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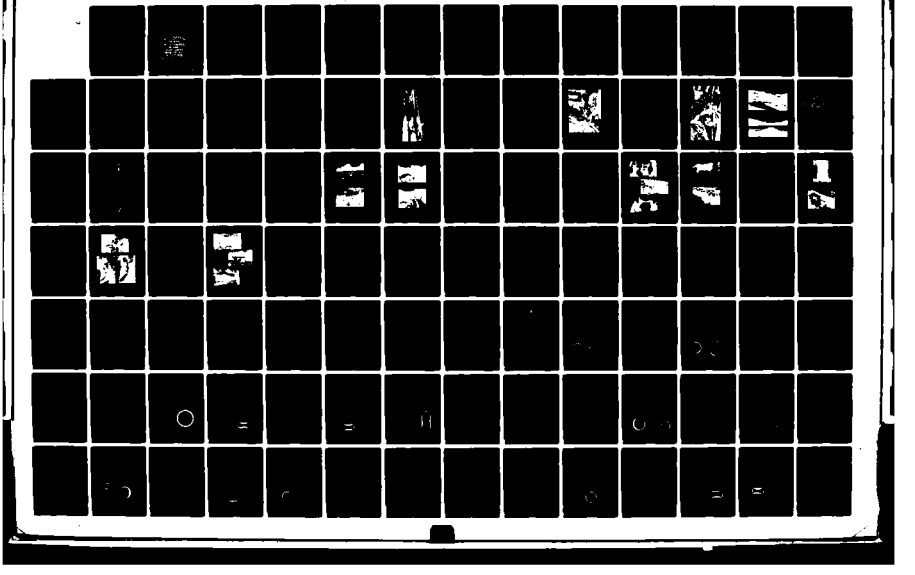
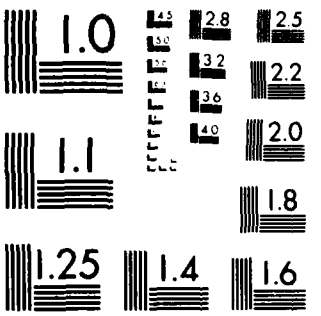




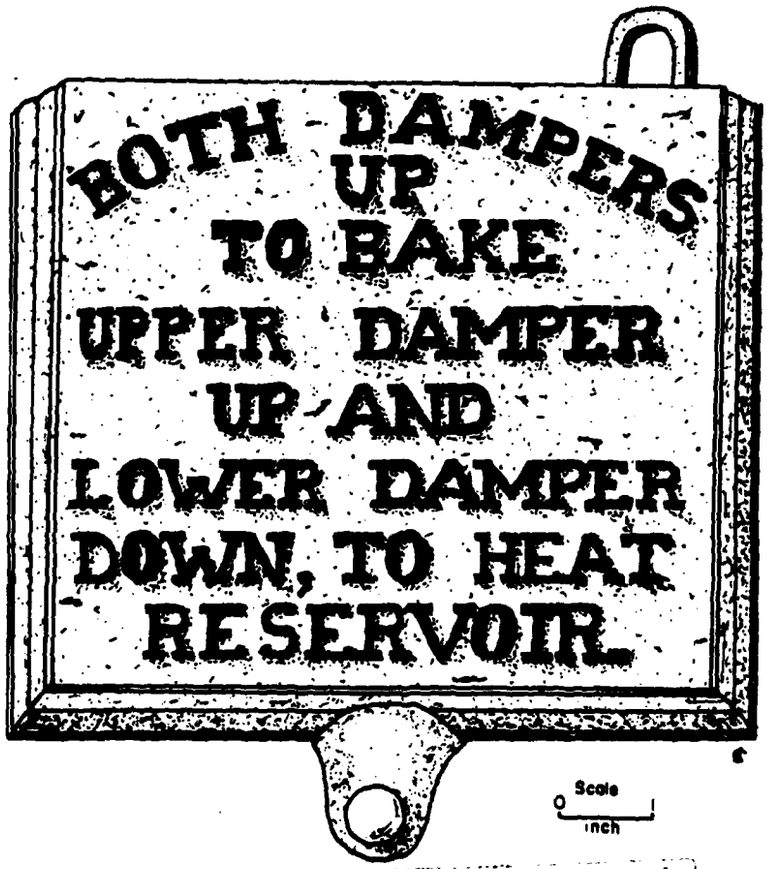
ARCHAEOLOGICAL TEST EXCAVATIONS

OF THE HISTORIC COMPONENT OF 45-WT-1

TEXAS CITY/RIPARIA, WHITMAN COUNTY, WASHINGTON, 1983

by

Caroline D. Carley
Robert Lee Sappington



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The historic town known as Texas City or Riparia was located along the Snake River in southeastern Washington and served as an important transportation center for ferries, steamboats and railroads from the 1860s to the 1930s. It maintained a permanent population of only 80 inhabitants but hundreds of individuals passed through the town weekly. It was abandoned during the Depression years, leveled and partially inundated with construction of Lower Monumental Dam. Testing indicated that remains of the townsite appear to be intact and are likely to yield information important to the history of Texas City and that of Snake River

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settlement and transportation.

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Laboratory of Anthropology

University of Idaho

Moscow

1984

ABSTRACT

The historic town known as Texas City, or Riparia (45-WT-1), was investigated archaeologically in June of 1983 in order to determine its potential for nomination to the National Register of Historic Places. Located along the Snake River in southeastern Washington, the town served as an important transportation center for ferries, steamboats, and railroads from the 1860s to the 1930s as it facilitated settlers, travelers, farmers, ranchers, and employees of three different railroad lines. Although it boasted a permanent population of only 80 inhabitants, hundreds of individuals passed through town weekly. During the Depression years it was abandoned; it was leveled completely during dam construction in the 1960s and partially inundated.

As part of a testing program for the U.S. Army Corps of Engineers, Walla Walla District, archaeologists from the Laboratory of Anthropology, University of Idaho, excavated within the townsite of Texas City/Riparia.

In order to determine the site's potential for nomination to the National Register test excavations were conducted to estimate the horizontal and vertical extent of historic cultural remains; to determine the amount of disturbance, if any, to these remains; and to postulate the significance of such remains to the understanding of the history of the site and the region.

Approximately 348 meters of trench lines were excavated in 30 cm x 4 m units and 10 cm levels to test for feature locations and artifact concentrations. Additional excavation units were opened when features were exposed. Seventeen features were documented and nearly 13,000 items of material culture processed. Two excavated privies were filled with stoves, bone, condiment and beverage bottles, toys, door and car parts, and clothing. The remains of the historic townsite appear to be intact with artifacts recovered dating to the time span of 1860-1930 and representing building construction, food consumption, recreation, and domestic activities.

Test excavations of the historic component of 45-WT-1 have yielded an array of artifacts from, and feature documentation for, this nineteenth and twentieth century site, and have shown that potential for more information on the material culture, and, thus the history, of this Snake River town exists. As the remains of the townsite are likely to yield information important to the history of Texas City, and that of Snake River settlement and transportation, 45-WT-1 may be eligible for nomination to the National Register of Historic Places.

ACKNOWLEDGEMENTS

Field work took place at 45-WT-1 between 16 June and 1 July 1983 under the direction of Caroline D. Carley and Robert Lee Sappington with Roderick Sprague as Principal Investigator. Leroy Allen and John Leier were the Archaeological Coordinators from the U.S. Army Corps of Engineers, Walla Walla District.

In addition to the project directors, the field crew members were: Quentin Mark Arnold, Mary Condon, Karl Gurcke, John Horn, Stan McDonald, and Joseph Martin. Priscilla Wegars visited the site on a rainy day in June and assisted in excavation. Mary Condon helped with background research of the site in Spokane. Logistical and financial assistance for the field work was provided by Catherine Lubben, Karl Gurcke, and Leo Flynn of the Laboratory of Anthropology.

Lenora Barr Torgeson and Della May Evans provided invaluable information on the history of Riparia and visited the site during excavations, identifying areas of the historic town. Della Mae Evans also shared with us the only historic overview photograph we had seen of Riparia and led us to 1967 newspaper articles about the final demise of the town. Jerry Jones of the *Colfax Gazette* tracked down photographs of Riparia which had been taken in 1966 and provided us with copies.

Washing, processing, and cataloguing of artifacts were undertaken by Patty Porterfield, Priscilla Wegars, and Missy Lee. Once processing was completed a number of people provided assistance in identification, description, and analysis. Priscilla Wegars analyzed ceramic artifacts and wrote the *Household Items: Ceramics* section of the MATERIAL CULTURE chapter. Gerald K. Landreth assisted her in the identification of stoneware ceramics. Julia G. Longenecker provided the faunal identification of Appendix A and the information of fauna presented in the *Food Remains* section. John Horn cleaned numerous metal artifacts, identified tin cans, described caps and lids, and sorted cut and wire nails. Quentin Mark Arnold identified most of the metal items of hardware, plumbing, construction, machinery, transportation, and ammunitions, as well as electrical items. Leo Flynn also assisted in this time consuming task. Karl Gurcke provided information on the bricks present at the site. Missy Lee assisted in identification of household items and prepared faunal remains for analysis. Jennifer Chance illustrated all bottles and glassware. Cindy Lou McDonald drafted all maps and illustrated all other artifacts of metal and ceramic.

The manuscript was typed by Penny Jorgensen, Deb Dudley, and Missy Lee.

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1. HISTORY OF TEXAS CITY/RIPARIA

Located on the Snake River at the mouth of Alkalai Flat Creek and spanning both sides of the river, is a historic townsite which has been known as Taxas (Stratton and Lindeman 1976:65), Texas City (1880 census; *Lewiston Teller* 17 September 1880; *Lewiston Morning Tribune* 16 June 1908; 1910 plat map), and Riparia (Lever 1901:228; *Lewiston Morning Tribune* 1908; topographic maps). Most recently it has been referred to as Riparia (45-WT-1), the site of prehistoric (Miss and Cochran 1982) and historic archaeological investigations (Fig. 1).

Until the early twentieth century the town seems to have been most commonly known as Texas City. This referred to the settlement on the north bank of the Snake river, while the name Riparia indicated the terminus of the Oregon Railway and Navigation Company's railroad on the river's south bank (Gilbert 1882). Both the census records of 1880 and the town plat of 1910 refer to the townsite as Texas City. In 1908 the town was known as "Texas City, which name it has carried for the past forty years, the post office is called Riparia" (*Lewiston Morning Tribune* 16 June 1908). It was about this time that W. H. Stewart, apparently owner of the townsite, proposed to rename the town Stewart "in honor of his late brother who built the first building in this part of the country. As a result this little village of less than 100 inhabitants will enjoy the rare distinction of having three names and if names are an influence the town should prosper" (*Lewiston Morning Tribune* 16 June 1908). The name of Stewart never seems to have taken hold. Recently, the townsite has been known only as Riparia and archaeological references to it (Miss and Cochran 1982), as well as topographic maps and some historical accounts (Torgeson 1975; Fletcher 1982, Lever 1901), refer to it as such. Throughout this report, to maintain the historical perspective of the town, an attempt has been made to use its original and historic name of Texas City. At times, however, it is necessary to lapse into the more current usage of the name of Riparia.

Situated eight miles above the town of Starbuck and 40 miles below Almota (Fig. 2), Texas City/Riparia was historically a major water and railway terminal located just above the well-known Texas Rapids. From the middle of the nineteenth century to the early twentieth century, it served as a ferry crossing, steamboat landing, and transfer point for three railroads. The history of Texas City is closely tied with the opening of travel routes into and settlement of the Palouse and Snake River country.

As early as 1805, Lewis and Clark encountered Texas Rapids. Arriving above the rapids in the evening, they were told by the Indians that a dangerous pass lay ahead. They camped above the rapids until morning when they proceeded through the two mile stretch of rocks "which appeared to be in every direction"(Coues 1893:639; Thwaites 1969:110).

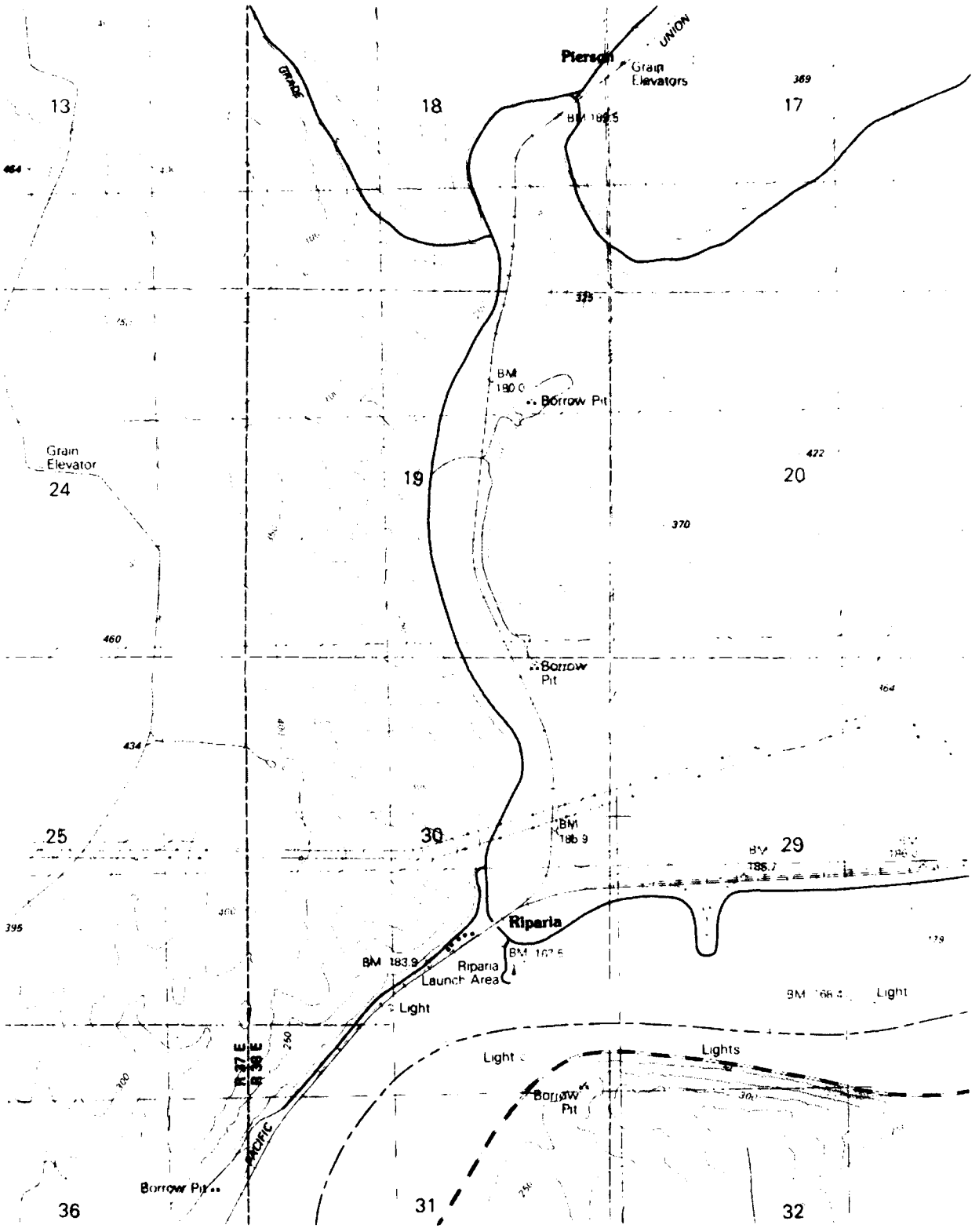


Fig. 1. Topographical location of 45-WT-1, Riparia, Washington.

Beginning in the 1860s, with immigration into the area, Texas Road crossed the Snake River at Texas Rapids, as it traveled from Walla Walla and converged with the Mullan Road near Spokane (Stratton and Lindeman 1976:9). At this time a cable drawn ferry crossed the river providing immigrants with an access route into the Palouse country (Stratton and Lindeman 1976:65).

The beginnings of steamboat service on the lower Snake River resulted largely from the central Idaho gold rush of the 1860s and the establishment of Lewiston in 1861. Seventeen signif antly troublesome rapids existed along the Snake River, among them Texas Rapids, causing problems with low water, ice jams, snags, and sandbars, but in spite of such difficulties encountered, the Snake River steamboat traffic boomed during mining activity. With improvement in channels, 27 landings came to exist along the 140 mile stretch of river between Pasco and Lewiston (Stratton and Lindeman 1976:7). Texas City/Riparia became an important stopping place for the Oregon Steam and Navigation Company's sternwheelers on the Snake River run (Stratton and Lindeman 1976:65).

As the mining boom faded farming became the important economic resource along the lower Snake. Lowlands and river valleys south of the Snake were farmed first, as hillsides were considered unsuitable for crops. By 1870, wheat was recognized as a valuable crop and a wave of migration into the Palouse hills began in 1877, along with the establishment of steamboats and towns all along the river (Stratton and Lindeman 1976:14).

The small towns along this part of the Snake River arose to facilitate the transportation needs of the farmers settling the area. Below Riparia, the towns of Ayer, Magallon, Matthews, Windust, Sheffler, Snake River Junction, Page, and Levey, were more closely associated with ferry crossings or railroads, while above Riparia, the towns were "generally more important and lasted longer, mainly because the land was more productive and the farmers there were more dependent on riverboat connections" (Stratton and Lindeman 1976:14-15).

Among the towns above Texas City/Riparia (Fig. 2), Penawawa began with ferry operations in 1872 providing a crossing for the Old Territorial Road and gained prominence with steamboat trade and some of the earliest commercial orchards along the Snake. Illia, began in 1879 with a warehouse. Almota began ferry service in 1877 and became a busy steamboat landing for the Oregon Railway and Navigation Company. Wawawai, after the construction of a warehouse in 1877, became known for its landing, ferry crossing, nearby granite quarry, and commercial orchards (Stratton and Lindeman 1976:15). Texas City/Riparia became an important transportation town as steamboat traffic terminated here and several railroad lines crossed east-west and north-south connecting the Snake River country with the rest of the region.

In 1880, Texas City was a new town attracting notoriety and one of the new points along the river becoming established as a place of business. Citing its location as the north bank of the Snake River, four miles above Grange City and one mile above the head of Texas Rapids, it was reported as a good site for building purposes, being above high water. Proprietor Mr. James Silcott granted Oregon Railway and Navigation Company 25 acres of ground for building purposes and laid out his town with streets "a good width" running parallel to and at right angles with the course of the river

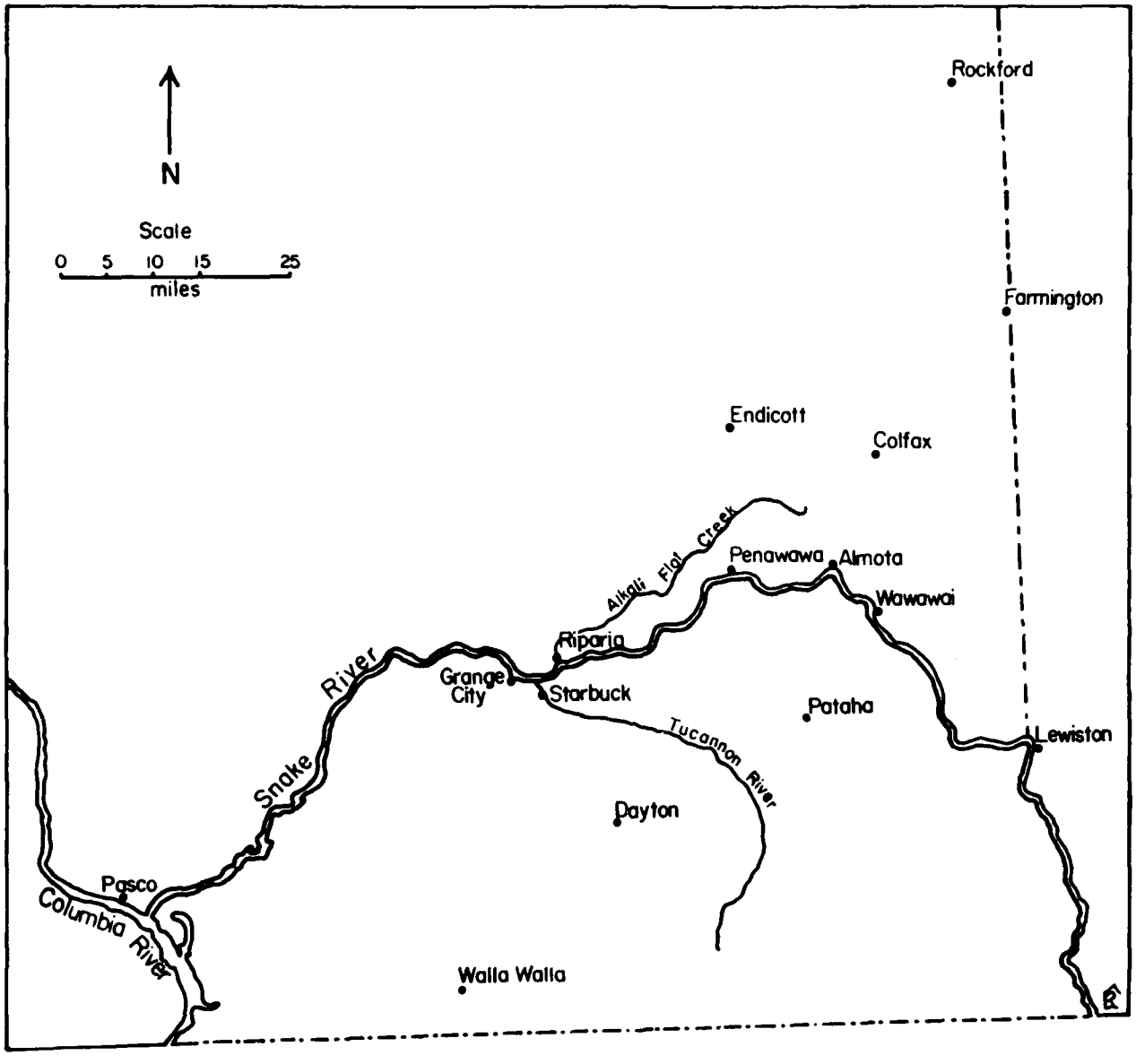


Fig. 2. Locations of towns in vicinity of historic Riparia.

and into lots and blocks; selling several lots at modest prices. Two saloons were already built and in operation, as well as a boarding house, shops, a trading house, and two or three residences (*Lewiston Teller* 17 September 1880).

At this time, Oregon Railway and Navigation Company proposed crossing the Snake River at Grange City and extending this line up the north side, along the bank as far as Texas City, then diverging northward up Texas Flat [Alkalai Flat Creek]. Between Texas City and Lewiston they proposed to run a daily steamer. Thus, "Texas City will then be at the Junction of two very important steam thoroughfares and will do a fair business such as is usually done at such junctions, and hence its future prospects are such as warrant Mr. Silcott, its proprietor, to be greatly encouraged with his location" (*Lewiston Teller* 17 September 1880).

In 1881, the Oregon Railway and Navigation Company did extend its pioneer Wallula-Walla Walla route to the Snake River at Texas City (Stratton and Lindeman 1976:11). Texas City became an important transfer point between steamboats from Lewiston connecting with the railroad. In 1888 the *Almota*, enroute from Lewiston to Riparia, stopped at Wa Wa Wai and took on 300 sacks of wheat, then proceeded to Almota where 1600 sacks were put on board (*Lewiston Teller* 26 July 1888). The passenger route of the *Almota* involved two trips a week between Lewiston and Riparia. Leaving Riparia for Lewiston on Saturdays and Wednesdays at 4 p.m. when the train arrived, passengers would arrive in Lewiston at noon the next day. Passengers could leave Lewiston for Riparia on Mondays and Fridays at 1 p.m., reaching Riparia at 5 a.m. the following day where they would connect with trains for "all points below" (*Palouse Gazette* 24 February 1888). Steamers were repaired at Riparia as well. A new boiler was put into the *Almota* while at Riparia (*Palouse Gazette* 24 February 1888) and when there was an explosion on board the *Annie Faxon* in 1893, it was taken to Riparia for salvage (Crithfield 1973:44).

In 1888, the Oregon Railway and Navigation Company began building another line from Riparia to Endicott. "When finished the company will have a through line from Farmington to Portland, and from Moscow to Portland. With their steamboat line running between Riparia and Lewiston, it will be seen that this corporation is pretty thoroughly entrenched in the Palouse country" (*Lewiston Teller* 11 June 1888). Work began on 4 June with 175 men on the line and many more expected within the next few days; with farmers working the teams until harvest (*Palouse Gazette* 8 June 1888). With the building of this line came the construction of the bridge spanning the Snake River at Riparia, the second bridge to span the lower Snake (Stratton and Lindeman 1976:66). The progress of bridge work was followed closely and reported to Palouse readers. In July a large number of men were employed in various kinds of work on the bridge. The excavation for the foundation of abutments of the new stone and iron bridge had begun on each side (*Lewiston Teller* July 1888). By November the bridge had progressed favorably with two of the five piers completed. Three shifts of 16 men were employed in sinking the caisson for one of three pneumatic foundations (*Lewiston Teller* 8 November 1888). In April of 1889 it was further reported that the iron work was nearly complete and should be ready to swing draw into place soon,

with trains crossing the same month (*Lewiston Teller* 4 April 1889). Even more than ever, Texas City/Riparia came to serve as a junction and transfer point for water and railway transportation.

The year 1908 appears to have been one of great activity for steamboat transportation, railroad construction, and the town of Riparia. On 1 August of that year, the steamer *Wallowa* started to blast out and remove rocks and reefs in the Snake River. The crew spent August and September here removing the dangerous Roll Rock reef of Texas Rapids, directly in the channel. A great menace to navigation, the 285 cubic yards of rock obstruction was now blasted out (*Lewiston Morning Tribune* 11 January 1908). It was also in this year that another railroad line was built from Texas City/Riparia, this time opening transportation between Lewiston and the coast.

The 1908 line, known as the Camas Prairie Railroad, extended along the Snake River connecting Lewiston with Riparia. Beginning in the winter of that year, its progress was closely followed by Lewiston residents as it meant the long awaited complete connection from Lewiston to the coast by rail. As early as April, before the completion of the railroad, a special train was scheduled to bring businessmen from Portland to Lewiston. The excursion train was predicted as being filled to fullest capacity, one of the largest to leave Portland, and one of the most significant. "It will be an important occasion for the great Clearwater Valley country which has waited long for the rail to be laid which will give the people of so large a part of Idaho a direct route to the metropolis of Oregon and the commerce of the world" (*Lewiston Morning Tribune* 29 April 1908). In celebration of such an event, tours, whistles, bells, parades, addresses, and an automobile drive from Clarkston to Lewiston were planned (*Lewiston Morning Tribune* 30 April 1908). Three thousand people turned out along the waterfront to celebrate the joining of Portland and Lewiston (*Lewiston Morning Tribune* 3 May 1908). With the beginning of regular service that summer, two trains were scheduled to run the line, affording connections at Riparia with two main line east and west bound trains. A straight passenger train and a mixed train would travel 30-35 miles per hour and reach Lewiston from Riparia in 2 to 2-1/2 hours (*Lewiston Morning Tribune* 16 June 1908). "The road is classed as one of the best constructed west of the Rocky Mountains" and trains can be operated at 75 miles per hour (*Lewiston Morning Tribune* 27 June 1908). Traveling time from Lewiston to Portland would now be 12 instead of 24 hours and give Lewiston the relief for which it had looked for so long, as for years it had suffered great inconveniences through the awkward facilities of getting in and out of the country (*Lewiston Morning Tribune* 30 June 1908).

The 1908 line, as did the 1881 line, apparently inspired a building boom at Texas City. It was during this time that W. H. Stewart, postmaster and owner of the general store and hotel began making "many improvements", planning to rename the town Stewart. Underway was construction of a new, two story, $10,000 concrete block hotel (*Lewiston Morning Tribune* 16 June 1908), which became the focal point of town activities from this time until its demise in the 1960s.

It is difficult to estimate the size of Texas City during its history (Fig. 3). With the platting of the town by Silcott in 1880, structures already reported as existing were two saloons, a boarding house, shops, trading house, and two or three residences. A 1910 plat map of Texas City shows a depot, "rest" [restaurant], Hotel Stewart, post office, feed barn, ship yards, and various other unnamed buildings (Fig. 4). The hotel housed a store, and at times the post office (Crithfield 1977; Torgeson 1983: personal communication). Railroad structures and saloons existed across the tracks from the hotel. The town also had a meat market, a summer house for the hotel, a hobo jungle (Evans, Torgeson 1983:personal communication) and a sawmill (Fletcher 1982:86).

Estimates of the permanent population of Texas City range from "about 80 inhabitants" (Lever 1901:228) to "less than 100" (*Lewiston Morning Tribune* 16 June 1908), while the transient population appears to have ranged daily in the hundreds (Evans 1983:personal communication) as passengers changed from trains to steamers, or from train line to train line; as farmers shipped livestock and crops; as railroad crews built new lines; and as railroad employees changed lines and shifts (Evans, Torgeson 1983: personal communication).

It is also difficult to estimate, from historical records, when Texas City began to fall into decline. Supposedly, by the early 1900s, it had "noticeably declined as the network of railroads expanded across the Inland Empire" (Stratton and Lindeman 1976:65). Informants remember the hotel closing during the Depression years, but being used as a boarding house for school teachers in the 1940s (Evans, Torgeson 1983:personal communication). In the 1960s abandoned buildings stood, and were leveled. Part of the town was covered with water after the construction of Lower Monumental Dam. Today, the area of 45-WT-1 serves as an undeveloped picnic, fishing, and camping area with one chemical toilet. Although prohibited by posted signs, fire rings and pits are evident.

The history of Texas City/Riparia begins with the Lewis and Clark Expedition in 1805 and extends from its 1860s beginnings as a ferry crossing to its final and complete demise in the 1960s. For part of this time it served as a major transportation center and, while little exists in the written record documenting the town's growth and decline over the years, it undoubtedly played a major role in the history of the region, facilitating the marketing and transportation needs of countless individuals as it supported a small, permanent population.

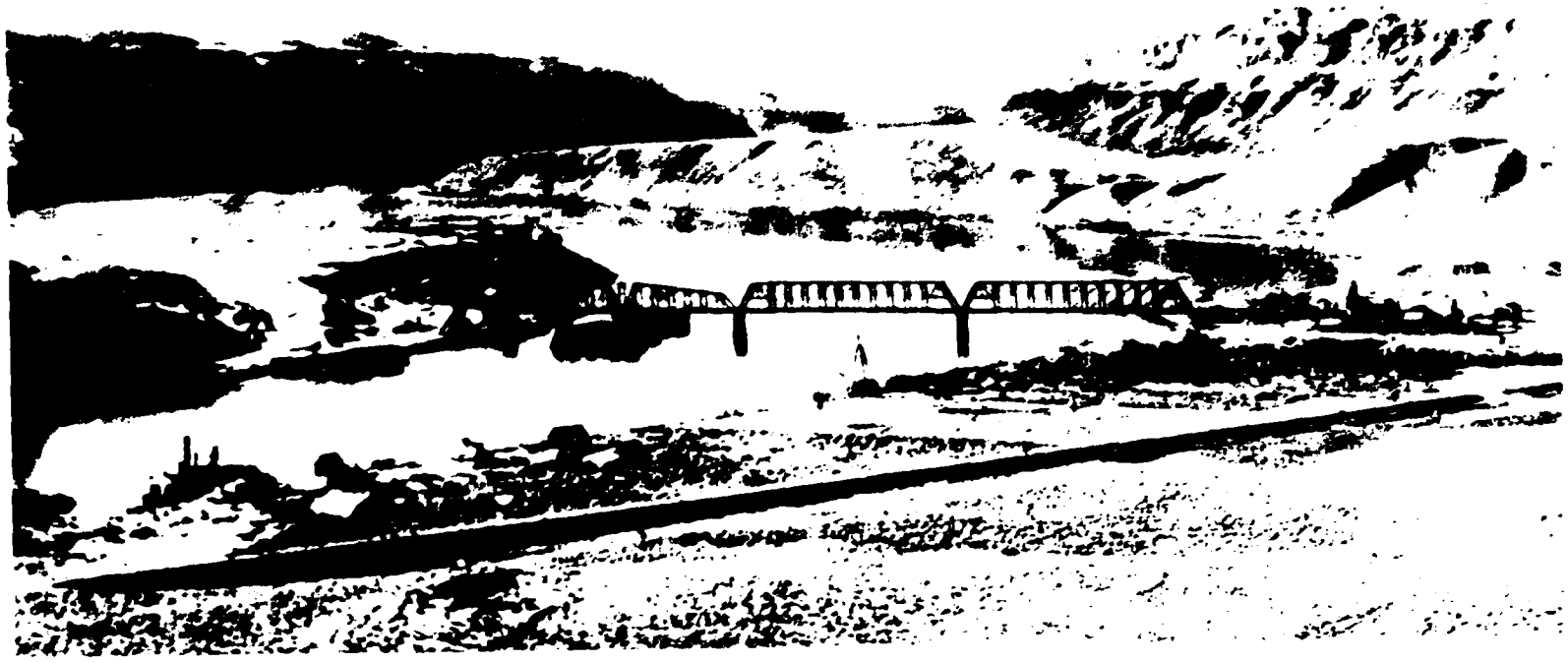


Fig. 3. Photograph of Texas City, pre 1906. Courtesy Della Mae Evans.

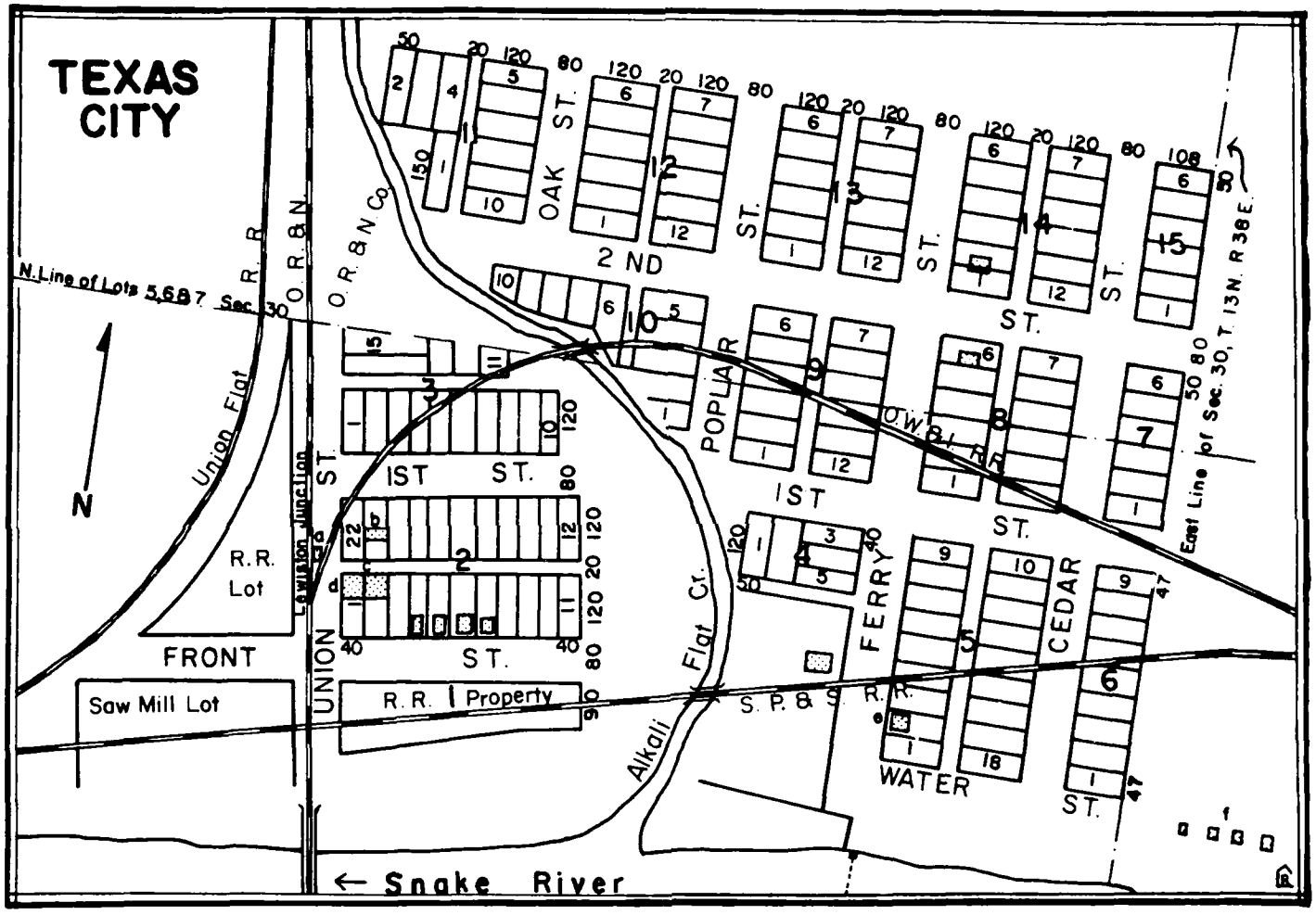


Fig. 4. 1910 Plat map of Texas City; *a*, Depot; *b*, "rest" [Restaurant]; *c*, Hotel Stewart; *d*, Post Office; *e*, Feed Barn; *f*, Ship Yards; and other unnamed buildings. Plat map on file Whitman County Library, Colfax.

2. ARCHAEOLOGICAL TEST EXCAVATIONS OF 45-WT-1

Previous Work

The site of 45-WT-1 was originally recorded as a prehistoric site by Osborne (1948) during the Smithsonian River Basin Surveys. Located in T13N R38E Sec.30, the site was reported as a campsite on the north side of the Snake River where it is joined by Alkalai Flat Creek, 1000 ft long and 150 ft wide, with fairly extensive shell midden. Extensive testing was recommended. With the construction of the Lower Monumental Dam in the late 1960s and its subsequent pool, the prehistoric site of 45-WT-1 was impacted and inundated (Miss and Cochran 1982:8).

In 1982 test excavations of 45-WT-1 were undertaken by the Laboratory of Archaeology and History at Washington State University for the U.S. Army Corps of Engineers, Walla Walla District as part of the Corps' ongoing prioritized site evaluation program. In conjunction with previous beach collections of 1981 and geomorphological analysis, subsurface evaluation was undertaken in which emphasis was placed specifically on faunal remains, impact of erosion, and the impact of amateur collectors on the site. In addition, the work would provide "basic descriptive information on site morphology, function, age, state of preservation, and significance..." (Miss and Cochran 1982:iii, 8, 12).

During the 1982 archaeological investigations two areas of 45-WT-1, both east of Alkalai Flat Creek, were designated Area A and Area B (Fig. 5). The emphasis of the gathering of information was prehistoric in orientation, but 116 historic artifacts were recovered during excavation. It was concluded that the historic material dated from 1870 to the early decades of the twentieth century (Miss and Cochran 1982:75-78). In Area A excavation units, "historic material included pilings and evidence of foundations. Glass and metal artifacts on the beach also indicate intensive historic use and suggests the historic component may be more readily accessible and perhaps more important for Area A" (Miss and Cochran 1982:95). Final comments concerning the historic component concluded that Area A was "primarily a historic site with extensively disturbed accessible sediments" and the historic component contained information relating to "the earliest permanent Euro-American settlement of the Lower Snake River" (Miss and Cochran 1982:117).

Test Excavations 1983

Test excavations in 1983 were conducted to further examine and define the historic component of 45-WT-1 and its potential for nomination to the National Register of Historic Places. As with previous work, this was undertaken for the U.S. Army Corps of Engineers, Walla Walla District, as part of their continuing site evaluation plan. Excavations of the previous year had exposed an historic component of 45-WT-1 on the east side of Alaklai Flat Creek dating to the nineteenth and early twentieth centuries.

Fig. 5. Aerial view of 45-WT-1, after reservoir, showing locations of areas A, B, C, D, and E. Areas A and B designated by 1982 excavations (Miss and Cochran 1982). Areas C and D tested in 1983. Area E remains untested.

The historic townsite of Texas City/Riparia, which included railroad and town buildings, as well as residences, had existed on both sides of the creek. Major buildings such as the Stewart hotel and the railroad depot were located on the west side of Alkalai Flat Creek, an area not tested during 1982 investigations. Testing of the townsite was undertaken in 1983 to determine if an historic component existed here as well and if it remained intact. The horizontal and vertical extent of such a component would be determined and an evaluation made of the information it held for an understanding of the history of the town of Texas City/Riparia and of Snake River transportation and settlement.

The impact of dam construction on the historic townsite of Texas City/Riparia (45-WT-1) has taken a variety of courses. As a result of the pool level, any part of the town between the 1908 east-west railroad line and the river is under water. As a result of moving railroad lines above the pool level, land alterations have changed the course of Alkalai Flat Creek and covered some of the old townsite with new fill. As a result of both the pool level and railroad construction, the mouth of Alkalai Flat Creek has widened, flowing over its original banks and creating swampy areas where dry ground had once been (Figs. 5, 6). In 1966 buildings standing at the townsite were bulldozed to level the area (*Colfax Gazette* 6 April 1967).

To enhance continuity with previous archaeological work at 45-WT-1, the 1983 documentation continued the sequence of assigning area designations to the site (Figs.5, 6), adding areas C, D, and E to the already established areas of A and B. The 1910 plat map of Texas City showed buildings and platted streets in the vicinities of areas D and E, and aerial photographs suggested buildings in Area C. Area C appeared to have been that part of town with railroad buildings (Torgeson 1983:personal communication) and Area D was the "downtown" of the 1910 platted Texas City. Area E, also platted, was probably the oldest part of town having retained the ferry landing (Fig. 4). The gravel road now running north and south between areas C and D appeared to be the 1888 railroad bed which crossed the Snake River on the then newly built stone and iron swing bridge and continued up Alkalai Flat Creek to Endicott. Another gravel road currently running east and west between the Snake River and areas C and D was assumed to be the 1908 railroad line built between Riparia and Lewiston. Thus, while work on moving the railroad in the 1960s appeared to have altered the upper or northern portions of Area D and the southernmost portion was underwater, the core area lining the two railroad tracks appeared to be unaltered by recent activity. Area C seemed to have been completely unaffected; Area E had been inundated and was now wet and overgrown with dense vegetation. Areas C and D were tested; time did not allow for testing of Area E.

Eight people worked 12 days in June of 1983 investigating the townsite of 45-WT-1. In order to determine, as quickly as possible, the extent of the historic component here, exploratory trenches were placed in areas C and D (Figs. 7, 8) to expose site stratigraphy, artifact concentrations, and features. A grid system of coordinates was established and trench lines were then laid out with the transit. Each line was divided into units 4 m in length, forming the trench lines, and 30 cm wide, establishing their line's width. Six trench lines were opened, consisting of 87 4 m x 30 cm excavation units, or 348 linear meters of trench excavations. Each unit was excavated by skim shoveling in 10 cm levels to 30 and 50 cm below surface. The depth of the unit was determined by the depth of cultural material;

Fig. 6. Aerial view of 45-WT-1, before reservoir, showing areas C, D, and E.

a

b

Fig. 7. Areas C and D of 45-WT-1; *a*, looking south toward site and across Snake River; *b*, from opposite (south) bank of Snake River looking north toward site. Note old bridge abutments located on both north and south banks of river.

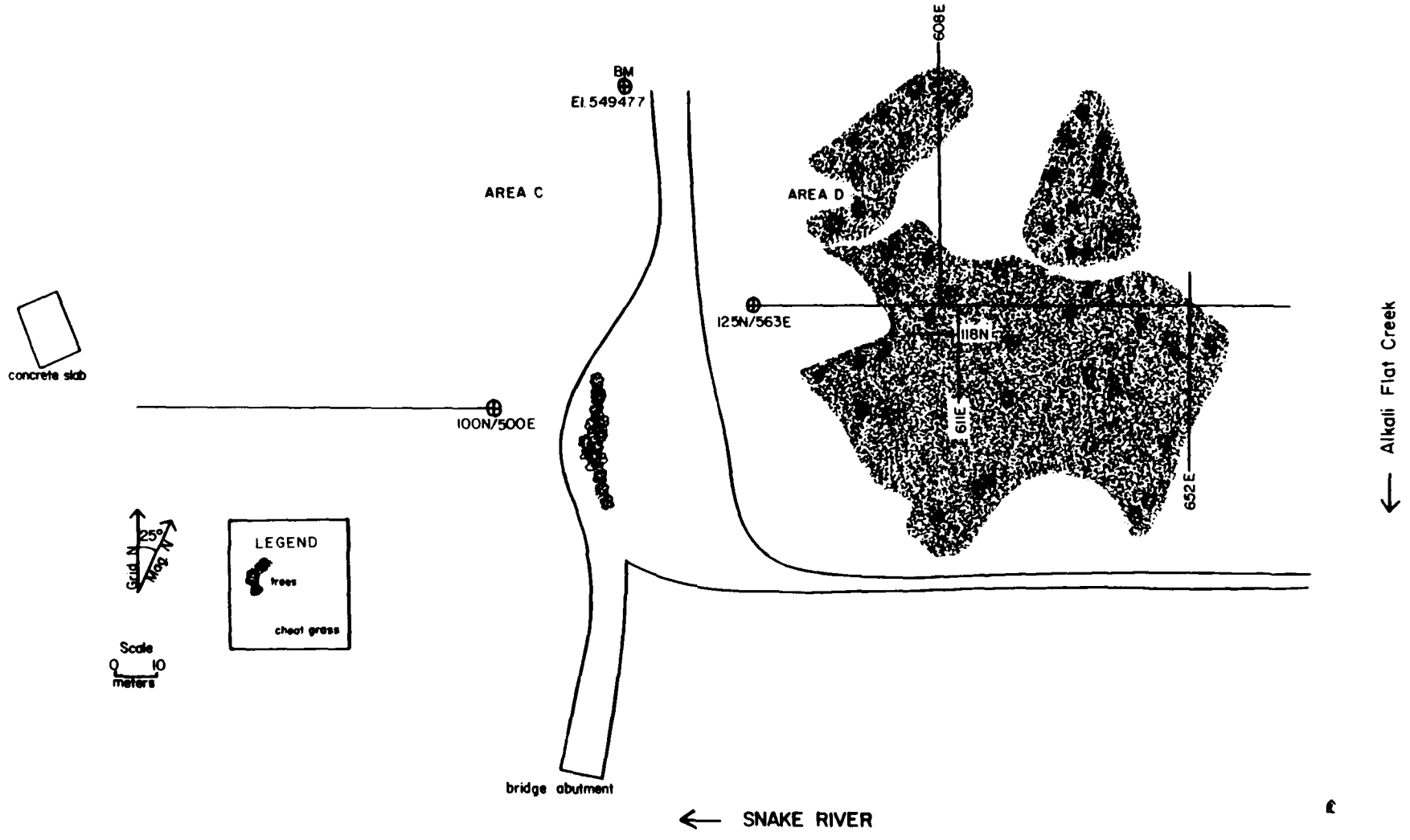


Fig. 8. Site map of 1983 test excavations of 45-WT-1 showing exploratory trenches of areas C and D.

units were taken down 10 cm below historic material. When features were encountered, they were recorded in detail and those which had the potential of yielding more information by their artifact content or structural association were further exposed by opening a larger contiguous unit, usually a 1 x 2 m unit. Seventeen features were recorded and eight 1 x 2 m and two 2 x 3 m units were opened. It was not our purpose to investigate the prehistoric remains of the site, but when encountered in areas where deep features had brought up lithic materials, they were recorded and recovered.

Area C

An east-west exploratory trench in Area C consisted of 21 4 m x 30 cm units (Fig. 9a). Stratigraphy in units 1-7 showed disturbance, possibly from cutting and filling activity, as was evident from concrete and rock rubble 50 cm deep along with large pieces of clear and black plastic sheeting. Units 8-21 appeared to have undisturbed stratigraphy of gravel fill 5-10 cm thick, covering a ca. 25 cm thick stratum of dry, grey, sandy soil with inclusions of charcoal and small flecks of burned material. A third stratum, sandy, moist, brown, and sterile of historic artifacts, began at ca. 30 cm below surface.

Few historic artifacts and no historic features were found in Area C. A depression, probably of prehistoric origin, was located in units 8, 9, and 10 (Fig. 9b). A 5 cm thick layer at 40/50 cm below surface, consisted of charcoal, bone, shell, and a high concentration of lithic material. A vertical charred post, 7 cm in diameter, appeared at 22-30 cm below surface and continued into the charcoal layer. The lithic material from these units included 40 pieces of debitage and two tools of basalt; a utilized secondary decortication spall and a utilized tertiary flake. As our research design specifically called for avoidance of disturbance to the prehistoric component of 45-WT-1, this depression was recorded at 50 cm below surface and no further excavation was conducted. Analysis of recovered lithics is presented in the *Lithic Items* section of the MATERIAL CULTURE chapter.

Area D

The area archaeologically designated D had been the historical location of the Stewart Hotel, the railroad depot, a restaurant, post office, and other unnamed structures of Texas City (Fig. 4).

The Stewart Hotel, originally a wooden structure which burned (Torgeson 1983:personal communication) was reconstructed in 1908 of concrete blocks serving the residents, railroad employees, and visitors of Texas City. The large dining room was a community center providing, among other things, a large Christmas party every year for the people of and around Riparia (*Colfax Gazette* 6 April 1967). The kitchen and dining room served large numbers of railroad employees and passengers of the steamboats and trains (Torgeson 1983:personal communication). In 1917, the U.S. Army, stationed at Riparia to guard the railroad bridge from April 7 to July 12, pitched its tents along side the hotel (Crithfield 1977). The hotel had plumbing, but

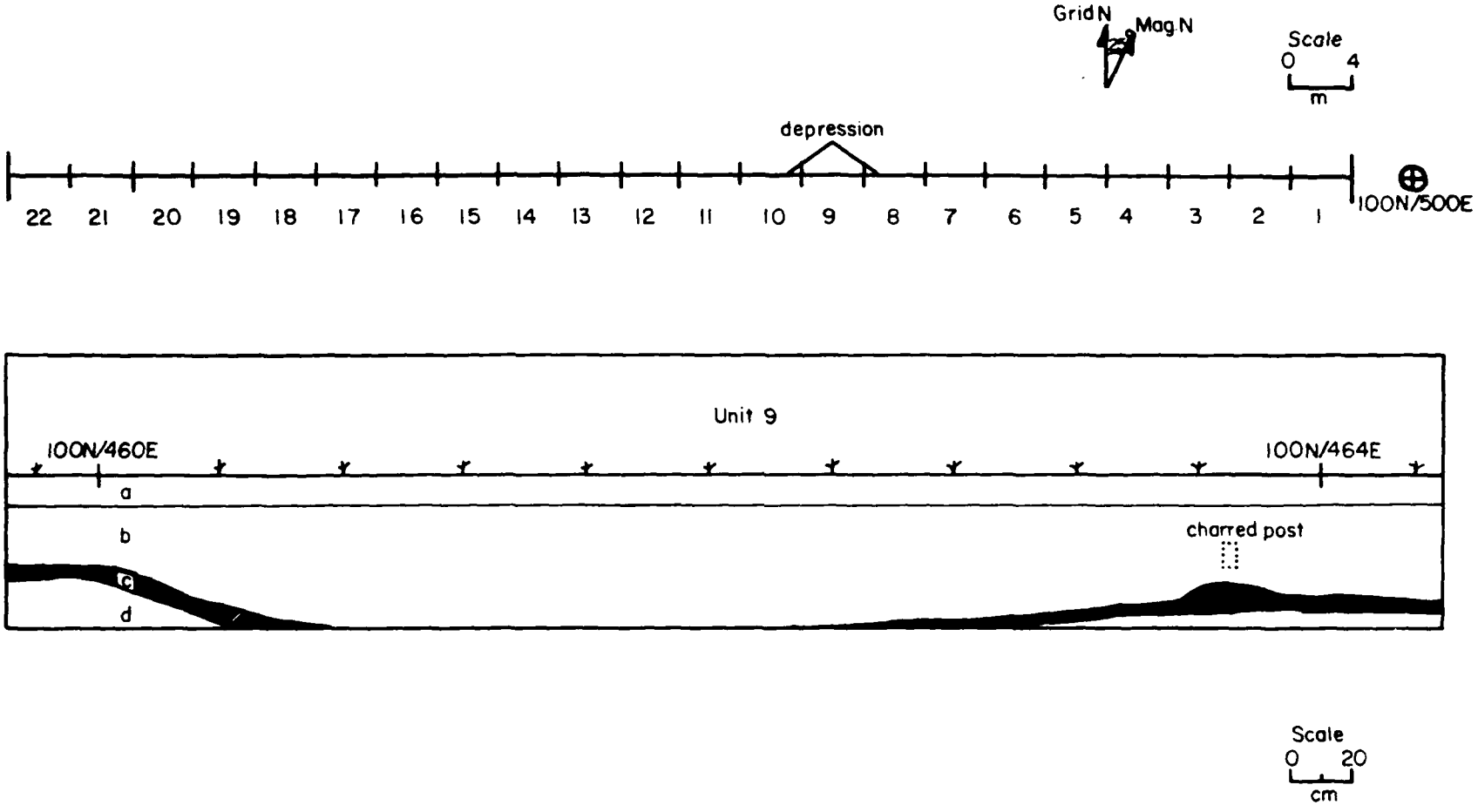


Fig. 9. 45-WT-1, Area C plat map and profile; *a*, trench line and excavation units showing location of depression in units 8, 9, and 10; *b*, profile of depression, north wall of trench line: *a*) gravel fill, *b*) grey sand; *c*, charcoal, bone, shell, and lithic items; *d*, brown sand.

not electricity. The hotel well existed behind it, covered with a large wooden structure (*Colfax Gazette* 6 April 1967, photograph). A summer house, part of the hotel, was located to the southeast (Evans 1983:personal communication).

The hotel apparently operated until the 1930s when, due to the harshness of the Depression years, it was forced to close (Torgeson 1975: 42). At some point in the 1940s it was reopened and served as a boarding house, especially for the teachers of the Riparia school (Evans 1983: personal communication). Throughout its history the hotel had several owners and managers. Originally owned by Mr. W. H. Stewart, it was reportedly run by Mrs. Stewart and three daughters "Stella, who was in charge of room service at the hotel; Alice and Laura, who operated the dining room for the train and boat crews" (*Colfax Gazette* 6 April 1967). In 1917 it was managed by Clyde Dobkins (Crithfield 1977) and later ownership passed to the Mandel and McIntosh families (*Colfax Gazette* 6 April 1967).

Between the 1940s and 1966, the hotel appears to have fallen into disuse and parts of it were carried off. The concrete columns forming the front porch of the hotel now serve as a front fence in Hay. The kitchen cook stove is now in a basement and various parts of doors, windows, floors, and ceilings have been carted to backyard sheds (Ed Clark 1983:personal communication). In 1966, the hotel was demolished and pushed into its own basement during Corps of Engineers work in the area (Evans 1983:personal communication; *Colfax Gazette* 6 April 1967; Jerry Jones 1983:personal communication).

Five exploratory trench lines were established in Area D to determine the extent of cultural remains of the town (Fig. 10). The 125N trench line, excavated first, was oriented in order to determine the stratigraphy and artifact distribution from the westernmost to the easternmost extent of this area of the site. Subsequent trench lines were established in what were thought to be strategic locations for further understanding of the site. Placement of these lines was determined by 1) vegetation, 2) access, 3) findings of features and artifact concentrations along the 125N line, 4) an understanding of informant information coming to light during excavations.

The stratigraphy of Area D was basically the same as that of the undisturbed portions of Area C, except when extensive cultural activity was encountered. Throughout the site, the first ca. 10 cm level was a small gravel fill capping a grey, sandy soil extending to 30/40 cm below surface. Beneath this second stratum of dry, grey soil, the gradual appearance of a darker, more moist brown soil was evident and was markedly sterile of historic artifacts. Site vegetation was of three distinct types (trench line 125N crossed through all three) (Fig. 8). A covering of cheat grass existed in an area higher than the rest of the site, the west end of Area D. A second vegetation covering was that of locust trees concentrated throughout most of Area D. A third noticeable difference in vegetation was a reddish brown weed within and spreading out beyond the trees. During excavations it became obvious that vegetation was an indication of the cultural deposit beneath.

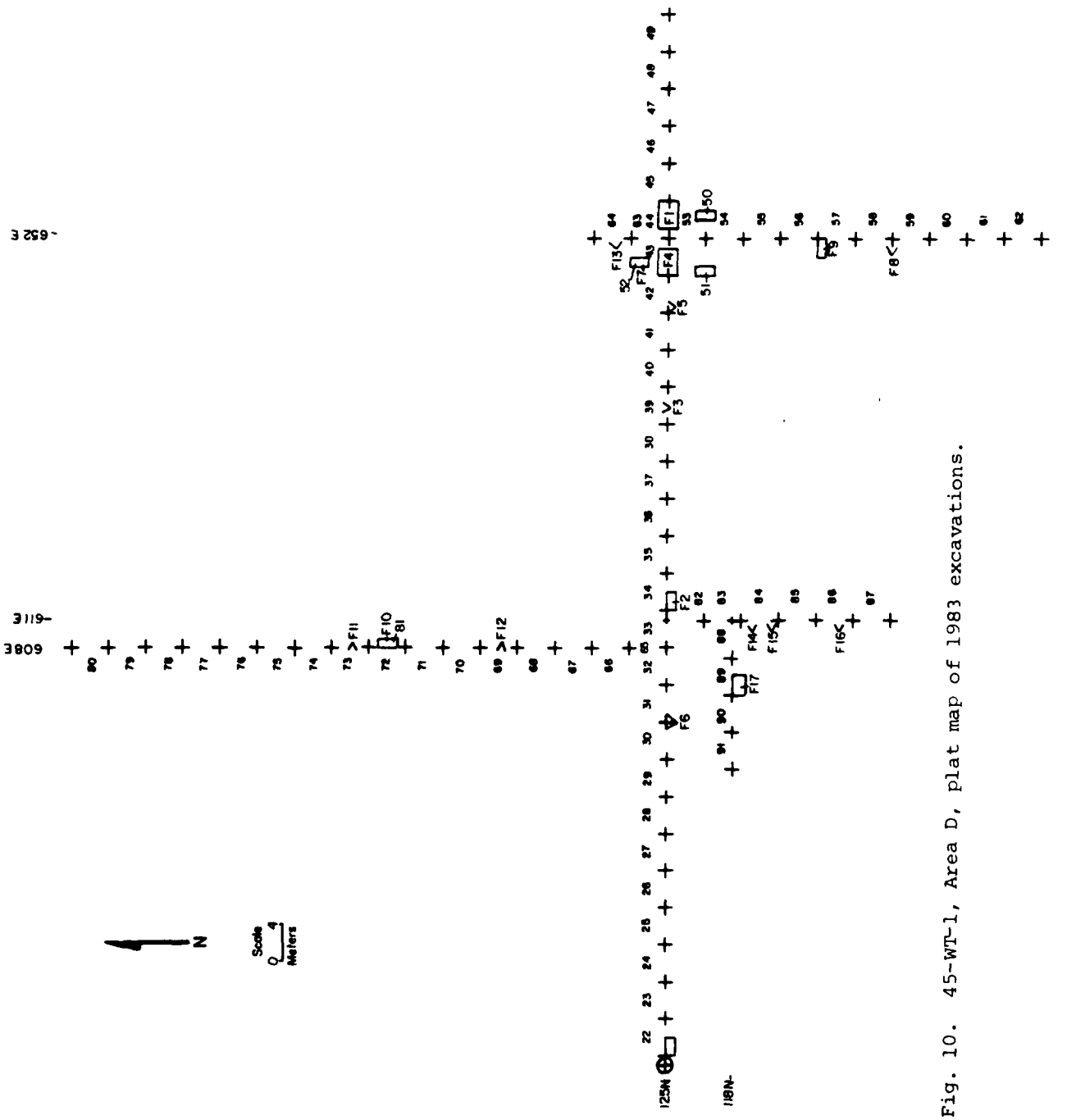


Fig. 10. 45-WT-1, Area D, plat map of 1983 excavations.

Trench line 125N, Units 22-29

The first east-west trench line excavated in Area D, 125N, consisted of 28 4 m x 30 cm units extending 112 m in length. The objective of the excavation, to reveal stratigraphy, artifact concentrations, and features over a substantial portion of the site, proved to be quite successful. This line spanned the three noted vegetation areas and nearly the entire east-west extent of this part of 45-WT-1. It became increasingly obvious from the plat map and informant interviews that the western end of the trench line was in the vicinity of the cement block Stewart Hotel. What became evident from excavations was that we were encountering the rubble of the hotel which had been pushed into it's basement in the 1960s. Units 23-29, or roughly the area of cheat grass, revealed rubble of cinders, gravel, and cement blocks (Fig. 11). Due to the difficulty of digging the trench line through the rubble and the increasing realization that the rubble probably indicated the location of a filled and thus deep, basement, excavation of these units was abandoned when such fill continued to be encountered at 20/30 cm below surface.

Along the 125N line, Unit 22, or the extreme west unit, was an exception to the rubble fill encountered. After removing a layer of gravel 20 cm thick and another 30 cm of cinders, natural stratigraphy was found intact and a high concentration of artifacts appeared for an additional 50 cm. No pit line was discerned, but this was an unusually thick and densely concentrated deposit of artifacts. Large fragments of "hotel ware" white ceramic and large pieces of bone were among the artifacts recovered. Due to the artifact concentration and lack of rubble, Unit 22 may be a cultural surface located just outside of the hotel.

Continuing east, toward Alkalai Flat Creek, the stratigraphy returned to what had been seen in Area C and features and artifact concentrations became evident (Fig. 12). Along this line, features 6, 2, 3, 5, 4, and 1 were exposed and larger units were opened to further explore features 2, 4, and 1. All three features were pits with high concentrations of artifacts. Historic artifacts were minimal between units 35 and 41 and almost nonexistent east of Feature 1. Because of the high concentration of artifacts in features 1 and 4, 1 x 2 m units (50, 51) were opened to the south and north (52) to explore the possibility of contrasting artifact concentrations or additional features.

Trench line 652E, Units 62-64

Twelve units opened north and south off the 125N line, formed the 652E line of 48 linear meters. Artifacts decreased in number moving south or toward the river. Two features were exposed along the trench line (F9, F13) and a 1 x 2 m unit was opened to further explore Feature 9, a pit feature containing a large, circular iron object.

Trench line 608E, Units 65-81

Sixteen units formed the 608E line and three features were encountered (F12, F10, F11). Feature 10 was a large pit feature with a high artifact concentration and a 1 x 2 m unit was opened to further expose it. Feature

a

b

Fig. 11. Excavation of trench line 125N; *a*, western end of trench, looking east, note cheat grass in foreground, locust trees in background; *b*, rubble in back dirt as excavated from units 23-29.

a

b

Fig. 12. Excavation of trench line 125N; *a*, east end of trench looking west; *b*, excavation in area of features 1 and 4 with units 50 and 52 opened to left and right of photograph.

11, upon excavation within the trench line, appeared to be a continuation of Feature 10. Feature 12, excavated within the trench boundaries, proved to be a deeply placed pipe line. Artifacts were recovered throughout this trench line, but were somewhat more heavily concentrated at the south end, near the 125N line.

Trench line 611E, Units 82-87

Six units forming the 611E line exposed three features (F14, F15, F16) and a higher concentration of artifacts than had been seen in the 652E line. All three features of pipe, possible foundation, and a small pit, were exposed by the trench to allow adequate documentation and no further units were opened here.

Trench line 118N, Units 88-91

The four units of the 118N line were the last opened. A large depression, apparent on the surface, was recorded as Feature 17 and eventually proved to be a cesspool. *Artifacts from units* 90-91 were among the oldest at the site. Here a complete hand blown bottle (Bottle Type 7) was recovered as well as olive green glass and hand tooled bottle rims.

Features

Seventeen features were documented in Area D (Fig. 13) and for discussion and analysis purposes have been divided into categories of *trash pits, pit features with structural remains, structural remains,* and *miscellaneous features.* The *trash pits* yielded the most information about the material remains at the site. All undoubtedly functioned as privies, cellars, or other structural pits at one time, but eventually became major repositories for trash. *Pit features with structural remains* were found to have accumulated a concentration of artifacts, but not to the extent of the *trash pits.* These pits appear to have been dug to place pipes, cesspools, or other structural items. Artifacts probably accumulated during the digging of these pits or as they remained partially opened while in use. *Structural* features are those of pipes and foundations and generally do not have artifact concentrations directly associated with them. Finally, *miscellaneous features* consist of a shallow pit of unknown function, a rock concentration, and a large pit with few artifacts and no structural remains.

All features were excavated as units within their own boundaries and in 10 cm levels. For this study, artifacts have been combined within the total features as, during analysis, no assemblages or components could be detected within the various levels of the features.

Trash pit, Feature 1, Unit 44

Feature 1 was exposed during excavation of the 125N line at ca. 25 cm below surface as an extensive area of charcoal and clinker. As it became obvious that the feature was a pit with numerous artifacts, additional units

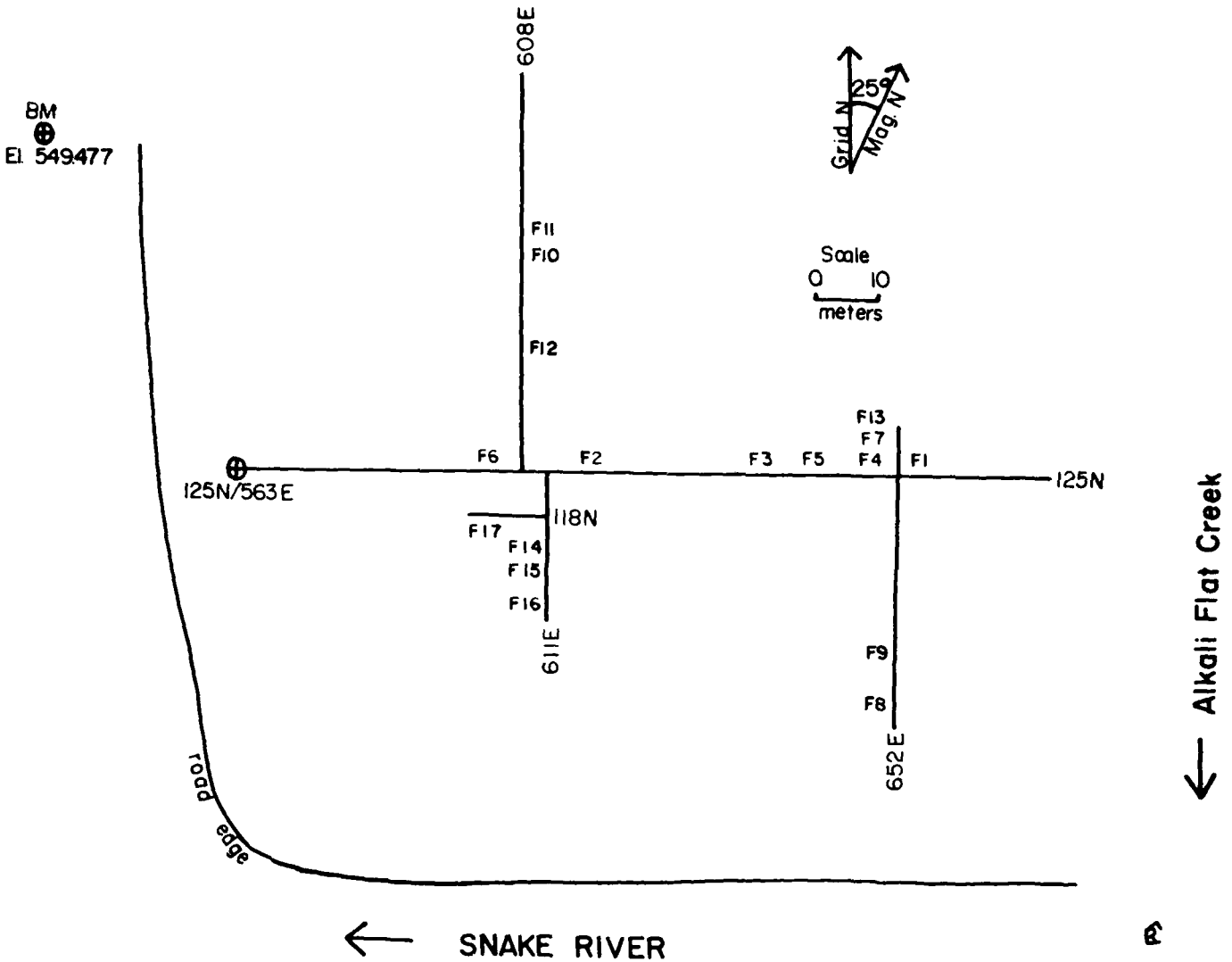


Fig. 13. Location of features recorded along trench lines during 1983 test excavations of 45-WT-1.

were opened allowing for its complete excavation. The excavated dimensions of the pit were 140 cm in length, 130 cm in width, and 88 cm deep. The top 30 cm of the feature consisted of dark soil with clinkers. Beneath this was an unstratified fill of soil and artifacts. The bottom of the pit contained a 5 cm thick layer of seeds, sludge, and apparently feces. Originally a privy, Feature 1 eventually became a place of extensive dumping of material items (Fig. 14). A large number of diagnostic artifacts from the site were recovered from this feature and include bottles of various condiments, beverages, medicines, and cosmetics; parts of two stoves; shoes and boots, wheelbarrow wheel; hay fork; door knobs, locks, and hinges; and fragmented ceramic vessels.

Trash pit, Feature 4, Unit 43

Just to the west of Feature 1, another privy was exposed. Smaller, and with fewer artifacts, Feature 4 was evident at about 35 cm below surface. As it became obvious that this, too, was a trash pit, excavation units were opened to further expose it. The fill was unstratified except for the bottom several centimeters containing organic matter similar to that found in Feature 1. Upon completion (Fig. 15*a*) the pit measured 120 cm in length, 90 cm in width, and 110 cm deep. Artifacts from Feature 4 were smaller, more fragmented, and less numerous than those of Feature 1. Among the few complete items recovered was a POMPEIAN MASSAGE CREAM bottle. Other artifacts included parts of an umbrella, crown bottle caps, a teaspoon, bone, and eggshell. Unlike Feature 1 and other trash pits, no door hardware was recovered from Feature 4 and no stove parts were identified.

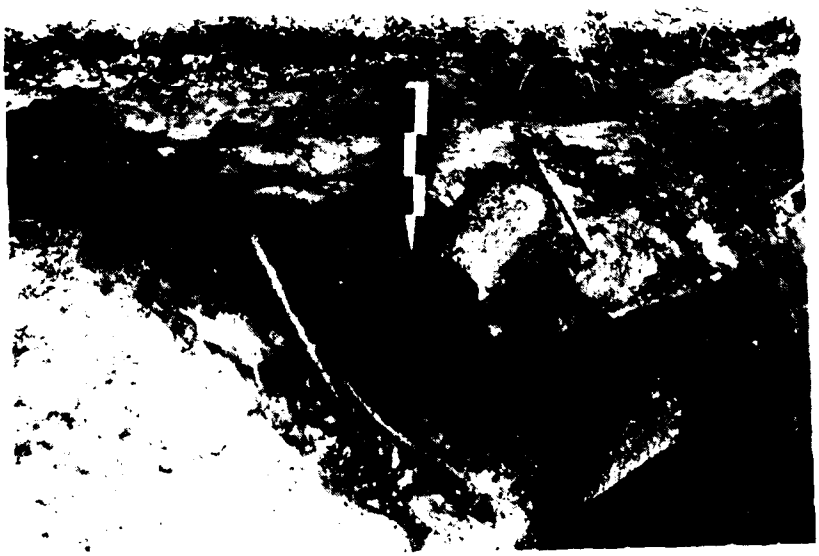
Trash pit, Feature 2, Units 33 and 34

Feature 2 was exposed at ca. 20 cm below surface as a light colored area with a heavy artifact concentration. Excavation within the trench line of the feature showed it to be stratified and containing a number of artifacts. A 1 x 2 m excavation unit opened exposed the south boundary, but did not result in its complete excavation, thus part of the feature remains intact.

The stratified fill consisted of a lens of horizontal wood 10-15 cm thick covering a sandy soil with sawdust-like fill and numerous artifacts. The highest concentration of artifacts was in this stratum which extended between 10 and 20 cm thick. Below this, a layer of dark organic sawdust material and dark moist soil with few artifacts continued for 5-10 cm and the feature terminated. The sawdust-like material suggests the possibility of this feature having functioned as an ice house at one time. The incomplete excavations revealed the feature to be 33 cm deep and extending 380 cm east-west. The horizontal wood capping the feature may have been the remains of a structure over the pit at one time.

Among the artifacts recovered from Feature 2 were an enamelware basin, shoe fragments, a thermos neck or collar, door hardware, horse harness buckles, automotive parts, rims to crown cap bottles, and a bottle rim to a nineteenth century rum bottle. Ceramics were plain and fragmented, appearing to be common white "hotel ware." Feature 2 has an array of

a



b

Fig. 15. Features 4 and 10; a, Feature 4 after excavation; b, Feature 10, profile in west wall of trench line 608E.

artifacts which may indicate that it was an open pit for some time before being covered with the gravel found throughout the site. In profile it could be seen that the gravel, somewhat thicker here, covered a depression.

Trash pit, Feature 10 and Feature 11, Units 72, 73, 81

Feature 10 was encountered at 20 cm below surface as a black surface with metal artifacts (Fig. 15*b*). A 1 x 2 m unit was opened and an unstratified black, smelly fill with artifacts of concrete, iron rods, pipe, nails, glass, and ceramics was excavated. Feature 10 appeared to be a large pit, possibly once a cellar. Pipe and other metal extending in every direction prohibited extensive excavation without the opening of several larger units, which time did not allow. Feature 11, located in the next unit (73) to the north also became apparent as a black surface, although artifacts were not numerous here. Excavation of this feature within the trench line led to the conclusion that it was probably a continuation of Feature 10, thus extending the feature nearly 5 meters in a north-south direction. The fill of the north half, or Feature 11 area, was a moist, black clay-like soil; again very smelly. Feature 11 artifacts have been combined with and are included among those of Feature 10.

The artifacts from Feature 10 suggest that it may have functioned as a cellar or similar open pit for some time before being filled with trash. The trash is of a variety of items and dates. Parts of an iron bed, pipe for plumbing, large metal rod of unknown function, angle iron, remnants of canning jar lids, crown caps, coffee can lid, glassware handle, coffee pot lid, spoon, stove leg, file, grinding stone, door parts, porcelain insulators, ceramic drain pipe, horseshoe nails, spark plugs, train hand rail, ceramics, and glass fragments are among some of the artifacts recovered. Two base fragments of very modern beer bottles (Bottle Type 19) were recovered in levels 10 and 11 of Feature 10, suggesting the pit was open until the 1960s, then filled in with trash from around the area. Flagging tape was also present.

Feature 10 could not be vertically excavated below 100 cm, so depth and exact size of this feature remain unknown.

Pit feature with structural remains, Feature 9, Units 56 and 57

The fill of Feature 9 became apparent beneath the first stratum of gravel as a mottling of clay, ash-like pockets, and black oily soil. Artifacts, while not heavily concentrated, were recovered throughout the fill of the trench line dug to nearly 100 cm deep in units 56 and 57. A 1 x 2 m unit was opened to further expose the area. Excavating the unstratified fill in 10 cm levels, the top of a large metal hoop was exposed at 70 cm (Fig. 16) Further exposing it to 90 cm it became obvious the metal object was much larger and deeper than could be dealt with at this time, extending at least an approximated 170 cm in diameter and to an unknown depth. The function of the metal hoop, possibly a large tank, is not known. The mottled fill was noted near the surface, suggesting that the fill may have been deposited recently.

a

b

Fig. 16. Feature 9; *a*, Feature 9 exposed at 90 cm below surface; *b*, mapping Feature 9.

Artifacts of Feature 9 point to an early twentieth century deposit, but could have been surface debris mixed into the fill when the pit was dug. A piece of flagging tape was recovered from the fill. Bottle rims include two of the patent/extract style finish, fragments of porcelain liners for canning jars, crown cap, pressed glass fragments, stove parts, and a glass bead. Mussel shell was also present. Manufacturer marks on ceramics post date 1906 and 1890-1917.

Pit with structural remains, Feature 12, Unit 69

Exposed at 20 cm below surface, Feature 12 was a pit ca. 80 cm in diameter tapering to 20 cm in diameter at 100 cm below surface. With fill of mottled soil and some artifacts, excavation of the pit within the trench line eventually exposed a metal pipe, ca. one inch in diameter, at 100 cm below surface. Very few artifacts were recovered from Feature 12, mainly fragmented glass and ceramics and several nails, suggesting the pit was filled in soon after it was dug.

Pit with structural remains, Feature 13, Unit 64

Feature 13, located near privy features 1 and 4, was exposed at 47 cm below surface, although a concentration of artifacts in a small area had been noted from 30 cm. Mottled soil with intermittent artifacts was excavated to a depth of 130 cm below surface where a wood drain pipe was exposed. The wood appeared to have been placed in a curved, convex position to allow for draining below it. White residue existed under the wooden plank. The pit was nearly 100 cm wide at the top, narrowing somewhat to 80 cm at 140 cm below surface.

Artifacts were not numerous in Feature 12, but they were interesting in their resemblance to those of Feature 1. A rim to a mustard jar (Bottle Type 2), numerous in Feature 1, was also recovered from this feature. Part of a glassware footed vessel, one of the few pieces of diagnostic glassware recovered from the site, was also from this pit.

The depth at which the pit fill was noted suggests this is an earlier feature at the site and artifacts indicate an association with Feature 1 activities; possibly it was dug and filled during the same period in which Feature 1 was used as a trash pit.

Pit with structural remains, Feature 17, Unit 89

Trench line 118N was opened primarily because of a large depression, seen on the surface, requiring investigation. This depression was recorded as Feature 17, and upon excavation of a 1 x 2 m unit was discovered to be a cesspool (Fig. 17).

The stratum of gravel fill was removed and a loose mottled soil was then found to cover a cesspool made of concrete blocks, the top of which was exposed at 50 cm below surface. The fill differed between the inside and

a

b

c

Fig. 17. Feature 17, cesspool; *a*, excavating Feature 17 in 118N line; *b*, and *c*, cement block wall of Feature 17.

outside of the blocks; loose dry fill existed on the inside, with a mottled sandy soil on the outside. The feature was excavated to a depth of 135 cm below surface where water level was encountered.

Artifacts recovered tended to be found within the concrete block enclosure. Wood with green paint, similar to that found in Feature 2, and which one informant suggested was from the hotel's summer house, was among the debris in Feature 17. A modern beer bottle (Bottle Type 19) was recovered from Level 7 of the feature. Other artifacts include a cuff to a leather jacket, porcelain insulator, spikes, ceramic and glass fragments, and a horseshoe.

The depression seen on the surface along with the presence of modern beer bottle and leather cuff suggest the feature, or at least a depressed area resulting from the original feature, may have been partially exposed until recently.

Structural, Feature 6, Units 30 and 31

An apparent foundation of three concrete blocks was encountered during excavation of the 125N line at 19 cm below surface (Fig. 18*a*). Although not completely exposed, the blocks appeared to be intact. Each measured approximately 1 ft (30 cm) wide; 2 ft (62 cm) long, and ca. 6 in (12 cm) thick. Together they extended over an area 150 cm east-west; their north boundary was exposed by the trench, but how far they, and perhaps other blocks, extend south, is uncertain.

Structural, Feature 7, Unit 52

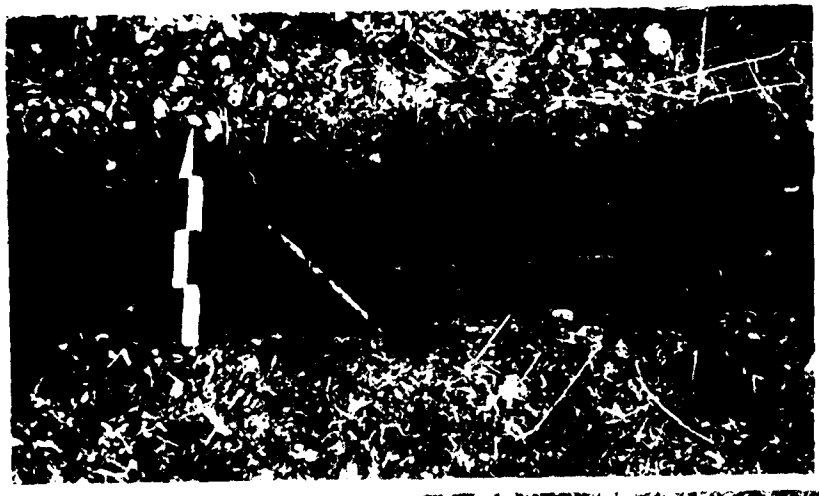
In an excavation unit opened to explore the possibility of more privy features at the east end of the 125N trench, two rectangular wood posts were exposed in the west wall of Unit 52. These were not completely excavated but appear to measure 8 cm in width with post holes around each one extending to a diameter of 25 cm. The two posts were located only 25 cm apart. A concrete block, located in the gravel fill, also appears to be associated with the posts. The posts were exposed at approximately 10 cm below surface. Their function or association is not known.

Structural, Feature 14, Unit 84

A concrete block located at the surface of Unit 84 may also be a foundation. Exposed by the trench line, the block extends 50 cm north-south and is probably of a similar dimension east-west, extending to 60 cm below surface. The concrete, appearing very coarse, has gravel mixed with it.

Structural, Feature 15, Unit 84

Feature 15 existed within the same excavation unit as Feature 14, located just 3 m south. Exposed at 13 cm below surface, several cobbles (ca. 5) 10-25 cm in diameter, covered a pipe 1 in. in diameter at 40 cm below the surface (Fig. 18*b*).



a

b

c

Fig. 18. Structural features; *a*, Feature C, cement block foundation; *b*, pipe and cable west of Feature 17.

Structural, Pipes

A number of pipes, primarily water pipe, existed at the site which were noted but not recorded as features. These were located in units 30, 39, 66, 82, 87, and 91 and ranged in depth to 20, 30, and 60 cm below surface. They were most obviously located in the vicinity of features 2 and 17 (Fig. 18), units 30-34, and units 66-91. The location of these pipes may indicate the closeness of the well which stood behind the hotel.

Rock concentration, Feature 3, Unit 37

Feature 3 was exposed at 44 cm below surface and is probably a prehistoric feature. Recorded as a concentration of fire cracked rock extending 53 cm below surface, the feature measured 72 cm east-west as exposed in the 125N trench line. The north-south dimensions are unknown. Artifacts included two cryptocrystalline flakes and four bone fragments. Traces of burned soil were evident around the rocks.

Pit, Feature 5, Unit 42

Feature 5 consisted of a concentration of mottled soil appearing at 20 cm below surface. This extended ca. 50 cm east-west along the trench line. The feature boundaries were vague, no artifacts were recovered, and the excavation was abandoned at 70 cm below surface due to difficulty of digging within the 30 cm wide trench at this depth. If excavated further, a pipe would probably be exposed.

Pit, Feature 8, Units 58 and 59

At 10 cm below surface and along the same trench line where Feature 9, (the large metal hoop/tank) was located, more mottled soil of sand and ash-like deposits was encountered. Extending 180 cm north-south along the trench, the fill was excavated to 85 cm below surface with no discernable change and few artifacts recovered. Due to lack of time, the feature was not excavated further.

Pit, Feature 16, Unit 86

Feature 16 was a small circular pit with burned wood and what appeared to be a concentration of lime. Encountered at 30 cm below surface, the pit was 34 cm in depth, and extended 50 cm along the trench line north-south and 30 cm east-west, continuing in a westerly direction. Baked soil was evident along the outside boundaries of the pit. The three artifacts recovered included one brown glass fragment and two round nails. The pit's function is not known.

3. MATERIAL CULTURE

Throughout excavations and the processing of artifact from 45-WT-1, horizontal and vertical controls of excavation units and features were kept. The horizontal and vertical proveniences are reflected in the trinomial artifact cataloguing system used, in which the first number indicates the horizontal provenience of unit or feature; the second, the vertical provenience of level; and the third, the item number within that particular provenience. Thus, artifact 31.3.10 was recovered from Unit 31, Level 3, and was the 10th item catalogued. Artifact numbers reflecting the proveniences of Feature 11 and Unit 81, levels 4-10, have been listed as Feature 10 items as both later became obvious continuations of the originally exposed Feature 10.

During analysis it became increasingly evident that, while there were some horizontal spacial variations, of artifact concentrations at the site and within the trench lines, the separation of artifacts into finite categories of individual units or several combined units did not reflect these tendencies to a degree great enough to warrant using such divisions throughout the report. Similarly, the vertical separation of artifacts has been combined for the following artifact discussions as most historic artifacts were recovered from ca. 10-30 cm below surface and no distinct differences could be expediently detected between Level 2 and Level 3 artifacts. For these reasons, artifact distributions have been divided throughout the material culture discussion into major features (1, 4, 2, 10, 9, 12, 13, 17, and other) and trench lines (125N, 652E, 608E, 611E, and 118N).

The following artifact discussions and descriptions are divided into functional categories of Containers; Food Remains; Household Items: Ceramics; Household Items: Glassware, Metalware, Furniture, and Stoves; Personal Items; Construction Items; Transportation and Machinery Items; Miscellaneous Items; and Lithic Items. Tables 1-8 list all artifacts from the site discussed under these headings.

Containers

Items included in this category are glass containers such as bottles and jars, tin cans, and caps and lids to various containers.

Bottles

The bottles and jars have been divided into functional categories of condiment, pickles, and preserves; beverage; medicine; cosmetic; and chemical. With the beverage category, a class of beer/soda exists. These bottles are aqua with crown rims and may have contained either product. Bottle types are defined by original contents, size, shape, finish, and product or manufacture marks. Twenty-seven different types have been

TABLE 1

Containers 45-WT-1 1983

	Features									Trench Lines:Excavation Units					
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
BOTTLES	41	2		2			1	1		3			1		1
Condiment															
Mustard	13						1								
Catsup	9														
Olive	1														1
Syrup	2														
Worcestershire	1									2					
Extract	2														
Beverage															
Whiskey	1														
Liquor	2														
Wine	1														
Juice	1														
Beer/Soda	2	1													
Beer				2				1							
Medicine															
Bromo-Seltzer	1														
Citrated Magnesia	1														
Prescription	2												1		
Cosmetic															
Pompeian		1													
Listerine										1					
Chemical	2														
BOTTLE RIMS	22	1	4	1	2			1		9	4	3	9	2	5
Blow-over										1					
Brandy	1							1			1	1	2		1
Champagne													1		
Crown	15	1	2							3	2		5	1	1
Oil										2	1				
Patent/extract	3			1	2							1	1		2
Prescription	1									1					1
Reinforced extract	2									1				1	
Rum			1												
Screw top			1							1		1			
BOTTLE BASES	12		1		1		1			4			2	2	3
Round	11		1				1			3			1	1	2
Oblong					1								1	1	1
Rectangular	1														
Fragment										1					

TABLE 1 *continued*

	Features									Trench Lines:Excavation Units					
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
MARKED FRAGMENTS	5	2		2	1					8	3	1		2	2
GLASS FRAGMENTS	968	256	107	517	223	12	25	89	7	369	236	154	518	159	313
Clear	675	135	46	382	153	7	12	54	5	131	34	61	226	78	179
Amethyst	23	9		2	12	1	3	3		13	16	4	12	8	5
Olive green	13	7	5	20	6	2		2		23	5	5	37	5	17
Brown	110	47	45	58	27	1	4	21	1	98	114	33	147	31	63
Aqua	141	53	9	41	24	1	6	8		97	66	48	82	36	45
Other	6	5	2	14	1			1	1	7	1	3	14	1	4
TIN CANS	186	191	1	35			5	35		6	1	1	82	29	67
Baking powder										1			1		
Syrup	3														
Kerosene				1											
Gasoline	1														
Paint	1														
White lead								1							
Wire handles										2					
Can keys	1		1									1	4		
Open top	2									1			1		
Fragments										2					
Hole-in-top	4													1	1
Tin can	174	191		34			5	34			1		76	28	66
BARREL HOOP	1														
CAPS AND LIDS	17	21	1	9	5			1		15	1	2	16	8	1
Canning jars															
Zinc cap and liner	1														
Zinc caps		1		1											
Porcelain liners	1	1													
Sheet metal cap										1					
Sheet metal lids		1	1												
Fragments															
Zinc caps	8	10													
Porcelain liners	1	2		3	3					8		2	12	2	
Rubber seals	1	2						1		1					
Tooth powder														1	
Coffee can				1											
Pudding													1		
Screw caps				1										2	
Lid														1	
Crown caps	3	4		3	1					2	1		3	2	1
Glass stoppers	1									2					
"Kwikstik"					1										
Drum caps	1									1					

TABLE 2

Food remains 45-WT-1 1983

	Features									Trench Lines:Excavation Units					
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
BONE	567	306	80	10	17		14	50	10	363	32	16	100	65	241
Identified Fauna[a]	303	238	68	7	5			13	1	122	6	9	39	33	35
Bos taurus	36	22	38	1				7		26			9	18	7
Sus scrofa	9	8	5		2			2		6			1	2	2
Ovis aries	1	2						1		2			1		
Gallus gallus	124	103	5	2						3					
Large mammal	40	14	4	1	2					39	2	6	14	8	17
Medium mammal	12	21	11	1						28	1	3	5	2	9
Small mammal	1														
Mammal	26	7	2	1	1				1	15	3		5		
Aves	58	55	3	1						2			4	3	
Rodentia		6						3		1					
Nondiagnostic Fragments	264	68	12	3	12		14	37	9	241	26	7	61	32	206
OTHER FOOD REMAINS															
Peach Pits	2	1	1												
Egg Shell	P	P								P					
Mussel Shell			P		P			P		P	P	P	P		
Fish Bone													1	1	

[a] See Appendix A.

TABLE 3

Household items: ceramics 45-WT-1 1983
Distribution of ceramic fragments by ware types and forms[a]

	Features									Trench Lines:Excavation Units					
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
EARTHENWARE:	46	65	16	54	59	3	2	31	6	145	29	33	131	23	96
Plain white earthenware	30	45	16	51	51	3	1	27	5	142	23	30	116	18	93
Base, marked	2				1	1	1			5			5		5
Bowl	8	2	2					1		2		2	1		1
Bowl or plate										1					
Bowl, serving					1					1		1	1		1
Bowl, serving, oval			1							2					
Butter pat dish												1			
Cup	2	2		2				2		4	1	4	5		5
Cuspidor			2												
Pitcher		2													1
Plate	4	9	2	3	7	1		1	2	18		4	12	1	14
Plate, soup				1											
Platter	1									3			1		
Saucer		2	1		3			2		5		1	1	4	14
Rim sherds	1	1	1	2	6					13	1	2	7	1	8
Fragments	12	27	5	43	33	1		21	3	88	21	15	83	12	44
Decorated white earthenware	1	12		2	1			1	1	3			2	3	2
Bowl														2	
Cup								1							
Plate									1	1			1		
Plate, small		11													
Rim sherd	1			2	1					2			1	1	2
Fragments		1													
Color-decorated earthenware	15	8		1	7		1	3			6	3	13	2	1
Bottle										1					
Bowl	1									2					
Bowl or saucer											2				
Bowl, mixing												1			
Cup	2				1			2		1			1		
Flower pot					1					2				1	
Plate	2	2						1		2	3		8		
Plate, small										1					
Platter	7	3											1		1
Saucer	2				3					12		1			
Rim sherds													1	1	
Fragments	1	3		1	2		1				1	1	2		

TABLE 3 *continued*

	Features									Trench Lines:Excavation Units					
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
PORCELAIN	20	2		3	10			5		2	9	12	8	6	3
Bonbon dish	1										5				
Bowl	1							1		1	2		1	1	
Bowl, rice		1			2							2	1		
Bowl, serving								1				1			
Cup	1				2							1			
Jam pot	9														
Jam pot lid	2														
Plate					1							1		1	
Plate, small											1	1		1	
Plate or soup plate	1														
Saucer	1														
Rim sherds	1			1	2			2		1		1	2	1	
Fragments	3	1		2	3			1			1	5	4	2	3
STONEWARE	4	1		1	1			1		5	2	1	3	3	
Crock	1									2					
Crock or jug	3			1	1					2	1	1	1	2	
Flower pot														1	
Food jar								1							
Jug		1													
Wine jug										1					
Fragments											1		2		

[a] Includes tentative identification.

TABLE 4

Household items: glassware, metalware, furniture, and stoves 45-WT-1 1983

	Features									Trench Lines:Excavation Units					
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
GLASSWARE	7	2	3	1	6		3	1		7	3		4	6	7
Vessels															
Saucer														1	
Footed vessel							1								
Bowl	1														
Lid													1		
Spout										1					
Handles	1			1						1					
Tumblers															
Bases		1	1											1	2
Rims	2		1							1			1	1	2
Fragments															
Pressed glass	1				6		2			1	2		1	1	1
Milk glass			1					1		1					
Frosted										1					
Chimney	1	1								1	1			1	
Washboard	1												1	1	2
METALWARE	6	1	1	2									1	1	
Pans	2		1												
Coffee pot	1														
Pot lid				1											
Spoons	2	1		1										1	
Utensil handle	1														
Bottle opener													1		
FURNITURE	3		1	4						1		2	2		
Bed frame	1			4								1			
Furniture spring	1														
Caster										1					
Cabinet handle	1														
Cabinet escutcheon													1		
Table hinge												1			
Carpet tack													1		
Curtain weight			1												

TABLE 4 *continued*

	Features									Trench Lines:Excavation Units					
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
STOVES	22			1	2					5			3	5	2
Heating stove															
Bed/box	1														
Top	1														
Legs	2														
Cooking stove															
Anchor plate	1														
fragments	4														
Lid	1														
Decorated door	1														
Other doors	2														
Stove parts															
Leg				1											
Handles										1			1		
Door	1														
Anchor plate														2	
Miscellaneous	8				2					4			2	3	2

TABLE 5

Personal items 45-WT-1 1983

	Features									Trench Lines:Excavation Units					
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	652E: 50-52	608E: 53-64	611E: 65-81	118N: 82-87	88-91
CLOTHING AND FOOTWEAR	14		2	2				1		5	1		4	4	
Buttons	1		1							2			1	3	
Brass garters	1			1						1					
Iron rivet											1				
Corset stays	5														
Rowel	1														
Safety pin				1											
Leather cuff								1					1		
Clothes hanger													1		
Child's shoe	1													1	
Woman's shoe	3														
Boot and boot heel	2														
Overshoe															
Shoe fragments			1							2			1		
OTHER	6	2	1		2			1		5	1		2	1	3
Scissors	1														
Threadspool	1														
Thread										1					
Brass barret													1		
Combs	1									3	1			1	
Glass bead					1										
Umbrella		1													
Water bottle	1														
Clay pipes										1					1
Porcelain pipe					1										
Harmonicas													1		1
Pencil lead	1	1													
Clock/watch	1							1							1
Thermos			1												
TOYS	1	2	1		2			1			6		1	1	
Marble														1	
Pistol	1														
Doll fragments		2	1		2			1			6		1		

TABLE 5 *continued*

	Features									Trench Lines:Excavation Units					
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
TOOLS	3		3	2									3	2	
Wrench														1	
Hammer	1														
Files			2	1									1		
Hacksaw														1	
Drill			1												
Nail set													1		
Chisel													1		
Hay fork	1														
Grind stone				1											
Wheel barrow	1														
AMMUNITIONS	10			1	1						1	1	2		1
Dates															
Post 1857	1											1	1		
Post 1877															
Post 1887	2				1								1		1
1890	2			1							1				
1903	1														
Pre 1945	1														
Unknown	3														

TABLE 6

Construction Items 45-WT-1 1983

	Features									Trench Lines: Excavation Units				
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
DOOR, WALL, WINDOW	5		9	3						1		2	3	1	1
Door hinges															
Surface															
T-hinge															
V strap				1									1		
Butt															
Loose joint			1												
Loose pin	1			1									1		
Back flap										1					
Spring													1		
Door knobs															
Porcelain knobs															
White			1												
Blue												1			
Shank	1														
Rose			1											1	
Face plate			1												
Spindle	1		1												
Door locks															
Warded	2														
Interior part			1												
Escutcheon			1												
Latch part				1											
Gate hook												1			
Shelf bracket			1												
Window shade bracket			1												
ELECTRICAL ITEMS	9	1	3	9	1			1					2		5
Glass insulators															
Double petticoat	1														1
Fragments		1											1		
Porcelain insulators															
Two-Wire cleat				3											
Solid knob				1				1							
Porcelain tube				1											
Fragments															2
Light bulb base	1														
Porcelain switch block					1								1		
Electrical conduits	6														
Ground wire	1														
Mica washers			3												
Plastic insulator fragments				4											2

TABLE 6 *continued*

		Features									Trench Lines:Excavation Units				
		F1	F4	F2	F10	F9	F12	F13	F17	other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
PLUMBING HARDWARE		3	2	1	25				1		12			11	4	7
Item	Diameter (in.)															
Flanges	3													1		1
	3 1/2													1		
	6										1					
Elbow 90°	1 1/2	1														
	2 1/2													1		
	4 1/2										1					
Tees straight	1														1	
	2 1/2	1														
Valve T	1 3/8														1	
Coupling	2 1/4														1	
Nipples close	5/8				1											
	3/4													1		
Brass fittings	1				1									1		
Wheel	6										2					
Lead washer														1		
Pipe	1/2								1							
	5/8		1								1					
	3/4										1					
	7/8			1	2											
	1										2			1		
	1 1/2				2											
	1 7/8		1													
	2				1											
	2 1/2				2											
Ceramic drain pipe		1			16						4			4	1	6
NAILS		263	95	53	462	52	3	7	54	2	198	34	25	236	59	102
Cut		9	9	2	25	18	1		12		45	5	2	66	10	44
Wire		254	86	51	437	34	2	7	42	2	153	29	23	170	49	58
FLAT GLASS		79	46	40	147	15	2	1	71		198	11	13	116	145	105
BRICK					9						13			4	1	2
PAINTED WOOD				6					6					4		1
LINOLEUM[a]					P	P							P			

TABLE 6 *continued*

	Features									Trench Lines:Excavation Units				
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
HARDWARE	17	11	24	57	3		1	13		42	1	4	52	31	25
Nuts		1								2				2	
Bolts	1		3	2				1		6			2	6	3
Washers															
Metal	1		1							1			1		1
Leather			1												
Rubber			1												
Nuts and bolts				1									1	1	1
Nuts, bolts, and washers				1											
Screws	1		1	1						2			2	2	
Staples			1	2				1		1				2	
Spikes															
Boat	2		2	2			1	3		6		1	7	3	6
Railroad				2											1
Cut nail				2				1		4			1	1	3
Round nail								1		1					
Tip fragments				1						1		1	3	1	
Wire	12	10	6	41	3			6		14	1	2	34	9	10
Chain links				1										1	
Swival snaps										1			1		
Cotter pin										1					
Reinforcement tip														1	
Timing device														1	
Iron hook										1					
Screen 1/8" mesh			1												
Tacks			1											1	
Helical springs 5/8"			6	1						1					

[a] P indicates presence of item

TABLE 7

Transportation and machinery 45-WT-1 1983

	Features									Trench Lines:Excavation Units				
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
HORSE AND WAGON			2	3				1		2			2		
Wagon brace/bracket										1					
Horseshoe								1							
Horseshoe nails				2											
Harness ring				1						1					
Jointed ringbit													1		
Harness buckle			1												
Barrel roller buckle			1										1		
Leather harness part															
AUTOMOTIVE		1	6	7						1			2	2	2
Spark plugs		1		1											
Compression spring															1
Exhaust pipe				1											
Leaf spring			1											1	
Roller bearing										1					
Rubber hose			1	1									2	1	1
FARM EQUIPMENT			1												
Mower blade			1												
Iron peddle			1												
TRAIN	1			1											
Handrail				1											
Conductors' lantern	1														

TABLE 8

Miscellaneous items 45-WT-1 1983

	Features									Trench Lines:	Excavation Units			
	F1	F4	F2	F10	F9	F12	F13	F17	Other	125N: 22-49	50-52	652E: 53-64	608E: 65-81	611E: 82-87	118N: 88-91
WEATHER VANE			1												
LAMP/LANTERN PARTS	1									1					
BATTERIES	1	2		20	2			1		2			1	2	3
Glass fragments				16						2				1	3
Graphitic cores		1		1				1					1		
Flashlight	1	1		1										1	
FLAGGING TAPE				2	2							1			
METAL	40	3	3	15						7			13	8	3
Strap	40	2		6						2			4	2	2
Rod			2	4						3			8	4	
Bar			1	1										1	
Plate metal				1						1			1	1	
Plate sheet metal		1													1
Angle iron				3						1					

documented, totaling 33 bottles, 13 rims, and 15 bases. For an estimate of minimum number, where both rim and base fragments for a certain bottle type are present, the rim has been counted as representing an additional bottle. Bottle capacity was measured when possible and measurements of base diameter (BD), or base length (BL) and base width (BW); rim diameter (RD); and height (H) are also given in the following descriptions. Rim diameter refers to the inside diameter of the container's opening.

Manufacturing techniques of glass containers during the late nineteenth and early twentieth centuries were undergoing numerous changes and representations of such techniques from this time not only overlap a great deal, but are also difficult to distinguish. Hand blown, semi-automatic, and fully automatic methods of making glass containers were all employed during this period (Toulouse 1967, 1969). For this study, certain characteristics reflecting manufacturing techniques are noted, but do not form part of the typology. Among the manufacturing terms used are hand blown, turn mold, cup bottom, post bottom, mold seams on the finish, and suction cut off scar. A hand blown bottle is identified where there is no evidence of seams resulting from the use of a mold and no striations indicating the use of a turn mold. Manufacture with the use of a turn mold is evident when seams are missing, but horizontal striations cover the bottle. Cup bottom and post bottom refer to three piece molds used to form the base and body of bottles during manufacture by techniques of hand blowing or the use of semi or fully automatic machine processes. A post bottom mold is distinguished by a circular seam on the base and two opposing side seams continuing from here up the sides of the bottle. A cup bottom mold will leave a seam line around the body, near the base, and the two side seams continue from this point up the sides of the container to the rim area. Molds used to form bottle finishes with the fully automatic process result in mold seams on and over the finish and often times horizontally around the neck, below the finish. However, sometimes, especially in the case of crown finishes, a heating process of the finish will erase such seams. A suction cut off scar on the base of a bottle is evidence of machine manufacture, and post dates 1904 (Toulouse 1967,1969).

Complete bottles will be discussed in detail, followed by descriptions of rims, bases, and marked fragments.

Bottles were often purchased by manufacturers of certain products for their shape and finish and the styles of finishes or rims on containers are often highly indicative of their function. As nearly as possible, terminology of nineteenth and twentieth century glass manufacturers have been used to describe bottle finishes (Table 9, Fig. 19).

Condiments, Pickles, and Preserves

Mustard, Type 1: Capacity 7 oz., (BD) 2-1/4 in., (RD) 1-3/8 in., (H) 4 in. (Fig. 20*a*).

Clear, round, ten-sided or decagon mustard shaped jar (Putnam 1965:199) with patent/extract finish. Fully automatic machine made with the use of a post bottom mold, the bottle has mold seams continuing over the rim with a horizontal seam on the bottle neck and suction cut off scar on the base.

TABLE 9

Styles of finishes used in bottle descriptions 45-WT-1 1983

Shape	Reference	Fig.
Blow-Over	Whitall, Tatum and Company 1880, 1902	19*a*
Bead	Putnam 1965	19*b*
Brandy	Putnam 1965	19*c*
Champagne	Whitall, Tatum and Company 1880, 1902	19*d*
Club Sauce	Herskovitz 1978	19*e*
Crown		19*f*
Oil	Whitall, Tatum and Company 1902 Putnam 1965	19*g*
Patent/Extract	Whitall, Tatum and Company 1880, 1902	19*h*
Pour Spout		
Prescription	Whitall, Tatum and Company 1880, 1902 Putnam 1965	19*i*
Reinforced Extract	Whitall, Tatum and Company 1902	19*j*
Rum		19*k*
Screw Top		19*l*

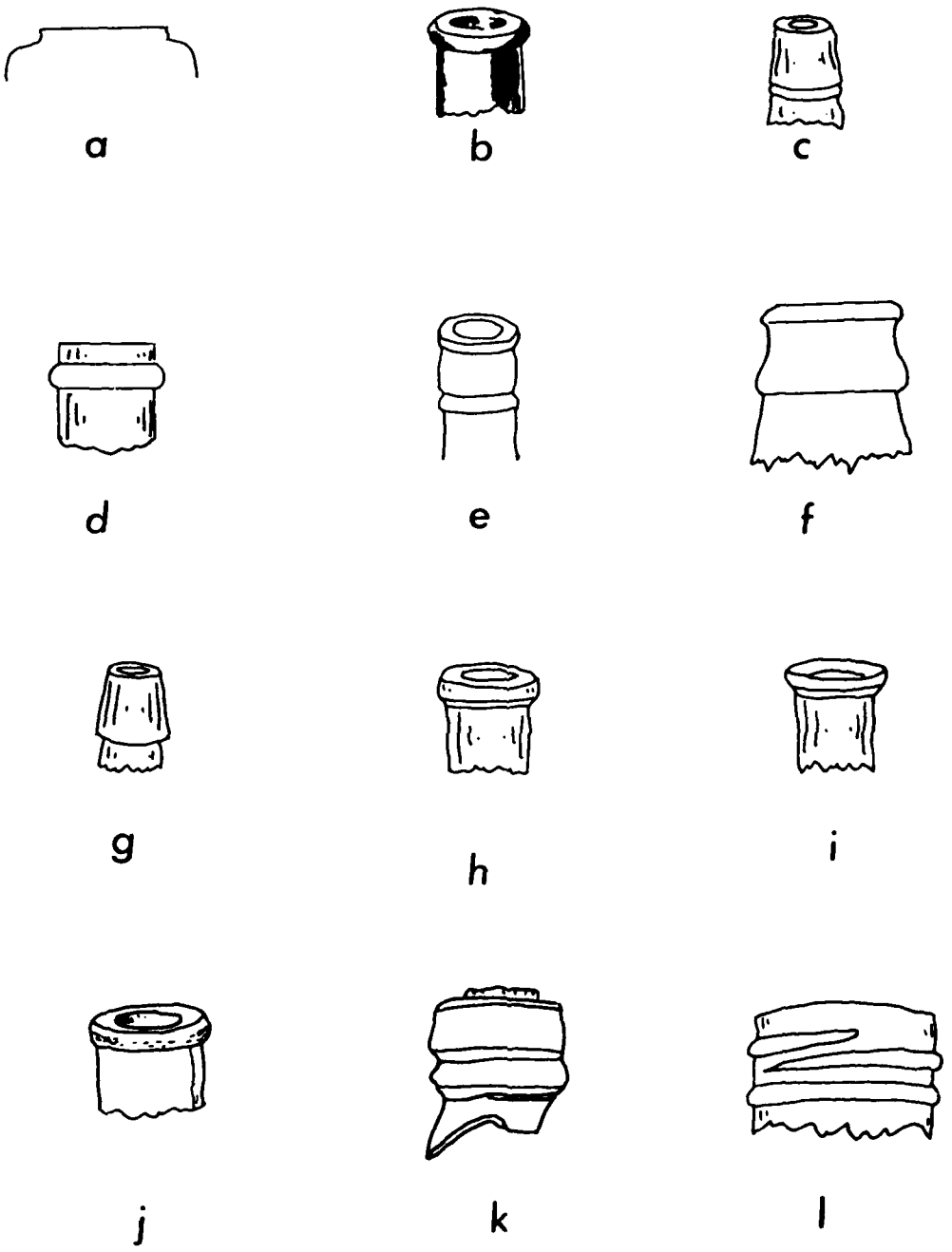
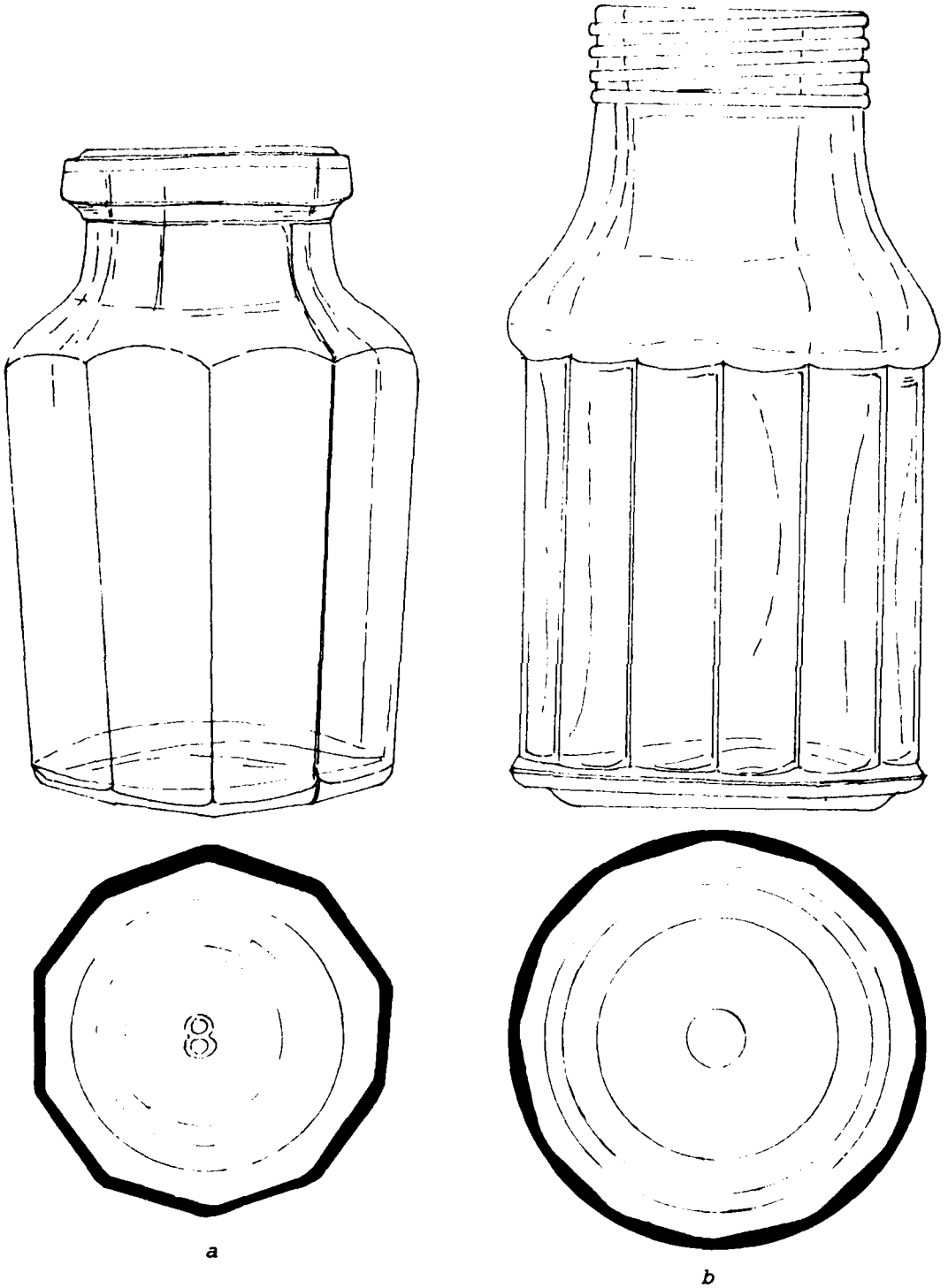


Fig. 19. Bottle finish styles described in Table 9; *a*, blow-over; *b*, bead; *c*, brandy; *d*, champagne; *e*, club sauce; *f*, crown; *g*, oil; *h*, patent/ extract; *i*, prescription; *j*, reinforced extract; *k*, rum; *l*, screw top.



a *b*

Fig. 20. Condiment bottles; *a*, mustard, Type 1 (Fl.8.612); *b*, mustard, Type 2 (Fl.12.2148). Scale 1:1.

Three complete bottles, five bases, and six rims of this bottle type were recovered from Feature 1. Base marks include "1", "2", "3", "5", "7", and "8".

A similar type of bottle from Silcott, with a capacity of 5 oz., was identified by a paper label as a product of "Libby, McNeill, and Libby" (Adams, Gaw, and Leonhardy 1975:114, Fig. 43). While the company of Libby, McNeill, and Libby was formed for meat packing as early as 1874, condiments and other additional products, as well as exporting offices in New Orleans and San Francisco, did not come under the company's auspices until 1888. In the early twentieth century the expanded company packaged and sold sauerkraut, catsup, pickles, fruits, vegetables, pineapple, salmon, and olives (Zumwalt 1980:279), becoming an apparently popular merchandiser during this time.

Mustard, Type 2: Capacity 9 oz., (BD) 2-5/8 in., (RD) 1-3/8 in., (H) 4-7/8 in. (Fig. 20*b*).

Clear, round, 12-sided jar with screw top finish. Manufactured with use of cup bottom mold, with seams ending just below threads of screw top. Suction cut off scar is present suggesting automatic machine manufacture. This bottle type is represented by two complete bottles from Feature 1 and a complete rim from Feature 13. One side panel on each bottle is marked "63". This same type of mustard bottle was recovered from the Silcott excavations (Adams, Gaw, and Leonhardy 1975: 115, Fig. 43).

Mustard, Type 3: Capacity 4 oz., (BD) 1-7/8., (RD) 7/8 in., (H) 3-3/4 in. (Fig. 21*a*).

Clear, round jar with prescription lip finish. The container is machine made with the use of a cup bottom mold. Seams are evident on the rim and horizontally around the rim and neck. The only specimen of this type recovered was from Feature 1. The shape of the container suggests a mustard, or perhaps other condiment, jar. The prescription lip finish and small capacity may indicate another function.

Mustard, Type 4: Capacity NA, (BD) 2-1/2 in., (RD) 7/8 in., (H) NA (Fig. 21*b*).

Amethyst-colored round bottle with patent/extract finish. Manufactured with the use of a cup bottom mold, the container's body seam lines disappear just below the finish. A single specimen from Feature 1 has a base mark of "9". Both shape and finish style, as well as size, suggest a mustard jar.

Catsup, Type 5: Capacity 18 oz., (BD) 2-3/4 in., (RD) 5/8 in., (H) 10 in. (Fig. 22).

Clear, round, bottle with screw top finish. Fully automatic machine made, post bottom mold, with seams continuing over top of rim. This type is represented by five bottles, four rims, and six bases; all from Feature 1. Bases are marked with "F" and "2" appears on the body of the bottles. The base mark is unidentified to date. Horizontal seam at neck present as well as suction cut off scar on base.

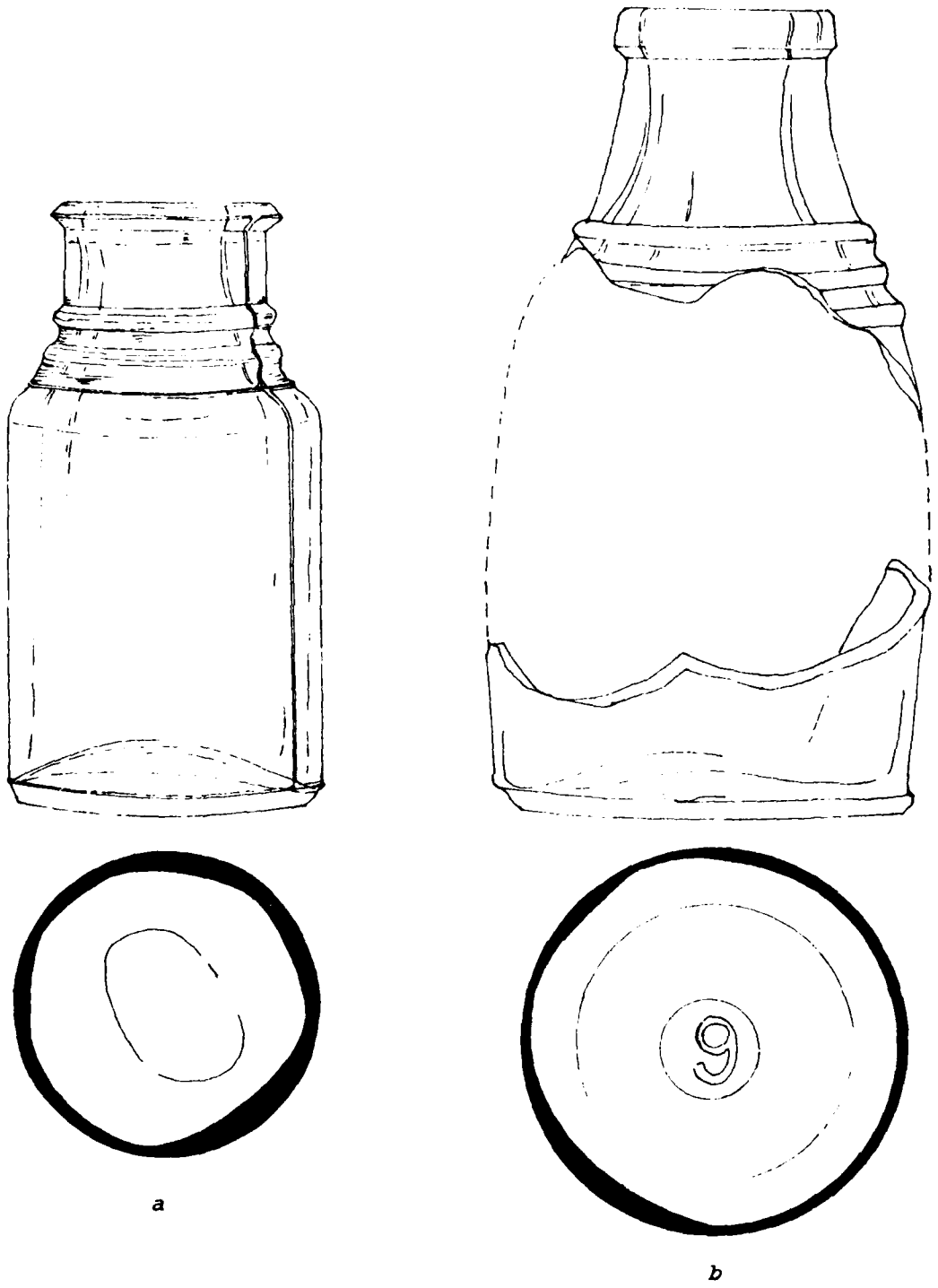


Fig. 21. Condiment bottles; *a*, mustard, Type 3 (Fl.9.919); *b*, mustard, Type 4 (Fl.12.2137). Scale 1:1.

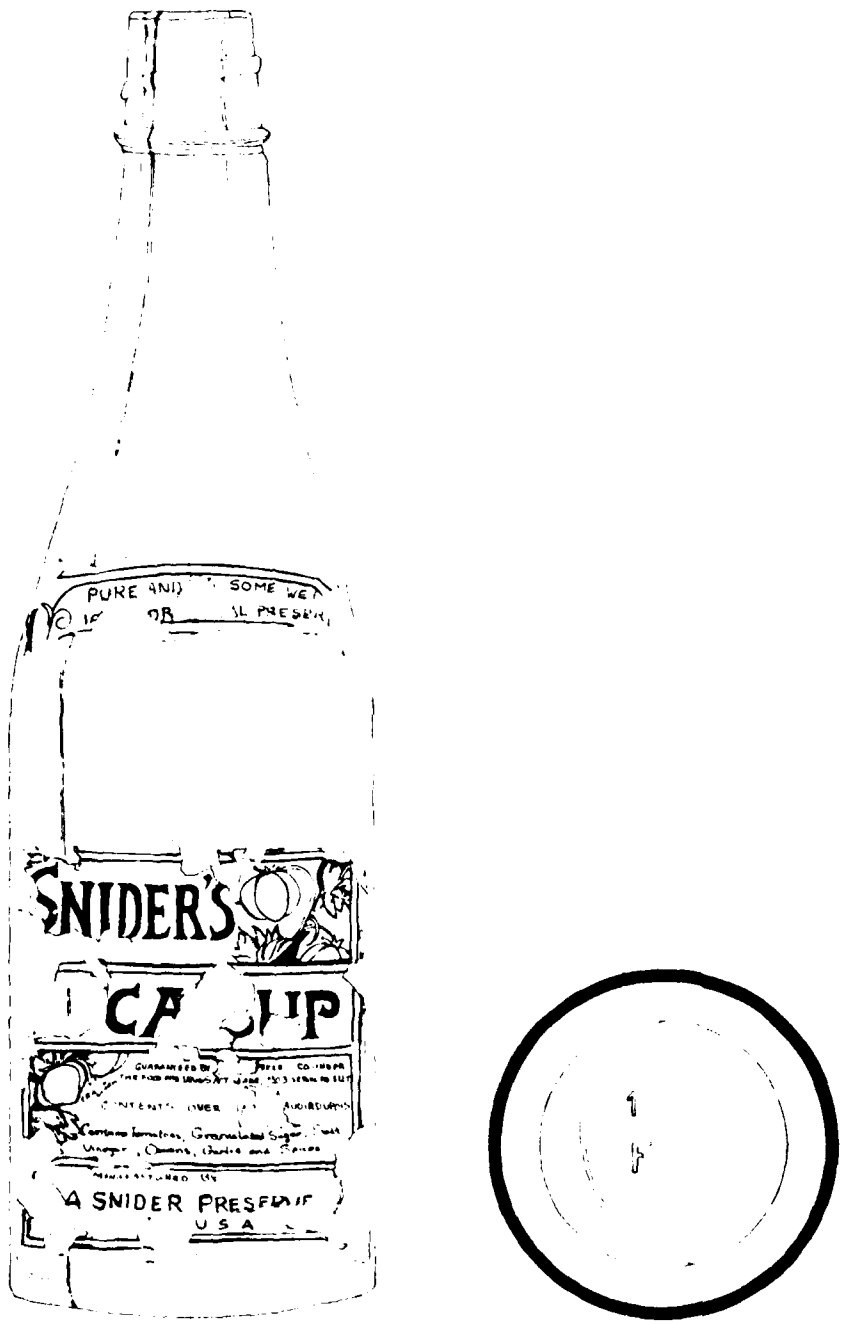


Fig. 22. Condiment bottle; catsup, Type 5 (Fl.11.1838). Scale x.75.

When excavated, several specimens retained portions of red, white, yellow, and black paper labeling identifying the product as Snider's Catsup, manufactured by T. A. Snider Preserve Company of Cincinnati, Ohio. Among the contents listed on the label remnants are: tomatoes, granulated sugar, salt, vinegar, onions, garlic, and spices. Originally a home business of Mrs. Snider who's first product was catsup, the T.A. Snider Preserve Company, formed in 1884 (Toulouse 1971:449), eventually produced "every description of preserved fruits, jellies, sauces, etc., a specialty being made of fine preserves in glass, home-made brand tomato catsup and Mexican Chili sauce, for all of which specialties the company has a reputation extending from ocean to ocean and from the Lakes to the Gulf, in addition to which it also has a considerable export trade" (Zumwalt 1980:388 from 1888 article).

Interestingly, the paper labels on the bottles attest to product manufacture by T. A. Snider Preserve Company. However, according to Toulouse (1971:449-450), the company also used a bottle manufacture mark of an "S" within a diamond contrasting with the "F" found on these examples.

Olive Type 6: Capacity NA, (BD) 2-1/8 in., (RD) 1-1/8 in., (H) 7-3/4 in. (Fig. 23).

Clear, round "tall cylinder olive" shaped bottle with prescription finish, available in capacities of 10, 12, and 14 oz. (Putnam 1965:207). The cup bottom mold bottle is machine made with seams extending to and around the finish. A complete, but fragmented bottle; one base, and two rims were recovered; all from Feature 1. The single base is marked with "58". The complete specimen was recovered with a very fragile paper label, blue with white lettering, on which "DIAMOND/SELECT/OLIVES/...AND" could be discerned. The "...AND" may indicate that the product was produced in Portland.

Olive, Type 7: Capacity 7 oz., (BD) 1-7/8 in., (RD) 1-1/8 in., (H) 7 in. (Fig. 24).

Aqua, round bottle with patent/extract finish. The single complete specimen, which appears to be an olive or similar preserve bottle, was made in a cup bottom mold. The patent/extract lip has been applied by hand and roughly shaped, dating the bottle earlier than most examples recovered from the site. This item was recovered from Unit 90, Level 2, near Feature 17.

Syrup (?), Type 8: Capacity 16 oz., (BD) 3-5/8 in., (RD) 1 in., (H) 7-1/2 in. (Fig. 25).

Large, clear container with pour spout and handle. Machine made with use of cup bottom mold, the seam lines continue up and around the finish. One complete container and one base, both from Feature 1, constitute this type. It is not known for certain if this vessel contained syrup, but the pour spout and pitcher-like handle suggest a product of this kind.

Worcestershire Sauce, Type 9: Capacity NA, (BD) 2-1/8 in., (RD) 11/16 in., (H) 7-1/4 in. (Fig. 26*g*).

Fig. 23. Condiment bottle; olive, Type 6 (Fl.12.3129). Scale 1:1.

Fig. 24. Condiment bottle; olive, Type 7 (90.3.51). Scale 1:1.

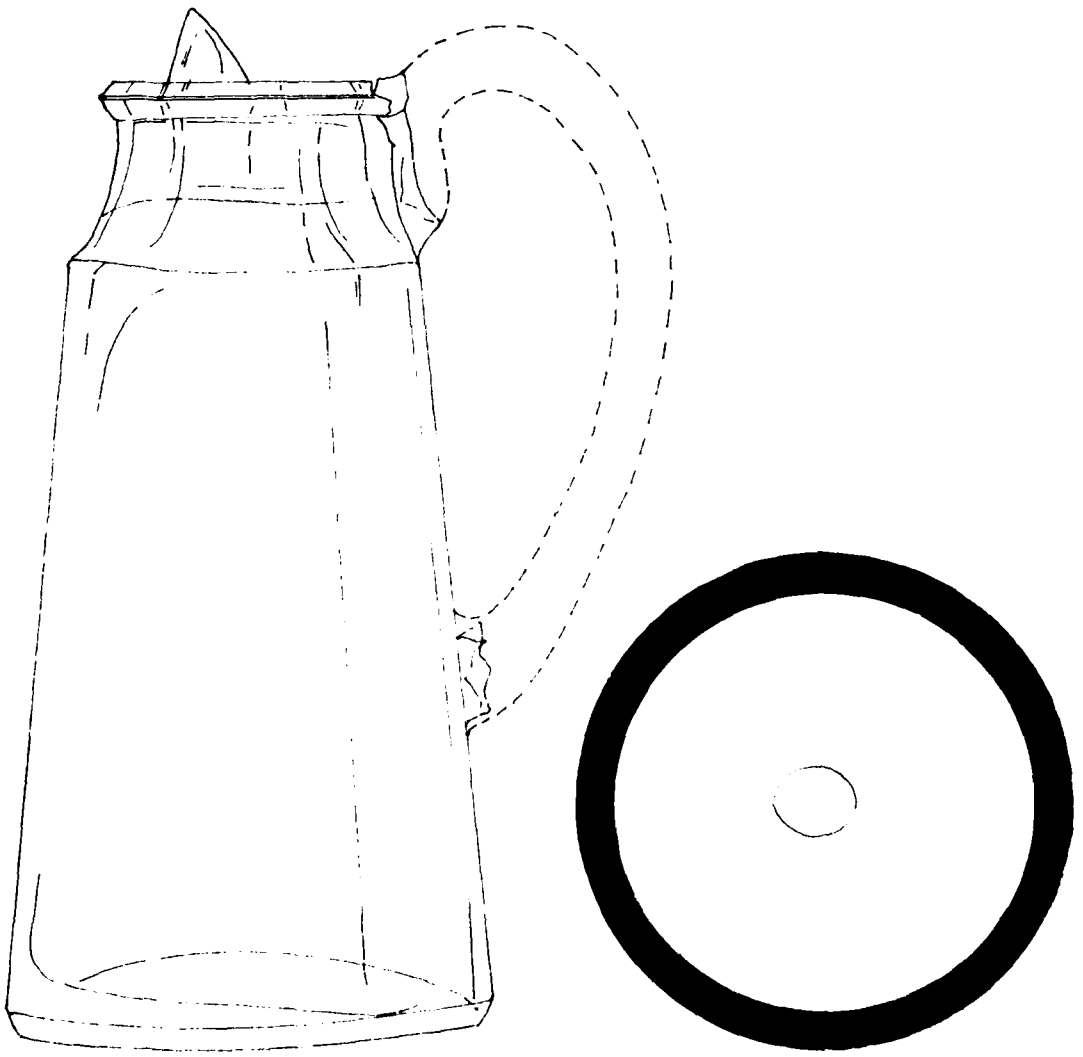
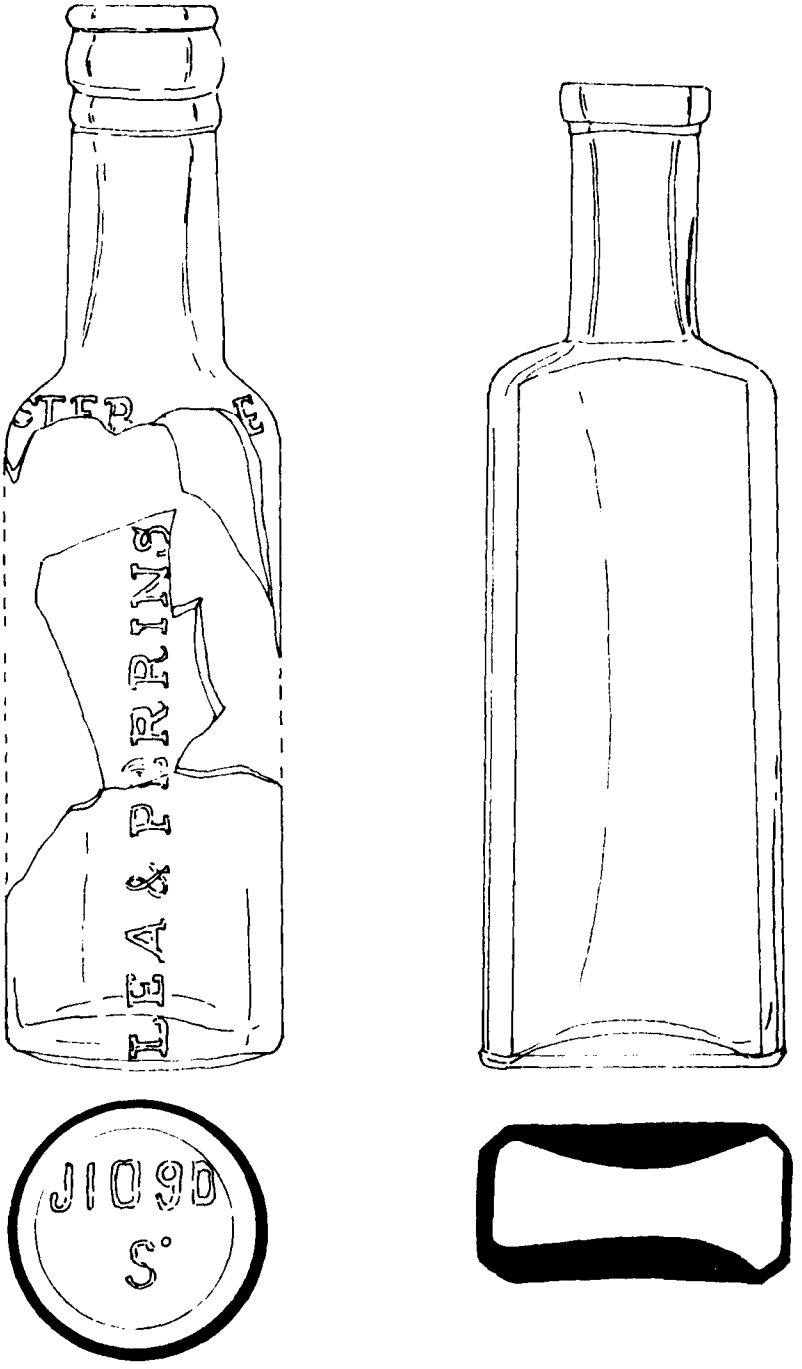


Fig. 25. Condiment bottle; syrup (?), Type 8 (Fl.10.1420). Scale x.75.



a *b*

Fig. 26. Condiment bottles; *a*, worcestershire sauce, Type 9 (Fl.1.905), scale x.75; *b*, extract, Type 11 (Fl.12.2151), scale 1:1.

Aqua, round bottle with club sauce finish. The specimens were manufactured in a cup bottom mold and the rims appear to have been hand applied and tooled. A fragmented, complete specimen from Feature 1 is marked "LEA & PERRINS/WORCESTERSHIRE SAUCE" with a base mark of "J 10 9 D/S". An additional base from Unit 36 is marked "J 25 D/S". The base marks of "JDS", John Duncan and Sons, date from 1877 to 1920 at which time the company was sold and the use of embossed bottles discontinued (Toulouse 1971:277; Zumwalt 1980:269). Two rim fragments recovered were from units 31 and 35.

Extract, Type 10: Capacity 2 oz, (BL) 1-3/4 in., (BW) 7/8 in., (RD) 7/16 in., (H) 5-1/2 in. (Fig. 27).

Clear, rectangular Full Measure Extract Panels shaped bottle (Putnam 1965:51) with patent/extract finish. Made in a cup bottom mold, seams extend to just below the finish and no suction cut off scar is present on the base. The rectangular bottle has three panels with the fourth side plain and flat. Recovered from Feature 1, one side panel of this fragmented specimen is embossed with "FULL MEASURE" and may also have had the capacity embossed here. The other side panel is missing. Bottles similar to this, recovered from Spalding, Idaho, contained Royal Club Brand vanilla extract manufactured by Lang and Company of Portland, Oregon (Carley 1981:75, Fig. 14).

Extract, Type 11: Capacity 3 oz., (BL) 1-3/4 in., (BW) 7/8 in., (RD) 7/16 in., (H) 5-1/2 in. (Fig. 26*b*).

Clear, rectangular, St. Louis Flat Extract shaped bottle (Putnam 1965:50) with patent/extract finish. The single specimen recovered from Feature 1 was manufactured in a cup bottom mold. No suction cut of scar is present and the seams end ca. an inch below the finish. The neck is also lopsided, suggesting hand-tooling or the re-heating of a machine made finish. No embossing exists on any of the four flat panels.

Beverage

Whiskey, Type 12: Capacity 16 oz., (BL) 3-1/2 in. (BD) 1-1/2 in., (RD) 3/4 in., (H) 8-1/8 in. (Fig. 28).

Amethyst, oblong or flask shaped, bottle with a brandy finish. Made in a cup bottom mold, with no suction cut off scar present, the mold seams disappear before reaching the finish. One single, complete specimen from Feature 1 has a base mark of "7".

Liquor, Type 13: Capacity 26 oz, (BD) 4-1/8., (RD) 3/4 in., (H) 9-7/8 in. (Fig. 29).

Clear, large, round bottle with brandy finish. No mold seams are evident on either of the two reconstructed specimens from Feature 1. Horizontal striations covering the bottles are indicative of the use of a turn mold. The base of one bottle is marked "419". Due to the size, shape, color, and finish style, it is presumed that these containers once held a liquor of whiskey or brandy.

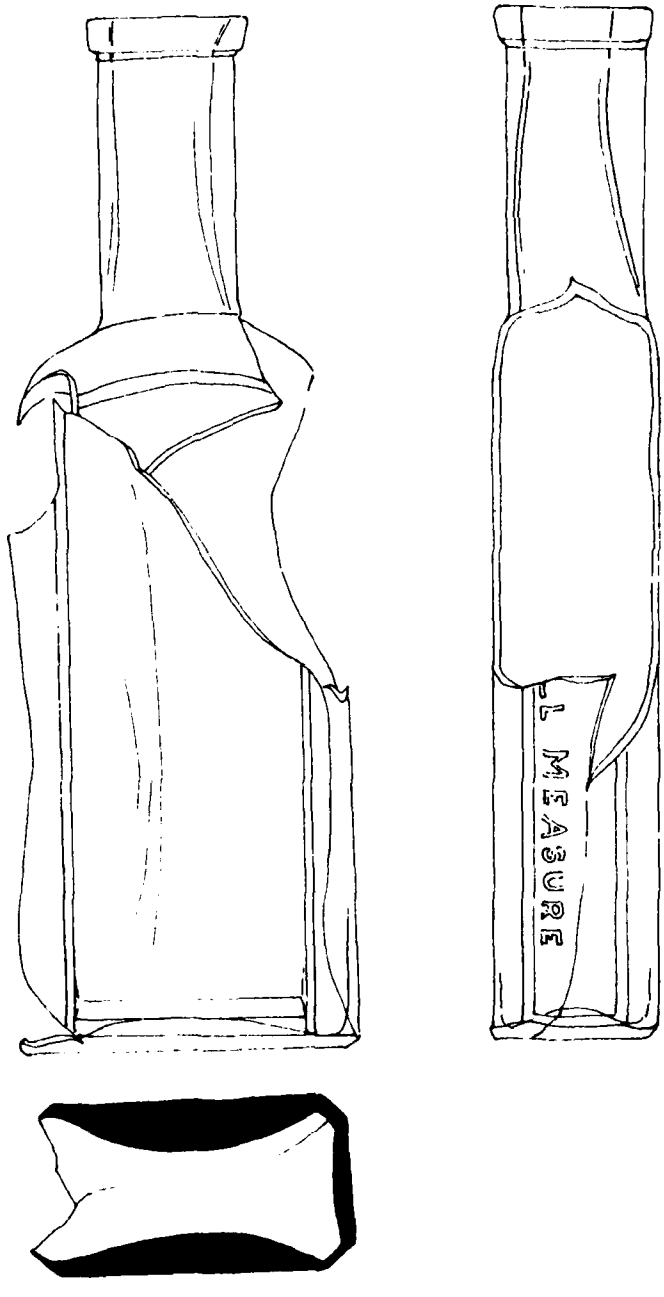


Fig. 27. Condiment bottle; extract, Type 10 (Fl.7.482). Scale 1:1.

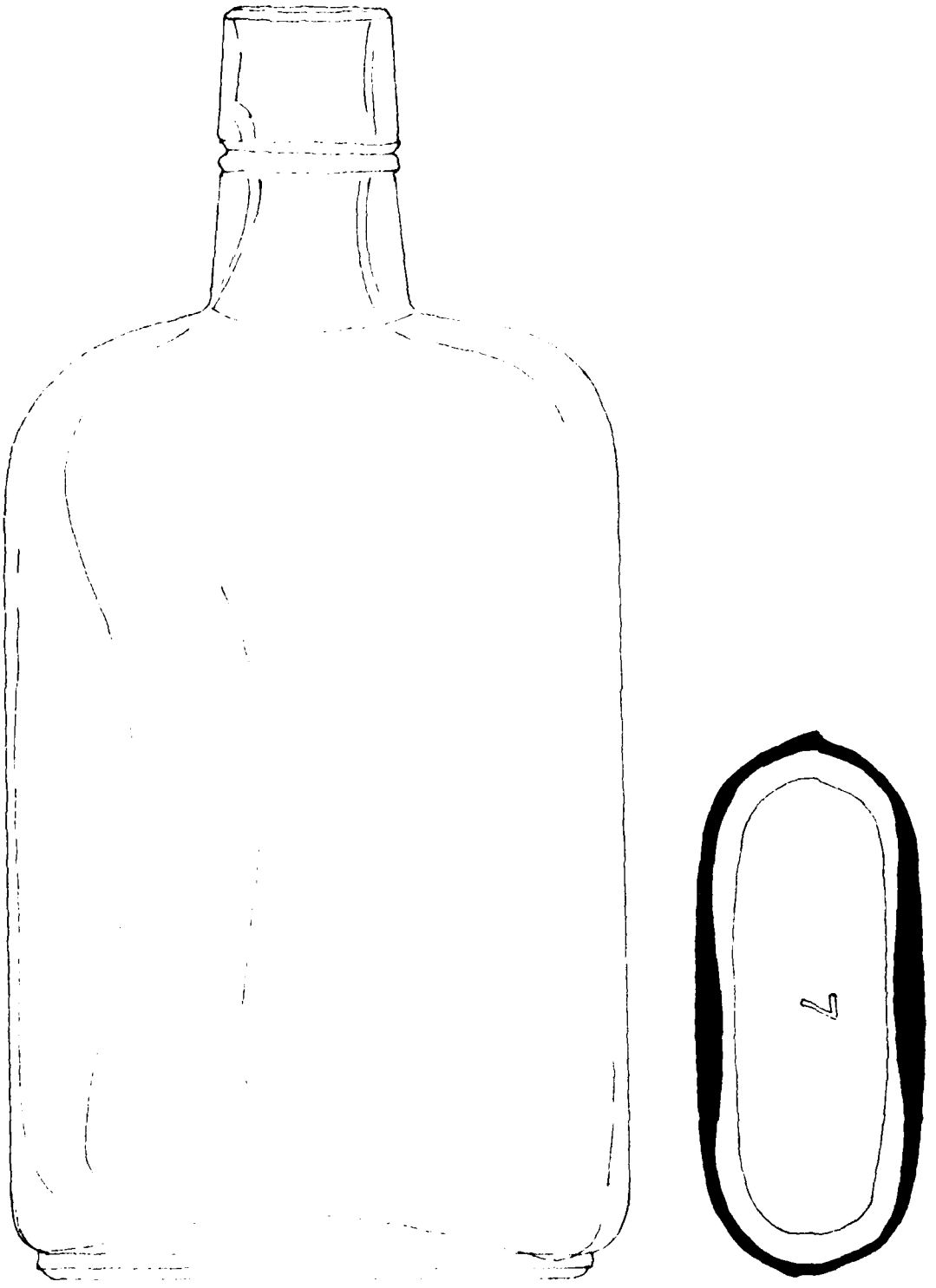


Fig. 28. Beverage bottle; whiskey flask, Type 12 (F1.10.1413). Scale 1:1.

Fig. 29. Beverage bottle; liquor, Type 13 (Fl.13.2448). Scale x.75.

Wine, Type 14: Capacity 26 oz., (BD) 2-7/8 in., (RD) 3/4 in., (H) 12 in. (Fig. 30).

Olive green, round bottle with champagne finish. No seam lines from manufacture are evident on the single example of this type, but horizontal striations on the bottle suggest the use of a turn mold. This is the only olive green bottle recovered from the site and from Feature 1.

Juice (?), Type 15: Capacity 5 oz., (BD) 2 in., (RD) 11/16 in., (H) 5-1/2 in. (Fig. 31*a*).

Clear, small, round bottle with crown finish. Produced in a cup bottom mold, the seam lines disappear just below the finish. No manufacture or product marks are evident on the single complete specimen from Feature 1, but in size and shape, it is similar to Welch's grape juice bottles recovered from Silcott (Adams, Gaw, and Leonhardy 1975:110, Fig. 42).

Beer/Soda, Type 16: Capacity 14 oz., (BD) 2-1/2 in., (RD) 5/8 in., (H) 9-1/2 in. (Fig. 32).

Aqua, round bottle with crown finish. Fully automatic machine made with post bottom mold, bottle from Feature 1 has a suction cut off scar and seams continue over the finish. The mark "B 209" exists on the body, near the base.

Beer/Soda, Type 17: Capacity 13 oz., (BD) 2-1/2 in., (RD) 5/8 in., (H) 9-1/4 in. (Fig. 31*b*).

Aqua/light green, round bottle with crown finish. Fully automatic machine made with post bottom mold. Suction cut off scar is present on base and mold seams continue over the finish. The one complete specimen is from Feature 1.

The base of this bottle is marked with "W.F. & S./16/MIL". Tentatively, the mark is identified as William Franzen and Son, Milwaukee, Wisconsin dating 1900-1929 (Toulouse 1971:536-537). The mark shown by Toulouse, unlike our example, retains a W at the end of MIL. In the example from Feature 1, the W may not have been embossed adequately enough to make a distinct impression. As prohibition brought about the downfall of this bottle manufacturing company (Toulouse 1971:536-537) this bottle classed as beer/soda may actually represent a beer bottle.

Beer/Soda, Type 18: Capacity 10 oz., (BD) 2-1/4 in., (RD) 11/16 in., (H) 8 in. (Fig. 33).

Aqua, round bottle with crown finish. This also is a fully automatic machine made bottle with a suction cut off scar on the base and body seams continuing over the finish and horizontally around the neck. It was produced in a post bottom mold. This specimen, from Feature 4, is embossed on the body with: "PROPERTY/OF/CRYSTAL BEVERAGE/CO./WALLA WALLA, WASH."

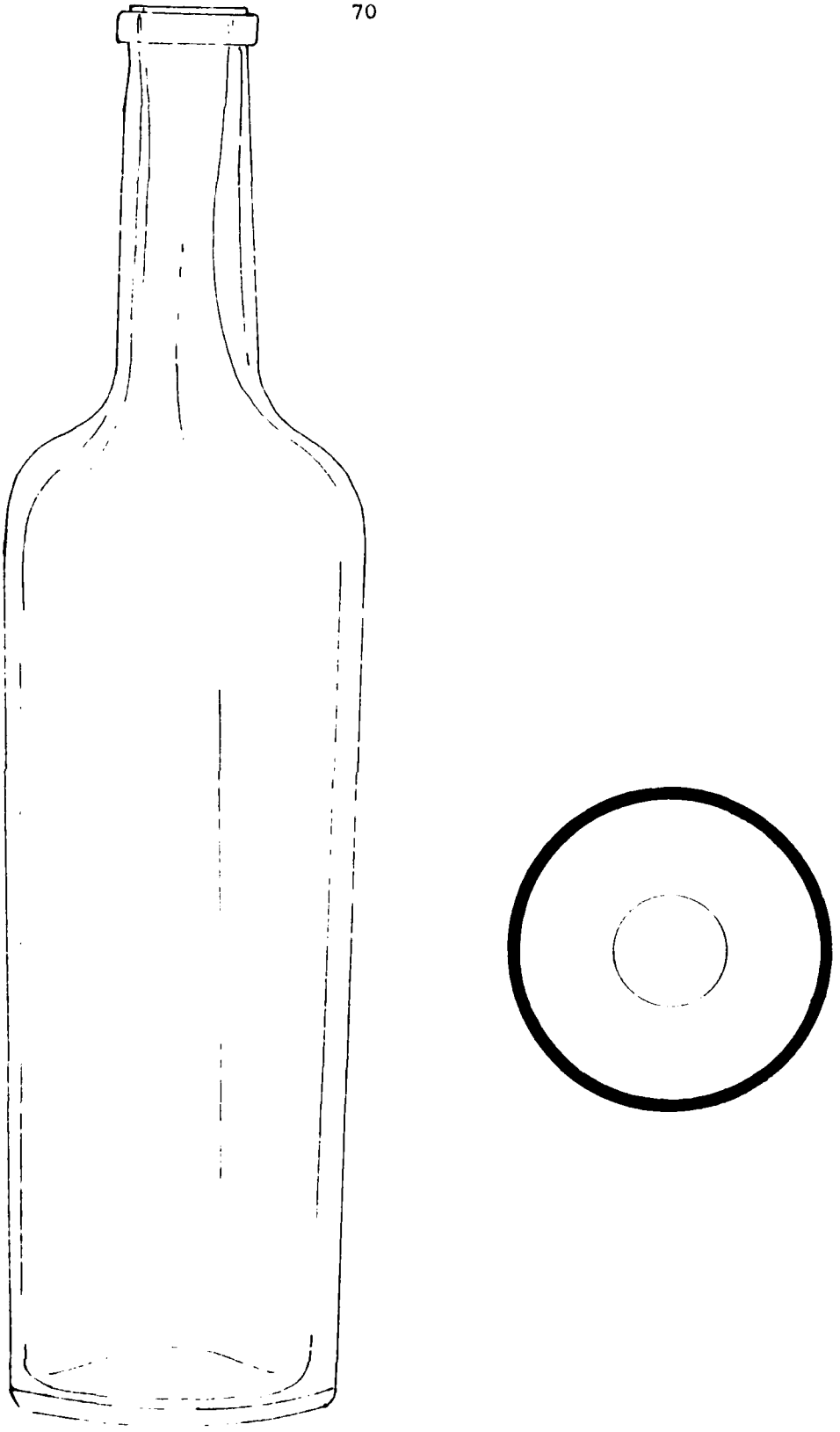
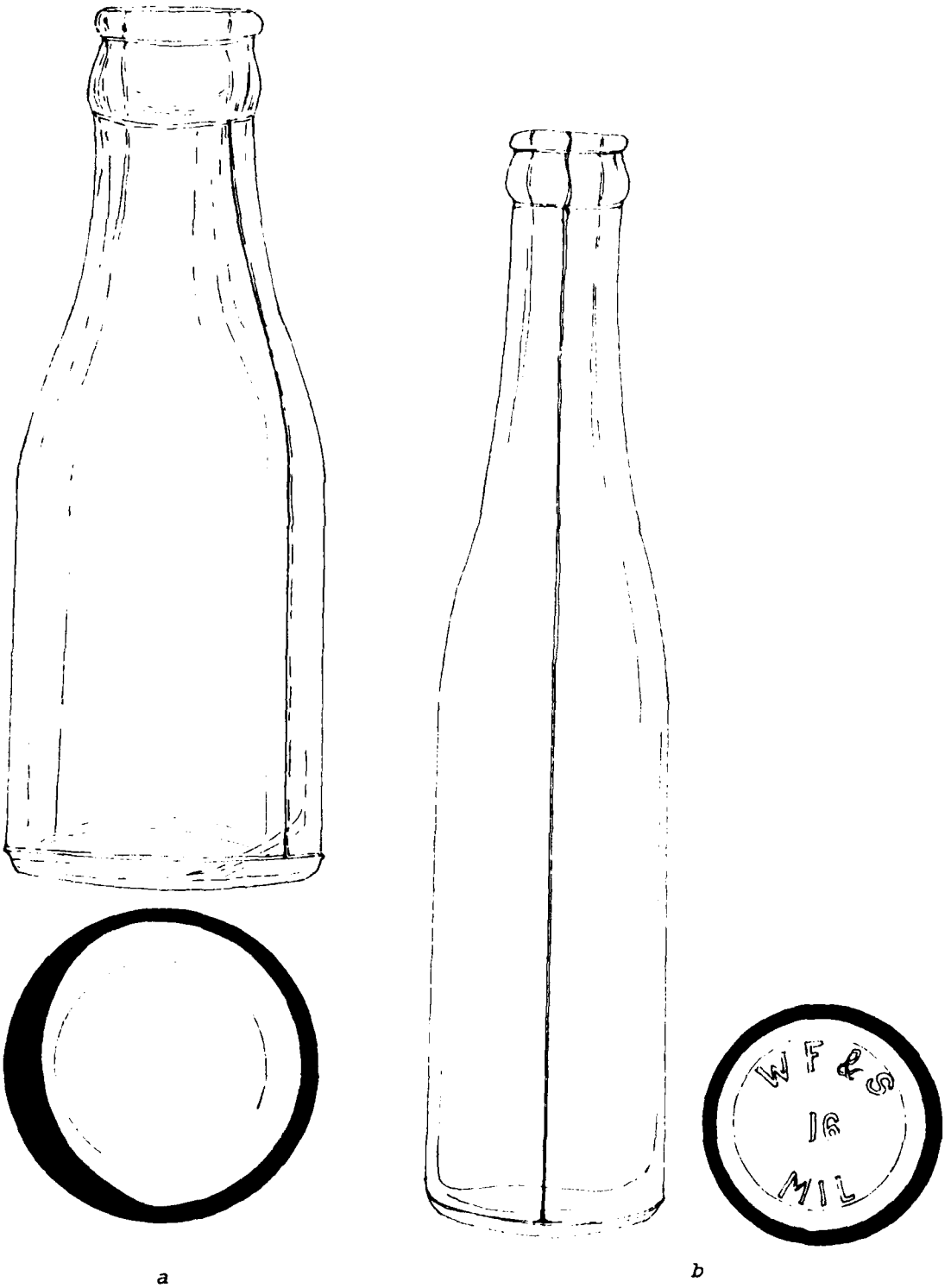


Fig. 30. Beverage bottle; wine, Type 14 (Fl.12.2150). Scale x.75.



a *b*

Fig. 31. Beverage bottles; *a*, juice (?), Type 15 (Fl.8.614), scale 1:1; *b*, beer/soda, Type 17 (Fl.11.1812), scale x.75.

Fig. 32. Beverage bottle; beer/soda, Type 16 (Fl.11.1837). Scale x.75.

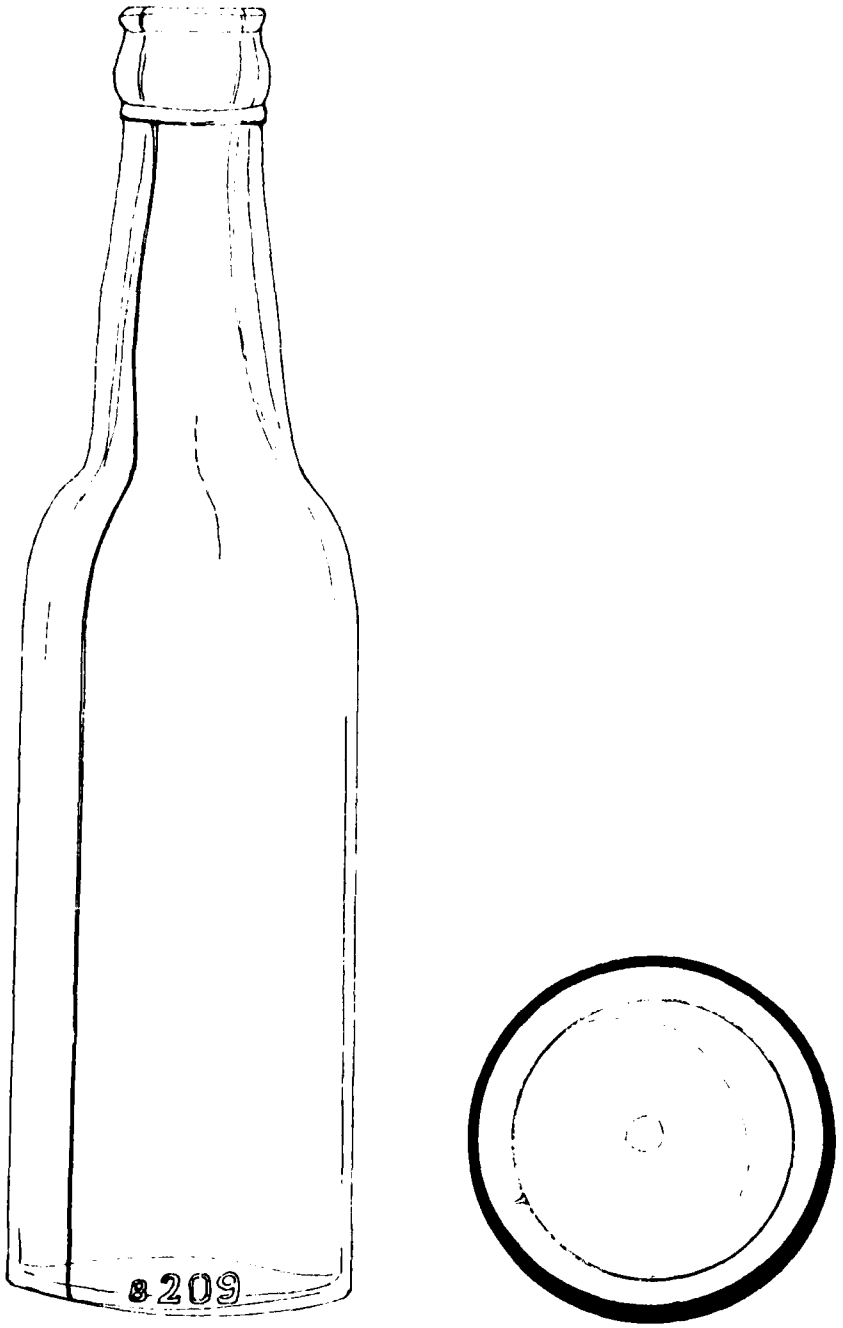


Fig. 33. Beverage bottle; beer/soda, Type 18 (F4.14/15.1090). Scale 1:1.

Beer, Type 19: Capacity 12 oz., (BD) 2-1/2 in., (RD) 11/16 in., (H) 7-3/8 in.

Brown, round bottle with screw top finish. Completely automatic machine made, this modern beer bottle is marked on the body with "NO DEPOSIT/NO RETURN" and on the base with "528/NW/69/A30/NOT TO BE REFILLED." The complete bottle was recovered from Feature 17, Level 7. Two additional similar bases marked with numbers "63" and "64" were recovered from levels 10 and 11 of Feature 10.

Medicine

Bromo Seltzer, Type 20: Capacity 1 oz., (BD) 1-1/8 in., (RD) 5/8 in., (H) 2-5/8 in. (Fig. 34*a*).

Cobalt blue, round bottle with bead finish. Completely automatic machine made, this bottle has a suction cut off scar on the base and a horizontal mold seam extending to the finish and existing at the base of the neck around the finish. The single, complete item from Feature 1 is embossed on the body with "BROMO-SELTZER/EMERSON'S/DRUG CO./BALTIMORE, MD." The base is marked with "5".

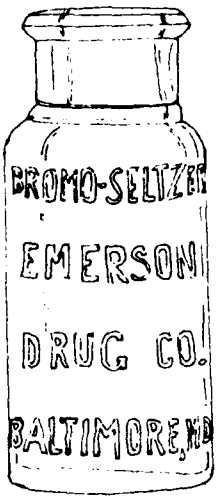
The formula for Bromo-Seltzer was compounded as a granular effervescent salt on 15 January 1889 and trademarked 21 May 1889 by Edward Emerson. The formula consisted of acetanilid, tartaric acid, sodium bicarbonate, potassium bromide, and sugar. In 1891 the Emerson Drug Company was organized to manufacture, full time, the Bromo-Seltzer product (Griffenhagen 1969:24).

Citrated Magnesia, Type 21: Capacity NA, (BL) 1-3/4 in., (BW) 1-3/4 in., (RD) 7/8 in., (H) 5 in. (Fig. 34*b*).

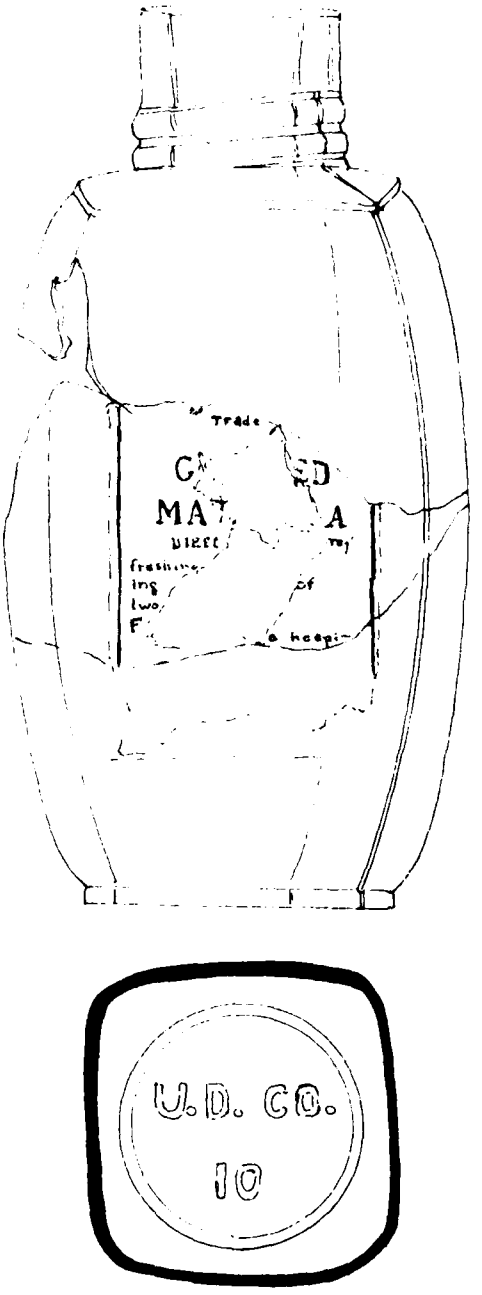
Cobalt blue, square bottle with screw top finish. Semi or fully automatic machine made with use of cup bottom mold. No suction cut off scar is present on the base and mold seams disappear part way up bottle neck. The fragmented bottle from Feature 1 retains a paper label marked with what appears to be "CITRATED/MAGNESIA" followed by directions for use. The base is marked with "U.D.CO./10". While "U.D.CO." suggests manufacture by United Drug Company, the dates for this company are not known (Toulouse 1971:509).

Prescription, Type 22: Capacity 1/2 oz., (BL) 1-1/8 in., (BW) 15/16 in., (RD) 1/2 in., (H) 2-5/8 in. (Fig. 35a).

Brown, rectangular bottle with patent/extract finish. Fully automatic machine made bottle from Level 1 of Unit 81 has suction cut off scar, horizontal seam below finish, and seams over finish. The bottle base is marked with a diamond, "1/2" and "2". The diamond may indicate manufacture by Diamond Glass Company of Royersford, Pennsylvania which dates from 1924 (Toulouse 1971:550-552).

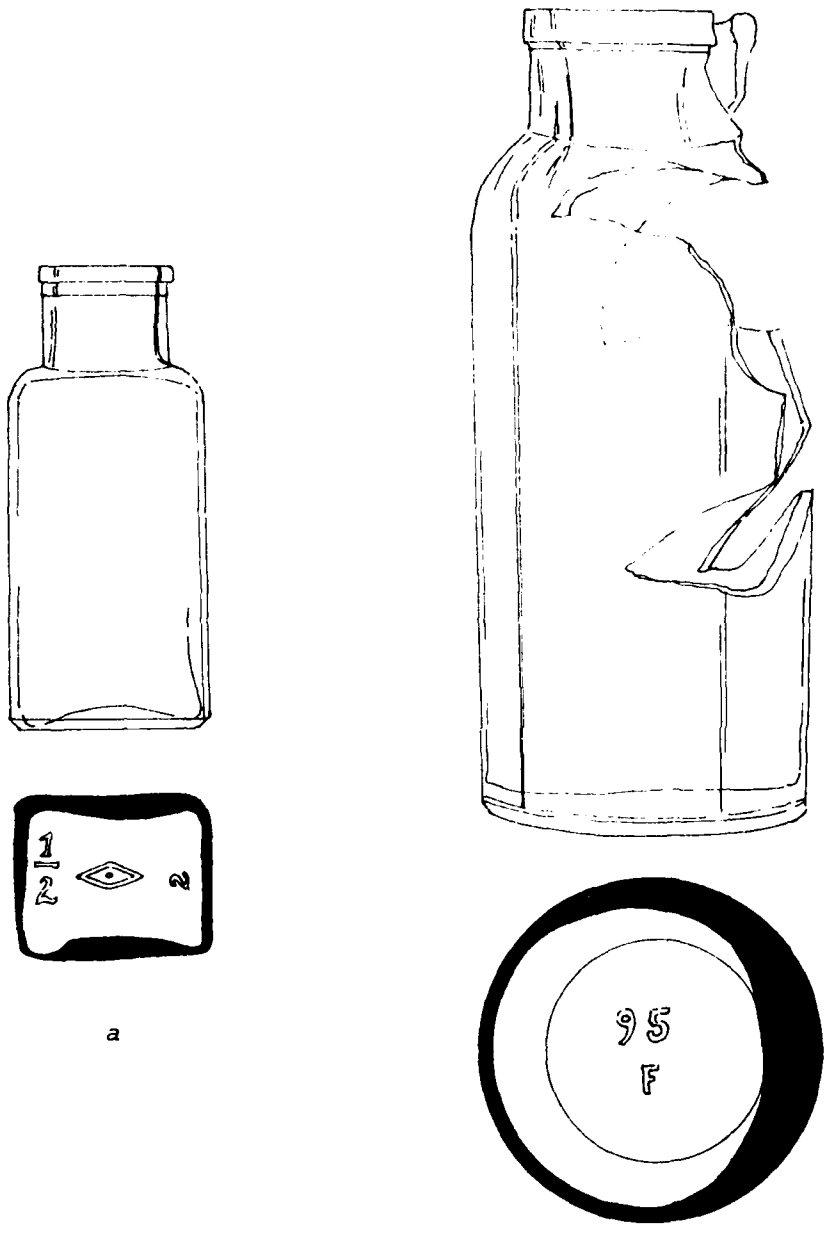


a



b

Fig. 34. Medicine bottles; *a*, Bromo-Seltzer, Type 20 (Fl.12.214?); *b*, Citrated Magnesia, Type 21 (Fl.9.923). Scale 1:1.



a

b

Fig. 35. Medicine bottles; *a*, prescription, Type 22 (8.1.1); *b*, prescription, Type 23 (F1.8.632). Scale 1:1.

Prescription, Type 23: Capacity NA, (BD) 1-3/4 in., (RD) 1 in., (H) 4-1/2 in. (Fig. 35*b*).

Amethyst-colored Round Prescription, Wide Mouth shaped bottle (Putnam 1965:29) with patent/extract finish. Manufactured in a cup bottom mold, no suction cut off scar is evident and mold seams extend to just below the finish. The base is marked "95 F". This fragmented bottle from Feature 1 is believed to be a medicine bottle because of its size, shape, and finish.

Prescription, Type 24: Capacity 4 oz., (BL) 2-1/4 in., (BW) 1-1/4 in., (RD) 1/2 in., (H) 6 in. (Fig. 36).

Clear, oval bottle with panel, also called Dominion Oval shape (Dominion n.d.:20), with reinforced extract finish. Bottle was made in a cup bottom mold, has no evidence of suction cut off scar, and mold seams disappear at base of finish. Recovered from Feature 1, the base of the bottle is marked with "A" and could have been manufactured by a number of companies.

Cosmetic

Pompeian, Type 25: Capacity 2 oz., (BD) 1-9/16 in., (RD) 1 in., (H) 2-3/4 in. (Fig. 37*a*).

Clear, round bottle with bead finish. Fully automatic machine made, cup bottom mold, with suction cut off scar, horizontal seam below finish, and seams over finish. Recovered from Feature 4, the bottle is embossed with "POMPEIAN MASSAGE CREAM". A product manufactured by Pompeian Manufacturing Company, it was advertised in 1901 and 1907 as "natural skin food" (Devner 1968:76).

Listerine, Type 26: Capacity 4 oz., (BD) 1-3/4 in., (RD) 7/16 in., (H) 4-1/4 in. (Fig. 37*b*).

Clear, round bottle with screw top finish. Manufactured with post bottom mold, seams continue up body and through finish. Recovered from Level 1 of Unit 28, the bottle is marked with "LISTERINE/LAMBERT/PHARMACAL CO". The base is marked with a diamond and the numbers "6" above and "49" below the diamond. According to different sources, Lambert Listerine was registered, but not patented, in 1881 (Devner 1968:57) or originated as an antiseptic in 1885 (Brand Names Foundation 1947). As the diamond embossed on the base may indicate Diamond Glass Company as the manufacturer, this bottle would post date 1924.

Chemical

Chemical, Type 27: Capacity 14 oz., (BD) 2-5/8 in., (RD) 5/8 in., (H) 9-3/8 in. (Fig. 38).

Aqua/light green, round bottle with crown finish. Machine made in post bottom mold, seams of mold continue up and over the crown finish. Bottle has suction cut off scar on the base. Excavated from Feature 1, the size,

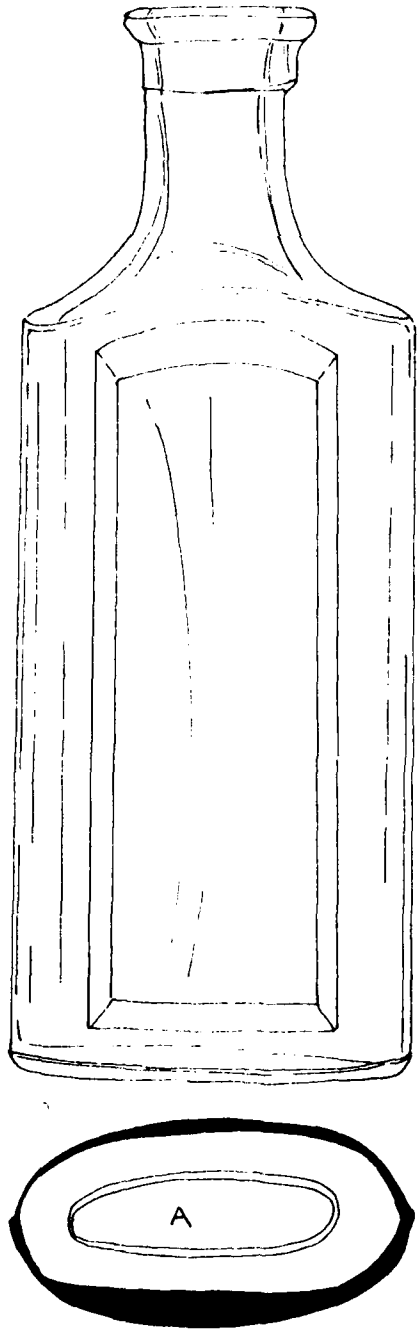


Fig. 36. Medicine bottle, prescription, Type 24 (F1.8.613). Scale 1:1.

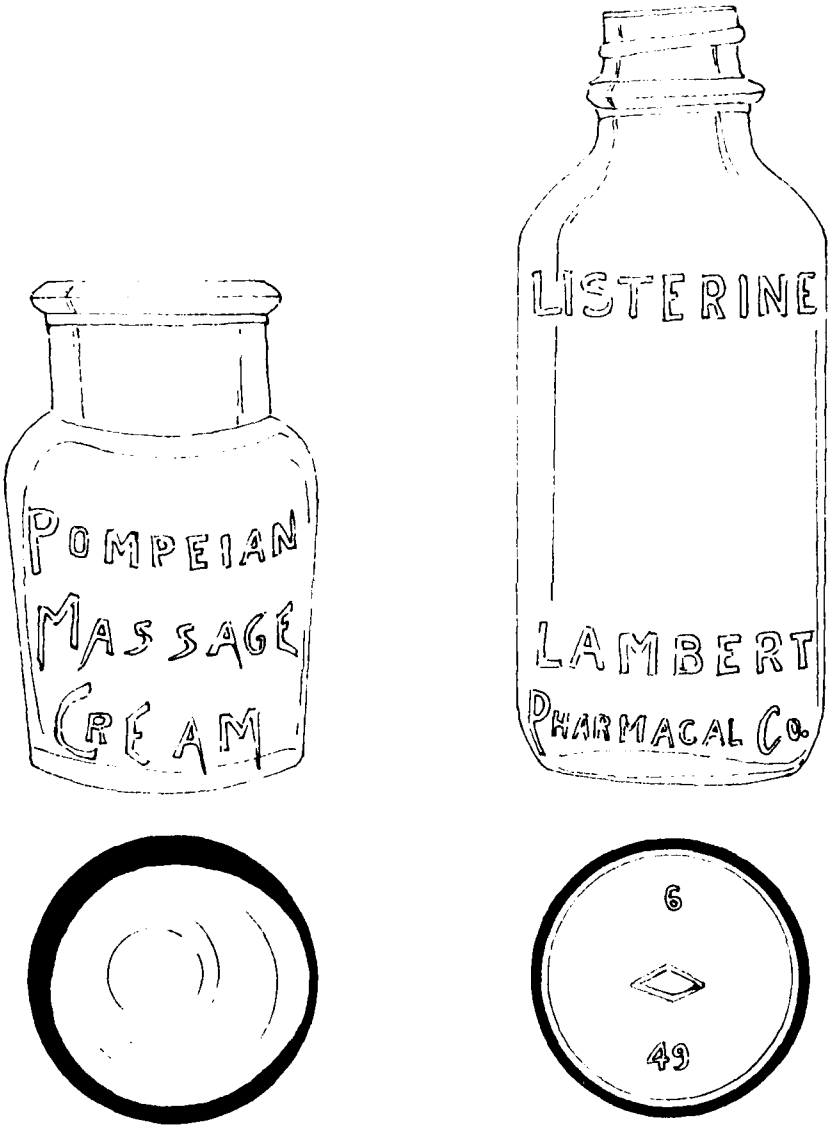


Fig. 37. Cosmetic bottles; *a*, Pompeian, Type 25 (F4.14/15.1091); *b*, Listerine, Type 26 (28.1.1). Scale 1:1.

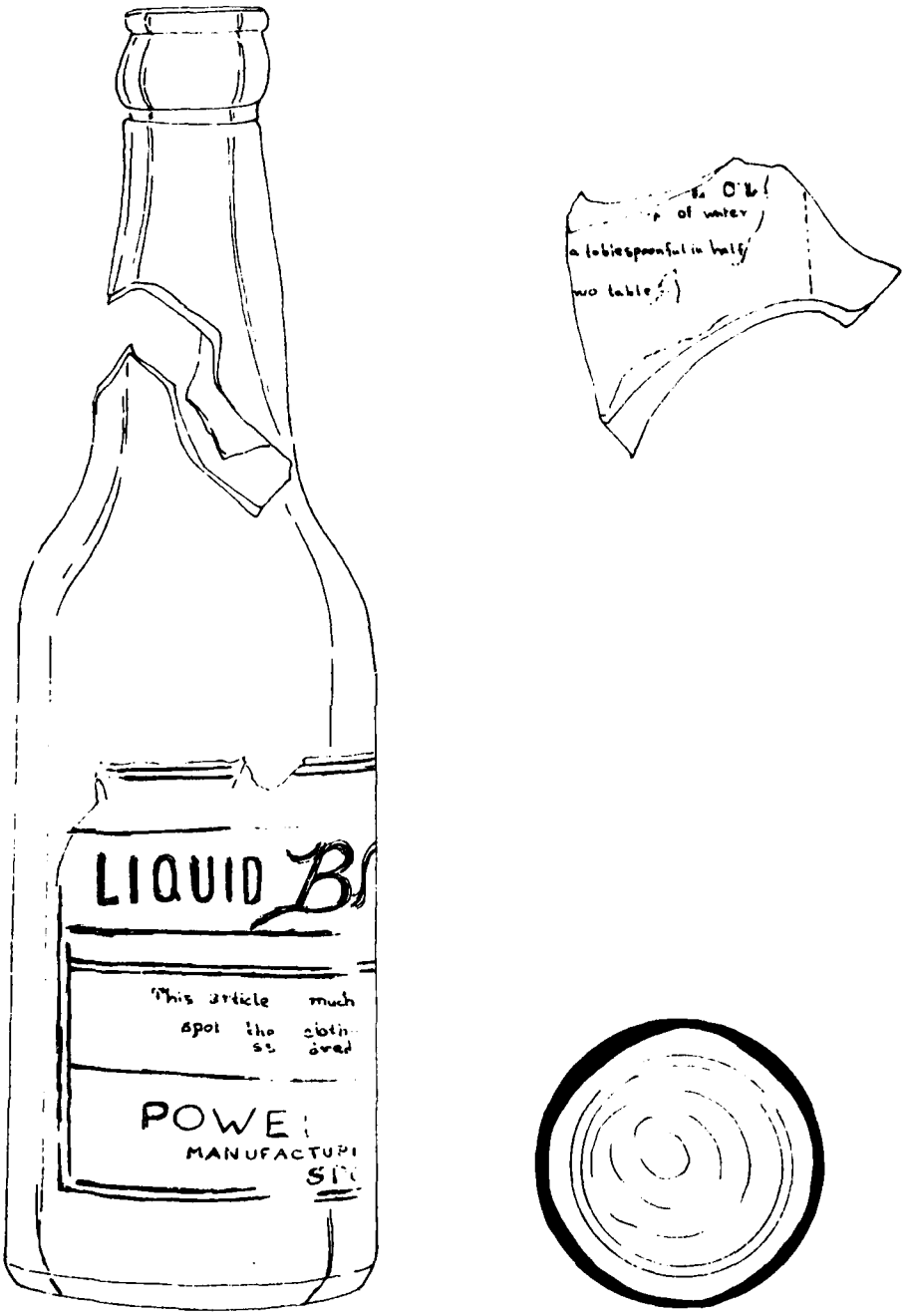


Fig. 38. Chemical bottle; chemical, Type 27 (Fl.11.1855). Scale x.75.

shape, color, and finish of this bottle would have classed it as a beer/soda bottle, except that a fragile paper label partially remaining suggested that it had contained a laundry blueing. Parts of the bottle are also stained blue. The product was "Liquid B..." manufactured by POWELL SAND...G CO." Among the directions which could be deciphered were: "this article..much the...ndigo and/spot the clothes...peculiar/secured...be obtained.../ ...other...the..."

Another bottle of the same shape, color, and size, but with unreadable label fragments and also stained blue, was also recovered from Feature 1, has been classed as a chemical bottle (Fig. 39*a*).

Bottle Rims

While a variety of shapes, sizes, and colors of bottle rims were present at the site (Table 10), the most commonly recovered was the crown finish (30). Fourteen of these, brown in color, were undoubtedly beer bottles, while the remaining may have functioned as soda/beer, or even juice or chemical. The use of the crown cap, and thus the crown finish, post dates 1892 (Lief 1965:17). As is seen in the caps and lids section following, a number of crown caps were also recovered from the site. Nine rims of the patent/extract finish style may represent products of either medicine or extract, while the three prescription finishes are probably those of medicine bottles. A brown, screw top rim with cap, undoubtedly belongs to a Purex bottle (Fig. 39*b*).

Bottle Bases

Few diagnostic bottle bases were recovered from the site, although a number of fragments of base pieces were represented. Several bases are complete enough to determine size and manufacture (Table 11). Two bottle bases manufactured by Adolphus Busch Glass Manufacturing Company (Fig. 40*c* and *d*) date to 1904-1907 (Toulouse 1971:26), one of these is from Feature 1. An additional bottle manufactured by the American Bottle Company (Fig. 41*a*) dates to 1905-1916 (Toulouse 1971:30) and was also recovered from Feature 1. The Illinois Glass Company, 1916-1929 (Toulouse 1971:264) is represented by a mark of a diamond with an "I" (Table 11) and a fragment, from Unit 33 may have been manufactured by Latchford-Marble Glass Company, dating 1939-1957 (Toulouse 1971:332). The Louisville Glass Works Company is represented by a round, aqua base marked "L.B.Co/18" (Fig. 41*b*, Table 11) dating ca. 1880 (Toulouse 1971:323). Other marks remain unidentified (Fig. 40, 41, 42, Table 11).

Marked Fragments

Kerr and Mason's canning jars are represented by two fragments which could be identified as such. Prescription medicine fragments (2) are marked with the medical symbol for ounce, while several fragments (4) are from

TABLE 10

Bottle rims 45-WT-1 1983

Finish	Color	Diameter (in)	Seams on Rim	Function	Total Number	Provenience
Blow-over	Clear	1/2		Medicine	1	Unit 42 (1)
Brandy	Clear	5/8		Liquor	3	Features: 1(1), 17(1); Unit 70(1)
	Brown	5/8		Liquor	4	Units: 50(1), 58(1), 72(1), 91(1)
Champagne	Olive Green	NA		Champagne	1	Unit 67(1)
Crown	Clear	5/8		Beverage	7	Features: 1(4), 4(1); Units:44(1), 67(1)
	Aqua	5/8		Beverage	3	Feature 1(1); Units: 22(1), 52(1)
	Aqua	5/8	x	Beverage	5	Feature 1(5)
	Olive Green	5/8	x	Beverage	1	Feature 1(1)
	Brown	5/8		Beverage	6	Feature 2(1); Units 23(1), 70(2), 72(1), 84(1)
	Brown	5/8	x	Beverage	8	Features:1(4), 2(1); Units: 52(1), 68(1), 88(1)
Oil	Amethyst	1/2			3	Units:22(2), 51(1)
Patent/Extract	Clear	7/16		Medicine/ Extract	2	Features:1(1), 9(1)
	Clear	3/8		Medicine/ Extract	1	Feature 10(1)
	Clear	1/2	x	Medicine/ Extract	1	Unit 74(1)
	Clear	9/16	x	Medicine/ Extract	1	Feature 9(1)
	Amethyst	1 1/2		Condiment	2	Feature 1(2)
	Aqua	5/8		Medicine	1	Unit 88(1)
	Brown	11/16		Medicine/ Extract	1	Unit 90(1)
	Green	1		Condiment	1	Unit 58(1)
Prescription	Clear	1 1/4		Medicine	1	Unit 91(1)
	Amethyst	1/2		Medicine	1	Feature 1(1)
	Amethyst	5/8		Medicine	1	Unit 42(1)

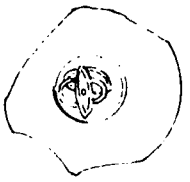
TABLE 10 *continued*

Finish	Color	Diameter (in)	Seams on Rim	Function	Total Number	Provenience
Reinforced Extract	Clear	1/2			1	Unit 87(1)
	Clear	3/8	x		1	Feature 1(1)
	Clear	5/8	x		1	Unit 30(1)
	Amethyst	3/8			1	Feature 1(1)
Rum	Olive Green	11/16		Rum	1	Feature 2(1)
Screw Top	Clear	5/8	x		1	Unit 28(1)
	Clear	1 1/2	x	Mustard	1	Unit 61(1)
	Brown	5/8	x	Purex	1	Feature 2(1)

b

a

Fig. 39. Chemical bottles; *a*, chemical, Type 27 (F1.10.1418); *b*, Purex screw top rim, brown (F2.2.158). Scale 1:1.



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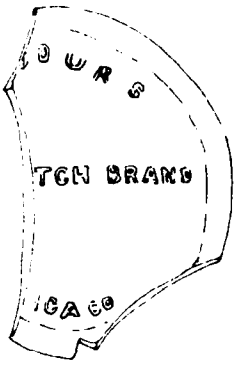

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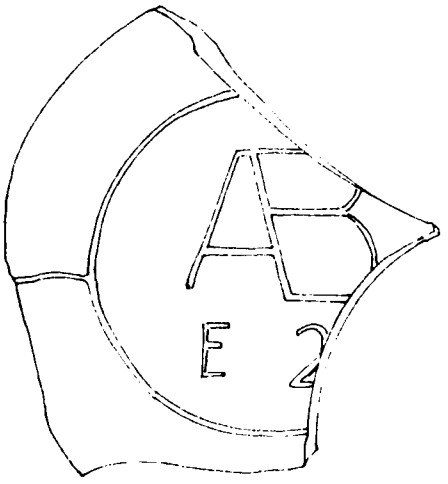

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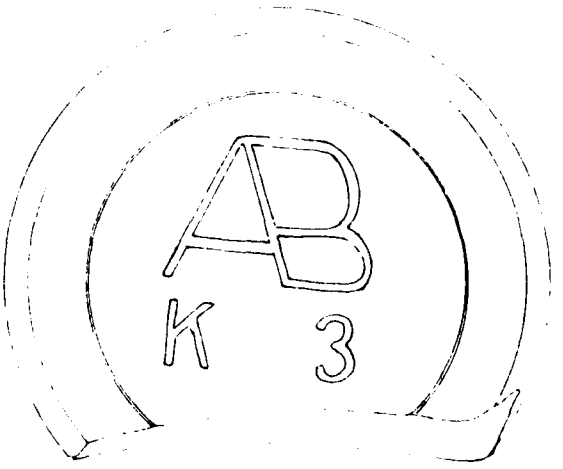

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Fig. 40. Bottle bases; *a*, brown (71.3.1), unidentified; *b*, clear (F1.9.889), unidentified; *c-d*, aqua (37.3.12, F1.6.166), Adolphus Busch Glass Manufacturing Company (1904-1907). Scale 1:1.

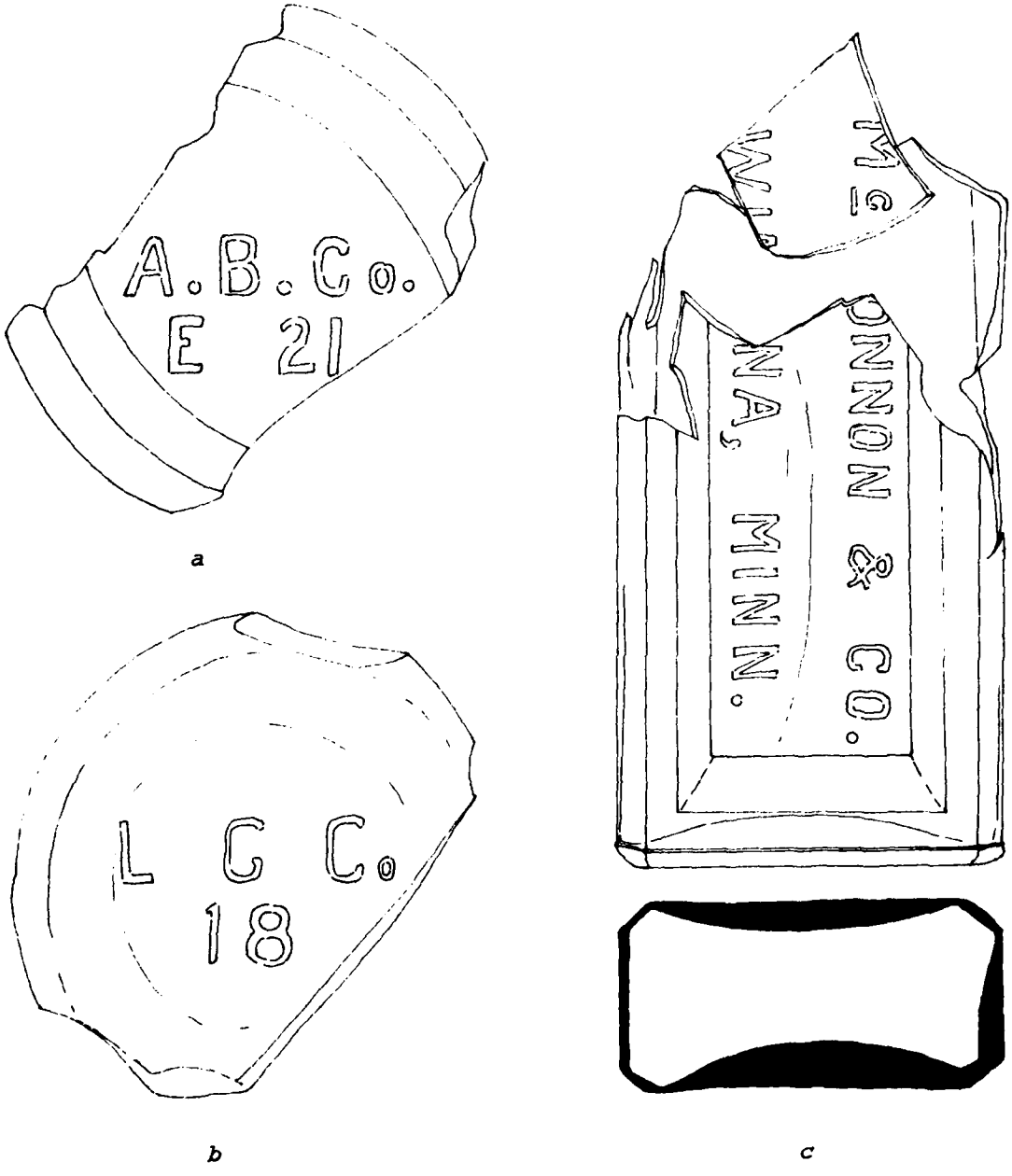

Fig. 41. Bottle bases; *a*, aqua (Fl.9.865), American Bottle Company, 1905-1916; *b*, aqua (22.9.1), Louisville Glassworks Company, ca. 1880; *c*, clear (86.1.39), unidentified. Scale 1:1.

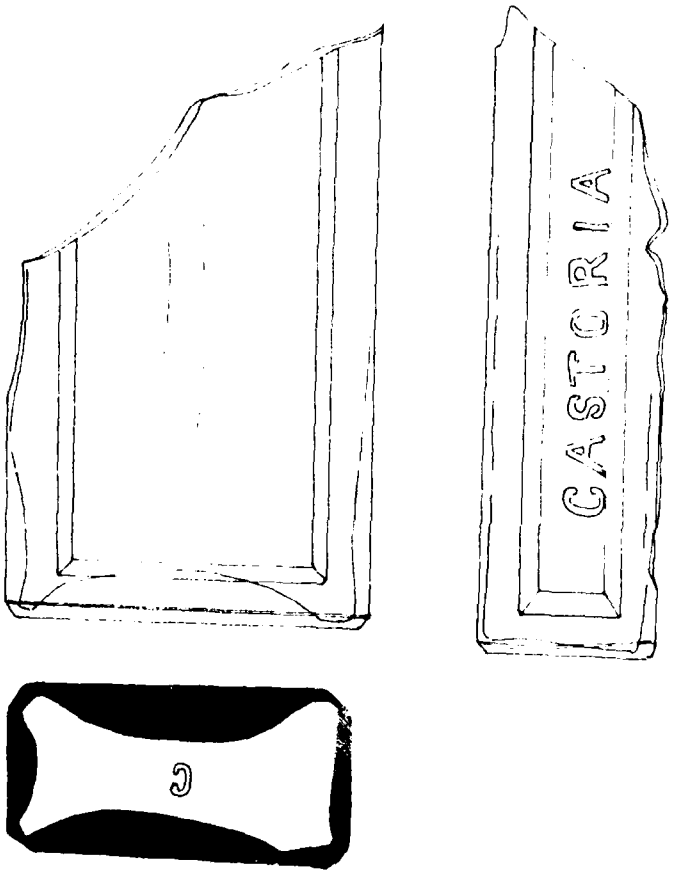

Fig. 42. Bottle base; aqua (Fl.8. 615). Scale 1:1.

TABLE 11

Bottle bases 45-WT-1 1983

Shape Color	D[a]	L[b]	W[c]	Mfg[d]	SCO[e]	Base Mark	Side Mark	Comments	No.	Provenience	Fig.
ROUND											
Olive Green	2 3/4			B				Push-up; wine/champagne	2	Unit 91(2)	
Olive Green	2 1/8			CB					1	Feature 1(1)	
Brown	1			CB	x	[illegible]			1	Unit 71(1)	40*a*
Brown	2 1/2			CB	x	"15", "54"			2	Feature 1(2)	
Brown	3			CB	x				1	Feature 1(1)	
Brown	2 7/8			PB		"[illegible]"			1	Feature 1(1)	
Clear	1 3/4			PB					1	Feature 13(1)	
Clear	2			PB		"F"			1	Unit 86(1)	
Clear	2			CB		"...mours/..TCH BRAND/...ICA CO"			1	Feature 1(1)	40*b*
Clear	2 1/8			CB				Mustard (?)	1	Feature 2(1)	
White	1 3/4			PB				Cold Cream (?)	1	Feature 1(1)	
Aqua	2 1/2			CB					3	Feature 1(2) Unit 22(1)	
Aqua	2 3/4			PB		"AB/E2"		Adolphus Busch Glass Manufacturing Co., 1904-1907 (Toulouse 1971:26)	1	Unit 37(1)	40*c*
Aqua	3			PB		"AB/E3"		Adolphus Busch Glass Manufacturing Co., 1904-1907 (Toulouse 1971:26)	1	Feature 1(1)	40*d*
Aqua	3			PB		"A.B.Co./E21"		American Bottle Company 1905-1916 (Toulouse 1971:30)	1	Feature 1(1)	41*a*
Aqua	3			PB		L.G.Co/18"		Louisville Glass Works Co. ca. 1880 (Toulouse 1971:323)	1	Unit 22(1)	41*b*
Aqua	3			PB	x		"38B"				

AD-A142 147 ARCHAEOLOGICAL TEST EXCAVATIONS OF THE HISTORIC COMPONENT OF 45-WT-1 TEXA..(U) IDAHO UNIV MOSCOW LAB OF ANTHROPOLOGY C D CARLEY ET AL. 1984 MS-SER-77

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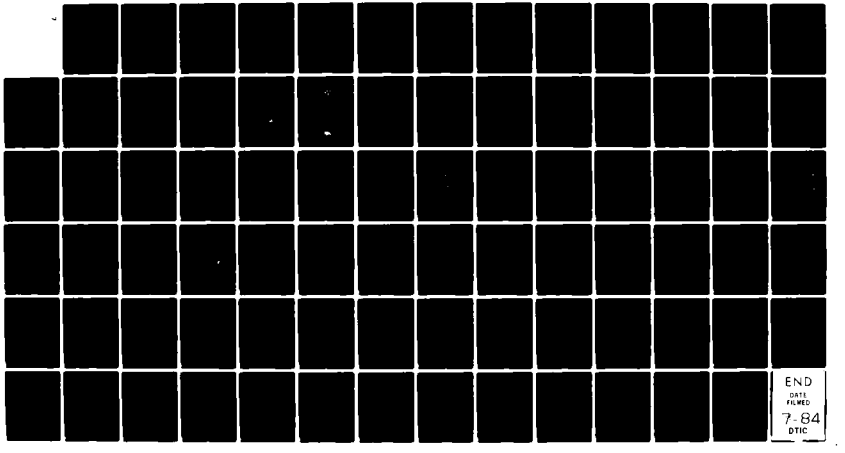

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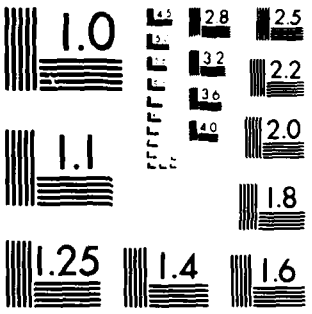


TABLE 11 *continued*

Shape Color	D[a]	L[b]	W[c]	Mfg[d]	SCO[e]	Base Mark	Side Mark	Comments	No.	Provenience	Fig.
OBLONG											
Clear		1 1/2	7/8	CB					2	Feature 9(1) Unit 66(1)	
RECTANGULAR											
Clear		2 1/4	1 1/8	CB			"Mc..ONNON & CO./ WI..NA, MINN."		1	Unit 86(1)	41c
Clear		1 3/4	1	CB	x	1		Illinois Glass Co., 1916-1929 (Toulouse 1971:264)	1	Unit 88(1)	
Aqua		2	1	CB	x	"[illegible]"	"CASTORIA..."		1	Feature 1(1)	42
FRAGMENT											
Brown						LM		Latchford-Marble Glass Co. [illegible]9-1957 (Toulouse 1971:332)	1	Unit 33(1)	

[a] Base diameter, inches. [b] Base length, inches. [c] Base width, inches. [d] Method of manufacture: H handblown, CB cup bottom mold, PB post bottom mold. [e] Suction cut off scar.

patent medicines and are marked with "...FIGS" and variations of KIDNEY AND LIVER. A fragment marked "FULL" is from an extract or possibly medicine bottle. A single chemical fragment is marked "ARLIN...CHEM...YONKER..." Supposed cosmetic fragments include an aqua piece marked "THE CREA..." and a white, or milk glass, base fragment marked "...PAT. JUNE 21st".

Discussion

The most common kind of complete glass container recovered from 45-WT-1 was that of condiment (Table 12), although bottle rims were most represented by the crown style of beverage bottle. Not surprisingly, most complete bottles were recovered from Feature 1.

Among the name products and product manufacturers identified (Table 13) are possibly Libby, McNeill, and Libby mustard; T. A. Snider Preserve Company catsup; Diamond olives; Lea and Perrins Worcestershire Sauce, Crystal Beverage Company, Emerson's Bromo Seltzer, Pompeian Massage Cream, and Listerine antiseptic. Dates of introduction of these products on the market include post 1880, post 1881, post 1884, and post 1891. Bottle manufacturers include John Duncan and Son, William Franzen and Son, United Drug Company, and Diamond Glass Company. Known dates include ranges of 1877-1920, 1900-1929, and post 1924. Bottle bases represent manufacture dates of 1904-1907, 1905-1916, ca. 1880, 1916-1929, and 1939-1957.

Tin Cans

Few tin cans were recovered from 45-WT-1; those that were are in very fragmented or flattened condition (Table 1). Manufacturing techniques for all cans could not be discerned, but evidence of both hole-in-top and Sanitary can manufacturing methods is present. The hole-in-top, used into the twentieth century, was eventually replaced with the new Sanitary, or open-top, can in the early 1920s (Fontana and Greenleaf 1962:73).

Two hole-in-top cans identified could be measured as 3-1/2 in. in diameter by 4-1/2 in. high (35.2.22) and 2-1/3 in. in diameter by 3-3/4 in. high (36.2.8). Several fragments of hole-in-top cans were also noted. Four modern style Sanitary cans with crimped seams measure:

Diameter	Height	Provenience
2-3/4 in.	NA	F1.10.1778
3-1/2 in.	4-1/2 in.	28.4.8
NA	5-3/4 in.	65.1.9
2-3/4 in.	4 in.	F1.9.951

Where function could be determined, baking powder, syrup, paint, kerosene, and gasoline were noted. Two baking powder cans, one with undeterminable measurements and the other measuring ca. 4-1/4 in. in diameter and 4-3/4 in. high, were recovered (75.2.7, 29.8.14). Three syrup

TABLE 12

Complete bottles 45-WT-1 1983

Product	Bottle Type	Number Bottles	Number Rims	Number Bases	Provenience
CONDIMENT					
Mustard	1	3	6	5	Feature 1(9)
	2	2	1		Features: 1(2), 13(1)
	3	1			Feature 1(1)
	4	1			Feature 1(1)
Catsup	5	5	4	6	Feature 1(9)
Olive	6	1			Feature 1(1)
	7	1			Unit 90(1)
Syrup	8	1		1	Feature 1(2)
Worcestershire	9	1	2	1	Feature 1(1); Units: 31(1), 35(1), 36(1)
Extract	10	1			Feature 1(1)
	11	1			Feature 1(1)
BEVERAGE					
Whiskey	12	1			Feature 1(1)
Liquor	13	2			Feature 1(2)
Wine	14	1			Feature 1(1)
Juice	15	1			Feature 1(1)
Beer/soda	16	1			Feature 1(1)
	17	1			Feature 1(1)
	18	1			Feature 4(1)
Beer	19	1		2	Features: 17(1), 10(2)
MEDICINE					
Bromo-Seltzer	20	1			Feature 1(1)
Citrated Magnesia	21	1			Feature 1(1)
Prescription	22	1			Unit 81(1)
	23	1			Feature 1(1)
	24	1			Feature 1(1)
COSMETIC					
Pompeian	25	1			Feature 4(1)
Listerine	26	1			Unit 28(1)
CHEMICAL					
Blueing	27	2			Feature 1(2)

TABLE 13

Products and manufacturers represented by glass containers 45-WT-1 1983

Product	Bottle Type	Product Manufacturer	Date	Reference	Manufacturer	Date	Reference
CONDIMENT							
Mustard	1	Libby, McNeill, and Libby (?)	Post 1880	Zumwalt 1980:279			
Catsup	5	T.A. Snider Preserve Company	Post 1884	Toulouse 1971:449			
Olive	6	Diamond					
Worcestershire	9	Lea and Perrins			John Duncan and Sons	1877-1920	Toulouse 1971:77
BEVERAGE							
Beer/soda	17				William Franzen and Son	1900-1929	Toulouse 1971:536-537
Beer/soda	18	Crystal Beverage Company					
MEDICINE							
Bromo-Seltzer	20	Emerson's Drug Company	Post 1891	Griffenhagen 1969:24			
Citrated Magnesia	21				United Drug Company	Unknown	Toulouse 1971:509
Prescription	22				Diamond Glass Company	Post 1924	Toulouse 1971:550-552
COSMETIC							
Pompeian	25	Pompeian Manufacturing Company					
Listerine	26	Lambert Pharmacal Company	Post 1881	Devner 1968:57	Diamond Glass Company	Post 1924	Toulouse 1971:550-552
CHEMICAL							
Blueing	27	Powell...Company					

cans are fragmented, with little more than the spout remaining intact, and were recovered from Feature 1 (F1.10.1781, F1.10.1782, F1.10.1783). A large square can from Feature 10 (F.10.5.225), which could not be measured, may be a kerosene can. A large, dome topped can from Feature 1 with a wire bail handle, one inch diameter spout hole, diameter of 11-1/2 in., and height of 10 in., is probably a gasoline can. An additional can with wire bail handle pieces, size undeterminable, may be a paint can (F1.8.750-768). A can marked "DUTCH BOY WHITE LEAD"/TRADE MARK REG. U.S. PAT OFF" from Feature 17 (F17.8.372), measures 2-1/2 in. in diameter with a height of 2 in., and still retains its original contents. Wire bucket pail handles further suggest the presence of lard or paint and can keys developed in 1895 for opening cans (Fontana and Greenleaf 1962:17), suggest fish or meat products.

Barrel Hoop

A single barrel hoop recovered from Feature 1 (F1.6.375) measures 1-3/4 in. wide with a diameter tapering from 14 to 13 in.

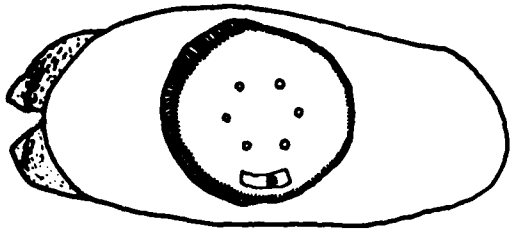
Caps and Lids

A number of different kinds of caps and lids to bottles, jars, and cans were recovered (Table 1).

Canning jar closures are represented by zinc threaded caps with porcelain liners and by sheet metal threaded caps with sheet metal lids lined with rubber. A number of fragments of both porcelain liners and rubber seals have been documented. The porcelain liner fragments are the common "BOYD'S GENUINE PORCELAIN LINED CAP." The single complete example (34.1.16) of the sheet metal threaded cap appears to be faintly stamped with "BALL" (?). Few canning jars are represented in glass fragments, and no diagnostic canning jar bases or rims could be documented. Canning jars are represented at the site, however, by the presence of these lids and caps, readily thrown away after use, while the jars were stored for the next season's canning.

Tooth powder is possibly present in the form of a stamped shoulder container with a rotating top having six holes for dispensing (Fig. 43*a*). A stamped sheet metal lid 5 in. in diameter (F10.10.1243) with a 1/2 in. lip probably belongs to a coffee canister opened with a can key. A modern pudding can top of aluminum (76.3.5-7), stamped "PAT.PEND", was recovered from Level 3 of Unit 76 and may indicate a disturbance in this area.

Several additional caps and lids are from a variety of bottles and jars. A sheet metal screw cap (81.8.17), 3-1/4 in. in diameter and 1/2 in. high, is probably a glass food jar lid, as are smaller screw caps (85.2.40) 1-5/8 in. in diameter by 1 in. high and (87.2.32) 1-1/4 in. in diameter by 15/16 in. high. An additional lid may be from a jar or can (85.4.1) and measures 1-15/16 in. in diameter and 1/4 in. high with no threads or lugs evident.



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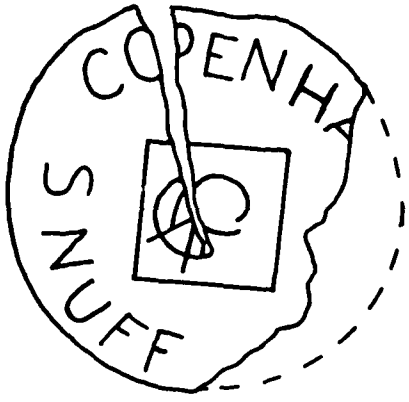

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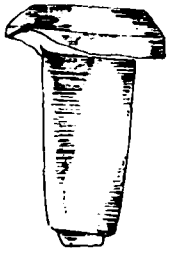

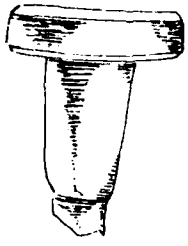

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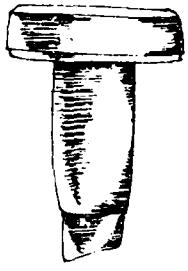

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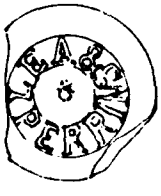

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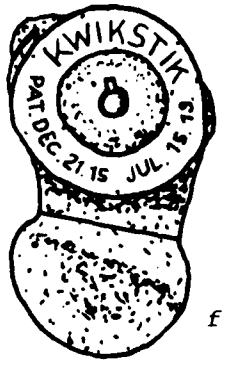


f

Fig. 43. Caps and lids; *a*, tooth powder lid (85.3.24); *b*, Copenhagen Snuff (85.2.39); *c*, aqua Lea and Perrins glass stopper (29.4.13); *d*, brown glass stopper (F1.4.2); *e*, amethyst glass stopper (32.5.1); *f*, KWIKSTIK cap for unidentified container (F9.8.419). Scale 1:1.

A number of crown caps recovered represent beverage bottles of juice, beer, or soda, and would post date 1892 (Lief 1965:17).

Three glass stoppers, all of the Club Sauce style (Whitall, Tatum and Company 1902), undoubtedly belonged to worcestershire sauce or a similar product. One aqua stopper (29.4.13) is marked with "LEA & PERRINS" and measures 15/16 in. in diameter and is 1-1/4 in. long. An amber stopper (F1.4.2) measures 7/8 in. in diameter and 1-1/4 in. in length, while an amethyst stopper (37.5.1) measures 1 in. in diameter and is 1-3/8 in. long (Fig. 43*c-e*).

An unidentified brass pull-off cap (F9.8.419), an inch in diameter and 3/8 in. high, is marked "KWIKSTIK/PAT.DEC.21.15.JUL.15.19" (Fig. 43*f*). A single COPENHAGEN SNUFF lid (85.2.39) was recovered (Fig. 43*b*).

Two caps appear to belong to barrels or drums of 55 gallon size. A hexagonal cast iron cap (31.2.37), 1-5/8 in. in diameter, is threaded with a fiberous washer, while another zinc cap (F1.6.360), 1-3/8 in. in diameter, is lined with lead sheet.

Food Remains

Those items within the category of Food Remains include the bone, shell, and seeds recovered during excavation. Food remains consisted largely of bone and mussel and egg shell have been noted where present (Table 2).

Faunal Identification

Faunal identification, undertaken by Julia Longenecker, has resulted in a detailed description of diagnostic bones from the features of the site (Appendix A). Diagnostic bone from excavation units outside of the features have been identified by taxonomic classification only (Table 2). Four major domesticated species are represented: *Bos taurus* (cow), *Sus scrofa* (pig), *Ovis aries* (sheep), and *Gallus gallus* (chicken). Bones which could not be speciated were identified as mammal, Aves, or Rodentia (Table 2).

The archaeological assemblage from the features yielded 1054 bones and bone fragments. Of this number, 60% were identifiable as to species, order or class, and/or bone element. A total of 635 bones were described by species, anatomy, fragment description, side, epiphyseal fusion, and marks of butchering (Appendix A).

Within the 635 identified fauna from the features, *Bos taurus* is represented by 104 items making up 16% of the total assemblage; *Sus scropa* 22 or 3%; *Ovis aries* 4 or 0.6%; and *Gallus gallus* 234 or 37%. The large number of chicken was recovered primarily from Feature 1 (124) and Feature 4 (103). Of the 187 fauna from excavated units, 244 could be further divided by taxa (Table 2). *Bos taurus* is represented by 60 items or 25% of the assemblage; *Sus scrofa* 11 or 5%; and *Ovis aries* and *Gallus gallus* each 3 or 1%. Time did not allow for further detailed analysis of the fauna from excavated units.

Household Items: Ceramics (by Priscilla Wegars)

Introduction

Ceramic tablewares from the 45-WT-1 excavations include earthenwares, porcelains, and stonewares (Table 3). Differences between these three categories are based upon both the clays used and the firing temperatures reached; the definitions under which these examples were grouped are the same as those used for the Spalding water line trench excavations (Wegars 1981:115, 125, 126).

The 45-WT-1 ceramic assemblage is rather interesting, particularly because so many of the vessels in it are represented by only one sherd. This suggests that further excavations at the site would be almost certain to produce many other portions of these already-identified vessels, thus simplifying future analysis. A total of 864 fragments, from a maximum of 330 vessels, was recovered from the site. Of these, 761 pieces (263 vessels) are earthenware, 81 fragments (48 vessels) are porcelain, and 22 fragments (19 vessels) are stoneware (Table 14). The total number of 330 vessels represents a "best guess" based upon a combination of characteristics more fully discussed elsewhere (Jones n.d.).

Earthenwares

The earthenware fragments recovered were divided into three groups. These include plain white earthenware, 190 vessels; decorated (embossed) white earthenware, 18 vessels; and color-decorated earthenware, 55 vessels.

Plain White Earthenware

This category comprises 57.6% of the total number of vessels recovered. As has been pointed out in detail (Wegars 1981:115) it is possible that sherds designated "plain white" may actually be from undecorated portions of embossed or color-decorated vessels.

Forms represented include platters, plates, cups, saucers, small bowls, serving bowls, a soup plate, pitchers, a butter pat dish, and a possible cuspidor. Many of the fragments are too small to permit a determination of form to be made. Pastes range from soft through very dense; among the latter were a few examples of "Hotel Ware." Only two of the vessels could be said to have come from the same set.

Identified manufacturers' marks include ones from the English firms of John Maddock and Son, and Charles Meakin. American firms represented are Crown Pottery Company; Knowles, Taylor, and Knowles; and John Wyllie and Son. Other marks were present but could not be identified.

TABLE 14

Percentage of paste types represented in the 45-WT-1 ceramic assemblage

Type	Number of Vessels	Type Total	% of Type Total	% of Grand Total	Type Total % of Grand Total
Earthenware					
Plain white	190		72.3	57.6	
Decorated	18		6.8	5.5	
Color Decorated	55[a]		20.9	16.7	
Total		263	100.0		79.8
Porcelain[b]	48	48	100.0	14.5	14.5
Stoneware	19	19	100.0	5.7	5.7
Grand Total		330			100.0

[a] Includes yellow-ware and redware.

[b] Includes one piece of opal glass.

Decorated White Earthenware

Eighteen vessels, or 5.5% of the total number found at Riparia, belong in this category because of their molded decoration, with no added color. Because most of the fragments are quite small, their patterns can not be identified, or even described accurately, in most cases.

Only one small plate is marked. It is from the American firm of W. S. George and is in the "Radisson" shape. Other vessel forms identified were a bowl, a cup, and several dinner plates. None of the vessels are from the same set.

Colored-Decorated Earthenware

This category includes vessels which have a colored paste, such as yellowware and redware, as well as those which have applied decoration. Fifty-five vessels are in this group; they comprise 16.7% of the total number excavated. While most of these are individual patterns, 26 vessels from seven different sets are present. Forms include platters, plates, small plates, small bowls, saucers, cups, flower pots, a mixing bowl, and possibly a bottle.

The decorative techniques used on these ceramics can sometimes help to date them, in a general way. Transfer prints, most popular until about 1909, appear in seven patterns on 16 different vessels. Ten of these have the same blue-green transfer print pattern and must have been from a set of dishes. The design, pattern name unknown, consists of a border of leaves below which is a continuous garland of bell-shaped flowers. One of these pieces is marked, and is probably from the Grindley Hotel Ware Company Limited, of Tunstall, Staffordshire, England, a firm which began operations in 1908 (Godden 1964:293). A brown transfer print pattern was identified as "Sitka" manufactured by Thomas Hughes, Burslem, Staffordshire, England. Although the Thomas Hughes company was in operation from 1860-1894, this vessel would probably date to before 1891, in part because of the absence of "England" in the mark (Godden 1964:11) and also because brown transfer print patterns were especially popular in the early 1880s (Kamm 1951:94).

Other transfer print patterns present include one brown, two blue-green, one blue-violet, and one flow blue. All are too small to be readily identifiable.

Nineteen of the Riparia vessels are decorated with decalcomania prints. Decals began to replace transfer prints before the turn of the century, and by 1909 decals were almost completely dominant as ceramic decorative motifs (Sears, Roebuck and Company 1909:121-126). Single-color decals were the first to be introduced; those from Riparia are in both green and brown and might date from 1897-1902 (Wegars 1981:121). Two-color decals were introduced shortly thereafter, as were multi-colored ones. Contemporary mail-order catalogues list the colors of the ceramic patterns available; pink/green combinations were particularly popular in 1908 (Sears, Roebuck and Company 1908:350, 355, 356, 359) and 1909 (Sears, Roebuck and Company 1909:121, 123-126). One such pattern was also recovered from the Joso

Trestle Construction Camp site, Washington (Landreth n.d.:10); a total of five of the Riparia patterns appear in pink and green. Decals were sometimes used in combination with other techniques such as handpainting and gilding, and with decoratively-molded ceramic bodies; the Riparia assemblage has such examples. The two marked, decal-decorated wares are both from the Homer Laughlin China Company of East Liverpool, Ohio. One fragmentary mark found on an ivory-bodied vessel with multi-colored decal in greens and golds is probably from a Homer Laughlin mark dating to about 1934 (Gates and Ormerod 1982:143, Fig. 123b) while the other is from the period 1900-1960 (Gates and Ormerod 1982:136, Fig. 116d). A much closer date could ordinarily be figured from the letters and numerals printed below this second mark, but the code which appears on this piece, "M 99 N" does not correspond with the known codes used by this company (Gates and Ormerod 1982:129; Lehner 1980:88). In any case, the ivory body and blue-green with grey decal would be most typical of the mid-1920s to the mid 1930s; a company representative believes it "was manufactured in the '30's possibly in plant #8" at Newell, West Virginia (E.S. Carson 1983:personal communication).

Edge-banding is a decorative technique which began to be used about the 1920s (Wegars 1981:122). It is seen on four of the Riparia vessels, three of which are from the same set. Green bands are found on the latter and a bowl or saucer has double blue bands near the rim with a blurred, perhaps stencilled, design below.

Other decorative techniques found on the Riparia ceramics are gilding and handpainting. These generally cannot be precisely dated on the basis of decoration alone. While gilding is often used in combination with decals and transfer prints, on six vessels, three from the same set, it is used either alone or in combination with a decoratively-molded ceramic body. A saucer with gilded edgebanding, much faded, and hairlining, part of the set mentioned, is marked "Derwood W. S. George." This firm was in business from 1909 to 1955 or 1961 (Lehner 1978:55, 1980:60-61). The dates of the "Derwood" pattern are not known but it is likely to be from the mid-1920s; a similar white and gold pattern is pictured in a 1925 catalogue (Butler Brothers 1925:[21]).

Handpainting has already been noted in combination with decals, described above. In addition, four other very small fragments exhibit handpainting, one in combination with gilding, but no patterns can be discerned. One appears to be a stencil, and is similar to items described in a 1925 catalog (Butler Brothers 1925:[35]).

One sherd from a yellowware mixing bowl with a white exterior glaze and four unglazed redware flowerpot fragments comprise the remainder of the Riparia color-decorated assemblage.

Porcelain

A total of 81 porcelain vessel fragments, from some 48 objects, were found during excavations at Riparia. This is 14.5% of the total number of vessels found at the site. Forms which could be identified, some

tentatively, were a jam pot with lid, a bonbon dish, small plates, cups, small bowls, serving bowls, a saucer, dinner and soup plates, and Oriental rice bowls. Also included here is one fragment of a molded, floral-patterned opal glass dish which has a blue band at the rim.

While some of the porcelains are plain white, with no embossing or colored decoration, others exhibit a variety of decorative techniques, mostly within the major classes of handpainting and decalcomania. One reconstructable vessel is probably a jam or mustard pot with lid; the lid has a cut-out recess for a spoon, and a knob for lifting. Both lid and pot are decorated with a scalloped band in flow blue, under the glaze, and both have a handpainted overglaze design of pink, orange, and yellow flowers with green leaves. These in turn are decorated with slip-trailed petals and line and dot designs. The bottom of the pot is stamped "[M]ADE IN JAPAN" which would date it to the period 1921-1940 (Stitt 1974:176).

Another handpainted vessel, perhaps a bonbon dish, has an embossed pattern of scrolls and dots decorated in underglaze yellow and violet, which in turn is lavishly overpainted with gilding. Other handpainted designs include a pink wash over a molded body, a pink luster band with hairlining, ornamental applied pink beading, and miscellaneous other patterns, most extremely fragmentary. Several small sherds of Oriental rice bowls are present. A Japanese floral pattern and the Chinese "Three Circles and Longevity" motif are examples of these.

Decal-decorated wares include a rose-patterned serving bowl and small fragments of other, unidentified, patterns. Still other fragments are more simply decorated, with gilded lines over an embossed or plain body.

An additional three of the porcelains are marked. On one is printed "PMS Bavaria," the mark of Paul Muller of Selb, Upper Franconia- Bavaria, dating from 1890-1917 (Weiss 1971:296), and another has "Germany" with a portion of an unidentified design. It too would probably date no later thar 1917. Another fragment with a Kelly green glaze is stamped "SPLIT," this may be an insulator fragment but the unusual color would make that seem unlikely.

Stoneware

A total of 22 stoneware fragments, comprising the remains of 19 vessels, were recovered from the Riparia excavations, or 5.7% of the total of 330 vessels found. Although the forms represented are probably mostly crocks, none of these show any of the shoulder, so some may instead have been jugs; one fragment of a jug was found. Other forms include a biscuit-fired flower pot and, probably, a Chinese wine jug and Chinese shouldered food jar.

Glazing techniques in general use were slip glazing, salt glazing, and alkaline glazing; these are discussed more fully elsewhere (Landreth 1981:3-6). All but one of the Riparia vessels is glazed. Most have a slip glaze both inside and out, either an "Albany"-type slip which is brown, or a "Bristol"-type slip which is whitish. These slips were used either singly

or in combination, the most common usage here being a Bristol-type slip on the exterior, with an Albany-type slip on the interior. One vessel has a salt-glazed exterior with an Albany-type slipped interior, and another has a greenish alkaline glaze inside and out.

Only two of the stoneware vessels are marked, one with just a fragment of what may have been a decoration or capacity numeral. Another is marked on the base, "...ANE POTTERY..." Although several firms are possibilities, it is most likely a product of the Spokane Pottery Company of Spokane, Washington, in operation from 1899 to 1909 (Gerald K. Landreth 1983:personal communication) because it is mold-made rather than hand-thrown.

Manufacturers' Marks

Of the estimated 330 ceramic vessels from Riparia, 32 have manufacturers' or other marks on them. Some of these have been identified and dated, while others are too fragmentary to permit any certain identification to be made. The listing which follows is based upon a format established by Praetzellis and Praetzellis (1979:164-173).

1. Manufacturer: Crown Pottery Company.
   Place: Evansville, Indiana.
   Mark: No. 1. Printed (black): "S-V" above a line above "CHINA" above a line above "C.P. Co."

S-V
CHINA
C.P.CO.

No. 2. Printed (green): A fragment of a crown.

   Date: 1891 - at least 1954 (Lehner 1980:48-49).
   Mark illustrated: No. 1. From the Joso Trestle Construction Camp site, Washington (Landreth n.d: 37).
   No. 2. Lehner 1980:181.
   Comments: No. 1. "S-V" stands for "Semi-vitreous."
   Catalogue Number: No. 1. Fl.4.13, Fl.4.62, Fl.6.159, on one plain white earthenware bowl.
   No. 2. 68.2 on a plain white earthenware bowl fragment.

2. Manufacturer: W. S. George Pottery Company.
   Place: East Palestine, Ohio.
   Mark: No. 1. Printed (green): "DERWOOD" above "W.S. GEORGE" above what looks like "919A".

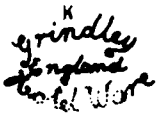
DERWOOD
W. S. GEORGE
919A

No. 2. Printed (green): "RADISSON" above "W.S. GEORGE".

RADISSON
W. S GEORGE

Date: 1909-1955 (Lehner 1978:55).
1909-ca. 1961 (Lehner 1980:60-61).
Mark illustrated: No. 1. Lehner 1980:182.
No. 2. From Silcott, Washington (Adams, Gaw, and Leonhardy 1975:265; Gaw 1975:178); the Joso Trestle Construction Camp site, Washington (Landreth n.d.: 46); San Juan Island sites (Sprague 1980:99,161); and Spalding, Idaho (Carley 1981:127). Also in Lehner 1980:182.
Comments: "Derwood" is a pattern; "Radisson" is a shape.
Catalogue Number: No. 1. 38.3.9, on a gold-banded earthenware saucer.
No. 2. F4.14/15.661-662, on an embossed earthenware saucer.

3. Manufacturer: Grindley Hotel Ware Company, Ltd.
Place: Tunstall, Staffordshire, England.
Mark: No. 1. Printed (blue-green): "K" above "Grindley" above "England" above "Hotel Ware".

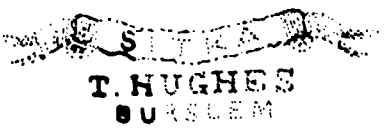


No. 2. Printed (blue-green): "5"

No. 3. Impressed: "22"

Date: From 1908 (Godden 1964:293).
Mark illustrated: None known.
Catalogue Number: No. 1: F1.11.1801, F1.13.2428.
Nos. 2 and 3: F1.11.1801.
All on a color-decorated earthenware platter.

4. Manufacturer: Thomas Hughes.
Place: Burslem, Staffordshire, England.
Mark: Printed (brown): "S[ITKA]" in a banner above "T. H[UGHES]" above "BU[RSLEM]".



Date: Firm, 1860-1894 (Godden 1964:339). Probably 1880s because of the popularity of brown patterns then (Kamm 1951:94).

Mark illustrated: None known.
Comments: Several pieces in this pattern, with complete marks, were found at excavations at the Perkins House, Colfax, Washington, in the spring of 1983.
Catalogue Number: 31.5.1, on a color-decorated earthenware fragment of what may be a small plate.

5. Manufacturer: Knowles, Taylor, and Knowles China Company.
Place: East Liverpool, Ohio.
Mark: Printed (greenish-gray): "SEMI" above "VITREOUS" above a line above "K.T. & K. Co".

Date: Firm, 1870-1929 (Gates and Ormerod 1982:115-116); this mark, ca. 1904 (Gates and Ormerod 1982:127, Fig. 109b).
Mark illustrated: From San Juan Island (Sprague 1980:99). As "Semi-Vitreous Hotel Ware" (Gates and Ormerod: 1982:127, Fig. 109b).
Catalogue Number: 91.3.92, on a plain white earthenware saucer.

6. Manufacturer: Homer Laughlin China Company.
Place: East Liverpool, Ohio.
Mark: No. 1. Printed (blue-green): "[HL]" logo above "[HOMER LAU]GHLIN" above "[M]ADE IN U.S.A." above "M 99 N".

No. 2. Printed (blue-green): "HL" logo above "[HOMER] LAUGHLIN".

No. 3. Decal (gold): "[ART]" above "W[ELLS]" above "[GLAZ]ES".

Date: Firm, 1877 - present (Gates and Ormerod 1982:128)
Nos. 1 and 2. 1900-1960 (Gates and Ormerod 1982:136).
No. 3. Ca. 1934 (Gates and Ormerod 1982:143).

Mark illustrated: No. 1. From Spalding (Carley 1981:130; code different). Also Gates and Ormerod 1982:136, Fig. 116d.
No. 2. From the Joso Trestle Construction Camp site, Washington (Landreth n.d.:40), and San Juan Island (Sprague 1980:99, 161).
No. 3. Gates and Ormerod 1982:143, Figs. 123a, b.

Comments: No. 1. The code "M 99 N" does not correspond with the known codes used by this company (Gates and Ormerod 1982:129; Lehner 1980:88). A company representative believes it "was manufactured in the '30's possibly in plant #8" at Newell, West Virginia (E. S. Larson 1983:personal communication).

Catalogue Number: No. 1. 69.2.6, on a color-decorated earthenware fragment of what may be a plate.
No. 2. F1.4.61, 44.3.10 on a plain white earthenware base fragment.
No. 3. F1.2.35, 44.3.9 on a decal-printed base fragment.

7. Manufacturer: John Maddock and Sons, Ltd.
Place: Burslem, Staffordshire, England.
Mark: No. 1. Printed (black): [Crown, orb, and sceptre] above "TRADE MAR[K]" above "[ROY]AL SEMI. PORC[ELAIN]" above "[J]OHN MADDOCK & S[ONS]" above "ENGLAND".

No. 2. Same as No. 1, except has only a portion of the sceptre and "ROYAL S..."; printing is smaller.

Date: Firm, 1855 to date. This mark, ca. 1906+ (Godden 1964:406, No. 2467).

Mark illustrated: From San Juan Island (Sprague 1980:99).

Catalogue Number: No. 1. F9.3.162, on a plain white earthenware base fragment.
No. 2. 91.3.93, on a plain white earthenware base fragment belonging to a smaller vessel than No. 1.

8. Manufacturer: Charles Meakin, presumed.
Place: Hanley, Staffordshire, England.

Mark: No. 1. Printed [black]: "[W]ARRANTED" above "[I]RONSTONE CHINA" above the Royal Arms above "[CHARLES MEAKIN]" above "[ENGLAND]".

No. 2. Printed [black]: the Royal Arms above "CH[ARLES MEA]KIN" above "[HANLEY]".

Date: 1883-1889.
Mark illustrated: No. 1. San Juan Island sites (Sprague 1980:62, 101, 163).
No. 2. Godden 1964:426, No. 2596.
Comments: No. 2. Right-hand portion possibly from Alfred, Henry, or J & G Meakin (Godden 1964:425-427).
Catalogue Number: No. 1. 91.4.79, on a plain white earthenware saucer.
No. 2. 68.2.7 (left), 69.2.8 (right) on plain white earthenware base fragments from 2 vessels.

9. Manufacturer: Charles Meakin.
Place: Elder Road, Cobridge, England.
Mark: Printed (black): Royal Arms above "[C]HARLES ME..." above "[C]OBRID[GE ENGLAND]".

Date: Ca. 1879-1883 (Geoffrey A. Godden 1983:personal communication).

Mark illustrated: None known.
Comments: This address for Charles Meakin was not listed in Godden (1964:426) because Mr. Godden "had never seen a Cobridge mark to tie up with this firm and period." Comparison of the mark with the Staffordshire Rate records provided the dates given (Geoffrey A. Godden 1983:personal communication).
Catalogue Number: 22.10.1 on a plain white earthenware base fragment.

10. Manufacturer: Paul Müller.
Place: Selb, Upper Franconia, Bavaria.
Mark: Printed (green): "PMS" above a horn above "Bavaria".

Date: 1890-1917 (Weiss 1971:296).
Mark illustrated: Weiss 1971:296, no. 6.
Catalogue Number: F9.7.375, on a plain white porcelain base fragment.

11. Manufacturer: Spokane Pottery Company.
Place: Spokane, Washington.
Mark: Impressed: "[SPO]KANE POTTERY," curved.

Date: 1899-1909 (Gerald K. Landreth 1983:personal communication).
Mark illustrated: None known.
Comments: This vessel is mold-made rather than hand-thrown. There was also a Spokane Pottery Works at Spokane Falls from 1886 to about 1899, but their wares were hand-thrown, and the Spokane Pottery Works of Clayton, Washington, ca 1905+, used a cobalt-blue stamp to mark their wares (Gerald K. Landreth 1983:personal communication).
Catalogue Number: F1.13.2430, on a stoneware crock or jug.

12. Manufacturer: John Wyllie and Son.
Place: East Liverpool, Ohio.

Mark: Printed (black): "[TRADE] MARK" above American and English shields above a garland above "[STONE CHINA]" above "[J.W. & SON]".

Date: *Firm 1874-1891 (Lehner 1980:172); this mark,* 1875-ca. 1888 (Gates and Ormerod 1982:319).
Mark illustrated: Lehner 1980:198; Gates and Ormerod 1982:319, Fig. 297b, c.
Comments: "The Wyllie pottery specialized in sanitary goods and toilet ware for hotels, steamships, and railroads..." (Gates and Ormerod 1982:318).
Catalogue Number: 91.6.11, on a plain white earthenware base fragment.

13. Manufacturer: Probably Empire China Company.
Place: Burbank, California.
Mark: Printed (green): "EMPIRE" above "[CHINA]" above "L.[A.U.S.A.]".

Date: "...listed in the 1924 *California Manufacturers' Directory* as making semivitreous china" (Lehner 1980:56).
Mark Illustrated: From San Juan Island, fragmentary (Sprague 1980:159).
Comments: Burbank is close enough to Los Angeles for "L.A." to be used in the mark.
Catalogue Number: 69.2.5 on a plain white earthenware base fragment.

14. Manufacturer: Unknown.
Place: Unknown.
Mark: No. 1: Printed (green): "PO[RCELAIN?]" above "[OP]AQUE?".

No. 2: Printed (black): "...HRA..."

HRA

Date: Unknown. See comments.
Mark illustrated: No. 1 and 2: none known.
Catalogue Number: No. 1: F12.6.12; No. 2: 91.5.8.
Both on plain white earthenware base fragments.

15. Manufacturer: Unknown.
Place: Unknown.
Mark: Printed (black): "SPLIT..."

SPLIT

Date: Early 1930s? Green was most popular then (Butler Brothers 1930:[15]).
Mark illustrated: None known.
Comments: Possibly from an electrical insulator?
Catalogue Number: F10.5.494 on a green-glazed porcelain fragment.

16. Manufacturer: Unknown.
Place: Japan.
Mark: Printed (green): "MADE IN" above "JAPAN".

MADE IN JAPAN

Date: 1921-1940 (Stitt 1974:176).
Mark illustrated: From Silcott, Washington (Gaw 1975:175) and San Juan Island (Sprague 1980:161).
Catalogue Number: F1.11.1805, on a porcelain jam or mustard pot.

17. Manufacturer: Unknown.
Place: Germany.
Mark: Printed (orange): Unknown device above "GERMANY".

Date: Probably pre-dates 1917.
Mark illustrated: None known.
Catalogue Number: 58.5.1, on a plain white porcelain base fragment.

Several other marks are too general or too fragmentary to illustrate. Six are printed, in black, and include portions of the Royal Arms, portions of the words "Ironstone China," and illegible letters or designs. All of these are plain white earthenware base sherds, as is a very fragmentary impressed mark. One stoneware sherd, already described, has a portion of what may be a capacity numeral or a decorative device.

Household Items: Glassware, Metalware, Furniture, and Stoves

Items within this functional category include glassware vessels such as tumblers, saucers, and pitchers; metalware or kitchenware of pots, pans, and utensils; furniture hardware of beds, cabinets, and tables; and cooking and heating stoves (Table 4).

Glassware

Among the glass vessels represented are a saucer, footed vessel, bowl, lid, and three handled vessels. Other household items of glass include wash board and chimney fragments.

An incomplete, emerald green, Depression glass saucer (86.1.7, 87.2.2), probably originally 6 in. diameter, is of the ringed optic pattern (Butler Brothers 1930). This item is the only piece of Depression glass, popular during the 1930s, recovered from the site (Fig. 44*a*).

An amethyst colored midsection to a footed vessel (F13.4.5) (Fig. 45*b*) may be part of a footed orange bowl, fruit bowl, honey dish, or jelly dish (Butler Brothers 1925). The base of the stem has the common star design.

A sauce dish, nappy, salad or berry bowl is represented by partial base and body fragments (F1.10.1378, F1.10.1379) of a clear vessel (Fig. 45*a*). This base also retains the common star design pattern.

A clear glass lid (66.1.6) is represented by a very small fragment.

Three clear glass handles were recovered (Fig. 46). A midsection fragment (33.3.12) of a "cut handle" (Butler Brothers 1910:398) may have been part of a large 1/2 gallon jug. Two plain, smaller handles (F1.11.1827, 81.7.2) may represent creamers or sugar bowls. The body of a pitcher/creamer was represented by a single curved spout fragment (47.2.1).

No complete tumblers were recovered or reconstructed. Tumblers are represented by several bases, and glassware rim fragments are considered to belong to tumblers. Four plain, clear glass tumbler bases (F2.4.31, 91.4.6, F4.12/13.532, 86.4.2) of three different diameters, 2-1/2 in., 2 in. (2), and 1-1/4 in., were recovered. The smallest (Fig. 44*b*) may be a shot glass. One decorated base (88.1.1) (Fig. 45*c*), again of the star design, 2-3/8 in. in diameter, was also recovered. All rim fragments (8), believed to be tumblers, were plain, undecorated glass and clear or amethyst in color.

Fig. 44. Glassware; *a*, depression glass saucer (86.1.7); *b*, glass tumbler (86.4.2); *c*, glass tumbler (F2.4.31). Scale 1:1.

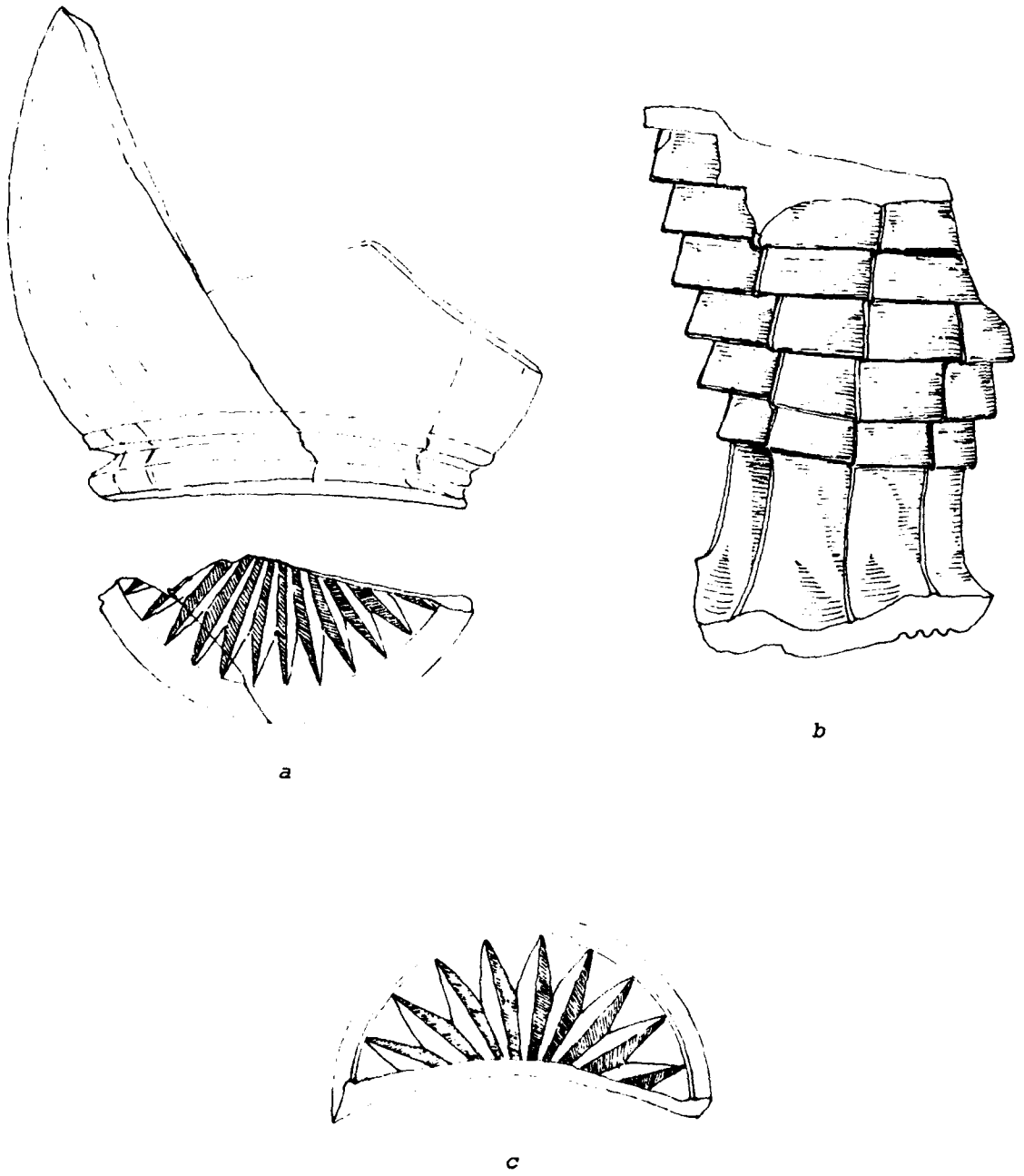
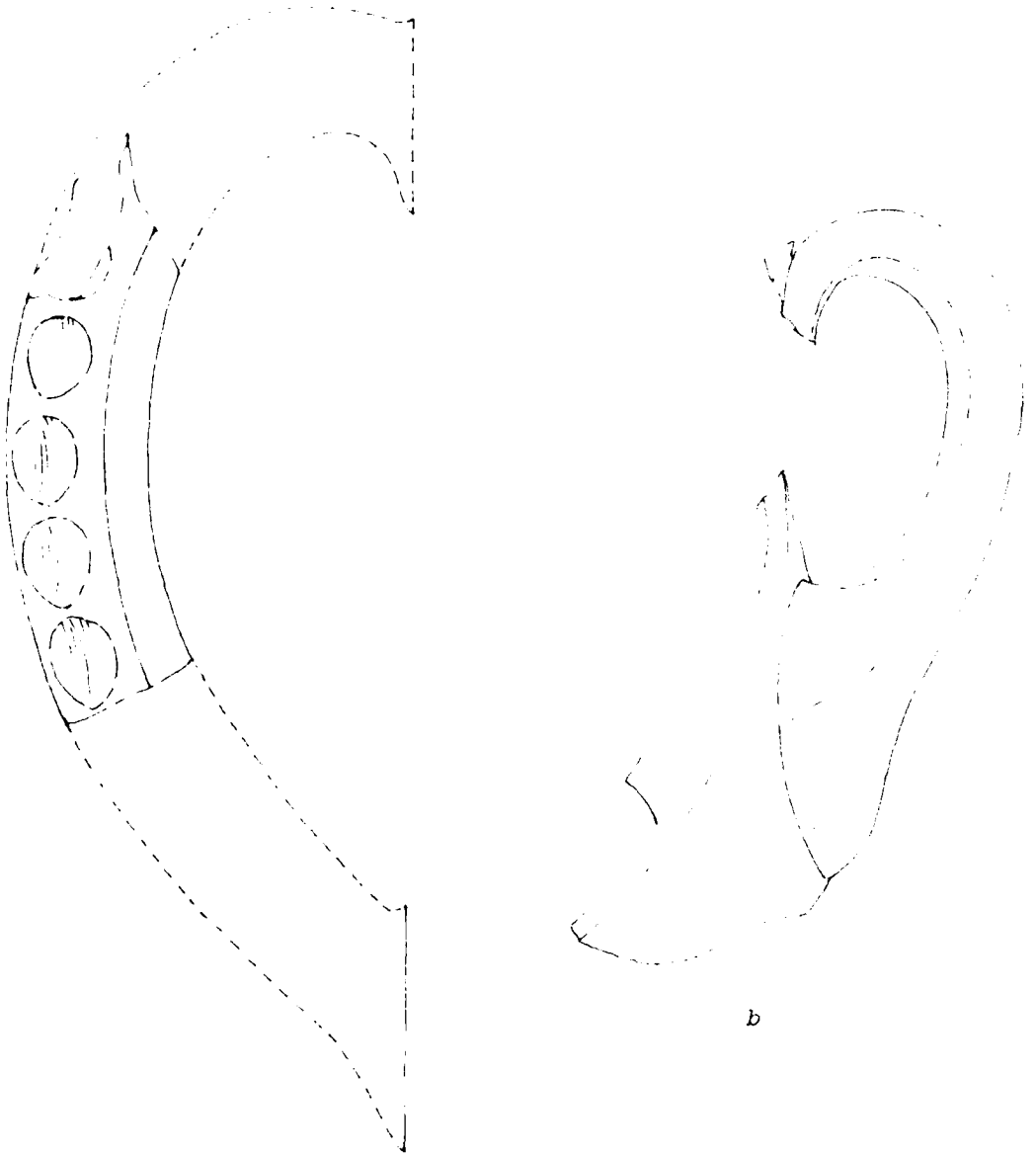


Fig. 45. Glassware; *a*, glass bowl (F1.1.1379); *b*, footed vessel (F13.4.5); *c*, decorated tumbler base (88.1.1). Scale 1:1.



a *b*

Fig. 46. Glassware; *a*, pitcher handle (33.3.12); *b*, handle (F1.11.1827). Scale 1:1.

Clear glass wash board fragments (5), grooved on one side only, 1/8 in. thick, were recovered from various parts of the site, including Feature 1. Chimney glass rims (5) are all of clear glass and of the crimped style. Fragments of pressed glass and white, or milk, glass from the site are so incomplete that no definite designs or patterns have been discerned to date.

Metalware

Household items of metalware include primarily kitchenware of pots, pans, and utensils.

Three pans or basins recovered are enamelware. One (F2.5.442) is grey/blue enamelware with a diameter of 10-1/2 in. and is 2-1/2 in. deep. This item may be what was commonly known as a straight milk pan with a capacity of 2-3/4 quarts of liquid (Sears, Roebuck and Company 1900:864). Another pan or basin (F1.13.2431), 8 in. in diameter and 4 in. deep, appears to be a pudding pan (Sears, Roebuck and Company 1900:864). A white enamelware pan 8-3/4 in. in diameter and 2-1/2 in. deep, may be a small sauce pan with the handle missing. An enamelware coffee pot (F1.9.988), 6-3/4 in. deep, was recovered from Feature 1, along with two of the basins. A stamped sheet metal dome top-shaped item (F10.5.532), presumably a lid, may also belong to a coffee or tea pot.

Five teaspoons represent the tableware utensils recovered. A teaspoon (F10.10.1225) representing a variation of the Tipped or Fiddle Back pattern (Sears, Roebuck and Company 1900:149; T. Eaton Company 1901:136) (Fig. 47*a*), recovered from Feature 10, is stamped on the back with "MAGNETIC STOVE MFG. PAT". A Shell pattern design (Sears, Roebuck and Company 1900:149; T. Eaton Company 1901:136) (Fig. 47*b*) is found on a teaspoon from Feature 1 (F1.6.344). Another flatware pattern (Fig. 47*c*), unidentified, is represented by a teaspoon (F1.7.475) engraved on the back with "OXFORD SILVER PLATE" and is also from Feature 1. Two teaspoons with handles missing (F4.7.348, 83.2.4) were also recovered.

Additional utensils from the site are a fragmented handle to a spatula or similar utensil (F1.6.347) and a bottle opener (66.1.16) marked on one side with "PALE EXPORT" and on the other with "HOP GOLD" (Fig. 47*d*).

Furniture Hardware

Furniture Hardware consists mainly of iron bed frame parts from Feature 10. Also included are table and cabinet/drawer parts and carpet and curtain items.

Parts of one iron bed were recovered from Feature 10 in the form of iron rod with joining pieces of three different decorative motifs (F10.7.3, F10.7.4, F10.4.2, F10.4.4). Although several beds could be present, all three decorative styles may be part of one bed. An additional bed is represented by a top knob recovered from an excavation unit (57.6.27), south

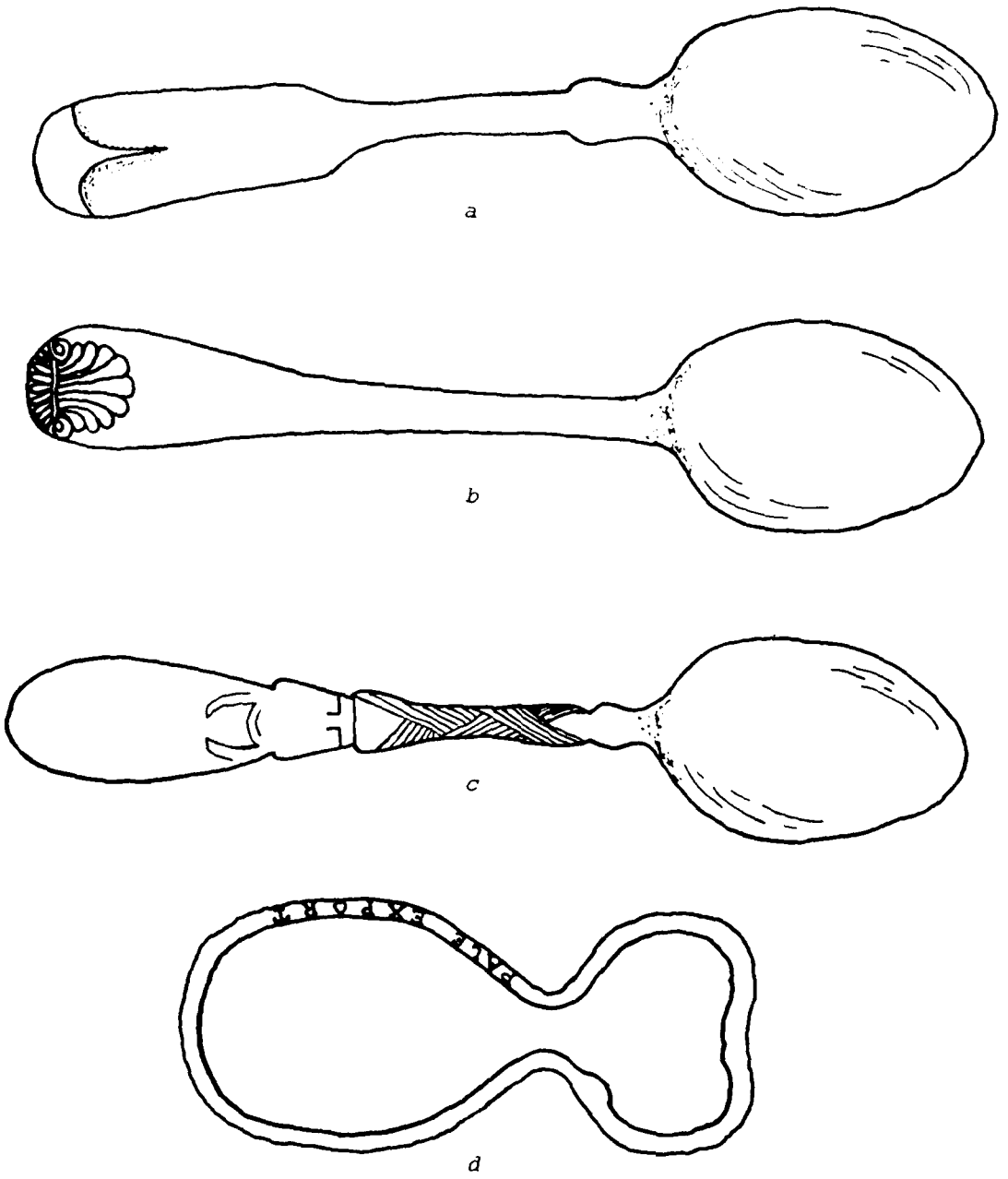
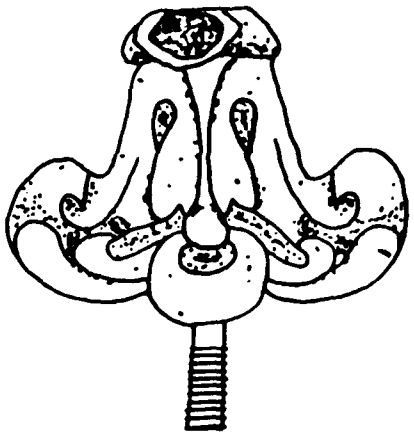
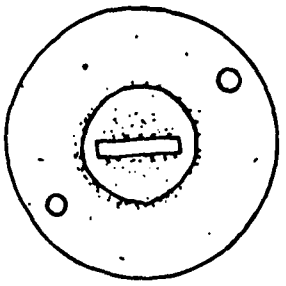


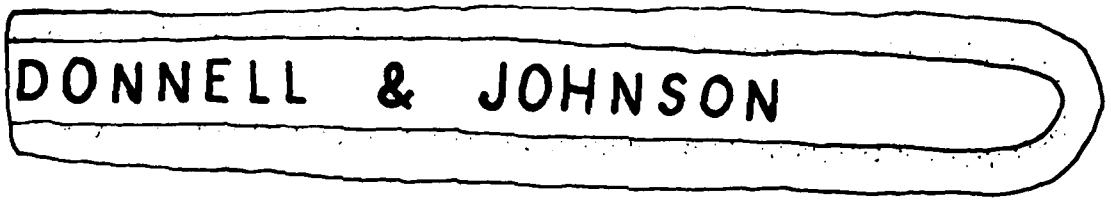
Fig. 47. Household items; *a*, Tipped pattern teaspoon (F10.10.1225); *b*, Shell pattern teaspoon (F1.6.344); *c*, unidentified pattern teaspoon (F4.7.475); *d*, bottle opener (66.1.16). Scale 1:1.



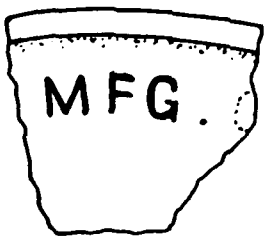
a



b



c



d

e

Fig. 48. Household items; *a*, decorative top knob for iron bed (57.6.27); *b*, cabinet escutcheon (78.4.1); *c-e*, marked stove parts (69.2.16, 91.2.5, 81.7.12). Scale 1:1.

of Feature 10 (Fig. 48*a*). Iron beds sold in 1895 were generally finished in japan, colors of black, blue, maroon, or richly enameled white and promised to be "clean, no chance for vermin" (Montgomery Ward and Company 1895:603).

An iron caster recovered may also belong to a bed. Although casters are listed only for beds in 1895, in 1923 casters are listed for beds and other furniture (Montgomery Ward and Company 1895; Sears, Roebuck and Company 1923). Similarly, a spring (Fl.9.948-950), while possibly from a bed, may also represent a piece of upholstery.

An iron handle, oblong and measuring 2-3/4 in. long and 1-1/2 in. wide (Fl.7.394), and an escutcheon (78.4.1) (Fig. 48*b*), may both be parts of cabinets or trunks. An iron folding table hinge (63.1.17) probably represents a camp or other utilitarian table. A carpet tack (81.1.3) and curtain weight (F10.5.752) were also recovered.

Stoves

Parts of at least two cast iron stoves were recovered from Feature 1, and fragments of stoves were recovered elsewhere at the site (Fig. 48*c-e*). Both a heating stove and a cooking stove appear to be represented by the numerous stove parts from Feature 1. The heating stove consists of a stove bed or base (Fl.8.846) with two intact and two broken legs (Fl.10.1807, Fl.10.1785) a stove top frame which also appears to belong to the same stove (Fl.10.1803). The legs (Fig. 49) and base or box are decorated with a swirl design, as is the stove top which is also marked "BESSEMER BOX". The base stands ca. 12 in. high with a bed 4-6 in. deep and 26-28 in. long. Parts of a cooking stove from Feature 1 are represented by several doors and stove anchor plate pieces. The broken closed anchor plate (Fl.10.1810) has two holes 8 in. in diameter and a fitted lid (Fl.11.2032). The holes combine to span 19 in. Four additional anchor plate fragments (Fl.11.2123, Fl.11.2033, Fl.10.1804, Fl.10.1803) appear to also be part of the same stove top, giving it at least four holes and a length of over two feet.

Personal Items

Personal items include clothing and footwear, toys, ammunitions, and artifacts such as pipes, combs, harmonicas, and alarm clocks (Table 5).

Clothing and Footwear

Clothing hardware includes a small number, but variety, of buttons (Table 15). Other clothing hardware found are parts of brass suspenders or garters (Fl.13.2477, 42.5.8, 81.7.100) and an iron clothing rivet (52.3.92). Iron strips, probably stays for a corset (Fl.11.1925-1929), and an iron rowel (Fl.4.72) (Fig. 50*a*) from a spur constitute the remainder of the hardware and both are from Feature 1.

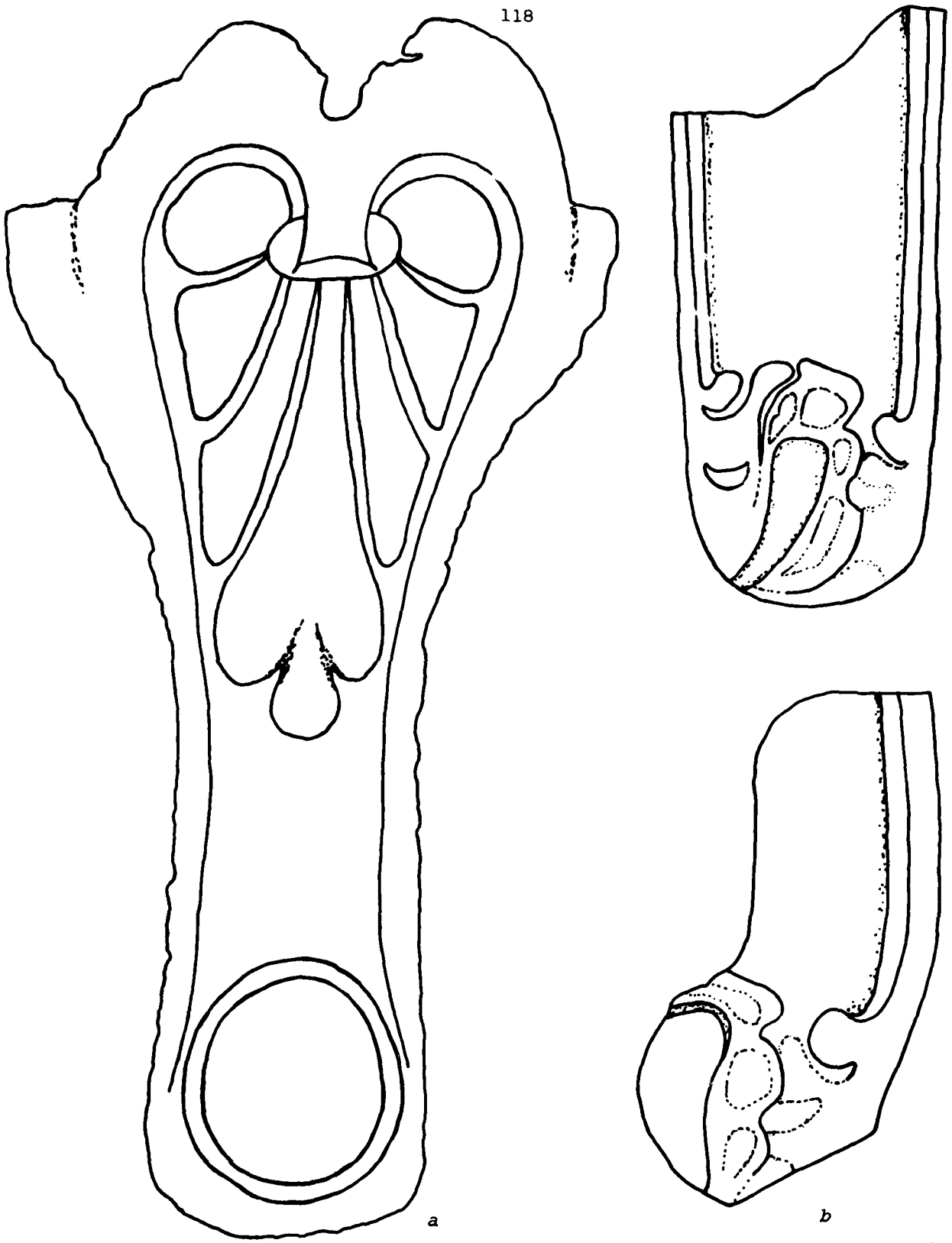
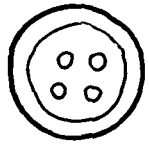
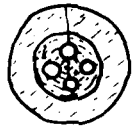
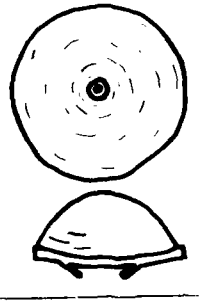


Fig. 49. Household items; *a*, stove leg (F1.10.1807); *b*, stove leg (F2.4.349). Scale 1:1.

TABLE 15

Buttons 45-WT-1 1983

Material	Shape	Method of Attachment (Brown 1968)	Diameter (in)	Item Number	
Shell	Flat	Four hole sew through	3/4	83.3.24	
Wood	Concave with rim	Four hole sew through	11/16	F2.2.186	
White glass	Concave with rim	Four hole sew through	5/8 9/16	82.2.4, 62.2.24 22.6.9	
Black composition	Convex	Two hole sew through	3/4	87.5.2	
Iron	Convex	Loop shank	1	30.2.22	
White glass and brass	Convex	Cut out	7/8	F1.5.4	

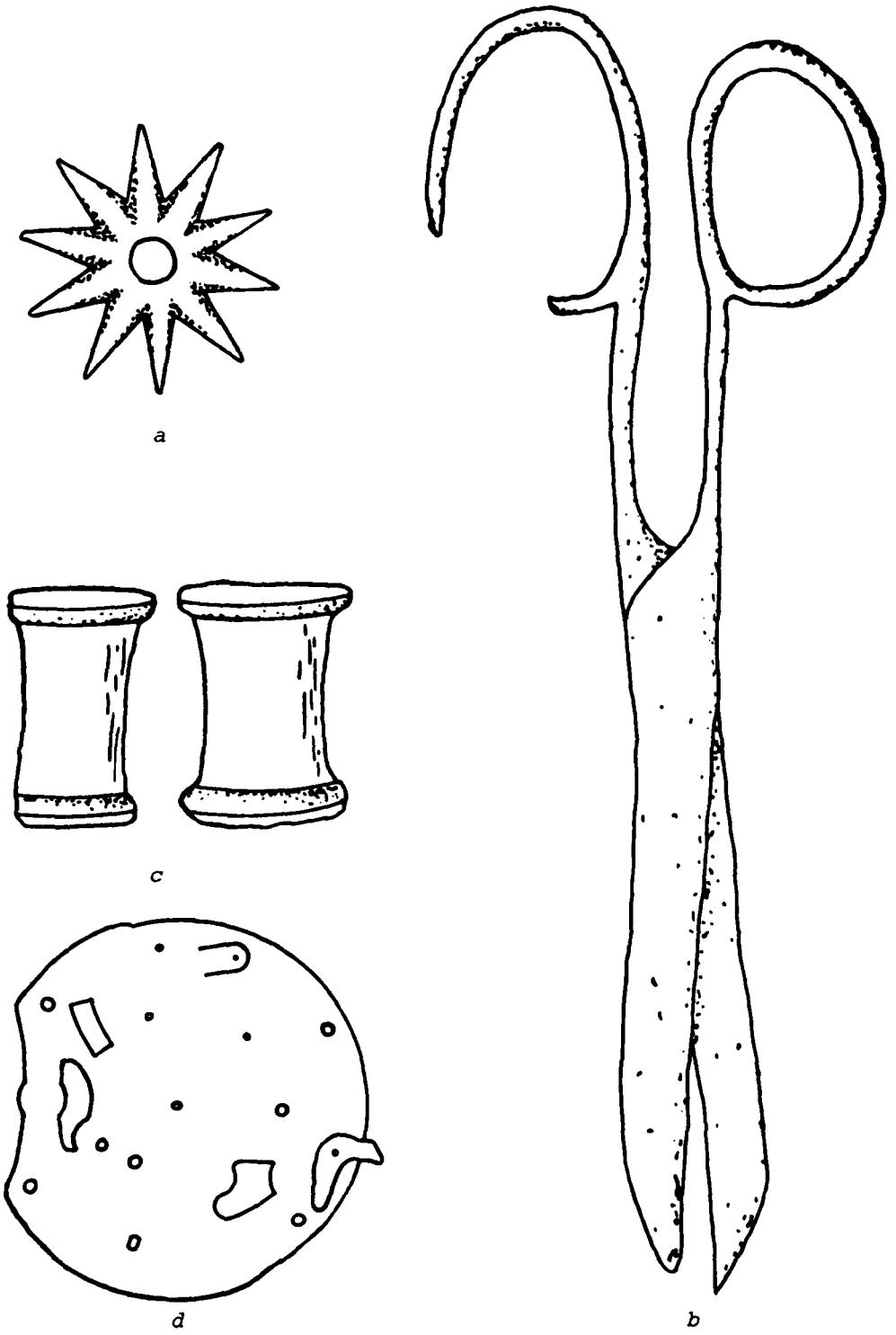


Fig. 50. Personal items; *a*, rowel (F1.4.12); *b*, scissors (F1.6.299); *c*, threadspool (F1.11.2121); *d*, clock back (87.2.42). Scale 1:1.

Actual clothing recovered includes a leather cuff for a jacket or coat (F17.5.348). Small fragments of cloth, probably pieces of clothing, were noted throughout Feature 1.

The most complete and best preserved leather footwear encountered was from Feature 1. Among these were a child's shoe sole (F1.9.595); a pair of women's shoes (F1.12.2416), which laced up over the ankle; an additional woman's shoe (F1.1.1887), a boot nailed sole (F1.8.669), and a rubber boot heel (F1.6.1172). A sole for a child's shoe was found in an excavation unit (65.3.1) as well as a man's rubber overshoe (86.1.30) marked "First Quality"/HALL-BAND/TRADE MARK/MISHAWAKA, IND". From the rubber overshoe had been cut a circular piece of rubber 1-1/4 in. in diameter.

Other Personal Items

Scissors (F1.6.299) (Fig. 50*b*) and a thread spool (F1.11.2121, 48.1.6) (Fig. 50*c*) were recovered from the site. The scissors were probably more commonly known as "shears, straight trimmers" during their use (Montgomery Ward and Company 1895:448).

Comb fragments represent both tortise shell-like ornamental hair combs (F1.7.599, 43.4.1) and black hard rubber combs more commonly used for grooming. A small brass barrett for the hair (68.3.20), was probably used for a child or doll.

The inner iron rods of an umbrella (F4.14/15.1004) and a very fragmented water bottle (F1.12.2406-2415) with remnants of the rubber bag and tube and brass fitting were recovered from Feature 1.

Two kaolin clay pipe fragments (90.3.53, 23.9.1), midsections of stems, are among the few early nineteenth century items from the site. A fragment of a white porcelain pipe bowl with hand painted scene (19.5.277) was also recovered.

Other personal items recovered include two harmonica plates (91.3.2, 76.5.2); pencil lead (F1.12.2481, F4.5.145), an aluminum thermos neck (F2.3.249), and three pieces of watches or clocks including a brass gear (F17.4.345), round outer rim to a pocket watch (F1.6.345), and a clock back 2-1/4 in. in diameter (87.2.42) (Fig. 50*d*).

Toys

Fragments of two kinds of porcelain dolls were recovered from the site. Ten fragments belong to a bisque doll and include parts of an ear (51.3.107), eye (F4.8.383, F4.14/15.834), head (51.3.108, 51.4.12), neck (F2.8.394) and other possible head fragments (50.4.3, 54.2.3, 56.3.2, 77.4.11). Two fragments appear to be hair parts of a Frozen Charlotte, (F9.5.278, F9.6.313), while another fragment may belong to a Frozen Charlotte type of doll or a figurine (F17.6.359).

An orange marble, probably clay (84.1.17), and a toy pistol (F1.8.723) (Fig. 51*d*) marked "PREMIER SAFETY", were the only additional toys recovered.

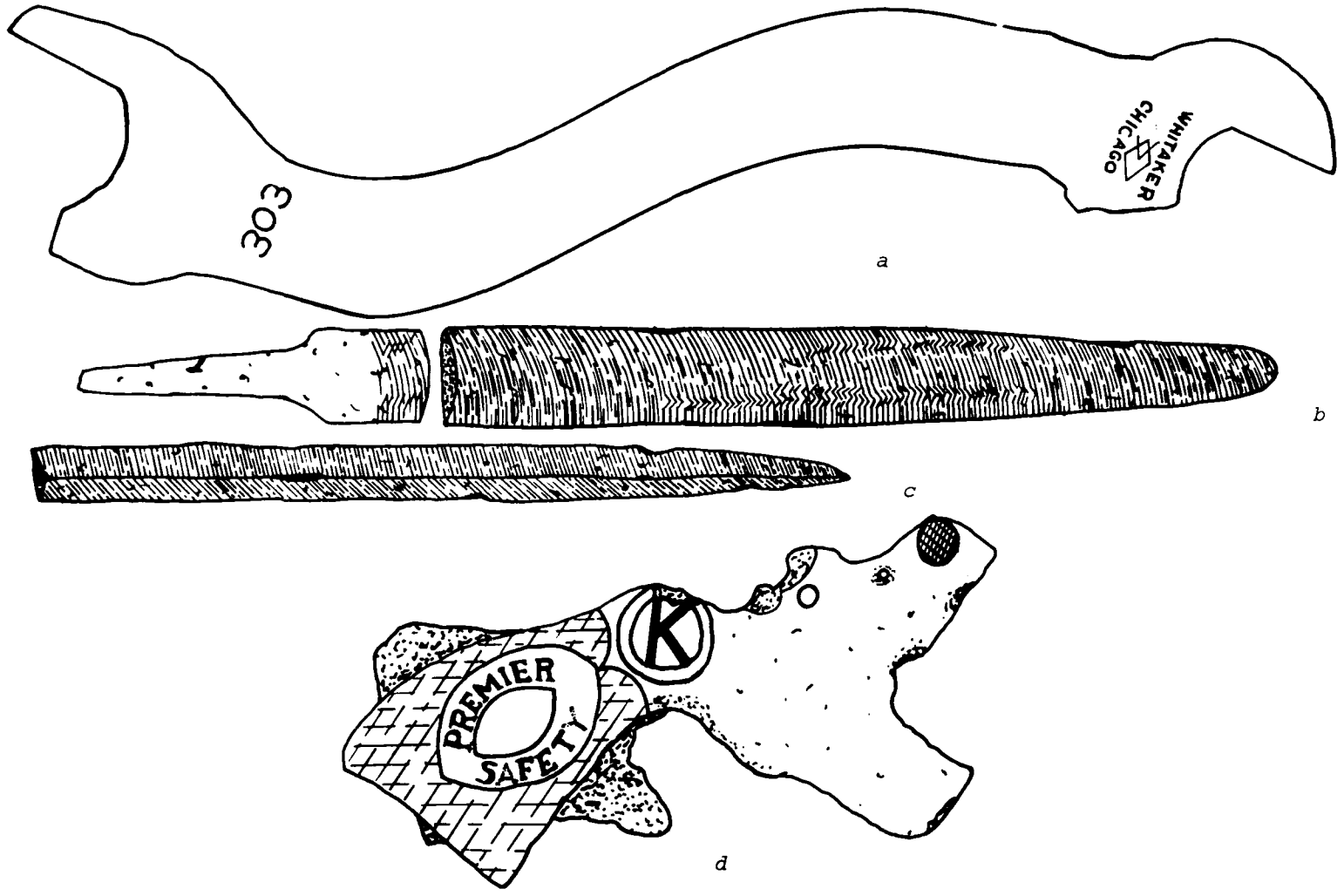


Fig. 51. Personal items; *a*, wrench (83.3.31); *b*, taper file (70.2.24); *c*, half round bastard file (F2.2.174, 175); *d*, toy pistol (F1.8.723). Scale 1:1.

Tools

Hand tools and a wheelbarrow wheel have also been included as personal items.

A double head, open end, S-shaped wrench (83.3.32) is marked "WHITAKER/CHICAGO/303" on one side and "7/8" and "3/4" on opposite ends of the other side (Fig. 51*a*). A hammer is represented by a small 5 oz. claw hammer head (F1.12.2298). Five files recovered include three midsection fragments (F10.4.112, F10.5.741, 70.2.24) of taper files and one broken 8 in./8 oz half round bastard file (F2.2.174) (Fig. 51*b, c*). A 10 in. hack saw blade (82.2.14), twist drill bit 3/14 in. in size (F2.4.354) and nail set 4 in. long (67.2.27) were other tools recovered. The chisel excavated (66.2.41) is very large and intended for heavy work. It measures 19 in. long, with a diameter of 3/4 in., and is octagonal in shape. The fork recovered (F1.10.1801) still retains three of the original four tines and probably served as a manure fork (Montgomery Ward and Company 1895:392). A grind stone (F10.5.1086) is represented by a very small fragment of sandstone 1/8 in. thick, and probably served to sharpen household and personal items of knives and small tools.

The wheelbarrow wheel recovered from Feature 1 (F1.10.1809) has the common diameter of 16 in. and may have come from a variety of styles of wheelbarrows including railroad, canal, garden, mortar, (also used for coal, sand, gravel, etc.), and stone (Montgomery Ward and Company 1895:407).

Ammunitions

Cartridges (17), forming the category of ammunitions, have also been included with personal items and are described in further detail (Table 16). The cartridges date from post 1857 and post 1903 to pre-1945.

Construction Items

Within the category of Construction Items are included door, wall, and window hardware; electrical items; plumbing hardware; nails; flat glass; materials of brick, concrete, and linoleum; and miscellaneous hardware items (Table 6).

Door, Wall, and Window Hardware

Door hinges recovered include both surface hinges of the T-hinge and V strap variety and door butts of loose joint, loose pin, and back flap. Both the T-hinge (66.1.65) and V-strap (F10.5.224) probably functioned on a large door of utilitarian buildings such as sheds or barns. A plain loose joint butt (F2.3.220) measures 3/4 in. wide and 3-1/2 in. long. Of the three loose pin varieties recovered, one is ornately decorated (76.2.1) (Fig. 52*a*) and measures 3-1/2 in. square. These measurements are also stamped on

TABLE 16

Ammunitions 45-WT-1 1983

Item Number	Type	Caliber	Company	Date	Marks
F1.8.793	Rimfire	.22 Winchester (WRF)	Winchester	Post 1890	H
F1.9.981	Rimfire	.22 Short	Winchester	Post 1857	H
F1.10.1797	Rimfire	.22	Peters		P
F1.10.1798	Centerfire	.25-.35 Winchester	Winchester	Pre 1945	W.R.A. Co.
F1.12.2326	Rimfire	.22 Long Rifle		Post 1887	
F1.12.2327	Rimfire	.22	Winchester		H
F1.12.2328	Rimfire	.22 Long Rifle	Winchester	Post 1887	H
F1.12.2329	Rimfire	.22 Winchester Automatic/ Remington Automatic		Post 1903	
F1.13.2478	Rimfire	.22 Winchester (WRF)	Winchester	Post 1890	H
F1.13.2479	Rimfire	.22			
F9.5.261	Rimfire	.22 Long Rifle	Winchester	Post 1887	H
F11.5.21	Rimfire	.22 Winchester (WRF)	Peters	Post 1890	P
51.3.109	Rimfire	.22 Winchester (WRF)	Union Metallic Co	Post 1890	U
59.1.7	Centerfire	.38 Smith and Wesson	Winchester	Post 1887	W.R.A. Co.
68.3.21	Rimfire	.22 Short	Peters	Post 1857	P
75.5.3	Rimfire	.22 Long Rifle	Peters	Post 1887	P
90.3.53	Rimfire	.22 Long Rifle	Winchester	Post 1887	H

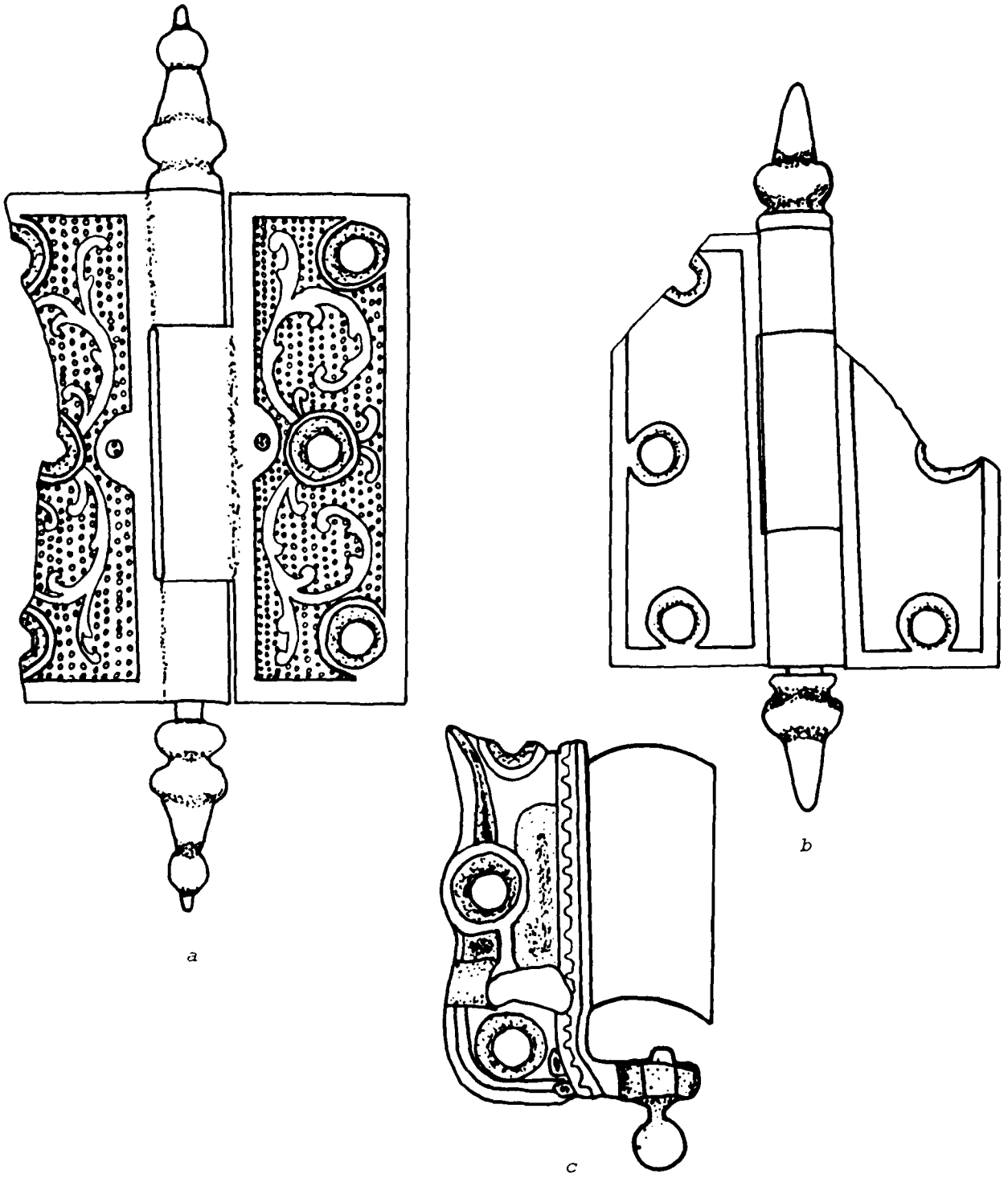


Fig. 52. Construction items; *a*, decorated door butt, loose pin (76.2.1); *b*, door butt, loose pin (F10.5.751); *c*, spring hinge (81.7.13). Scale 1:1.

the back of the butt. A plain loose pin butt (F10.5.751) (Fig. 52*b*), along with the decorated hinge, retains a modified steeple pin. The spring hinge (81.7.13) recovered may have belonged to a screen door (Fig. 52*c*).

Door knobs are represented by porcelain knobs and hardware parts of rose, shank, face plate, and spindle. Two knobs (F1.6.170, F2.2.159) are plain, round white porcelain and each measure 2 in. in diameter (Fig. 53*c*). A fragmented blue porcelain knob (61.1.1) was also recovered.

Two warded door locks were recovered from Level 12 of Feature 1 (Fig. 53*a*). One (F1.12.2322) measures 3/4 in. thick, 3-1/4 in. wide, and 3-3/4 in. long. A larger warded lock (F1.12.2323) measures 5/8 in. thick, 3-1/2 in. wide, and 4 in. long, and retains a brass spring latch and dead bolt. An interior piece to an additional lock was also recovered from Feature 2 (F2.5.401).

Another piece of door hardware recovered was an escutcheon (F2.1.126) (Fig. 53*b*) for a door knob with key hole. A latch part (F10.5.366) and large gate hook (58.1.14) are among the other door hardware identified.

A wire (Sears, Roebuck and Company 1908) shelf bracket (F2.2.165) and an iron bracket for a window shade were the only wall and window hardware pieces recovered and both are from Feature 2.

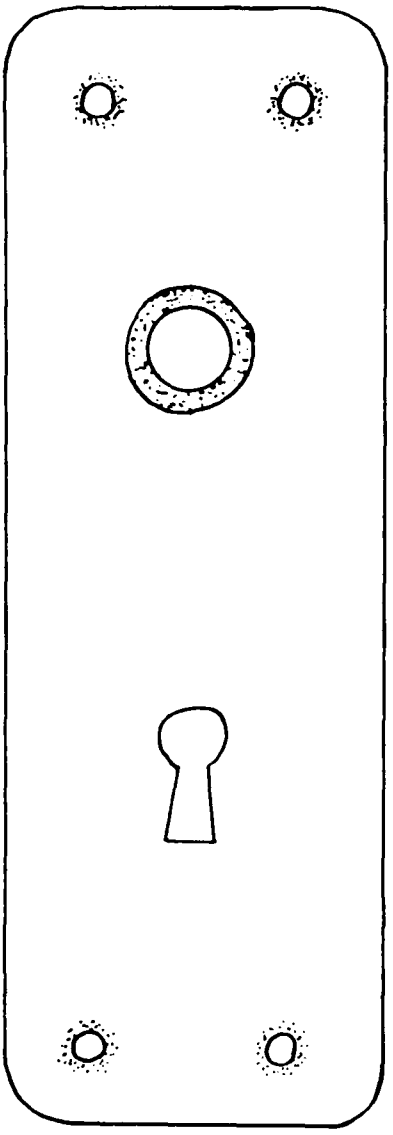
Although a number of door parts were recovered from Feature 1, none were identified from Feature 4, just a short distance away. Feature 2 had the most and greatest variety of door hardware.

Electrical Items

Among the electrical items found at 45-WT-1 were glass insulators, three different styles of porcelain insulators, switch blocks, light bulb base, and mica washers believed to be electrical in nature.

Glass insulators include a complete aqua double petticoat (Croft 1929: 412) insulator (F1.6.168) measuring 3-1/8 in. in diameter at the base and 4 in. high (Fig. 54*a*). An additional fragmented base (90.3.175) and two fragments (80.2.2, F4.5.44) are also present. The porcelain insulators include the two-wire cleat (Fig. 54*c*) (F10.4.23, F10.5.25, F10.5.1072), solid knob (F17.7.363, 81.7.7) (Fig. 54*b*), and unglazed porcelain tube varieties (81.7.11) (Fig. 54*d*). All insulators were most likely used for home wiring; the porcelain more specifically for interior wiring and the glass petticoats for outdoor. All three styles of porcelain insulators could have been used together for a variety of wiring methods (Croft 1921, 1929).

Fragments of what appears to be electrical conduit and a brass light bulb base (F1.7.746) were recovered from Feature 1. A number of fragments (6) of plastic insulators may have been part of a radio, and were recovered from Feature 10.



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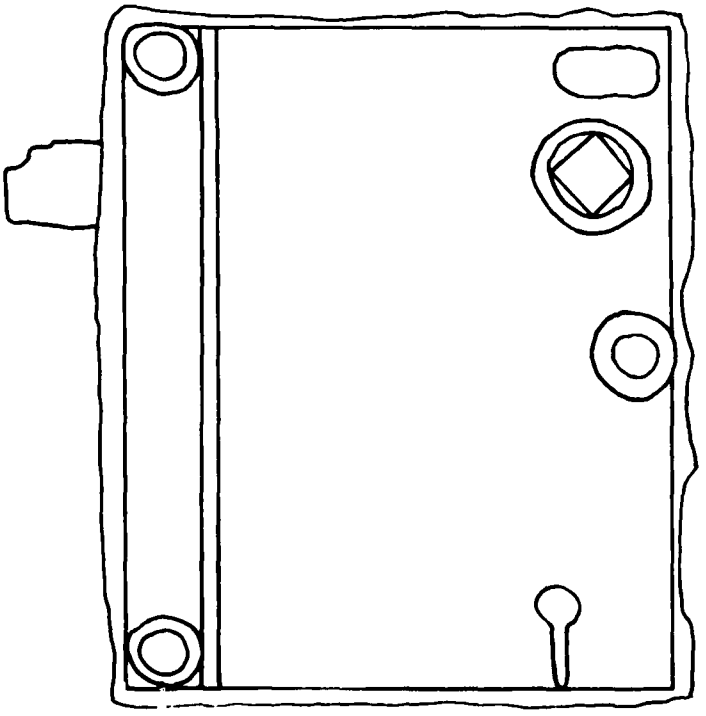

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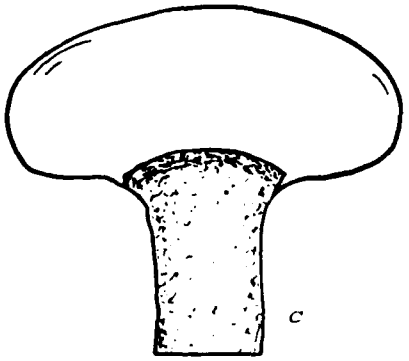
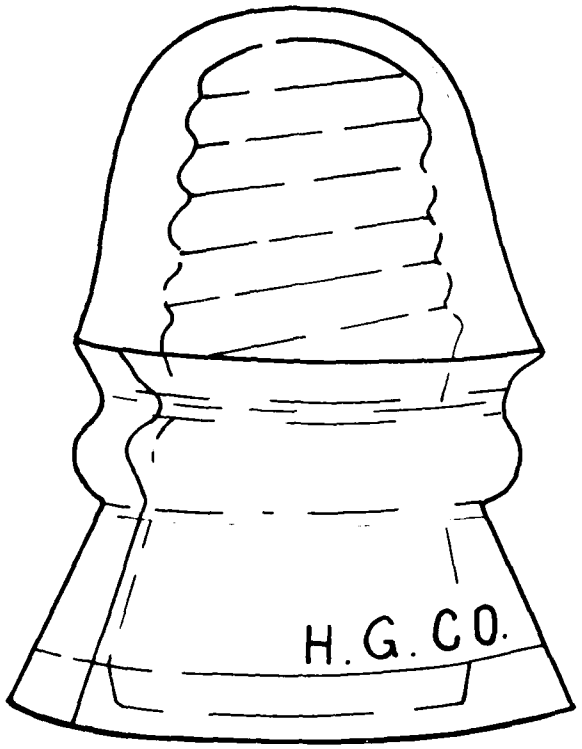


c

Fig. 53. Construction items; *a*, warded door lock (F1.12.2322); *b*, escutcheon (F2.1.126); *c*, white porcelain door knob (F1.6.170). Scale 1:1.



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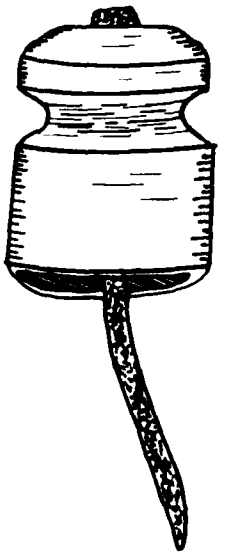

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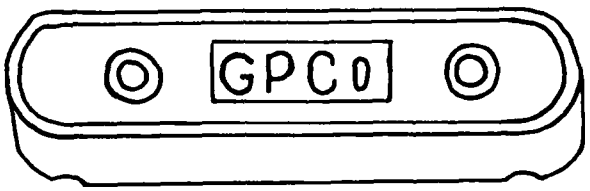

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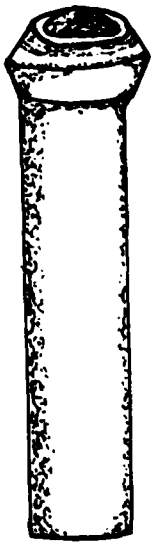


d

Fig. 54. Electrical items; *a*, glass insulator (F1.6.168); *b*, solid knob porcelain insulator (F17.7.363); *c*, two-wire cleat porcelain insulator (F10.4.23); *d*, tube porcelain insulator (81.7.11). Scale 1:1.

Feature 10 contained all three kinds of porcelain insulators and no evidence of glass insultors, while Feature 1 contained no porcelain insulators.

Plumbing Hardware

Ceramic drain pipe and a variety of metal pipe and fittings constitute the plumbing hardware. Pipe was also encountered in situ during excavations. As mentioned, one informant remembered the Stewart Hotel as having plumbing, but no electricity, at the turn of the century (Torgeson 1983:personal communication).

In situ metal pipe, usually an inch in diameter, was encountered in excavation units 30, 39, 66, 82, 87, and 91 as well as in features 12, 15, and 17. This pipe was encountered between 20 and 100 cm below surface, the deepest being that of the pipe in Feature 12. In this case, a deep pit was dug to place the pipe at this depth. Feature 15 pipe was covered with cobbles and that of Feature 17 formed part of the works for the cesspool. The in situ pipe at the site tends to be concentrated in the vicinity of the cesspool, Feature 17.

Metal pipe in Feature 10 was found to be discarded rather than in situ. Ceramic drain pipe fragments were recovered primarily from Feature 10.

Nails

Cut (248) and wire (1397) nails were both recovered from the site, with a small number (88) of nail fragments also present (Table 6). Of the total nails recovered (1733) 81% were wire with the largest number of wire nails (31%) recovered from Feature 10.

Flat Glass

Flat glass, presumably window glass, was recovered from throughout the site, with the largest number of fragments coming from Feature 10 (Table 6).

Brick and Concrete

One informant (Torgeson 1983:personal communication) stated that no brick buildings were constructed at Riparia, and indeed, very little brick was encountered during excavations. Some fragments were recovered from Feature 10 (9) and units 30-39 (13) (Table 6).

Evidence of the concrete hotel was found primarily in the rubble encountered between units 22 and 29 in the form of concrete blocks or bricks, largely broken and fragmented, now presumably filling the hotel basement. According to Mrs. Torgeson, the concrete used for the hotel was made at the site. Excavations also indicate that concrete blocks were used as foundations, as in the case of Feature 14.

Painted Wood

Wood with a green-blue colored paint was encountered and in an attempt to document associations, was recovered and documented. The wood was found only in features 2 and 17 and in the nearby vicinity of these two features. One informant (Della Evans 1983:personal communication), during an on-site visit, suggested that these painted pieces were once part of the summer house of the hotel, which she recalled as a painted structure in the area of Feature 17.

Miscellaneous Construction Hardware

Construction hardware, other than nails, which may have been used for a number of purposes include nuts, bolts, washers, screws, staples, spikes, wire, chain parts, cotter pin, iron hook, screen tacks, and helical springs (Table 6).

Transportation and Machinery Items

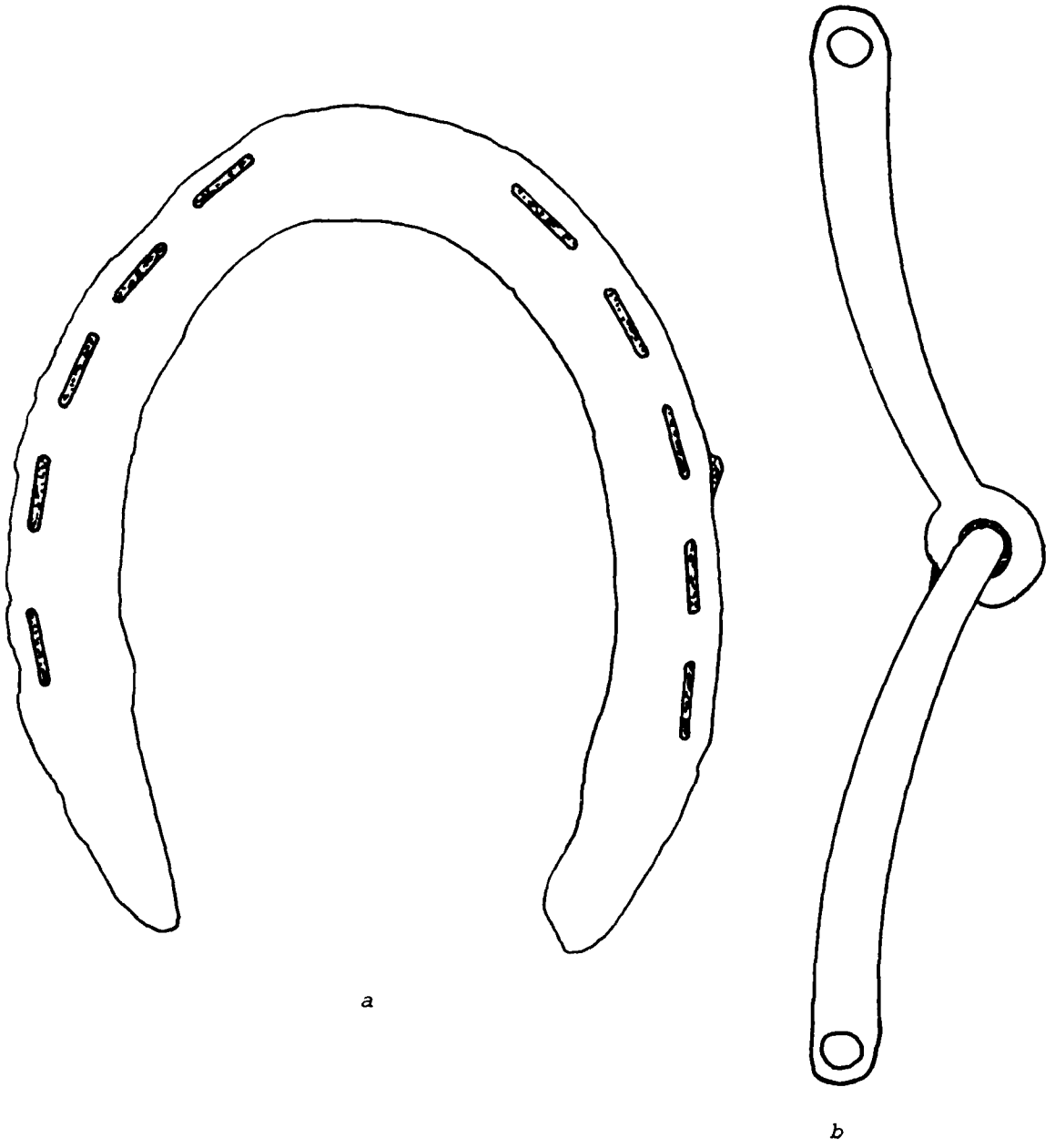
Evidence of horse and wagon, automobiles, trains, and machinery was found at the site (Table 7).

A horseshoe (F17.2.2112) was recovered from the upper levels of the cesspool feature (Fig. 55*a*) and two horseshoe nails were recovered from Feature 10. Several items of harness hardware and part of a leather harness (76.2.28) 1-1/8 in. wide were also found. Among the harness hardware identified is a circular ring 2-1/4 in. in diameter (81.7.47), a semicircular ring (33.2.10), a jointed portion of a jointed ring bit (65.1.5), a barrel roller buckle 2 in. wide (F2.3.22), and a harness buckle (F2.0.453) (Figs. 55*b* and 56*a-c*). A bracket or brace (81.7.47) appears to belong to a wagon.

Automotive items include spark plugs (F4.14/15.668, 81.7.6); exhaust pipe (10.11.2), compression spring for car or machinery (91.4.180), leaf spring (F2.6.113, 83.3.25), roller bearing (35.1.6), and rubber hose fragments with an outside diameter of 1 in. and inside diameter of 1/2 in. The two spark plugs are both marked "Champion X", but are of two different styles (Fig. 56*d, e*). The Champion X spark plug is advertised by Sears, Roebuck and Company (1923) as "regular equipment on many Ford cars and made especially for the Ford motor".

The only direct evidence of farm equipment is a sickle section probably from a mowing machine (81.8.114) and an iron peddle (F2.3.226) 1 in. wide and 4-1/2 in. long which may have belonged to a tractor or other farm machinery.

Two items recovered are directly associated with trains. A hand rail or step rung (F10.10.1) for a rail car was recovered from Level 10 of Feature 10 and a conductors' lantern from Feature 1. Conductors' lanterns of a similar style, Pullman pattern, sold in 1895 by Montgomery Ward and Company (553) are advertised as "handsomely finished" giving an "excellent light" and burning "lard oil."



a

b

Fig. 55. Transportation and machinery items; *a*, horseshoe (F17.2.112); *b*, jointed portion of jointed ring bit (65.1.5). *Scale* 1:1.

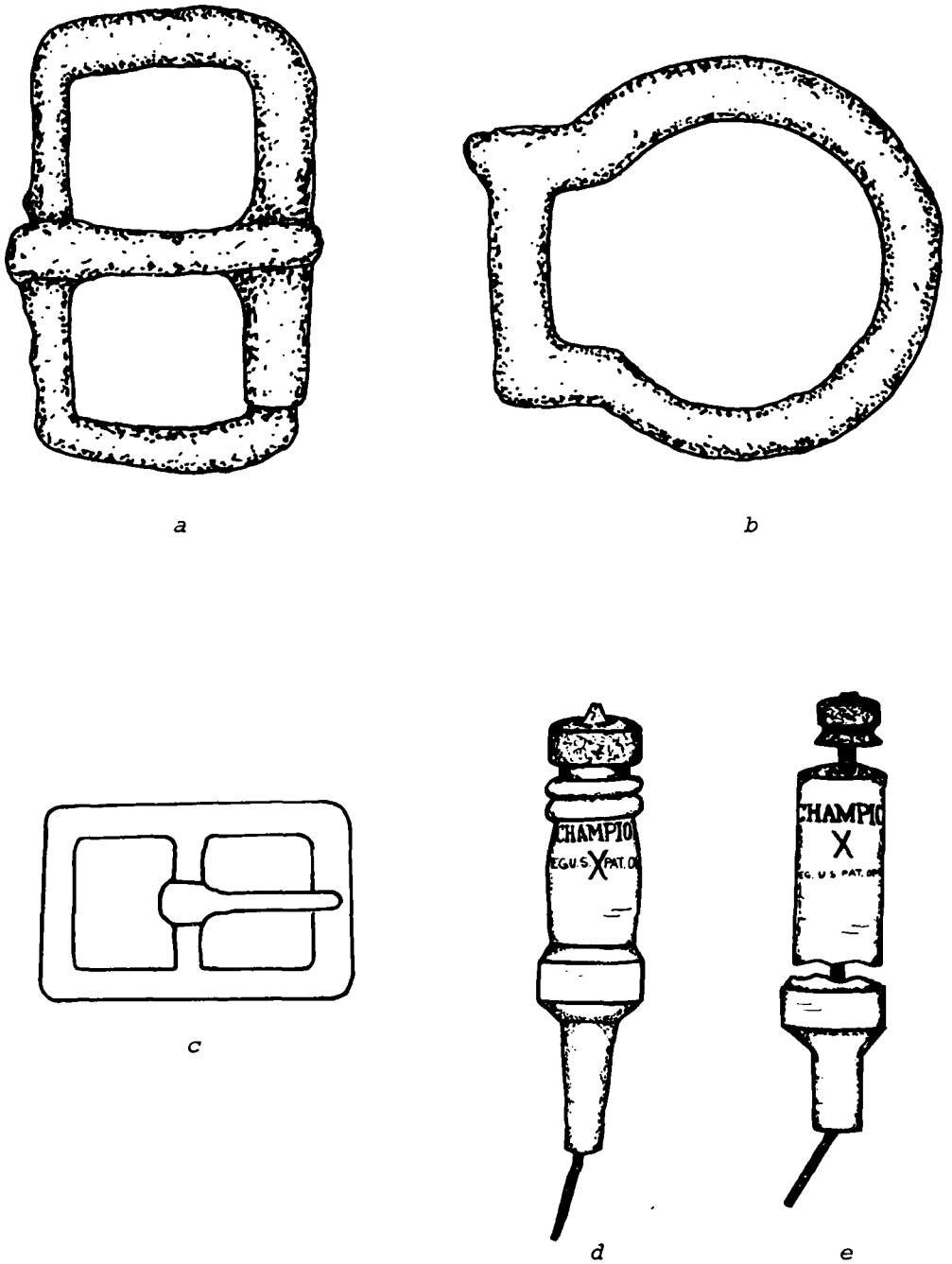


Fig. 56. Transportation machinery and items; *a*, barrel roller buckle (F2.3.223); *b*, harness ring (33.3.10); *c*, harness buckle (F2.0.453); *d-e*, Champion spark plugs (F4.14/15.668, 81.7.6). Scale 1:1.

Miscellaneous Items

This category includes a homemade weathervane, lamp/lantern parts, batteries, flagging tape, metal strap, rod bar, and angled iron (Table 8). Most of the items could have been used in a variety of functions.

Of special note is the weathervane which appears to be homemade of flat or sheet metal (F2.1.155). Among the items identified as batteries are glass fragments, rim, and base pieces, of a thick object believed to have held batteries for trains, found primarily in Feature 10. Several fragments pieced together are embossed (in script) "...ENERAL GAS L.../...HANOVER..."

Lithic Items

The lithic items recovered during the 1983 excavation have been analyzed and described using categories and definitions established during previous work in areas A and B of 45-WT-1 (Miss and Cochran 1982).

Tools

Lithic tools were recovered from a number of excavation units at 45-WT-1. These items were infrequent and often appeared in the fill of historic features indicating a disturbed context. The presence of these artifacts suggest aboriginal occupation of the site prior to Euroamerican settlement in the nineteenth century.

Nineteen categories of tools were previously defined by Miss and Cochran (1982:40) on the basis of similar size, form, and technology, as well as the assessment of scars, striations, and polishing from inferred use wear. These categories were established in order to facilitate description and the items within each group share enough morphological, functional, and technological attributes to distinguish them from all other categories (Miss and Cochran 1982:40, based on Leonhardy 1970:81).

Previous investigators had determined that two manufacturing systems were employed at 45-WT-1. These included percussion reduction of local cobbles and, to a lesser extent, percussion and pressure biface reduction of cryptocrystalline silica, obsidian, and fine grained basalt (Miss and Cochran 1982:40). Lithic materials available locally include cobbles of basalt, quartzite, granite, argillite, cryptocrystalline silica and other materials, while obsidian is exotic (Miss and Cochran 1982:40).

Descriptive data include length, width, thickness, and material type; we have added the category of weight and recorded all measurements in mm rather than in cm. Measurements are based on the previous established method of orientation (Miss and Cochran 1982:41). All data are provided in Table 17 and summarized with each following category discussion. No summary description is provided where only a single item was recovered. Measurements for broken items are not included in the summary descriptions for those attributes.

TABLE 17

Lithic tools 45-WT-1 1983

Category	Item No.	Material[a]	Condition[b]	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)	Fig. No.
Utilized secondary decortication spall	9.5.1	B	C	44	39	12	23.0	
	51.4.19	B	C	53	49	18	40.8	
	61.3.1	Q	C	39	27	11	12.7	
	63.4.1	B	C	47	38	9	104.9	
Unifacially retouched cobble	63.1.1	M	C	162	110	48	1469.3	
Bifacially retouched cobble	22.5.1	B	C	70	66	38	234.2	57*f*
Core	46.5.3	B	C	104	93	78	766.4	
Uniface	50.3.46	CS	C	38	8	3	0.9	57*b*
Biface fragment	62.4.1	CS	BL	32	21	10	5.3	57*g*
	75.4.1	CS	BC	19	12	6	1.6	57*c*
	84.2.2	CS	BC	35	24	11	5.8	57*d*
	F1.2.4	CS	BC	29	19	9	4.2	57*e*
	F1.3.66	CS	BC	18	14	6	2.0	57*h*
Projectile point	57.2.2	B	BC	49	18	8	7.9	57*a*
Retouched flake	19.4.1	CS	BC	24	8	6	2.0	
	F9.6.337	CS	BC	21	18	5	3.0	
Utilized tertiary flake	9.5.7	B	BC	17	15	7	0.7	
	23.8.1	CS	C	32	21	4	3.9	
	50.6.1	CS	BC/L	25	14	5	1.4	
	F1.11.2122	CS	C	28	22	5	2.0	
	F4.14/15.669	CS	BC	20	14	4	0.6	
	F9.6.338	O	C	30	21	7	3.1	
Small nuclei	51.3.142	CS	C	31	26	23	15.3	

[a] Material: B-Basalt, Q-Quartzite, M-Metamorphic, CS-Cryptocrystalline Silica, O-Obsidian.

[b] Condition: C-Complete, BC-Broken Crosswise, BL-Broken Lengthwise, BC/L-Broken Crosswise and Lengthwise.

Utilized Secondary Decortication Spalls

Utilized secondary decortication spalls (Table 17) exhibit cortex on a portion of their dorsal surfaces due to the detachment of other flakes prior to the removal of these items from the core. Evidence of use includes rounding of edge projections, striations perpendicular to the edge, and small use retouch scars (Miss and Cochran 1982:43-45).

Descriptions	Range	Mean
length	39-53 mm	46 mm
width	27-49 mm	38 mm
thickness	11-18 mm	12.5 mm
weight	12.6-104.9 g	

n=4

materials: Basalt = 3
Quartzite = 1

Unifacially Retouched Cobble

A single unifacially retouched cobble (63.1.1) was recovered (Table 17). This item is flat with several large retouch scars extending from the edge onto one surface (Miss and Cochran 1982:48). The retouched edge exhibits evidence of crushing implying a pounding or chopping function.

Bifacially Retouched Cobble

A single bifacially retouched cobble (22.5.1) (Table 17) (Fig. 57*f*) is a flat cobble with bifacial flake detachment around the entire circumference (Miss and Cochran 1982:49). Cobble cortex is retained on both surfaces; approximately half of the edge exhibits battering wear.

Core

A single large cobble (46.5.3) (Table 17) retains cortex on one end while the remainder of its surface exhibits the irregular, unpatterned removal of prirary and secondary decortication flakes (Miss and Cochran 1982:55).

Uniface

A single item (50.3.46) (Fig. 57*b*, Table 17) made from a flake exhibits overlapping flake scars on one surface (Miss and Cochran 1982:57). This uniface was made by retouching both edges on the distal end of the dorsal

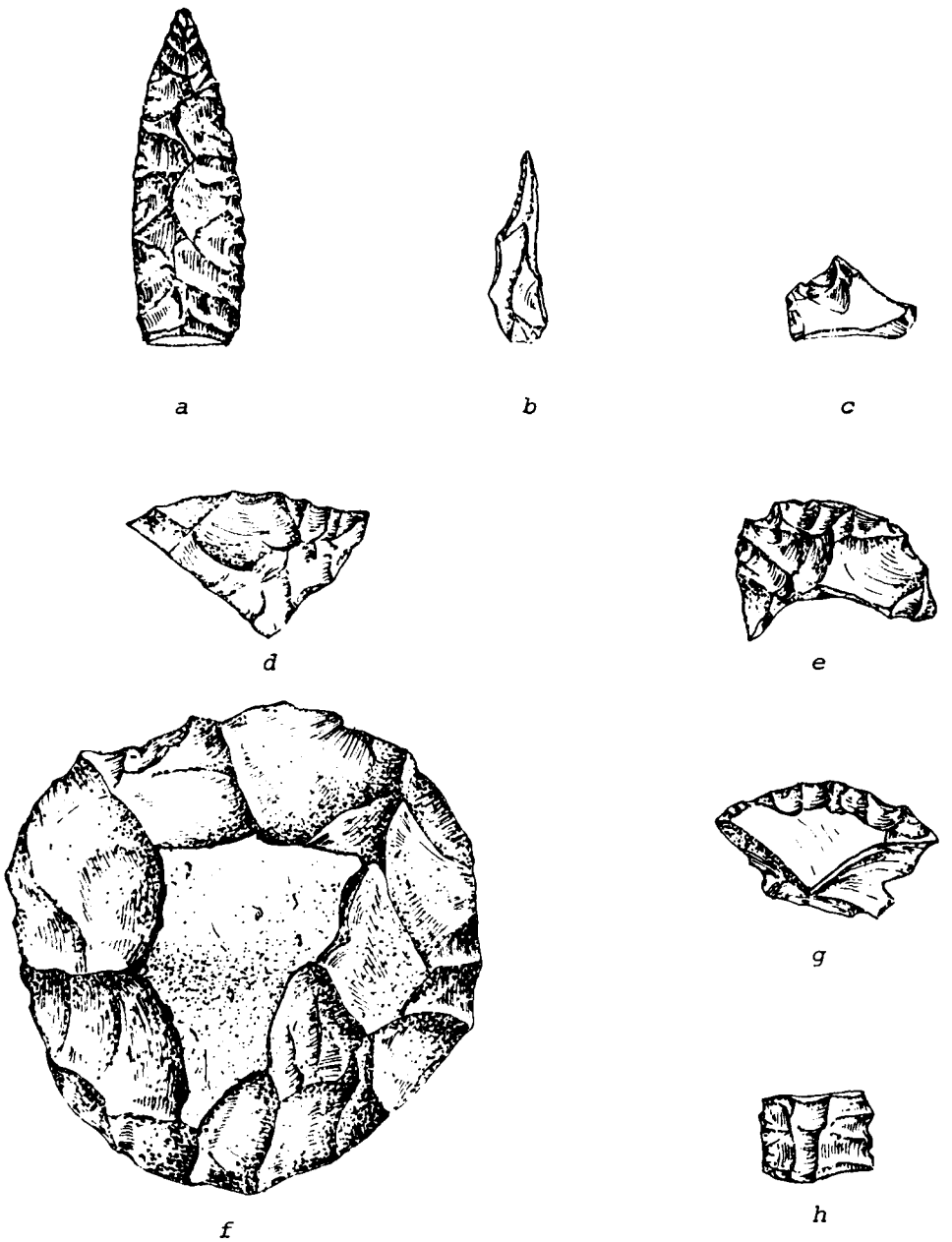


Fig 57. Lithic tools; *a*, basalt projectile point (57.2.2); *b*, chert uniface, perforator (50.3.46); *c*, chert biface fragment, spokeshave (75.4.1); *d*, chert biface (84.2.2); *e*, chert biface fragment (F1.2.4); *f*, basalt bifacially retouched cobble (22.5.1); *g*, chert biface fragment (62.4.1); *h*, chert biface (F1.3.66). Scale 1:1.

surface; the platform is intact at the proximal end. The extremely acute tip of this item suggests that its function was to perforate leather or wood or perhaps was employed in the manufacture of basketry (Spier and Sapir 1930:88; Teit 1930:43; Nelson 1969:186).

Biface Fragments

Five cryptocrystalline silica biface fragments (Fig. 57, Table 17) (Miss and Cochran 1982:57) were recovered, making this the second most frequent tool category. One item (84.2.2) (Fig. 57*d*) is the tip of a relatively large tool, probably a knife; another item (F1.3.66) is lenticular in cross section, probably the midsection of a projectile point; one is notched (75.4.1) (*Fig. 57c*) to create a spokeshave for working wood or bone; the other two are indeterminate edge fragments. The diversity and condition of these items makes a summary of little use.

Projectile Point

A single lanceolate projectile point fragment (57.2.2) (Fig. 57*a*) (Table 17) is similar to the most frequently recovered type from previous excavation (Miss and Cochran 1982:60). All three items previously excavated are basalt, as is this one. Similarly, this point has excurvate sides and is lenticular in cross section. This item fits within the previously defined range for width, but is slightly thicker and was probably longer.

Retouched Flakes

Two retouched flakes (Table 17), both of cryptocrystalline silica and both broken were recovered in test excavations. This retouch is of indeterminate function and morphology (Miss and Cochran 1982:63) due to their condition. One exhibits retouch on a single edge (F9.6.337) while the other was retouched on two edges (19.4.1).

Description	Range	Mean
length:	24+ mm	indeterminate
width:	5-6 mm	5.5 mm
thickness:	5-6 mm	5.5 mm
weight:	3+ g	indeterminate

n = 2

material: cryptocrystalline = 2

Utilized Tertiary Flakes

This was the most frequently occurring category (Table 17). Utilized flakes do not show any intentional modification, but do have portions of their edges that have small step and concoidal flake scars (Miss and Cochran 1982:63). Two of these tools (23.8.1 and F1.11.2122) are notched, apparently from having been used in contact with a more resistant material.

Description	Range	Mean
length	28-32 mm	30 mm
width	21-22 mm	21.3 mm
thickness	4-7 mm	5.3 mm
weight	2-3.9 g	3 g

Small Nuclei

A single small nuclei (51.3.142) probably represents an exhausted core (Miss and Cochran 1982:65). This item is at the small end of the previously stated length range, and smaller both in terms of width and thickness.

Debitage

Seven categories of debitage were defined previously (Miss and Cochran 1982) and all were encountered during this phase of testing (Table 18). None of the debitage exhibit functional traces nor intentional modification. All flakes were measured according to the previous orientation guidelines (Miss and Cochran 1982:41) and incomplete items were not included in the summary descriptions for the missing measurements. Two minor modifications include the attribute of weight and measurements reported in mm rather that cm.

Primary Decortication Spall

A single item (12.5.1) (Table 18) has its dorsal surface completely covered with cobble cortex while its ventral surface is smooth (Miss and Cochran 1982:67).

Secondary Decortication Flakes

Secondary decortication flakes have cortex on either a portion of their dorsal surfaces or on their platforms, with the ventral surfaces smooth (Miss and Cochran 1982:67). The subdivision with partial dorsal cortex is relatively more frequent (15).

Description	Range	Mean
Partial dorsal cortex		
length:	21-45 mm	30.6 mm
width:	9-41 mm	19.2 mm
thickness:	3-33 mm	8 mm
weight:	0.1-32.7+ g	4.3 g

n=15

materials: Cryptocrystalline silica = 7
Basalt = 6
Metamorphic = 2

Description	Range	Mean
Cortex on platform only		
length:	9-40 mm	22.2 mm
width:	9-43 mm	21.8 mm
thickness:	3-13 mm	6.7 mm
weight:	0.1-18.4 g	4.5 g

n=10

materials: Cryptocrystalline silica = 1
Basalt = 6
Metamorphic = 3

Percussion Flakes

Percussion flakes are comparatively large, show no cortex, have distinct bulbs of force, and generally larger platforms (Miss and Cochran 1982:68).

Description	Range	Mean
length:	15-49 mm	28.7 mm
width:	17-53 mm	25.2 mm
thickness:	2-19 mm	7.5 mm
weight:	0.5-56.6 g	11.5 g

n=12

materials: Cryptocrystalline silica-1
Basalt-7
Metamorphic-4

TABLE 18

Lithic debitage 45-WT-1 1983

Item	Material[a]	Condition[b]	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)	Category[c]
12.5.1	CS	C	49	38	15	33.3	PDS
8.5.1	B	BC	--	12	5	1.9	SDF
9.5.3	B	C	28	20	5	4.0	SDF
9.5.4	B	C	42	41	10	11.1	SDF
9.5.13	B	C	21	22	10	3.9	SDF
9.5.27	CS	BD	--	--	5	3.2	SDF
10.4.3	B	C	30	30	9	9.2	SDF
20.4.3	CS	C	32	19	10	3.9	SDF
22.11.54	CS	BC	--	9	2	0.7	SDF
50.4.7	CS	BC/L	--	--	8	3.0	SDF
50.4.8	CS	BC/L	--	--	6	0.4	SDF
59.5.3	M	C	9	15	3	0.8	SDF
61.4.1	M	BL	45	--	33	32.7	SDF
62.3.1	B	C	22	10	5	0.1	SDF
F2.6.10	CS	C	42	15	6	4.0	SDF
F12.7.18	CS	C	35	18	3	1.9	SDF
9.5.8	B	C	26	25	7	3.9	CPF
9.5.9	B	C	19	20	8	1.1	CPF
9.5.10	B	C	15	18	6	1.6	CPF
9.5.21	M	C	9	7	2	0.1	CPF
10.4.2	B	C	40	43	13	18.4	CPF
10.4.4	B	C	38	40	12	15.2	CPF
34.1.40	CS	C	21	22	8	3.4	CPF
50.3.44	B	C	19	9	5	0.2	CPF
62.3.2	M	C	13	16	3	0.2	CPF
63.4.2	M	C	22	18	3	0.9	CPF
9.4.1	B	C	22	30	3	2.5	PERC
9.4.2	B	C	15	36	6	3.0	PERC
9.5.2	B	C	41	17	9	8.7	PERC
9.5.22	M	BC	--	30	7	3.1	PERC
9.5.23	M	C	23	20	6	2.8	PERC
22.5.2	B	C	49	41	15	30.2	PERC
47.5.1	B	C	29	29	9	5.2	PERC
52.3.108	M	C	16	20	3	0.5	PERC
56.1.1	CS		19	24	7	3.1	PERC
61.2.1	M	C	45	53	19	56.6	PERC
F9.5.267	B	BC	--	20	2	0.1	PERC
F9.6.336	B	C	28	32	4	2.4	PERC
48.4.1	CS	C	20	23	7	2.0	THF
62.4.3	B	C	32	24	4	2.2	THF
9.5.11	B	C	11	5	2	0.1	PRS
9.5.12	B	BC	--	12	2	0.1	PRS
9.5.28	CS	C	12	14	3	0.2	PRS
9.5.29	CS	C	9	5	1	0.1	PRS
9.5.36	O	BC	--	9	1	0.1	PRS
10.5.2	CS	C	13	21	4	0.8	PRS
43.3.8	CS	C	10	6	1	0.1	PRS
52.3.106	CS	C	24	18	4	1.5	PRS
56.3.1	CS	C	13	21	3	0.4	PRS
62.4.4	CS	C	14	15	3	0.2	PRS
63.3.1	B	C	32	30	2	1.8	PRS
63.3.2	B	C	7	11	1	0.1	PRS
63.3.5	CS	C	13	9	2	0.1	PRS
F3.1.2	CS	C	8	8	1	0.1	PRS
8.5.2	B	BC	--	14	1	0.2	SH
9.4.3	CS	BC	--	12	2	0.1	SH
9.5.14	B	BC	25	23	5	1.8	SH
9.5.15	B	BC/L	--	--	4	0.5	SH
9.5.16	B	BC/L	--	--	3	0.7	SH

TABLE 18 *continued*

Item	Material[a]	Condition[b]	Length (mm)	Width (mm)	Thickness (mm)	Weight (g)	Category[c]
9.5.17	B	BC/L	--	--	5	0.1	SH
9.5.18	B	BC/L	--	--	8	3.6	SH
9.5.19	B	BC/L	--	--	1	0.1	SH
9.5.20	B	BC	--	7	1	0.1	SH
9.5.24	M	BC	--	46	10	12.8	SH
9.5.25	M	BC	--	17	12	2.7	SH
9.5.26	M	BC/L	--	--	2	0.1	SH
9.5.30	CS	BC	--	30	4	1.5	SH
9.5.31	CS	BL	20	--	16	2.5	SH
9.5.32	CS	BC/L	--	--	4	1.2	SH
9.5.33	CS	BC/L	--	--	2	0.1	SH
9.5.34	CS	BC	--	34	13	7.6	SH
37.6.1	CS	BC	--	7	2	0.1	SH
38.4.2	CS	BC/L	--	--	10	1.8	SH
44.4.1	CS	BC	--	24	5	0.7	SH
45.3.1	CS	BC/L	--	--	8	0.6	SH
50.3.45	CS	BC	--	19	8	1.2	SH
52.2.75	CS	BC/L	--	--	5	0.5	SH
52.3.107	CS	BC/L	--	--	5	0.1	SH
53.5.2	CS	BC/L	--	--	9	3.8	SH
58.3.2	B	BC/L	--	--	4	1.1	SH
61.4.2	B	BC/L	--	--	6	7.4	SH
62.4.2	B	BC	--	9	2	0.1	SH
63.1.4	CS	BC	--	17	2	0.2	SH
86.4.1	CS	BC/L	--	--	3	0.2	SH
91.6.13	CS	BC/L	--	--	10	2.4	SH
F3.4.1	CS	BC/L	--	--	2	0.1	SH
F9.4.183	CS	BC	--	8	2	0.1	SH
F9.7.339	CS	BC/L	--	--	2	0.1	SH
F9.9.450	CS	BC/L	--	--	4	0.4	SH

[a] Material: B-Basalt, M-Metamorphic, CS-Cryptocrystalline Silica, O-Obsidian.

[b] Condition: C-Complete, BC-Broken Crosswise, BL-Broken Lengthwise, BC/L-Broken Crosswise and Lengthwise, BD-Broken Diagonally.

[c] Category, established by Miss and Cochran (1982): FDS-Primary Decortication Small, SDF-Secondary Decortication Flake, CPF-Cortex Platform only Flake, PERC-Percussion Flake, THF-Thinning Flake, PRS-Pressure Flake, SH-Shatter.

Thinning Flakes

Thinning flakes are produced by the process of primary and secondary bifacial reduction with the dorsal surfaces showing scars from earlier stages of biface thinning and the platform retaining the biface edge (Miss and Cochran 1982:68).

Description	Range	Mean
length:	20-32 mm	26 mm
width:	23-24 mm	23.5 mm
thickness:	4-7 mm	5.5 mm
weight:	2-2.2 g	2.1 g

n=2

materials: Cryptocrystalline silica-1
Basalt-1

Pressure Flakes

Pressure flakes are characterized by relatively small size, small detachment platforms, and diffused bulbs of force (Miss and Cochran 1982:69).

Description	Range	Mean
length:	7-32 mm	13.8 mm
width:	5.30 mm	13.1 mm
thickness:	1-4 mm	2.1 mm
weight:	0.1-1.8 g	0.5 g

n=14

materials: Cryptocrystalline silica-9
Basalt-4
Obsidian-1

Shatter

Most flakes were assigned to one of the previous six categories. The remaining items are fragmentary as a result of manufacturing activities, post-knapping breakage, burning and/or other factors which have resulted in the creation of nondiagnostic debitage. Platforms are absent on all items referred to as shatter; most are broken crosswise and some are broken both crosswise and lengthwise so that only thickness and weight can be determined. Shatter tends to be prismatic in cross section and lacks platforms and bulbs of percussion (Miss and Cochran 1982:69).

Description	Range	Mean
length:	?-25+ mm	indeterminate
width:	7-46+ mm	17.4 mm
thickness:	1-16 mm	5.2 mm
weight:	0.1-12.8+ g	1.6+ g

n=35

materials: Cryptocrystalline silica-21
Basalt-11
Metamorphic-3

Summary

A total of 89 items classified as debitage were recovered in the 1983 test excavations at 45-WT-1. These items were categorized into seven previously defined groups (Miss and Cochran 1982:67-69). The most common category was nondiagnostic shatter with 35 items, although all decortication flakes taken together are slightly more frequent with 36 items. The more subjectively defined categories of pressure, thinning, and precussion flakes indicate that a variety of stages of the manufacture of lithic tools occurred at this area of the site. The items in these categories provide insights into aboriginal lithic tool manufacture. As examples, cortex appears on 5 (41.7%) metamorphic flakes, 12 (34.3%) basalt flakes, and only 9 (21.9%) cryptocrystalline silica flakes; similarly most of the percussion flakes are basalt (58.3%) or metamorphic (33.3%) with only one (8.3%) cryptocrystalline silica. In contrast, most pressure flakes are cryptocrystalline silica (64.3%), followed by basalt (28.6%) and obsidian (7.1%), with no metamorphic material.

Discussion

A total of 23 tools were recovered during excavations of the historic component of 45-WT-1. These items indicate a limited, but definite, occupation on the western side of the mouth of Alkali Flat Creek in addition to the previously described work carried out on the eastern side of the creek (Miss and Cochran 1982). These tools can be readily placed into ten of Miss and Cochran's categories.

These items complement the previously known information concerning this site in several ways. Simply as items, they are all members of existing groups, contributing nothing "new" to the understanding of the site. The only temporally sensitive item, the projectile point, is quite comparable to those of the Cascade phase (Leonhardy and Rice 1970, 1980) dated 8000-5000 BP. Cascade phase points and other tools were well represented in the test of the prehistoric component at 45-WT-1 (Miss and Cochran 1982:99); this item demonstrates a contemporaneous occupation on both sides of the mouth of the creek.

Debitage was the most frequent of lithic materials from both phases of testing. All seven of the previously determined categories, as well as the lithic material types, were again encountered in 1983.

A depression with charcoal was documented in units 8, 9, and 10 of Area C (Fig. 9). From this small area, 30 cm wide and ca. 5 m long, were recovered 40 of the 89 pieces of debitage from the site and 3 of the 23 tools.

In conclusion, both sides of the mouth of Alkali Flat Creek were occupied by aboriginal parties during the Cascade phase and probably later as well. Tools and debitage recovered in 1983 are very similar in all respects to cultural material found in 1982. It appears that the heaviest aboriginal occupation at 45-WT-1 was on the upstream portion of the site, but the downstream portion of the area was occupied as well.

4. SUMMARY AND CONCLUSIONS

History

From the limited historical documentation which has been gathered to date concerning Texas City/Riparia, the town appears to have been a major crossroads and transportation center for the movement of crops and transfer of passengers traveling by steamboat and rail to and from the Snake River country. Historically, the area was visited as early as 1805 by Lewis and Clark, with the establishment of a settlement commencing about 1860. The town evidently became sparsely populated during the Depression years of the 1930s and was completely leveled in the 1960s.

The history of Texas City is unique in several aspects. As a major transportation center the town was a construction site for three railroad lines built between 1881 and 1908 and a point for major connections and transfers of these lines. It was the terminus for steamboat traffic during a major portion of its occupancy, and served as a transfer location in this regard as well. Although it seems to have been a major center, little written documentation exists concerning the daily activities or yearly developments of the town. From contemporary newspaper accounts we know very little: Texas City had several railroad lines; it had a concrete block hotel, railroad depot, sawmill, post office, and several residences; and maintained an estimated permanent population of 80-100 inhabitants. Little has been documented, outside of a few informant statements, of the residents living or the residences existing at the site; the thousands of individuals passing through town; the booms accompanying railroad construction, and the years of prosperity or lack of prosperity between these. Thus, for a seemingly important town, little is known of Texas City.

Texas City was only one of several river towns established in the nineteenth century to facilitate the transportation needs of farmers and settlers. Others located between Riparia and Lewiston along the Snake River included Almota, Penawawa, Wawawai, and Illia; all of which now exist under water raised as a result of dam construction. Until archaeological test excavations were conducted, it was assumed that much of Texas City/Riparia had also been completely inundated and existed only under water.

Archaeological Excavations

Testing of the historic component of 45-WT-1 was undertaken by request of the U.S. Army Corps of Engineers to examine its potential of eligibility for nomination to the National Register of Historic Places. Data recovery proposed to determine: 1) the vertical and horizontal extent of historic remains and material culture, 2) the number and dates of historic components within the area, 3) the significance of historic remains to the understanding of the history of the town, and 4) the potential of these

cultural resources to qualify for National Register nomination, especially as exemplified by 36 CFR 800.10.4, qualifying those resources "that have yielded, or may be likely to yield, information important to prehistory or history."

Exploratory trenches constituting 348 linear meters, excavated in 12 days, revealed an extensive historic occupation in Area D of 45-WT-1, as artifacts were recovered throughout the trench lines and features were encountered in every line opened. The investigation has revealed the existence of artifacts and features extending over a large area of the site. Narrow trench lines exposed artifact concentrations, structural remains of foundations, pipelines, a cesspool, possible cellars, and privies, as well as debris of the concrete Stewart Hotel.

The location of the hotel, a focal point in the town's activities can be determined from the extent and concentration of concrete debris. The cesspool (Feature 17) and associated pipelines may also form part of the hotel complex, among which were a summer house and a well covered with a frame structure. An artifact concentration of glass, white "hotel ware," and butchered bone in Unit 22, near the hotel and presumed location of the north-south railroad tracks through town, is a deposit undoubtedly associated with hotel activity. Much further east, two privies (features 1 and 4), which secondarily became large repositories of trash, are associated with residences outside of the hotel and have provided personal and household, as well as construction or architectural, artifacts with which to surmise the dates of use and range of activities represented in this area of the site. Between the hotel and the privies exist additional trash deposits and structural remains. A possible ice house or cellar exists (Feature 2) with sawdust, painted lumber tentatively identified as part of the hotel's summer house, and a large number of artifacts; another possible cellar (Feature 10) is filled with structural debris. Structural remains of pipeline and foundations have also been documented in situ.

There is no doubt that most, if not all, of these archaeological remains are a result of the historic occupation of Texas City/Riparia. Historically, permanent occupation of the town dates ca. 1860-1930 and artifact analysis tends to substantiate this in the identification of bottle, bottle product, and ceramic manufacturers dating to the late nineteenth and early twentieth centuries (Table 19). Furthermore, given the exploratory nature of the excavations and the large area remaining unexplored, it might be postulated that a significant number of such structural features and artifact concentrations remain undiscovered.

Material Culture

Only a sample of the material culture from Texas City/Riparia has been recovered and examined, but it demonstrates that a range of activities are represented at the site and, more importantly, that the cultural history of the town does remain in situ.

A large number of artifacts with which to interpret the occupancy of the site were recovered from the trash concentrations within the definite boundaries of pits, providing a tightly controlled sample. Consumption and

TABLE 19

Dates of manufacture of bottles, bottle products, and ceramics 45-WT-1 1983

Manufacturer	Date	Provenience	
		Features	Units
CONTAINERS[a]			
Bottle			
John Duncan and Sons	1877-1920	1	31, 35, 36
William Franzen and Son	1900-1929	1	
Diamond Glass Company	post 1924		81
Adolph Busch Glass Manufacturing Company	1904-1907	1	37
American Bottle Company	1905-1916	1	
Illinois Glass Company	1916-1929		88
Louisville Glass Company	ca. 1880		22
Latchford Marble Glass Company	1939-1957		33
Product			
Libby, McNeill, and Libby	post 1880	1	
T. A. Snider Preserve Company	post 1884	1	
Emerson's Drug Company	post 1891	1	
Lambert Pharmacal Company	post 1881		28
CERAMICS[b]			
Product			
John Wyllie and Son	1875-1888		91
Thomas Hughes, Burslem	pre 1891		31
Charles Meakin	1883-1889		68, 69, 91
Paul Müller	1890-1917	9	
Crown Pottery Company	1891-1954	1	68
Spokane Pottery Co.	1899-1909	1	
Homer Laughlin China Company	1900-1960	1	44, 69
Knowles, Taylor, and Knowles	1904		91
John Maddock and Sons	post 1906	9	91
Grindley Hotel Ware Company, Ltd.	post 1908	1, 10	40, 43, 48, 52, 68, 69, 76
W. S. George Pottery Company	1909-1961	4	
"Made in Japan"	1921-1940	1	
Art Wells Glazes (Homer Laughlin)	1934	1	44

[a] See Tables 11, 12, and 13.

[b] See listing of ceramic marks in *Household Items: Ceramics* of MATERIAL CULTURE chapter.

purchase of commercial products is evident in the container items of bottles, cans, caps, and lids. While home canning is not readily apparent in the archaeological record, domestic preparation of food is evident in the large number of bone recovered. Participation in regional and national markets is represented by the presence of brand name condiment, soda, alcohol, cosmetic, and medicine bottles. These same artifacts demonstrate use of the condiments of catsup and mustard, beverages of beer/soda, and a preference for or limited choice of one brand name of catsup and one or two brands of mustard. An extremely wide variety of ceramic forms and patterns has been documented suggesting that matching pieces forming sets still exist throughout the site, or may perhaps indicate the varied extent of such items existing within a number of households. Personal items suggest not only the presence of men, women, and children, which would come as no surprise, but further exemplify the selection and disposal of toys (guns, dolls, marbles), clothing (shoes, boots, buttons, hardware), and other presumably broken or lost items (tools, watch parts, combs, harmonica, scissors, thread, umbrella, water bottle).

The recovery of a number of other household items such as bed and stove parts, as well as construction items such as door parts, provide interesting insights into the disposal of outdated or broken items. The fact that parts of two stoves were found in one trash component of a privy and that bed and door parts were recovered from several similar trash pits pose interesting questions concerning their disposal. Were they disposed of because they were broken or outdated or were they abandoned along with the residences with which they were associated? Did gas or electricity replace the wood stoves or did the residents simply move on? Do the door parts suggest remodeling or site abandonment? Of similar interest are the comparable presence of automobile parts and a variety of electrical insulators. Finally, the depositional units present at the site, secondary trash found in privies and pits and primary trash of occupation scattered elsewhere, are excellent examples of the potential for further investigation of formation processes, a current research issue in archaeology (Schiffer 1983:697).

National Register Significance

Previous test excavations conducted in 1982 at 45-WT-1, on the east side of Alkalai Flat Creek in Areas A and B, led to the conclusion that both areas met the fourth National Register criterion of having "yielded or being likely to yield information important in prehistory or history." The historic component, concentrated primarily in Area A, was determined by archaeologists to contain

> information relating to the earliest, permanent Euroamerican settlement of the Lower Snake River. While not a major population center, Riparia was located at an important point in the transportation network of the inland Northwest. The growth and decline of the community entirely dependent on first river and then railroad transportation could be documented. The nature of such a specialized community raises a number of more specific questions that could be answered by material at the site. For example, is it possible to determine the maximum and minimum population or to detect fluctuations in the numbers of inhabitants

> as the fortunes of the town rose and fell with the area economy from structural remains? Can occupations be distinguished which resulted from different economic factors through a relatively short period of time such as the initial settlement by steamboat suppliers supporting the 1860's gold rush followed by primarily livestock raising in the 1880's and then by wheat farming in the 1890's and later years? Was the structure of the community constant or variable through this same time period? That is, were the same numbers of people performing the same tasks necessary for maintaining the steamboat and railroad services? Were families present? Children? Schools? Were ethnic minorities, such as Chinese associated with the railroad, present? Or was Riparia a "Howard Johnson's" of the Lower Snake composed primarily of service oriented hotels and steamboat and railroad repair and shipping facilities? [Miss and Cochran 1982:117-118]

Recent test excavations conducted in 1983 on the west side of Alkalai Flat Creek in areas C and D, have further demonstrated that the historic component of 45-WT-1 has yielded and is likely to yield information important in history. It has been established that an intact, extensive and intensive historic component exists at 45-WT-1, above water, and is indeed a core area of the historic town of Texas City/Riparia. This archaeological assemblage has demonstrated the variety and extent of cultural material information existing undisturbed at the site.

Texas City/Riparia is the only early transportation center on the Snake River between this point and Lewiston which has not been covered completely by water as a result of dam construction. In this sense alone it is unique and remains the only townsite which is likely to yield information important to the history of the development and settlement of this part of the Snake River. The archaeology of 45-WT-1 offers the potential of documenting the growth and decline of an important river town about which little has been written in the historical record; the daily activities reflected in the material remains; the patterns of settlement, growth, decline, and abandonment; changes brought about by such facilities as plumbing, electricity, and automobiles; the possible presence of ethnic groups as well as railroad employees, school teachers, boarders, travelers, and permanent residents; and the settlement patterns resulting from the construction and operation of several railroad lines. The historic archaeology remaining at the site also has the potential to contribute to the current research of formation processes.

Management Recommendations

Given the apparent significance of the historic component of 45-WT-1 it is recommended that nomination to the National Register of Historic Places be sought. Furthermore, no subsurface work should be undertaken without further archaeological recovery of site data. To date, the only immediate danger to the site is in its use as a picnic, fishing, and camping facility. Impact includes digging of small pits for campfires. No evidence of subsurface collecting has been noted, but this could be a problem in the future as a result of the recent archaeological work at the site and may entail periodic monitoring of the site and investigation of adverse impacts.

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APPENDIX A

FAUNAL IDENTIFICATION

by

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The faunal assemblage from features 1, 2, 4, 8, 9, 10, 11, and 17 was identified by species and anatomy (Table 20). If faunal specimens could not be speciated, they were identified to the lowest taxa possible. Bone fragments, unidentified as to specific bone element (e.g. humerus), were morphologically classed by bone type (e.g. long bone). Fragments determined nondiagnostic were those too small for identification purposes. Identification was aided by the use of the comparative faunal collection of the Laboratory of Anthropology, University of Idaho. Additionally, the literature references used were: Schmid (1972), Getty (1975), Von Den Driesch (1976), Brown and Gustafson (1979), and Gilbert (1979, 1980).

TABLE 20

Faunal identification 45-WT-1 1983

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epipyseal Fusion	Butchering Marks	Comments[c]
			Feature 1				
Bos taurus	astragalus	1	complete	left		cleaver, saw	portion burned
		1	complete	left		saw	
		1	complete	left			
	calcaneus	1	complete	left		cleaver, saw	
		1	complete	left	yes		
		1	distal end	left		cleaver	charred
	femur	1	distal, supracondyloid fossa	left			
		1	distal 1/4	right	yes	saw	
		1	head (ep only)		no	saw	
		1	head (ep only)		no		
		1	shaft mid-section			saw	1/2 in.
		1	shaft mid-section			saw	3/4 in.
		1	shaft mid-section			saw	1 in.
		1	shaft mid-section			saw	
	patella	1	complete	left			
	pelvis	1	ischium fg	left		cleaver	
		1	ilium mid-section			saw	1/2 in.
		1	ilium fg, acetabulum	left	yes	saw	
		1	acetabulum				broken
			acetabulum fg	right		saw	
	radius	1	proximal 1/3	left	no	saw	
			promimal end with epiphysis	left	yes	saw	
		1	shaft mid-section			saw	3 in.
	rib	1	blade fg			saw	1-1/2 in.
	tibia	1	distal 1/3 with epiphysis	left	yes	cleaver	
		1	distal 1/4	left	no	saw	
		1	shaft mid-section	right		knife, cleaver	6 in.
		1	shaft mid-section			cleaver, saw	3-3/4 in.
	thoracis vertebra	2	spinous process	axial		saw	
	lumbar vertebra	2	body with one transverse process	axial		saw	
	vertebra	1	spinous process	axial		saw	
		1	body fg	axial		saw	
		1	body fg	axial		cleaver	
		1	body fg	axial			broken

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epiphyseal Fusion	Butchering Marks	Comments[c]
Sus scofa	mandible	1	with molars, fg	right		cleaver	
	tooth	1	ca ne fg				
	tooth	2	incisor, complete				
		1	fg				
Ovis aries	scapula	1	complete	right	yes		
Gallus gallus	carpometacarpus	2	complete	right	yes		
		1	complete	right			broken
		4	complete	left	yes		broken
		1	fg	left	yes		broken
	coracoid	3	complete	right	yes		
		1	complete	left	yes		broken
		1	complete	left	yes		
		1	complete	left			
		1	distal 3/4	left			broken
		1	distal 2/3	right			broken
		1	proximal 1/2	right	yes		broken
	femur	1	complete	right	yes		
		1	distal 3/4	right	yes		broken
		1	distal 1/2	right	yes		broken
		1	distal end	right	yes		broken
		1	proximal 3/4	right	yes		broken
		1	proximal 1/2	right	yes		broken
		1	proximal 1/4	right	yes		broken
		1	distal 3/4	left	yes		broken
		1	distal 3/4	left			broken
		1	proximal 1/2	left	yes	broken/cleaver	
		2	proximal 1/2	left	yes		broken
	fibula	1	proximal	right	yes		
		1	complete	left	yes		broken
	furcula	1	symphysis	axial			broken
		2	fg				broken
	humerus	1	complete	right	yes	broken/cleaver	
		1	distal 3/4	right	yes		broken
		1	distal 2/3	right	yes		broken
		1	proximal 1/2	right	yes		broken

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epipyseal Fusion	Butchering Marks	Comments[c]
Gallus gallus (continued)	humerus	2	complete	left	yes		
		1	distal 3/4	left	yes	knife	
		2	distal 3/4	left	yes		broken
	pelvis	1	acetabulum	left			broken
		1	acetabulum fq				broken
		1	fq				broken
	phalange 1	1	complete		yes		
		3	complete				
	phalange 2	1	complete		yes		
	phalange	4	complete				
	radius	2	complete	right	yes		
		1	proximal 3/4	right	yes		broken
		2	proximal 1/3	right	yes		broken
		1	proximal 1/4	right	yes		broken
		1	distal 3/4	left	yes		broken
		1	proximal 1/4	left	yes		broken
		1	proximal 1/4		yes		broken
	scapula	2	proximal 1/2	right	yes		broken
		1	complete	left			
		1	proximal 3/4	left	yes		broken
		1	proximal 2/3	left	yes		broken
		1	proximal 1/2	left	yes		broken
		1	mid-section				broken
	sesamoid	1	complete				
	cranium	1	premaxilla fq	axial			broken
		1	occipital				broken
	sternum	2	fq	axial			broken
	tarsometatarsus	1	complete	right	yes		
		1	complete	right	no		no proximal epiphysis
		2	distal 1/2	right	yes		broken
		1	distal 1/3	right	yes		broken
		1	proximal 1/4	right	yes		broken
		1	trochlea	right	yes		broken
		2	complete	left	yes		broken
		2	complete	left	yes		
		2	distal 1/2	left	yes		broken
		1	proximal 1/3	left	yes		broken

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epipyseal Fusion	Butchering Marks	Comments[c]
Gallus gallus (continued)	tibiotarsus	1	complete	right	yes		
		4	distal 3/4	right	yes		broken
		1	distal 1/2	right	yes		broken
		1	distal 1/3	right	yes		broken
		1	distal 1/4	right			broken
		1	proximal 3/4	right	yes		broken
		1	complete	left	yes		
		1	distal 3/4	left			broken
		1	distal 1/4	left	yes	cleaver	
		1	proximal 3/4	left	yes		broken
		1	proximal 1/4	left	yes		broken
	ulna	3	complete	right	yes		
		1	distal 3/4	right			
		1	proximal 1/4	right	yes		broken
		1	complete	left	yes		
		1	distal 3/4	left	yes		broken
		1	proximal 1/3	left	yes		broken
	cervical vertebra	1	complete	axial			
		8	complete	axial			
	long bone	3	shaft mid-section				broken
		1	shaft mid-section				
Large mammal	femur	1	major trochanter fg	left		saw	
		1	shaft, distal mid-section		no	saw	
		1	distal, condyle				
	rib	1	proximal blade fg			cleaver	
		1	proximal blade fg				
		1	blade fg			saw	2-1/2 in.
		1	blade fg			saw	2 in.
		1	blade fg			saw	1 in.
		4	blade fg			saw	
	tooth	2	fg				
	vertebra	2	epiphysis fg	axial		saw	
		1	process	axial		saw	
		1	body fg	axial		cleaver	
		5	body fg	axial		saw	

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epipyseal Fusion	Butchering Marks	Comments[c]
Large mammal (continued)	long bone	1	shaft, distal, anterior fg				
		1	shaft mid-section fg			saw	1/2 in., burned
		2	shaft mid-section fg			saw	1/2 in.
		1	shaft mid-section fg			saw	1/4-1/2 in.
	unidentified	2	articular surface				
		7	fg			saw	
		2	fg			cleaver	
		1	fg				
Medium mammal	rib	1	proximal blade fg			saw	
	tooth	1	root fg				
	lumbar vertebra	1	body and one transverse process	axial		cleaver	
	vertebra	1	process	axial		saw	
		1	lumbar body fg	axial		saw	
		1	body fg	axial		saw	
		2	body fg	axial			
	long bone	1	shaft, anterior mid-section			saw	
		1	shaft, mid-section			saw	3/8 in.
		1	shaft, mid-section			saw	1/4 in.
Small mammal	lumbar vertebra	1	complete	axial			
Mammal	skull	1	mandible fg				
	vertebra	1	spinous process fg	axial		saw	
		1	body fg	axial			broken
	long bone	1	shaft mid-section fg			saw	1/2 in., burned
	unidentified	1	articular surface fg				broken
		3	fg			saw	
		1	fg				broken
		1	fg				charred
		16	fg				
Aves	coracoid	1	complete	left	yes		

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epipyseal Fusion	Butchering Marks	Comments[c]
Aves (continued)	femur	1	complete	right	yes		
		1	distal 3/4	right	yes		broken
		1	distal epiphysis fg	left			broken
		1	proximal 1/2	left			broken
	fibula	2	fg				broken
	humerus	1	proximal epiphysis fg	right			broken
		1	proximal epiphysis fg	left			broken
	pelvis	1	sacral fg	axial			
		1	fg	axial			broken
		1	fg			knife/cleaver	
		6	fg				broken
	phalange 2	1	complete		yes		
	phalange	4	complete		yes		
	rib	2	complete				
	cranium	1	frontal fg				
		1	eye orbital fg				broken
		1	fg				broken
		1	fg				
	tarsometarsus	1	proximal 1/2	right	yes		broken
	tibiotarsus	1	proximal 1/4	right	yes		broken
		1	shaft mid-section	right			broken
	ulna	1	complete	right			
		1	distal 1/2	right			broken
	vertebra	1	complete	axial			
		1	complete	axial			
		4	body fg	axial			
	long bone	1	epiphysis fg				broken
		10	shaft mid-section				broken
	unidentified	7	fg				broken

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epipyseal Fusion	Butchering Marks	Comments[c]
			Feature 4				
Bos taurus	femur	1	distal epiphysis fg	left		saw	
		1	head	left	no		
		1	shaft mid-section			saw	3/4 in.
		1	shaft mid-section			saw	1/2 in.
		1	shaft mid-section			saw	
	pelvis	1	acetabulum (ilium)	right		saw	
	rib	3	blade fg			saw	2-1/2 in.
	tarsal	1	complete				
	ulnar carpal	1	complete	right			
	lumbar vertebra	9	body and one transverse process	axial		saw	
	vertebra	1	body fg	axial		saw	
		1	body fg	axial			
Sus scrofa	astragalus	1	complete	right			
	femur	1	shaft distal mid-section		yes	saw	1/2 in.
	fibula	1	distal	left		saw	
		1	shaft	left		saw	
	patella	1	complete	left			
	long bone	2	shaft mid-section			saw	1/4 in.
		1	shaft mid-section			saw	
Ovis aries	pelvis	1	pubis	left		cleaver	
	ulna	1	proximal 1/2	left		knife	
Gallus gallus	carpometacarpus	1	complete	left	yes		
	coracoid	1	complete	right	yes		
		1	complete	right	yes		broken
		1	complete	left	yes		
	cranium	1	occipital, parietal, and frontal		yes		

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epipyseal Fusion	Butchering Marks	Comments[c]
Gallus gallus (continued)	femur	1	complete	right	yes		
		1	complete	left	yes		
	fibula	1	proximal 1/4	right	yes		broken
		1	complete	left	yes		
		1	proximal 1/2	left	yes		
	farcula	1	complete	axial	yes		broken
		1	ramus	left			broken
	humerus	1	complete	right	yes		
		1	distal 1/2	right			broken
		1	complete	left	yes		
	mandible	1	fg				
	maxilla	1	fg				
	pelvis	1	fg	axial			
		6	fg		yes		broken
	phalange	12	complete		yes		
	radius	1	complete	right			
		1	distal 1/2	right	yes		broken
		1	complete	left	yes		
		1	distal 1/2	left	yes		broken
	rib	2	complete		yes		broken
		5	complete		yes		
		1	blade fg		yes		broken
		6	blade fg				
	scapula	1	complete	right	yes		
		1	complete	left	yes		
		1	proximal 1/2	left			broken
	sesamoid	6	complete				broken
	sternum	1	fg	axial	yes		
		6	fg		yes		broken
	tarsometatarsus	1	complete	right	yes		
		1	diaphysis	right	no		
		1	complete	left	yes		

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epipyseal Fusion	Butchering Marks	Comments[c]
Gallus gallus (continued)	tibiotarsus	1	complete	right	yes		
		1	distal 3/4	right	yes		broken
		1	proximal 1/4	right	yes		broken
		1	complete	left	yes		
	ulna	1	complete	right	yes		
		1	distal 1/2	right			broken
		1	proximal 1/2	right	yes		broken
		1	complete	left	yes		
	thoracic vertebra	1	fg				broken
	vertebra	13	complete	axial			
	long bone	1	diaphysis, no epiphysis		no		
		1	diaphysis		no		
Large mammal	pelvis	1	fg			cleaver	
	rib	1	blade fg			saw	2-3/4 in.
		1	blade fg			saw	
	caudal vertebra	1	body fg	axial		saw	
	vertebra	3	epiphysis fg	axial		saw	
		1	epiphysis fg	axial			
		2	body fg	axial		saw	
	long bone	1	shaft mid-section			saw	1/4 in.
		1	shaft mid-section			saw	
	unidentified	2	fg				
Medium mammal	pelvis	1	fg		no	cleaver	
	rib	1	proximal 1/2		no		2 in.
		1	proximal 1/2		no		broken, 3-1/2 in.
		1	proximal 1/3		no	cleaver	1-1/2 in.
		1	proximal 1/3		no	cleaver	3 in.
		1	proximal blade fg			saw	3 in.
		1	blade fg			saw	3 in.
		1	blade fg			saw	2 in.
		1	blade fg				1-1/2 in.

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epipyseal Fusion	Butchering Marks	Comments[c]
Medium mammal (continued)	scapula	1	blade fg				
	vertebra	1	spinous fg	axial			broken
		2	epiphysis fg	axial		saw	
		2	epiphysis fg	axial			
		2	epiphysis fg			saw	
		2	body fg	axial		saw	
		1	body fg	axial			
	bone	1	fg			saw	
Mammal	vertebra	2	body fg	axial			
	long bone	1	shaft fg			saw	
	unidentified	1	fg			saw	
		2	fg			cleaver	
		1	fg				
Aves	fibula	1	proximal 1/3		no		broken
	humerus	1	diaphysis, no epiphysis	right	no		
		1	diaphysis, no epiphysis	left	no		
	pelvis	4	fg				broken
	phalange	2	complete				
	rib	1	complete				
		1	blade fg				broken
		1	blade fg				
	sternum	1	fg	axial			broken
	tarsometatarsus	1	complete	right	no		
		2	diaphysis, no epiphysis		no		
	ulna	1	distal 1/4	right	yes		broken
	long bone	5	shaft mid-section				broken
		1	shaft mid-section				
		1	diaphysis, no epiphysis		no		broken
		5	diaphysis, no epiphysis		no		
		1	diaphysis, no epiphysis				

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epipyseal Fusion	Butchering Marks	Comments[c]
Aves	unidentified	2	complete		yes		
		2	fg		no		
		11	fg				broken
		9	fg				
Rodentia	mandible	1	complete, 1 tooth	right			
		1	incisor with fragment	left			
	tooth	1	incisor, complete				
	tooth	1	complete				
	tooth	2	root				
			Feature 2				
Bos taurus	carpal	1	complete			knife	
		1	complete				
	humerus	1	distal shaft	left	no	saw	
	patella	1	fg	left		cleaver	
	pelvis	1	ilium fg	left	no	saw	
	rib	1	proximal 1/3		no	saw	4-1/2 in.
		2	proximal 1/4			cleaver	3-1/2 in.
		1	proximal 1/4			knife-cleaver	3-1/2 in.
		1	proximal blade fg			saw	3-1/4 in.
		1	distal end blade fg			saw	4-1/2 in.
		1	blade fg			saw	4-1/2 in.
		1	blade fg			saw	3 in., broken 1 end
		2	blade fg			saw	2-1/2 in., broken 1 end
		1	blade fg			saw	2 in., broken 1 end
		1	blade fg			saw	2-1/2 in.
		1	blade fg			saw/knife	2 in.
	scapula	1	glenoid cavity	right	yes	saw	
	ribia	1	shaft mid-section fg			saw	4-1/2 in.
	atlas vertebra	1	1/2	axial		cleaver	
	cervical vertebra	1	body fg	axial		cleaver	

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epiphyseal Fusion	Butchering Marks	Comments[c]
Bos taurus (continued)	lumbar vertebra	1	body and one transverse process	axial		saw	
		1	body and spinous process	axial		saw	
		1	transverse process	axial		saw	
		1	body fg	axial		saw	
		1	fg	axial		saw	
	vertebra	8	body fg	axial		saw	
	sacrum	1	body fg	axial	no	saw	
		1	body fg	axial		saw	
	long bone	1	shaft fg				
Sus scrofa	femur	1	distal shaft mid-section, no epiphysis	left	no	knife/saw	2 in.
		1	proximal shaft mid-section	right		knife/saw	2 in.
	humerus	1	distal 1/4 with epiphysis	left	yes	saw	
	sternum	1	xiphoid process	axial		knife	
	ulna	1	complete	right	yes		broken
Gallus gallus	coracoid	1	complete	right	yes		
	femur	1	complete	right	yes		
	tarsometatarsus	1	shaft				broken
	ulna	1	complete	right	yes		
		1	complete	left	yes		distal end broken
Large mammal	vertebra	2	body fg	axial		saw	
	unidentified	1	fg			saw	
		1	fg				
Medium mammal	scapula	1	proximal blade	left	no		very young animal
		1	blade fg			saw	
	rib	1	blade fg			cleaver	3-1/2 in.
		1	blade fg			saw	2 in., broken 1 end

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epipyseal Fusion	Butchering Marks	Comments[c]
Medium mammal (continued)	ulna	1	olecranon fg			saw	
	thoracic vertebra	1	spinous process	axial		saw	
	vertebra	1	epiphysis fg	axial		saw	
		2	body fg	axial		saw	
	long bone	1	shaft mid-section			saw	1/4 in.
	unidentified	1	articular surface			saw	
Mammal	unidentified	2					broken
Aves	rib	1	complete				
	long bone	2	shaft mid-section				broken
			Feature 8				
Mammal	long bone	1	shaft fragment				broken, burned
			Feature 9				
Sus scrofa	tibia	1	diaphysis	right	no		4 in.
	ulna	1	proximal 1/4	right		saw	proximal end not fused
Large mammal	humerus	1	proximal epiphysis fg			saw	
	unidentified	1	fg			saw	
		1	fg				
	unidentified	1	fg				
			Feature 10				
Gallus gallus	tarsometatarsus	1	distal 3/4	right			broken
	rib	1	blade fg			saw	1-1/2 in.
	long bone	1	shaft mid-section			saw	1/2 in.
			shaft fg			cleaver	

TABLE 20 *continued*

Taxa[a]	Anatomy	Number	Fragment Description[b]	Side	Epipyseal Fusion	Butchering Marks	Comments[c]
			Feature 11				
Bos taursus	femur	1	head fg		no		broken
Gallus gallus	radius	1	complete	right	no		
Aves	radius	1	proximal 2/3	right	yes		broken
			Feature 17				
Bos taurus	femur	1	shaft mid-section			saw	1/2 in.
	humerus	1	shaft mid-section			saw	3 in.
	pelvis	1	fg			saw	
	rib	1	blade fg			saw	3 in.
	cervical vertebra	1	body fg	axial		saw	
	vertebra	1	body fg	axial		cleaver/saw	
		1	body fg	axial		saw	
Sus scrofa	humerus	1	shaft mid-section			saw	1/2 in.
	tooth	1					
Ovis aries	phalange 1	1	complete				proximal end not fused
Rodentia	scapula	1	complete	right	yes		
	skull	1	complete				
	vertebra	1	complete	axial			

[a] Bones were identified to lowest taxa possible. Large mammal refers to animals the size of cows, medium mammal refers to animals the size of pigs or sheep, small mammal refers to animals smaller than above; mammal refers to a mammal of undetermined size.

[b] Complete indicates complete or nearly complete.

[c] Measurements are approximations only and were taken if bone was cut through at both ends. A bone section was measured longitudinally from butchered end to butchered end. Broken implies a clean break, not necessarily a green bone break.