BOTT STONEWARE	C&G	GINGERBEER	BASE/SH					STAMP	CRM	CLR	GLD	STRUCTURE 2, ASH PIT, "... GLASGOW ..." IN CIRCULAR STAMP ON HEEL	4	7
1	1A		0	C	0	0	1	BOTT GLASS	2P/SEP		BASE					EMBOS	AQU			STRUCTURE 2, ASH PIT, "... NOT SOLD"	4	8
1	1A		0	C	0	0	1	BOTT GLASS		WINE	NECK/LIP	CORK	Htool	Dtool			OLV			STRUCTURE 2, ASH PIT	4	9
1	1A		0	C	0	0	1	BOTT GLASS			BODY					MOLT	CLR			STRUCTURE 2, ASH PIT	4	10
1	1A		0	C	0	0	1	BOTT GLASS			BODY					MOLT	AMB			STRUCTURE 2, ASH PIT	4	11
1	1A		0	C	0	0	1	VESS GLASS	MOLD	BEERMUG	BASE						CLR			STRUCTURE 2, ASH PIT, APPLIED HANDLE, paneled lower half	4	12
*																						
1	2		0	A	0	5	1	BOTT GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"[BUD]WEISER" ON SIDE	20	1
1	2		0	A	0	5	2	BOTT GLASS	BLOWN		NECK/BOD						AQU				20	2

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
1	2		0	A	0	5	2	BOTT GLASS			BODY						CLR				20	3
1	2		0	A	0	5	1	BOTT GLASS	3P	WINE	SHOULDER						OLV				20	4
1	2		0	A	0	5	1	BOTT GLASS	MOLD	WINE	BODY						OLV				20	5
1	2		0	A	0	5	3	BOTT GLASS								MOLT	AQU				20	6
1	2		0	A	0	5	1	BOTT GLASS			LIP					MOLT	AMB				20	7
1	2		0	A	0	5	1	UNREC GLASS								MOLT	CLR				20	8
1	2		0	A	0	5	1	CM GLASS	.1"	WINDOW							AQU				20	9
1	2		0	A	0	5	4	CM GLASS	.1"	WINDOW						MOLT	AQU				20	10
1	2		0	A	0	5	1	CM GLASS	.1"	WINDOW						MOLT	CLR				20	11
1	2		0	A	0	5	1	UNREC TEXTILE												BURLAP-LIKE WEAVE	20	12
1	2		0	A	0	5	39	BOTT RUBBER		STOPPER										LIGHTNING-TYPE	20	13
1	2		0	A	0	5	51	HARD FER-ALLOY	CUT	NAIL											20	14
1	2		0	A	0	5	1	HARD FER-ALLOY	CUT	SPIKE											20	15
1	2		0	A	0	5	1	HARD FER-ALLOY		SCREW											20	16
1	2		0	A	0	5	1	HARD FER-ALLOY	CUT/WRT	NAIL											20	17
1	2		0	A	0	5	3	UNREC FER-ALLOY												THIN FRAGS	20	18
1	2		0	A	0	5	1	UNREC FER-ALLOY												LARGE CONCRETED CURVED FERROUS FRAG	20	19
1	2		0	A	0	6	1	BOTT STONEWARE	C&G	GINGERBEER WHOLE					STAMP	CRM	CLR	GLD	"MURRAY & BUCHAN/1/PORTOBELLO"	25	1	
1	2		0	A	0	6	1	BOTT STONEWARE	C&G	GINGERBEER BASE					STAMP	CRM	CLR		"GROSVENOR/10/GLASGOW"	25	2	
1	2		0	A	0	6	1	BOTT STONEWARE	C&G	GINGERBEER BASE					STAMP	CRM	CLR		"GROSVENOR/8/GLASGOW"	25	3	
1	2		0	A	0	6	1	BOTT STONEWARE	C&G	GINGERBEER BASE					STAMP	CRM	CLR		"* H. KENNEDY/BARRONFIELD/11/POTTERY/GLASGOW *" (UNSURE OF BARRONFIELD SPELLING)	25	4	
1	2		0	A	0	6	1	BOTT STONEWARE	C&G	GINGERBEER BASE					STAMP	CRM	CLR		LARGE "r" ON HEEL	25	5	
1	2		0	A	0	6	1	BOTT STONEWARE	C&G	GINGERBEER BASE					STAMP	CRM	CLR	GLD	ILLEGIBLE CIRCULAR STAMP ON HEEL	25	6	
1	2		0	A	0	6	1	BOTT STONEWARE	C&G	GINGERBEER LIP						CRM	CLR	GLD		25	7	
1	2		0	A	0	6	1	BOTT STONEWARE	C&G	GINGERBEER LIP						CRM	CLR	GLD		25	8	
1	2		0	A	0	6	1	BOTT STONEWARE	C&G	GINGERBEER LIP			ROUND			CRM	CLR	GLD		25	9	
1	2		0	A	0	6	18	BOTT STONEWARE	C&G	GINGERBEER BASE/BOD						CRM	CLR	GLD		25	10	
1	2		0	A	0	6	1	FC/S RE-EARTH	RB	HOLLOWWARE	BODY					BURN			MOLDED	25	11	
1	2		0	A	0	6	1	FC/S PORCELAIN		BOWL	BODY		GILD			MOLD		GLD	SCALLOPED RIM	25	12	
1	2		0	A	0	6	1	FC/S RE-EARTH	IS	BASIN	RIM					BURN				25	13	

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART		
1	2		0	B	0	5	1	HARD FER-ALLOY		BRACKET											5.5" LONG T-BRACKET WITH SCREWS IN PLACE	21	16	
1	2		0	B	0	5	2	UNREC CUPR-ALLOY		STRIP													21	17
1	2		0	B	0	5	1	UNREC FER-ALLOY													CORNERED FRAG WITH SCREW	21	18	
1	2		0	B	0	5	66	BOTT RUBBER		STOPPER											LIGHTNING-TYPE	21	19	
1	2		0	B	0	5	20	UNREC CHARCOAL														21	20	
*																								
1	2		0	C	0	5	1	BOTT STONWARE	C&G	GINGERBEER	BODY						CRM	CLR	GLD			22	1	
1	2		0	C	0	5	1	BOTT GLASS		EFFERVESC	LIP	LIGHT	LTOOL	BLOB			AQU				FINISHED W/INTERNAL STOPPER SEAT	22	2	
1	2		0	C	0	5	2	BOTT GLASS		EFFERVESC	LIP	LIGHT	LTOOL	BLOB			CLR				FINISHED W/INTERNAL STOPPER SEAT	22	3	
1	2		0	C	0	5	1	BOTT GLASS			LIP		LTOOL				SPALL	AMB				22	4	
1	2		0	C	0	5	13	BOTT GLASS										AQU				22	5	
1	2		0	C	0	5	5	BOTT GLASS										CLR				22	6	
1	2		0	C	0	5	1	CM GLASS	.1"	WINDOW								AQU				22	7	
1	2		0	C	0	5	6	CM GLASS	.08"	WINDOW								AQU				22	8	
1	2		0	C	0	5	5	CM BRICK										RED				22	9	
1	2		0	C	0	5	8	CM PLASTER									BURN				SEVERAL WHITEWASHED	22	10	
1	2		0	C	0	5	1	BOTT RUBBER		STOPPER											LIGHTNING-TYPE	22	11	
1	2		0	C	0	5	2	HARD FER-ALLOY	UNREC	SPIKE											W/ NAIL FRAGS ADHERED	22	12	
1	2		0	C	0	5	6	HARD FER-ALLOY	UNREC	NAIL												22	13	
1	2		0	C	0	5	4	CM WOOD													THIN FLAT FRAGS	22	14	
1	2		0	C	0	5	4	UNREC CHARCOAL														22	15	
*																								
1	2		0	D	0	5	4	CM PLASTER														23	1	
1	2		0	D	0	5	1	HARD FER-ALLOY	CUT	NAIL												23	2	
*																								
1	2		0	E	0	5	1	CM PLASTER													ERODED	24	1	

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART		
1	2		2	A	0	0	1	HARD FER-ALLOY		WIRE											TWISTED	13	26	
1	2		2	A	0	0	39	HARD FER-ALLOY	CUT	NAIL												13	27	
1	2		2	A	0	0	1	HARD FER-ALLOY		BRACKET											CURVED OVAL BRACKET OR PLAQUE WITH NAIL HOLES	13	28	
1	2		2	A	0	0	1	CM SLATE									GRY					13	29	
1	2		2	A	0	0	1	CM MORTAR														13	30	
1	2		2	A	0	0	1	CM MARBLE													0.8" SLAB FRAG	13	31	
1	2		2	A	0	0	3	OYS SHELL														13	32	
1	2		2	A	0	0	1	MAMM BONE														13	33	
1	2		2	A	0	0	3	UNREC CHARCOAL														13	34	
1	2		2	A	0	0	1	TOB BALLCLAY		PIPE BOWL												RIBBED LOWER HALF	14	1
1	2		2	A	0	0	6	FSTOR RE-EARTH	RB	HOLLOWWARE BASE/BOD												LARGE VESSEL	14	2
1	2		2	A	0	0	3	BOTT STONEWARE	C&G	GINGERBEER LIP/BASE							CRM	CLR	GLD				14	3
1	2		2	A	0	0	92	BOTT STONEWARE	C&G	GINGERBEER BASE/BOD							CRM	CLR	GLD				14	4
1	2		2	A	0	0	8	BOTT STONEWARE	C&G	GINGERBEER LIP							CRM	CLR	GLD				14	5
1	2		2	A	0	0	1	BOTT STONEWARE	C&G	GINGERBEER BASE					STAMP	CRM	CLR				"[GRO]SVENOR/ GLASGOW"	14	6	
1	2		2	A	0	0	1	BOTT STONEWARE	C&G	GINGERBEER BASE					STAMP	CRM	CLR				".../GLASGOW"	14	7	
1	2		2	A	0	0	3	BOTT STONEWARE			BODY	W/I	SG/E				GRY	CLR			W/ HANDLE	14	8	
1	2		2	A	0	0	2	BOTT STONEWARE			BODY		SLG/E		STAMP	CRM	ORG				"...N:PREUSSEN" ON BODY, MEND	14	9	
1	2		2	A	0	0	2	BOTT STONEWARE			BODY	UG/I	SLG/E				CRM	ORG			W/ HANDLE, STUB NECK	14	10	
1	2		2	A	0	0	1	BOTT STONEWARE			BODY	UG/I	UG/E				CRM				W/ HANDLE OR LUG	14	11	
1	2		2	A	0	0	1	BOTT STONEWARE			BODY	UG/I	SLG/E				CRM	BRN				14	12	
1	2		2	A	0	0	1	FSTOR STONEWARE	AMSW	HOLLOWWARE BODY		ALB/I					GRY	GRN				14	13	
1	2		2	A	0	0	1	BOTT GLASS	BLOWN	WINE LIP		CORK	HTOOL	DTOOL			OLV					14	14	
1	2		2	A	0	0	1	BOTT GLASS		DEMIJOHN LIP		CORK	HTOOL	DTOOL			OLV					14	15	
1	2		2	A	0	0	38	BOTT GLASS	BLOWN	WINE BASE/BOD							OLV				TURN MOLDED	14	16	
1	2		2	A	0	0	4	BOTT GLASS	BLOWN	BEER BASE						EMBOS	OLV				"R. PORTNER/ ALEXANDRIA VA/ TRADE/ MARK/ TIVOLI" ON BASE, MEND	14	17	
1	2		2	A	0	0	1	BOTT GLASS	BLOWN	BEER BASE						EMBOS	AMB				".B"	14	18	
1	2		2	A	0	0	2	BOTT GLASS	BLOWN	BEER BODY						EMBOS	AMB				"[ROBE]RT POR[T]NER .."	14	19	
1	2		2	A	0	0	2	BOTT GLASS	BLOWN	BEER BODY						EMBOS	AMB				"..[BOTT]LE .. SO[LD]"	14	20	
1	2		2	A	0	0	2	BOTT GLASS	BLOWN	BEER BODY						EMBOS	AMB				".. [GEORGE]TOWN.D.C."	14	21	
1	2		2	A	0	0	1	BOTT GLASS	BLOWN	BEER BODY						EMBOS	AMB				"..EY.." (OR "..FY..")	14	22	

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
1	2		2	A	0	0	13	BOTT	GLASS	BLOWN	BEER						AMB					14	23
1	2		2	A	0	0	6	BOTT	GLASS	BLOWN	FLASK						AMB			STRAPPED		14	24
1	2		2	A	0	0	8	VESS	GLASS	MOLD	BEERMUG						CLR			PANELED LOWER HALF, MOLDED HANDLE, MEND		14	25
1	2		2	A	0	0	2	VESS	GLASS	MOLD	JAR						CLR					14	26
1	2		2	A	0	0	1	BOTT	GLASS	BLOWN						EMBOS	CLR			"..TIO.."		14	27
1	2		2	A	0	0	1	BOTT	GLASS	BLOWN	EFFERVESC	LIP	CORK	LTOOL	BLOB		CLR					14	28
1	2		2	A	0	0	40	BOTT	GLASS	BLOWN							CLR					14	29
1	2		2	A	0	0	1	BOTT	GLASS	BLOWN	EFFERVESC	LIP	LIGHT	LTOOL	BLOB	COMP	AQU			FINISHED W/ INTERNAL STOPPER SEAT, RUBBER STOPPER IN PLACE		14	30
1	2		2	A	0	0	10	BOTT	GLASS	BLOWN	EFFERVESC	LIP	LIGHT	LTOOL	BLOB		AQU			FINISHED W/INTERNAL STOPPER SEAT		14	31
1	2		2	A	0	0	7	BOTT	GLASS	BLOWN	BEER					EMBOS	AQU			PORTIONS OF "ROBERT PORTNER/ CO./ TRADE MARK/ TIVOLI/ ALEXANDRIA.VA"		14	32
1	2		2	A	0	0	1	BOTT	GLASS	BLOWN	BEER					EMBOS	AQU			"[ROBERT PORTNER/ BREWING] CO./ TRADE MARK/ HYGEI../ALEXANDR[IA.VA]"		14	33
1	2		2	A	0	0	8	BOTT	GLASS	BLOWN						EMBOS	AQU			"[SAML.L.] PALMER/ WASHINGTON D.C." AND MONOGRAM "SLP"		14	34
1	2		2	A	0	0	1	BOTT	GLASS	BLOWN						EMBOS	AQU			"BB & CO" ON BASE		14	35
1	2		2	A	0	0	1	BOTT	GLASS	BLOWN						EMBOS	AQU			"D" ON BASE		14	36
1	2		2	A	0	0	1	BOTT	GLASS	BLOWN						EMBOS	AQU			"37" ON BASE		14	37
1	2		2	A	0	0	1	BOTT	GLASS	BLOWN						EMBOS	AQU			"... MD"		14	38
1	2		2	A	0	0	1	BOTT	GLASS	BLOWN						EMBOS	AQU			"... S.C."		14	39
1	2		2	A	0	0	30	BOTT	GLASS	BLOWN						EMBOS	AQU			W/ PORTIONS OF "THIS BOTTLE NOT TO BE SOLD"		14	40
1	2		2	A	0	0	239	BOTT	GLASS	BLOWN							AQU					14	41
1	2		2	A	0	0	1	UNREC	GLASS							MOLT	OLV					14	42
1	2		2	A	0	0	1	UNREC	GLASS							MOLT	CLR					14	43
1	2		2	A	0	0	5	UNREC	GLASS							MOLT	AQU					14	44
1	2		2	A	0	0	1	HARD	FER-ALLOY	WIRE	NAIL											14	45
1	2		2	A	0	0	51	HARD	FER-ALLOY	CUT	NAIL											14	46
1	2		2	A	0	0	1	HARD	FER-ALLOY	CUT	SPIKE											14	47
1	2		2	A	0	0	2	HARD	FER-ALLOY											1" WIDE STRIP/BAND FRAGS		14	48

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
1	2		2	A	0	0	1	HARD FER-ALLOY												1.7" x 2" D-SHAPED LOOP (BUCKLE?)	14	49
1	2		2	A	0	0	1	HARD FER-ALLOY												0.9" WIDE CLASP/BUCKLE	14	50
1	2		2	A	0	0	1	HARD FER-ALLOY												1.5" DIAMETER DISK/CAP W/ HOLE	14	51
1	2		2	A	0	0	1	CM CONCRETE													14	52
1	2		2	A	0	0	4	CM MORTAR													14	53
1	2		2	A	0	0	1	L/H SLAG												CLINKER/SLAG	14	54
1	2		2	A	0	0	3	L/H COAL													14	55
1	2		2	A	0	0	6	CM SLATE													14	56
1	2		2	A	0	0	2	D/P CERAMIC		DRAINPIPE							RED	BRN			14	57
1	2		2	A	0	0	3	CLAM SHELL													14	58
1	2		2	A	0	0	1	COW BONE			FEMUR					BUTCH				SAWN	14	59
1	2		2	A	0	0	4	MAMM BONE													14	60
*																						
1	2		2	B	0	0	1	FAST GLASS		BUTTON	FRAGMENT						WHT			4-HOLE MILK GLASS, DIAM.=.65"	15	1
1	2		2	B	0	0	1	BOTT STONEWARE		GINGERBEER	WHOLE					STAMP	GRY	BRN		"GEO SCHNELL" ON SHOULDER	15	2
1	2		2	B	0	0	1	BOTT STONEWARE		GINGERBEER	BASE/BOD	UG/I					CRM	ORG			15	3
1	2		2	B	0	0	2	BOTT STONEWARE		GINGERBEER	BASE/BOD	G/I	SLG/E				CRM	ORG			15	4
1	2		2	B	0	0	5	FSTOR STONEWARE		JUG	BOD/HAND	W/I	SG/E	IRONOX			GRY	CLR	BRN		15	5
1	2		2	B	0	0	1	BOTT STONEWARE			BODY	UG/I	SLG/E				GRY	BRN		THIN	15	7
1	2		2	B	0	0	2	BOTT STONEWARE	C&G	GINGERBEER	BASE					STAMP	CRM	CLR		"GROSVENER/./GLASGOW"	15	8
1	2		2	B	0	0	1	BOTT STONEWARE	C&G	GINGERBEER	BASE					STAMP	CRM	CLR		ILLEGIBLE OVAL STAMP W/ "T..."	15	9
1	2		2	B	0	0	1	BOTT STONEWARE	C&G	GINGERBEER	BASE					STAMP	CRM	CLR		ILLEGIBLE CIRCULAR STAMP W/ CROWN?	15	10
1	2		2	B	0	0	7	BOTT STONEWARE	C&G	GINGERBEER	LIP						CRM	CLR	GLD	ABOVE	15	11
1	2		2	B	0	0	60	BOTT STONEWARE	C&G	GINGERBEER	BASE/BOD						CRM	CLR	GLD		15	12
1	2		2	B	0	0	3	FC/S RE-EARTH	IS	HOLLOWWARE	BASE/RIM					BURN					15	13
1	2		2	B	0	0	8	BOTT GLASS	BLOWN		BASE/LIP	CORK		STRT		MOLT	AMB			TURN MOLDED, DARK AMBER, SLIGHTLY	15	14
1	2		2	B	0	0	3	BOTT GLASS			BODY						AMB			MOLTEN	15	15
1	2		2	B	0	0	3	BOTT GLASS			BODY					MOLT	AMB				15	16
1	2		2	B	0	0	1	BOTT GLASS	BLOWN	WINE	BODY						OLV			TURN MOLDED	15	17

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
1	2	2	B	0	0	6	BOTT	GLASS		WINE	BODY					MOLT	OLV					15	18
1	2	2	B	0	0	34	BOTT	GLASS	BLOWN		BASE/BOD						AQU					15	19
1	2	2	B	0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"BO.../..T[]T..." ON SIDE		15	20
1	2	2	B	0	0	1	BOTT	GLASS	BLOWN	EFFERVESC	LIP	LIGHT	LTOOL	BLOB		MOLT	AQU			FINISHED W/ INTERNAL STOPPER SEAT		15	21
1	2	2	B	0	0	1	BOTT	GLASS	BLOWN		LIP	CORK				MOLT	AQU					15	22
1	2	2	B	0	0	24	UNREC	GLASS								MOLT	AQU					15	23
1	2	2	B	0	0	17	UNREC	GLASS								MOLT	CLR					15	24
1	2	2	B	0	0	1	BOTT	GLASS	MOLD		BASE						PUR			SOLARIZED		15	25
1	2	2	B	0	0	1	VESS	GLASS	MOLD		BASE						CLR			PANELED		15	26
1	2	2	B	0	0	1	CM	GLASS	.1"	WINDOW							AQU					15	27
1	2	2	B	0	0	9	CM	GLASS		WINDOW						MOLT	AQU					15	28
1	2	2	B	0	0	2	CM	GLASS		WINDOW						MOLT	CLR					15	29
1	2	2	B	0	0	144	HARD	FER-ALLOY	CUT	NAIL												15	30
1	2	2	B	0	0	1	HARD	FER-ALLOY	CUT	SPIKE												15	31
1	2	2	B	0	0	4	HARD	FER-ALLOY	CUT/WRT	SPIKE												15	32
1	2	2	B	0	0	1	UNREC	FER-ALLOY												CONCRETED FLAT FRAG		15	33
1	2	2	B	0	0	1	HARD	FER-ALLOY		BOLT										2" BOLT WITH NUT AND TWO WASHERS		15	34
1	2	2	B	0	0	3	CM	BRICK												COARSE SAND MORTAR ADHERED		15	35
1	2	2	B	0	0	1	CM	PLASTER														15	36
1	2	2	B	0	0	2	CM	BRICK								BURN						15	37
1	2	2	B	0	0	1	CM	PLASTER								BURN				WHITEWASHED		15	38
1	2	2	B	0	0	3	CM	WOOD								BURN				ONE FACE SINGED		15	39
1	2	2	B	0	0	1	UNREC	CHARCOAL												W/ GREEN SUBSTANCE (PAINT?)		15	40
1	2	2	B	0	0	1	CM	SLATE								BURN						15	41
1	2	2	B	0	0	1	L/H	COAL														15	42
1	2	2	B	0	0	2	OYS	SHELL														15	43
*																							
1	2	2	C	0	0	4	FC/S	RE-EARTH	IS	COFFEECUP	RIM/BASE			UNDEC		BURN				CUT NAIL ADHERED		16	1
1	2	2	C	0	0	2	FC/S	RE-EARTH	UNREC	FLATWARE	BASE					BURN						16	2
1	2	2	C	0	0	2	BOTT	STONEWARE			BODY	UG/I	ALB/E				GRY	BRN				16	3
1	2	2	C	0	0	2	BOTT	STONEWARE			BODY	UG/I	SLG/E				GRY	BRN		ORANGE-BROWN SLIP-GLAZED		16	4
1	2	2	C	0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	LIP						CRM	CLR	GLD			16	5

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
1	2		2	C	0	0	1	BOTT STONWARE	C&G	GINGERBEER	BASE						STAMP	CRM	CLR	"GROSVENOR/4/GLASGOW" ON HEEL	16	6	
1	2		2	C	0	0	12	BOTT STONWARE	C&G	GINGERBEER	BASE/BOD							CRM	CLR	GLD		16	7
1	2		2	C	0	0	5	BOTT GLASS	BLOWN		BASE/BOD						MOLT	AMB		TURN MOLDED, DARK AMBER/BLACK, SLIGHTLY MOLTEN	16	8	
1	2		2	C	0	0	12	BOTT GLASS	BLOWN	WINE	BASE/BOD							OLV		SLIGHTLY MOLTEN?	16	9	
1	2		2	C	0	0	1	BOTT GLASS	BLOWN	WINE	NECK						MOLT	OLV			16	10	
1	2		2	C	0	0	1	BOTT GLASS			BODY							AMB			16	11	
1	2		2	C	0	0	4	BOTT GLASS			NECK/BOD						MOLT	AMB			16	12	
1	2		2	C	0	0	36	BOTT GLASS									MOLT	AQU			16	13	
1	2		2	C	0	0	2	BOTT GLASS	BLOWN		BODY						EMBOS	AQU		MOLTEN, "I.B.../ BOT../ WO../ BALTIMORE MD" "THIS BOTTLE NOT TO BE SOLD"	16	14	
1	2		2	C	0	0	2	BOTT GLASS	BLOWN		BODY						EMBOS	AQU		"... [PORT]NER.."	16	15	
1	2		2	C	0	0	5	BOTT GLASS	BLOWN		BASE/BOD							AQU			16	16	
1	2		2	C	0	0	1	BOTT GLASS	BLOWN		LIP	CORK	LTOOL	BLOB				AQU		HEAVILY PATINATED	16	17	
1	2		2	C	0	0	7	BOTT GLASS									MOLT	CLR			16	18	
1	2		2	C	0	0	3	BOTT GLASS			BODY							CLR			16	19	
1	2		2	C	0	0	1	BOTT GLASS			LIP							MOLT	CLR		16	20	
1	2		2	C	0	0	3	CM GLASS	.08"	WINDOW								AQU			16	21	
1	2		2	C	0	0	1	CM GLASS	.08"	WINDOW								MOLT	AQU		16	22	
1	2		2	C	0	0	1	CM GLASS	.1"	WINDOW								AQU			16	23	
1	2		2	C	0	0	74	HARD FER-ALLOY	CUT	NAIL											16	24	
1	2		2	C	0	0	2	HARD FER-ALLOY	CUT/WRT	SPIKE											16	25	
1	2		2	C	0	0	1	UNREC FER-ALLOY		STRIP										POSS BRACKET	16	26	
1	2		2	C	0	0	17	UNREC CUPR-ALLOY												COPPER SHEETING	16	27	
1	2		2	C	0	0	1	CM PLASTER													16	28	
1	2		2	C	0	0	1	CM BRICK									BURN				16	29	
1	2		2	C	0	0	2	L/H PORCELAIN		INSULATOR											16	30	
1	2		2	C	0	0	1	CM SLATE									BURN				16	31	
1	2		2	C	0	0	1	CM WOOD									BURN			SINGED	16	32	

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART		
1	2		4	A	0	0	57	HARD FER-ALLOY	CUT	NAIL												18	18	
1	2		4	A	0	0	1	UNREC FER-ALLOY															18	19
1	2		4	A	0	0	18	CM PLASTER								BURN							18	20
1	2		4	A	0	0	2	CM PLASTER															18	21
1	2		4	A	0	0	2	CM BRICK									ORG						18	22
1	2		4	A	0	0	2	CM BRICK								BURN							18	23
1	2		4	A	0	0	5	CM MARBLE								BURN							18	24
1	2		4	A	0	0	11	CM WOOD								BURN							18	25
1	2		4	A	0	0	2	OYS SHELL															18	26
**																								
*																								
3	1		0	0	0	1	REC GLASS			MARBLE							GRN		WHT	SWIRLED		26	1	
3	1		0	0	0	1	TOB BALLCLAY	5/64	PIPE	STEM						STAMP					"[MADE IN] ...LAND"		26	2
3	1		0	0	0	1	FC/S STONEWARE	UNREC		BODY							WHT				UNGLAZED HOLLOW FRAG		26	3
3	1		0	0	0	2	FC/S RE-EARTH	WW	FLATWARE	BODY			TP	GEO		SPALL			BRN				26	4
3	1		0	0	0	1	FC/S RE-EARTH	IS	HOLLOWWARE	BASE				UNDEC									26	5
3	1		0	0	0	4	FC/S RE-EARTH	IS	PLATE	RIM/BOD				UNDEC									26	6
3	1		0	0	0	1	FC/S RE-EARTH	IS	HOLLOWWARE	BODY				UNDEC			MOLD				HANDLE PITCHER OR TEAPOT, FLORAL RELIEF		26	7
3	1		0	0	0	4	FC/S RE-EARTH	IS	HOLLOWWARE	RIM/BOD				UNDEC			MOLD				MOLDED RIBBS, POSS PITCHER		26	8
3	1		0	0	0	1	FC/S RE-EARTH	IS	PLATE	RIM				SE					BLU		PAINTED ONLY (NO MOLDING), LARGE PLATE/PLATTER		26	9
3	1		0	0	0	1	FC/S RE-EARTH	IS	HOLLOWWARE	BODY				ANN					POL		DEC=BLUE,WHITE,BROWN		26	10
3	1		0	0	0	1	FC/S RE-EARTH	IS	FLATWARE	BASE				TP	FLORAL				BLU				26	11
3	1		0	0	0	1	FC/S RE-EARTH	IS	BOWL	RIM				TP	LAND	MOLD			BLU		W/ MOLDED PORRINGER-STYLE HANDLE		26	12
3	1		0	0	0	1	FC/S PORCELAIN			BASE				UNDEC									26	13
3	1		0	0	0	1	FC/S PORCELAIN		FLATWARE	BODY				HP/GILD	FLORAL	OG		YEL	POL		YELLOW TINTED WITH RED FLOWER AND GILDED ACCENTS		26	14
3	1		0	0	0	1	FC/S PORCELAIN	HOTEL	PLATE	RIM				LINED					POL		RED AND GILDED LINES		26	15
3	1		0	0	0	1	FC/S RE-EARTH	RB	HOLLOWWARE	BODY													26	16
3	1		0	0	0	1	FSTOR STONEWARE	AMSW	CROCK	RIM		W/I	SG/E	HP			GRY	CLR	BLU				26	17

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
3	1		0	0	0	1	BOTT	STONEWARE			LIP	W/1	SG/E			MOLD	GRY	CLR				26	18
3	1		0	0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BODY						CRM	CLR	GLD			26	19
3	1		0	0	0	1	BOTT	STONEWARE			BODY	W/1	SLG/E				GRY	ORG				26	20
3	1		0	0	0	2	BOTT	GLASS			BODY						AQU					26	21
3	1		0	0	0	1	BOTT	GLASS	AUTO	PHARMACEUT	LIP/NECK	CORK		PATENT			CLR			BALL NECK		26	22
3	1		0	0	0	1	G/H	GLASS		MIRROR							AQU					26	23
3	1		0	0	0	2	CM	PORCELAIN		FIXTURE										BATHROOM FIXTURE (TOILET?)		26	24
3	1		0	0	0	4	HARD	FER-ALLOY	WIRE	NAIL												26	25
3	1		0	0	0	2	HARD	FER-ALLOY	CUT	NAIL												26	26
3	1		0	0	0	1	CM	CERAMIC		TILE	FRAGMENT						RED			THIN		26	27
3	1		0	0	0	1	BOTT	CORK		STOPPER							WHT			MINERALIZED		26	28
3	1		0	0	0	1	UNREC	LEAD												1.5" x 2" FLAT FRAG		26	29
3	1		0	0	0	1	MAMM	BONE			Longbone					BUTCH				CUT MARKS		26	30
3	1		0	0	0	1	FC/S	RE-EARTH	IS	PLATE	RIM			FLOW		SPALL		BLU		FROM STP ALONG BRICK WALL		27	1
3	1		0	0	0	1	FC/S	RE-EARTH	IS	HOLLOWWARE	BODY			UNDEC						FROM STP ALONG BRICK WALL		27	2
3	1		0	0	0	1	BOTT	GLASS			BODY						AQU			FROM STP ALONG BRICK WALL, (BLOWN)		27	3
3	1		0	0	0	2	MAMM	BONE			RIB					BUTCH				FROM STP ALONG BRICK WALL		27	4
**																							
*																							
3	1		5		0	17	1	FC/S	RE-EARTH	WW		RIM										40	1
3	1		5		0	17	1	CM	GLASS	.08"	WINDOW						AQU					40	2
3	1		5		0	17	1	CM	BRICK								RED	GRY		GLAZED		40	3
3	1		5		0	17	1	CM	BRICK								PNK			SALMON BRICK		40	4
*																							
3	1		5	A	1	0	1	TOB	BALLCLAY		PIPE	BOWL										31	1
3	1		5	A	1	0	3	FC/S	RE-EARTH	CW		BODY				UNDEC			SPALL			31	2
3	1		5	A	1	0	5	FC/S	RE-EARTH	PW		BASE				UNDEC			SPALL			31	3
3	1		5	A	1	0	1	FC/S	RE-EARTH	PW		BODY				HP			SPALL	BLU		31	4
3	1		5	A	1	0	1	FC/S	RE-EARTH	WW		BODY				TP			SPALL	BLK		31	5
3	1		5	A	1	0	1	FC/S	RE-EARTH	WW	FLATWARE	RIM				UNDEC						31	6

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
3	1		5	B	1	0	6	L/H COAL														33	25
3	1		5	B	1	0	3	UNREC FER-ALLOY													THIN FRAGS	33	26
3	1		5	B	1	0	1	UNREC FER-ALLOY													.2" FERROUS RIM FRAGMENT (1 IRONSTONE RIM FRAG IN CONCRETION)	33	27
3	1		5	B	1	0	8	OYS SHELL														33	28
3	1		5	B	1	0	4	MAMM BONE							BUTCH						SAWN	33	29
*																							
3	1		5	C	1	0	2	FC/S RE-EARTH	IS	HOLLOWWARE	BODY			UNDEC		MOLD						34	1
3	1		5	C	1	0	1	FC/S RE-EARTH	IS		BASE			UNDEC								34	2
3	1		5	C	1	0	1	FC/S RE-EARTH	PW	PLATE	RIM			EDGED		SPALL			GRN			34	3
3	1		5	C	1	0	1	FPREP CS-EARTH	RW	HOLLOWWARE	BODY	LG/1	UG/E					BRN				34	4
3	1		5	C	1	0	9	BOTT GLASS	BLOWN		BODY						AMB					34	5
3	1		5	C	1	0	4	BOTT GLASS			BODY						PUR			SOLARIZED		34	6
3	1		5	C	1	0	1	VESS GLASS	MOLD		BASE						CLR			CONTACT MOLD		34	7
3	1		5	C	1	0	1	UNREC GLASS								MOLT		AQU				34	8
3	1		5	C	1	0	3	CM GLASS	.1"	WINDOW							AQU					34	9
3	1		5	C	1	0	1	HARD FER-ALLOY	WROUGHT	NAIL												34	10
3	1		5	C	1	0	8	UNREC FER-ALLOY													THIN FRAGS	34	11
3	1		5	C	1	0	1	C/F RUBBER		SHOE	SOLE											34	12
3	1		5	C	1	0	1	CM BRICK														34	13
3	1		5	C	1	0	2	L/H COAL														34	14
3	1		5	C	1	0	4	OYS SHELL														34	15
3	1		5	C	1	0	2	MAMM BONE														34	16
3	1		5	C	1	0	1	MAMM TOOTH														34	17
*																							
3	1		5	D	1	0	1	FC/S RE-EARTH	PW	PLATE	RIM			SE						GRN		35	1
3	1		5	D	1	0	1	FC/S RE-EARTH	WW		BODY			TP	FLORAL					BLU		35	2
3	1		5	D	1	0	2	FC/S RE-EARTH	WW		BODY			UNDEC								35	3
3	1		5	D	1	0	1	BOTT GLASS	BLOWN	PHARMACEUT	LIP/SH	CORK	LTOOL	PATENT						CLR		35	4
3	1		5	D	1	0	1	BOTT GLASS		WINE	BODY									OLV		35	5
3	1		5	D	1	0	1	VESS GLASS			BODY									CLR		35	6

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
3	1		5 D	1	0	2	CM	GLASS	.09"	WINDOW							AQU				35	7
3	1		5 D	1	0	1	CM	BRICK													35	8
3	1		5 D	1	0	3	OYS	SHELL													35	9
3	1		5 D	1	0	2	L/H	COAL													35	10
3	1		5 D	2	0	1	FC/S	RE-EARTH	PW	PLATE	RIM			SE					BLU		39	1
3	1		5 D	2	0	1	VESS	GLASS			BODY						CLR				39	2
3	1		5 D	2	0	1	L/H	SLAG												SLAG/CLINKER	39	3
3	1		5 D	2	0	1	C/F	LEATHER												POSS SHOE UPPER FRAG, GROMMET HOLE	39	4
3	1		5 D	2	0	1	CM	BRICK													39	5
3	1		5 D	2	0	1	L/H	COAL													39	6
**																						
*																						
3	1		6 A	1	0	1	TOB	BALLCLAY		PIPE	STEM						SPALL				41	1
3	1		6 A	1	0	2	FC/S	RE-EARTH	PW	PLATE	RIM/BOD			TP	FLORAL				BLU		41	2
3	1		6 A	1	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	RIM			TP					BLU		41	3
3	1		6 A	1	0	1	FPREP	CS-EARTH	RW	HOLLOWWARE	BODY	LG/I					SPALL		BRN		41	4
3	1		6 A	1	0	3	VESS	GLASS			BODY							CLR			41	5
3	1		6 A	1	0	1	VESS	GLASS			BODY								BLU	COBALT, FLAT GLASS	41	6
3	1		6 A	1	0	1	CM	GLASS	.1"	WINDOW									AQU		41	7
3	1		6 A	1	0	2	CM	GLASS	.08"	WINDOW									AQU		41	8
3	1		6 A	1	0	3	CM	GLASS	.05"	WINDOW									AQU		41	9
3	1		6 A	1	0	1	UNREC	GLASS									MOLT		AQU		41	10
3	1		6 A	1	0	5	HARD	FER-ALLOY	CUT	NAIL											41	11
3	1		6 A	1	0	1	HARD	FER-ALLOY	WIRE	NAIL											41	12
3	1		6 A	1	0	1	CM	BRICK													41	13
3	1		6 A	1	0	1	CM	MORTAR												COARSE SAND MORTAR	41	14
3	1		6 A	1	0	1	L/H	COAL													41	15
3	1		6 A	1	0	2	OYS	SHELL													41	16
3	1		6 A	1	0	1	COCKL	SHELL												SMALL (.3")	41	17
3	1		6 A	2	0	3	FAST	BONE		BUTTON	FRAGMENT									4-HOLE, DIAMETER=.65" (MEND)	42	1
3	1		6 A	2	0	1	FC/S	RE-EARTH	PW	PLATE	RIM			SE					BLU	W/ BUD	42	2

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
3	1		6 B	1	0	1	CM	GLASS	.07"	WINDOW							AQU					46	17
3	1		6 B	1	0	3	CM	GLASS	.1"	WINDOW							AQU					46	18
3	1		6 B	1	0	1	HARD	FER-ALLOY	CUT	NAIL												46	19
3	1		6 B	1	0	9	HARD	FER-ALLOY	CUT/WRT	NAIL												46	20
3	1		6 B	1	0	1	HARD	FER-ALLOY		BOLT												46	21
3	1		6 B	1	0	1	HARD	FER-ALLOY		NUT												46	22
3	1		6 B	1	0	2	CM	PLASTER											GRN	COARSE SAND PLASTER WITH AQUA GREEN PAINT		46	23
3	1		6 B	1	0	1	L/H	CINDER														46	24
3	1		6 B	1	0	1	MAMM	BONE								BURN						46	25
3	1		6 B	1	0	1	OYS	SHELL														46	26
3	1		6 B	2	14	1	FC/S	RE-EARTH	PW	HOLLOWWARE	RIM			TP	FLORAL				BLU			47	1
3	1		6 B	2	14	1	FC/S	RE-EARTH	CW		BODY			UNDEC		SPALL						47	2
3	1		6 B	2	14	1	FC/S	RE-EARTH	WW		BODY			HP					BLU			47	3
3	1		6 B	2	14	1	CM	GLASS	.05"	WINDOW									AQU			47	4
3	1		6 B	2	14	1	CM	GLASS	.07"	WINDOW									AQU			47	5
3	1		6 B	2	14	1	CM	PLASTER												COARSE SAND PLASTER		47	6
3	1		6 B	2	14	2	CM	BRICK											RED			47	7
3	1		6 B	2	14	2	HARD	FER-ALLOY	CUT/WRT	NAIL												47	8
3	1		6 B	2	14	1	L/H	COAL														47	9
3	1		6 B	2	14	2	OYS	SHELL														47	10
*																							
3	1		6 C	1	0	1	FC/S	RE-EARTH	IS	BOWL	RIM			UNDEC								48	1
3	1		6 C	1	0	1	CM	BRICK												RED		48	2
3	1		6 C	1	0	1	L/H	COAL														48	3
3	1		6 C	1	0	1	OYS	SHELL														48	4
**																							
*																							
3	1		7 A	1	0	1	FC/S	RE-EARTH	PW		BODY			UNDEC		SPALL						49	1
3	1		7 A	1	0	1	FC/S	RE-EARTH	PW		BODY			HP		SPALL			BLU			49	2

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
3	1		7 A	1	0	1	FC/S	RE-EARTH	CW		BODY			UNDEC		SPALL						49	3
3	1		7 A	1	0	1	FC/S	RE-EARTH	WW		BODY			HP	FLORAL				GRN			49	4
3	1		7 A	1	0	2	FC/S	PORCELAIN	CHINESE	SAUCER	RIM/BOD			HP		OG			POL	DEC=ORANGE BAND, BLUE CIRCLE		49	5
3	1		7 A	1	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BODY						CRM	CLR				49	6
3	1		7 A	1	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	SG/E				GRY	CLR				49	7
3	1		7 A	1	0	1	VESS	GLASS			BODY			FLASHED			CLR	RED				49	8
3	1		7 A	1	0	2	VESS	GLASS			BODY						CLR					49	9
3	1		7 A	1	0	1	VESS	GLASS	PRESS		BODY						CLR			MOLDED LEAF		49	10
3	1		7 A	1	0	1	BOTT	GLASS			BODY						GRN			DEEP GREEN		49	11
3	1		7 A	1	0	2	CM	GLASS	.05"	WINDOW							AQU					49	12
3	1		7 A	1	0	1	UNREC	GLASS								MOLT	AQU					49	13
3	1		7 A	1	0	4	HARD	FER-ALLOY	CUT/WRT	NAIL												49	14
3	1		7 A	1	0	4	CM	MORTAR												COARSE SAND MORTAR		49	15
3	1		7 A	1	0	1	CM	BRICK									RED					49	16
3	1		7 A	1	0	1	L/H	COAL														49	17
3	1		7 A	1	0	1	CM	WOOD												SMALL FRAG		49	18
3	1		7 A	1	0	1	OYS	SHELL														49	19
3	1		7 A	2	0	1	FC/S	RE-EARTH	IS	HOLLOWWARE	BODY			UNDEC		SPALL						50	1
3	1		7 A	2	0	1	FC/S	RE-EARTH	PW		BASE			UNDEC								50	2
3	1		7 A	2	0	1	FPREP	CS-EARTH	RW	HOLLOWWARE	BODY		UG/E			SPALL				(OR FLOWERPOT)		50	3
3	1		7 A	2	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	SG/E	UNDEC			GRY	CLR				50	4
3	1		7 A	2	0	3	BOTT	GLASS	MOLD		BODY						CLR					50	5
3	1		7 A	2	0	1	BOTT	GLASS	MOLD		BODY						AQU					50	6
3	1		7 A	2	0	1	CM	SLATE									GRY					50	7
3	1		7 A	2	0	1	CM	BRICK									RED					50	8
3	1		7 A	2	0	1	CM	BRICK									BUF			SALMON BRICK		50	9
3	1		7 A	2	0	1	CM	PLASTER												COARSE SAND PLASTER		50	10
3	1		7 A	2	0	1	MAMM	BONE			LONGBONE					BUTCH				SAWN		50	11
3	1		7 A	2	0	2	L/H	COAL														50	12
3	1		7 A	2	0	2	OYS	SHELL														50	13
3	1		7 A	3	0	1	FC/S	RE-EARTH	WW		BASE			TP	FLORAL				BLU			51	1
3	1		7 A	3	0	1	FC/S	RE-EARTH	WW		BASE			TP	LAND	BURN			BLU			51	2
3	1		7 A	3	0	1	CONTR	GLASS	MOLD	FRUITJAR	LIDLINER					EMBOS	WHT			"..IN.."		51	3

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART		
**																								
*																								
3	2				0	0	0	1 FC/S	RE-EARTH	IS	BOWL	RIM		UNDEC								28	1	
3	2				0	0	0	1 FC/S	RE-EARTH	IS	SAUCER	RIM		UNDEC									28	2
3	2				0	0	0	1 REC	PORCELAIN		DOLL	LEG		UNDEC							SMALL, MOLDED BISQUE	28	3	
*																								
4	1				0	F	0	0	1 FAST	CUPR-ALLOY	BUTTON	WHOLE					MOLD				3-PIECE, EMBOSSED EAGLE/SEAL/GLOBE, DIAMETER=1.15"	36	1	
4	1				0	F	0	0	1 FAST	M-PEARL	BUTTON	WHOLE									2-HOLE, DIAMETER=.9"	36	2	
4	1				0	F	0	0	3 REC	PORCELAIN	DOLL	EAR,NECK					MOLD	WHT		PNK	LARGE BISQUE HEAD, ROSE TINT	36	3	
4	1				0	F	0	0	4 CONTR	RE-EARTH	IS	FLOWERPOT	RIM/BOD		HP/GILD	FLORAL	MOLD			POL	BASKETWEAVE MOLD, GREEN AND ORANGE CRUDELY PAINTED OVERGLAZE MOLDED FLOWERS	36	4	
4	1				0	F	0	0	1 CONTR	RE-EARTH	IS	FLOWERPOT	HANDLE				MOLD				CASKET-STYLE BAR HANDLE	36	5	
4	1				0	F	0	0	1 CONTR	RE-EARTH	IS	FLOWERPOT	RIM		TP	FLORAL	MOLD			GRN	LEAVES, POSS FLOWERPOT	36	6	
4	1				0	F	0	0	1 FC/S	RE-EARTH	IS	PLATE	RIM		FLOW	FLORAL				BLU		36	7	
4	1				0	F	0	0	1 FC/S	RE-EARTH	IS	PLATE	RIM		TP/GILD	FLORAL	OG			POL	DEC=YELLOW, PINK, GREEN, CREAM-COLORED GLAZE, SILVER BAND	36	8	
4	1				0	F	0	0	1 FC/S	RE-EARTH	IS	PLATE	BASE		TP	ORIENT				BLU		36	9	
4	1				0	F	0	0	1 FC/S	RE-EARTH	IS	PLATE	RIM		UNDEC		MOLD					36	10	
4	1				0	F	0	0	1 FC/S	RE-EARTH	IS	SAUCER	RIM		UNDEC							36	11	
4	1				0	F	0	0	1 FC/S	RE-EARTH	IS	FLATWARE	RIM		GILD							36	12	
4	1				0	F	0	0	1 FC/S	RE-EARTH	RW	BODY	SLG/I	SLG/E				RED	CLR	POL	WHITE SLIP-GLAZED INTERIOR, BLUE SLIP-GLAZED EXTERIOR	36	13	
4	1				0	F	0	0	4 FC/S	RE-EARTH	IS	BASE/BOD			UNDEC							36	14	
4	1				0	F	0	0	1 FC/S	PORCELAIN		BASE			UNDEC					BMARK	"CHAS P ..." IN BLUE OVERGLAZE	36	15	
4	1				0	F	0	0	1 FC/S	PORCELAIN		HOLLOWWARE	BASE		UNDEC					BMARK	"Z.S. & CO. / BAVARIA" (ZEH,SCHERZER & CO.)	36	16	
4	1				0	F	0	0	1 FC/S	PORCELAIN		HOLLOWWARE	BASE		UNDEC							36	17	
4	1				0	F	0	0	1 FC/S	PORCELAIN		BOWL	RIM		GILD		MOLD				RIBBED, GILT BAND	36	18	
4	1				0	F	0	0	1 FC/S	PORCELAIN		BOWL	RIM		GILD		MOLD				CURVILINEAR RELIEF	36	19	

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
4	1			0	F	0	0	1 FC/S	PORCELAIN	BOWL	RIM/BASE				HP/GILD	FLORAL				POL	DEC=BLUE, GREEN, ORANGE	36	20
4	1			0	F	0	0	2 FC/S	PORCELAIN	HOLLOWWARE	BODY				UNDEC							36	21
4	1			0	F	0	0	2 FC/S	PORCELAIN	TEACUP	RIM				UNDEC							36	22
4	1			0	F	0	0	4 FSTOR	STONEWARE	AMSW	HOLLOWWARE	BASE/BOD	ALB/I	BRI/E			BUF					36	23
4	1			0	F	0	0	1 FC/S	STONEWARE	AMSW	TEAPOT	LID	UG/I	ALB/E			BUF				TWO INCH DIAMETER LID WITH SMALL HOLE, FINIAL	36	24
4	1			0	F	0	0	1 CM	CERAMIC		TILE	FRAGMENT	UG/I	G/E		MOLD	WHT	BLU			POWDER BLUE, "...M 301 MADE IN ..."	36	25
4	1			0	F	0	0	2 BOTT	GLASS	AUTO	EFFERVESC	LIP/NECK	CROWN		CROWN		AQU				OWENS	36	26
4	1			0	F	0	0	1 BOTT	GLASS	AUTO	EFFERVESC	LIP	CROWN		CROWN		GRN				BRIGHT GREEN	36	27
4	1			0	F	0	0	3 BOTT	GLASS	MOLD		BODY					AMB					36	28
4	1			0	F	0	0	2 BOTT	GLASS	MOLD		BODY				EMBOS	AMB				"TRADE/W/MARK" IN SHIELD W/CROWN	36	29
4	1			0	F	0	0	2 CONTR	GLASS	MOLD	FRUITJAR	LIDLINER				EMBOS	WHT				ONE EMBOSSED "... FOR ..."	36	30
4	1			0	F	0	0	1 CONTR	GLASS	AUTO	FRUITJAR	LIP	SCREW				AQU				AQUA BLUE	36	31
4	1			0	F	0	0	1 CONTR	GLASS	AUTO	FRUITJAR	HEEL					AQU				AQUA BLUE	36	32
4	1			0	F	0	0	1 CONTR	GLASS	AUTO	FRUITJAR	BASE			OWENS	EMBOS	AQU				AQUA BLUE, "6" UNDERLINED ON BASE	36	33
4	1			0	F	0	0	1 CONTR	GLASS	AUTO	FRUITJAR	BASE			OWENS	EMBOS	AQU				AQUA BLUE, "...L"? ON BASE	36	34
4	1			0	F	0	0	1 CONTR	GLASS	AUTO	FRUITJAR	BASE			VALVE	EMBOS	AQU				AQUA BLUE, "B" ON BASE	36	35
4	1			0	F	0	0	2 BOTT	GLASS	AUTO	MILK	LIP					CLR					36	36
4	1			0	F	0	0	1 BOTT	GLASS	AUTO	MILK	WHOLE				EMBOS	PUR				SOLARIZED, "1/4 PINT"	36	37
4	1			0	F	0	0	1 BOTT	GLASS	AUTO	MILK	SHOULDER				EMBOS	CLR				"SEALED BI ..." AND DECORATIVE BEADS	36	38
4	1			0	F	0	0	1 CONTR	GLASS	AUTO	FRUITJAR	BASE			VALVE	EMBOS	CLR				"HLA / 27"	36	39
4	1			0	F	0	0	1 CONTR	GLASS	AUTO	JUG	LIP/NECK	SCREW				CLR				W/ LOOP HANDLE	36	40
4	1			0	F	0	0	1 VESS	GLASS	MOLD	TUMBLER	WHOLE					CLR				FLUTED LOWER PORTION	36	41
4	1			0	F	0	0	1 VESS	GLASS	MOLD	JAR	WHOLE					CLR				SMALL PRESERVE JAR, STARBURST ON BASE, BEADED COLLAR	36	42
4	1			0	F	0	0	1 BOTT	GLASS	AUTO		BASE			OWENS	EMBOS	CLR				"DES.PAT./86565"	36	43
4	1			0	F	0	0	1 BOTT	GLASS	AUTO		BASE				EMBOS	CLR				"DESIGN.PAT.../L/H"	36	44
4	1			0	F	0	0	1 BOTT	GLASS	AUTO		BASE			OWENS	EMBOS	CLR				"I" IN DIAMOND AND CIRCLE	36	45
4	1			0	F	0	0	1 BOTT	GLASS	AUTO		BASE			OWENS	EMBOS	AQU				AQUA BLUE, DECORATIVE RECESSED PANELS, PARTIAL EMBOSSED LETTER ON BASE	36	46
4	1			0	F	0	0	1 BOTT	GLASS	BLOWN		BASE					GRN				AQUA GREEN	36	47
4	1			0	F	0	0	2 BOTT	GLASS	BLOWN		BASE					CLR					36	48

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG ART	
4	1		O	F	0	0	8	BOTT	GLASS	MOLD										CLR	36 49	
4	1		O	F	0	0	1	BOTT	GLASS	MOLD						EMBOS	AQU			EMBOSSED CIRCLES/LINES	36 50	
4	1		O	F	0	0	1	VESS	GLASS	AUTO	COSMETIC	WHOLE	SCREW			EMBOS	WHT			COLD CREAM, "PONDS"	36 51	
4	1		O	F	0	0	1	VESS	GLASS	AUTO	COSMETIC	WHOLE	SCREW							COLD CREAM	36 52	
4	1		O	F	0	0	1	VESS	GLASS	AUTO	COSMETIC	WHOLE	SCREW		OWENS	EMBOS	CLR			PINK NAIL POLISH REMNANTS AND BRUSH IN BOTTLE, "PAT/PNDG/12/6" AND DIAMOND AND O SYMBOL	36 53	
4	1		O	F	0	0	1	VESS	GLASS	AUTO	PHARMACEUT	WHOLE	SCREW		VALVE	EMBOS	BLU			COBALT, 3-LUG SCREW CLOSURE, "EMERSON DRUG CO./BROMO-SELTZER"	36 54	
4	1		O	F	0	0	1	VESS	GLASS	AUTO	PHARMACEUT	LIP	SCREW				BLU			COBALT	36 55	
4	1		O	F	0	0	1	BOTT	GLASS	AUTO	PHARMACEUT	WHOLE	CORK		VALVE			CLR		SMALL ROUND W/ PATENT-SHAPED LIP	36 56	
4	1		O	F	0	0	1	BOTT	GLASS	MOLD	PHARMACEUT	BODY				EMBOS	AQU			"..R'S CUFO../..AIN FO../..HINGT.." ON RECESSED PANEL	36 57	
4	1		O	F	0	0	1	BOTT	GLASS	MOLD	EXTRACT	BODY				EMBOS	PUR			"..RM../..[E]XTRACT../..SPICES"	36 58	
4	1		O	F	0	0	1	BOTT	GLASS	BLOWN	EXTRACT	BASE/BOD				EMBOS	CLR			"..EXTRACTS" ON SIDE PANELS	36 59	
4	1		O	F	0	0	1	BOTT	GLASS	BLOWN	PHARMACEUT	LIP/SH	CORK	LTOOL	PRESCR				CLR	PANELED	36 60	
4	1		O	F	0	0	1	BOTT	GLASS	BLOWN		LIP/SH	CORK	LTOOL	ROUND				CLR	PANELED	36 61	
4	1		O	F	0	0	1	BOTT	GLASS	BLOWN	FLASK	LIP/SH	CORK	LTOOL	DAVIS				CLR	STRAPPED	36 62	
4	1		O	F	0	0	1	BOTT	GLASS	BLOWN	PHARMACEUT	LIP/NECK	CORK	LTOOL	PATENT				AQU	BALL NECK	36 63	
4	1		O	F	0	0	1	BOTT	GLASS	BLOWN	PHARMACEUT	LIP/SH	CORK	LTOOL	DAVIS		MOLT		CLR		36 64	
4	1		O	F	0	0	1	BOTT	GLASS	BLOWN		NECK					MOLT		PUR	SOLARIZED	36 65	
4	1		O	F	0	0	3	BOTT	GLASS	BLOWN		NECK					MOLT		PUR	BALL NECKS	36 66	
4	1		O	F	0	0	1	BOTT	GLASS	BLOWN		NECK					MOLT		CLR		36 67	
4	1		O	F	0	0	1	BOTT	GLASS	AUTO		LIP/SH	SCREW				MOLT		CLR	PANELED	36 68	
4	1		O	F	0	0	1	BOTT	GLASS	BLOWN	PHARMACEUT	LIP/SH	CORK	LTOOL	PATENT				MOLT	PUR	BALL NECK, SOLARIZED, BLACKENED	36 69
4	1		O	F	0	0	1	BOTT	GLASS	BLOWN		NECK/SH						MOLT	CLR	BALL NECK, BLACKENED	36 70	
4	1		O	F	0	0	1	BOTT	GLASS	MOLD		BODY					BURN		CLR	BLACKENED RECESSED PANEL	36 71	
4	1		O	F	0	0	1	VESS	GLASS	MOLD		BASE					BURN		CLR	EMBOSSED STARBURST ON BASE, STIPPLED DIAMONDS ON SIDES, BLACKENED	36 72	
4	1		O	F	0	0	1	UNREC	GLASS								MOLT		AMB		36 73	
4	1		O	F	0	0	1	UNREC	GLASS								MOLT		GRN	LIGHT LIME GREEN	36 74	
4	1		O	F	0	0	1	UNREC	GLASS								MOLT		GRN	AQUA GREEN	36 75	
4	1		O	F	0	0	1	UNREC	GLASS								MOLT		PUR	SOLARIZED	36 76	

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
4	1		0	F	0	0	1	UNREC GLASS								MOLT	CLR			SLIGHT AMBER TINT, SELENIUM SOLARIZED?	36	77
4	1		0	F	0	0	4	UNREC GLASS								MOLT	CLR				36	78
4	1		0	F	0	0	1	UNREC GLASS								MOLT	CLR			W/ LARGE BEAD (MOLTEN VESSEL?)	36	79
4	1		0	F	0	0	1	UNREC GLASS								MOLT	CLR			THIN CURVED HOLLOW FRAG	36	80
4	1		0	F	0	0	1	L/H GLASS		LIGHTBULB	FRAGMENT						CLR			OR VIAL/TUBING	36	81
4	1		0	F	0	0	1	CM BRICK									RED			BLACKENED SURFACE	36	82
4	1		0	F	0	0	1	CM BRICK									YEL			COARSE YELLOW BRICK WITH THICK CLEAR/GREEN GLAZE ON INTERIOR AND EXTERIOR SURFACES	36	83
4	1		0	F	0	0	1	L/H CUPR-ALLOY		LAMP	OUTLET									ELECTIC LIGHTBULB OUTLET	36	84
4	1		0	F	0	0	1	L/H SLAG												CLINKER/SLAG	36	85
4	1		0	F	0	0	2	HARD FER-ALLOY	WIRE	NAIL											36	86
4	1		0	F	0	0	2	HARD FER-ALLOY	WIRE	WIRE										HEAVY WIRE, ONE WITH FOLDED END	36	87
4	1		0	F	0	0	6	UNREC FER-ALLOY												THIN CURVED FRAGMENTS, POSS PIPING	36	88
4	1		0	F	0	0	1	CM GLASS	.1"	WINDOW								AQU			36	89
4	2		0	F	0	0	1	BOTT GLASS	BLOWN	EFFERVESC	LIP/NECK	LIGHT	LTOOL	BLOB				AQU		FINISHED W/INTERNAL STOPPER SEAT	37	1
*	4	2	0	G	0	0	1	CONTR RE-EARTH	IS	HOLLOWWARE	RIM			UNDEC						JAR/CANNISTER	38	1
	4	2	0	G	0	0	1	VESS GLASS	MOLD		LID									LARGE MOLDED LID W/ FINIAL	38	2
	4	2	0	G	0	0	1	BOTT GLASS	BLOWN	EFFERVESC	LIP	LIGHT	LTOOL	BLOB				AQU		FINISHED W/INTERNAL STOPPER SEAT	38	3
	4	2	0	G	0	0	2	BOTT GLASS	MOLD	PHARMACEUT	BASE/BOD									SMALL ROUND	38	4
	4	2	0	G	0	0	1	BOTT GLASS	MOLD		BODY										38	5
	4	2	0	G	0	0	1	BOTT GLASS	MOLD		BODY								BLU	COBALT, HEAVY (PROB BLOWN)	38	6
	4	2	0	G	0	0	1	BOTT GLASS	MOLD		BODY							EMBOS	CLR	"..[A]LBERT BR..." ON SIDE	38	7
	4	2	0	G	0	0	1	UNREC GLASS										MOLT	AQU		38	8
*	5		0	SF	0	0	1	UNREC GLASS			FRAGMENT									S. END OF LOT 13B, SPALL	1	1
	5		0	SF	0	0	5	UNREC GLASS			FRAGMENT									S. END OF LOT 13B, AQUA-BLUE	1	2
	5		0	SF	0	0	1	UNREC GLASS			FRAGMENT									S. END OF LOT 13B, AQUA-GREEN	1	3
	5		0	SF	0	0	1	BOTT GLASS	BLOWN		NECK									S. END OF LOT 13B	1	4

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
5			0	SF	0	0	1	PREH	QUARTZ								WHT			S. END OF LOT 13B, WHOLE FLAKE, WEIGHT=9.9 g.	1	5
*																						
5	1		0		0	0	1	REC	GLASS	MARBLE							PUR	WHT		SWIRLED	29	1
5	1		0		0	0	1	TOB	BALLCLAY	PIPE	BOWL					MOLD				RIBBED	29	2
5	1		0		0	0	2	TOB	BALLCLAY	5/64	PIPE	STEM									29	3
5	1		0		0	0	2	FC/S	RE-EARTH	WW	PLATE	RIM/BOD		UNDEC		MOLD				MEND	29	4
5	1		0		0	0	3	FC/S	RE-EARTH	WW	FLATWARE	BODY		TP	LAND	SPALL			BLU		29	5
5	1		0		0	0	2	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY		TP	GEO	SPALL			BLU		29	6
5	1		0		0	0	1	FC/S	RE-EARTH	IS	FLATWARE	RIM		TP	GEO	SPALL			BLU		29	7
5	1		0		0	0	1	FC/S	RE-EARTH	IS	FLATWARE	BODY		HP	FLORAL	MOLD	BUF	POL	RED	BROWN SLIP-GLAZED EXTERIOR	29	8
5	1		0		0	0	1	FC/S	RE-EARTH	IS	TEACUP	RIM/BOD		TP	FLORAL	MOLD			RED		29	9
5	1		0		0	0	1	FC/S	RE-EARTH	IS	HOLLOWWARE	BASE		TP	LAND				BLU		29	10
5	1		0		0	0	1	FC/S	RE-EARTH	IS	FLATWARE	RIM		UNDEC		MOLD					29	11
5	1		0		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	RIM		UNDEC							29	12
5	1		0		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	BASE		HP		SPALL			BLU		29	13
5	1		0		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BASE		HP					POL	GREEN/BROWN FLORAL	29	14
5	1		0		0	0	2	FC/S	PORCELAIN		HOLLOWWARE	BODY		LUSTRE					GLD	VERY THIN	29	15
5	1		0		0	0	1	REC	PORCELAIN		DOLL	LEG		HP					POL	W/ BLUE RIBBON BELOW KNEE, BROWN BOOT	29	16
5	1		0		0	0	1	VESS	GLASS	MOLD		BASE/BOD							WHT		29	17
5	1		0		0	0	3	BOTT	STONEWARE	C&G	GINGERBEER	BASE/BOD							CRM	CLR	29	18
5	1		0		0	0	2	CONTR	CS-EARTH	TERRA	FLOWERPOT	BASE/BOD	UG/I	UG/E							29	19
5	1		0		0	0	1	BOTT	GLASS		WINE	BODY							OLV		29	20
5	1		0		0	0	1	BOTT	GLASS	MOLD	WINE	BASE							OLV	BELL SHAPED PUSH-UP	29	21
5	1		0		0	0	1	VESS	GLASS	PRESS	DISH	BASE			MOLD	PUR				STARBURST PATTERN, SOLARIZED	29	22
5	1		0		0	0	1	UNREC	GLASS		FRAGMENT				MOLT	GRN					29	23
5	1		0		0	0	4	UNREC	GLASS		FRAGMENT				MOLT	AQU					29	24
5	1		0		0	0	1	VESS	GLASS	MOLD		BODY							CLR	RIBBED PORTION	29	25
5	1		0		0	0	5	BOTT	GLASS	BLOWN		BASE/BOD							AMB		29	26
5	1		0		0	0	1	BOTT	GLASS	MOLD		BODY			EMBOS	AMB				W/ DECORATIVE EMBOSING	29	27
5	1		0		0	0	1	BOTT	GLASS	BLOWN		BODY							AMB	RECESSED PANEL	29	28

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
5	1		0	0	0	1	BOTT	GLASS	BLOWN	PHARMACEUT	BASE						AQU				29	29
5	1		0	0	0	1	BOTT	GLASS	BLOWN		BASE						AQU				29	30
5	1		0	0	0	1	BOTT	GLASS	BLOWN	PHARMACEUT	BASE/BOD						AQU			RECESSED PANEL	29	31
5	1		0	0	0	1	BOTT	GLASS	BLOWN	PHARMACEUT	NECK						AQU				29	32
5	1		0	0	0	1	BOTT	GLASS	AUTO	BEER	LIP/NECK	CROWN		CROWN			AMB				29	33
5	1		0	0	0	1	BOTT	GLASS	BLOWN	BAKINGSODA	LIP/NECK	CORK	LTOOL	PATENT			AQU				29	34
5	1		0	0	0	1	BOTT	GLASS	BLOWN	EFFERVESC	LIP/NECK	CROWN	LTOOL	CROWN			AQU				29	35
5	1		0	0	0	1	BOTT	GLASS	BLOWN	PHARMACEUT	LIP/NECK	CORK	LTOOL		MOLT		AQU				29	36
5	1		0	0	0	1	BOTT	GLASS	BLOWN		LIP/NECK	CROWN	LTOOL	CROWN			CLR				29	37
5	1		0	0	0	2	CM	GLASS	.1"	WINDOW							AQU				29	38
5	1		0	0	0	1	CONTR	GLASS	MOLD	FRUITJAR	LIDLINER				EMBOS		WHT			"..[GEJN[UINE].."	29	39
5	1		0	0	0	1	CM	GLASS	.3"	WINDOW					COMP		AQU			RIBBED SAFETY GLASS, W/ WIRE INSIDE	29	40
5	1		0	0	0	1	CM	PORCELAIN		FIXTURE										INDUSTRIAL PORCELAIN	29	41
5	1		0	0	0	1	L/H	CINDER													29	42
5	1		0	0	0	1	HARD	FER-ALLOY	WIRE	SPIKE											29	43
*																						
5	1		0	A	0	0	1	FC/S	RE-EARTH	PW	BASE			HP						OLV	12	1
5	1		0	A	0	0	2	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY		TP	WILLOW					BLU	12	2
5	1		0	A	0	0	1	FC/S	RE-EARTH	WW	SAUCER	RIM		Sponge						BLU	12	3
5	1		0	A	0	0	1	FC/S	RE-EARTH	RW	HOLLOWWARE	BODY	LG/I	LG/E			RED	CLR	WHT	WHITE SLIPPED INTERIOR, MOTTLED WHITE/RED EXTERIOR	12	4
5	1		0	A	0	0	5	FC/S	RE-EARTH	IS	BODY			UNDEC							12	5
5	1		0	A	0	0	1	FC/S	RE-EARTH	IS	PLATE	RIM		UNDEC							12	6
5	1		0	A	0	0	1	FC/S	RE-EARTH	IS	SAUCER	RIM		UNDEC							12	7
5	1		0	A	0	0	1	G/H	RE-EARTH	IS	BASIN	RIM		UNDEC							12	8
5	1		0	A	0	0	1	FC/S	RE-EARTH	IJACK	TEAPOT	SPOUT									12	9
5	1		0	A	0	0	1	FC/S	RE-EARTH	RB	TEAPOT	RIM									12	10
5	1		0	A	0	0	1	FPREP	RE-EARTH	RW	HOLLOWWARE	BODY					ORG	CLR			12	11
5	1		0	A	0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	SG/I	SG/E	UNDEC		GRY	CLR		BROWN INTERIOR GLAZE	12	12
5	1		0	A	0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	BRI/I	BRI/E	Sponge		GRY	WHT	BLU		12	13
5	1		0	A	0	0	1	FC/S	STONEWARE	GERMAN	HOLLOWWARE	BODY	SG/I	SG/E	HP		INCIS	GRY	CLR	BLU	12	14
5	1		0	A	0	0	2	BOTT	GLASS	BLOWN	PHARMACEUT	BASE/BOD					EMBOS	AQU		"[DR. KILMERS/S]WAMP ROOT/[KI]DNEY LIVER/AND BLADDER CURE/BINGHAMTON/NY USA" ON RECESSED PANEL, CHAMFERED CORNERS	12	15

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
5	1		0	A	0	0	1	BOTT	GLASS	BLOWN	PHARMACEUT	LIP/SH	CORK	LTOOL	PRESCR		CLR			PANELED	12	16
5	1		0	A	0	0	1	BOTT	GLASS	BLOWN							AMB				12	17
5	1		0	A	0	0	1	BOTT	GLASS								AQU				12	18
5	1		0	A	0	0	1	BOTT	GLASS	BLOWN						EMBOS	AQU			"N[OT T]O B[E S]OL[D]" ON HEEL, "TRADE MARK" AND "F" IN DIAMOND ON BASE (FRANK H. FINLEY & SON)	12	19
5	1		0	A	0	0	1	UNREC	GLASS							MOLT	AQU				12	20
5	1		0	A	0	0	1	VESS	GLASS	MOLD	TUMBLER						CLR			RIBBED LOWER HALF	12	21
5	1		0	A	0	0	1	CONTR	GLASS	MOLD	FRUITJAR						WHT				12	22
5	1		0	A	0	0	1	UNREC	CUPR-ALLOY											THIN COPPER SHEET FRAG	12	23
*																						
7	1		0		0	0	1	FC/S	RE-EARTH	PW	PLATE	RIM			SE				BLU	CELLAR FOUNDATION	55	1
7	1		0		0	0	1	BOTT	GLASS	BLOWN	PHARMACEUT	LIP	CORK	LTOOL	PATENT				AQU	CELLAR FOUNDATION, SMALL SQUARE	55	2
7	1		0		0	0	1	BOTT	GLASS	BLOWN	PHARMACEUT	BODY					EMBOS	AQU	CELLAR FOUNDATION, "[H]AZELTINE .. " ON RECESSED PANEL	55	3	
7	1		0		0	0	1	BOTT	GLASS	BLOWN					GTIP		CLR			CELLAR FOUNDATION	55	4
7	1		0		0	0	4	BOTT	GLASS								CLR			CELLAR FOUNDATION	55	5
7	1		0		0	0	7	CM	GLASS	.12"	WINDOW						AQU			CELLAR FOUNDATION	55	6
7	1		0		0	0	9	CM	GLASS	.12"	WINDOW						CLR			CELLAR FOUNDATION	55	7
7	1		0		0	0	2	UNREC	GLASS							MOLD	AQU			CELLAR FOUNDATION, OPAQUE GLASS, ENAMELED "C.."	55	8
7	1		0		0	0	1	HARD	FER-ALLOY	WIRE	SPIKE									CELLAR FOUNDATION	55	9
7	1		0		0	0	4	HARD	FER-ALLOY	CUT	NAIL									CELLAR FOUNDATION	55	10
7	1		0		0	0	2	CM	PLASTER										POL	CELLAR FOUNDATION, PAINT LAYERS FROM BOTTOM: SILVER, GREEN, SALMON	55	11
7	1		0		0	0	2	CM	PLASTER										BLU	CELLAR FOUNDATION, PAINTED BLUE, W/ LATH IMPRESSION	55	12
7	1		0		0	0	1	CM	PLASTER										BRN	CELLAR FOUNDATION, PAINTED BROWN STRIP	55	13
7	1		0		0	0	1	L/H	SLAG											CELLAR FOUNDATION, GLASS SLAG	55	14
7	1		0		0	0	1	COW	BONE		FEMUR					BUTCH				CELLAR FOUNDATION, SAWN	55	15
7	1		0		0	0	1	MAMM	BONE											CELLAR FOUNDATION	55	16

CARLYLE PHASE II
ARTIFACT INVENTORY

AREA	TRENCH	UNIT	STR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
7	1			0	0	0	1	OYS	SHELL												CELLAR FOUNDATION	55	17
7	1			0	0	18	1	CM	CONCRETE												COAL, GLASS, BRICK, PEBBLE, ASH CONGLOMERATE	56	1

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
**																							
*																							
	0				0	0	1	TOB	BALLCLAY	4/64	PIPE	STEM									AREA 1A, BACKHOE	61	1
	0				0	0	3	BOTT	STONEWARE	C&G	GINGERBEER	WHOLE		LIGHT							BACKHOE	136	1
	0				0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	WHOLE		ROUND		STAMP					BACKHOE, "C"	136	2
	0				0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	WHOLE		LIGHT		STAMP					BACKHOE, "GROSVENOR/GLASGOW"	136	3
	0				0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	WHOLE		LIGHT		STAMP					BACKHOE, "GROSVENOR/4"	136	4
	0				0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	WHOLE		LIGHT		STAMP					BACKHOE, "GROSVENOR/10/..."	136	5
	0	B			0	0	1	FC/S	RE-EARTH	IS	TEACUP	RIM/HAND		UNDEC							STRUCTURE 1, TRASH PIT	60	1
	0	B			0	0	1	FC/S	RE-EARTH	IS	HOLLOWWARE	BODY		UNDEC							STRUCTURE 1, TRASH PIT	60	2
	0	B			0	0	6	BOTT	STONEWARE	C&G	GINGERBEER	BODY									STRUCTURE 1, TRASH PIT	60	3
	0	B			0	0	2	BOTT	STONEWARE	C&G	GINGERBEER	LIP		LIGHT							STRUCTURE 1, TRASH PIT	60	4
	0	B			0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE				STAMP					STRUCTURE 1, TRASH PIT,	60	5
																					"GROSVENOR/2/GLASGOW" ON HEEL		
	0	B			0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE				STAMP					STRUCTURE 1, TRASH PIT, ".KENNEDY" ON	60	6
																					HEEL		
	0	B			0	0	1	BOTT	GLASS	2P/SEP	BEER	WHOLE	CROWN	LTOOL	CROWN		EMBOS	AMB			STRUCTURE 1, TRASH PIT, "ROBERT PORTNER	60	7
																					BREWING CO./TRADE/ TIVOLI/ MARK/		
																					ALEXANDRIA,VA." ON SHOULDER, "EHE CO."		
																					ON HEEL		
	0	B			0	0	1	BOTT	GLASS	2P/SEP	BAKINGSODA	WHOLE	CORK	LTOOL	PATENT		EMBOS	AQU			STRUCTURE 1, TRASH PIT, "PARLIN.CO. THE	60	8
																					POTTER" ON SHOULDER		
	0	B			0	0	1	BOTT	GLASS	2P/SEP	PHARMACEUT	WHOLE	CORK	LTOOL	PRESCR		EMBOS	AQU			STRUCTURE 1, TRASH PIT, SQUARE PANELED	60	9
																					W/ CHAMFERED CORNERS, "B/84" ON BASE		
	0	B			0	0	1	BOTT	GLASS	2P/SEP	FLASK	WHOLE	CORK	LTOOL	VLIP			CLR			STRUCTURE 1, TRASH PIT, STRAPPED FLASK	60	10
	0	B			0	0	1	BOTT	GLASS			BODY				EMBOS	AQU				STRUCTURE 1, TRASH PIT, CURVED LINE	60	11
	0	B			0	0	1	BOTT	GLASS	BLOWN		LIP		LTOOL	STRT		SPALL	AQU			STRUCTURE 1, TRASH PIT	60	12
	0	B			0	0	9	BOTT	GLASS	MOLD		BOD/NECK						AQU			STRUCTURE 1, TRASH PIT	60	13
	0	B			0	0	1	UNREC	GLASS							MOLT	AQU				STRUCTURE 1, TRASH PIT	60	14
	0	B			0	0	1	BOTT	GLASS		WINE	BODY						OLV			STRUCTURE 1, TRASH PIT	60	15
	0	B			0	0	1	BOTT	GLASS		WINE	BASE						OLV			STRUCTURE 1, TRASH PIT, KICK	60	16
	0	B			0	0	16	BOTT	GLASS	MOLD		BODY						CLR			STRUCTURE 1, TRASH PIT	60	17

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
0	M		0	0		1	CM	WOOD													134	9	
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER LIP				LIGHT							BETWEEN CEMENT WALL	135	1
0	M		0	0		1	FSTOR	STONEWARE		HOLLOWWARE BODY		ALB/I					GRY	BRN			BETWEEN CEMENT WALL	135	2
0	M		0	0		1	FSTOR	STONEWARE	AMSW	HOLLOWWARE BOD/BASE		W/I	SG/E				GRY	CLR			BETWEEN CEMENT WALL	135	3
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER BOD/BASE											BETWEEN CEMENT WALL	135	4
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER WHOLE				LIGHT		STAMP					BETWEEN CEMENT WALL, "PRICE BRISTOL"	135	5
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER WHOLE				ROUND		STAMP					BETWEEN CEMENT WALL, ILLEGIBLE	135	6
0	M		0	0		3	BOTT	GLASS	BLOWN	BEER		BOD/BASE					AQU				MEND	137	1
0	M		0	0		1	BOTT	STONEWARE	AMSW			BOD/BASE	ALB/I			STAMP	GRY	BRN			".CG MUEDET"	137	2
0	M		0	0		1	BOTT	STONEWARE	AMSW			WHOLE	ALB/I	ALB/E		STAMP	GRY	BRN			"G SCHNELL"	137	3
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER WHOLE				LIGHT		STAMP					ILLEGIBLE	137	4
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER WHOLE				LIGHT		STAMP					"[GROSV]ENOR/./GLASGOW"	137	5
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER BOD/BASE						STAMP					"GROSVENOR/16/GLASGOW"	137	6
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER WHOLE				ROUND		STAMP					"GROSVENOR/6/GLASGOW"	137	7
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER WHOLE				LIGHT		STAMP					"[GROS]VENOR/15/[GLA]SGOW"	137	8
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER WHOLE				LIGHT		STAMP					"E"	137	9
0	M		0	0		1	FAST	GLASS		BUTTON											ALONG NORTH WALL, NE CORNER OF BASEMENT, DIAMETER= .55"	141	1
0	M		0	0		1	FAST	GLASS		BUTTON											ALONG NORTH WALL, NE CORNER OF BASEMENT, DIAMETER=.42"	141	2
0	M		0	0		1	REC	PORCELAIN	PARIAN	FIGURE				HP/GILD		MOLD			GLD		ALONG NORTH WALL, NE CORNER OF BASEMENT, ANGEL FIGURINE	141	3
0	M		0	0		1	FC/S	RE-EARTH	RB	HOLLOWWARE BOD/BASE						MOLD					ALONG NORTH WALL, NE CORNER OF BASEMENT	141	4
0	M		0	0		1	FSTOR	STONEWARE	AMSW	HOLLOWWARE BODY		ALB/I					GRY	BRN			ALONG NORTH WALL, NE CORNER OF BASEMENT	141	5
0	M		0	0		1	BOTT	GLASS	BLOWN	BEER	LIP	HUTCH LTOOL	BLOB				AQU				ALONG NORTH WALL, NE CORNER OF BASEMENT, IRON HUTCHINSON SPRING STOPPER IN PLACE	141	6
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER WHOLE				LIGHT		STAMP					ALONG NORTH WALL, NE CORNER OF BASEMENT, "GROSVENOR/18/GLASGOW"	141	7
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER WHOLE				LIGHT		STAMP					ALONG NORTH WALL, NE CORNER OF BASEMENT, "GROSVENOR/4/GLASGOW"	141	8
0	M		0	0		1	BOTT	STONEWARE	C&G	GINGERBEER WHOLE				LIGHT		STAMP					ALONG NORTH WALL, NE CORNER OF BASEMENT, "GROSVENOR/1/GLASGOW"	141	9

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
0	M			0	0	1	UNREC	FER-ALLOY												ALONG NORTH WALL, NE CORNER OF BASEMENT, T-SHAPED OBJECT, SIMILAR TO OBJECT IN BAG #140	141	10
0	V			0	0	1	TOB	BALLCLAY 4/64	PIPE	STEM											157	1
0	V			0	0	1	TOB	BALLCLAY 6/64	PIPE	STEM											157	2
0	V			0	0	9	FC/S	RE-EARTH PW	FLATWARE	BOD/BASE				UNDEC		SPALL					157	3
0	V			0	0	7	FC/S	RE-EARTH CW	FLATWARE	BOD/BASE				UNDEC		SPALL					157	4
0	V			0	0	2	FC/S	RE-EARTH		BODY						SPALL					157	5
0	V			0	0	1	FC/S	RE-EARTH YW	HOLLOWWARE	BODY				ANN				POL	DEC= BLUE/WHITE BANDS		157	6
0	V			0	0	1	FC/S	RE-EARTH PW	HOLLOWWARE	BODY				UNREC		SPALL		BLU			157	7
0	V			0	0	1	FC/S	RE-EARTH PW	FLATWARE	BASE				TP	UNREC			BLU			157	8
0	V			0	0	2	FC/S	RE-EARTH PW	FLATWARE	RIM				SE		SPALL		GRN			157	9
0	V			0	0	1	FC/S	RE-EARTH PW	FLATWARE	BODY				HP	GEO			BLU			157	10
0	V			0	0	2	FC/S	RE-EARTH WW	FLATWARE	RIM				SE		SPALL		BLU			157	11
0	V			0	0	1	FC/S	RE-EARTH WW	FLATWARE	BASE				TP	GEO			BLU			157	12
0	V			0	0	4	FC/S	RE-EARTH WW	FLATWARE	BODY				UNDEC							157	13
0	V			0	0	1	UNREC	SYNTHETIC		LABEL						STAMP				WOOD WITH CREAM PLASTIC TOP, "2484 G../SA.."	157	15
0	V			0	0	3	FC/S	PORCELAIN UNREC	HOLLOWWARE	BOD/BASE				UNDEC							157	16
0	V			0	0	1	FSTOR	STONEWARE	HOLLOWWARE	BODY	W/I	SG/E					GRY	BRN			157	17
0	V			0	0	1	FSTOR	STONEWARE	HOLLOWWARE	BODY	W/I					SPALL	GRY				157	18
0	V			0	0	1	FSTOR	STONEWARE	HOLLOWWARE	BODY						SPALL	GRY	BRN			157	19
0	V			0	0	14	BOTT	GLASS		BODY							AQU				157	21
0	V			0	0	9	BOTT	GLASS		WINE	BODY						OLV				157	22
0	V			0	0	2	BOTT	GLASS		BEER	BODY						AMB				157	23
0	V			0	0	7	BOTT	GLASS			BODY						CLR				157	24
0	V			0	0	1	UNREC	GLASS								MOLT	OLV				157	25
0	V			0	0	6	CM	GLASS		WINDOW							AQU				157	26
0	V			0	0	8	CM	MORTAR													157	27
0	V			0	0	3	CM	BRICK													157	28
0	V			0	0	3	L/H	COAL													157	29
0	V			0	0	3	CM	CHARCOAL													157	30
0	V			0	0	2	L/H	CLINKER													157	31

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
0				0	21	1	BOTT	GLASS		BEER	BODY						AMB				152	1
0				0	21	1	BOTT	GLASS			BODY						CLR				152	2
0				0	21	3	BOTT	GLASS			BODY						AQU				152	3
0				0	21	1	BOTT	GLASS			BODY						GRN				152	4
0				0	21	4	BOTT	GLASS		WINE	BODY						OLV				152	5
0				0	21	3	BOTT	STONEWARE	C&G	GINGERBEER	BODY						AQU				152	6
0				0	21	2	CM	GLASS		WINDOW											152	7
0				0	21	2	CM	BRICK													152	8
0				0	21	1	CM	BRICK							BURN						152	9
0				0	21	2	CM	CHARCOAL													152	10
0				0	21	9	CM	MORTAR													152	11
0				0	21	2	CM	CONCRETE							BMARK					ONE FRAGMENT WITH BIRD FOOTPRINT	152	12
0				0	21	2	HARD	FER-ALLOY		NAIL											152	13
0				0	21	1	CM	WOOD													152	14
0				0	21	2	L/H	COAL													152	15
0				0	21	1	CM	TAR													152	16
0				0	21	4	OYS	SHELL													152	17
0	N			0	22	1	HARD	CERAMIC		DOORKNOB	WHOLE		SCRODDL				POL	CLR		RED/YELLOW SCRODDED	153	1
0	N			0	22	1	FSTOR	STONEWARE			BODY				BURN		GRY				153	2
0	N			0	22	1	BOTT	STONEWARE	C&G	GINGERBEER	BODY										153	3
0	N			0	22	1	FC/S	RE-EARTH	WW	FLATWARE	RIM			UNDEC							153	4
0	N			0	22	4	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT LTOOL	BLOB				AQU				153	5
0	N			0	22	62	BOTT	GLASS			BOD/BASE						AQU				153	6
0	N			0	22	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"..HYGI.." (PORTNER)	153	7
0	N			0	22	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			W/ PORTIONS OF "THIS BOTTLE NOT TO BE SOLD"	153	8
0	N			0	22	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..O.."	153	9
0	N			0	22	5	UNREC	GLASS								MOLT	CLR				153	10
0	N			0	22	12	BOTT	GLASS			BODY						CLR				153	11
0	N			0	22	2	BOTT	GLASS			BODY					MOLT	AMB				153	12
0	N			0	22	1	BOTT	GLASS		WINE	BODY						OLV				153	13
0	N			0	22	1	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT LTOOL	BLOB				AMB				153	14

CARLYLE, SITE 44AX35, PHASE 111
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART		
0	N			0	22	1	CM	GLASS		WINDOW												153	15	
0	N			0	22	4	CM	CHARCOAL															153	16
0	N			0	22	2	CM	BRICK															153	17
0	N			0	22	1	CM	WOOD															153	18
0	N			0	22	34	HARD	FER-ALLOY		NAIL													153	19
0	N			0	22	4	UNREC	FER-ALLOY													FLAT FRAGMENTS		153	20
0	N			0	22	3	UNREC	CUPR-ALLOY													FLAT FRAGMENTS		153	21
0	N			0	22	1	UNREC	LEAD													AMORPHOUS FRAGMENT		153	22
0	N			0	22	1	CM	BRICK								BURN							153	23
0	N			0	22	1	L/H	COAL															153	24
0	N			0	22	1	L/H	COAL															153	24
0	N			0	23	4	CM	BRICK													E. WALL, BUILDER'S TRENCH, BASEMENT		154	1
0	N			0	23	1	CM	BRICK													E. WALL BUILDER'S TRENCH, BASEMENT, GLAZED		154	2
0	F			0	24	1	FC/S	RE-EARTH	PW	FLATWARE	RIM			SE		SPALL		GRN			BACKHOE		149	1
0	F			0	24	1	FC/S	RE-EARTH	RB	HOLLOWWARE	BODY					MOLD					BACKHOE, BURN		149	2
0	F			0	24	1	FC/S	RE-EARTH	WW	FLATWARE	RIM			FLOW				BLU			BACKHOE		149	3
0	F			0	24	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			TP	FLORAL			BLU			BACKHOE		149	4
0	F			0	24	1	BOTT	GLASS	BLOWN	WINE	LIP/NECK	CORK	HTOOL	STRT			OLV				BACKHOE		149	5
0	F			0	24	1	FSTOR	STONEWARE	AMSW	JAR	BOD/LIP	W/I					INCIS	GRY	BRN		BACKHOE		149	6
0	F			0	24	1	BOTT	STONEWARE	C&G	GINGERBEER	WHOLE			LIGHT							BACKHOE		149	7
0	F			0	24	2	VESS	GLASS	MOLD	MUG	BOD/HAND							CLR			BACKHOE, PANELED		149	8
0	F			0	24	1	HARD	FER-ALLOY		HORSESHOE											BACKHOE, WITH NAIL IN PLACE		149	9
0	F			0	24	1	UNREC	CUPR-ALLOY													BACKHOE, STRAPPING WITH RIVETS		149	10
0	F			0	24	1	MAMM	BONE								BUTCH					BACKHOE		149	11
0	N			0	24	1	REC	PORCELAIN		MARBLE				HP				GRN			BACKHOE		142	1
0	N			0	24	1	FC/S	RE-EARTH	IS	HOLLOWWARE	BOD/BASE			ANN				BLU			BACKHOE		142	2
0	N			0	24	1	FC/S	RE-EARTH	WW	FLATWARE	BODY			TP	FLORAL			POL			BACKHOE, DEC= BLUE/PINK		142	3
0	N			0	24	1	FC/S	RE-EARTH	PW	HOLLOWWARE	RIM			TP	FLORAL			BLU			BACKHOE		142	4
0	N			0	24	1	FC/S	RE-EARTH	PW	FLATWARE	RIM			HP		SPALL		BLU			BACKHOE		142	5
0	N			0	24	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	SG/E					GRY	CLR		BACKHOE		142	6
0	N			0	24	1	FSTOR	STONEWARE	AMSW	JUG	BOD/LIP	W/I	SG/E				STAMP	GRY	CLR		BACKHOE, "2", "BELL..SON"		142	7
0	N			0	24	1	STAT	GLASS	MOLD	INKWELL	BOD/BASE							AQU			BACKHOE, OCTAGONAL		142	8

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
0	N	0	24	1	BOTT	GLASS	MOLD	PHARMACEUT	WHOLE	CORK	LTOOL	PRESCR				EMBOS	CLR			BACKHOE, "JNO.T. COLE & CO./DRUGGISTS/ALEXANDRIA, VA."	142	9
0	N	0	24	1	BOTT	GLASS	BLOWN			BODY							AQU			BACKHOE	142	10
0	N	0	24	1	TOB	BALLCLAY	5/64	PIPE	STEM												146	1
0	N	0	24	1	BOTT	GLASS		WINE	BODY								OLV				146	2
0	N	0	24	11	BOTT	GLASS			BODY								AQU				146	3
0	N	0	24	1	BOTT	GLASS	BLOWN	BEER	BODY							EMBOS	AQU			".NI../TRA[DE]/TIV[OLI]/MA[ARK]..."	146	4
0	N	0	24	1	UNREC	GLASS										MOLT	AQU				146	5
0	N	0	24	2	UNREC	GLASS										MOLT	CLR				146	6
0	N	0	24	2	CM	WOOD															146	7
0	N	0	24	9	CM	CHARCOAL															146	8
0	N	0	24	13	CM	GLASS		WINDOW									AQU				146	9
0	N	0	24	2	CM	MORTAR															146	10
0	N	0	24	1	CM	MORTAR															146	11
0	N	0	24	1	CM	BRICK															146	12
0	N	0	24	5	CM	SLATE															146	13
0	N	0	24	17	HARD	FER-ALLOY		NAIL													146	14
0	N	0	24	1	HARD	FER-ALLOY		NAIL								COMP				MORTAR ADHERED TO NAIL	146	15
0	N	0	24	1	UNREC	CUPR-ALLOY														FLAT FRAGMENT	146	16
0	N	0	24	5	BOTT	STONEWARE	C&G	GINGERBEER	BODY												146	17
0	N	0	24	1	FC/S	RE-EARTH	WW	FLATWARE	RIM			UNDEC									147	1
0	N	0	24	1	UNREC	GLASS										MOLT	AQU				147	2
0	N	0	24	2	BOTT	GLASS	BLOWN		BODY								AQU				147	3
0	N	0	24	2	BOTT	GLASS		BEER	BODY							EMBOS	AQU			"THE ARLINGTON/BOTTLING CO./WASHINGTON D.C.", MEND	147	4
0	N	0	24	1	BOTT	GLASS	BLOWN	BEER	BODY							EMBOS	AQU			"ROBERT PORTNER/BREWING CO./TRADE TIVOLI MARK/ALEXANDRIA, VA."	147	5
0	N	0	24	1	HARD	FER-ALLOY		NAIL								COMP				SLATE ADHERED TO SURFACE	147	6
0	N	0	24	1	HARD	FER-ALLOY		TACK													147	7
0	N	0	24	1	CM	SLATE															147	8
0	N	0	24	4	CM	CHARCOAL															147	9
0	N	0	24	3	UNREC	FER-ALLOY		ROD													147	10
0	N	0	24	14	CONTR	PORCELAIN	BISQUE	VASE	WHOLE			UNDEC								BACKHOE, MEND	148	1

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART			
0	N	0	24	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY					UNDEC							BACKHOE	148	2		
0	N	0	24	1	FC/S	RE-EARTH	WW	FLATWARE	RIM					FE				BLU			BACKHOE	148	3		
0	N	0	24	1	FC/S	RE-EARTH	WW	FLATWARE	BASE					TP	ORIENT						BLU	BACKHOE	148	4	
0	N	0	24	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY					HP							BLU	BACKHOE	148	5	
0	N	0	24	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY					TP	FLORAL						BLU	BACKHOE	148	6	
0	N	0	24	1	FC/S	RE-EARTH	DELFT	HOLLOWWARE	BODY		TG/I	TG/E		UNDEC				BLU				BACKHOE	148	7	
0	N	0	24	1	FC/S	RE-EARTH	WW	HOLLOWWARE	RIM					UNDEC		MOLD						BACKHOE	148	8	
0	N	0	24	1	BOTT	GLASS	BLOWN		BOD/BASE							EMBOS	AQU					BACKHOE, "KORM.../NEW YORK"	148	9	
0	N	0	24	1	BOTT	STONEWARE	C&G	GINGERBEER	WHOLE													BACKHOE	148	10	
0	N	0	24	3	HARD	FER-ALLOY			NAIL													BACKHOE	148	11	
0	N	0	24	2	HARD	FER-ALLOY			SPIKE													BACKHOE	148	12	
0	N	0	24	1	CONTR	FER-ALLOY			BARREL	BAND												BACKHOE	148	13	
0	N	0	24	1	CONTR	CUPR-ALLOY			BARREL	TAP												BACKHOE, WITH CONNECTOR PIPE WHICH FITS INTO BUNG HOLE	148	14	
0	N	0	24	1	FC/S	RE-EARTH	WW	FLATWARE	RIM					UNDEC									156	1	
0	N	0	24	1	FC/S	RE-EARTH	IS	HOLLOWWARE	BODY					UNDEC										156	2
0	N	0	24	1	FC/S	RE-EARTH		FLATWARE	RIM							BURN								156	3
0	N	0	24	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE															156	4
0	N	0	24	1	BOTT	GLASS	BLOWN	BEER	BASE							EMBOS	AQU					"THIS BOTTLE NOT TO BE SOLD" ".../ALEXANDRIA.."	156	5	
0	N	0	24	1	BOTT	STONEWARE			LIP/NECK					LIGHT			BUF	ORG						156	6
0	N	0	24	1	BOTT	STONEWARE			BODY	W/I						STAMP	GRY	BRN				IN SCRIPT, "...NUM. 93"	156	7	
0	N	0	24	1	HARD	CERAMIC			DOORKNOB	WHOLE				SCRODDL			POL	CLR				RED/YELLOW SCRODDLED	156	8	
0	N	0	24	1	HARD	CUPR-ALLOY			HINGE													PAINTED WITH BLACK INK AND CARVED INTO A FLORAL DESIGN ON ONE SIDE, POSSIBLY GALVANIZED	156	9	
0	N	0	24	1	UNREC	CUPR-ALLOY										BURN						LARGE FLAT FRAGMENT	156	10	
0	N	0	24	2	MAMM	BONE										BUTCH								156	11
0	N	0	24	1	MAMM	HORN										BURN								156	12
0	N	0	24	2	CM	FER-ALLOY										COMP						ADHERED TO LATE MORTAR, POSSIBLY PIPE.	156	13	
0	N	0	24	1	UNREC	FER-ALLOY																LARGE IRON CONCRETION, NO VISIBLE CORE	156	14	
0	F	0	26	1	FC/S	RE-EARTH	WW	FLATWARE	BASE					UNDEC		SPALL						BACKHOE	159	1	
0	F	0	26	1	FC/S	RE-EARTH	WW	FLATWARE	RIM					FLOW		SPALL			BLU			BACKHOE	159	2	

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
0	F	0	26	1	FC/S	RE-EARTH	WW	FLATWARE	BODY					TP	WILLOW				BLU	BACKHOE	159	3
0	F	0	26	1	FC/S	RE-EARTH	WW	FLATWARE	BODY					TP	FLORAL				BLU	BACKHOE	159	4
0	F	0	26	1	FC/S	RE-EARTH	PW	HOLLOWWARE	RIM					TP	LAND				BLU	BACKHOE	159	5
0	F	0	26	1	FC/S	RE-EARTH	PW	FLATWARE	BODY					HP	FLORAL				BLU	BACKHOE	159	6
0	F	0	26	1	FC/S	RE-EARTH	PW		BOD/BASE					TP	GEO				BRN	BACKHOE	159	7
0	F	0	26	1	FC/S	RE-EARTH	PW		RIM					ANN					POL	BACKHOE, DEC= BLUE/BROWN BANDS	159	8
0	F	0	26	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY							MOLD		PNK	GRN	BACKHOE, DEC= GREEN LEAVES EXTERIOR/PINK GLAZE INTERIOR	159	9
0	F	0	26	1	BOTT	GLASS	BLOWN	WINE	BASE					GTIP			OLV			BACKHOE	159	10
0	F	0	26	1	BOTT	GLASS	BLOWN	BEER	BOD/BASE							EMBOS	AMB			BACKHOE, "..MARK../..XANDRI.."	159	11
0	F	0	26	1	BOTT	GLASS	BLOWN	BEER	BOD/BASE							EMBOS	AQU			BACKHOE, "NATIONAL/BREWING CO./1022 FAWN ST./BALTIMORE, MD." "THIS BOTTLE NOT TO BE SOLD"	159	12
0	F	0	26	1	BOTT	GLASS	BLOWN	BEER	BOD/BASE							EMBOS	AQU			BACKHOE, "ROBERT PORTNER/BREWING CO./TRADE TIVOLI MARK/ALEXANRIA, VA." " THIS BOTTLE NOT TO BE SOLD"	159	13
0	F	0	26	1	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE					LIGHT			STAMP			BACKHOE, ILLEGIBLE	159	14
0	V	0	26	6	FC/S	RE-EARTH	WW	FLATWARE	BODY					UNDEC			SPALL				155	1
0	V	0	26	1	FC/S	RE-EARTH			BODY								SPALL				155	2
0	V	0	26	1	FC/S	RE-EARTH	WW	FLATWARE	RIM					UNREC			SPALL		BLU		155	3
0	V	0	26	1	FC/S	RE-EARTH	WW	HOLLOWWARE	RIM					TP	FLORAL				BLU		155	4
0	V	0	26	2	FC/S	PORCELAIN	UNREC	FLATWARE	BODY					UNDEC							155	5
0	V	0	26	1	FC/S	PORCELAIN	UNREC	HOLLOWWARE	RIM					HP	GEO	OG			POL	DEC= BROWN/PURPLE	155	6
0	V	0	26	3	BOTT	STONEWARE	C&G	GINGERBEER	BODY												155	7
0	V	0	26	5	BOTT	GLASS			BODY								AQU				155	8
0	V	0	26	1	BOTT	GLASS			BODY								CLR				155	9
0	V	0	26	1	L/H	GLASS	BLOWN	LAMP	CHIMNEY								CLR				155	10
0	V	0	26	0	BOTT	GLASS	BLOWN		BODY							EMBOS	AMB			"..N.."	155	11
0	V	0	26	1	BOTT	GLASS			LIP		LTOOL	BLOB				SPALL	AQU				155	12
0	V	0	26	1	BOTT	GLASS		BEER	BODY								AMB				155	13
0	V	0	26	18	CM	GLASS		WINDOW									AQU				155	14
0	V	0	26	2	CM	BRICK															155	15
0	V	0	26	3	CM	SLATE															155	16

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
0	V			0	26	1	L/H	COAL													155	17
0	V			0	26	1	CM	CHARCOAL													155	18
0	V			0	26	6	CM	WOOD													155	19
0	V			0	26	14	HARD	FER-ALLOY		NAIL											155	20
0	V			0	26	1	HARD	FER-ALLOY		STAPLE											155	21
0	V			0	26	1	OYS	SHELL													155	22
0	V			0	26	1	MAMM	BONE													155	23
*																						
0	SF			0	ST1	1	BOTT	GLASS	2P/SEP	BEER	WHOLE	LIGHT	LTOOL		PONTIL	EMBOS	AQU			INSIDE STRUCTURE 1, LIGHTNING STOP INSIDE, IN SCRIPT "NBCO", "NORTH WESTERN/BOTTLING WORKS/1601-5TH ST. N.W./WASHINGTON D.C./REGISTERED/THIS BOTTLE NOT TO BE SOLD"	138	1
0	SF			0	ST1	1	BOTT	GLASS	AUTO	LIQUOR	WHOLE	CORK		ROUND		EMBOS	AQU			INSIDE STRUCTURE 1, "2 1/2 FL. OZ./11"	138	2
0	SF			0	ST1	1	BOTT	GLASS	AUTO	FLASK	WHOLE	SCREW				EMBOS	CLR			INSIDE STRUCTURE 1, "FEDERAL LAW FORBIDS SALE/ OR REUSE OF THIS BOTTLE" "D126/57-40/MADE IN USA"	138	3
*																						
0	J			0	ST2	1	FC/S	RE-EARTH	PW	FLATWARE	RIM			SE				GRN		STRUCTURE 2, FILL SAMPLE	139	1
0	J			0	ST2	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			ANN				BLU		STRUCTURE 2, FILL SAMPLE	139	2
0	J			0	ST2	1	FC/S	PORCELAIN	UNREC	HOLLOWWARE	BASE			UNDEC						STRUCTURE 2, FILL SAMPLE	139	3
0	J			0	ST2	1	BOTT	GLASS			BOD/NECK						AQU			STRUCTURE 2, FILL SAMPLE	139	4
0	J			0	ST2	1	CM	GLASS		WINDOW							AQU			STRUCTURE 2, FILL SAMPLE	139	5
0	J			0	ST2	2	CM	BRICK												STRUCTURE 2, FILL SAMPLE	139	6
0	J			0	ST2	1	CM	MORTAR												STRUCTURE 2, FILL SAMPLE	139	7
0	J			0	ST2	7	HARD	FER-ALLOY		NAIL										STRUCTURE 2, FILL SAMPLE	139	8
0	J			0	ST2	1	UNREC	FER-ALLOY												STRUCTURE 2, FILL SAMPLE, FLAT FRAGMENT	139	9
0	J			0	ST2	1	UNREC	LEATHER						COMP						STRUCTURE 2, FILL SAMPLE, LEATHER STRAP WITH COPPER RIVETS	139	10
0	J			0	ST2	2	UNREC	LEATHER		STRAP										STRUCTURE 2, FILL SAMPLE	139	11
0	J			0	ST2	3	OYS	SHELL												STRUCTURE 2, FILL SAMPLE	139	12

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
0	J	0	ST2		1	CLAM	SHELL													STRUCTURE 2, FILL SAMPLE	139	13
0	J	0	ST2		3	MAMM	BONE								BUTCH					STRUCTURE 2, FILL SAMPLE	139	14
0	J	0	ST2		2	TOB	BALLCLAY	5/64	PIPE	STEM										STRUCTURE 2, ASH LAYER	140	1
0	J	0	ST2		8	UNREC	GLASS								MOLT	AQU				STRUCTURE 2, ASH LAYER	140	2
0	J	0	ST2		1	FSTOR	STONEWARE			RIM					BURN					STRUCTURE 2, ASH LAYER	140	3
0	J	0	ST2		11	HARD	FER-ALLOY		NAIL											STRUCTURE 2, ASH LAYER	140	4
0	J	0	ST2		6	UNREC	CUPR-ALLOY													STRUCTURE 2, ASH LAYER, FLAT FRAGMENT	140	5
0	J	0	ST2		1	UNREC	CUPR-ALLOY													STRUCTURE 2, ASH LAYER, ROLLED FRAGMENT	140	6
0	J	0	ST2		1	CONTR	FER-ALLOY		BARREL	BAND										STRUCTURE 2, ASH LAYER, 7.3" X 1.5"	140	7
0	J	0	ST2		1	UNREC	FER-ALLOY													STRUCTURE 2, ASH LAYER, T-SHAPED	140	8
																				OBJECT, POSSIBLY HEAD OF TOOL		
0	J	0	ST2		3	CM	CHARCOAL													STRUCTURE 2, ASH LAYER	140	9
0	J	0	ST2		1	UNREC	PLASTIC													STRUCTURE 2, ASH LAYER	140	10
0	J	0	ST2		1	MAMM	BONE								BUTCH					STRUCTURE 2, ASH LAYER	140	11
0	J	0	ST2		1	C/F	LEATHER		SHOE												144	1
0	J	0	ST2		1	BOTT	GLASS	2P/SEP	BEER	WHOLE	LIGHT	LTOOL	BLOB	PONTIL	EMBOS	AQU				FROM BASE OF BRICK RAMP, "THIS	145	1
																				BOTTLE/NOT TO/BE SOLD/RETURN WHEN		
																				EMPTY" " ROBERT PORTNER/BREW COMP/TRADE		
																				HYGEIA MARK/ALEXANDRIA VA." "A" ON		
																				BOTTOM		
0	J	0	ST2		1	S/T	PORCELAIN	BISQUE	DARNING	EGG										FROM BASE OF BRICK RAMP	145	2
0	P	0	ST2		1	BOTT	GLASS	BLOWN	BEER	BOD/BASE					EMBOS	AQU				STRUCTURE 2, "J.F. WIESSNER &	160	1
																				BRO./BREWING CO./BALTIMORE, MD." "THIS		
																				BOTTLE IS NEVER SOLD"		
0	P	0	ST2		2	BOTT	GLASS	BLOWN	BEER	BOD/BASE				PONTIL		AQU				STRUCTURE 2	160	2
0	P	0	ST2		1	BOTT	GLASS	BLOWN		LIP/BOD	CORK	HTOOL	VLIP			AQU				STRUCTURE 2	160	3
0	P	0	ST2		1	CM	WOOD													STRUCTURE 2	160	4
0	P	0	ST2		1	CM	MORTAR													STRUCTURE 2	160	5
0	P	0	ST2		1	CM	BRICK													STRUCTURE 2	160	6
0	P	0	ST2		1	BOTT	RUBBER		STOPPER		LIGHT									STRUCTURE 2	160	7
0	P	0	ST2		1	BOTT	STONEWARE	AMSW	BEER	WHOLE	ALB/I		LIGHT		STAMP	GRY	BRN			STRUCTURE 2, "P & W"	160	8
0	P	0	ST2		1	BOTT	STONEWARE	C&G	GINGERBEER	WHOLE			LIGHT							STRUCTURE 2	160	9
0	P	0	ST2		1	CM	SLATE													STRUCTURE 2	160	10

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART		
1	A	A		1	0		1	CM	MORTAR													62	23	
1	A	A		1	0		1	L/H	COAL													62	24	
1	A	A		1	0		1	L/H	CLINKER													62	25	
1	A	A		1	0		1	OYS	SHELL													62	26	
1	A	A		1	0		1	MAMM	BONE													62	27	
*																								
1	B	M		0	0	237	BOTT	STONEWARE	C&G	GINGERBEER	BODY											64	1	
1	B	M		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	HEEL									STAMP		ILLEGIBLE (PROB GROSVENOR)	64	2
1	B	M		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	HEEL									STAMP		"2" OR "Z"?	64	3
1	B	M		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE/BOD									STAMP		"GROSVENOR/6/GLASGOW" ON HEEL	64	4
1	B	M		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	WHOLE			LIGHT								UNSTAMPED	64	5
1	B	M		0	0	6	BOTT	STONEWARE	C&G	GINGERBEER	LIP			LIGHT									64	6
1	B	M		0	0	3	BOTT	STONEWARE			BODY		SLG/E				CRM	ORG					64	7
1	B	M		0	0	3	BOTT	STONEWARE		FLASK?	BOD/BASE	W/I	SG/E				GRY	CLR				PARTIALLY IRONOXIDE WASHED	64	8
1	B	M		0	0	1	BOTT	STONEWARE			SHOULDER	SLG/I	SLG/E				STAMP	GRY	BRN			STAMPED "...NE..." ON SHOULDER, PROBABLY "GEO SCHNELL"	64	9
1	B	M		0	0	2	FC/S	RE-EARTH	RB	HOLLOWWARE	BOD/HAND									BURN		MOLDED	64	10
1	B	M		0	0	3	FC/S	PORCELAIN		HOLLOWWARE	BOD/HAND			LUSTRE						MOLD		SHADOW OF GOLD OR COPPER LUSTRE HIGHLIGHTING RELIEF MOLDING	64	11
1	B	M		0	0	2	FC/S	RE-EARTH	WW/IS	HOLLOWWARE	BASE/BOD									BURN		LARGE BASIN OR BOWL	64	12
1	B	M		0	0	2	CONTR	CS-EARTH	TERRA	FLOWERPOT	RIM	UG/I	UG/E									STRAIGHT RIM	64	13
1	B	M		0	0	1	CONTR	CS-EARTH	TERRA	FLOWERPOT	RIM	UG/I	UG/E									FLANGED RIM	64	14
1	B	M		0	0	9	CONTR	CS-EARTH	TERRA	FLOWERPOT	BODY	UG/I	UG/E										64	15
1	B	M		0	0	1	BOTT	GLASS	MOLD	BAKINGSODA	SHOULDER									EMBOS	AQU	MOLTEN, "[RU]MF[ORD]"	64	16
1	B	M		0	0	1	BOTT	GLASS	BLOWN		LIP	CORK	LTOOL	PATENT						MOLT	AQU		64	17
1	B	M		0	0	7	BOTT	GLASS	MOLD		BODY									MOLT	AQU		64	18
1	B	M		0	0	19	BOTT	GLASS			BODY									MOLT	AQU	AQUA-GREEN	64	19
1	B	M		0	0	5	BOTT	GLASS			BODY									MOLT	GRN		64	20
1	B	M		0	0	2	VESS	GLASS	MOLD		BOD/HAND									SPALL	CLR		64	21
1	B	M		0	0	4	BOTT	GLASS	MOLD	BEER	BODY									EMBOS	AQU	""[ROBE]RT POR[TNER/BR]EWING CO/TRADE/TIVOLI/MARK/[ALEXAN]DRIA,VA"	64	22
1	B	M		0	0	1	BOTT	GLASS	MOLD		BODY									EMBOS	CLR	".. CO./[ALEXAN]DRIA ..", MOLTEN	64	23

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
2	A	J		0	0	3	OYS	SHELL													63	28	
2	A	J		0	0	1	BIRD	BONE													63	29	
*																							
2	B	J		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			HP	FLORAL				POL	DEC=ORANGE, GREEN	65	1	
2	B	J		0	0	1	UNREC	FER-ALLOY												CORRODED, POSS LARGE CLASP	65	2	
2	B	J		0	0	1	HARD	FER-ALLOY		SCREW											65	3	
2	B	J		0	0	17	HARD	FER-ALLOY		NAIL											65	4	
2	B	J		0	0	1	CM	BRICK			FRAGMENT										65	5	
2	B	J		0	0	1	CM	MORTAR													65	6	
2	B	J		0	0	2	CM	SLATE													65	7	
2	B	J		0	0	1	CM	CHARCOAL													65	8	
2	B	J		0	0	2	OYS	SHELL													65	9	
*																							
2	C	V		0	0	1	FC/S	RE-EARTH	PW		BASE					SPALL					66	1	
2	C	V		0	0	1	FC/S	PORCELAIN			BASE			TP		OG				SHADOW DECORATION, HOTEL CHINA?	66	2	
2	C	V		0	0	1	CM	BRICK			FRAGMENT										66	3	
2	C	V		0	0	1	OYS	SHELL													66	4	
**																							
*																							
3	A	A		0	0	1	FC/S	RE-EARTH	CW		BODY			UNDEC							72	1	
3	A	A		0	0	1	TOB	BALLCLAY	6/64	PIPE	STEM					BURN					72	2	
3	A	A		0	0	12	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE										72	3	
3	A	A		0	0	1	BOTT	GLASS	MOLD		BODY					MOLT	AMB			EMBOSSED LINES	72	4	
3	A	A		0	0	1	BOTT	GLASS	MOLD		BODY					EMBOS	AQU			".. [BJOTT[TERS]../..65 7TH ..", MOLTEN	72	5	
3	A	A		0	0	1	BOTT	GLASS	MOLD		BODY					EMBOS	AQU			".. C.CO/..CH", MOLTEN	72	6	
3	A	A		0	0	12	BOTT	GLASS			BODY					MOLT	AQU				72	7	
3	A	A		0	0	1	BOTT	GLASS	BLOWN		NECK		LTOOL								72	8	
3	A	A		0	0	1	BOTT	GLASS		WINE	BODY									OLV	LIGHT OLIVE GREEN	72	9
3	A	A		0	0	1	BOTT	GLASS		WINE	LIP	CORK	LTOOL	STRT						OLV		72	10

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
4	B	J		0	0	1	FC/S	PORCELAIN	BONECHN	HOLLOWWARE	BODY				UNDEC						75	7
4	B	J		0	0	1	FPREP	CS-EARTH	RW	HOLLOWWARE	BODY	LG/I				SPALL		BRN			75	8
4	B	J		0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BOD/LUG	W/I	SG/E	HP			GRY	CLR	BLU		75	9
4	B	J		0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	SG/E				GRY	CLR			75	10
4	B	J		0	0	4	BOTT	STONEWARE		HOLLOWWARE	LIP/BOD	SLG/I	SG/E				BUF	CLR		PANELED FRAG	75	11
4	B	J		0	0	1	BOTT	STONEWARE		BODY	SLG/I	SLG/E					BUF	BRN		DEEP BROWN INT., GOLD-BROWN EXT.	75	12
4	B	J		0	0	2	BOTT	STONEWARE		BODY	UG/I	SLG/E					GRY	ORG			75	13
4	B	J		0	0	3	BOTT	STONEWARE		BASE/BOD	SLG/I	SLG/E					GRY	BRN		METALIC GREEN BROWN INT., GOLD BROWN EXT.	75	14
4	B	J		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP					75	15
4	B	J		0	0	3	BOTT	STONEWARE	C&G	GINGERBEER	LIP			LIGHT							75	16
4	B	J		0	0	26	BOTT	STONEWARE	C&G	GINGERBEER	BODY										75	17
4	B	J		0	0	27	BOTT	STONEWARE	C&G	GINGERBEER	BODY										75	18
4	B	J		0	0	3	BOTT	GLASS	BLOWN		LIP		LTOOL	BLOB				AQU			75	19
4	B	J		0	0	28	BOTT	GLASS	BLOWN		BOD/BASE							AQU			75	20
4	B	J		0	0	3	BOTT	GLASS	BLOWN		BODY						EMBOS	AQU		PORTIONS OF "THIS BOTTLE NOT TO BE SOLD"	75	21
4	B	J		0	0	1	BOTT	GLASS	BLOWN		BODY						EMBOS	AQU		"[R]OBERT [PORTNER] .../BREW[ING CO.] ..."	75	22
4	B	J		0	0	1	BOTT	GLASS	BLOWN		BODY						EMBOS	AQU		AQUA-GREEN	75	23
4	B	J		0	0	1	BOTT	GLASS			BODY						MOLT	AQU			75	24
4	B	J		0	0	1	BOTT	GLASS			BODY						MOLT	OLV			75	25
4	B	J		0	0	7	BOTT	GLASS			BODY							AMB			75	26
4	B	J		0	0	4	BOTT	GLASS			BODY							AMB		LIGHT AMBER/YELLOW	75	27
4	B	J		0	0	14	BOTT	GLASS		WINE	BOD/HEEL							OLV			75	28
4	B	J		0	0	3	BOTT	GLASS	BLOWN		BASE/BOD							CLR		OVAL SHAPED	75	29
4	B	J		0	0	3	VESS	GLASS			RIM							CLR			75	30
4	B	J		0	0	1	VESS	GLASS			STEM							CLR			75	31
4	B	J		0	0	1	CM	GLASS		WINDOW								AQU			75	32
4	B	J		0	0	1	HARD	FER-ALLOY		HORSESHOE											75	33
4	B	J		0	0	1	HARD	FER-ALLOY		HINGE										STRAP HINGE	75	34
4	B	J		0	0	1	UNREC	FER-ALLOY												CORRODED FRAG, POSS DOOR LOCK?	75	35
4	B	J		0	0	2	UNREC	FER-ALLOY		STRIP										1" AND 1.5" WIDE FRAGS	75	36

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
	5	E	V		0	0	1	FC/S	RE-EARTH	FLATWARE	BASE					BURN					88	2
**																						
*																						
6	A	A			0	0	1	FC/S	PORCELAIN	FLATWARE	RIM			HP	FLORAL				POL	DEC=GREEN, ORANGE	76	1
6	A	A			0	0	1	FC/S	RE-EARTH	CW				UNDEC		SPALL					76	2
6	A	A			0	0	29	BOTT	STONEWARE	C&G	GINGERBEER	BODY									76	3
6	A	A			0	0	1	D/P	CERAMIC		DRAINPIPE						BUF	BRN			76	4
6	A	A			0	0	1	BOTT	GLASS							MOLT	AMB				76	5
6	A	A			0	0	3	BOTT	GLASS							MOLT	OLV				76	6
6	A	A			0	0	31	BOTT	GLASS							MOLT	AQU				76	7
6	A	A			0	0	3	BOTT	GLASS							MOLT	CLR				76	8
6	A	A			0	0	2	BOTT	GLASS								CLR				76	9
6	A	A			0	0	1	BOTT	GLASS	BLOWN		LIP	LIGHT LTOOL	BLOB					AQU		76	10
6	A	A			0	0	2	BOTT	GLASS	BLOWN									AQU		76	11
6	A	A			0	0	1	BOTT	GLASS	BLOWN						EMBOS		AQU		ILLEGIBLE	76	12
6	A	A			0	0	1	CM	GLASS		WINDOW										76	13
6	A	A			0	0	4	CM	SLATE												76	14
6	A	A			0	0	1	OYS	SHELL												76	15
6	A	A			0	0	2	CM	SYNTHETIC		FLOORTILE							POL		GREEN AND WHITE FRAGS	76	16
*																						
6	B	G			0	0	1	FAST	GLASS		BUTTON							WHT		4-HOLE, DIAM=.4"	77	1
6	B	G			0	0	2	UNREC	PORCELAIN		BASE					BMARK				BURNED, RELIEF MOLDED INKWELL OR FIGURINE BASE, STAMPED ".VI"	77	2
6	B	G			0	0	2	UNREC	PORCELAIN		BODY					BURN				RELIEF MOLDED FRAGMENTS	77	3
6	B	G			0	0	1	UNREC	PORCELAIN		BASE			HP	FLORAL	BURN	POL			INDISTINGUISHABLE COLORS, OVERGLAZE	77	4
6	B	G			0	0	1	FC/S	PORCELAIN		HOLLOWWARE	BASE		HP	FLORAL	BURN	POL			DEC= GREEN, BLACK	77	5
6	B	G			0	0	1	FC/S	RE-EARTH	IS	HOLLOWWARE	LID		UNDEC						LARGE VESSEL	77	6
6	B	G			0	0	1	FC/S	RE-EARTH	WW		BASE		TP	FLORAL			BLU			77	7
6	B	G			0	0	1	FC/S	RE-EARTH	WW		BODY				BURN					77	8
6	B	G			0	0	3	FPREP	CS-EARTH	RW	BOWL	RIM/BOD				BURN					77	9

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART		
6	B	G		0	0	485	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE											77	10	
6	B	G		0	0	28	BOTT	STONEWARE	C&G	GINGERBEER	LIP			LIGHT									77	11
6	B	G		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	LIP			ROUND									77	12
6	B	G		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP				ILLEGIBLE, PROB NUMERAL			77	13
6	B	G		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP				ILLEGIBLE, PROB "GROSVENOR"			77	14
6	B	G		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP				"[GROS]VENO[R] ..."			77	15
6	B	G		0	0	2	BOTT	STONEWARE			BODY	SLG/I	SG/E				GRY	CLR	BRN				77	16
6	B	G		0	0	5	BOTT	STONEWARE			BODY	SLG/I				BURN	GRY		BRN				77	17
6	B	G		0	0	1	BOTT	STONEWARE			BODY	SLG/I				STAMP	GRY		BRN	BURNED, STAMPED "...LL"? ON SHOULDER			77	18
6	B	G		0	0	15	BOTT	STONEWARE			BOD/LIP	SLG/I		LIGHT		STAMP	GRY	YEL	BRN	STAMPED "LI(?)...S & SITZ..." ON SHOULDER, MEND			77	19
6	B	G		0	0	10	BOTT	STONEWARE			BOD/BASE	SLG/I	SLG/E				GRY	BRN	BRN	METALIC SHEEN			77	20
6	B	G		0	0	3	BOTT	STONEWARE			BODY	UG/I	SG/E			STAMP	GRY		BRN	"...ER'S/ ..UM.." (MYERS RUM?), CIRCULAR STAMP ON SIDE			77	21
6	B	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS			AMB	"...[BREWING]G CO./[TRA]DE/[TIV]OLI [MAR]K" (PORTNER)			77	22
6	B	G		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	STRT					AMB				77	23
6	B	G		0	0	11	BOTT	GLASS			BODY								AMB				77	24
6	B	G		0	0	10	BOTT	GLASS								MOLT			AMB				77	25
6	B	G		0	0	33	BOTT	GLASS		WINE	BOD/BASE					MOLT	OLV			DARK OLIVE, (DIP MOLDED)			77	26
6	B	G		0	0	26	BOTT	GLASS		WINE	BOD/BASE					MOLT	OLV			LIGHT OLIVE, (TURN MOLDED)			77	27
6	B	G		0	0	1	BOTT	GLASS		WINE	LIP	CORK	HOO	DAVIS					OLV	LIGHT OLIVE			77	28
6	B	G		0	0	39	BOTT	GLASS								MOLT	CLR						77	29
6	B	G		0	0	1	BOTT	GLASS	MOLD		BODY					EMBOS	CLR			MOLTEN, EMBOSSED CREST			77	30
6	B	G		0	0	1	BOTT	GLASS	MOLD		BODY					EMBOS	CLR			MOLTEN, "...E IS ..."			77	31
6	B	G		0	0	1	BOTT	GLASS	MOLD		BODY					EMBOS	CLR			MOLTEN, "...E..."			77	32
6	B	G		0	0	1	BOTT	GLASS	MOLD		BODY					EMBOS	CLR			MOLTEN, "...OW..." OR "...MO..."			77	33
6	B	G		0	0	1	BOTT	GLASS	MOLD		BODY					EMBOS	CLR			MOLTEN, "...Y..."			77	34
6	B	G		0	0	10	BOTT	GLASS	BLOWN		LIP	LIGHT	LTOOL	BLOB		MOLT	AQU			(GASKET TYPE)			77	35
6	B	G		0	0	1	BOTT	GLASS			BODY					EMBOS	AQU			MOLTEN, "ROBERT [PORTNER]/BR [EWING CO.]..."			77	36
6	B	G		0	0	1	BOTT	GLASS			BODY					EMBOS	AQU			MOLTEN, "J.D.O'.../ B..."			77	37
6	B	G		0	0	1	BOTT	GLASS			BODY					EMBOS	AQU			MOLTEN, "... ST./[WASHINGTON] D.[C]"			77	38

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
6	B	G		0	0	1	BOTT	GLASS			BODY					EMBOS	AQU			MOLTEN, "189.."	77	39
6	B	G		0	0	2	BOTT	GLASS			BODY					EMBOS	AQU			MOLTEN, "[NA]TIONAL BR[EW..]/ OF/ [BAL]TIMORE ../ MADE IN ..", MEND	77	40
6	B	G		0	0	1	BOTT	GLASS			BODY					EMBOS	AQU			".. [BJALTI[MORE] .."	77	41
6	B	G		0	0	1	BOTT	GLASS			BODY					EMBOS	AQU			MOLTEN, ".. [WASHI]NGT[ON] .."	77	42
6	B	G		0	0	2	BOTT	GLASS	BLOWN		BASE					EMBOS	AQU			MOLTEN, "[RE]GISTERED.." ON BASE	77	43
6	B	G		0	0	3	BOTT	GLASS			BODY					EMBOS	AQU			MOLTEN, W/ PORTIONS OF "BREWING CO."	77	44
6	B	G		0	0	10	BOTT	GLASS			BODY					EMBOS	AQU			MOLTEN, W/ PORTIONS OF "THIS BOTTLE NEVER SOLD" OR "THIS BOTTLE NOT TO BE SOLD"	77	45
6	B	G		0	0	230	BOTT	GLASS			BOD/BASE					MOLT	AQU				77	46
6	B	G		0	0	16	CM	GLASS		WINDOW							AQU				77	47
6	B	G		0	0	3	FURN	PORCELAIN		CASTOR	WHEEL						WHT				77	48
6	B	G		0	0	1	HARD	CUPR-ALLOY			NAIL										77	49
6	B	G		0	0	2	HARD	FER-ALLOY			NAIL										77	50
6	B	G		0	0	6	UNREC	CUPR-ALLOY												FLAT FRAGS, MOLTEN FRAGS	77	51
6	B	G		0	0	1	UNREC	FER-ALLOY			TUBE									.3" FRAG	77	52
6	B	G		0	0	1	UNREC	FER-ALLOY			STRAP									THIN, 1.5" WIDE FRAG	77	53
6	B	G		0	0	3	CM	PLASTER												WHITWASHED	77	54
6	B	G		0	0	1	CM	BRICK			FRAGMENT										77	55
6	B	G		0	0	14	CM	SLATE													77	56
6	B	G		0	0	1	CM	MARBLE												SUGAR MARBLE FRAG	77	57
6	B	G		0	0	1	C/F	TEXTILE			FRAGMENT						BLK			COARSE WEAVE	77	58
6	B	G		0	0	1	C/F	TEXTILE			FRAGMENT						BLK			FINE WEAVE, WITH STITCHING	77	59
6	B	G		0	0	2	CM	SYNTHETIC		FLOORTILE											77	60
6	B	G		0	0	5	OYS	SHELL													77	61
6	B	G		0	0	2	CM	WOOD								BURN				SINGED	77	62
*																						
6	C	T		0	0	1	FC/S	RE-EARTH	PW		BODY			HP	FLORAL				BLU		78	1
6	C	T		0	0	1	L/H	GLASS		LAMP	CHIMNEY			CRIMP		MOLD	CLR				78	2
6	C	T		0	0	2	L/H	GLASS		LAMP	CHIMNEY						CLR				78	3
6	C	T		0	0	5	BOTT	GLASS			BODY						CLR				78	4

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
7	A	A		0	0	3	CLAM	SHELL													79	28
7	A	A		0	0	6	OYS	SHELL													79	29
*																						
7	B	J		0	0	1	FC/S	RE-EARTH	PW		BASE			TP	WILLOW				BLU		80	1
7	B	J		0	0	1	FC/S	RE-EARTH	WW		BASE			TP	WILLOW	BMARK			BLU	ILLEGIBLE BLUE MMARK	80	2
7	B	J		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	RIM			TP					BLK		80	3
7	B	J		0	0	1	FC/S	RE-EARTH	IS	HOLLOWWARE	BODY			TP	GEO				BLU		80	4
7	B	J		0	0	2	FC/S	RE-EARTH	IS		BOD/BASE			UNDEC							80	5
7	B	J		0	0	1	FC/S	RE-EARTH	IS	HOLLOWWARE	BASE					BURN					80	6
7	B	J		0	0	4	FC/S	RE-EARTH	RB	HOLLOWWARE	BASE/BOD									LIGHTLY MOTTLED	80	7
7	B	J		0	0	1	UNREC	GLASS								MOLT	GRN			GREEN, WHITE OPAQUE SWIRL	80	8
7	B	J		0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	HANDLE		SG/E				GRY	CLR		LARGE VESSEL	80	9
7	B	J		0	0	79	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE										80	10
7	B	J		0	0	9	BOTT	STONEWARE	C&G	GINGERBEER	LIP			LIGHT							80	11
7	B	J		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	LIP			ROUND						WHITE METAL (TIN?) RESIDUE AROUND NECK	80	12
7	B	J		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP				"5" ON HEEL	80	13
7	B	J		0	0	3	BOTT	STONEWARE			BOD/BASE	SLG/I	SLG/E				GRY	BRN	BRN		80	14
7	B	J		0	0	1	BOTT	STONEWARE			LIP	SLG/I	SLG/E	LIGHT?			GRY	ORG	ORG		80	15
7	B	J		0	0	2	BOTT	STONEWARE			BODY	UG/I	SLG/E				GRY	ORG			80	16
7	B	J		0	0	1	BOTT	STONEWARE			BODY	UG/I	SLG/E			STAMP	GRY	ORG		"..OLLIN .." IN CIRCLE ON SIDE	80	17
7	B	J		0	0	1	BOTT	GLASS		WINE	BASE				PONTIL		OLV			LIGHT OLIVE, BELL-SHAPED PUSH-UP	80	18
7	B	J		0	0	20	BOTT	GLASS		WINE	BOD/HEEL						OLV			LIGHT OLIVE	80	19
7	B	J		0	0	14	BOTT	GLASS		WINE	BOD/BASE						OLV				80	20
7	B	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AMB			"ROBERT [PORTNER]/ BREW../ T[IIVOLI] .."	80	21
7	B	J		0	0	4	BOTT	GLASS	BLOWN	BEER	BODY						AMB				80	22
7	B	J		0	0	3	BOTT	GLASS	BLOWN	FLASK	BOD/BASE				PONTIL		AMB			FINISHED PONTIL MARK	80	23
7	B	J		0	0	1	BOTT	GLASS	BLOWN		LIP	LIGHT	LTOOL	BLOB		COMP	AQU			GASKET IN PLACE	80	24
7	B	J		0	0	1	BOTT	GLASS	BLOWN		LIP	LIGHT	LTOOL	BLOB			AQU				80	25
7	B	J		0	0	22	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			W/ PORTIONS OF "ROBERT PORTNER/ BREWING CO. /TRADE /TIVOLI /MARK /ALEXANDRIA, VA."	80	26
7	B	J		0	0	15	BOTT	GLASS	BLOWN		BOD/BASE					EMBOS	AQU			W/ PORTIONS OF "THIS BOTTLE IS NOT TO BE SOLD"	80	27

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
7	B	J		0	0	2	BOTT	GLASS	BLOWN		BASE					EMBOS	AQU			"37" ON BASE	80	28
7	B	J		0	0	1	BOTT	GLASS	BLOWN		BASE					EMBOS	AQU			"33" ON BASE	80	29
7	B	J		0	0	1	BOTT	GLASS	BLOWN		BASE					EMBOS	AQU			"3.." ON BASE	80	30
7	B	J		0	0	216	BOTT	GLASS	BLOWN		BODY						AQU				80	31
7	B	J		0	0	9	CM	GLASS		WINDOW							AQU				80	32
7	B	J		0	0	3	BOTT	GLASS	BLOWN		LIP	LIGHT	LTOOL	BLOB		COMP	CLR			GASKET IN PLACE, MEND	80	33
7	B	J		0	0	26	BOTT	GLASS	BLOWN		BODY						CLR				80	34
7	B	J		0	0	3	VESS	GLASS		MUG	BASE						CLR				80	35
7	B	J		0	0	1	VESS	GLASS			BODY						CLR			FACETED PORTION	80	36
7	B	J		0	0	1	VESS	GLASS	PRESS		BODY						CLR			DIAMONDS	80	37
7	B	J		0	0	1	L/H	GLASS		LAMP	CHIMNEY			CRIMP			CLR				80	38
7	B	J		0	0	4	D/P	CERAMIC		DRAINPIPE							RED	BRN			80	39
7	B	J		0	0	1	HARD	FER-ALLOY		LOCK?										POSS DOOR LOCK, VERY CORRODED, WOOD ADHERED	80	40
7	B	J		0	0	1	UNREC	FER-ALLOY		BAR										.5" THICK, 1.5" WIDE	80	41
7	B	J		0	0	1	D/P	FER-ALLOY		PIPE										PIPE FITTING	80	42
7	B	J		0	0	48	HARD	FER-ALLOY		NAIL										(40 CUT, 8 UNID.)	80	43
7	B	J		0	0	1	HARD	CUPR-ALLOY		HOOK										APPROX. 1.5" LONG IF STRAIGHTENED, W/ 2 NAIL HOLES FOR HANGING	80	44
7	B	J		0	0	2	D/P	RUBBER		HOSE										TEXTURED SURFACE	80	45
7	B	J		0	0	1	CM	SLATE									BRN			W/ SMALL NAIL HOLE	80	46
7	B	J		0	0	1	CM	SLATE									GRY				80	47
7	B	J		0	0	4	MAMM	BONE													80	48
7	B	J		0	0	10	L/H	COAL													80	49
7	B	J		0	0	8	OYS	SHELL													80	50
7	B	J		0	0	1	FC/S	RE-EARTH	IS	FLATWARE	BOD/BASE			UNDEC							91	1
7	B	J		0	0	1	FC/S	RE-EARTH	IS	FLATWARE	RIM			FLOW	SPALL				BLU		91	2
7	B	J		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BASE			UNDEC							91	3
7	B	J		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	BASE			UNDEC							91	4
7	B	J		0	0	2	FC/S	RE-EARTH	WW	FLATWARE	BODY			UNDEC							91	5
7	B	J		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			UNDEC							91	6
7	B	J		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	RIM			SE					GRN		91	7
7	B	J		0	0	4	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			UNDEC	SPALL						91	8

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART		
7	B	J		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BODY			TP	WILLOW					BLU		91	9	
7	B	J		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	BASE			TP	UNREC					BLU		91	10	
7	B	J		0	0	2	FC/S	RE-EARTH	RB	FLATWARE	BASE										MEND	91	11	
7	B	J		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BODY					BURN						91	12	
7	B	J		0	0	9	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	ALB/I				BURN	GRY	BRN				91	13	
7	B	J		0	0	1	FPREP	CS-EARTH	RW	FLATWARE	BASE	LG/I	UG/E							RED	BRN	91	14	
7	B	J		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	HANDLE									GRY	BRN	91	15	
7	B	J		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	BODY									BUF	BRN	91	16	
7	B	J		0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BOD/BASE		SG/E	HP	GEO					GRY	CLR	BLU	91	17
7	B	J		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	BODY									GRY	CLR	91	18	
7	B	J		0	0	2	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	SG/E							GRY	CLR	91	19	
7	B	J		0	0	1	REC	PORCELAIN	PARIAN	FIGURE				HP/GILD		MOLD				POL	DEC= PINK/GILDING OVERGLAZED	91	20	
7	B	J		0	0	5	BOTT	STONEWARE			BOD/BASE	W/I								GRY	BRN	91	21	
7	B	J		0	0	1	BOTT	STONEWARE			BODY	W/I				STAMP				GRY	BRN	"..MW/AF.."	91	22
7	B	J		0	0	1	BOTT	STONEWARE			BOD/BASE									GRY	CLR	91	23	
7	B	J		0	0	84	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE											91	24	
7	B	J		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	LIP				ROUND							91	25	
7	B	J		0	0	5	BOTT	STONEWARE	C&G	GINGERBEER	LIP				LIGHT							91	26	
7	B	J		0	0	3	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP					"GROSVENOR/6/GLASGOW"	91	27	
7	B	J		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP					"MURRAY & BUCH../POTTERY/PORTOBELLO"	91	28	
7	B	J		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP					"HIR../RA../GLASGOW"	91	29	
7	B	J		0	0	122	BOTT	GLASS			BOD/BASE									AQU		91	30	
7	B	J		0	0	1	BOTT	GLASS			BODY										GRN	91	31	
7	B	J		0	0	19	BOTT	GLASS		BEER	BODY										AMB	91	32	
7	B	J		0	0	2	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB							AMB	91	33	
7	B	J		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	CORK	LTOOL	STRT							AMB	91	34	
7	B	J		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	CORK	LTOOL	TOLIP		SPALL					AMB	91	35	
7	B	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY										AMB	PART OF "THIS BOTTLE NOT TO BE SOLD"	91	36
7	B	J		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	CORK	LTOOL	STRT							AMB	91	37	
7	B	J		0	0	1	UNREC	GLASS								MOLT				AQU		91	38	
7	B	J		0	0	20	BOTT	GLASS			BOD/BASE										CLR	91	39	
7	B	J		0	0	1	BOTT	GLASS	BLOWN		LIP		LTOOL	BLOB							CLR	91	40	
7	B	J		0	0	22	BOTT	GLASS		WINE	BOD/BASE										OLV	91	41	

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
*																						
	9	E	W	0	0	1	BOTT	GLASS		WINE	BODY						OLV				102	1
	9	E	W	0	0	2	BOTT	GLASS			BODY						AQU				102	2
	9	E	W	0	0	5	CM	BRICK													102	3
	9	E	W	0	0	1	CM	BRICK												GLAZED	102	4
	9	E	W	0	0	1	CM	SLATE													102	5
	9	E	W	0	0	2	HARD	FER-ALLOY		NAIL											102	6
**																						
*																						
	10	A	D	0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			TP	FLORAL				BLU		103	1
	10	A	D	0	0	4	BOTT	STONEWARE	C&G	GINGERBEER	BODY										103	2
	10	A	D	0	0	11	BOTT	GLASS		WINE	BODY						OLV				103	3
	10	A	D	0	0	2	BOTT	GLASS			BODY						AQU				103	4
	10	A	D	0	0	2	BOTT	GLASS			BODY						CLR				103	5
	10	A	D	0	0	3	CM	GLASS		WINDOW							AQU				103	6
	10	A	D	0	0	1	CM	SYNTHETIC		FLOORTILE											103	7
	10	A	D	0	0	1	CM	MORTAR													103	8
	10	A	D	0	0	2	HARD	FER-ALLOY		WIRE											103	9
	10	A	D	0	0	5	HARD	FER-ALLOY		NAIL											103	10
	10	A	D	0	0	1	UNREC	CUPR-ALLOY												FLAT FRAGMENT	103	11
	10	A	D	0	0	1	L/H	COAL													103	12
	10	A	D	0	0	1	OYS	SHELL													103	13
	10	A	D	0	0	1	MAMM	BONE							BURN						103	14
*																						
	10	B	F	0	0	2	TOB	BALLCLAY	5/64	PIPE	STEM										104	1
	10	B	F	0	0	1	TOB	BALLCLAY		PIPE	BOWL										104	2
	10	B	F	0	0	3	FC/S	RE-EARTH	CW	FLATWARE	BOD/RIM			UNDEC		SPALL					104	3
	10	B	F	0	0	5	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			UNDEC		SPALL					104	4
	10	B	F	0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	RIM			HP	FLORAL				BLU		104	5

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
10	B	F		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	RIM			TP	ORIENT					BLU	104	6	
10	B	F		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			TP	GEO	SPALL				BLU	104	7	
10	B	F		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	RIM			HP						BLU	104	8	
10	B	F		0	0	3	FC/S	RE-EARTH	WW	FLATWARE	BASE			UNDEC						BLU	104	9	
10	B	F		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	RIM			LINED		SPALL				BLU	104	10	
10	B	F		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BODY			TP	WILLOW					BLU	104	11	
10	B	F		0	0	2	FC/S	RE-EARTH	WW	FLATWARE	RIM			TP	FLORAL					BLU	104	12	
10	B	F		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			ANN/MOC						POL	DEC= BROWN DENDRITIC	104	13
10	B	F		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			TP	UNREC					RED	104	14	
10	B	F		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	RIM			TP	FLORAL					GRN	104	15	
10	B	F		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			LUSTRE	GEO					PUR	104	16	
10	B	F		0	0	1	FC/S	PORCELAIN	BONECHN	HOLLOWWARE	BODY			HP	GEO	OG					SHADOW DECORATION	104	17
10	B	F		0	0	1	FC/S	RE-EARTH		FLATWARE	BASE			UNDEC		BURN					104	18	
10	B	F		0	0	1	FPREP	CS-EARTH	RW	HOLLOWWARE	RIM	LG/I	LG/E				RED	BRN			104	19	
10	B	F		0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY					BURN	GRY	BRN			104	20	
10	B	F		0	0	16	BOTT	STONEWARE	AMSW	BEER	BOD/BASE	ALB/I				STAMP	GRY	BRN			MEND, "GEO[RGE] SCHNELL", ?-1872	104	21
10	B	F		0	0	23	BOTT	STONEWARE	AMSW	BEER	LIP/BOD	ALB/I				STAMP	GRY	BRN			MEND, ".. STENERNAGEL"	104	22
10	B	F		0	0	39	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE										104	23	
10	B	F		0	0	2	BOTT	STONEWARE	C&G	GINGERBEER	LIP/NECK			LIGHT							104	24	
10	B	F		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP					"GROSVENOR/6/GLASGOW"	104	25
10	B	F		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP					"..ANED/..FIELD/4.."	104	26
10	B	F		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP					"GROSVENOR/11/GLASGOW"	104	27
10	B	F		0	0	2	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	SG/E				GRY	CLR			104	28	
10	B	F		0	0	2	FSTOR	STONEWARE			BOD/BASE	W/I					BUF	ORG			104	29	
10	B	F		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BODY					COMP					ADHERED TO NAIL	104	30
10	B	F		0	0	2	FSTOR	STONEWARE			BODY	W/I					BUF	ORG			104	31	
10	B	F		0	0	1	FSTOR	STONEWARE			BODY	W/I					GRY	BRN			104	32	
10	B	F		0	0	1	BOTT	STONEWARE			WHOLE	W/I		LIGHT			BUF	BRN			104	33	
10	B	F		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	WHOLE			ROUND							104	34	
10	B	F		0	0	1	C/F	LEATHER		SHOE	HEEL										104	35	
10	B	F		0	0	1	UNREC	TEXTILE													104	36	
10	B	F		0	0	1	BOTT	GLASS	BLOWN	WINE	BASE			PONTIL			OLV				BELL-SHAPED PUSH-UP	104	37
10	B	F		0	0	40	BOTT	GLASS			BOD/BASE						OLV				104	38	

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
10	B	F		0	0	2	BOTT	GLASS		BEER	BODY						AMB				104	39
10	B	F		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP/NECK	CORK	LTOOL	DAVIS			AMB				104	40
10	B	F		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB			AMB				104	41
10	B	F		0	0	93	BOTT	GLASS			BOD/BASE						AQU				104	42
10	B	F		0	0	3	BOTT	GLASS	BLOWN	BEER	LIP/NECK	LIGHT	LTOOL	BLOB			AQU				104	43
10	B	F		0	0	1	BOTT	GLASS	BLOWN		LIP/NECK		LTOOL	BLOB			AQU				104	44
10	B	F		0	0	8	BOTT	GLASS	BLOWN	BEER	BOD/BASE					EMBOS	AQU		W/ PORTIONS OF "THIS BOTTLE NOT TO BE SOLD"	104	45	
10	B	F		0	0	1	BOTT	GLASS	2P/SEP		BASE					EMBOS	AQU		"6"	104	46	
10	B	F		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU		"HYGI.../MARK/[AL]EXAN[DRIA]"	104	47	
10	B	F		0	0	2	BOTT	GLASS			BODY						CLR				104	48
10	B	F		0	0	1	VESS	GLASS			BODY						CLR				104	49
10	B	F		0	0	1	VESS	GLASS	MOLD		BASE						CLR		SCALLOPED		104	50
10	B	F		0	0	1	BOTT	GLASS	BLOWN	BEER	BOD/BASE					EMBOS	AQU		"PABST/BREWING CO./WASHINGTON/BRANCH"	104	51	
																			"THIS BOTTLE NOT TO BE SOLD"			
10	B	F		0	0	30	CM	GLASS		WINDOW							AQU				104	52
10	B	F		0	0	1	L/H	COAL													104	53
10	B	F		0	0	1	CM	SYNTHETIC		FLOORTILE											104	54
10	B	F		0	0	4	L/H	CLINKER													104	55
10	B	F		0	0	14	UNREC	CUPR-ALLOY											FLAT FRAGMENTS		104	56
10	B	F		0	0	1	CM	PLASTER													104	57
10	B	F		0	0	1	UNREC	LEAD		STRIP											104	58
10	B	F		0	0	1	HARD	PLASTIC		SCREW											104	59
10	B	F		0	0	16	UNREC	FER-ALLOY											FLAT FRAGMENTS, SOME POSSIBLY BARREL BANDS		104	60
10	B	F		0	0	1	UNREC	FER-ALLOY								COMP			LATE MORTAR ADHERED TO FLAT IRON FRAGMENT		104	61
10	B	F		0	0	1	UNREC	FER-ALLOY								COMP			OYSTER SHELL ADHERED TO FLAT IRON FRAGMENT		104	62
10	B	F		0	0	106	HARD	FER-ALLOY		NAIL											104	63
10	B	F		0	0	1	D/P	CERAMIC		DRAINPIPE							RED	BRN			104	64
10	B	F		0	0	21	MAMM	BONE								BUTCH					104	65
10	B	F		0	0	1	OYS	SHELL													104	66

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
	10	B	F		0	0	2	CLAM	SHELL												104	67
*	10	C	J		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	NECK									120	1
	10	C	J		0	0	3	BOTT	GLASS			BODY					AQU				120	2
	10	C	J		0	0	1	BOTT	GLASS		WINE	BODY					OLV				120	3
	10	C	J		0	0	2	CM	GLASS		WINDOW						AQU				120	4
	10	C	J		0	0	3	HARD	FER-ALLOY		NAIL										120	5
*	10	D	V		0	0	1	BOTT	GLASS		WINE	BODY					OLV				105	1
	10	D	V		0	0	2	BOTT	STONEWARE	C&G	GINGERBEER	BODY									105	2
	10	D	V		0	0	2	HARD	FER-ALLOY		NAIL										105	3
**																						
*	11	A	G		0	0	2	TOB	BALLCLAY	5/64	PIPE	STEM									106	1
	11	A	G		0	0	1	FAST	PORCELAIN		BUTTON									4-HOLE, DIAMETER= .65"	106	2
	11	A	G		0	0	2	FC/S	RE-EARTH	WW	HOLLOWWARE	BOD/RIM		HP	FLORAL				POL DEC= BROWN/GREEN		106	3
	11	A	G		0	0	2	FC/S	RE-EARTH	WW	FLATWARE	BOD/BASE		UNDEC							106	4
	11	A	G		0	0	2	FC/S	RE-EARTH		HOLLOWWARE	BODY				BURN					106	5
	11	A	G		0	0	2	FC/S	PORCELAIN	UNREC	HOLLOWWARE	BODY		UNDEC							106	6
	11	A	G		0	0	2	CONTR	CS-EARTH	TERRA	FLOWERPOT	BOD/BASE	UG/I	UG/E							106	7
	11	A	G		0	0	1	FPREP	CS-EARTH	RW	HOLLOWWARE	RIM	UG/I	UG/E		SPALL					106	8
	11	A	G		0	0	4	FSTOR	STONEWARE		HOLLOWWARE	BODY	W/I				CRM	BRN			106	9
	11	A	G		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	BODY	W/I				GRY	ORG			106	10
	11	A	G		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	BODY	W/I				GRY	BRN			106	11
	11	A	G		0	0	5	FSTOR	STONEWARE		HOLLOWWARE	BODY	ALB/I				GRY	BRN			106	12
	11	A	G		0	0	1	BOTT	STONEWARE			LIP	W/I			SPALL	GRY	BRN			106	13
	11	A	G		0	0	1	BOTT	STONEWARE	AMSW		BOD/SH	ALB/I			BURN	GRY	BRN			106	14
	11	A	G		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	BODY	W/I				GRY	BRN			106	15
	11	A	G		0	0	4	BOTT	STONEWARE			BODY	W/I			BURN	GRY	BRN			106	16

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
11	A	G		0	0	8	BOTT	STONEWARE	C&G	GINGERBEER	BODY					BURN					106	17
11	A	G		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP				"RAN.../...ROW/4/POTTERY/GLASGOW"	106	18
11	A	G		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP				ILLEGIBLE	106	19
11	A	G		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP				"GROSVENOR/3/GLASGOW"	106	20
11	A	G		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP				"GG"	106	21
11	A	G		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP				"D"	106	22
11	A	G		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP				"GROSVENOR/16/GLASGOW"	106	23
11	A	G		0	0	205	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE										106	24
11	A	G		0	0	36	BOTT	STONEWARE	C&G	GINGERBEER	LIP			LIGHT							106	25
11	A	G		0	0	15	BOTT	STONEWARE	C&G	GINGERBEER	LIP			ROUND							106	26
11	A	G		0	0	416	BOTT	GLASS			BOD/BASE						AQU				106	27
11	A	G		0	0	9	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB			CLR				106	28
11	A	G		0	0	2	BOTT	GLASS	BLOWN		LIP		LTOOL	BLOB			AQU				106	29
11	A	G		0	0	1	BOTT	GLASS	BLOWN		LIP	SCREW	LTOOL				AQU				106	30
11	A	G		0	0	1	BOTT	GLASS	BLOWN		LIP	CORK	LTOOL	PATENT			AQU				106	31
11	A	G		0	0	3	UNREC	GLASS								MOLT	AQU				106	32
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB			AQU				106	33
11	A	G		0	0	41	BOTT	GLASS						BOD/BASE			CLR				106	34
11	A	G		0	0	1	BOTT	GLASS		WINE	LIP	CORK	LTOOL	CHAMP			OLV				106	35
11	A	G		0	0	1	BOTT	GLASS			LIP	CORK	LTOOL	DAVIS			AMB				106	36
11	A	G		0	0	128	BOTT	GLASS						BOD/BASE			OLV				106	37
11	A	G		0	0	62	BOTT	GLASS						BOD/BASE			AMB				106	38
11	A	G		0	0	59	BOTT	GLASS		WINE				BOD/BASE			OLV			BLACK-OLIVE	106	39
11	A	G		0	0	2	BOTT	GLASS	BLOWN	WINE	LIP	CORK	HTOOL	DTOOL			OLV			BLACK OLIVE	106	40
11	A	G		0	0	1	BOTT	GLASS	BLOWN	WINE	LIP		HTOOL			SPALL	OLV			BLACK OLIVE	106	41
11	A	G		0	0	8	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AMB			ALL PART OF "THIS BOTTLE NOT TO BE SOLD"	106	42
11	A	G		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AMB			"...ERT..."	106	43
11	A	G		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AMB			"...ROP..."	106	44
11	A	G		0	0	1	BOTT	GLASS	BLOWN	WINE	BASE					EMBOS	OLV			"619..."	106	45
11	A	G		0	0	1	BOTT	GLASS	BLOWN	WINE	BASE				PONTIL		OLV				106	46
11	A	G		0	0	3	VESS	GLASS	MOLD		BODY						CLR				106	47
11	A	G		0	0	1	VESS	GLASS	MOLD	GOBLET	BODY						CLR			FLUTED	106	48

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
11	A	G		0	0	4	BOTT	GLASS	BLOWN		BASE					EMBOS	AQU			"37", "8", "37", "5"	106	49
11	A	G		0	0	26	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			W/ PORTIONS OF "THIS BOTTLE NOT TO BE SOLD"	106	50
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			". / BREW[ING CO.] / TRADE / TIVOLI / MARK / [ALEXANDRIA, V[A.]"	106	51
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			". [ALEXANDRIA], V[A.]"	106	52
11	A	G		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"BO. / B."	106	53
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			". R. / .MP. / .IA. / .VA."	106	54
11	A	G		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			". ER. / .E. / .G."	106	55
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			". [ALEXANDRIA, .."	106	56
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			". [ALEXANDRIA] .."	106	57
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"ROBERT PORTNER] / BREWING CO.] / HY. / MA[RK] / ALEX[ANDRIA, VA.]"	106	58
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"ROBERT PORTNER] / BREWING CO.] / ALEXANDRIA, VA.]"	106	59
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			". / [ALEXANDRIA, VA.]"	106	60
11	A	G		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			". ME."	106	61
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"TRADE / TIVOLI / MARK]"	106	62
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"BREWING CO.] / TRADE / TIVOLI / MARK] .."	106	63
11	A	G		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"R. FIN. / H."	106	64
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"[PORTNER] / .G."	106	65
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"RO."	106	66
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"[BREWING] CO. / [TRADE] / [TIVOLI] / [MARK]"	106	67
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"[TRADE] / TIVOLI] / [MARK] / .RIA."	106	68
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			". PO. / .W."	106	69
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			". H. / ALEXANDRIA] .."	106	70
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"[ALEXANDRIA] / .VIR."	106	71
11	A	G		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			". EM."	106	72
11	A	G		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			". IA."	106	73
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			". ER. / .MP. / .A."	106	74
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			". XA."	106	75

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"../TIVOLI/MARK/.."	106	76
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"..B../P.."	106	77
11	A	G		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"..TRAE/..YGE.."	106	78
11	A	G		0	0	1	VESS	GLASS	MOLD		BODY						WHT			MILK GLASS	106	79
11	A	G		0	0	1	VESS	GLASS			BODY						CLR				106	80
11	A	G		0	0	1	G/H	PLASTIC		COMB	TEETH						BLK				106	81
11	A	G		0	0	26	CM	GLASS		WINDOW							AQU				106	82
11	A	G		0	0	1	UNREC	PLASTIC									WHT				106	83
11	A	G		0	0	4	CM	BRICK													106	84
11	A	G		0	0	3	CM	DAUB													106	85
11	A	G		0	0	9	CM	MORTAR													106	86
11	A	G		0	0	7	CM	SYNTHETIC		FLOORTILE											106	87
11	A	G		0	0	2	L/H	CLINKER													106	88
11	A	G		0	0	14	CM	CHARCOAL													106	89
11	A	G		0	0	12	L/H	COAL													106	90
11	A	G		0	0	28	CM	SLATE													106	91
11	A	G		0	0	6	D/P	CERAMIC		DRAINPIPE							RED	BRN			106	92
11	A	G		0	0	1	HARD	CUPR-ALLOY		TACK											106	93
11	A	G		0	0	1	UNREC	PLASTIC									BLU				106	94
11	A	G		0	0	1	HARD	CUPR-ALLOY		WIRE											106	95
11	A	G		0	0	1	UNREC	CUPR-ALLOY												FLAT FRAGMENT	106	96
11	A	G		0	0	111	HARD	FER-ALLOY		NAIL											106	97
11	A	G		0	0	8	HARD	FER-ALLOY		WIRE											106	98
11	A	G		0	0	41	UNREC	FER-ALLOY												CONCRETIONS, NO VISIBLE CORE	106	99
11	A	G		0	0	3	UNREC	FER-ALLOY												FLAT FRAGMENTS, 10" X 2.5", 3.5" X 1.5", AND 2.6" X .8"	106	100
11	A	G		0	0	5	UNREC	FER-ALLOY												HOLLOW WIRES	106	101
11	A	G		0	0	26	MAMM	BONE								BUTCH					106	102
11	A	G		0	0	14	OYS	SHELL													106	103
11	A	G		0	0	3	CLAM	SHELL													106	104
11	A	G		1	0	1	FSTOR	STONEWARE			BODY					SPALL	GRY	ORG			107	1
11	A	G		1	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BODY										107	2
11	A	G		1	0	2	BOTT	GLASS			BODY						CLR				107	3

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
11	A	G		1	0	1	HARD	FER-ALLOY		HORSESHOE											107	4
11	A	G		1	0	5	UNREC	FER-ALLOY												FLAT FRAGMENTS	107	5
11	A	G		1	0	1	UNREC	LEAD												AMORPHOUS FRAGMENT	107	6
11	A	G		1	0	1	HARD	FER-ALLOY		NAIL											107	7
**																						
*																						
12	A	A		0	0	1	FC/S	PORCELAIN	UNREC	HOLLOWWARE	BASE					UNDEC					108	1
12	A	A		0	0	2	BOTT	STONEWARE	C&G	GINGERBEER	BODY										108	2
12	A	A		0	0	4	BOTT	GLASS		WINE	BODY						OLV				108	3
12	A	A		0	0	1	BOTT	GLASS			BASE			EMBOS	GRN					".&."	108	4
12	A	A		0	0	2	BOTT	GLASS			BODY						AQU				108	5
12	A	A		0	0	1	BOTT	GLASS	BLOWN		BODY			EMBOS	AQU					".WH."	108	6
12	A	A		0	0	1	HARD	FER-ALLOY		NAIL											108	7
12	A	A		0	0	1	CM	BRICK													108	8
12	A	A		0	0	2	CM	SYNTHETIC		FLOORTILE											108	9
12	A	A		0	0	1	L/H	COAL													108	10
12	A	A		0	0	1	CM	SLATE													108	11
12	A	A		0	0	1	CM	WOOD													108	12
12	A	A		0	0	1	OYS	SHELL													108	13
*																						
12	B	A		0	0	1	TOB	BALLCLAY	4/64	PIPE	STEM										121	1
12	B	A		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	RIM			TP	FLORAL				BRN		121	2
12	B	A		0	0	4	FC/S	RE-EARTH	WW	FLATWARE	BODY			TP	FLORAL				BLU		121	3
12	B	A		0	0	2	FC/S	RE-EARTH	WW	HOLLOWWARE	BOD/RIM			TP	FLORAL				BLU		121	4
12	B	A		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BASE			TP	GEO				BLU		121	5
12	B	A		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BASE			TP	WILLOW				BLU		121	6
12	B	A		0	0	2	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			TP	LAND				BLU		121	7
12	B	A		0	0	2	FC/S	RE-EARTH	WW	FLATWARE	RIM			TP	FLORAL				BLU		121	8
12	B	A		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	RIM			HP					BLU		121	9
12	B	A		0	0	6	FC/S	RE-EARTH	WW	HOLLOWWARE	BOD/RIM			UNDEC							121	10

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
12	B	A		0	0	3	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			TP	FLORAL				AQU		121	11
12	B	A		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BODY			TP	GEO				PUR		121	12
12	B	A		0	0	2	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			HP	FLORAL				POL	DEC= BLUE/GREEN	121	13
12	B	A		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY									FRAGMENT OF WHITEWARE WITH BLUE GLAZE ON BREAK WHERE PREVIOUSLY APPLIED TO ANOTHER PIECE	121	14
12	B	A		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			LUSTRE	GEO	OG			PUR		121	15
12	B	A		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	RIM			HP		MOLD			BLK	WAVELIKE MOLDING ON RIM	121	16
12	B	A		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			TP	LAND				BLK		121	17
12	B	A		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			TP	WORDS				BLK	". .VE"	121	18
12	B	A		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	RIM			TP	GEO	BURN			BLU		121	19
12	B	A		0	0	2	FC/S	RE-EARTH	WW	FLATWARE	RIM			TP	GEO	BURN			BLU		121	20
12	B	A		0	0	2	FC/S	RE-EARTH		FLATWARE	BODY					BURN					121	21
12	B	A		0	0	8	FC/S	RE-EARTH	CW	FLATWARE	BOD/RIM			UNDEC							121	22
12	B	A		0	0	1	FC/S	RE-EARTH	CW	FLATWARE	RIM			UNDEC		MOLD				BEADED RIM	121	23
12	B	A		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			HP					BLU		121	24
12	B	A		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	RIM			HP					BLU		121	25
12	B	A		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			TP	GEO				BLU		121	26
12	B	A		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	RIM			TP	GEO	SPALL			BLU		121	27
12	B	A		0	0	2	FC/S	RE-EARTH	PW	HOLLOWWARE	BOD/BASE			TP	PASTOR				BRN		121	28
12	B	A		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			HP		SPALL			BRN		121	29
12	B	A		0	0	6	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			UNDEC							121	30
12	B	A		0	0	2	FC/S	RE-EARTH	PW	FLATWARE	BODY			UNDEC		SPALL					121	31
12	B	A		0	0	4	FC/S	RE-EARTH	PW	FLATWARE	BOD/BASE			UNDEC							121	32
12	B	A		0	0	4	FC/S	RE-EARTH	PW	FLATWARE	BODY			TP	FLORAL	SPALL			BLU		121	33
12	B	A		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	RIM			TP	CANTON				BLU		121	34
12	B	A		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			ANN					BRN		121	35
12	B	A		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			HP	FLORAL				GRN		121	36
12	B	A		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	BODY			HP	FLORAL				POL	DEC= ORANGE/GREEN	121	37
12	B	A		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	RIM			SE					BLU		121	38
12	B	A		0	0	2	FC/S	RE-EARTH	PW	FLATWARE	RIM			SE					GRN		121	39
12	B	A		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			ANN/MOC				BRN	BRN	DENDRITIC	121	40
12	B	A		0	0	3	FC/S	RE-EARTH	PW	HOLLOWWARE	BOD/RIM			ANN/CAB		MOLD			POL	DEC= BROWN/ORANGE BANDS WITH MOLDED BAND IN CENTER COLORED GREEN. BLUE AND BROWN FINGER PAINTED SWIRLS	121	41

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
12	B	A		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE RIM				ANN		MOLD				POL	DEC= BROWN/GREEN BANDS WITH INCISED BANDS	121	42
12	B	A		0	0	1	FC/S	RE-EARTH	PW	BODY						MOLD				GRN	SPALL	121	43
12	B	A		0	0	2	FC/S	RE-EARTH	IS	BODY						BURN						121	45
12	B	A		0	0	1	FC/S	PORCELAIN	UNREC	FLATWARE	BASE			UNDEC								121	46
12	B	A		0	0	1	FC/S	PORCELAIN	UNREC	HOLLOWWARE	BODY			HP		OG				POL	DEC= BLUE/RED BANDS, OVER GLAZED GILDING ON INTERIOR	121	47
12	B	A		0	0	5	FC/S	PORCELAIN	UNREC	HOLLOWWARE	BOD/RIM			UNDEC								121	48
12	B	A		0	0	3	FC/S	PORCELAIN	UNREC	HOLLOWWARE	BODY			HP		OG				POL	DEC= GREEN/BROWN	121	49
12	B	A		0	0	4	G/H	RE-EARTH	RB	SPITTOON	BASE											121	50
12	B	A		0	0	1	FC/S	REDWARE	IJACK	HOLLOWWARE	RIM						RED	PUR				121	51
12	B	A		0	0	1	FPREP	CS-EARTH	RW	HOLLOWWARE	BODY					SPALL	BUF	BLK				121	52
12	B	A		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	BODY	W/I	SG/E				POL	CLR			BODY RED/GREY MARBLEIZED	121	53
12	B	A		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	BODY	W/I	SG/E				GRY	CLR				121	54
12	B	A		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	BODY	ALB/I	SG/E				GRY	CLR				121	55
12	B	A		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	BODY	W/I				SPALL	GRY					121	56
12	B	A		0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	ALB/E				BUF	BRN				121	57
12	B	A		0	0	2	FPREP	CS-EARTH	RW	HOLLOWWARE	BODY	LG/I	LG/E				RED	BRN				121	58
12	B	A		0	0	33	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE											121	59
12	B	A		0	0	4	BOTT	STONEWARE	C&G	GINGERBEER	LIP			LIGHT								121	60
12	B	A		0	0	2	BOTT	STONEWARE	AMSW	BODY		ALB/I					BUF	BRN		MEND		121	61
12	B	A		0	0	2	FSTOR	STONEWARE		HOLLOWWARE	BODY	W/I					BUF	ORG				121	62
12	B	A		0	0	2	BOTT	STONEWARE		BODY		W/I					BUF	BRN				121	63
12	B	A		0	0	2	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	SG/E				GRY	CLR				121	64
12	B	A		0	0	2	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	SG/E	HP			GRY	CLR	BLU			121	65
12	B	A		0	0	119	BOTT	GLASS		BOD/BASE							AQU					121	66
12	B	A		0	0	4	BOTT	GLASS	BLOWN	BEER	BOD/BASE					EMBOS	AQU				W/ PORTIONS OF "THIS BOTTLE NOT TO BE SOLD"	121	67
12	B	A		0	0	1	BOTT	GLASS	BLOWN	BODY						EMBOS	AQU				".M."	121	68
12	B	A		0	0	1	BOTT	GLASS	BLOWN	BODY						EMBOS	AQU				".VA."	121	69
12	B	A		0	0	1	BOTT	GLASS	BLOWN	BODY						EMBOS	AQU				".ALE."	121	70
12	B	A		0	0	1	BOTT	GLASS	BLOWN	BODY						EMBOS	AQU				".WAS."	121	71
12	B	A		0	0	1	BOTT	GLASS	BLOWN	BODY						EMBOS	AQU				".XA."	121	72

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
12	B	A		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"R.P[ORTNER]/WASHI[NGTON]"	121	73	
12	B	A		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB								121	74
12	B	A		0	0	1	BOTT	GLASS	BLOWN		LIP	CORK	LTOOL	STRT								121	75
12	B	A		0	0	4	BOTT	GLASS		BEER	BODY											121	76
12	B	A		0	0	33	BOTT	GLASS			BODY											121	77
12	B	A		0	0	1	BOTT	GLASS	BLOWN	WINE	LIP	LIGHT	LTOOL	BLOB								121	78
12	B	A		0	0	2	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS				W/ PORTIONS OF "THIS BOTTLE NOT TO BE SOLD"	121	79	
12	B	A		0	0	12	BOTT	GLASS	BLOWN	WINE	BODY									BLACK OLIVE	121	80	
12	B	A		0	0	13	BOTT	GLASS			BODY										121	81	
12	B	A		0	0	1	VESS	GLASS	MOLD	GOBLET	BOD/RIM									PANELED	121	82	
12	B	A		0	0	1	VESS	GLASS	MOLD		BODY									STAR DESIGN	121	83	
12	B	A		0	0	1	VESS	GLASS			RIM										121	84	
12	B	A		0	0	1	VESS	GLASS			HANDLE										121	85	
12	B	A		0	0	2	VESS	GLASS			BODY										121	86	
12	B	A		0	0	1	VESS	GLASS			BODY										121	87	
12	B	A		0	0	80	CM	GLASS		WINDOW											121	88	
12	B	A		0	0	3	CM	PLASTER													121	89	
12	B	A		0	0	2	CM	BRICK													121	90	
12	B	A		0	0	1	D/P	CERAMIC		DRAINPIPE							RED	BRN			121	91	
12	B	A		0	0	5	UNREC	CUPR-ALLOY												FLAT FRAGMENTS	121	92	
12	B	A		0	0	2	CM	SLATE													121	93	
12	B	A		0	0	4	L/H	COAL													121	94	
12	B	A		0	0	80	HARD	FER-ALLOY		NAIL											121	95	
12	B	A		0	0	1	UNREC	FER-ALLOY												FLAT FRAGMENT	121	96	
12	B	A		0	0	7	MAMM	BONE								BUTCH					121	97	
12	B	A		0	0	5	OYS	SHELL													121	98	
12	B	A		0	0	1	MUSSL	SHELL													121	99	
12	B	A		0	0	2	BOTT	GLASS	BLOWN		LIP		LTOOL	BLOB							121	100	
12	B/C	A		0	0	1	FAST	PORCELAIN		BUTTON										2-HOLE, DIAMTER= .42"	109	1	
12	B/C	A		0	0	1	FAST	PORCELAIN		BUTTON										4-HOLE, DIAMTER= .38"	109	2	

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
12	B/C	A		0	0	1	FAST	GLASS		BUTTON										4-HOLE, DIAMTER= .39"	109	3
12	B/C	A		0	0	1	FAST	CUPR-ALLOY MOLD		BUCKLE										CANNOT MAKE OUT DESIGN AT THIS TIME DUE TO CORROSION, .82" X .75"	109	4
12	B/C	A		0	0	1	TOB	BALLCLAY	6/64	PIPE	STEM										109	5
12	B/C	A		0	0	1	TOB	BALLCLAY	5/64	PIPE	STEM										109	6
12	B/C	A		0	0	2	TOB	BALLCLAY	4/64	PIPE	STEM										109	7
12	B/C	A		0	0	1	AMMO	LEAD		BULLET											109	8
12	B/C	A		0	0	4	FC/S	RE-EARTH	PW	FLATWARE	BOD/BASE			UNDEC		SPALL					109	9
12	B/C	A		0	0	2	FC/S	RE-EARTH	CW	FLATWARE	BOD/BASE			UNDEC							109	10
																				0		
12	B/C	A		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	RIM			UNDEC							109	11
12	B/C	A		0	0	1	FC/S	RE-EARTH	YW	HOLLOWWARE	BODY			UNDEC		SPALL					109	12
12	B/C	A		0	0	2	FC/S	RE-EARTH	PW	FLATWARE	BASE			HP	FLORAL	SPALL			BLU		109	13
12	B/C	A		0	0	4	FC/S	RE-EARTH	WW	HW/FW	BOD/BASE			TP	GEO	SPALL			BLU		109	14
																				0		
12	B/C	A		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BODY			TP	ORIENT				BLU		109	15
12	B/C	A		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	RIM			TP	WILLOW				BLU		109	16
12	B/C	A		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	RIM			HP/GILD		SPALL			POL	DEC= BLUE HP INTERIOR/GILDED BAND PAINTED NEAR RIM EXTERIOR	109	17
12	B/C	A		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BASE			TP	LAND				BLK		109	18
																				0		
12	B/C	A		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BODY			TP	FLORAL	SPALL			BRN		109	19
12	B/C	A		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	RIM			LINED					BLU		109	20
12	B/C	A		0	0	2	FC/S	RE-EARTH	IS	FLATWARE	BODY			FLOW	FLORAL				BLU		109	21
12	B/C	A		0	0	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			ANN					BRN		109	22
12	B/C	A		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	RIM			SE					BLU		109	24
12	B/C	A		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	RIM			SE		MOLD			BLU	FISH SCALE EDGE	109	25
12	B/C	A		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	RIM			SE					GRN		109	26
12	B/C	A		0	0	2	FC/S	RE-EARTH		HOLLOWWARE	BODY					BURN					109	27
12	B/C	A		0	0	1	FPREP	CS-EARTH	RW	HOLLOWWARE	RIM			SLIPDEC					RED	WHT	109	28

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
12	B/C	A		0	0	12	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE										109	29
12	B/C	A		0	0	1	BOTT	STONEWARE			LIP			BLOB			GRY	BRN			109	30
12	B/C	A		0	0	1	FSTOR	STONEWARE			BODY	W/I					GRY	BRN			109	31
12	B/C	A		0	0	1	BOTT	GLASS	BLOWN		BASE			PONTIL			AQU			12 SIDED	109	32
12	B/C	A		0	0	25	BOTT	GLASS			BODY						AQU				109	33
12	B/C	A		0	0	10	BOTT	GLASS			BODY						CLR				109	34
12	B/C	A		0	0	11	BOTT	GLASS		WINE	BODY						OLV				109	35
12	B/C	A		0	0	4	BOTT	GLASS	BLOWN	BEER	BOD/BASE					EMBOS	AQU				109	36
12	B/C	A		0	0	1	BOTT	GLASS	BLOWN	BEER	BASE					EMBOS	AQU			"1"	109	37
12	B/C	A		0	0	2	BOTT	GLASS	BLOWN		BODY						AMB				109	38
12	B/C	A		0	0	2	BOTT	GLASS	BLOWN		BODY						GRN				109	39
12	B/C	A		0	0	1	CM	SLATE													109	40
12	B/C	A		0	0	4	L/H	COAL													109	41
12	B/C	A		0	0	7	L/H	CLINKER													109	42
12	B/C	A		0	0	3	CM	MORTAR													109	43
12	B/C	A		0	0	1	CM	BRICK													109	44
12	B/C	A		0	0	12	UNREC	FER-ALLOY												FLAT FRAGMENTS	109	45
12	B/C	A		0	0	3	UNREC	FER-ALLOY												CONCRETIONS, NO VISIBLE CORE	109	46
12	B/C	A		0	0	179	HARD	FER-ALLOY		NAIL											109	47
12	B/C	A		0	0	14	CM	GLASS		WINDOW											109	48
12	B/C	A		0	0	19	MAMM	BONE							BUTCH						109	49
*																						
12	C	A		0	0	5	FC/S	RE-EARTH	WW	FLATWARE	BOD/BASE			UNDEC		SPALL					110	1
12	C	A		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	BASE			UNDEC							110	2
12	C	A		0	0	2	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			ANN						POL DEC= YELLOW/BLUE BANDS	110	3
12	C	A		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BODY			TP	GEO	SPALL				BLU	110	4
12	C	A		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	RIM			SPONGE						GRN	110	5
12	C	A		0	0	2	FC/S	PORCELAIN	UNREC	FLATWARE	BODY			UNDEC							110	6
12	C	A		0	0	5	FC/S	RE-EARTH	RB	HOLLOWWARE	BODY										110	7
12	C	A		0	0	1	FPREP	CS-EARTH	RW	FLATWARE	BODY	UG/I	LG/E			SPALL	RED	BRN			110	8
12	C	A		0	0	2	BOTT	STONEWARE	AMSW		BODY	ALB/I					BUF	BRN			110	9
12	C	A		0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	ALB/I	SG/E				GRY	CLR			110	10

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
12	C	A		0	0	2	FSTOR	STONEWARE			BODY	W/I	SG/E				GRY	CLR			110	11
12	C	A		0	0	1	FSTOR	STONEWARE			BODY	W/I	SG/E				GRY	BRN			110	12
12	C	A		0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	ALB/I	ALB/E				GRY	BRN			110	13
12	C	A		0	0	1	FSTOR	STONEWARE			BODY	W/I					GRY	YEL			110	14
12	C	A		0	0	11	FSTOR	STONEWARE			BODY	W/I					GRY	BRN			110	15
12	C	A		0	0	5	FSTOR	STONEWARE			BODY	W/I					BUF	ORG			110	16
12	C	A		0	0	1	FSTOR	STONEWARE			BODY				BURN		GRY				110	17
12	C	A		0	0	1	FSTOR	STONEWARE			BODY	W/I			STAMP		GRY	BRN		"HER.."	110	18
12	C	A		0	0	1	FSTOR	STONEWARE			BODY	ALB/I			STAMP		BUF	BRN		"..NER"	110	19
12	C	A		0	0	1	FSTOR	STONEWARE			BODY	W/I			STAMP		BUF	ORG		"..OGTHUM N.."	110	20
12	C	A		0	0	1	FSTOR	STONEWARE			LIP			ROUND			GRY	BRN			110	21
12	C	A		0	0	89	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE										110	22
12	C	A		0	0	3	BOTT	STONEWARE	C&G	GINGERBEER	LIP			LIGHT							110	23
12	C	A		0	0	2	BOTT	STONEWARE	C&G	GINGERBEER	LIP			ROUND							110	24
12	C	A		0	0	2	BOTT	GLASS	BLOWN	BEER	LIP	CORK	LTOOL	CHAMP			AMB				110	25
12	C	A		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB			AMB				110	26
12	C	A		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AMB			"..D"	110	27
12	C	A		0	0	1	VESS	GLASS	BLOWN		BODY					MOLD	AMB			RIPPLED	110	28
12	C	A		0	0	2	VESS	GLASS	BLOWN		BODY					MOLD	AMB			HONEYCOMB PATTERN	110	29
12	C	A		0	0	10	BOTT	GLASS		BEER	BODY						AMB				110	30
12	C	A		0	0	1	BOTT	CUPR-ALLOY	BEER	STOPPER		HUTCH									110	32
12	C	A		0	0	131	BOTT	GLASS			BOD/BASE						AQU				110	33
12	C	A		0	0	62	BOTT	GLASS			BOD/BASE						OLV				110	34
12	C	A		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB			AQU				110	35
12	C	A		0	0	2	BOTT	GLASS	BLOWN		LIP		LTOOL	BLOB			AQU				110	36
12	C	A		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	OLV			"RO../BR.."	110	37
12	C	A		0	0	6	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			W/ PORTIONS OF "THIS BOTTLE NOT TO BE SOLD"	110	38
12	C	A		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"..CO../..T.."	110	39
12	C	A		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"..ORT.."	110	40
12	C	A		0	0	2	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			LARGE CIRCLES, MEND	110	41
12	C	A		0	0	13	BOTT	GLASS			BODY						CLR				110	42
12	C	A		0	0	2	VESS	GLASS			BODY						CLR				110	43

CARLYLE, SITE 44AX35, PHASE III
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TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
12	C	A		0	0	57	CM	GLASS		WINDOW												110	44
12	C	A		0	0	1	CONTR	ZINC		FRUITJAR	LID	SCREW										110	45
12	C	A		0	0	3	CM	BRICK														110	46
12	C	A		0	0	6	L/H	CLINKER														110	47
12	C	A		0	0	2	CM	SLATE														110	48
12	C	A		0	0	3	L/H	COAL														110	49
12	C	A		0	0	1	CM	MORTAR														110	50
12	C	A		0	0	12	CM	PLASTER														110	51
12	C	A		0	0	1	D/P	CERAMIC		DRAINPIPE							RED	BRN				110	52
12	C	A		0	0	1	D/P	CERAMIC		DRAINPIPE							RED	BRN				110	53
12	C	A		0	0	12	UNREC	FER-ALLOY												FLAT FRAGMENTS		110	54
12	C	A		0	0	118	HARD	FER-ALLOY		NAIL												110	55
12	C	A		0	0	1	HARD	FER-ALLOY		NAIL										ADHERED TO FLAT FRAGMENT		110	56
12	C	A		0	0	4	MAMM	BONE							BUTCH							110	57
12	C	A		0	0	1	OYS	SHELL														110	58
*																							
12	F	F21		0	0	8	CM	WOOD		SAMPLE												123	1
12	F	F21		0	0	4	HARD	FER-ALLOY		NAIL										CLEANING		124	1
*																							
12	D	I		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BOD/BASE			UNDEC								111	1
12	D	I		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BASE			UNDEC		SPALL						111	2
12	D	I		0	0	1	FC/S	RE-EARTH	PW	FLATWARE	RIM			TP	GEO				BLU			111	3
12	D	I		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	BASE			TP	ORIENT				BLU			111	4
12	D	I		0	0	2	FC/S	RE-EARTH	WW	FLATWARE	BOD/BASE			HP	FLORAL				BLU			111	5
12	D	I		0	0	2	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY			HP	FLORAL			POL	DEC= GREEN/YELLOW/BROWN			111	6
12	D	I		0	0	2	FC/S	RE-EARTH	CW	HOLLOWWARE	BASE			UNDEC								111	7
12	D	I		0	0	1	FC/S	RE-EARTH	CW	HOLLOWWARE	BASE			UNDEC								111	8
12	D	I		0	0	1	FPREP	CS-EARTH	RW	HOLLOWWARE	BODY				MOLD	RED	RED			RIPPLED		111	9
12	D	I		0	0	1	FPREP	CS-EARTH	RW	HOLLOWWARE	BODY				BURN	RED						111	10
12	D	I		0	0	2	FSTOR	STONEWARE		HOLLOWWARE	BODY	W/I							GRY	BRN		111	11
12	D	I		0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	ALB/E						GRY	BRN		111	12

CARLYLE, SITE 44AX35, PHASE III
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TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
*																						
	13	D	J	0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BODY										115	1
	13	D	J	0	0	1	BOTT	GLASS			BODY						GRN				115	2
	13	D	J	0	0	1	BOTT	GLASS			BODY						AMB		PANELED		115	3
	13	D	J	0	0	3	BOTT	GLASS			BODY						AQU				115	4
	13	D	J	0	0	1	BOTT	GLASS	BLOWN		LIP		LTOOL	BLOB			OLV				115	5
	13	D	J	0	0	13	UNREC	FER-ALLOY												FLAT FRAGMENTS	115	6
	13	D	J	0	0	7	HARD	FER-ALLOY		NAIL											115	7
*																						
	13	E	M	0	0	2	BOTT	GLASS			BODY						AQU				116	1
	13	E	M	0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB			AQU				116	2
	13	E	M	0	0	1	BOTT	GLASS		BEER	BODY						AMB				116	3
	13	E	M	0	0	1	L/H	CLINKER													116	4
	13	E	M	0	0	7	HARD	FER-ALLOY		NAIL											116	5
	13	E	M	0	0	2	HARD	CUPR-ALLOY		TACK											116	6
*																						
	13	H	R	0	0	1	CM	GLASS		WINDOW							AQU				118	1
	13	H	R	0	0	1	L/H	COAL													118	2
	13	H	R	0	0	1	CM	PLASTER													118	3
*																						
	13	F	V	0	0	1	CM	GLASS		WINDOW							AQU				117	1
	13	F	V	0	0	2	OYS	SHELL													117	2
**																						
*																						
	14	A	J	0	0	178	BOTT	GLASS			BOD/BASE						AQU				119	1
	14	A	J	0	0	28	BOTT	GLASS	BLOWN	BEER	BOD/BASE				EMBOS	AQU				W/ PORTIONS OF "THIS BOTTLE NOT TO BE SOLD"	119	2
	14	A	J	0	0	1	BOTT	GLASS	BLOWN		BASE			PONTIL	EMBOS	AQU			"E.B. CO./..SO../..PA."	119	3	

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..[ALEXAND]RIA"	119	4
14	A	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"ROBER[T PORTNER]../BRE[WERY].."	119	5
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..[ALEXA]NDR[IA].."	119	6
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"7" "../BALTI[MORE].."	119	7
14	A	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"..[PO]RTN[ER]../G CO."	119	8
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..SCHNE[LL].."	119	9
14	A	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"..PORTNER../..COMP.."	119	10
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..NER/.."	119	11
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..AL.."	119	12
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..RT../..EWIN.."	119	13
14	A	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"../PORT[NER]../..ING.."	119	14
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"E.B.G../C../..TESVILI.."	119	15
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..NIA BR.."	119	16
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..ER/..CO"	119	17
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..TTES.."	119	18
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..ALEXA[NDRIA]"	119	19
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..[ALEXA]NDR[IA].."	119	20
14	A	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"ROBERT [PORTNER]/BREWERY.."	119	21
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..BA.."	119	22
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..BA.."	119	22
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BOD/BASE					EMBOS	AQU			"..RIA.."	119	23
0																						
14	A	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"ROB[ERT PORTNER]/BR[EWE]RY.."	119	24
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..RT/.."	119	25
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..RT/.."	119	25
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..NER/..VA.."	119	26
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..ST.."	119	27
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..ST.."	119	27
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..NER/..MR.."	119	28
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..RT.."	119	29
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..RT.."	119	29
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..I.."	119	30

CARLYLE, SITE 44AX35, PHASE III
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TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART	
14	A	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			MONOGRAM INTERTWINED "SPL"	119	31	
14	A	J		0	0	9	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB			AQU				119	32	
14	A	J		0	0	49	BOTT	GLASS		WINE	BODY						OLV				119	33	
14	A	J		0	0	1	BOTT	GLASS	BLOWN	WINE	LIP	CORK	LTOOL	BLOB			OLV				119	34	
14	A	J		0	0	3	VESS	GLASS									CLR				119	35	
14	A	J		0	0	55	BOTT	GLASS			BODY						CLR				119	36	
14	A	J		0	0	2	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB			CLR			MEND	119	37	
14	A	J		0	0	1	VESS	GLASS		MUG	HANDLE						CLR				119	38	
14	A	J		0	0	1	VESS	GLASS	PRESS		BASE						CLR			STAR PATTERN	119	39	
14	A	J		0	0	3	L/H	GLASS	BLOWN	LAMP	CHIMNEY						CLR			CRIMPED RIM	119	40	
14	A	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"PO.."	119	41	
14	A	J		0	0	9	FC/S	RE-EARTH	WW	FLATWARE	BOD/BASE			UNDEC							119	42	
14	A	J		0	0	1	FC/S	RE-EARTH	WW	FLATWARE	RIM			SE					GRN		119	43	
14	A	J		0	0	1	FSTOR	STONEWARE			BODY					BURN	GRY				119	44	
14	A	J		0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	SG/E				GRY	CLR			119	45	
14	A	J		0	0	10	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE										119	46	
14	A	J		0	0	2	BOTT	STONEWARE	C&G	GINGERBEER	LIP			LIGHT							119	47	
14	A	J		0	0	3	G/H	RE-EARTH	RB	SPITTOON	BASE									MEND	119	48	
14	A	J		0	0	1	FC/S	RE-EARTH	RB	HOLLOWWARE	BODY										119	49	
14	A	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BASE					EMBOS	AMB			"Y"	119	50	
14	A	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AMB			"..D.C../.B."	119	51	
14	A	J		0	0	31	BOTT	GLASS	BLOWN	BEER	BODY						AMB				119	52	
14	A	J		0	0	31	CM	GLASS		WINDOW							AQU				119	53	
14	A	J		0	0	2	L/H	CLINKER													119	54	
14	A	J		0	0	1	CM	BRICK													119	55	
14	A	J		0	0	1	CM	MORTAR													119	56	
14	A	J		0	0	9	UNREC	CUPR-ALLOY													CIRCULAR FLAT PIECE WITH ROLLED EDGE	119	57
14	A	J		0	0	20	L/H	COAL													119	59	
14	A	J		0	0	1	CM	WOOD													FINISHED SIDE, POSSIBLY VENEERED	119	60
14	A	J		0	0	3	CM	WOOD	OAK												SMALL FRAGMENTS	119	61
14	A	J		0	0	4	C/F	LEATHER		SHOE					COMP						IRON TACKS IN PLACE HOLDING LEATHER TO SHOE SOLE	119	62
14	A	J		0	0	1	D/P	CERAMIC		DRAINPIPE							BUF	BRN				119	63

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
14	B	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..XAN.."	126	20
14	B	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..ND.."	126	21
14	B	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"..NI../TRAD[E]/TIVOL[I]/MA[RK]/..."	126	22
14	B	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..VA."	126	23
14	B	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..T/BRIDWELL.."	126	24
14	B	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"BERGNI../FJ../CH.."	126	25
14	B	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"BO../BALTI[MORE].."	126	26
14	B	J		0	0	1	BOTT	GLASS	BLOWN		BASE					EMBOS	AQU			"3"	126	27
14	B	J		0	0	21	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE										126	28
14	B	J		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE					STAMP				"D"	126	29
14	B	J		0	0	1	BOTT	STONEWARE			BODY	W/I				STAMP	GRY	BRN		IN SCRIPT, "A../NUM. 42.."	126	30
14	B	J		0	0	1	BOTT	STONEWARE			BODY	W/I				STAMP	GRY	BRN		IN SCRIPT, LARGE LETTER, ILLEGIBLE	126	31
14	B	J		0	0	2	BOTT	STONEWARE	C&G	GINGERBEER	BOD/LIP			LIGHT							126	32
14	B	J		0	0	17	BOTT	STONEWARE	AMSW	BEER	BOD/LIP	ALB/I				STAMP	BUF	YEL		"..TTO PORTNER", MEND	126	33
14	B	J		0	0	23	BOTT	GLASS		BEER	BOD/BASE						AMB				126	34
14	B	J		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB			AMB				126	35
14	B	J		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	CORK	LTOOL	DAVIS			AMB				126	36
14	B	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AMB			PART OF "THIS BOTTLE NOT TO BE SOLD.."	126	37
14	B	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AMB			"../..NER/[A]LEXANDRIA, VA."	126	38
14	B	J		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AMB			"..TNER/..CO../..VA"	126	39
14	B	J		0	0	35	BOTT	GLASS		WINE	BODY						OLV				126	40
14	B	J		0	0	16	BOTT	GLASS		WINE	BODY						OLV				126	41
14	B	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..TIMO.."	126	42
14	B	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..R/..NG CO."	126	43
14	B	J		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..NER.."	126	44
14	B	J		0	0	49	BOTT	GLASS			BODY						CLR				126	45
14	B	J		0	0	1	BOTT	GLASS	BLOWN	FLASK	BOD/LIP	CORK	LTOOL	PRESCR			CLR				126	46
14	B	J		0	0	3	VESS	GLASS			RIM						CLR				126	47
14	B	J		0	0	1	VESS	GLASS	MOLD	MUG	BOD/BASE						CLR			OCTAGONAL SHAPED	126	48
14	B	J		0	0	1	VESS	GLASS	MOLD	MUG	BOD/BASE						CLR			SMOOTH SIDES	126	49
14	B	J		0	0	1	VESS	GLASS	MOLD	MUG	BODY						CLR			ANGULAR	126	50
14	B	J		0	0	2	VESS	GLASS	MOLD	MUG	BODY						CLR				126	51
14	B	J		0	0	1	VESS	GLASS	PRESS		BODY						CLR				126	52

CARLYLE, SITE 44AX35, PHASE III
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TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
14	B	J		0	0	6	L/H	GLASS	BLOWN	LAMP	CHIMNEY						CLR				126	53
14	B	J		0	0	1	CONTR	GLASS	BLOWN	FRUITJAR	LIP	SCREW	GRND				AQU			BLOW BACK MOLD WITH GROUND LIP	126	54
14	B	J		0	0	1	CONTR	GLASS	MOLD	FRUITJAR	LIDLINER					EMBOS	AQU			"JAN. 1969/.." MOST ILLEGIBLE	126	55
14	B	J		0	0	2	FAST	PORCELAIN		BUTTON	COLLAR									SHANKS MISSING	126	56
14	B	J		0	0	2	FC/S	RE-EARTH	WW	FLATWARE	BOD/RIM			UNDEC							126	57
14	B	J		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY					MOLD		POL		DEC= GREEN LEAVES EXTERIOR, PINK GLAZE INTERIOR	126	58
14	B	J		0	0	23	UNREC	CUPR-ALLOY												FLAT FRAGMENTS	126	59
14	B	J		0	0	39	CM	GLASS		WINDOW							AQU				126	60
14	B	J		0	0	2	CM	BRICK													126	61
14	B	J		0	0	4	L/H	COAL													126	62
14	B	J		0	0	8	L/H	CLINKER													126	63
14	B	J		0	0	18	UNREC	FER-ALLOY												MISC FRAGMENTS	126	64
14	B	J		0	0	2	UNREC	FER-ALLOY												FRAGMENTS WITH ROLLED EDGES	126	65
14	B	J		0	0	1	HARD	FER-ALLOY		STAPLE											126	66
14	B	J		0	0	40	HARD	FER-ALLOY		NAIL											126	67
14	B	J		0	0	2	UNREC	FER-ALLOY												LARGE FLAT FRAGMENTS	126	68
14	B	J		0	0	1	HARD	FER-ALLOY		SPIKE											126	69
14	B	J		0	0	1	UNREC	FER-ALLOY												LARGE SQUARE WITH CUT OUT CENTER, 2.4" X 1.3"	126	70
14	B	J		0	0	4	CM	PLASTER													126	71
14	B	J		0	0	2	MAMM	TOOTH													126	72
14	B	J		0	0	1	FISH	SCALE													126	73
14	B	J		0	0	27	MAMM	BONE								BUTCH					126	74
14	B	J		0	0	8	OYS	SHELL													126	75
14	B	J		0	0	2	CLAM	SHELL													126	76
14	C/D	Q		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY			UNDEC							127	1
14	C/D	Q		0	0	1	FPREP	CS-EARTH	RW	HOLLOWWARE	BODY	LG/I	W/E				RED	BRN			127	2
14	C/D	Q		0	0	2	C/F	LEATHER		SHOE						COMP				LEATHER STRAPS WITH COPPER ALLOY TACKS	127	3
14	C/D	Q		0	0	110	BOTT	GLASS			BOD/BASE						AQU				127	4
14	C/D	Q		0	0	15	BOTT	GLASS	BLOWN	BEER	BOD/BASE					EMBOS	AQU			ALL PART OF "THIS BOTTLE NOT TO BE SOLD"	127	5

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
14	C/D	Q		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..T POR.."	127	6
14	C/D	Q		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..GTON"	127	7
14	C/D	Q		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"WAS.."	127	8
14	C/D	Q		0	0	1	BOTT	GLASS	BLOWN		BODY					EMBOS	AQU			"..E.."	127	9
14	C/D	Q		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AQU			"[B]REWE [RY] / ..SHINGTO.."	127	10
14	C/D	Q		0	0	1	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB			AQU				127	11
14	C/D	Q		0	0	28	BOTT	GLASS		WINE	BOD/BASE						OLV				127	12
14	C/D	Q		0	0	9	BOTT	GLASS		BEER	BOD/BASE						AMB				127	13
14	C/D	Q		0	0	1	BOTT	GLASS	BLOWN	BEER	BODY					EMBOS	AMB			"..PORTNER / [BREW] ING"	127	14
14	C/D	Q		0	0	27	BOTT	GLASS			BODY						CLR				127	15
14	C/D	Q		0	0	2	VESS	GLASS	MOLD	TUMBLER	BODY						CLR				127	16
14	C/D	Q		0	0	1	VESS	GLASS	MOLD	MUG	HANDLE						CLR				127	17
14	C/D	Q		0	0	1	L/H	GLASS	BLOWN	LAMP	CHIMNEY						CLR				127	18
14	C/D	Q		0	0	24	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE										127	19
14	C/D	Q		0	0	2	BOTT	STONEWARE	C&G	GINGERBEER	LIP/NECK			LIGHT						MEND	127	20
14	C/D	Q		0	0	7	BOTT	STONEWARE	C&G	GINGERBEER	LIP/NECK			LIGHT							127	21
14	C/D	Q		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	WHOLE			LIGHT							127	22
14	C/D	Q		0	0	1	BOTT	STONEWARE	AMSW	BEER	BOD/BASE	ALB/I				STAMP	BUF	BRN		"GEO[RGE] SCHNELL"	127	23
14	C/D	Q		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP				"..AT-DUNDAS / ..SGOW / ..ERY CO."	127	24
14	C/D	Q		0	0	1	BOTT	STONEWARE	C&G	GINGERBEER	BASE					STAMP				"T"	127	25
14	C/D	Q		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	BODY	W/I	SG/E				CRM	CLR			127	26
14	C/D	Q		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	BODY	W/I					GRY	BRN			127	27
14	C/D	Q		0	0	1	FSTOR	STONEWARE		HOLLOWWARE	BODY	W/I	SG/E				GRY	BRN			127	28
14	C/D	Q		0	0	1	FSTOR	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	SG/E				GRY	CLR			127	29
14	C/D	Q		0	0	46	CM	GLASS		WINDOW							AQU				127	30
14	C/D	Q		0	0	19	L/H	CLINKER													127	31
14	C/D	Q		0	0	5	L/H	COAL													127	32
14	C/D	Q		0	0	1	CM	SLATE													127	33
14	C/D	Q		0	0	2	CM	BRICK													127	34
14	C/D	Q		0	0	14	CM	MORTAR													127	35
14	C/D	Q		0	0	22	UNREC	FER-ALLOY												FLAT FRAGMENTS	127	36
14	C/D	Q		0	0	1	UNREC	FER-ALLOY												FLAT FRAGMENT WITH ROLLED EDGE	127	37
14	C/D	Q		0	0	1	UNREC	FER-ALLOY		RING											127	38

CARLYLE, SITE 44AX35, PHASE III
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TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART		
14	C/D	Q		0	0	37	HARD	FER-ALLOY		NAIL											127	39		
14	C/D	Q		0	0	19	MAMM	BONE								BUTCH					127	40		
14	C/D	Q		0	0	9	OYS	SHELL													127	41		
14	C/D	Q		0	0	2	BOTT	GLASS	BLOWN		LIP		LTOOL	BLOB			AQU				127	42		
*																								
14	E	Q		0	0	1	FC/S	RE-EARTH	WW	HOLLOWWARE	RIM									UNDEC	129	1		
14	E	Q		0	0	2	FC/S	RE-EARTH	WW	HOLLOWWARE	BODY									UNDEC	129	2		
14	E	Q		0	0	32	BOTT	STONEWARE	C&G	GINGERBEER	BOD/BASE										129	3		
14	E	Q		0	0	3	BOTT	STONEWARE	C&G	GINGERBEER	LIP									LIGHT	129	4		
14	E	Q		0	0	1	BOTT	STONEWARE	AMSW		LIP	ALB/I								LIGHT	129	5		
14	E	Q		0	0	2	FSTOR	STONEWARE		HOLLOWWARE	BOD/HAND	W/I	SG/E								GRY	BRN		
14	E	Q		0	0	1	BOTT	STONEWARE	AMSW		BODY	ALB/I									GRY	CLR		
14	E	Q		0	0	4	BOTT	STONEWARE			BOD/BASE										GRY	CLR		
14	E	Q		0	0	1	FPREP	CS-EARTH	RW	HOLLOWWARE	BODY	W/I				BURN					RED	BLK		
14	E	Q		0	0	22	BOTT	GLASS			BODY										AQU	129	10	
14	E	Q		0	0	4	BOTT	GLASS	BLOWN	BEER	LIP	LIGHT	LTOOL	BLOB							AQU	129	11	
14	E	Q		0	0	1	BOTT	GLASS			BODY										OLV	129	12	
14	E	Q		0	0	1	BOTT	GLASS			BODY						EMBOS	AQU			ILLEGIBLE	129	13	
14	E	Q		0	0	1	BOTT	GLASS	BLOWN		BODY						EMBOS	AQU			". .NG"	129	14	
14	E	Q		0	0	1	VESS	GLASS	MOLD		BODY						EMBOS	WHT			ILLEGIBLE	129	15	
14	E	Q		0	0	5	BOTT	GLASS			BODY										CLR	129	16	
14	E	Q		0	0	1	VESS	GLASS	MOLD	MUG	BODY										CLR	129	17	
14	E	Q		0	0	1	CM	GLASS		WINDOW											AQU	129	18	
14	E	Q		0	0	3	CM	CHARCOAL														129	19	
14	E	Q		0	0	1	CM	MORTAR														129	20	
14	E	Q		0	0	1	CM	PLASTER														129	21	
14	E	Q		0	0	7	L/H	CLINKER														129	22	
14	E	Q		0	0	1	CM	BRICK														129	23	
14	E	Q		0	0	59	HARD	FER-ALLOY		NAIL												129	24	
14	E	Q		0	0	3	UNREC	FER-ALLOY														FLAT FRAGMENT WITH ROLLED EDGE	129	25
14	E	Q		0	0	15	UNREC	FER-ALLOY														FLAT FRAGMENTS	129	26
14	E	Q		0	0	1	CONTR	FER-ALLOY		LID			SCREW									129	27	

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
14	E	Q		0	0	1	HARD	CUPR-ALLOY		TACK											129	28
14	E	Q		0	0	2	MAMM	BONE													129	29
14	E	Q		0	0	1	OYS	SHELL													129	30
*																						
14	F	V		0	0	1	FC/S	RE-EARTH	CW	FLATWARE	RIM			UNDEC							130	1
14	F	V		0	0	1	BOTT	GLASS			BODY						AQU				130	2
14	F	V		0	0	1	BOTT	GLASS			BODY				EMBOS	AQU			ILLEGIBLE		130	3
14	F	V		0	0	2	CM	BRICK													130	4
14	F	V		0	0	3	HARD	FER-ALLOY		NAIL											130	5
14	F	V		0	0	3	CM	CHARCOAL													130	6
14	F	V		0	0	1	L/H	COAL													130	7
14	F	V		0	0	2	CM	PLASTER													130	8
14	F	V		0	0	1	OYS	SHELL													130	9
**																						
*																						
15	A			0	1	1	TOB	BALLCLAY	5/64	PIPE	STEM										150	1
15	A			0	1	1	TOB	BALLCLAY	4/64	PIPE	STEM										150	2
15	A			0	1	23	FC/S	RE-EARTH	PW	FLATWARE	BOD/BASE			UNDEC		SPALL					150	3
15	A			0	1	9	FC/S	RE-EARTH	PW	FLATWARE	BOD/BASE			UNDEC							150	4
15	A			0	1	26	FC/S	RE-EARTH	CW	FW/HW	BOD/BASE			UNDEC							150	5
15	A			0	1	1	FC/S	RE-EARTH	CW	HOLLOWWARE	BODY		HP	FLORAL					ORG		150	6
15	A			0	1	5	FC/S	RE-EARTH	PW	HOLLOWWARE	BOD/RIM		HP	FLORAL					POL DEC= GREEN/ORANGE/BROWN		150	7
15	A			0	1	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY		ANN		SPALL				POL DEC= BROWN/BLUE		150	8
15	A			0	1	1	FC/S	RE-EARTH	PW	HOLLOWWARE	HANDLE		HP	FLORAL					BLU		150	9
15	A			0	1	5	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY		TP		SPALL				BLU		150	10
15	A			0	1	1	FC/S	RE-EARTH	PW	HOLLOWWARE	RIM		HP	FLORAL	SPALL				BLU		150	11
15	A			0	1	1	FC/S	RE-EARTH	PW	HOLLOWWARE	BODY		HP	FLORAL	SPALL				BLU		150	12
15	A			0	1	1	FC/S	RE-EARTH	PW	FLATWARE	BASE		TP	LAND					BLU		150	13
15	A			0	1	5	FC/S	RE-EARTH	WW	FLATWARE	BOD/BASE			UNDEC							150	14
15	A			0	1	1	FC/S	RE-EARTH	WW	HOLLOWWARE	BASE		TP	UNREC					BLK		150	15

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TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TYPOLGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
15	A			0	1	2	FC/S	RE-EARTH		FLATWARE	BOD/RIM			UNDEC		BURN					150	16
15	A			0	1	2	FC/S	RE-EARTH			BODY			UNDEC		SPALL					150	17
15	A			0	1	1	FC/S	RE-EARTH	PW		RIM			SE		SPALL		GRN			150	18
15	A			0	1	1	FC/S	RE-EARTH	PW	FLATWARE	RIM					MOLD		GRN	MOLDED LEAVES ON RIM		150	19
15	A			0	1	2	FC/S	PORCELAIN	UNREC	HOLLOWWARE	BOD/BASE			UNDEC							150	20
15	A			0	1	1	FSTOR	STONEWARE		HOLLOWWARE	BODY	SG/I	SG/E			SPALL	GRY	CLR			150	21
15	A			0	1	1	FC/S	RE-EARTH	RB	HOLLOWWARE	BODY										150	22
15	A			0	1	2	FPREP	CS-EARTH	RW	HOLLOWWARE	BOD/RIM	LG/I	LG/E				RED	BLK			150	23
15	A			0	1	1	FPREP	RE-EARTH	RW	HOLLOWWARE	BODY	LG/I	LG/E				RED	BLK			150	24
15	A			0	1	1	FPREP	RE-EARTH	RW	HOLLOWWARE	BODY	LG/I	LG/E				RED	CLR			150	25
15	A			0	1	1	BOTT	GLASS			BODY						AQU				150	26
15	A			0	1	4	CM	GLASS		WINDOW							AQU				150	27
15	A			0	1	2	CM	BRICK													150	28
15	A			0	1	1	CM	BRICK											GLAZED		150	29
15	A			0	1	3	CM	PLASTER													150	30
15	A			0	1	2	CM	SLATE													150	31
15	A			0	1	1	L/H	COAL													150	32
15	A			0	1	5	HARD	FER-ALLOY		NAIL											150	33
15	A			0	1	4	OYS	SHELL													150	34
15	A			0	1	8	MAMM	TOOTH													150	35
15	A			0	1	17	MAMM	BONE								BUTCH					150	36

**

*

1	0	A-C	HFJ	0	ST2	1	FC/S	RE-EARTH	IS	SAUCER	BOD/BASE			UNDEC		BMARK				STRUCTURE 2, MOLDED, "DIEU../STO../H.BURG..", BACKHOE SAMPLE	82	1
1	0	A-C	HFJ	0	ST2	1	BOTT	STONEWARE	C&G	GINGERBEER	LIP/NECK			LIGHT						STRUCTURE 2, BACKHOE SAMPLE	82	2
1	0	A-C	HFJ	0	ST2	1	BOTT	STONEWARE	AMSW		WHOLE	ALB/I		BLOB			GRY	BRN		STRUCTURE 2, BACKHOE	82	3
1	0	A-C	HFJ	0	ST2	1	BOTT	GLASS	BLOWN		BOD/BASE				PONTIL		AQU			STRUCTURE 2, BACKHOE	82	4
1	0	A-C	HFJ	0	ST2	2	VESS	GLASS	MOLD	MUG	BASE						CLR			STRUCTURE 2, SMOOTH SIDED, BACKHOE	82	5

CARLYLE, SITE 44AX35, PHASE III
ARTIFACT INVENTORY

TR	UNIT	STR	USTR	LV	FEAT	COUNT	CLASS	MATERIAL	TPOLOGY	FUNCTION	SEGMENT	SUB1	SUB2	SUB3	SUB4	SUB5	BCOL	GCOL	DCOL	NOTES	BAG	ART
*																						
1	0	C	J	0	ST2	1	FC/S	RE-EARTH	WW	HOLLOWWARE	LID			TP	FLORAL				BLU	STRUCTURE 2, BACKHOE	83	1
1	0	C	J	0	ST2	1	FC/S	RE-EARTH	WW	FLATWARE	RIM			TP	FLORAL				BRN	STRUCTURE 2, BACKHOE	83	2
1	0	C	J	0	ST2	1	FC/S	STONEWARE	AMSW	HOLLOWWARE	BODY	W/I	SG/E				GRY	BRN		STRUCTURE 2, BACKHOE	83	3
1	0	C	J	0	ST2	1	UNREC	BONE												STRUCTURE 2, CARVED BONE TUBE, PROB. HANDLE, HAND-ETCHED "D"? AND LARGE "X" AND B"	83	4
*																						
1	0	D	J	0	ST2	1	BOTT	GLASS	2P/SEP	BEER	BOD/BASE					EMBOS	OLV			STRUCTURE 2, ".TIVOLI/MARK/ALEXANDRIA, VA." "[THIS BOTTLE] NOT TO BE SOLD", BACKHOE	84	1
1	0	D	J	0	ST2	1	BOTT	GLASS	BLOWN	BEER	LIP/BOD	LIGHT	LTOOL	BLOB		EMBOS	AQU			STRUCTURE 2, "[ROBERT PORTNER/[BREW]ING CO./..", BACKHOE	84	2
1	0	D	J	0	ST2	1	UNREC	GLASS								MOLT	CLR			STRUCTURE 2, BACKHOE	84	3
*																						
1	0	I	P	0	ST2	1	STAT	STONEWARE		INKWELL	WHOLE	W/I					GRY	BRN		STRUCTURE 2, BACKHOE SAMPLE	81	1

APPENDIX F

List Of Personnel

Program Manager	Janice Artemel
Principal Investigator	Mark Walker
Historians	Kurt Schweigert (Carr Corporation) Timothy Dennee
Phase I Fieldwork	
Crew Chief	John Rutherford
Crew	Joseph Brown Taunya Cosner Thomas Ormsby Danica Ziegler
Phase II Fieldwork	
Crew Chiefs	John Rutherford Danica Ziegler
Crew	Joseph Brown Thomas Ormsby Olivia LeLong Jayme Gianola Julie Solometo
Laboratory Supervisor	Carter Shields
Laboratory Archaeologists	Raymond Chune Victoria Robertson Lisa Petruska Young
Graphics	Sulah Lee Mark Walker