ARCHAEOLOGICAL INVESTIGATIONS AT THE BOX PLANT SITE, HENRY COUNTY, VIRGINIA

R. P. Stephen Davis, Jr., Jane Eastman, Thomas O. Maher, and Richard P. Gravely, Jr.

Research Report No. 13
Research Laboratories of Anthropology
The University of North Carolina at Chapel Hill

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ACKNOWLEDGMENTS

The archaeological excavation of the Box Plant site, undertaken intermittently between 1964 and 1973, was a collaborative effort by members of the Patrick-Henry Chapter of the Archeological Society of Virginia, and was directed by the late Richard P. Gravely, Jr. of Martinsville, Virginia. In addition to participating in the excavations, Gravely took notes describing the work done, the archaeological features encountered, and the artifacts found. He also maintained the field notes and artifact collections until 1983 when they were donated to the Research Laboratories of Anthropology at The University of North Carolina at Chapel Hill. It is fair to say that this report, and our present understanding of the Box Plant's place in the late prehistory of the Smith River valley, would not have been possible without Dick Gravely's efforts and dedication. Consequently, he is included posthumously as a co-author in recognition of his significant contribution, both through his extensive field notes and his interpretative statement (presented as an Appendix), to our understanding of the prehistoric community at Box Plant.

This site report was made possible because of a research grant from the Virginia Department of Cultural Resources. We want to thank Dr. Catherine Slusser and Mr. Keith Egloff of that office for supporting this project and also for recognizing the important contribution that extant collections from sites like Box Plant can make toward furthering our understanding of the past.

Several individuals besides the authors contributed indirectly to this report. First, we wish to acknowledge Brenda Moore of the Research Laboratories of Anthropology for her capable assistance in administering the grant. Bryan Shanks supervised the re-cleaning of artifact collections and also sorted, classified, and computer-coded all analyzed pottery from the site. Student research assistants who aided in the re-cleaning and preliminary sorting of collections prior to analysis include: Lindsay Frallic, Molly Herrmann, Sarah Hopton, April Hughes, Jessica LaMarro, Katherine McGhee-Snow, Carmen Morgan, and Matt West. Sarah Hopton and Katherine McGhee-Snow also assisted with some of the illustrations. Amber Vanderwarker helped identify the species and elements represented in the bone-artifact assemblage. Finally, we wish to thank Mr. Howard A. MacCord, Sr. for his helpful and welcome critique of an earlier version of this report.

ABSTRACT

Between 1964 and 1973, the Patrick-Henry Chapter of the Archeological Society of Virginia conducted archaeological salvage excavations at the Box Plant site (44Hr2), a late prehistoric Indian village site of the Dan River phase located on Smith River near Martinsville, Virginia. These investigations discovered almost 100 archaeological features and recovered over 29,000 artifacts. While little is known of the village structure, or whether multiple villages are represented, the artifacts found suggest a comparatively short site occupation. These artifacts and the contexts in which they were found are described, and their significance to our understanding of the Dan River culture is considered.

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INTRODUCTION

The Box Plant site (44Hr2) represents a late prehistoric Indian village of the Dan River phase. It is on the right bank of Smith River in Henry County, Virginia, about a mile below the Martinsville power plant dam and U.S. 220 bridge (Figure 1). The site is on a high, well-drained, alluvial terrace, and it extends along the river bank for about 600 ft and back from the river bank at least 200 ft (Figure 2). The Box Plant site was excavated on five occasions between 1964 and 1973 by the Patrick-Henry Chapter of the Archeological Society of Virginia, under the direction of Richard P. Gravely, Jr. On each occasion, this work was undertaken to mitigate the site's impending destruction by industrial development. At present, the site area has been completely covered (and likely destroyed) by two large buildings and accompanying parking lots owned by Koger/Air Corporation, a shopping center, and other commercial developments.

All field notes and most artifacts recovered from the excavations were curated by Mr. Gravely until 1983 when they were donated to the Research Laboratories of Anthropology at the University of North Carolina at Chapel Hill. The field notes are incomplete, especially for the earlier excavations, and the site was never mapped; consequently, it is not possible to correlate spatially the various excavation areas or even locate many of the archaeological features that were identified. Excavation plans have been compiled for some excavation areas, based upon sketches and descriptions of feature locations in the field notes. Although the artifact collection from the Box Plant site is sizable, only the artifacts from the 1973 fieldwork are separated by excavated context. The majority of the over 29,000 artifacts from the site comprise a general, unprovenienced collection.

ENVIRONMENTAL SETTING

Physiography and Topography

Henry County is located in the western Piedmont of Virginia, in the rolling foothills that flank the eastern edge of the Blue Ridge. The Piedmont geomorphological province has been described as "broadly undulating or rolling topography whose relief is increased locally by low knobs or ridges and valleys 50 to 300 feet deep" (Thornbury 1965:88). The easternmost ridges of the Blue Ridge mountains lie 25-30 mi to the north and west. The southern portion of the Blue Ridge province is a mountainous upland of substantial width (80 mi in the Asheville, North Carolina area), with a prominent scarp or crest ranging from 2,500 ft to 4,000 ft in altitude (Thornbury 1965:100-103). Henry County is traversed north to south by Smith River in the Roanoke River upper drainage system. Smith River flows southward for about 18 mi, emptying into the Dan River at Eden, North Carolina. The area of Henry County just west of the Smith River valley is drained by the north and south forks of the Mayo River which also flow south into the Dan River at Mayodan, North Carolina. Major tributary streams of Smith River include Town Creek, Reed Creek, Beaver Creek, Marrowbone Creek, and Leatherwood Creek. Mulberry Creek joins Smith River about 2.5 mi below the Box Plant site.

The Box Plant site is on the southwest bank of Smith River in a narrow portion of the alluvial terrace which stretches about 5,000 ft southeast from the old Martinsville power plant

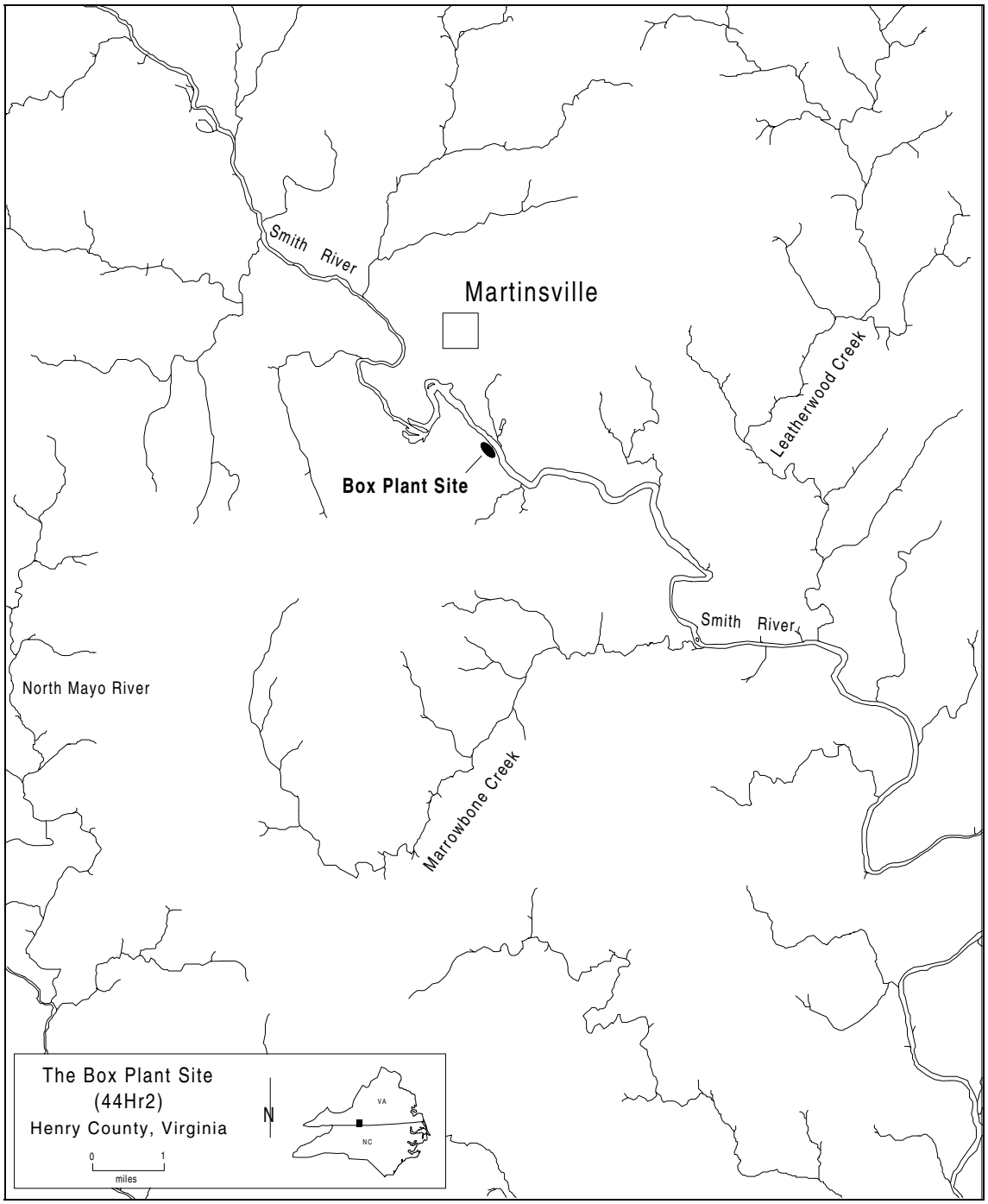

Figure 1. Map of the Smith River valley near Martinsville showing the location of the Box Plant site (adapted from Martinsville, VA-N.C. 15-minute quadrangle, U.S. Army Corps of Engineers, 1944).

dam. This segment of bottomland lies between the river and U.S. 220, a divided four-lane highway. The southeastern end of the terrace is truncated by a sharp southward bend in the river. According to Gravely (Appendix 1), there is a small, unnamed spring to the southwest of the site that flows under the highway, across the lower end of the site, and empties into the river. Ridges along both sides of the Smith River valley at this location contribute to the impression of a narrow river valley bounded by low rolling hills.

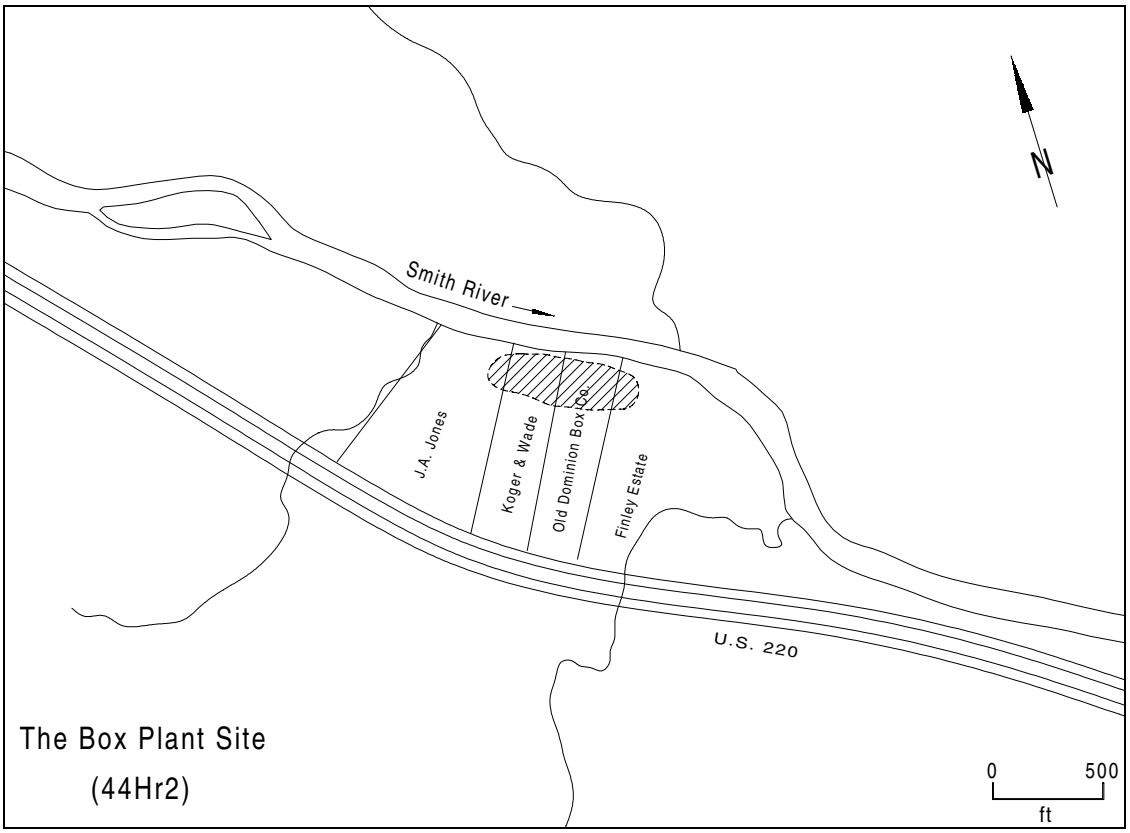

Figure 2. Map of the Box Plant site showing its approximate limits and land ownership during early investigations at the site.

Along the edge of the river is a narrow, active floodplain about 10-15 ft wide and only a few feet above normal water-level. About eight to ten feet above this floodplain is an older and much broader alluvial terrace which forms the valley floor. The front edge of this terrace has a low sandy ridge or levee, and the terrace surface slopes gradually away from this levee. Gravely observed that most artifacts and archaeological features found at the site appeared to be concentrated along this terrace levee (see Appendix 1).

Geological Resources

The drainage in the Piedmont province is not generally dictated by its underlying lithic structure, but there are localized exceptions (Thornbury 1965:88). Much of Henry County appears to be underlain by metamorphosed sedimentary rocks (e.g., schist, gneiss, etc.) of an uncertain age (Calver and Hobbs 1963). In the Martinsville area there are also outcrops of hornblende, gabbro, and gneiss (e.g., amphibole chlorite schist, chlorite hornblende gneiss, etc.), and Leatherwood granite (biotite muscovite granite). The headwaters of Smith River extend north and west into the Lynchburg formation, which is characterized by phyllite, quartzite, quartz graywacke, and conglomerate. Although specific sources have not been identified, much of the quartz, quartzite, and granitic stone used for lithic tools at this site could have been collected from stream beds in the Henry county area or along the Blue Ridge escarpment to the west. Most of the metavolcanic rock (including rhyolite), used in making many of the chipped-stone

tools found at the site, probably came from sources to the south in piedmont North Carolina (see Daniel and Butler 1996). Chert-bearing limestone formations are found west of the Blue Ridge escarpment in the Ridge-and-Valley province of Virginia and Tennessee (Thornbury 1965:113).

Floral and Faunal Resources

The site area lies in Shelford's (1963:19, 56-62) Temperate Deciduous Biome of the southern region of North America and Braun's (1950:259-267) Atlantic slope section of the Oak-Pine forest region. However, as Holm (1994:34, 172) has pointed out, the typical description of the Piedmont as covered in climax oak-hickory forests during prehistory does not take into account that Native Americans were actively modifying their environment. In particular, Native Americans used fire both to clear fields and to increase browse areas for their primary mammalian prey, white-tailed deer. In light of research by Gremillion (1989:131-141), Holm (1994) has presented a partial reconstruction of the faunal resources that would have been available in the Piedmont region during the late prehistoric and early contact periods.

By late prehistoric times (after about A.D. 1000), most Indians living in the Piedmont were active agriculturists. They prepared fields where they planted maize, squash, gourd, and beans. They also continued an earlier tradition of using indigenous cultigens such as sunflower, goosefoot, sumpweed, and maygrass. Once the fields were harvested, mice and moles frequented the fallow fields. As broomsedge became common, rats, shrews, cottontail rabbits, and bobcats took up residence (Holm 1994:36). In scrub communities (mixed pine and hardwood forests but lacking a canopy layer), one would find "short-tailed shrews, white-footed mice, gray squirrels, southern flying squirrels, eastern chip monks, gray foxes and raccoons" (Holm 1994:36). Beavers, muskrats, minks, and river otters preferred floodplain forests which were characterized by tree canopies of "swamp chestnut oak, overcup oak, willow oak, swamp Spanish oak, sweet gum, swamp red oak, hickory, and elm" (Holm 1994:36-37). On the other hand, opossum, raccoons, weasels, and white-tailed deer seem to prefer primarily upland mixed hardwood forests but also pine forests (Holm 1994:37). With the exception of some species such as wolf, bear, and passenger pigeon which are either extinct or drastically reduced in number, the same diversity of animal species found today were exploited in late prehistory. The location of the Box Plant site along the Smith River obviously meant that aquatic resources, such as fresh-water fish, turtle, amphibians, and shellfish, were available to the residents. In fact, a well-preserved, V-shaped, rock fish weir or fish dam (44Hr54) in located in the Smith River at the downstream end of the site and probably was used by the Box Plant site inhabitants.

Gremillion's (1989:148) research into floral resources of the Piedmont region indicates that mature Oak-Hickory-Pine forests probably were the least productive in terms of plant-food resources for late prehistoric and historic Indian living in this area. She argues that, in addition to the aforementioned cultivated plants, there is evidence for arboriculture among southeastern Native American groups. Ethnohistoric sources indicate that species such as persimmon, honey locust, Chickasaw plum, red mulberry, shellbark hickory, and black walnut may have been intentionally cultivated. In general, Gremillion believes that edge environments and intentionally disturbed areas were intensively exploited by Native American peoples. When these disturbed habitats were not naturally available, Native Americans created them using fire or other clearing methods (Gremillion 1989:166-167). Although there was seasonal variation in resource availability, the Piedmont region in both Virginia and North Carolina was characterized by a diversity of plant and animal foods that could be exploited year-round.

SITE HISTORY AND RESEARCH OBJECTIVES

The Box Plant site was first reported in the archaeological literature by Clifford Evans (1955) in *A Ceramic Study of Virginia Archeology*. Evans called it the Martinsville site and used a small sample of surface-collected potsherds, donated by Loy C. Carter, to characterize the prehistoric pottery of the upper Dan River drainage. The site was officially recorded as 44Hy2 (later re-designated 44Hr2) in the Virginia site files by Howard A. MacCord in 1964. He noted that the site had been designated the Smith-Finley site by Richard P. Gravely, Jr., who at the time was directing an archaeological dig there by the Patrick-Henry Chapter of the Archeological Society of Virginia (MacCord 1964). The site's present name—the Box Plant site—is derived from the Old Dominion Box Company whose plant was situated on the edge of the site in the 1960s.

When the Patrick-Henry Chapter began its excavation in April 1964, the Box Plant site already had been subjected to extensive looting and was being threatened by industrial development. According to Gravely (n.d.a.), "it was obvious that the site would be completely destroyed in a very short time" and therefore they "undertook a salvage excavation to recover as much as possible of the information from the site before it was irretrievably lost." By the end of the following October when excavation ceased, much of the site had been stripped of its topsoil for use as fill dirt at a nearby service station. Field notes indicate that at least 14 archaeological pit features (identified as "middens") were excavated from 11 contiguous 5x5-ft squares. These notes also suggest that the fieldwork occurred somewhere on the eastern half of the site (designated Area A and now covered by a shopping center and parking lot). Because all of these recorded features were removed during a six-day period in August, it is likely that numerous other archaeological features were excavated between April and October for which no field notes exist. A sketch map shows that these features were clustered, but there is no way to identify the specific artifacts that were removed from them, nor is it possible to determine where they were located within the site (Figure 3).

A second excavation was undertaken during four days in December 1965. Six pit features and three looter's pits, or potholes, were uncovered within six contiguous 5x5-ft excavation units (Figure 4). As with the 1964 fieldwork, this excavation also likely took place on the eastern half of the site (Area A); however, it is not possible to correlate specific artifacts with the excavated features and we cannot locate the excavation within the site.

A more extensive excavation on the eastern half of the site (Area A) was undertaken during late November and December of the following year (1966). This excavation removed at least 30 archaeological features from an unknown location or locations. As with the earlier efforts, provenience was not maintained for any of the artifacts found. The 1966 excavation also was the only one for which written descriptions of excavated features and a sketch map of the excavation area do not exist.

In September 1969 Richard Gravely salvaged a burial pit at the southeastern edge of the site. This archaeological feature was exposed and partially destroyed during excavation of a deep drainage ditch. By this time, all but the western edge of the site had been destroyed or covered by commercial development, and a new road (Rives Road) and bridge had been constructed across the eastern part of the site.

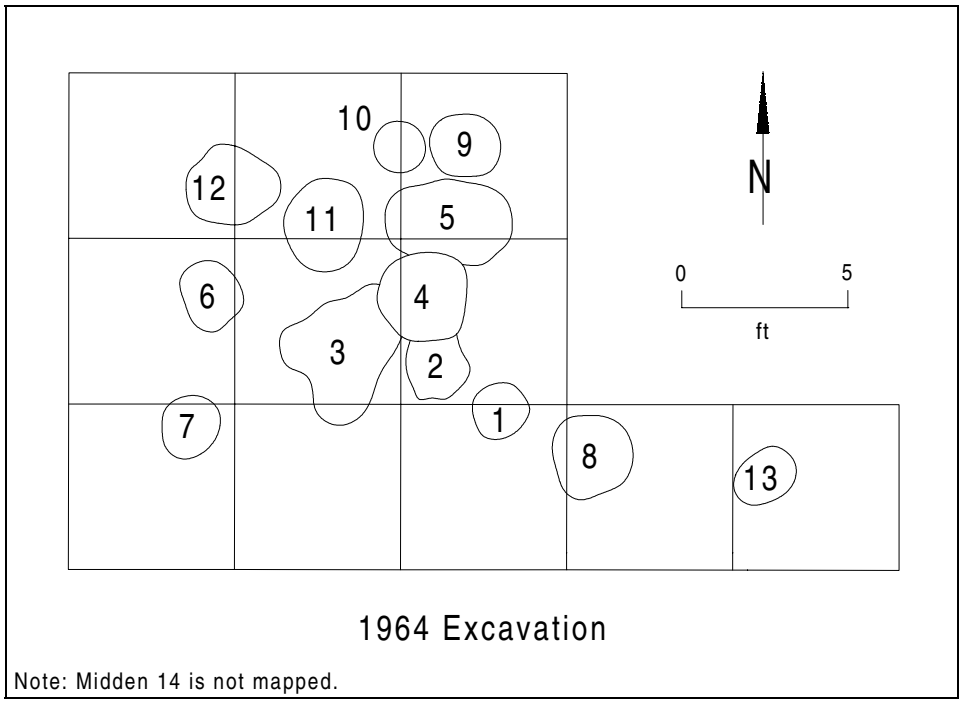

Figure 3. Sketch map of an area excavated in 1964.

The final archaeological fieldwork occurred between August and November of 1973 at the western edge of the Box Plant site, designated Area B. As with all previous activities, these excavations were undertaken in response to further destruction of the site by commercial development. By the time the Patrick-Henry Chapter began its excavation, most of the topsoil had been stripped from the site area for construction of a skating rink. So as not to interfere with construction, fieldwork was limited to the edge of the skating rink property. Thirty-three features were excavated; and nine additional features subsequently were excavated just across the fence line on property owned by Koger and Wade (now Koger/Air Corporation). Unlike previous work at the site, sketch maps, measured coordinates, and fairly detailed descriptions exist for most of the excavated features, and the proveniences of the artifacts found in those features were generally maintained (Figure 5).

FIELD AND LABORATORY METHODS

While detailed descriptions of field methods are lacking in the notes, sketch maps of the various excavations suggest that a grid was used and that the excavators worked in 5x5-ft units to remove topsoil and expose the tops of archaeological features. Artifacts occurring in the topsoil were not systematically collected and it is unlikely that they were bagged separately by excavation unit. The backdirt removed from a unit usually was shoveled into an adjacent, previously excavated unit.

Once the top of a feature was exposed, it was promptly excavated using trowels and shovels (Figure 6). The field records do not indicate that any feature fill was screened; rather, it is likely that the soil was trowel-sorted. Pit stratigraphy and artifact concentrations were

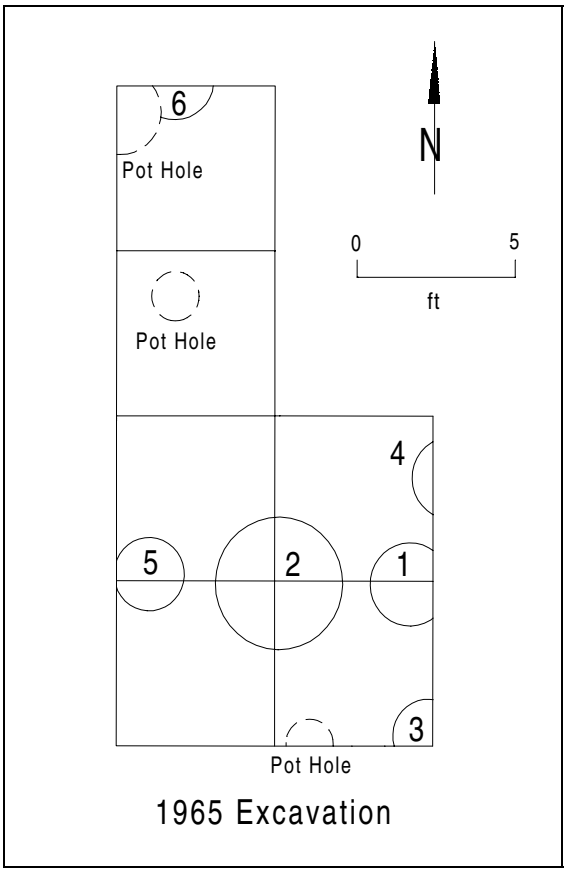

Figure 4. Sketch map of an area excavated in 1965.

noted in the excavation records, but features apparently were not excavated by fill zones. Artifacts were bagged separately by feature, and charcoal (when it occurred in sufficient quantity) was collected as a potential radiocarbon-dating sample. Once a feature was completely excavated, its final diameter and depth was measured and a sketch of its profile was drawn.

Richard Gravely, as project director, assumed primary responsibility for keeping field notes, including all observations about excavated features. He also was responsible for cleaning, organizing, and maintaining all artifacts and associated field notes that resulted from the excavations. While it is almost certain that some artifacts were kept by the various volunteer excavators who dug at the site, the written policy of the Patrick-Henry Chapter specified that "artifacts recovered on Chapter digs. . .should be retained by the Site Director until they can be placed in a suitable public repository" (Patrick-Henry Chapter n.d.).

It is unclear as to when the bulk of the artifacts excavated between 1964 and 1966 lost their provenience information and got lumped together by artifact class. It likely occurred following artifact cleaning and during the writing of the summary report on the early excavations (see Appendix 1). This summary report exhibits two fundamental perspectives: (1) it views the site as representing a single village occupation; and (2) it is artifact-oriented, providing detailed descriptions of the various classes of artifacts found. The first perspective probably reduced the

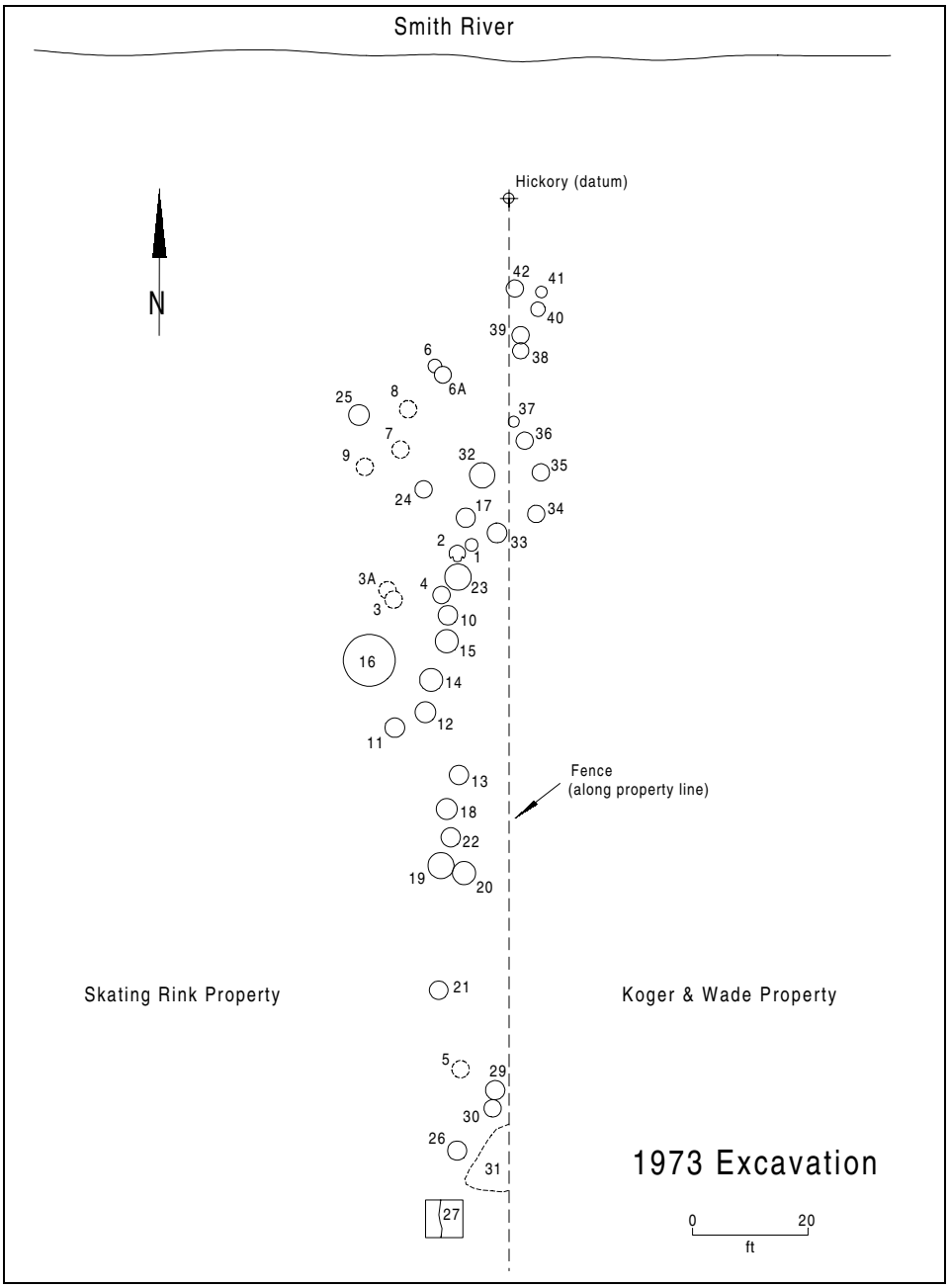

Figure 5. Map of the western edge of the Box Plant site showing archaeological features excavated in 1973.

concern for keeping artifacts separated by context while the second actually would have been facilitated by lumping these artifacts together by type. The preservation of provenience information for the 1973 material is due to the fact that it was never studied and written up.

After the Box Plant site collection was donated to the Research Laboratories of Anthropology in 1983, all artifacts were re-cleaned, assigned catalog numbers by provenience (when it existed), and labeled.

Figure 6. View of archaeological features excavated during the 1973 field season.

EXCAVATION RESULTS

Site Stratigraphy

Soil stratigraphy at the Box Plant site is fairly straightforward. The soil is Colvard fine sandy loam, a very deep, well-drained, loamy-textured soil that occurs along the Smith River floodplain; however, it is presently classified as udorthents, or urban land, because of the impact of industrial development here (USDA, Natural Resources Conservation Service n.d.). The uppermost foot of soil at the site comprised a plow zone which had been disturbed and mixed by cultivation. It was a deep black sandy loam that contained large quantities of artifacts plowed from the tops of archaeological features. It probably also contained artifacts and soils that once comprised a village midden that subsequently was completely eradicated by plowing. Because of the large numbers of artifacts in the plow zone, the site was well known by relic hunters as a good place to surface-collect artifacts. All archaeological features were visible at the base of the plow zone.

The plow zone was underlain by a zone of light brown sand which was about 1.5 ft thick. Beneath this light brown sand, at about 2.5 ft below the surface, was a bed of hard, sandy, red clay and pebbles. Except for the archaeological features that intruded these soils, they were sterile and did not contain artifacts.

Site Structure

Very little is known about the structure of the Box Plant site. Although the large quantities of artifacts and archaeological features found at the site suggest that it probably was a

sizable village (or villages), no postholes, palisades, or other architectural features were observed by the excavators other than two modern "house" patterns in Area B which they attributed to earlier use of the site area as a golf driving range. Consequently, we do not know if the site represents a single village or multiple villages, if those villages were palisaded, how the houses were constructed, or how the houses were arranged. The very large size of the site, extending along the river about 600 ft and back from the river about 200 ft, suggests that it probably represents multiple villages. Two other palisaded Dan River phase villages located nearby—the Belmont (44Hr3) and Koehler (44Hr6) sites—are 200 ft to 250 ft in diameter and roughly circular in configuration. If two villages are represented, the similarity in artifact assemblages found in Area A and Area B suggest that they are not separated by a great amount of time.

Given the method of excavation (with a focus upon identifying and excavating archaeological features) and the sandy character of the sub-plow zone soil, it is not particularly surprising that postholes were not observed. Also, it is possible that much of the architectural evidence at the site was obliterated by plowing.

Descriptions of Features

Descriptions exist for 63 archaeological features excavated in 1964 (designated Midden 1 to Midden 14), 1965 (undesignated in the field notes but designated here as Pit 1 to Pit 6), and 1973 (designated TP-B1 to TP-B42, with "TP" indicating trash-filled pit and "B" indicating that they were found in Area B of the site). These are presented below. Although observations about pit shape and probable pit function vary between field seasons, some generalizations can be made about the archaeological features found at the Box Plant site. About one-half of all excavated features (for which information is available) were probable storage pits. Most of these were cylindrical and usually had depths and diameters which exceeded about 2.0 ft. An almost equal number had flat and rounded bottoms. A few large, bell-shaped storage pits also were found. Most of the remaining features were roughly circular or oval pits which had bowl-shaped or basin-like profiles. Some of these were quite deep and probably also were storage pits, while others were relatively shallow and may have been used in some other manner. Finally, three features represent depressions that apparently filled with village midden and one feature (TP-B16) was a large, shallow, circular pit that may have served as a roasting facility. All but a few of the features found at the Box Plant site contained moderately rich deposits of midden and discarded refuse; however, the excavation records do not permit much insight into the stratigraphy or structure of these deposits which might allow behavioral interpretations about how they were filled.

Sketch maps of these three excavations are shown in Figures 3, 4, and 5. Unfortunately, the field notes do not contain information about the features found in 1966 other than a list which suggests that at least 30 features were excavated.

Midden 1. Midden 1 was a straight-sided storage pit with a flat bottom that measured 1.5 ft in diameter and was 2.5 ft deep. It contained ashes, burned red and gray clay, mussel and periwinkle shell, animal bone, pottery, a pipe-bowl fragment, a broken polished celt, and a notched awl made from a turkey metatarsal bone.

Midden 2. This was a straight-sided storage pit with a rounded bottom and measured 2.0 ft in diameter by 3.0 ft in depth. Middens 2, 3, and 4 are described in the field notes as an

"irregular midden" and apparently were excavated together. They contained ash, burned clay, mussel and periwinkle shell, much animal bone (including a section of deer antler and four tines, one of which had a groove around it), two chipped-stone projectile points, a chipped-stone drill, greenstone flakes, a bone fishhook blank, a section of a clay pipe stem, a broken ground-stone axe, and a sandstone whetstone.

Midden 3. This was a large, irregular, refuse-filled depression that was intruded by Midden 4 (see description for Midden 2). It measured roughly 3.3 ft in diameter and was 1.8 ft deep.

Midden 4. Midden 4 was a large, bell-shaped storage pit with a flat bottom that measured 3.0 ft in diameter at the top, 3.5 ft in diameter at the bottom, and 4.2 ft in depth. It intrudes Middens 2, 3, and 5 (see description for Midden 2).

Midden 5. This was a probable storage pit with inward-sloping sides and a rounded bottom. It measured 3.0 ft in diameter at the top and was 2.5 ft deep. Midden 5 contained shell, animal bone, considerable pottery, three chipped-stone projectile points, a small bone fishhook blank, a small pointed bone awl, and a complete turtle carapace. Several stones also were found along one side of the pit.

Midden 6. Midden 6 was a straight-sided pit with a rounded bottom, and measured 1.7 ft in diameter by 2.2 ft in depth. It contained shell, animal bone, and pottery. A concentration of charcoal was found at the pit bottom.

Midden 7. This was a straight-sided pit with a flat bottom, and measured 1.4 ft in diameter by 3.0 ft in depth. It was filled with black humus and several concretion spheres described in the field notes as being about two to four inches in diameter. A small clay pipe with a squared bowl was found at the bottom of the humus layer.

Midden 8. Midden 8 was a pit with inward-sloping sides and a rounded bottom. It measured 2.1 ft in diameter by 2.3 ft deep, and it contained pottery, animal bone, and shell.

Midden 9. This pit had inward-sloping sides, a rounded bottom, and measured 2.0 ft in diameter and 2.0 ft in depth. It contained pottery, animal bone, shell, and a small chipped-stone projectile point or drill.

Midden 10. This pit measured 2.0 ft in diameter by 2.0 ft in depth and had inward-sloping sides and a pointed bottom. It contained pottery, animal bone, shell, a clay pipe stem fragment, a large section of deer antler (in poor condition), and one chipped-stone drill.

Midden 11. Midden 11 was a basin-shaped pit with a rounded bottom. It measured 2.5 ft in diameter by 1.3 ft in depth, and it contained pottery, animal bone, shell, the bowl of a clay spoon, and a bone pin.

Midden 12. Midden 12 was a straight-sided pit with a rounded bottom and measured 2.0 ft in diameter by 1.8 ft in depth. It contained animal bone, shell, and numerous large pottery fragments.

Midden 13. This straight-sided pit had a rounded bottom and measured 2.0 ft in diameter by 2.0 ft in depth. It contained animal bone, shell, and. pottery.

Midden 14. This was a straight-sided storage pit with a flat bottom. It was 2.5 ft in diameter, 3.7 ft deep, and filled with black and dark gray ashy soil. It contained pottery, a few animal bone fragments, two chipped-stone projectile points, a chipped-stone scraper, and a section of a heavy clay pipe stem.

Pit 1. This pit was 2.5 ft in diameter by 2.5 ft deep. It contained considerable mussel and periwinkle shells, some animal bone (deer, bird, turtle, and fish), a small amount of charcoal, and potsherds.

Pit 2. This pit measured 4.0 ft in diameter by 2.5 ft in depth. It contained mussel and periwinkle shells, some animal bone (deer, bird, turtle, and fish), charcoal, and potsherds.

Pit 3. This small, shallow pit measured 2.2 ft in diameter, was 1.7 ft deep, and contained a large amount of shell.

Pit 4. This pit was observed at the top of subsoil and mapped, but it was not excavated because it extended beyond the excavation area.

Pit 5. This small, shallow pit measured 2.2 ft in diameter, was 1.8 ft deep, and contained a large amount of mussel and periwinkle shell.

Pit 6. This bowl-shaped pit measured 2.5 ft in diameter and was 2.3 ft deep. It contained very little pottery, few charcoal fragments, few mussel shells, and no animal bone.

TP-B1. TP-B1 was a bowl-shaped pit that measured 2.2 ft in diameter and 1.7 ft in depth. It intruded TP-2 and contained potsherds, animal bone (mostly deer), few shells, crude triangular projectile points, and a moderate amount of charcoal.

TP-B2. This was a bowl-shaped pit that measured 2.9 ft in diameter by 2.7 ft in depth. It contained potsherds, deer bone, a few shells, crude triangular projectile points, and a moderate amount of charcoal. TP-B2 is intruded by TP-B1.

TP-B3. This shallow, bowl-shaped pit intrudes TP-B3A and was located southwest of TP-B1 and TP-B2. Its size and depth were not recorded. TP-B3 contained considerable pottery, deer bone, charred food remains (e.g., corn, beans, and bone), and a moderate amount of wood charcoal.

TP-B3A. This pit was intruded by TP-B3 but is not described in the field notes. It contained a chipped-stone projectile point, a bone bead, a few potsherds, and mussel and periwinkle shells.

TP-B4. TP-B4 was a small, shallow, bowl-shaped pit; its exact size was not recorded. It contained a worked flake and a few potsherds.

TP-B5. This was a shallow, bowl-shaped pit whose size and depth were not recorded. It contained numerous potsherds, several chipped-stone tool fragments, three hammerstones, and relatively large quantities of animal bone and charcoal.

TP-B6. TP-B6 was a pit that measured 2.5 ft in diameter by 2.3 ft in depth and was intruded by TP-B6A. It was filled with black, ashy soil that contained few potsherds but large quantities of animal bone and shell, as well as worked bone, clay pipe, and chipped-stone tool fragments.

TP-B6A. This trash-filled pit measured 3.0 ft in diameter by 2.3 ft in depth and intruded the southeast edge of TP-B6. It contained a hammerstone, a core, and large amounts of pottery, animal bone, shell, and charcoal.

TP-B7. Field notes provide no information about the size or shape of this archaeological feature. It contained a grinding stone and several potsherds.

TP-B8. Field notes describe TP-B8 simply as a large pit; no other information about size and shape are given. It contained numerous artifacts, including a chipped-stone scraper, a chipped-stone hoe, a hammerstone, a pitted cobble, a piece of worked bone, and much pottery, animal bone, charcoal, and shell (not collected).

TP-B9. Field notes describe TP-B9 as a small pit; no other information about size and shape are given. It contained a few potsherds.

TP-B10. This pit measured 3.3 ft in diameter by 2.2 ft in depth. It contained two chipped-stone projectile points, a worked flake, a clay pipe fragment, worked bone, and moderate amounts of pottery, animal bone, charcoal, and shell (not collected).

TP-B11. This pit measured 3.4 ft in diameter and 2.5 ft in depth. It contained a chipped-stone scraper, a piece of worked bone, a small number of potsherds, charcoal, and a large quantity of mussel and periwinkle shell.

TP-B12. TP-B12 was a large, deep pit that measured 3.8 ft in diameter and 3.8 ft in depth. It contained a chipped-stone projectile point, several potsherds, and small amounts of animal bone and charcoal.

TP-B13. This was a large pit that measured 3.3 ft in diameter by 3.0 ft in depth. Field notes indicate that it contained a large amount of pottery representing several vessels, including a very thick, net-impressed jar with heavy crushed-quartz temper; however, this pottery is missing

from the collection. Numerous fire-cracked quartzite rocks also are reported from this feature but they presumably were not saved. Artifacts from this feature still contained within the collection include six chipped-stone projectile points, a chipped-stone scraper, three worked flakes, a pottery disk, a clay ball, and a large quantity of charcoal (representing acorn, corn, beans, and wood).

TP-B14. This was large, bell-shaped storage pit that measured 4.0 ft in diameter by 3.0 ft in depth. Most artifacts were concentrated in a zone of gray and red ash that comprised the upper fill and included large amounts of animal bone and charcoal, mussel shell, and a moderate amount of pottery. Chipped-stone projectile points, cores, a pottery disk, and a worked bone fragment also were recovered.

TP-B15. TP-B15 was a deep, straight-sided pit that measured 3.8 ft in diameter by 4.3 ft in depth. A zone of red and gray wood ash occurred at the top of the fill; beneath this zone were numerous deer bones and a large quantity of charcoal. This feature also included numerous other artifacts, including nine chipped-stone projectile points, cores, worked flakes, worked bone fragments, three clay pipe fragments, and a large quantity of pottery. A radiocarbon date run on the charcoal yielded an uncorrected date of A.D. 1330 ± 60 (UGa-619).

TP-B16. This was a very large, shallow, roughly circular pit that measured 9.0 ft in diameter by 1.7 ft in depth. Its size, configuration, and artifact content are similar to features at the Contact-period Upper Saratown site (31Sk1a) that have been interpreted by Eastman (1996) as roasting pits used during community-wide feasts. Fill consisted of a black soil that contained blackened and fire-cracked cobbles, potsherds, and small amounts of animal bone and shell.

TP-B17. This roughly circular pit was 3.3 ft in diameter and 2.5 ft deep. It was filled with black soil containing blackened and fire-cracked cobbles, charcoal, and small amounts of animal bone and mussel shell. Other artifacts include a chipped-stone projectile point, two chipped-stone bifaces, two clay spoon fragments, and several potsherds.

TP-B18. TP-B18 was a large, basin-shaped pit with rounded bottom. It measured 3.7 ft in diameter by 2.3 ft in depth. Its soft brown sandy fill contained only four potsherds.

TP-B19. This pit had straight sides and a flat bottom, and intruded TP-B20. It measured 4.5 ft in diameter and 2.2 ft in depth. Field notes indicate that it contained many stones, potsherds, charcoal, and a few very soft bones.

TP-B20. This large, straight-sided pit had a flat bottom and measured 4.0 ft in diameter by 3.8 ft in depth. Most artifacts were concentrated in the middle fill. These included many large potsherds (several of which are from a single large jar, designated Vessel 85) and chunks of charcoal as well as a few mussel shells and soft animal bones. The lower 1.0 ft of fill was a fire-reddened clay that contained no pottery.

TP-B21. TP-B21 was a saucer-shaped pit that measured 3.2 ft in diameter by 2.3 ft in depth. It was looted by relic hunters the evening after it was exposed. The remaining fill contained a few potsherds, animal bones, flakes, and bits of shell and charcoal.

TP-B22. This was a straight-sided pit that measured 3.3 ft in diameter by 3.3 ft in depth. The lower 0.8 ft of fill was sterile except for one potsherd and a few lumps of charcoal. The remaining fill contained a small number of potsherds, charcoal, and stones (not saved).

TP-B23. This feature was a basin-shaped pit that measured 4.3 ft in diameter by 2.7 ft in depth. The upper 0.7 ft of fill was a deposit of gray and pinkish wood ash; the fill below it was a gray-to-brown sand. TP-B23 contained a few potsherds, stones (not saved), small bird bones, periwinkle and mussel shell, and charcoal.

TP-B24. TP-B24 was a straight-sided pit with rounded bottom. It measured 3.0 ft in diameter by 2.5 ft in depth. The fill was a dark, midden-like soil that contained a few flecks of charcoal, a worked flake, and three potsherds.

TP-B25. This shallow basin was mostly removed by grading. The remainder of the feature, once excavated, measured 3.5 ft in diameter and 0.7 ft in depth. The fill was a black, ashy sand that contained a few potsherds and some shell. These artifacts could not be identified when the collection was cataloged.

TP-B26. This basin-shaped pit was 3.3 ft in diameter by 1.7 ft in depth. The ashy fill in the pit contained stones a few potsherds. These artifacts could not be identified when the collection was cataloged.

TP-B27. This feature represents part of an extensive, midden-filled depression that was exposed at the base of plow zone within a 10x10-ft excavation unit. TP-B31 also appears to represent a portion of this midden-filled depression. The fill was approximately 0.7 ft thick and contained a worked flake, three potsherds, a few poorly preserved deer bones, numerous fire-cracked rocks, and flecks of charcoal.

TP-B28. This feature apparently was re-designated TP-B29.

TP-B29. This pit measured 3.3 ft in diameter by 2.0 ft in depth. The fill contained considerable mussel and periwinkle shell, pottery, animal bone, charcoal, fire-cracked rocks, two chipped-stone projectile points, and a clay pipe fragment. It also contained a deer vertebra with an embedded triangular projectile point, the bone having healed completely around the stone point. Many of these artifacts were mixed with the contents of TP-B30 following excavation.

TP-B30. This pit was discovered and partially dug by construction workers working nearby. The field records provide no information about the pit's size or shape except to note that it was somewhat deeper than TP-B29 and contained similar contents but no shell. Many of these artifacts were mixed with the contents of TP-B29 following excavation.

TP-B31. This feature designation was given to a portion of a midden-filled depression discovered south of TP-B29 and TP-B30. A sketch map in the field notes indicate that an area measuring about 8 ft by 12 ft was excavated; its limits were not defined. TP-B31 appears to represent a portion of the same archaeological feature as TP-B27. It contained gray-white to

very black ash that extended 0.7 ft to 1.2 ft below the base of plow zone. Artifacts found in this feature include a large chipped-stone implement, several potsherds, a few animal bones, charcoal, mussel shell, and numerous fire-cracked rocks.

TP-B32. This was a large, straight-sided pit that measured 4.3 ft in diameter by 4.2 ft in depth. It contained numerous artifacts, including three chipped-stone projectile points, other chipped-stone tools, fragments of a broken clay pipe, pottery, animal bone, shell, and charcoal. A radiocarbon date run on the charcoal yielded an uncorrected date of A.D. 1360 ± 50 (Beta-101585).

TP-B33. TP-B33 was a large, basin-shaped pit with a rounded bottom. It measured 3.3 ft in diameter by 2.5 ft in depth and contained a chipped-stone hoe, several potsherds, flecks of charcoal, animal bone, and fire-cracked rocks. Substantial portions of at least two large jars, designated Vessels 86 and 87, are represented in the pottery sample.

TP-B34. This was a straight-sided pit with a rounded bottom and measured 3.1 ft in diameter by 2.5 ft in depth. It contained a chipped-stone projectile point, a chipped-stone biface, several potsherds, animal bone, and fire-cracked rocks. The field notes indicate that a large section of a clay pot was found in the pit, but it is now missing from the collection.

TP-B35. This feature was described in the field notes as a bowl-shaped pit measuring 3.0 ft in diameter by 3.0 ft in depth. The fill was a black, midden-like soil that contained ash; a thin layer of yellow sand was observed at the top of the pit. Artifacts found in this feature include a small number of potsherds, shell, animal bone, and fire-cracked rocks.

TP-B36. This feature was a straight-sided pit with a flat bottom and measured 3.0 ft in diameter by 2.3 ft in depth. It was filled with a dark, midden-like soil that contained very little charcoal, a few shells, potsherds, fire-cracked rocks, and several deer vertebra.

TP-B37. TP-B37 was a straight-sided pit with a flat bottom and measured 2.6 ft in diameter by 2.3 ft in depth. The fill contained a few potsherds, deer bone, a turtle carapace, and flecks of charcoal. At the base of the pit was a 0.5-ft thick layer of mussel shell covered by several round river cobbles.

TP-B38. This feature was a very large, bell-shaped storage pit. It was 4.6 ft deep, measured 2.6 ft in diameter at the top, and expanded to 5.0 ft in diameter near the bottom. A layer of brown red clay 0.2-0.3 ft thick was encountered at both the top and bottom of the pit. Despite the pit's size, relatively few artifacts were found. These include a stone abrader, an intrusive piece of porcelain, flecks of charcoal, a few shell fragments, and only moderate amounts of pottery and animal bone.

TP-B39. This was a basin-shaped pit with a rounded bottom. It measured 3.0 ft in diameter by 2.5 ft in depth and contained six chipped-stone projectile points, two bone beads, another piece of worked bone, numerous potsherds, animal bone, charcoal, and both mussel and periwinkle shell.

TP-B40. This basin-shaped pit had a rounded bottom and measured 2.5 ft in diameter by 2.7 ft in depth. It was filled with a brownish sand that contained a chipped-stone biface, a large chopper, a few potsherds, and an intrusive piece of glass.

TP-B41. This was a small, basin-shaped pit with a rounded bottom. It measured 1.9 ft in diameter by 2.0 ft in depth and contained a black, ashy fill and few potsherds (missing from the collection).

TP-B42. TP-B42 was a straight-sided pit with a rounded bottom and measured 3.0 ft in diameter by 2.8 ft in depth. The uppermost 1.2 ft of fill was a black sand. This was underlain by a 0.3-ft thick layer of very hard, packed, gray-black ash. The fill below this layer is described in the field notes as being much softer. Artifacts found in this feature include several large potsherds, deer bones, mussel and periwinkle shell, and blackened and fire-cracked cobbles.

Descriptions of Burials

Information about human burials found at the Box Plant site is vague and contradictory. An updated site survey form, completed by Richard Gravely just prior to the final excavations at the site in 1973, indicates that only four burials had been found. Three of these were excavated in 1964, 1965, and 1966, and a fourth burial was salvaged during drainage ditch construction in 1969. Aside from the 1969 burial (identified erroneously as Burial 5 instead of Burial 4), there is no mention in the field notes (including those for 1973) of burials being encountered. In his summary report of the 1964-1966 excavations, Gravely (n.d.a.) observed that the three burials were located "randomly through the dwelling area, scattered among the trash pits and other features." All three were in oval pits that extended 2.0 ft to 3.0 ft below the base of plow zone. All burials were semi-flexed and lying on the side with the head oriented toward the east, and none was accompanied by funerary objects. Two burials (Burials 1 and 3) contained the skeletons of small children; the third (Burial 2) was estimated by Gravely to be an adult female. This latter burial was somewhat unusual, in that the body was placed on a layer of large potsherds and covered with other potsherds with the concave surfaces down to follow the body contours. Each of the individual's limbs reportedly were covered separately in this manner. Gravely (n.d.a.) suggested that "the large sherds which were used may have come from vessels intentionally broken for the purpose, as two complete large pots and ninety percent of a third have been restored from these fragments." Unfortunately, none of these reconstructed pots is in the collection of artifacts from the Box Plant site; however, photographs exist for the two completely restored vessels (Figure 7). According to Gravely's summary report, it was not possible to recover any of the skeletal remains because they were very poorly preserved.

Burial 5, exposed during construction of a ditch across the eastern half of the site, was an adult male buried in an oval pit approximately 4.0 ft by 2.5 ft in plan and about 1.5 ft below the base of plow zone. He was placed in a tightly flexed position, lying on his left side with his head to the east. Although the skull had been largely destroyed by construction, the remainder of the skeleton was relatively well preserved. Analysis of these remains by Patricia Lambert (Davis et al. 1996) indicate that he was about 42 ± 5 years old at death.

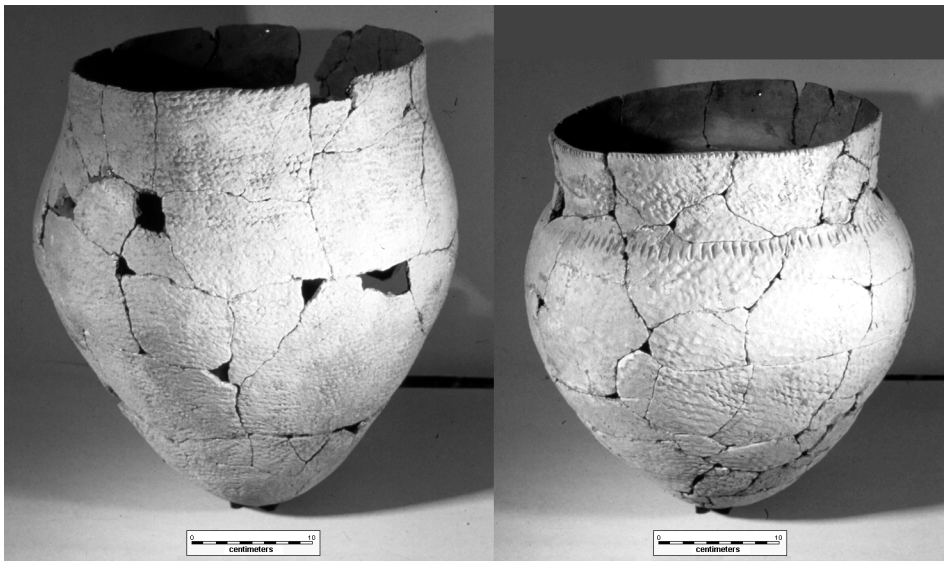

Figure 7. Dan River Net Impressed pots reconstructed from fragments found in Burial 2.

POTTERY

Most of the pottery found at the Box Plant site fits comfortably into the late prehistoric Dan River series, originally defined by Coe and Lewis (1952). The type site for this pottery series is Lower Saratown (31Rk1), located on the Dan River in Rockingham County, North Carolina. Dan River pottery was originally thought to have been made by the historic Sara Indians between A.D. 1625 and 1675; however, subsequent fieldwork and a re-analysis of collections housed at the Research Laboratories of Anthropology have led to a re-interpretation of the series as late prehistoric (Dickens et al. 1987; Ward and Davis 1993). While the chronological position of the series has been securely established by radiocarbon dating to the range cal A.D. 1000 to 1450 (Eastman 1994), Dan River Net Impressed vessels continued to be manufactured by the Sara as a minority ware throughout the contact period in the Dan River drainage (Ward and Davis 1993).

A total of 27,039 potsherds were excavated and surface collected from the Box Plant site between 1964 and 1975. Table 1 presents the frequency of potsherds from each type of site context. As the table indicates, only a small percentage (about 13%) of the total assemblage was selected for analysis. As a general rule, only rim sherds and decorated body sherds from the general excavations in 1964, 1965, and 1966, and all potsherds from features excavated in 1973 and larger than 2 cm in diameter were analyzed.

During analysis, several attributes were recorded for each potsherd, including temper, exterior surface treatment, interior surface treatment, sherd size, portion of vessel represented, vessel type (if observable), lip modification (for rim sherds), and type of decoration (when present). With a few exceptions, the attributes observed were consistent with the Dan River series description. Pottery types represented in the Box Plant assemblage are discussed separately below. Comparisons are made between pottery recovered from the east half of the site (i.e., 1964, 1965, and 1966 excavations) and the west edge of the site (1973 excavations) to assess the possibility that these site areas represent different occupations.

Table 1. Distribution of pottery at the Box Plant site.

Context	Dan River Net Impressed	Dan River Roughly Smoothed	Dan River Plain	Dan River Cord Marked	Dan River Corncob Impressed	Dan River Brushed
General (1964-1966)	999	125	106	121	12	5
TP-B1 & 2	27	4	5	2	-	2
TP-B3	46	6	3	1	-	-
TP-B3A	6	-	1	-	-	1
TP-B4	5	3	-	1	-	-
TP-B5	23	-	-	1	-	-
TP-B6	-	1	-	1	-	-
TP-B6A	86	18	8	8	-	1
TP-B7	17	-	4	1	-	1
TP-B8	77	23	16	8	-	-
TP-B9	8	-	-	6	-	-
TP-B10	28	1	1	5	-	-
TP-B11	5	-	-	3	-	-
TP-B12	33	9	2	-	-	-
TP-B13	-	-	-	-	-	-
TP-B14	38	8	15	5	-	-
TP-B15	48	17	3	20	-	-
TP-B16	13	9	-	6	-	-
TP-B17	27	10	2	7	-	1
TP-B18	3	-	-	-	-	-
TP-B19 & 20	67	-	10	7	-	-
TP-B20	176	18	9	6	-	-
TP-B21	8	-	2	-	-	-
TP-B22	12	-	4	1	-	-
TP-B23	6	1	-	1	-	1
TP-B24	2	-	-	-	-	-
TP-B27	1	-	-	1	-	-
TP-B28	8	2	3	1	-	-
TP-B29 & 30	32	10	5	4	-	-
TP-B29	32	8	8	4	-	-
TP-B30	-	-	-	-	-	-
TP-B31	25	14	5	1	-	2
TP-B32	90	13	1	4	-	-
TP-B33	53	8	7	2	59	-
TP-B34	-	4	-	2	4	-
TP-B35	7	6	2	1	-	-
TP-B36	7	1	2	10	-	-
TP-B37	11	3	3	10	-	-
TP-B38	22	5	2	10	-	-
TP-B39	24	2	4	1	-	1
TP-B40	10	9	1	3	-	-
TP-B42	9	-	2	1	-	-
TP-?	87	8	4	11	-	-
General (1973)	4	1	1	2	-	-
Bu. 5	1	1	-	-	-	-
Surface	38	10	2	6	-	-
Total	2,221	358	243	285	75	15
Percent	65.58	10.57	7.17	8.44	2.21	0.44

Table 1 Continued.

Context	Uwharrie Cord Marked	Vincent/Clements Fabric Impressed	Burnished Exterior	Indeterminate	Total Analyzed	Not Analyzed	Total
General (1964-1966)	1	-	5	33	1,407	21,641	23,048
TP-B1 & 2	-	-	-	2	42	60	102
TP-B3	-	-	-	5	61	100	161
TP-B3A	-	-	-	-	8	8	16
TP-B4	-	-	-	-	9	6	15
TP-B5	-	-	-	-	24	49	73
TP-B6	-	-	-	-	2	6	8
TP-B6A	-	-	-	5	126	153	279
TP-B7	-	-	-	-	23	10	33
TP-B8	-	-	-	10	134	86	220
TP-B9	-	-	-	-	14	13	27
TP-B10	-	-	-	-	35	41	76
TP-B11	-	-	-	-	8	9	17
TP-B12	-	-	-	-	44	34	78
TP-B13	-	-	-	2	2	-	2
TP-B14	-	-	-	2	68	90	158
TP-B15	-	-	-	3	91	104	195
TP-B16	-	2	-	4	34	42	76
TP-B17	-	-	-	3	50	59	109
TP-B18	-	-	-	1	4	-	4
TP-B19 & 20	-	-	-	6	90	97	187
TP-B20	-	-	-	14	223	235	458
TP-B21	-	-	-	6	16	3	19
TP-B22	-	-	-	2	19	10	29
TP-B23	-	-	-	2	11	2	13
TP-B24	-	-	-	1	3	-	3
TP-B27	-	-	-	1	3	-	3
TP-B28	-	-	-	3	17	-	17
TP-B29 & 30	-	1	-	3	55	36	91
TP-B29	-	-	-	6	58	60	118
TP-B30	-	-	-	1	1	-	1
TP-B31	-	-	-	16	63	80	143
TP-B32	-	-	-	7	115	173	288
TP-B33	-	-	-	9	138	44	182
TP-B34	-	-	-	5	15	61	76
TP-B35	-	-	-	8	24	-	24
TP-B36	-	-	-	2	22	2	24
TP-B37	-	-	-	2	29	39	68
TP-B38	-	2	-	2	43	60	103
TP-B39	-	-	-	3	35	111	146
TP-B40	-	-	-	3	26	1	27
TP-B42	-	-	-	2	14	4	18
TP-?	-	-	-	1	111	10	121
General (1973)	-	-	-	1	9	-	9
Bu. 5	-	-	-	1	3	-	3
Surface	-	-	-	2	58	113	171
Total	1	5	5	179	3,387	23,652	27,039
Percent	0.03	0.15	0.15	5.29	100.00		

Observations of exterior surface decorations in the Box Plant assemblage provided a rich body of new information about the variety of decorations that were applied to Dan River pottery. Description and classification of exterior surface decorations forms a major part of the following discussion, as the variety of decoration in the assemblage was greater than what has been previously described for a Dan River pottery assemblage.

Dan River Net Impressed (Coe and Lewis 1952)

Sample Size. N=2,221 potsherds.

Temper. More than two-thirds (68%) of Dan River Net Impressed sherds are tempered with a mixture of sand and crushed quartz. The rest of the sherds are tempered with sand. The paste is compact and typically well-kneaded and the sandiness of the paste gives the pottery a sugary texture that is somewhat rough to the touch.

Exterior Surface Finish. Exterior surfaces exhibit mostly coarse, knotted-net impressions with a few nets being of finer mesh (Figure 8). No attempt was made to identify or differentiate between specific types of netting.

Interior Surface Finish. Vessel walls were thinned by scraping with a serrated tool. The interior surfaces of 75% of all sherds were smoothed subsequent to scraping.

Decoration. Just over two-thirds of all Dan River Net Impressed rim sherds have decorated lips (a definition of lip treatment types and their distribution by pottery type is provided in Appendix 2). Nearly half (43%) of these are decorated with parallel notches oriented oblique to the rim. These notches are located along the top of the lip. Similar notches placed on the exterior edge of the rim account for just under one third (30%) of lip decorations. Another fairly common lip decoration is parallel notches oriented perpendicular to the rim and incised into the top of the lip (13%).

The most common type of non-lip decoration on Dan River Net Impressed pottery is a single row of punctations encircling the vessel neck. Sixty-five percent of all decorated sherds have a single band of finger punctations. Other types of punctations, made with variously shaped dowels and hollow reeds, and arranged in one or more bands, account for an additional 20% of decorations. Two other methods of decoration that are represented by roughly 8% of the sherds are miscellaneous incised lines and punctations arranged in a zigzag pattern. One sherd has a notched strip applied to the neck and integrated into a band of incised horizontal lines.

Appendages found on Dan River Net Impressed jars include small decorative loop and lug handles and vertically-oriented nodes. Loop handles were riveted to vessels (at the neck or shoulder) through a hole made in the vessel wall prior to firing and attached just below the lip. Of the thirteen loop handles observed, five are decorated with punctations and two terminate in a notched rim peak. Eight small lug handles were recorded; half of these are integrated into a band of punctations or short incised lines that encircled the vessel neck. Three of the other four vessels with lug handles have no other decoration, while one has both lug handles and nodes. Nodes occur singly or in pairs on six vessels. These nodes are integrated into horizontal bands of punctations or incisions on three of the vessels.

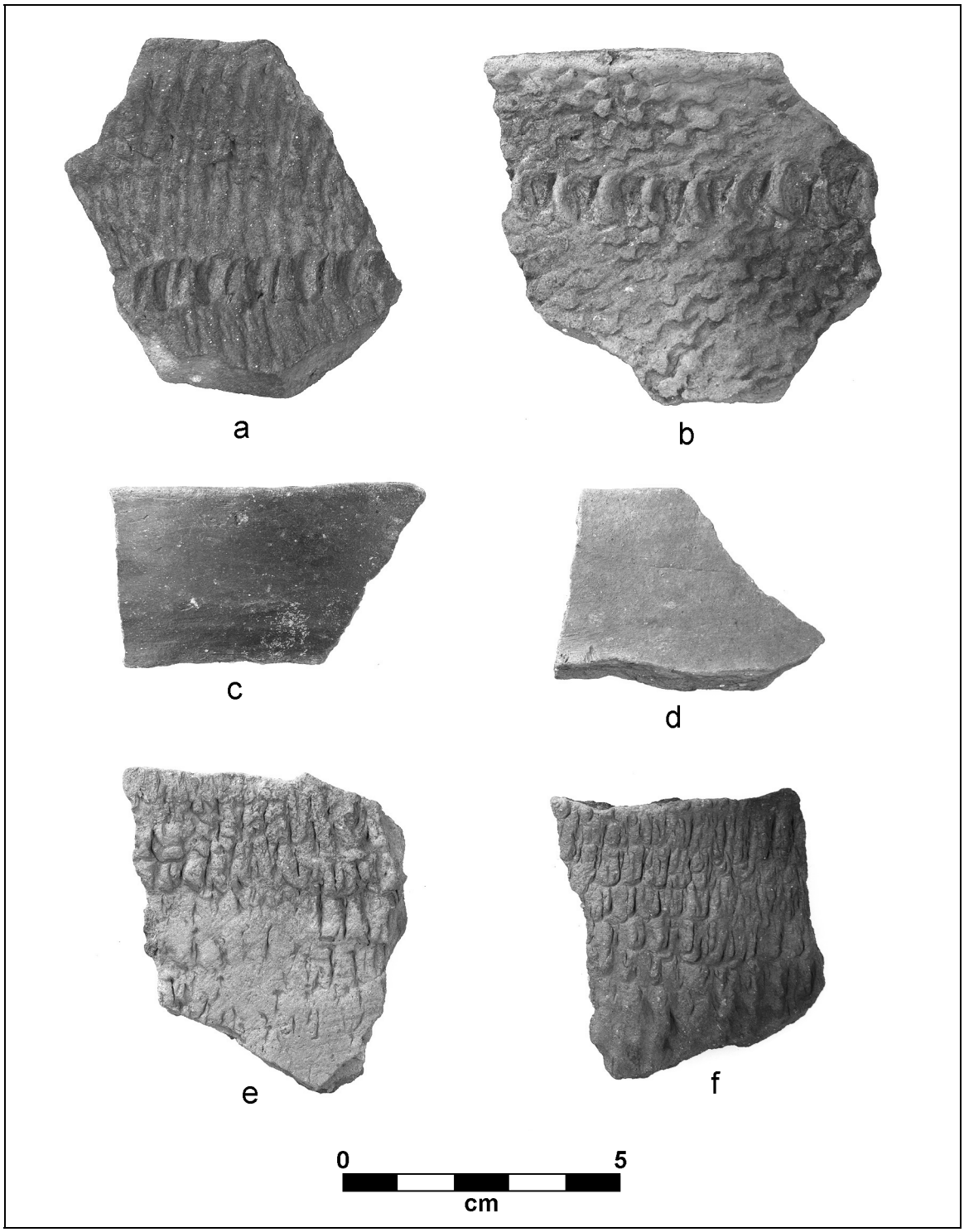

Figure 8. Some pottery types found at the Box Plant site: Dan River Cord Marked rim sherd with a band of finger punctations around the neck (*a*); Dan River Net Impressed rim sherd with a band of finger punctations around the neck (*b*); burnished rim sherd (*c*); Dan River Plain rim sherd (*d*); Dan River Corncob Impressed potsherd (*e*); and Dan River Cord Marked neck sherd with cob-impressed decoration (*f*).

Form. Forty-nine Dan River Net Impressed rim sherds and partially reconstructed vessel sections are large enough to determine vessel diameter (at the orifice) and vessel profile. These were given individual vessel numbers (as were similar rim sherds and vessel sections of other types). All but one of these vessels—a bowl—are tall jars which have short, slightly everted rims, wide shoulders, and conoidal to sub-conical bases. Vessel rims are slightly everted. Just under 10% of all rim sherds in the sample are folded with net impressions covering the rim fold. Vessel lips are flattened or rounded.

Detailed information about all individually numbered vessels, including rim profiles, is presented in Appendix 3.

Dan River Roughly Smoothed

Sample Size. N=358 potsherds.

Temper. Temper consists of a mixture of sand and quartz or sand, and was used in the same relative frequency as reported for Dan River Net Impressed.

Exterior Surface Finish. Dan River Roughly Smoothed sherds appear to be from vessels that were initially net impressed or cord marked and then partially smoothed before firing.

Interior Surface Finish. Nearly three-quarters of all sherds (73%) have smoothed interiors while the remainder have scraped interiors.

Decoration. Half of Dan River Roughly Smoothed rim sherds have decorated lips. Only two vessel forms, jars and miniature jars, had decorated lips. Lip decorations consist of notches oriented oblique or perpendicular to the vessel rim and cut into the top or exterior edge of the lip.

Two-thirds of all decorated sherds have a band of punctations or incised horizontal lines. Sixty-two percent of these have a single band of finger punctations. Other types of decoration include miscellaneous incisions, reed punctations, cob impressions along the neck, and repeated incised rectilinear designs. Two undecorated loop handles and one possible handle fragment also were observed.

Form. All vessel forms observed in the Box Plant pottery assemblage are represented. Most miniature jars and pinch pots have roughly smoothed exteriors, while 20% of identified bowls and 10% of identified jars were classified as Dan River Roughly Smoothed. Seven of the 100 rim sherds studied have rim folds. Both flattened and rounded lips were observed.

Comment. An examination of boxplots for orifice diameters of partially reconstructed jars indicates that Dan River Roughly Smoothed jars, with a median orifice diameter of 14 cm, are significantly smaller (95% confidence interval) than Dan River Net Impressed jars, which have a median orifice diameter of 22 cm. The implication is that if Dan River Roughly Smoothed jars are Dan River Net Impressed jars that were smoothed before firing, then this type of surface modification was restricted to smaller jars with orifice diameters less than about 20 cm.

Dan River Plain (Coe and Lewis 1952)

Sample Size. N=243 potsherds.

Temper. In addition to sand (35%) and a mixture of sand and quartz (62%), fine crushed feldspar (3%) was used as a tempering agent in some sherds.

Exterior Surface Finish. The exterior surface of this type of pottery has been carefully and uniformly smoothed (Figure 8).

Interior Surface Finish. The interior surface of three-quarters of the Dan River Plain sherds are smoothed, while one quarter are scraped.

Decoration. Nearly a quarter of all rim sherds have decorated lips. Like other Dan River series rim sherds, lip decorations consist of notches oriented oblique or perpendicular to the vessel rim and cut into the top or exterior edge of the lip.

This is the only type of Dan River pottery in which a band of finger punctations is not the most common decoration. In fact, bands of punctations account for only about 17% of all decorations. The most common decoration, accounting for 36% of the decorated plain sherds, is a band of horizontal incised lines. Decorations that incorporate zigzag elements or inverted V's also are well represented on Dan River Plain vessels (14%). Repeated rectilinear-incised designs also are common (13%), especially on bowls where such designs were applied along the vessel rim. Other decorations include miscellaneous incised lines and incised motives or patterns that feature groups of parallel lines oriented oblique to the vessel rim. The interior rim of one bowl was decorated with an incised zigzag line and hollow reed punctations.

One lug handle from a Dan River Plain jar was identified. And, two sherds had holes in them which were made before the vessel was fired. It is possible that these holes represent sites for the attachment of loop handles.

Form. Nine partially reconstructed Dan River Plain vessels were identified in the sample. Six are bowls, two are miniature bowls, and one is a jar. Most of the 100 rim sherds are from jars with everted rims, but 17 are from bowls with straight or slightly inverted rims. Only one rim sherd is from a vessel with a folded rim. Both flattened and rounded lips are present on these rim sherds.

Dan River Cord Marked (Coe and Lewis 1952)

Sample Size. N=285 potsherds.

Temper. Dan River Cord Marked sherds are tempered with either a mixture of sand and quartz or sand. These two types of temper occur in equal frequency.

Exterior Surface Finish. Dan River Cord Marked vessels were stamped on the exterior surface with a cord-wrapped malleating paddle (Figure 8). Cord impressions run vertically and sometimes diagonally over the vessel exterior, with occasional random impressions. Cord

diameters range from about 1 mm to 2 mm. No attempt was made during analysis to differentiate between types of cordage twist.

Interior Surface Finish. About 60% of the sherds have smoothed interiors; the remainder have scraped interiors.

Decoration. Over 80% of all Dan River Cord Marked rim sherds have decorated lips. The same lip decorations found on Dan River Net Impressed sherds are also present on this type and their relative distribution is very similar as well.

Approximately 20% of Dan River Cord Marked neck sherds are decorated. A single band of finger punctations is the most common type of neck decoration (38%), followed closely by a zone of corncob impressions (32%). Bands of punctations combined with other punctated designs and miscellaneous incised lines account the rest of the decorations.

A single loop handle that terminated in a notched rim peak was the only appendage observed on Dan River Cord Marked sherds.

Form. Sixteen Dan River Cord Marked rim sherds and partially reconstructed vessel sections are large enough to identify vessel profile and diameter. All but one are jars similar in form to those described for the Dan River Net Impressed type. The other vessel is a small pinch pot. Rims are slightly everted to straight, with 7 (6%) having rim folds with cord impressions over the fold. Both flattened and rounded lips are present on Dan River Cord Marked rim sherds.

Dan River Corncob Impressed (Coe and Lewis 1952)

Sample Size. N=75 potsherds.

Temper. Dan River Cob Impressed sherds are tempered predominantly with a mixture of sand and quartz (91%). Only a few sherds were tempered solely with sand.

Exterior Surface Finish. The exterior surfaces of Dan River Cob Impressed vessels are textured with a corncob (Figure 8). Most vessels indicate that the cob was rolled over the wet clay surface. Corncob impressing, applied solely to the neck area, also was used as a decorative technique on Dan River Cord Marked vessels (see type description). On most of these sherds, the underlying surface finish is still partially visible.

Interior Surface Finish. Most (93%) sherds have smoothed interiors, with only a small number retaining scraped interiors.

Decoration. Four rim sherds had decorated lips. These exhibited notches oriented oblique or perpendicular to the vessel rim and were cut into the top of the lip. As with most other types of Dan River pottery, finger punctations and miscellaneous incised lines account for most of the decoration on this type. In addition, three sherds were decorated with random cord impressions. No sherds have appendages.

Form. Jars and miniature jars have exterior surfaces roughened with corncobs. Both forms are represented by single, partially reconstructed vessel sections. Rims are slightly everted to straight, and both flattened and rounded lips occur.

Dan River Brushed

Sample Size. N=15 potsherds.

Temper. Eleven of the Dan River Brushed sherds are tempered with a mixture of sand and quartz and four contain only sand.

Exterior Surface Treatment. The exterior surface has been brushed or scraped, probably with a stiff twig brush.

Interior Surface Finish. Ten of the 15 sherds have plain interiors and the other five retain evidence of scraping.

Decoration. Three of the nine rim sherds have decorated lips. Decorations consist of notches aligned perpendicular or oblique to the rim and cut into the top or exterior edge of the lip. A single neck sherd is decorated with a horizontal band reed punctations with inverted and filled V's above the band. No appendages are present and no folded rims were observed.

Form. Only two Dan River Brushed vessel sections are large enough to identify vessel profile and diameter. One is a bowl and the other is a pinch pot. Jar forms with everted to straight rims and both flattened and rounded lips are represented by other rim sherds in the sample.

Uwharrie Cord Marked

Sample Size. N=1 potsherd.

Temper. This sherd is tempered with coarse crushed quartz and sand.

Exterior Surface Treatment. The exterior has been stamped with a cord-wrapped paddle.

Interior Surface Finish. The interior surface is scraped.

Decoration. Vertical brushed bands are present on the vessel neck. This type of treatment is characteristic of Uwharrie pottery.

Form. This rim sherd is from a large jar with a very thick (14 mm) vessel wall, a slightly excurvate rim, and a rounded and smoothed lip.

Comment. Uwharrie pottery is ancestral to the Dan River series and has been radiocarbon-dated at the Hogue site in piedmont North Carolina to about A.D. 1000 (Coe 1952;

Ward and Davis 1993). Its occurrence pre-dates the major occupation at the Box Plant site by several centuries.

Vincent or Clements Fabric Impressed (Coe 1964)

Sample Size. N=5 potsherds.

Temper. Sherds are tempered with coarse feldspar, sand, or a mixture of sand and quartz.

Exterior Surface Treatment. The exterior surfaces of these sherds display impressions of a fine to medium-sized plain wicker or plaited fabric. The weft elements range from 0.5-0.75 mm in diameter, and the warp elements are spaced 5 mm apart.

Interior Surface Finish. Three sherds (one of each temper type) have scraped interiors and the other two have plain interiors.

Decoration. One rim sherd has oblique notches on top of the lip, and another sherd is from a vessel that had a band of finger punctations around the neck.

Form. The one rim sherd is from a jar that had an everted rim and a flattened lip.

Comment. The Vincent and Clements series were defined from archaeological excavations at the Gaston site (31Hx7) on Roanoke River near Roanoke Rapids, North Carolina (Coe 1964). They are thought to date to the Middle Woodland and Late Woodland periods, respectively. Their relationship to the major occupation at the Box Plant site is uncertain, but they likely pre-date it.

Burnished Exterior

Sample Size. N=5 potsherds.

Temper. Four burnished sherds are tempered with a mixture of sand and quartz; the other sherd is tempered with only sand. The paste was well-kneaded and appears very similar to fine-tempered examples of Dan River series sherds in the collection.

Exterior Surface Treatment. Two sherds represent body and shoulder fragments of cazuela bowls. Both bowls were smudged to a dark gray color (Figure 8).

Interior Surface Finish. Most interiors have been lightly scraped; one jar sherd has a smoothed interior.

Decoration. None of the burnished sherds is decorated.

Form. One jar and two cazuela-type bowls are represented. The jar and one of the bowls have slightly recurved rims, and all three rim sherds have flattened lips.

Comment. The two cazuela bowls may represent trade vessels. A small number of finely-smoothed cazuelas also were recovered from the Koehler site (Coleman and Gravely 1992), another late prehistoric village site situated on the Smith River, not far upstream from the Box Plant site.

Discussion

Over 99 percent of all analyzed sherds from the Box Plant site have been classified as Dan River series pottery. The distribution of surface treatments, tempers, decorations, and vessel forms in this assemblage compares well with published descriptions of other Dan River and Radford series assemblages from central Virginia and North Carolina (Abbott et al. 1986; Benthall 1969; Coe and Lewis 1952; Coleman and Gravely 1992; Holland 1970; Ward and Davis 1993). Other ceramic series identified in the collection were produced in the piedmont region earlier in the Late Prehistoric period and may be associated with an earlier occupation at or near the Box Plant site.

Comparisons Between Excavation Areas

The Box Plant site was quite large and excavations focused on two areas separated by several hundred feet. Because of this, ceramic attributes from the two excavation areas were compared in order to: (1) determine if differences exist that would allow the identification of more than one late prehistoric cultural component (i.e., multiple adjacent or overlapping villages); and (2) evaluate the appropriateness of considering the Box Plant site data as a single analytical unit. One chronological trend in the Dan River series suggested by Coe and Lewis (1952) and reiterated more recently by Woodall (1984:77) is a gradual shift from quartz-and-sand temper to sand temper over time. A second hypothesized trend from late prehistoric to historic period pottery in the project area is a reduction in the frequency of scraped vessel interiors (Coe and Lewis 1952). Therefore, the relative frequency of quartz-and-sand temper and scraped interiors was compared between the two excavation areas as a rough measure of contemporaneity.

The absolute and relative frequencies of ceramic attributes from the excavation areas at the Box Plant site are presented in Table 2. This table illustrates that there are no significant differences between the pottery from the two excavation areas. This suggests that if the excavation areas represent different occupations, they were not separated by much time. Slight differences in the percentage of quartz-and-sand temper and scraped interiors in the collections from the two excavation areas suggest that if two villages are in fact represented, then the village sampled by the 1973 excavation may be earlier one.

Pottery Decoration

Decoration on Dan River series pottery at the Box Plant site was limited to surface displacement techniques involving punctation and incision, and the attachment of appendages like nodes, strips, and handles. Many vessels were decorated with a combination of these techniques. The following is a description of design elements and a classification of decorations for the Dan River series.

Table 2. Comparison of Ceramic Attributes from Excavation Areas.

Attribute	1964-1966 Excavations		1973 Excavation		Total	
Attribute Type	n	%	n	%	n	%
Temper						
Sand and Quartz	869	59.32	1,378	71.70	2,247	66.35
Sand	589	40.20	538	27.99	1,127	33.27
Other	7	0.48	6	0.31	13	0.38
Total	1,465	100.00	1,922	100.00	3,387	100.00
Exterior Surface Treatment						
Net Impressed	1,037	70.78	1,184	61.60	2,221	65.58
Roughly Smoothed	135	9.22	223	11.60	358	10.57
Cord Marked	128	8.74	158	8.22	286	8.44
Plain	108	7.37	135	7.03	243	7.17
Cob Impressed	12	0.82	63	3.28	75	2.21
Other	10	0.68	16	0.83	26	0.77
Indeterminate	35	2.39	143	7.44	178	5.26
Total	1,465	100.00	1,922	100.00	3,387	100.00
Interior Surface Finish						
Plain	1,198	81.77	1,270	66.08	2,468	72.87
Scraped	265	18.09	612	31.84	877	25.89
Indeterminate	2	0.14	40	2.08	42	1.24
Total	1,465	100.00	1,922	100.00	3,387	100.00
Exterior Surface Decoration						
Class I	429	77.16	208	82.21	637	78.74
Class II	30	5.39	13	5.14	44	5.44
Class III	23	4.14	3	1.19	25	3.09
Class IV	3	0.54	0	0.00	3	0.37
Class V	10	1.80	5	1.98	15	1.85
Class VI	48	8.63	10	3.95	58	7.17
Miscellaneous	13	2.34	14	5.53	27	3.34
Total	556	100.00	253	100.00	809	100.00

Design Elements

Surface Displacement Decoration. Seven decorative elements or basic design components were identified in the Box Plant pottery assemblage. The most common decorative element, present on nearly 70% of all decorated vessels, is a band of punctations or short incised lines oriented parallel to the vessel rim. Many types of punctations were used to create these horizontal bands, the most common being finger punctations. Punctations were also made with fingernails, triangular-shaped and rectangular-shaped dowels, and hollow reeds. These horizontal bands occur singly, in pairs, or in triplets. This design element sometimes was used in combination with other elements, but most often it occurs as the only type of decoration on a vessel.

Horizontal incised lines or bands of parallel incised lines also are common in the assemblage and occur in about 9% of decorated vessels. This design element was used most often in combination with other design elements, unlike bands of punctations which were commonly used as a stand-alone decoration.

Groups of five incised lines, aligned oblique to the vessel rim, occur on the necks of some jars. This design element was present on roughly 5% of the decorated sherds in the collection and occurs alone or in combination with a single band of punctations.

The fourth most common design element in the assemblage, occurring on about 4% of the decorated sherds at the Box Plant site, is a horizontal zigzag line or series of inverted V's. This design element was produced by both incision and punctation and was most often used in combination with one or more horizontal bands produced by the same method. Thus, incised and inverted V's were usually accompanied by one or more incised horizontal lines or bands, and inverted V's produced by punctations were accompanied by one or more bands of punctations.

Another design element present on about 4% of the decorated sherds are blocks of fill or designs created with punctations or parallel incised lines. This design element occurred in combination with others, particularly with a zigzag line or series of inverted V's, but also was used as a stand-alone decoration.

The sixth decorative element in the Box Plant assemblage is repeated or stacked incised rectilinear or curvilinear lines. This element was observed in only about 2% of the decorated sherds. A variety of designs are represented including V's, diamonds, U's, and rectangles. Some of these designs were incorporated into horizontal incised lines and some were spaced evenly around the vessel with no connecting lines.

The final basic decorative element is miscellaneous incised lines. This category includes incomplete incised designs or designs which do not conform to a recognizable pattern. Miscellaneous incised lines were observed on about 7% of the decorated sherds at the site.

Appendages. Three types of appendages were observed in the ceramic assemblage from the Box Plant site. The most common are small decorative handles (Figure 9). Both loop and lug handles were attached to Dan River jars at the Box Plant. A total of 35 loop handles were recorded. Ten are decorated with punctations or incised triangles and three terminate in a notched rim peak. Several broken or detached handles indicate that loop handles were riveted to vessels through holes made in the vessel wall prior to firing. Small, horizontally-oriented lug handles also were present. Of the 13 lug handles recorded, seven were integrated into a decorative band around the necks of jars. Vertically-oriented nodes were observed on five sherds. Two are double, or paired, nodes which were integrated into a decorative band around the vessel neck. The other three are single nodes which occur on sherds with lug handles, but with no other type of decoration. The rim of one jar had a notched applique strip that encircled the vessel neck. This strip was integrated into a band of horizontal incised lines.

Classification of Exterior Surface Decorations

A classification scheme of surface displacement decorations has been developed for pottery from the Box Plant site. The occurrence of appendages or interior surface decorations were not considered in this classification. This classification is hierarchical and consists of three categories: class, subgroup, and type. Class was defined on the basis of which of the seven decorative elements defined above formed the central theme of the decoration. Horizontal incised lines were not placed in a separate class because they tended to be used as ancillary designs in combination with other design elements. Because horizontal incised lines were used in similar ways as horizontal bands of punctations, these two design elements were placed in a

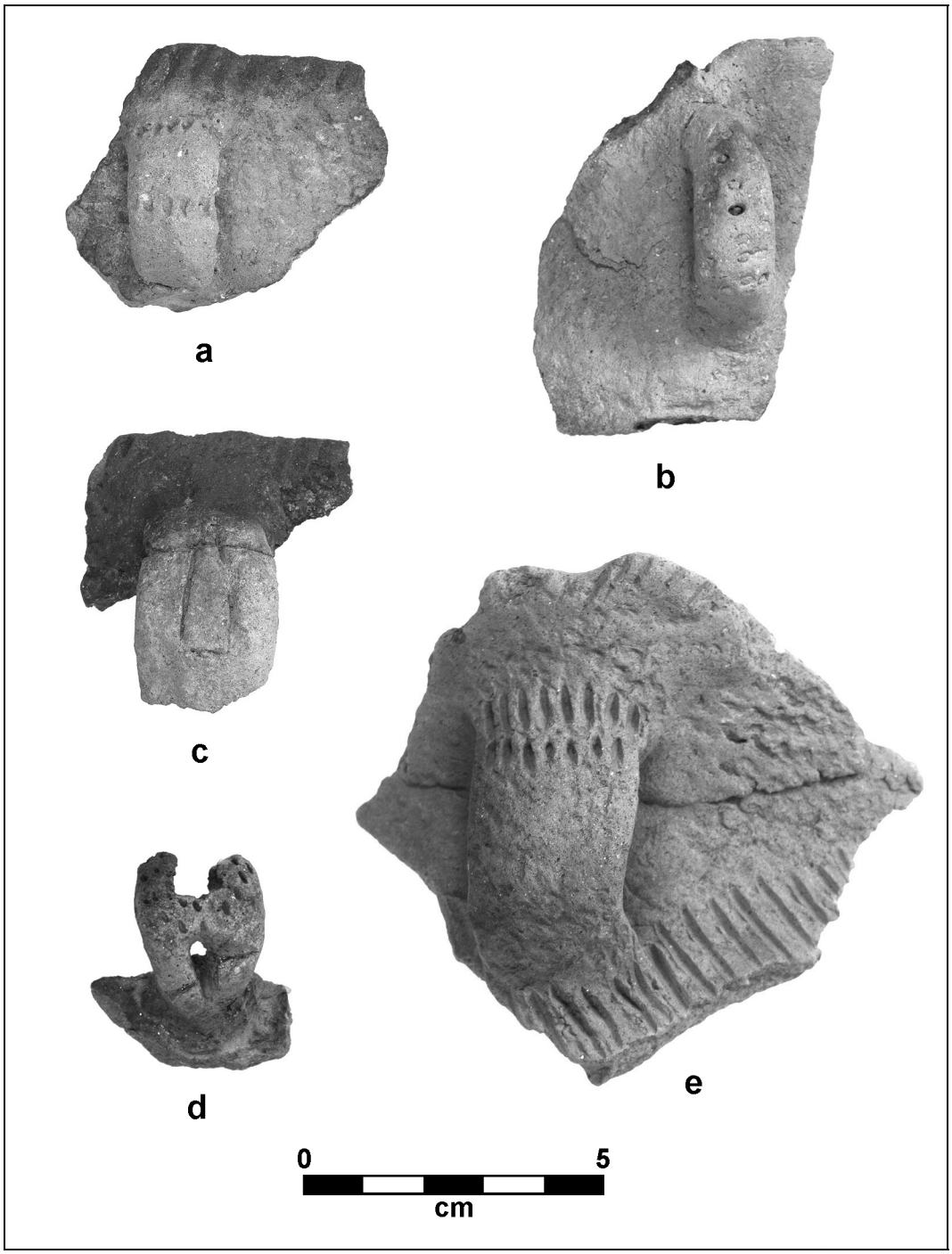

Figure 9. Decorated loop handles from the Box Plant site: horizontal punctated bands (*a*), vertical punctated bands (*b*), incised triangle (*c*), cut out triangles and random punctations (*d*), and horizontal bands of oblong incisions along the top edge of handle (*e*).

single decoration class. Subgroups consist of similar designs formed by different techniques. The type category consists of individual pottery decorations. Appendix 4 presents the distribution of decoration types by pottery type for the Box Plant site assemblage.

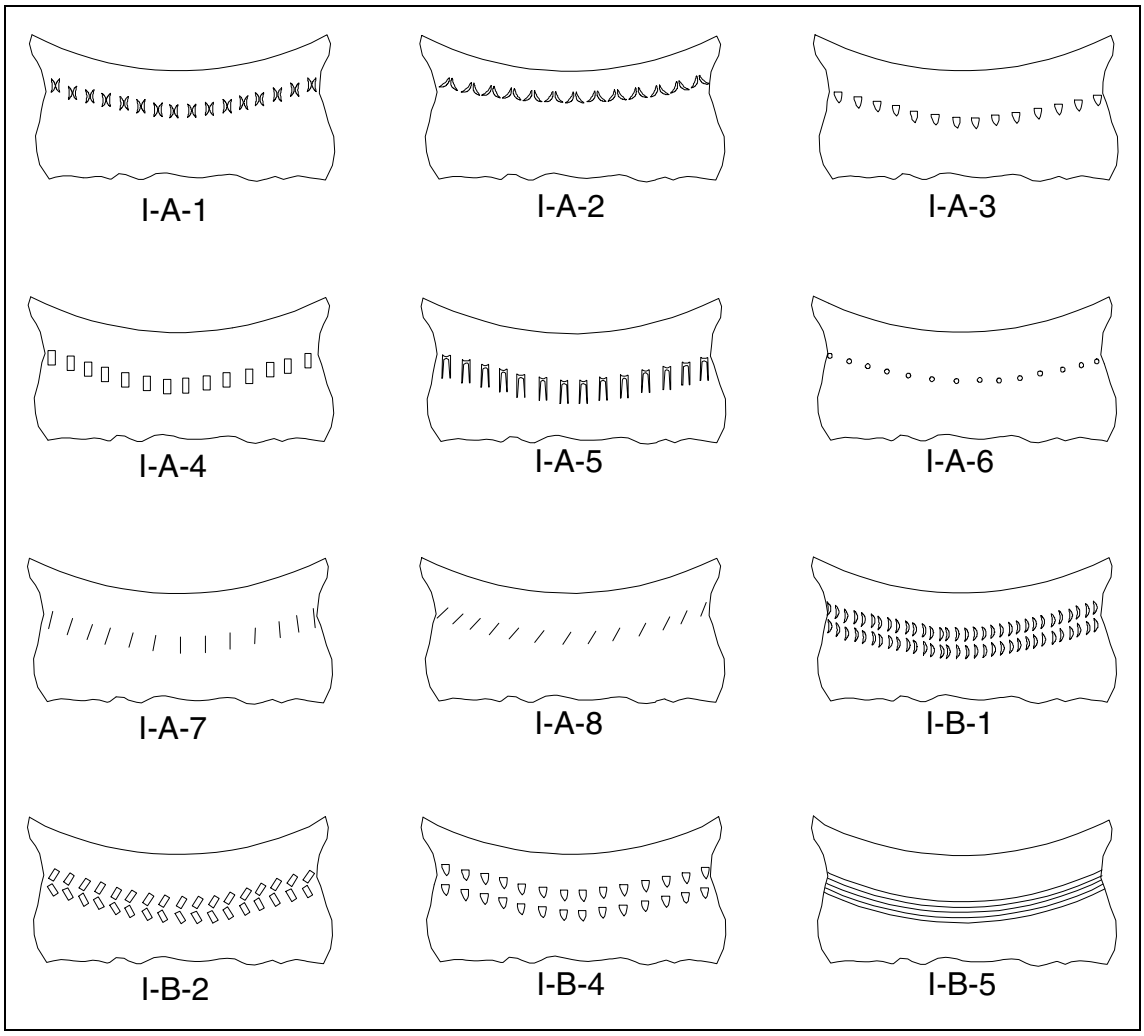

Figure 10. Class I pottery decorations found at the Box Plant site: Subgroups A and B.

Class I. The most common class of decoration on Dan River pottery from the Box Plant site was horizontal bands of punctations or horizontal incised lines that encircle the neck or shoulder of jars. Four subgroups within Class I have been defined. Decorations in Subgroup A consist of a single band of punctations. Subgroup B decorations consist of two or more parallel bands of punctations or horizontal incised lines. Subgroup C is similar to Subgroup B except that a combination of design elements were used to form the decoration. One decoration within this subgroup also included an applied clay strip. The final subgroup within this class of decoration consists of a horizontal band (either single or multiple lines) with a series of block decorations integrated into the band. The block elements were formed by the same technique as the horizontal band. Class I design types are illustrated in Figures 10-15.

Class II. The second class of decorations in the pottery assemblage consists of groups of parallel lines oriented oblique to the vessel rim. Two subgroups were defined for this class. Subgroup A was limited to groups of the basic design element spaced around the neck or shoulder or jars. This subgroup of decoration commonly occurs Late Woodland Uwharrie series pottery which preceded the Dan River series in the study area. The second subgroup of Class II

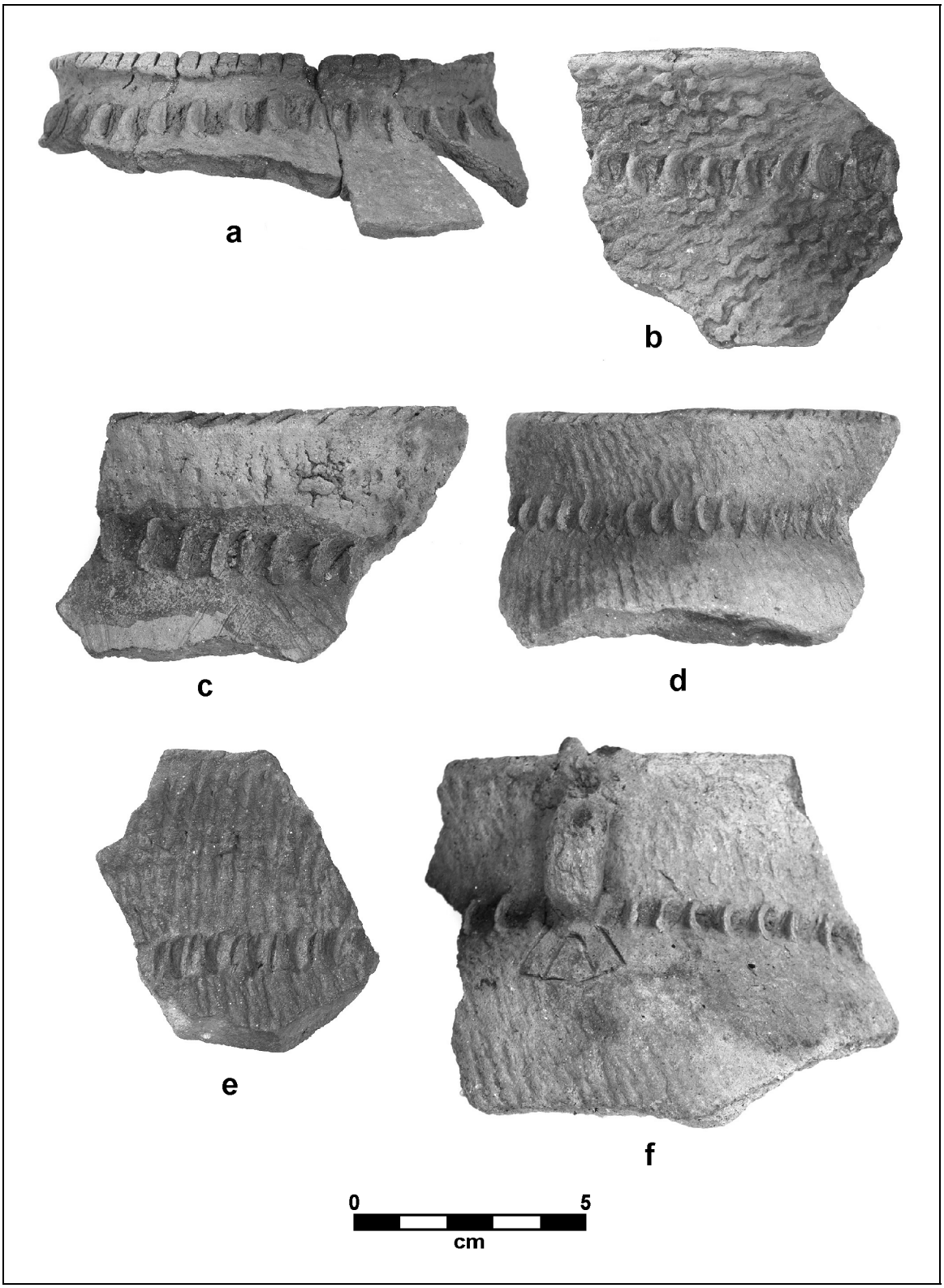

Figure 11. Dan River Net Impressed (*a-c*) and Dan River Cord Marked (*d-f*) rim sherds and vessel sections from the Box Plant site with finger-punctated decorations (decoration I-A-1). Also note the notched lips on Vessel 83 (*a)*, Vessel 33 (*c*), and Vessel 29 (*d)*, and the loop handle on Vessel 91(*f)*.

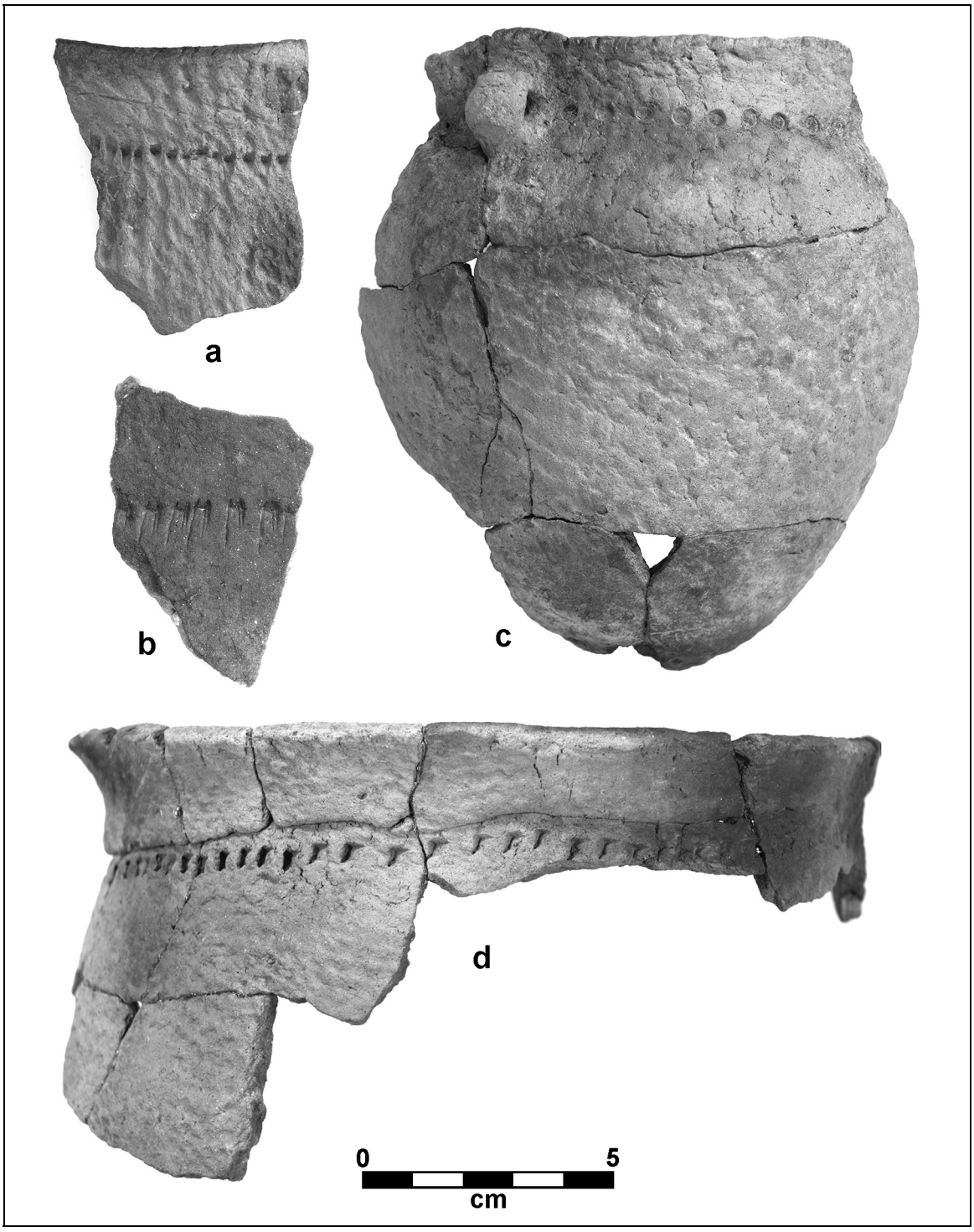

Figure 12. Dan River potsherds and vessel sections from the Box Plant site with punctated decorations: rim section of Vessel 30, a cord-marked jar with angled, circular reed punctations (decoration I-A-3) (*a*); roughly smoothed neck sherd with angled, rectangular stick punctations (decoration I-A-5) (*b*); section of Vessel 67, a net-impressed jar with a plain loop handle and circular reed punctations (decoration I-A-6) (*c*); and section of Vessel 84, a net-impressed jar with a folded rim and rectangular stick punctations (decoration I-A-4) (*d*).

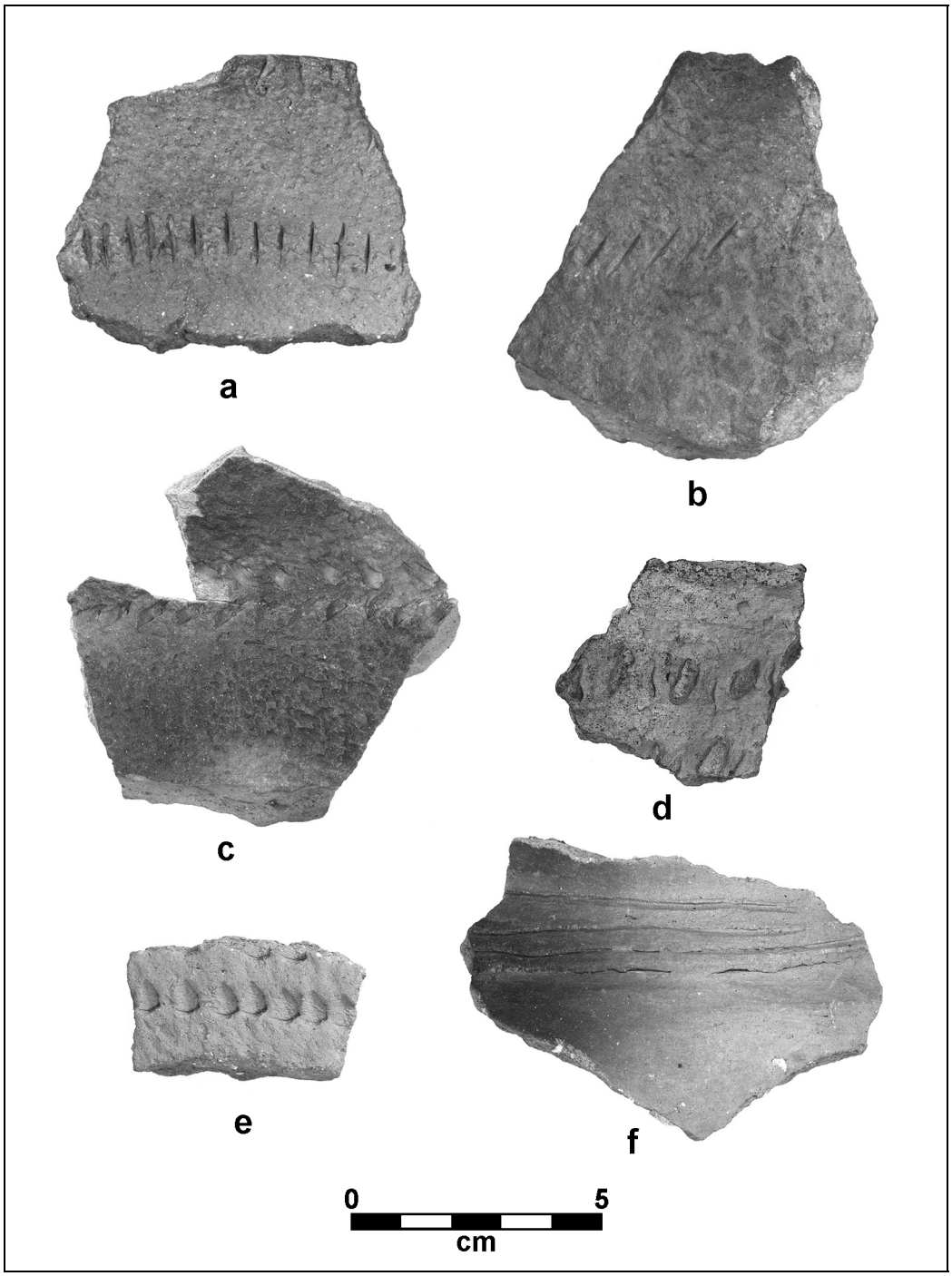

Figure 13. Dan River Net Impressed (*a-d*), Dan River Roughly Smoothed (*e*), and Dan River Plain (*f*) potsherds from the Box Plant site with punctated and incised decorations: rim sherd with band of short vertical incisions (decoration I-A-7) (*a*); rim sherd with band of short slanted incisions (decoration I-A-8) (*b*); neck sherds with band of chevron-like finger punctations (decoration I-B-2) (*c*); rim sherd with multiple bands of finger punctations (decoration I-B-1) (*d*); neck sherd with multiple rows of angled stick punctations (decoration I-B-4) (*e*); and neck sherd with band of multiple, parallel, incised lines (decoration I-B-5) (*f*).

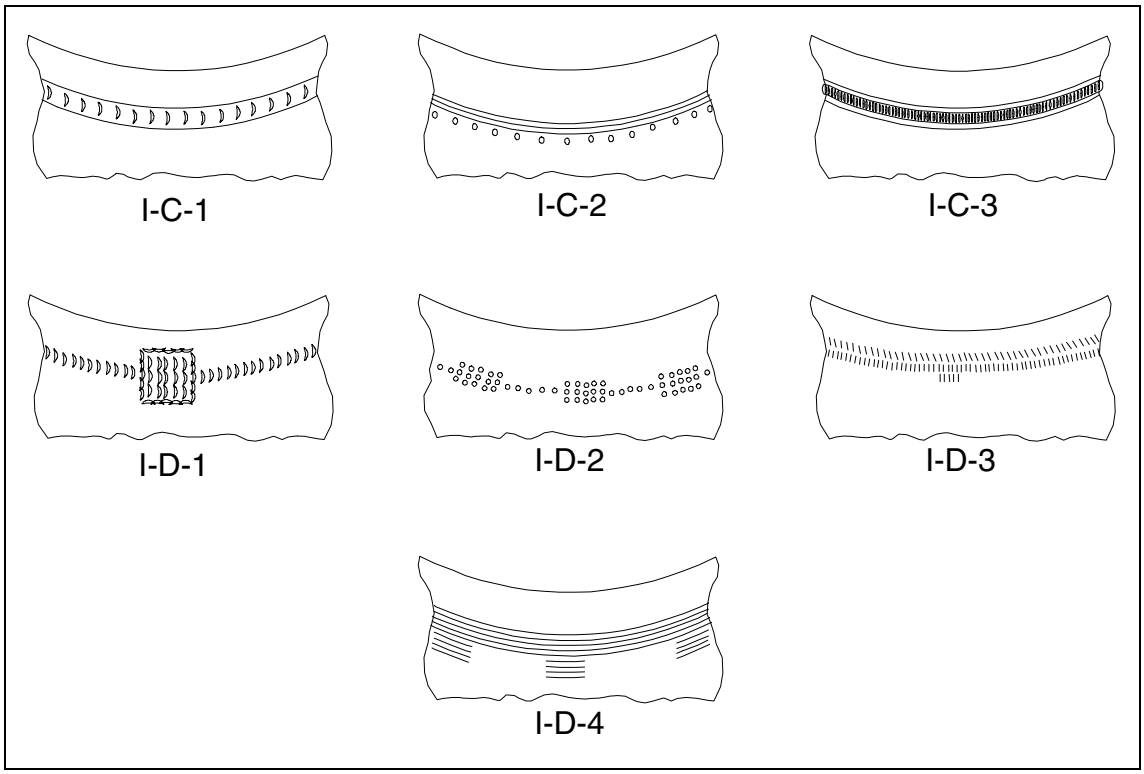

Figure 14. Class I pottery decorations found at the Box Plant site: Subgroups C and D.

decorations consists of groups of parallel incised lines oriented oblique to the vessel rim and a horizontal band of punctations. Class II design types are illustrated in Figures 16 and 17.

Class III. Decorations in this class are characterized by horizontal zigzag lines or horizontal bands of inverted V's. Five subgroups have been defined for this class. Subgroup A is composed of a simple band of the basic design element. The second subgroup consists of decorations with a series of inverted V's positioned above a horizontal line or band. Subgroup C is similar to the preceding subgroup with the addition of short oblique incisions below the horizontal line. The fourth subgroup consists of a band of incised lines positioned above a zigzag-incised line. The final subgroup of Class III decorations is composed of a variety of individual decorations that can be characterized as a band of zigzag elements enclosed in horizontal incised lines. Many of these incised designs were filled in with punctations or incised lines or a combination of both. Class III design types are illustrated in Figures 18-20.

Class IV. This small class of decorations is characterized by individual block designs that were placed on opposing sides of vessels along the neck or shoulder. Subgroup A is composed of a single block design element. Subgroup B has a pair of design elements, one a mirror image of the other. Class IV design types are illustrated in Figures 21 and 22.

Class V. This class of decoration occurs on both jars and bowls in the Box Plant assemblage. These decorations are characterized by repeated, stacked curvilinear or rectilinear incised designs. Subgroup A is composed of the design element only and Subgroup B consists

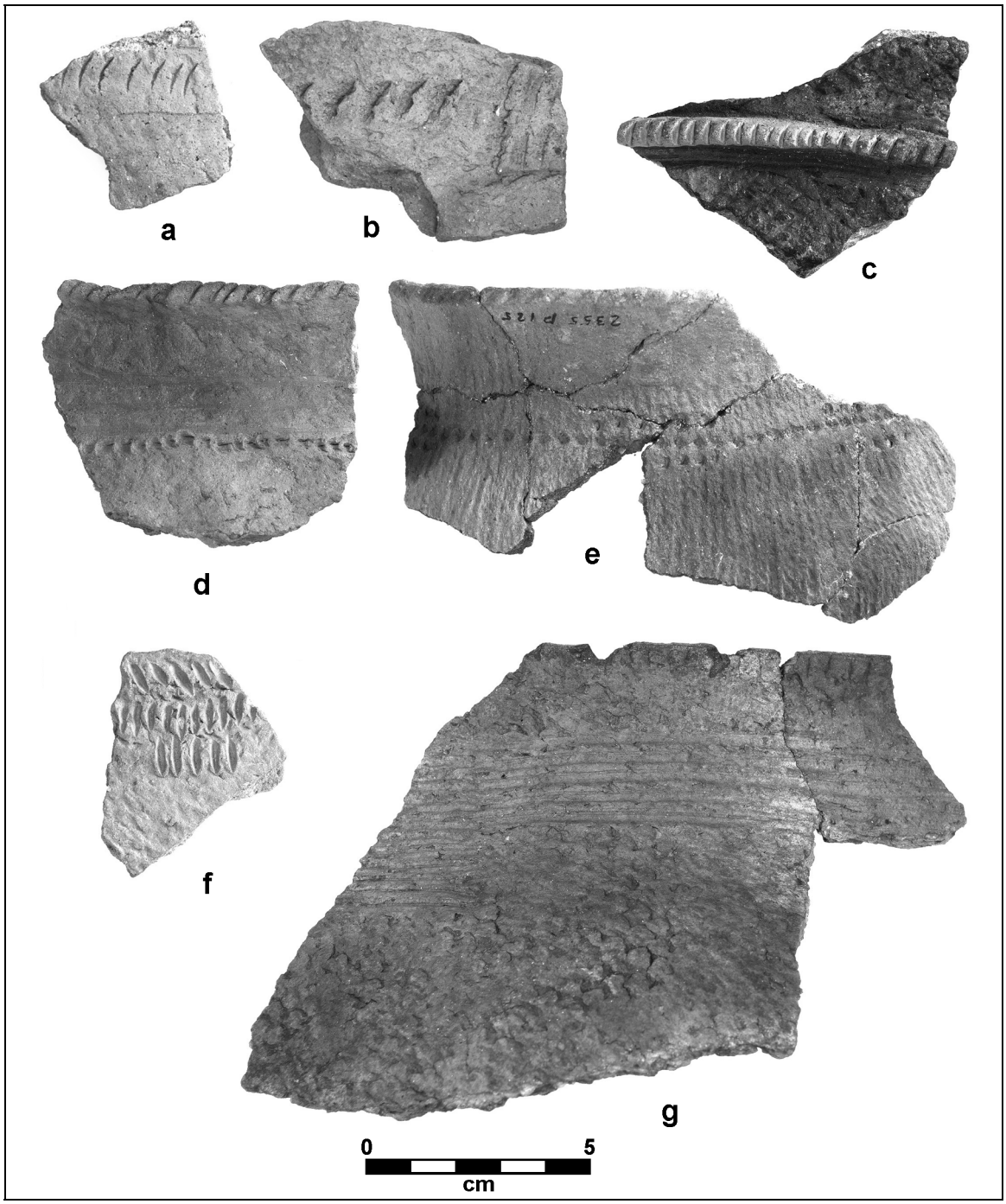

Figure 15. Dan River Net Impressed (*b*, *c*, *d*, *f*, and *g*), Dan River Roughly Smoothed (*a*), and Dan River Cord Marked (*e)* potsherds and vessel sections from the Box Plant site with decorations that combine punctated and incised elements: neck sherd with band of fingernail punctations and incised lines (decoration I-C-1) (*a*); neck sherd with band of finger punctations and rectangular punctated design element (decoration I-D-1) (*b*); neck sherd with notched applique strip and smoothed bands (decoration I-C-3) (*c*); rim sherd with band of shallow incisions and line of stick punctations (decoration I-C-2) (*d*); section of Vessel 56 with line of small stick punctations and blocks of stick punctations (decoration I-D-2) (*e*); neck sherd with two lines of short vertical incisions flanked by short segments of incisions (decoration I-D-3) (*f*); and rim sherds with a band of multiple, broadly incised lines flanked by short segments of incised lines (decoration I-D-4) (*g*).

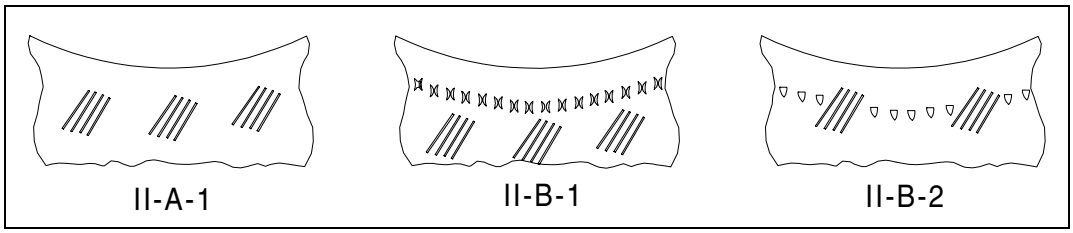

Figure 16. Class II pottery decorations found at the Box Plant site.

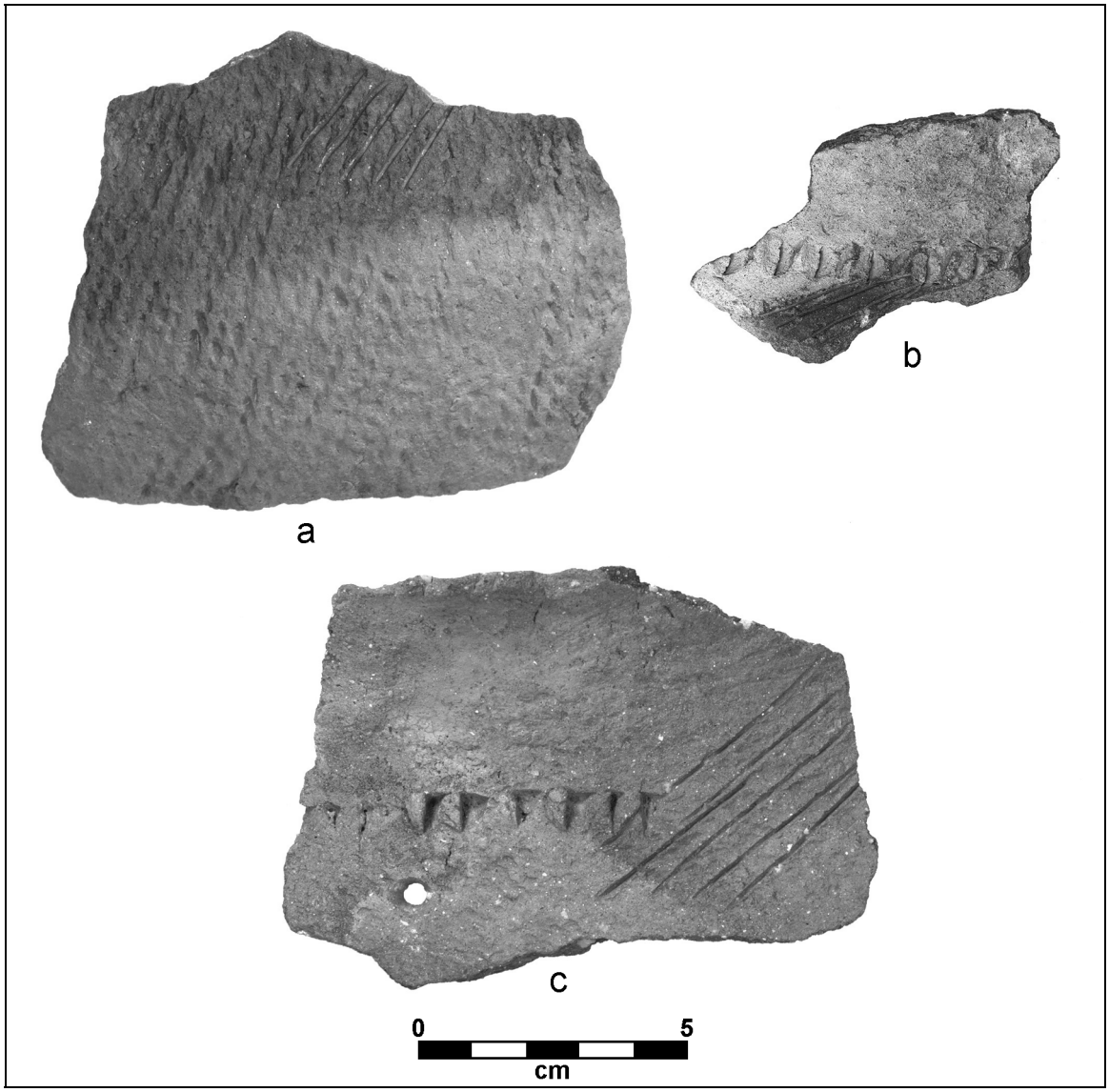

Figure 17. Dan River Cord Marked (*a*) and Dan River Net Impressed (*b-c*) potsherds from the Box Plant site with decorations that have groups of parallel incisions oriented oblique to the vessel rim: neck sherd with group of oblique incisions (decoration II-A-1) (*a*); neck sherd with group of oblique incisions below band of finger punctations (decoration II-B-1) (*b*); and rim sherd with oblique incisions in line with band of stick punctations (decoration II-B-2) (*c*).

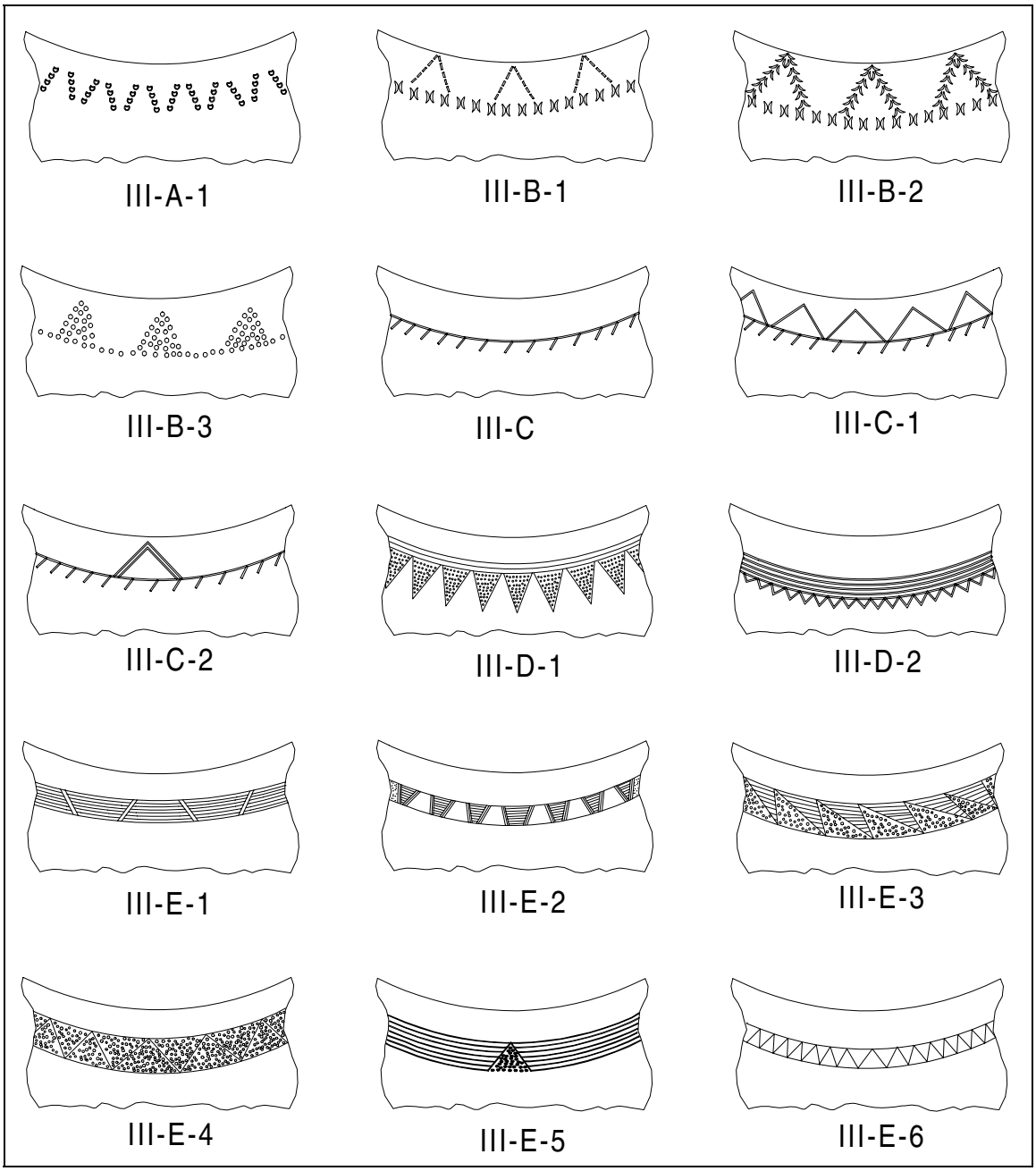

Figure 18. Class III pottery decorations found at the Box Plant site.

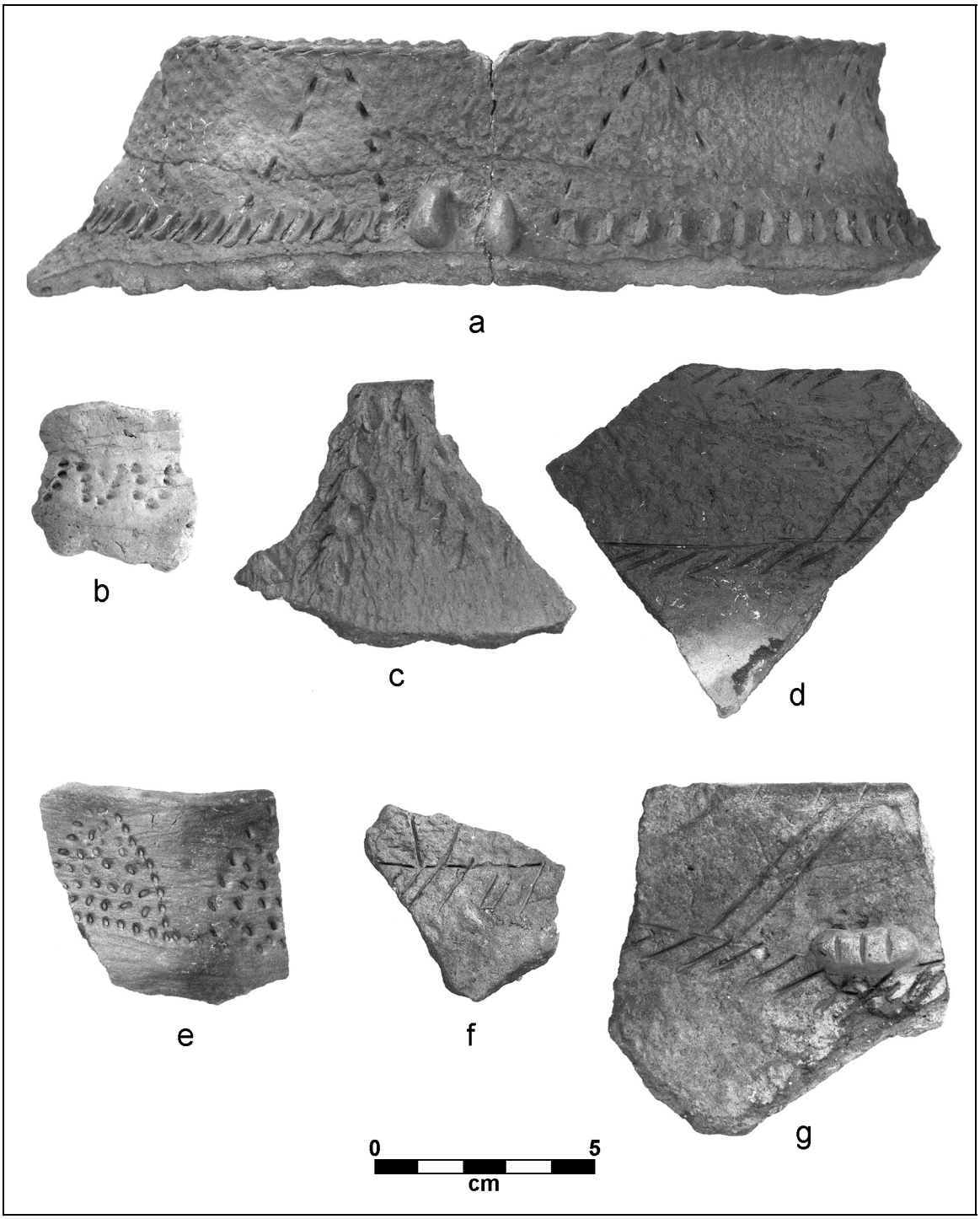

Figure 19. Dan River Net Impressed (*a, d, f-g*), Dan River Plain (*b, e*), and Dan River Cord Marked (*c*) potsherds and vessel section from the Box Plant site with decorations that contain horizontal zigzag lines or horizontal bands of inverted Vs: section of Vessel 62 with stick-punctated Vs over a band of finger punctations and applique nodes (decoration III-B-1) (*a*); rim sherd with punctated zigzag line (decoration III-A-1) (*b*); rimsherd with finger-punctated Vs (decoration III-B-2) (*c*); rim sherd with a band of filled-in punctated Vs (decoration III-B-3) (*e*); neck sherd with incised zigzag line above an incised band with short oblique lines (decoration III-C-1) (*f*); and two rim sherds with a double-incised, inverted V over and incised band with short oblique lines (decoration III-C-2) (*d* and *g*).

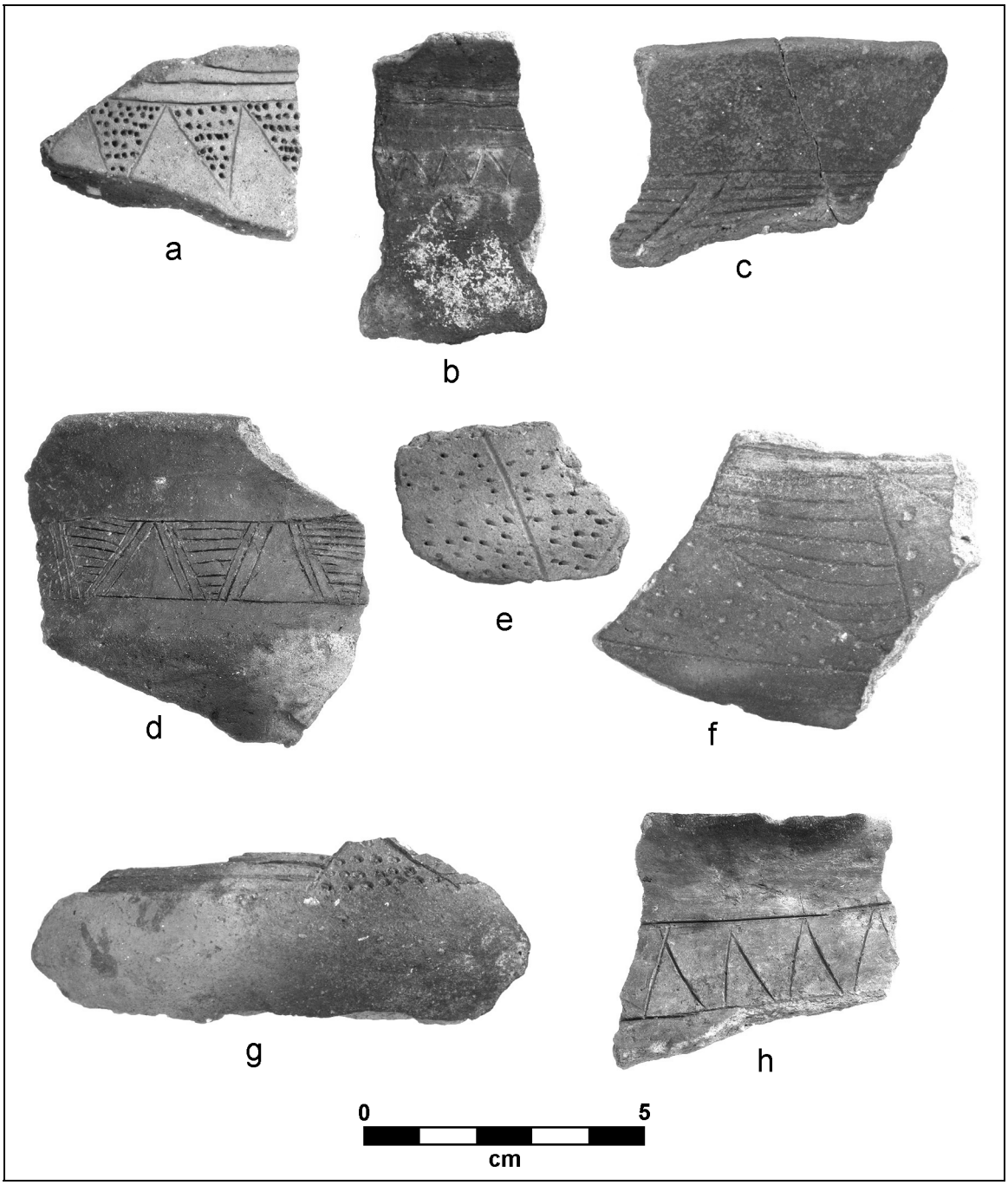

Figure 20. Dan River Plain sherds and vessel section from the Box Plant site with decorations that contain horizontal zigzag lines or horizontal bands of inverted Vs: neck sherd with punctation-filled incised triangles below a band of incised lines (decoration III-D-1) (*a*); neck sherd with incised zigzag line below a band of incised lines (decoration III-D-2) (*b*); section of Vessel 46 with a band of incised lines broken by alternately slanting pairs of incised lines (decoration III-E-1); (*c*); rimsherd with band of truncated incised triangles filled with parallel incised lines (decoration III-E-2) (*d*); neck sherd with a band of punctations and an incised zigzag line (decoration III-E-4) (*e*); neck sherd with a band of triangles alternately filled with punctations and incised lines (decoration III-E-3) (*f*); neck sherd with a band of incised, parallel lines interrupted by a triangle filled with punctations (decoration III-E-5) (*g*); and rim sherd with a band of incised, inverted Vs flanked by incised lines (decoration III-E-6) (*h*).

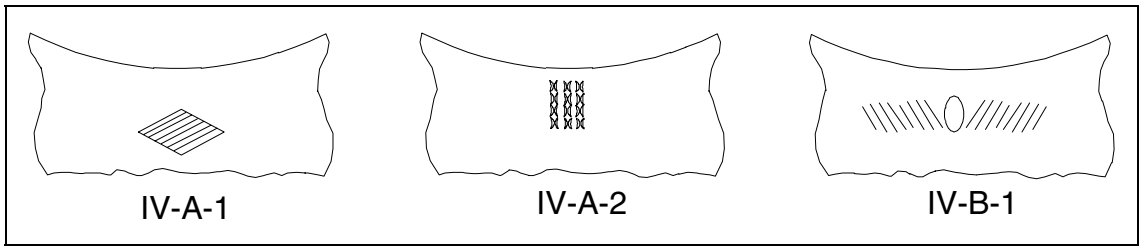

Figure 21. Class IV pottery decorations found at the Box Plant site.

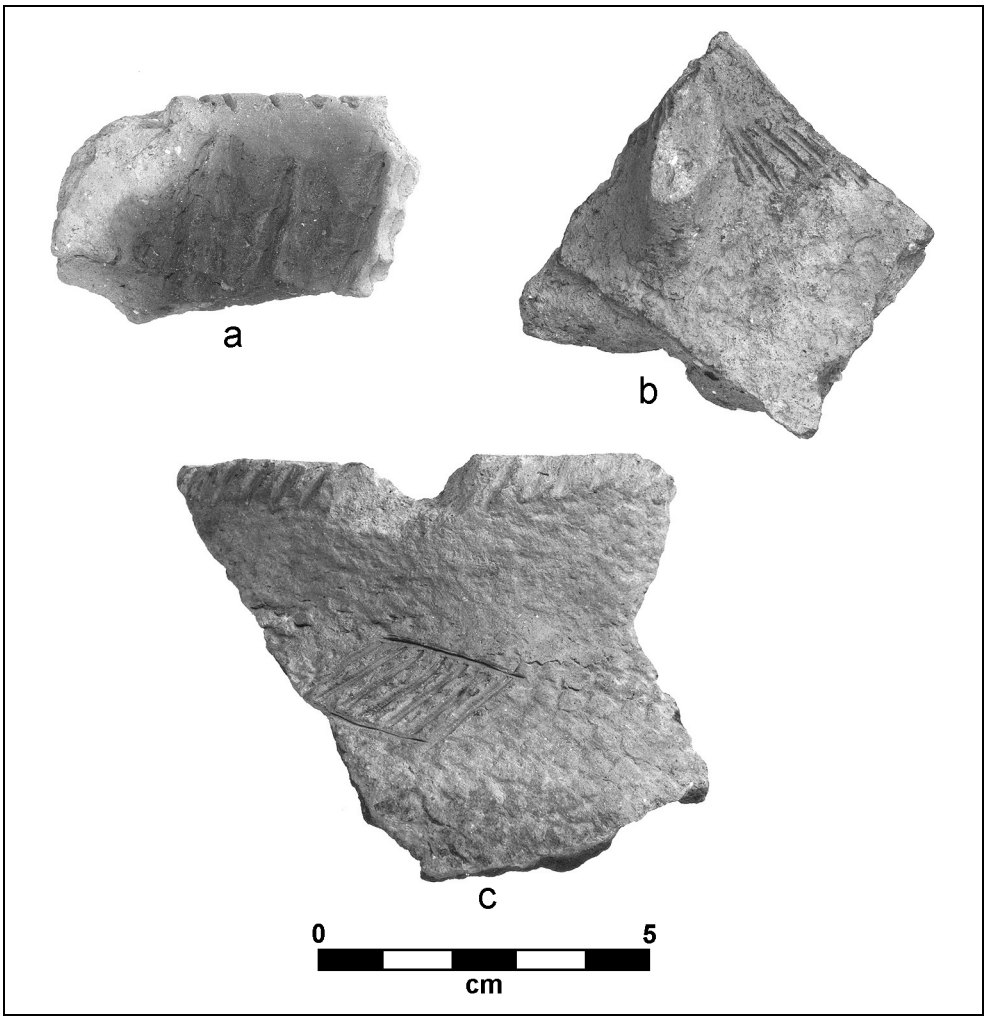

Figure 22. Dan River Plain (*a*) and Dan River Net Impressed (*b-c*) potsherds and vessel section from the Box Plant site with individual block decorations that were placed on opposing sides of vessels along the neck or shoulder: rim sherd with a group of three vertical, finger-punctated lines (decoration IV-A-2) (*a*); neck sherd with an applique node flanked by groups of oblique incised lines (decoration IV-B-1) (*b*); and section of Vessel 39 with an incised diamond filled with incised lines (decoration IV-A-1) (*c*).

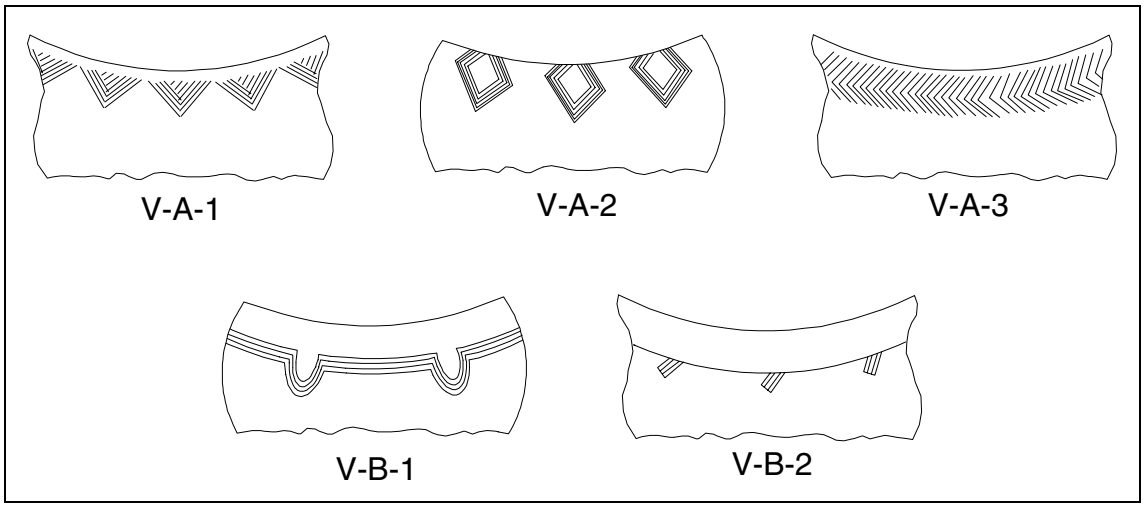

Figure 23. Class V pottery decorations found at the Box Plant site.

of the design element integrated into one or more horizontal incised lines. Class V design types are illustrated in Figures 23 and 24.

Class VI. This final class of decoration includes miscellaneous incised lines. Decorations included in this class were those that did not conform to a recognizable pattern due to the intrinsic nature of the design or because only a portion of the design was represented in a given potsherd.

Of the four types of vessels identified in the Box Plant assemblage (i.e., jars, miniature jars, bowls, and miniature bowls), only miniature bowls were not decorated. Jars were the most common vessel type and all classes of decoration and appendages were observed on jars. Decorations in Classes II and IV were found only on jars. Incised designs were more common on bowls than ones created with punctations.

Interior Surface Decorations

Two types of decoration were observed on the interior surfaces of potsherds in the Box Plant assemblage. The interior rim of one bowl rim sherd had an incised zigzag line with hollow reed punctations just above the line. A potsherd from a jar also had miscellaneous incised lines on the interior surface.

OTHER CLAY ARTIFACTS

Clay Pipes

Eight nearly complete clay pipes pipes, 21 pipe bowl fragments, 29 pipe stem fragments, and one fragment of an apparently unfinished pipe were recovered from the Box Plant site. The more complete specimens are described in Table 3 and illustrated in Figure 25. The complete pipes and most fragments are consistent with pipes from other Dan River and Radford phase sites in the area (Coleman and Gravely 1992; Benthall 1969). Of the bowl fragments, four are parts of pipes with round bowls and square, thickened rims; two are fragments of square, thick-walled

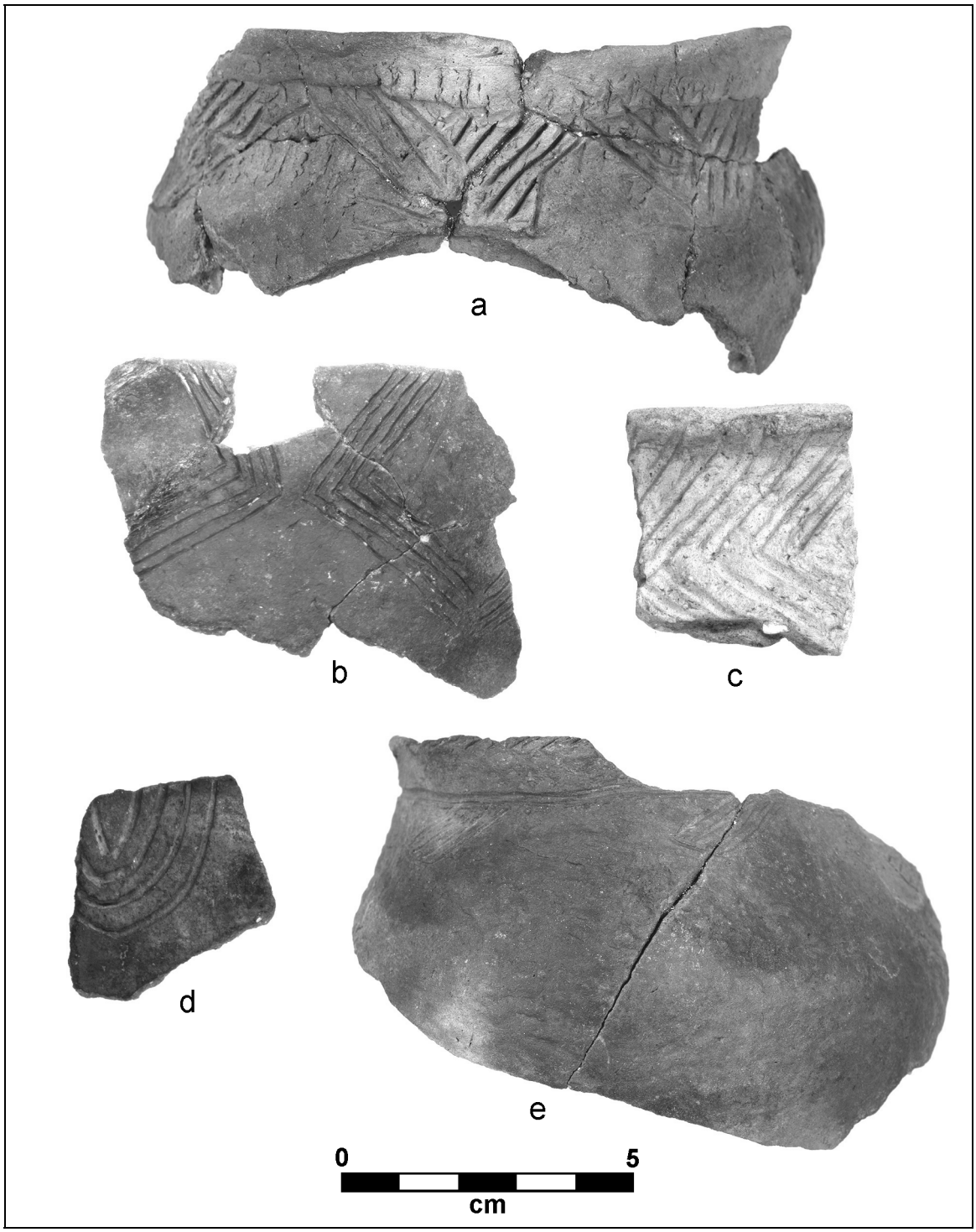

Figure 24. Dan River Roughly Smoothed (*a, e*) and Dan River Plain (*b-d*) potsherds and vessel sections from the Box Plant site with decorations characterized by repeated, stacked curvilinear or rectilinear incised designs: section of Vessel 80 with band of incision-filled Vs below the lip (decoration V-A-1) (*a*); section of Vessel 47 with truncated diamonds comprised of multiple incised lines (decoration V-A-2) (*b*); rim sherd with a boldly incised chevron design below the lip (decoration V-A-3) (*c*); shoulder section of a bowl with a band of nested incised U's (decoration V-B-1) (*d*); and a section of Vessel 53 with decoration of incised, slanted boxes filled with incised lines extending below a single incised band (decoration V-B-2) (*e*).

Table 3. Characteristics of obtuse elbow pipes from the Box Plant site.

Bowl Shape	Bowl Exterior Diameter (mm)	Stem Shape	Comments
Round	-	-	Pronounced heel, stem and bowl broken.
Round	22	Flattened	26mm long stem with flaring bit.
Round	14	Round	Stem broken.
Bulb-shaped	14	-	Stem broken, bowl rim was everted.
Round	22	Round, tapered	60mm long stem, pipe may have been coated with an oily pigment.
Round	16	Round	45mm long stem with thickened bit, bowl lip was notched.
Round	13	Round, tapered	31mm long stem, elbow angle approaches 180 degrees
-	-	Round	24mm long stem, pronounced heel, reworked bit.
Round	14	Round, tapered	stem broken

Figure 25. Clay pipes from the Box Plant site.

pipes; and seven are fragments from the elbow region of pipes with round bowls. The rest of the bowl fragments cannot be unidentified.

Most stem fragments (n=15) are from round, tapered stems with plain bits. Of these, burnishing marks are visible on two specimens and one was decorated with a small drilled hole or punctation. Three round, tapering pipe stems have thickened bits, two of which are square. Two pipe stems are square, and one of these has a thickened, squared bit. Two stems were curved, and one of these had a flaring bit. A group of six pipe stems were unusually thick (diameter > 15 mm) and were generally crudely made. The exterior of one of this group had corncob impressions.

Ladles

Nine ceramic ladles were identified in the Box Plant assemblage (Figure 26). Three of these are represented only by handle fragments. Handles are either round or flattened, and have

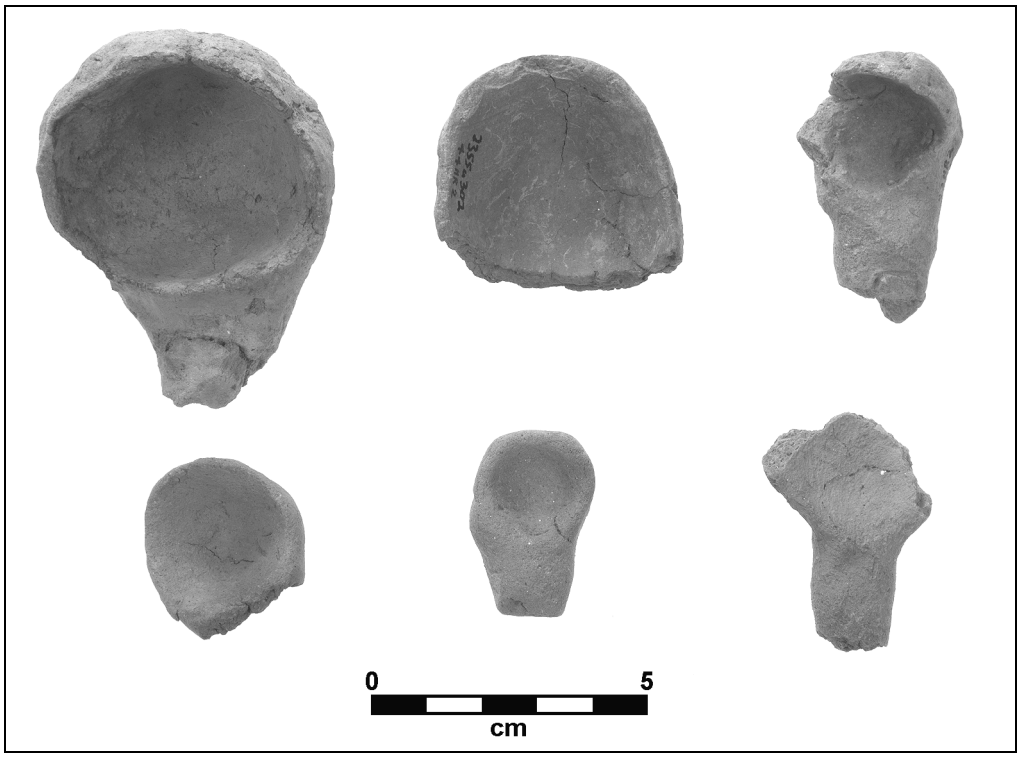

Figure 26. Clay ladles from the Box Plant site.

pointed or rounded ends. The three bowl fragments have exterior diameters that range from 30 mm to 44 mm and are 20 mm to 30 mm deep. The three remaining specimens are nearly complete ladles. Two are small, with the maximum diameter of the bowls ranging from 20 mm

to 27 mm and bowl depth ranging from 11 mm to 22 mm. One larger ladle has a bowl with a maximum diameter of 50 mm and a depth of 32 mm. The small ladle (shown in the upper right corner of Figure 26) may have had a perforation in the distal end of the handle.

Clay Disks

Nine ground pottery disks were identified in the collection. All, except one plain disk, are made from Dan River Net Impressed potsherds. Seven have smoothly ground edges, while two have chipped and only slightly ground edges.

Two larger ceramic disks were modeled rather than being made from recycled potsherds. These disks resemble stone discoidals and are 18 mm and 24.8 mm thick. One large, almost complete specimen measures about 8 cm in diameter.

Ceramic Balls

Three well-crafted ceramic balls were identified in the collection. The diameters of these balls range from 19.5 mm to 35 mm. Their function is unknown.

Other Fired-Clay Objects

Miscellaneous ceramic objects recovered from the Box Plant site include 12 fragments of pottery coils, one Dan River Cord Marked potsherd with two edges ground to form a point, two fragments of unidentified modeled-clay objects, and 11 amorphous lumps of tempered, fired clay (one of which was tempered with crushed shell).

STONE ARTIFACTS

Nine hundred and thirteen chipped-stone and 50 ground-stone artifacts are present in the Box Plant collection. Almost two-thirds of the chipped stone are unmodified flakes that were discarded during stone-tool manufacture. The tool classes most frequently represented are projectile points (n=184), modified or worked flakes (n=75), and bifaces (n=38). Other artifact classes represented by several specimens include cores (n=17), hammerstones (n=15), scrapers (n=14), chipped hoes (n=13), unidentified large chipped-tool fragments (n=12), and celts (n=11). Collectively, these stone tools were used in a variety of day-to-day tasks from hunting, butchering, and hide-working to woodworking, digging, and preparing agricultural fields.

Projectile Points

The collection of stone artifacts from the Box Plant site contains 184 partial or whole projectile points. One hundred and forty of these are unprovenienced and probably were recovered from topsoil and features excavated in 1964, 1965, and 1966; the remaining 44 artifacts can be associated with specific features dug in 1973 (Tables 4 and 5). The majority of the chipped-stone projectile points date to the Late Prehistoric period when one or more villages were established at the site; however, several other projectile points provide possible evidence for much earlier site visits (Figure 27).

Early Archaic Types. Six unprovenienced Early Archaic points are present in the collection. All of these date between about 8,000 B.C. and 6,000 B.C. Two small corner-notched points with straight, ground bases were classified as Palmer Corner-Notched (Coe 1964:67-69). Both points were made from metavolcanic stone but lacked the distinct serrations noted for this type. [The term *metavolcanic* includes both aphyric and porphyritic flows and argillite (see Daniel and Butler 1996). All raw material identifications were made macroscopically.]

Three larger corner-notched points were classified as Kirk Corner-Notched (Coe 1964:69-70). Two of these were made from metavolcanic rock while the third was made from quartzite. Finally, a small, side-notched point with a bifurcated base was classified as St. Albans Side-Notched (Broyles 1971:72-75). It too was made from metavolcanic rock.

Middle Archaic Types. Two unprovenienced projectile points represent types that date to the Middle Archaic period (ca. 6,000-3,000 B.C.); two others also probably date to this period. One projectile point made of metavolcanic rock was classified as Stanly Stemmed. This type dates to the beginning of the Middle Archaic period and is characterized by "a broad, triangular

Table 4. Distribution of small chipped-stone artifacts found at the Box Plant site.

Context	Projectile Point	Bifacial Knife	Biface	Core	Scraper	Perforator or Drill	Graver	Worked Flake	Flake	Total
TP-B1-2	2	-	2	1	1	-	-	-	7	13
TP-B3	-	-	-	1	-	-	-	-	9	10
TP-B3a	1	-	-	-	-	-	-	-	-	1
TP-B4	-	-	-	-	-	-	-	1	-	1
TP-B5	1	-	2	-	2	-	-	2	6	13
TP-B6	1	-	-	-	-	-	-	4	13	18
TP-B6a	-	-	-	1	-	-	-	-	3	4
TP-B8	-	-	-	-	1	-	-	-	2	3
TP-B10	2	-	-	-	-	-	-	1	1	4
TP-B11	-	-	-	-	1	-	-	-	-	1
TP-B12	2	-	-	-	-	-	-	-	4	6
TP-B13	6	-	-	-	1	-	-	3	5	15
TP-B14	5	-	-	2	-	-	-	-	15	22
TP-B15	7	-	-	3	-	-	-	4	25	39
TP-B17	1	-	2	-	-	-	-	-	3	6
TP-B19 & 20	-	-	-	-	-	-	-	-	5	5
TP-B20	1	-	-	-	-	-	-	-	4	5
TP-B21	1	-	-	-	-	-	-	2	2	5
TP-B23	-	-	-	-	1	-	-	-	-	1
TP-B24	-	-	-	-	-	-	-	1	-	1
TP-B27	-	-	-	-	-	-	-	1	1	2
TP-B29	-	-	-	-	1	-	-	-	-	1
TP-B30	2	-	-	-	-	-	-	-	-	2
TP-B32	3	-	1	1	-	-	-	5	12	22
TP-B33	-	-	-	-	-	-	-	-	1	1
TP-B34	1	-	1	-	-	-	-	-	7	9
TP-B36	1	-	-	-	-	-	-	-	1	2
TP-B37	-	-	-	-	-	-	-	-	3	3
TP-B38	-	-	-	-	-	-	-	-	5	5
TP-B39	6	-	-	-	-	-	-	-	1	7
TP-B40	1	-	1	-	-	-	-	-	-	2
TP-B42	-	-	-	-	-	-	-	1	-	1
Bu. 5	-	-	-	-	-	-	-	1	-	1
General*	139	1	29	8	6	3	1	48	408	643
Surface	1	-	-	-	-	-	-	1	8	10
Total	184	1	38	17	14	3	1	75	551	884

*This context includes all features excavated in 1964, 1965, and 1966.

blade and a small, squared stem with a shallow notched base" (Coe 1964:35). A large lanceolate point, also made of metavolcanic rock, was classified as Guilford Lanceolate (Coe 1964:43). Coe suggests a date of about 4,000 B.C. for this type. Two other small lanceolate points (one metavolcanic and the other quartzite) in the collection may be reduced versions of the Guilford Lanceolate type.

Table 5. Distribution of projectile points found at the Box Plant site.

Projectile Point Type	TP-B1-2	TP-B3a	TP-B5	TP-B6a	TP-B10	TP-B12	TP-B13	TP-B14	TP-B15	TP-B17
Palmer Corner-Notched	-	-	-	-	-	-	-	-	-	-
Kirk Corner-Notched	-	-	-	-	-	-	-	-	-	-
St. Albans Side-Notched	-	-	-	-	-	-	-	-	-	-
Stanly Stemmed	-	-	-	-	-	-	-	-	-	-
Guilford Lanceolate	-	-	-	-	-	-	-	-	-	-
Small Lanceolate	-	-	-	-	-	-	-	-	-	-
Small Savannah River	-	-	-	-	-	-	-	-	-	-
Yadkin Large Triangular	-	-	1	-	-	-	-	-	-	-
Jack's Reef Corner-Notched	-	-	-	-	-	-	-	-	-	-
Randolph Stemmed	-	-	-	-	-	-	-	-	-	-
Small Triangular	2	1	1	1	1	2	2	4	5	-
Unidentified Pentagonal	-	-	-	-	-	-	-	-	-	1
Unidentified (Notched)	-	-	-	-	-	-	-	-	-	-
Unidentified (Tip)	-	-	1	-	-	-	-	-	-	-
Unidentified (Fragment)	-	-	-	-	-	-	-	-	-	-
Fragment (Stemmed)	-	-	-	-	-	-	-	-	-	-
Fragment (Notched)	-	-	-	-	-	-	1	-	-	-
Fragment (Triangular)	-	-	-	-	-	-	-	-	-	-
Modified Projectile Point	-	-	-	-	-	-	1	-	1	-
Total	2	1	3	1	1	2	4	4	6	1

Table 5 Continued.

Projectile Point Type	TP-B20	TP-B21	TP-B30	TP-B32	TP-B34	TP-B36	TP-B40	General*	Total
Palmer Corner-Notched	-	-	-	-	-	-	-	2	2
Kirk Corner-Notched	-	-	-	-	-	-	-	3	3
St. Albans Side-Notched	-	-	-	-	-	-	-	1	1
Stanly Stemmed	-	-	-	-	-	-	-	1	1
Guilford Lanceolate	-	-	-	-	-	-	-	1	1
Small Lanceolate	-	-	-	-	-	-	-	2	2
Small Savannah River	-	-	-	-	-	-	-	1	1
Yadkin Large Triangular	-	-	-	-	-	-	-	3	4
Jack's Reef Corner-Notched	-	-	-	-	-	-	-	2	2
Randolph Stemmed	-	-	-	-	-	-	-	12	12
Small Triangular	1	1	2	1	1	1	1	91	118
Unidentified Pentagonal	-	-	-	-	-	-	-	-	1
Unidentified (Notched)	-	-	-	-	-	-	-	6	6
Unidentified (Tip)	-	-	-	1	-	-	-	12	14
Unidentified (Fragment)	-	-	-	-	-	-	-	7	7
Fragment (Stemmed)	-	-	-	-	-	-	-	2	2
Fragment (Notched)	-	-	-	-	-	-	-	2	3
Fragment (Triangular)	-	-	-	1	-	-	-	3	4
Modified Projectile Point	-	-	-	-	-	-	-	-	2
Total	1	1	2	3	1	1	1	151	186

*This context includes all features excavated in 1964, 1965, and 1966.

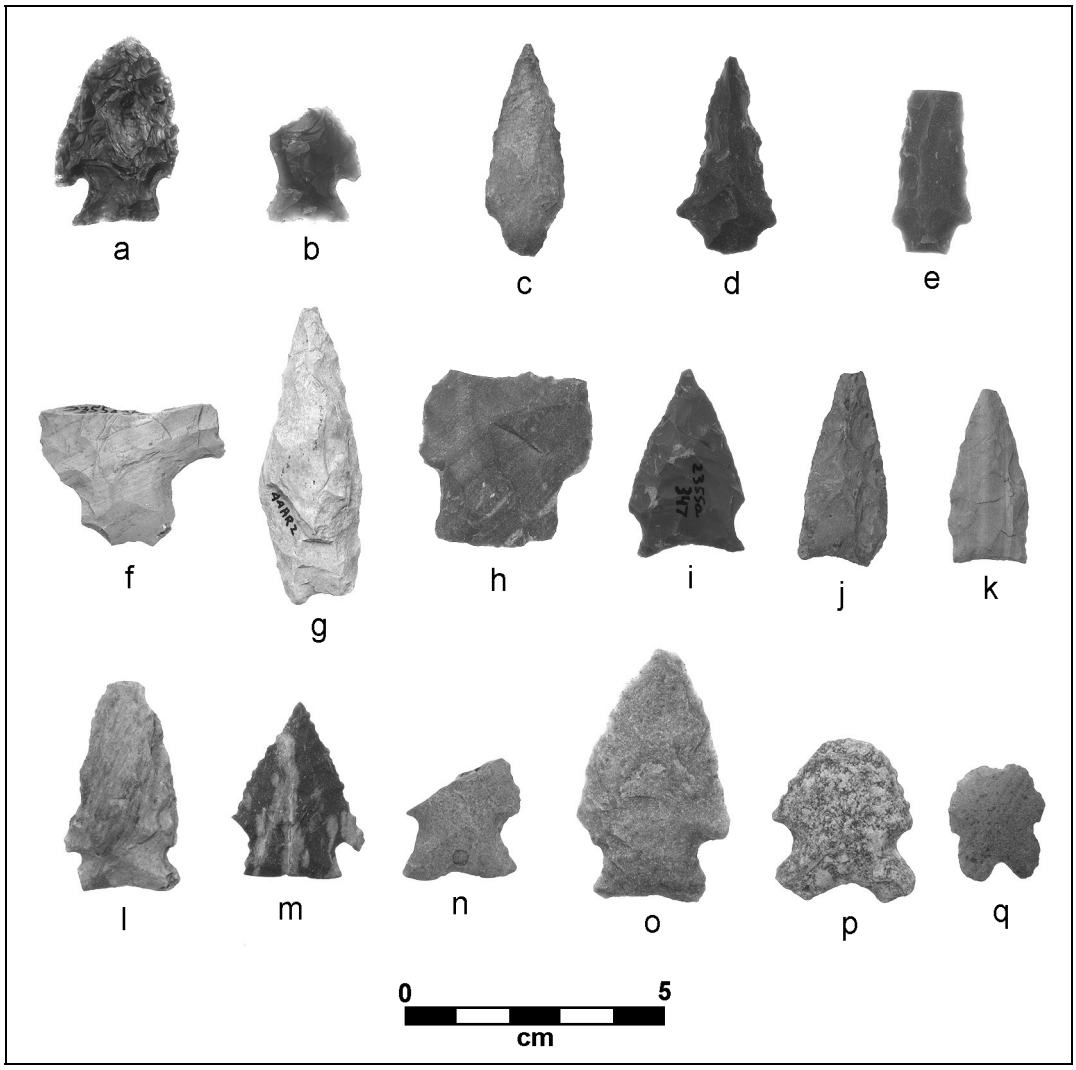

Figure 27. Archaic, Woodland, and other projectile points from the Box Plant site: Palmer Corner-Notched (*l-m*), Kirk Corner-Notched (*n-p*), St. Albans Side-Notched (*q*), Stanly Stemmed (*f*), Guilford Lanceolate (*g*), Savannah River Stemmed (*h*), Yadkin Large Triangular, pointed ear variety (*i-k*), Jack's Reef Corner-Notched (*a-b*), and Randolph Stemmed (*c-e*).

Late Archaic Type. One medium-sized, broad-bladed point with a rectangular stem is present in the collection. It is made of metavolcanic rock and resembles Oliver's (1981:181) Small Savannah River Stemmed type. This unprovenienced projectile point probably dates to the latter part of the Late Archaic period (ca. 2,000-1,000 B.C.).

Early Woodland and Middle Woodland Types. Four projectile points were classified as Yadkin Large Triangular (Coe 1964:45-49). Coe (1964:45) describes this type as a "large, symmetrical, and well-made triangular point." All four points have nearly straight bases and shallow side notches, and conform to Coe's "pointed ear variety." Although three of these were unprovenienced, one came from TP-B5, a late prehistoric trash-filled pit. One of the other three Yadkin Large Triangular points is made from a very fine metavolcanic rock and has both side notches and a concave thinned base (Figure 27). Although small (i.e., 36.1 mm long, 22.5 mm wide, and 5.7 mm thick), it does bare some resemblance to the Hardaway Side-Notched type

(1964:67) and probably is the Hardaway projectile point referred to by Gravely in his summary report on the site (Appendix 1).

Two projectile points were classified as Jack's Reef Corner-Notched (Ritchie (1961:26). Both are composed of chert that probably came from the Ridge-and-Valley sources in southwest Virginia or eastern Tennessee. One whole point is medium to dark brown in color, while the other specimen—a fragment—is gray-brown in color. Jack's Reef Corner-Notched points are characterized by Ritchie (1961:26) as "broad, thin, corner-notched points of medium size." The two examples in this assemblage are well made with expanding stems and straight bases (Figure 27). This point type was used during the Middle Woodland in New York and Ohio, and it also resembles Middle Woodland Norton and Manker projectile points from western Illinois (Fortier et al. 1989:354-357).

Late Prehistoric Types. Twelve projectile points were classified as Randolph Stemmed. Coe (1964:50) described this type as looking like "crude miniature versions of the old Morrow Mountain II type. They had a roughly tapered stem, and they were narrow and thick. The chipping was exceedingly rough and crude, and most of the flakes were irregular and poorly controlled." The specimens from the Box Plant site are made from both metavolcanic rock (n=10) and quartz (n=2), and they do resemble small Morrow Mountain points. Coe believed that these points were created by impoverished Native American groups during the eighteenth century; however, they have rarely been found at Contact-period sites in the North Carolina and Virginia Piedmont. Consequently, their chronological position is uncertain.

One medium-sized pentagonal point was recovered from TP-B17. It is made of chert and does not readily conform to an established projectile point type. Although the tip and one lateral edge are broken, its original dimensions were about 30 mm in both length and width and about 4.0 mm in thickness.

One hundred and eighteen of the chipped-stone projectile points in the collection (or about 80% of all identified points) were small triangular points. These artifacts are associated with the use of the bow-and-arrow in this area. A number of small triangular projectile point types have been defined for the late prehistoric and early contact periods in the Piedmont. Most of the triangular points in this assemblage probably would be classified as Caraway Triangular (Coe 1964:49) or Clarksville Small Triangular (1964:112). Most are made from metavolcanic rock (n=98), with a few composed of quartz (n=8), chert (n=8), jasper (n=2), chalcedony (n=1), or quartzite (n=1). Shapes range from small isosceles triangles with straight sides to concave-sided (probably as a result of resharpening), drill-like points (Figure 28). About a fourth of the specimens examined appeared to have been made on older Archaic flakes.

Small triangular projectile points ranged from 16.8 mm to 38.6 mm in length (mean=25.3 mm, s.d.=4.80 mm, n=63), from 8.8 mm to 26.4 mm in width (mean=16.7 mm, s.d.=2.91 mm, n=83), from 2.2 mm to 9.6 mm in thickness (mean=4.8 mm, s.d.=1.49 mm, n=94), and from 0.5 g to 4.4 g in weight (mean=1.6 g, s.d.=0.79 g, n=48).

Modified Projectile Points. Two projectile points were found that had been substantially reworked (Figure 29). The first specimen, found in TP-B13, was a large, thick biface that measured 60.55 mm in length, 23.1 mm in width at the base, and 9.17mm thick. The sides are straight and parallel for most of its length, and there is faint evidence of side notching near the base. The maximum width of this biface is near the tip and there is a ridge of stone down the center, likely the result of resharpening. Another reworked projectile point was recovered from

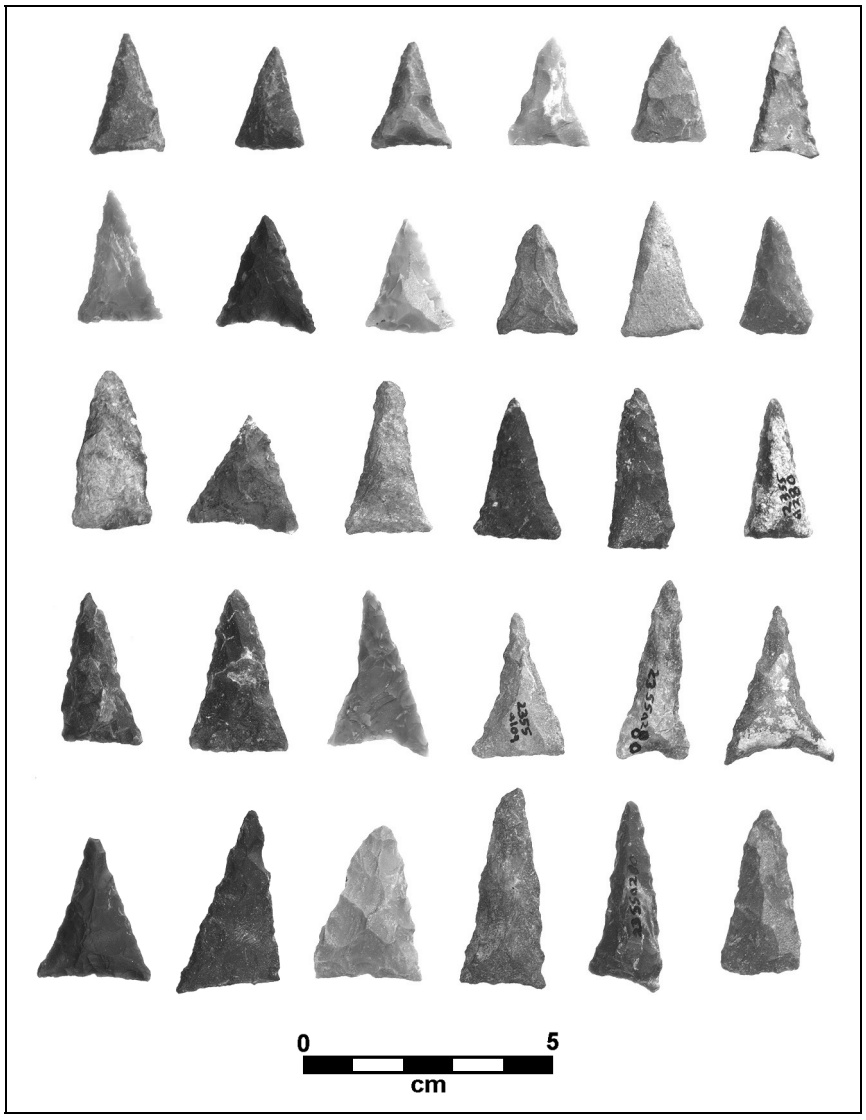

Figure 28. Small triangular projectile points from the Box Plant site.

TP-B15. It is a small, crude, corner-notched point that has been recycled into a drill. It has an expanding stem with a slightly convex base.

Conclusions. Six different types of rock were used in the production of projectile points at the Box Plant site. Most (77.6%) were knapped from metavolcanic rock, with quartz (10.9%) and chert (6.6%) being the next most common. Quartzite (2.2%), chalcedony (1.6%), and jasper (1.1%) were rare. Metavolcanic rocks, such as rhyolite, are found in various locations in the Piedmont, such as the Uwharrie Mountains in North Carolina. The chert used at the site probably originates from the Ridge-and-Valley province of southwestern Virginia and eastern Tennessee. There are numerous sources for both quartz and quartzite in piedmont Virginia and North Carolina. The sources of the chalcedony and jasper are not known.

A temporally diverse set of projectile points are present in the collection of lithic artifacts from the Box Plant site. The earliest, unambiguous points are the two Palmer Corner-Notched projectile points. These, and the Kirk Corner-Notched and St. Albans Side-Notched points, suggest Early Archaic visits to the site. Points associated with the Middle and Late Archaic are

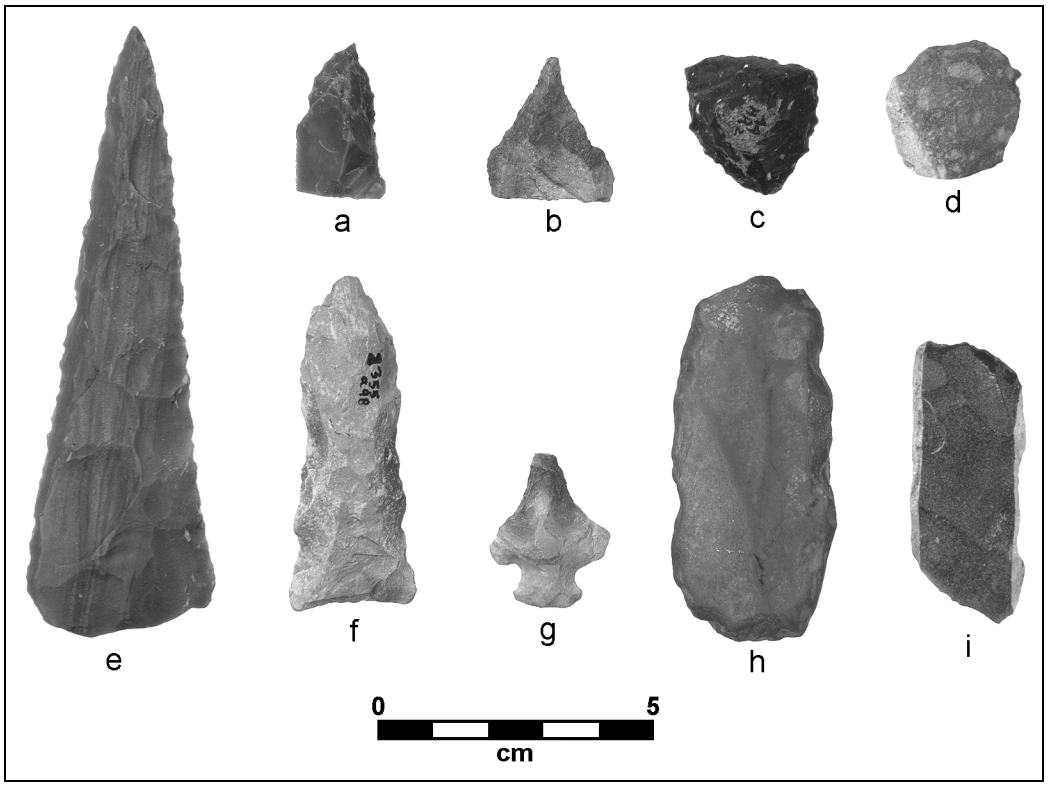

Figure 29. Other small chipped-stone artifacts from the Box Plant site: knife (*e*), graver (*a*), perforator (*b*), reworked projectile points (*f-g*), and scrapers (*c-d, h-i*).

also found in the collection. The Yadkin Large Triangular and Jack's Reef Corner-Notched points indicate a possible Early Woodland or Middle Woodland component. Finally, the numerous small triangular points are associated with the substantial late prehistoric cultural component at the site.

Other Small Chipped-Stone Artifacts

Bifacial Knife. One bifacial knife was recovered from an unknown context (Figure 29). It was made from a fine-grained, flow-banded, metavolcanic rock. The lateral edges are straight, serrated, slightly beveled, and show evidence of pressure flaking. The base is convex and has been truncated by burination. This artifact is 111.84 mm long, 34.79 mm wide at the base, and 8.62 mm thick.

Bifaces. Thirty-two bifaces or biface fragments are present in the collection. Most are fragments of tools which exhibit flaking on both faces. Three may have been fragments of projectile points. Only one was complete. It is an oval, quartz biface with an even, sinuous edge. It may have been a preform for a bifacial tool such as a projectile point. Raw materials included quartz (n=11), quartz crystal (n=5), and metavolcanic rock (n=16).

Cores. Sixteen cores or core fragments are in this assemblage. These specimens are irregular chunks of knappable stone from which one or more flakes have been detached. Six are

clear or translucent quartz crystal, and one of these exhibits a crystal surface. The other cores are quartz (n=5), metavolcanic rock (n=2), quartzite (n=1), jasper (n=1) and chert (n=1).

Scrapers. Fifteen artifacts were identified as chipped-stone scrapers (Figure 29). Only one shows bifacial flaking. This milky quartz fragment may have been part of a projectile point reworked into a scraper. The remaining scrapers are unifacially modified. Most are metavolcanic rock (n=7) or quartz (n=4). The remainder are chert (n=2), quartzite (n=1), or chalcedony (n=1). One of the metavolcanic specimens is a large, blade-like flake that is heavily patinated and stream-tumbled. It exhibits old flake scars that suggest great age; but it also exhibits more recent, unpatinated flake scars which suggest that it was recycled by later site inhabitants. One chert scraper appears to have been made from a core. This black chert nodule has some cortex and a clear bulb of percussion on the dorsal surface. The ventral surface has many small flake scars, three of which end in distinct hinge fractures. The presence of edge damage and small flake scars (presumably from use) suggest that this core was subsequently recycled into a scraper. Scraper morphology is quite variable in the collection and ranges from thin flakes and thumbnail shapes to hump-backed or convex shapes.

Perforators or Drills. Three artifacts with chipped projections were classified as drills or perforators (Figure 29). Two are metavolcanic rock; the other is quartz. Each has a distinctive rounded bit with flaking that suggests its use for drilling or perforating a hard substance. Two were probably made from projectile points that were exhausted by sharpening.

Graver. One unprovenienced artifact was classified as a graver (Figure 29). It is composed of a fine-grained, metavolcanic rock and is a thick, triangular flake that has been chipped along the distal end to form a small, sharp projection.

Worked Flakes. Seventy-five worked flakes are present in the collection. These artifacts are waste flakes produced during flintknapping that subsequently were modified in some fashion. In most instances, this modification consisted of limited retouching of an edge with a pressure flaker, or damage along an edge that probably resulted from using the flake as an expedient cutting tool or scraper. Forty-nine of these artifacts are unprovenienced; the remainder were recovered from features excavated during the 1973 field season.

Flakes. Numerous unmodified stone flakes were collected during the investigations of the Box Plant site. All are byproducts of flintknapping and most probably date to the site's late prehistoric occupation(s). While these artifacts were not analyzed as part of this study, their distribution among the excavated contexts at the site is presented in Table 4.

Large Chipped-Stone Artifacts

Chipped Hoes. Thirteen large, chipped-stone hoes are in the collection (Figure 30). All but one of these are made from a granitic rock (Tables 6, 7, and 8). Their shapes range from triangular to sub-rectangular. Both large and small hoes are present, and all exhibit some curvature which suggests that they were made from larger, rock spalls. In his summary report on

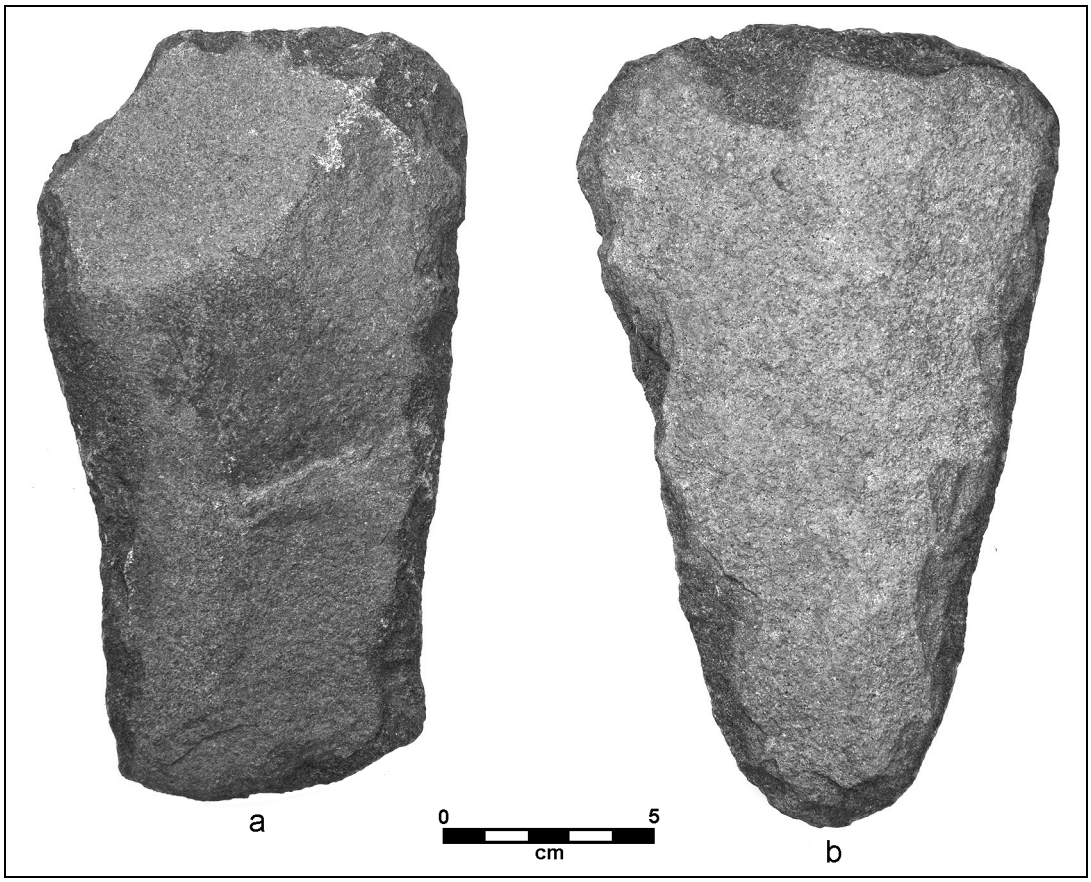

Figure 30. Chipped-stone hoes from the Box Plant site: rectangular form (*a*) and triangular form (*b*).

Table 6. Distribution of large chipped-stone artifacts found at the Box Plant site.

Context	Chipped Celt	Chipped Hoe	Chipped Maul	Large Chipped Tool	Total
TP-B8	-	1	-	-	1
TP-B31	-	-	-	1	1
TP-B33	-	1	-	-	1
TP-B40	-	-	-	1	1
General*	3	11	1	10	25
Total	3	13	1	12	29

*This context includes all features excavated in 1964, 1965, and 1966.

the Box Plant site, Gravely believed that these tools were struck from round granite boulders (see Appendix 1). This is certainly possible, but some have cortex on both the ventral and dorsal surfaces suggesting that they were not derived from a boulder. In some instances, chunks of exfoliate rock from more tabular strata probably were used. Regardless, some exhibit polish on the bit edges suggesting that they were used as hoes or, as Gravely termed them, "grubbing

Table 7. Description of large chipped-stone artifacts found at the Box Plant site.

Context	Raw Material	Tool Type	Wt. (g)	Comment
TP-B8	Granitic	Hoe	366	Whole. Oval to triangular shape. Polish on edges.
TP-B33	Granitic	Hoe	513	Whole. Irregular triangular in shape. Cortex on one side. Polish on bit end.
General*	Granitic	Hoe	929	Whole. Triangular with slight curvature. Cortex on both surfaces.
General	Granitic	Hoe	961	Whole. Oval to rectangular. Cortex on ventral surface.
General	Granitic	Hoe	922	Whole. Oval to rectangular with slight curvature. Cortex on both surfaces.
General	Granitic	Hoe	191	Whole. Triangular shape with distinct curvature. Cortex on both surfaces.
General	Granitic	Hoe	286	Whole. Triangular to oval with slight curvature. Cortex on both sides.
General	Granitic	Hoe	287	Whole. Triangular shape with distinct curvature. Cortex on ventral surface.
General	Granitic	Hoe	298	Whole. Rectangular to oval with slight curvature. Cortex on both sides. Polish on edges
General	Granitic	Hoe	363	Whole. Irregular oval shape with distinct curvature. Cortex on both sides. Polish on bit.
General	Granitic	Hoe	534	Broken. Slight curvature. Cortex on both sides.
General	Granitic	Hoe	134	Broken. Slight curvature. Cortex on both sides.
General	Metavolcanic	Hoe	133	Broken. Cortex on one side.
General	Granitic	Celt	263	Whole. Triangular shape with tapered poll. Abrasion and polish on both sides. Plano-convex cross section.
General	Granitic	Celt	188	Triangular shape. Abrasion and polish on bit end.
General	Granitic	Celt	586	Triangular to rectangular shape. Plano-convex cross section. Both ground and chipped.
General	Granitic	Maul	1532	Triangular to oval shape. Thick end bashed and crushed.
General	Metavolcanic	Large tool	369	Whole. Rectangular shape. May have been a core.
TP-B40	Granitic	Large tool	455	Broken. Ground and chipped.
General	Metavolcanic	Large tool	128	Broken.
General	Granitic	Large tool	275	Whole. Ground and chipped.
TP-B5	Granitic	Large tool	282	Broken. Same stone as used for hoes.
General	Granitic	Large tool	353	Broken. Same stone as hoes.
General	Granitic	Large tool	163	Ground and chipped. Friable stone.
General	Metavolcanic	Large tool	314	Irregular chipping
General	Metavolcanic	Large tool	136	Irregular chipping. May have been a core.
General	Granitic	Large tool	118	Cortex on one side. May have been a celt.

*This context includes all features excavated in 1964, 1965, and 1966.

Table 8. Measurements of selected large chipped-stone artifacts found at the Box Plant site.

Tool Type	Length (mm)	Bit Width (mm)	Poll Width (mm)	Bit Thickness (mm)	Poll Thickness (mm)	Weight (g)
Chipped Hoe	184.8	99.9	75.1	23.3	18.0	922
Chipped Hoe	190.6	113.5	45.8	26.7	31.2	929
Chipped Hoe	192.3	87.2	76.8	20.2	15.1	961
Chipped Hoe	161.1	81.9	36.8	13.4	21.7	512
Chipped Hoe	135.6	66.9	38.1	8.8	10.1	191
Chipped Hoe	138.3	95.6	42.5	10.0	8.5	287
Chipped Hoe	133.7	74.8	51.9	15.3	16.3	366
Chipped Hoe	132.4	54.8	38.7	21.1	19.1	286
Chipped Hoe	139.0	73.5	52.3	16.4	16.2	363
Chipped Hoe	121.9	79.2	57.0	13.9	12.5	298
Chipped Celt	134.1	54.8	36.0	15.0	17.9	263
Chipped Celt	117.2	54.2	33.3	10.5	14.2	188
Chipped Celt	142.1	85.1	56.3	27.7	24.2	586
Chipped Maul	177.6	61.3	84.6	27.4	52.1	1531

tools." Unfortunately, only two have feature proveniences (from TP-B8 and TP-B33). It is reasonable to regard these tools as probable agricultural implements.

Chipped Celts. Three chipped-stone celts are present in collection (Figure 31). Celts are generally smaller than hoes, although they may have a thicker, biconvex, or plano-convex cross section. These three specimens were roughly triangular in shape and were made from a granitic stone. One shows evidence of both grinding and chipping (Figure 31*a*).

Chipped Maul. One massive (1,532g) chipped-stone object resembles a maul in shape and probable function. The bit end is nearly half as thick as the base (see Table 8), which is heavily battered. This tool was made from a massive granitic rock and may have functioned as a large, hafted hammer like contemporary mauls.

Large Chipped-Stone Tool Fragments. Twelve large but unidentifiable chipped-stone tool fragments are present in the collection. Eight were made from a granitic rock and four from metavolcanic rock. The granite specimens likely are broken pieces of chipped hoes whereas the metavolcanic specimens may be unfinished pieces of other large chipped tools or cores.

Ground-Stone Artifacts

Fifty ground-stone artifacts were recovered from the Box Plant site; 40 of these can be identified as specific tools or artifact types (Table 9). These include various heavy tools, such as hammerstones (n=15), ground-stone celts (n=11), a grinding stone, a pitted cobble, and an abrader. Other ground-stone artifacts include three unfinished pipes or pipe blanks, a complete pipe and a pipe fragment, two perforated stone disks, three other stone disks, and a gorget or pendant fragment.

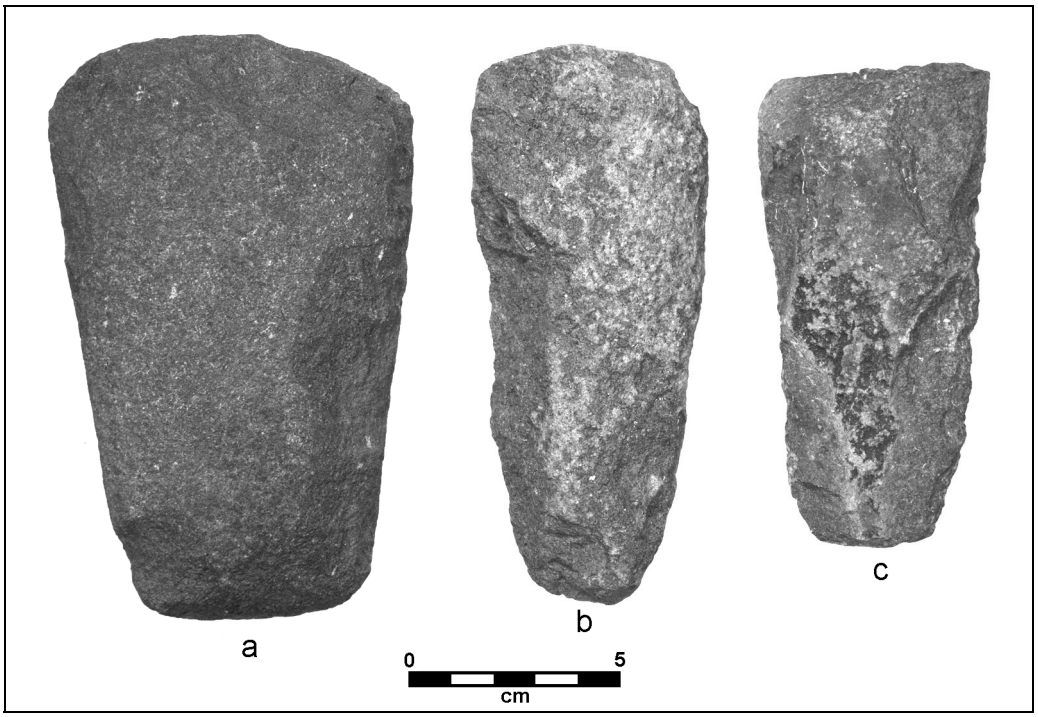

Figure 31. Chipped-stone celts from the Box Plant site: chipped-and-ground (*a*) and chipped (*b*).

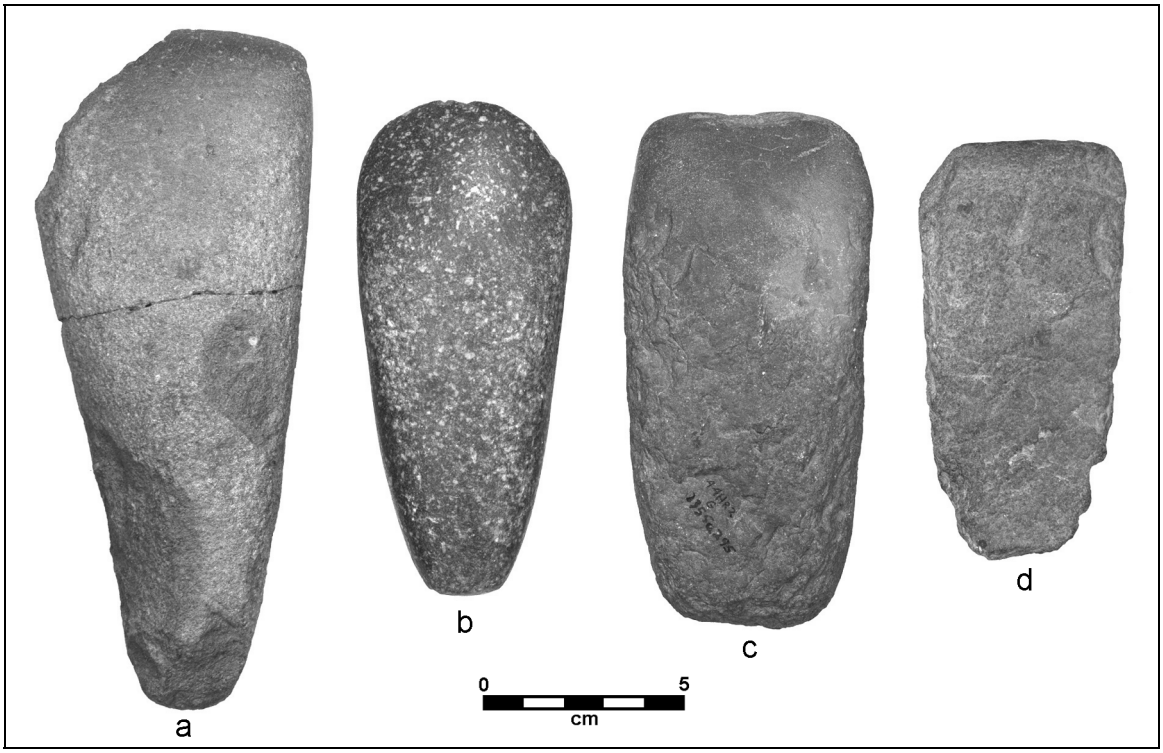

Figure 32. Ground-stone celts from the Box Plant site: triangular form (*a*-*b*) and rectangular form (*c*-*d*).

Table 9. Distribution of ground-stone artifacts found at the Box Plant site.

Category	TP-B5	TP-B6a	TP-B7	TP-B8	TP-B38	General*	Surface	Total
Celt	-	-	-	-	-	11	-	11
Hammerstone	3	1	-	1	-	9	1	15
Pitted Cobble	-	-	-	1	-	-	-	1
Grinding Stone	-	-	1	-	-	-	-	1
Abrader	-	-	-	-	1	-	-	1
Perforated Disk	-	-	-	-	-	2	-	2
Disk	-	-	-	-	-	3	-	3
Pipe	-	-	-	-	-	2	-	2
Pipe Blank	-	-	-	-	-	3	-	3
Gorget	-	-	-	-	-	1	-	1
Fragment	-	-	-	-	-	9	-	9
Total	3	1	1	2	1	40	1	49

*This context includes all features excavated in 1964, 1965, and 1966.

Table 10. Measurements of whole ground-stone celts found at the Box Plant site.

Shape	Length (mm)	Bit Width (mm)	Poll Width (mm)	Max. Thickness (mm)	Poll Thickness (mm)	Weight (g)
Triangular	174.0	70.0	25.0	33.0	23.0	516
Triangular	127.0	53.0	20.0	35.0	20.0	365
Rectangular	133.0	61.0	47.0	27.0	22.0	364
Rectangular	108.0	52.0	42.0	10.0	5.0	92

Ground-Stone Celt. The 11 ground-stone celts in the collection include four whole specimens and broken ones. Two of the four whole specimens have a tapered poll and are roughly triangular in shape (Figure 32*a-b*). The other whole celts are more rectangular in configuration (Figure 32*c-d*). Most of the fragments appear to be from tapered-poll celts. Measurements of these artifacts are provided in Table 10). Four of the celts are composed of a fine-grained igneous rock and four others are composed of a dark stone with phenocrysts of green to gray-green crystals. The latter four resemble what has been called "greenstone" in the literature. One small, whole celt was made of slate and is distinctly thinner than the others in this assemblage. Another whole specimen is composed of an unidentified reddish-purple stone. One celt is made of a gray-white stone with a platy structure. All of the celts apparently were found during the 1964-1966 investigations and therefore lack feature provenience.

Hammerstone. There are 15 whole or broken hammerstones in the collection. While variable in shape, most of these are roughly spherical and fist-sized or smaller; however, one hammerstone is a moderate-sized, cylindrical baton. Several were used extensively and have surfaces that are completely battered. All of these tools likely were used mostly, if not

exclusively, for flintknapping. Nine of the hammerstones are from the early excavations and lack specific provenience. Of these nine hammerstones, three are modified quartz river cobbles, two are quartzite, two are metavolcanic rock, and two are a granitic stone. During the 1973 excavations, one quartzite cobble hammerstone was recovered from TP-B8, a metavolcanic hammerstone was found in TP-B6a, and three quartz hammerstone fragments came from TP-B5.

Pitted Cobble. One water-worn, fist-sized, igneous cobble was recovered from TP-B8 which has two small areas of pitting on opposing surfaces. Its appears to have been used briefly either as a hammer or anvil.

Grinding Stone. One grinding stone fragment was recovered from TP-B7. This plano-concave stone fragment has evidence of grinding on both surfaces. It is made of a granitic rock and probably was used for milling seeds.

Abrader. This sandstone abrader was found in TP-B38 (Figure 33). It has one deep groove on one side and a circular concavity with six shallow incised lines on the opposite side. The sandstone has a high iron content which has oxidized to a red-brown color. This tool may have been used in flintknapping but more likely was used to shape and sharpen bone tools.

Perforated Disk. Two large, circular, ground-stone disks with central holes were found during the 1964-1966 investigations and are present in the collection (Figure 33). One specimen is complete; the other is a fragment. Gravely's summary report on the site indicates that several such artifacts were recovered, and he interprets them as chunkey stones (see Appendix 1). Both disks are made of soapstone and have biconvex profiles. The hole in the center of each disk was drilled bi-directionally. The complete disk is 76.1 mm in diameter, about 21.0 mm thick along the outer rim, and about 11.0 mm thick near the center. The central drill hole is about 11 mm in diameter. The fragment is from a slightly larger disk.

Disk. Three smaller stone disks also are present in the collection (Figure 33). These also were recovered during the 1964-1966 excavations. Each of these disks is a flat, roughly circular river pebbles whose edges were ground slightly to create a more circular shape. While such artifacts often are regarded as "gaming" stones, their precise function is unknown. The three disks are made of sandstone (59.3 mm in diameter and 18.6 mm thick), slate (38.3 mm in diameter and 6.5 mm thick), and a granite-like rock (34.1 mm in diameter and 7.0 mm thick).

Pipe. One complete, chlorite schist pipe and a soapstone pipe stem fragment are present in the collection. Their provenience is uncertain since they are not mentioned in Gravely's summary report (Appendix 1) and do not appear to have been found during the 1973 work. The complete, polished pipe has a tapered stem and a rounded square bowl (Figure 34). It is 107.7 mm long and the bowl measures 24.6 mm by 26.0 mm by 30.8 mm deep. The stem hole is 4.3 mm in diameter at the bit end. The stem fragment is from a pipe of unknown shape that had a tapered, squared stem with a raised ridge on the top surface. Its stem hole is 4.0 mm in diameter.

Pipe Blank. Two L-shaped, chlorite schist pipe blanks (or unfinished and undrilled pipes) and another soapstone pipe blank were found during the early excavations at the site. Each has been pecked and roughly ground but lacks its final shape and finished surface. The two chlorite

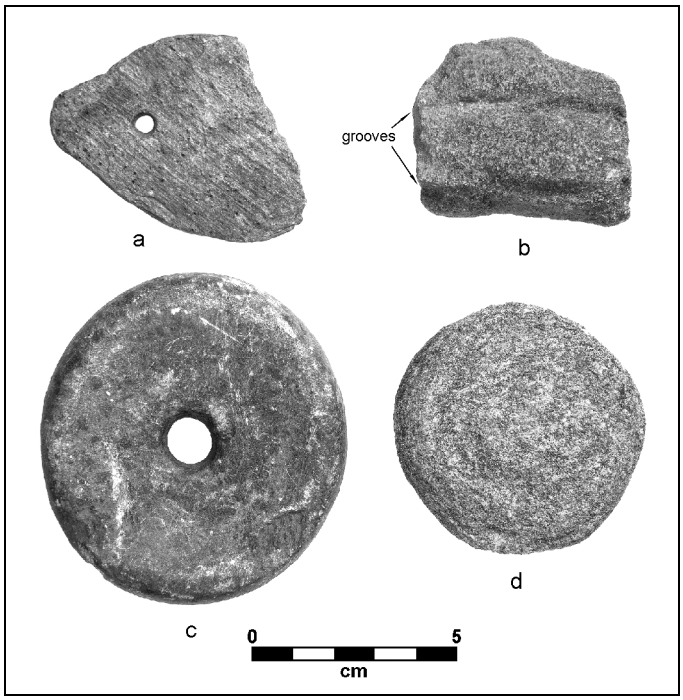

Figure 33. Ground-stone gorget fragment (*a*), abrader (*b*), perforated disk (*c*), and disk (*d*) from the Box Plant site.

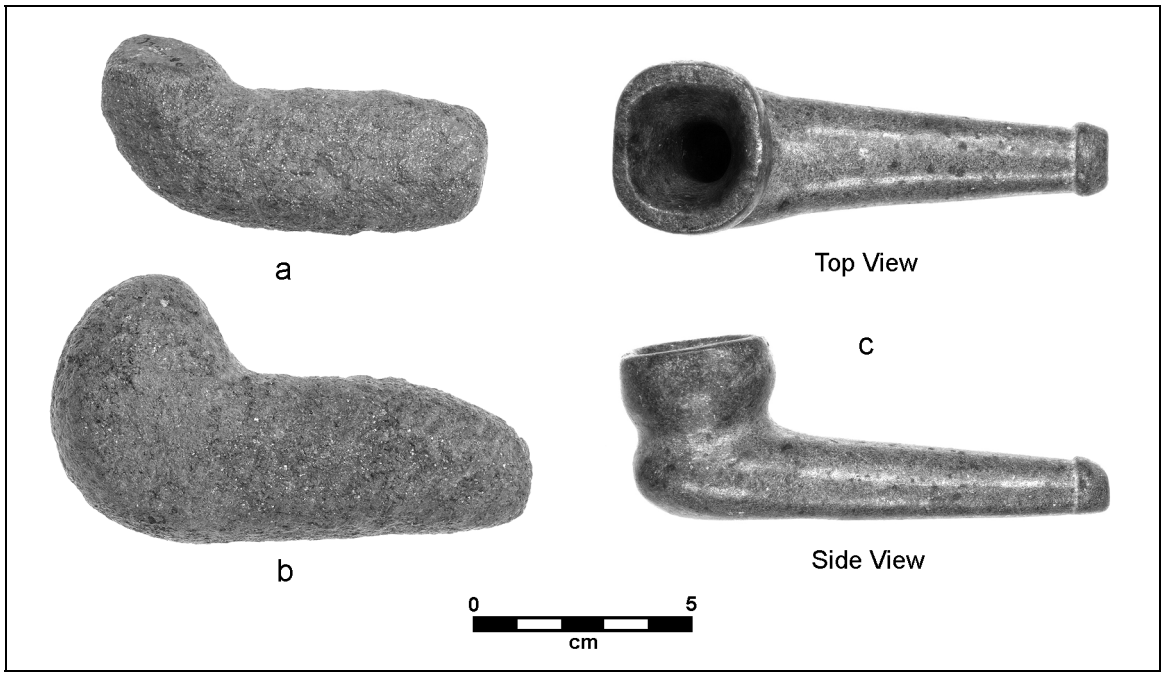

Figure 34. Pipe blanks (*a-b*) and ground-stone pipe (*c*, two views) from the Box Plant site.

schist specimens are complete while the soapstone specimen is a fragment. The two whole pipe blanks are similar and resemble the completed pipe in general shape (Figure 34). The fragment is from a smaller, unfinished pipe.

Gorget. One large fragment of an expanded-center bar gorget was found during the 1964-1966 excavations (Figure 33). It was made from a thin (5.0 mm) piece of gray slate. The gorget edge has been finely notched and, when complete, would have had two bi-directionally drilled holes near opposing ends. Originally, this gorget measured about 86 mm in length and 49 mm in width.

Unidentified Fragments. Ten ground-stone fragments were found; all are from a general site context. These artifacts are small pieces of stone which have an abraded, ground, or polished surface. Most of these likely are from broken celts.

Utilized Minerals. In addition to stone that was pecked and ground to make tools ornaments, and other items, other stone was ground up to produce paint pigments. Fragments of pigment-producing minerals—most notably hematite and graphite—were found in TP-B12, TP-B13, TP-B20, and TP-B37, as well as in several of the features dug earlier at the site.

BONE AND ANTLER ARTIFACTS

The inhabitants of the Box Plant site made a variety of tools and ornaments from the bones of several different animal species. In fact, of the 146 bone and antler specimens in the collection that show some evidence of human modification, at least 18 different bone elements from at least eight different animal species are represented. Bone was used to make awls, needles, fish hooks, beamers, turtle carapace cups, and beads. Deer antler was used to make picks, or grubbing tools, and punches. In addition to these tools and ornaments, numerous fragments of modified bone also were found that appear to represent the detritus, or residue, from making bone tools.

Bone Awls

Bone awls, or perforators, are the most numerous type of bone artifact. They most likely were used as hide-working tools, though some also may have been used as pressure flakers in lithic-tool production. Most awls were made from deer (*Odocoileus virginianus*) or turkey (*Meleagris gallopavo*) bone (Table 11). While some awls represent whole bones (namely, deer tibia and turkey tibio-tarsus bones) which have been ground to a point at one end (Figure 35*a-e*), most were made from fragments of split long bones (Figure 35*f-h*). Many of these tools exhibit polish at the pointed end and some are polished on all surfaces.

Six specimens made from unidentified bone and from unknown species are just the pointed tips of the awls. Gravely observed that these tips were intentionally removed by incising a groove just before the apex, and he suggests that this was done in order to recycle worn-out awls into fish hooks (Appendix 1). Given that many of these awls are made from deer ulna, and that this bone was also used to make fish hooks, his interpretation may be correct. It is also possible that the inhabitants were removing a dull tip while revitalizing the tool.

Table 11. Distribution of bone awls found at the Box Plant site.

Species and Type of Bone	TP-B6 & 6a	TP-B14	TP-B15	TP-B32	TP-B39	General*	Total
Deer (metatarsal)	-	-	-	-	-	2	2
Deer (tibia)	-	-	-	-	-	4	4
Deer (ulna)	-	-	-	-	-	5	5
Deer (unidentified)	-	-	-	-	-	1	1
Turkey (radius)	-	-	-	-	-	1	1
Turkey (tibio-tarsus)	-	-	-	-	-	5	5
Bear (radius)	-	-	-	-	-	1	1
Gray Fox (ulna)	-	-	-	-	-	1	1
Unidentified (rib)	-	-	1	1	-	-	2
Unidentified (ulna)	1	-	-	-	-	2	3
Unidentified	-	1	1	-	1	28	31
Total	1	1	2	1	1	50	56

*This context includes all features excavated in 1964, 1965, and 1966.

Three split-bone awls have points at both ends (Figure 35*h*). Gravely suggests that these may have been projectile points. But, they may also be examples of revitalizing awls by sharpening the unused end, or simply more specialized implements used in hide-working, netting, or weaving.

Bone Needles

Bone needles are distinguished from awls by the presence of a hole at the blunt end that allows the attachment of sinew or some sort of thread. There are two examples of bone needles in the Box Plant collection. Both are from general site context. One is a partial needle from an unidentifiable fragment of deer bone (Figure 35*i*). The tip of this needle is missing, but the hole at the flat end is 2 mm in diameter. There is some polish on the ventral side of this object.

The second needle is complete and is a very fine example of this artifact class (Figure 35*j*). It is 85.1 mm long and approximately 2.85 mm thick. The hole in the blunt end is 1.05 mm in diameter. Although the species and bone type are not known, it probably was made from a mammalian long-bone fragment. It is finely ground and heavily polished, and the point is still exceptionally sharp.

Bone Fish Hooks and Manufacturing Detritus

There are 21 pieces of modified bone in the collection which are associated with the production of fish hooks (Table 12). Most of the identifiable bone is deer ulna which, at the distal end, provides a flat, dense bone from which hooks can be produced. Much of what is found in the archaeological record is the detritus, or waste fragments, from fish hook production (Figure 36*e-k*). According to Gravely (n.d.b.), fish hooks were made as follows:

> First, a suitable bone was selected. A preference was shown for deer phalanges because of their dense, compact structure and their shape, which resulted in a hook with a straight shank and a slightly excurvate point which held its sharpness well. Next in frequency of use were deer ulnae

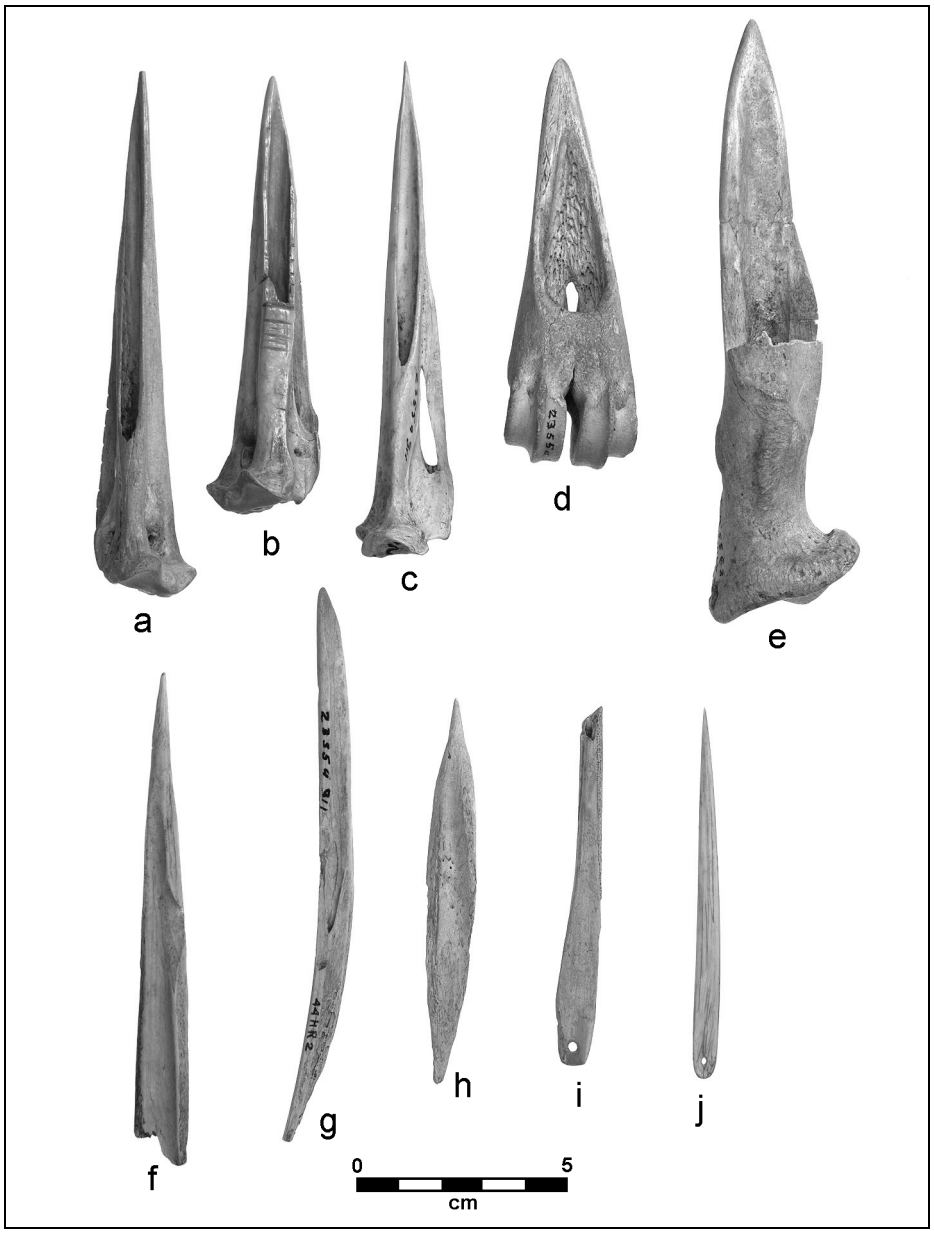

Figure 35. Bone awls and needles from the Box Plant site: turkey tibio-tarsus awls (*a-c*); deer metatarsal awl (*d*); bear radius awl (*e*); split long-bone awls (*f-g*); bi-pointed split-bone awl (*h*); and perforated bone needles (*i-j*).

(in many cases worn or broken awls), followed by deer long-bones, and turkey or other bird leg-bones.

The first step in the manufacture of a hook was to prepare a blank. With a deer phalanx, this involved first splitting the bone longitudinally by grooving around it, and smoothing the cut edges by grinding. With ulnae and other bones the blank was formed by rounding the end, smoothing the flat surfaces in many places.

Next, a stone drill was used to cut two holes through the flat surface, spaced to give the desired length of the hook. The intervening bone was then scratched away with a stone tool and the shank and point rough-shaped. Finally, the shank was scraped down and polished, the point worked the same manner until it was sharp and free, and the shank circled by two grooves—one

Table 12. Distribution of bone fish hooks, blanks, and detritus found at the Box Plant site.

Species and Type of Bone	TP-B6	TP-B10	General*	Total
Finished Hooks				
Turkey (tibia)	-	-	1	1
Large Bird (unidentified)	-	-	1	1
Unidentified	-	-	4	4
Blanks				
Unidentified	-	1	1	2
Detritus				
Deer (metatarsal)	-	-	1	1
Deer (radius)	-	-	2	2
Deer (ulna)	1	1	4	6
Unidentified	-	-	4	4
Total	1	2	18	21

*This context includes all features excavated in 1964, 1965, and 1966.

about which the line was tied and a second at which the hook was snapped from the blank. In most cases the broken shank end was smoothed and the point given a final retouch and polish.

After completion of the hook the utilized blank was discarded. Such residue shows a distinctive two-pronged end, one prong heavy and rough where the shank was removed and the other sharp and pointed where the tip of the hook was worked. Occasionally partially worked blanks are found that have been discarded because of breakage or flaws in manufacture.

Four whole fish hooks are in the Box Plant collection (Figure 36*a-d*). Photographs accompanying the collection illustrate several other fish hooks that could not be found. The largest is 54.2 mm long (Figure 36*a*). The bone has been ground and polished and it is no longer possible to identify from what type of bone it was derived. There are two grooves that circumscribe the bone on the shank. One is at the distal end, where the finished hook was detached from the blank. The second groove is 14.1 mm from the distal end of the shank. Doubtless this was where the line was tied. The point of this hook is still sharp and there is no evidence that this hook was used extensively.

The second specimen is of a similar shape, but slightly smaller (Figure 36*b*). The shank is 32.9 mm long. There is no evidence of a line groove and the shank end is jagged. This suggests that this hook may have broken at the groove where the line was attached. The third hook has a length of 29.4 mm (Figure 36*d*). It has a complete groove 2.5 mm from the end of the shank. A partial, shallow groove is present just below the first. Both the shank end and the tip of this hook are undamaged. The fourth example is 33.4 mm long (Figure 36*c*). It has a groove 4.0 mm below the end of the shank. Like the other hooks, it is highly polished and has a surprisingly sharp point. Unfortunately, these hooks are from the early excavations and thus are unprovenienced. One of the hook blanks was found in TP-B10.

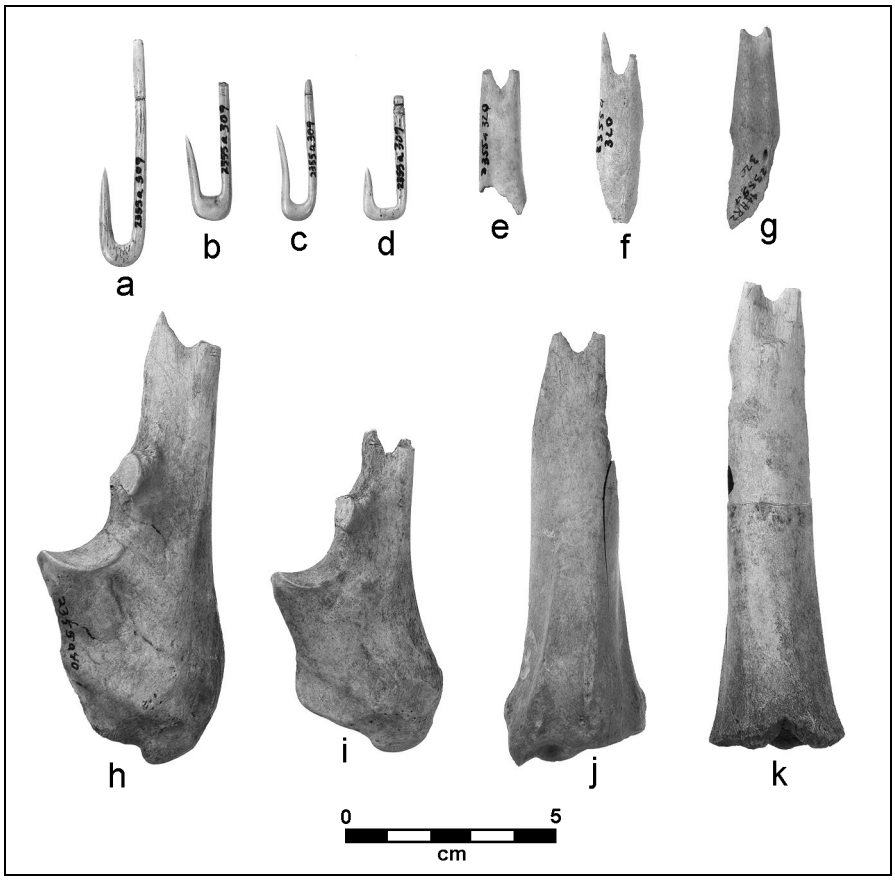

Figure 36. Bone fish hooks and discarded blanks from the Box Plant site: finished hooks (*a-d*); split-bone blank fragments (*e-g*); deer ulna blanks (*h-i*); and deer radius blanks (*j-k*).

This site is exceptional in that both the finished hooks and the production debris are present and in excellent condition. It should be noted that the Box Plant site is just up stream from an historically known fish weir (44Hr54). Evidently, this area has long been known for its aquatic resources.

Bone Beamers

There are two bone beamers in the collection (Figure 37). Both are complete and are made from deer metatarsals. A beamer is a hide-working tool used in draw-knife fashion to scrape flesh and hair from animal skins. These implements were made by grinding out the bone between the lateral ridges on the posterior surface in order to create sharp, parallel blades. Both specimens show polish from use and one has been worn out. The larger specimen, found in TP-B32, still retains the navicular cuboid (Figure 37*b*).

Deer-Antler Tools

There are 16 modified deer-antler fragments in the collection. Two of these are picks, hand-held hoes, or chisels made from the main stem and a tine of the rack (Figure 38*h*). Both of

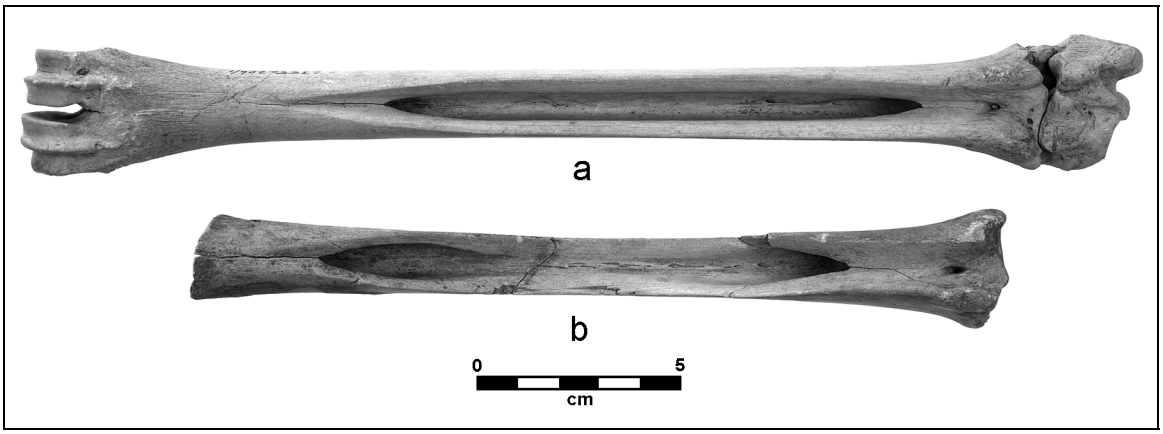

Figure 37. Bone beamers from the Box Plant site.

these display extensive abrasion and polish along the tine. The remaining 14 artifacts were created from small antler tines and can be divided into three categories.

Six tines show extensive grinding and polish at the tip (Figure 38*a-c*). These have often been classified as "flakers" because of their small size and emphasis on the tip of the tool; however, many of these do not show the sort of damage associated with stone-tool production. Because of this, it is possible that they were used as punches or gouges.

Six specimens are segments of antler tine (five fragments and one complete specimen) that have heavily ground surfaces and rounded ends (Figure 38*d-g*). While the function of these tools is not known, they may represent worn-out flakers.

The third, or miscellaneous, category has two specimens. One is an antler tine that has been ground and battered at the tip, and also may have been used as a pressure-flaking tool. The other specimen is a small piece of a curved antler tip whose core has been drilled out using a round bit. The function of this object is not known.

Bone Beads and Bead-Making Detritus

Twenty-two bone beads or pieces of production detritus are present in the collection. Most of these were made from turkey long bones, particularly the radius (Table 13) (Figure 39*e-i*). Some of the long segments of turkey radius could have been long tubular beads, or they may have been blanks for the production of smaller beads. The examples here indicate that beads were removed from hollow long bone segments by incising a groove around the circumference of the bone and then snapping off a segment. The snapped edges then were ground smooth. Turkey wing phalanges were the next most common beads (Figure 39*a-d*). These had holes punched or drilled at the proximal end for attachment to a garment. Deer phalanxes and raccoon tibia are rarely used as beads, but in this collection they were drilled and presumably strung for some sort of display.

Turtle Carapace Cups

There are three fragments of worked box turtle carapace in this collection. All appear to be pieces of cups. Two fragments are from a single cup. Both exhibit striations on the interior surface and incomplete abrasion along the interior ridges. This cup may have broken before it

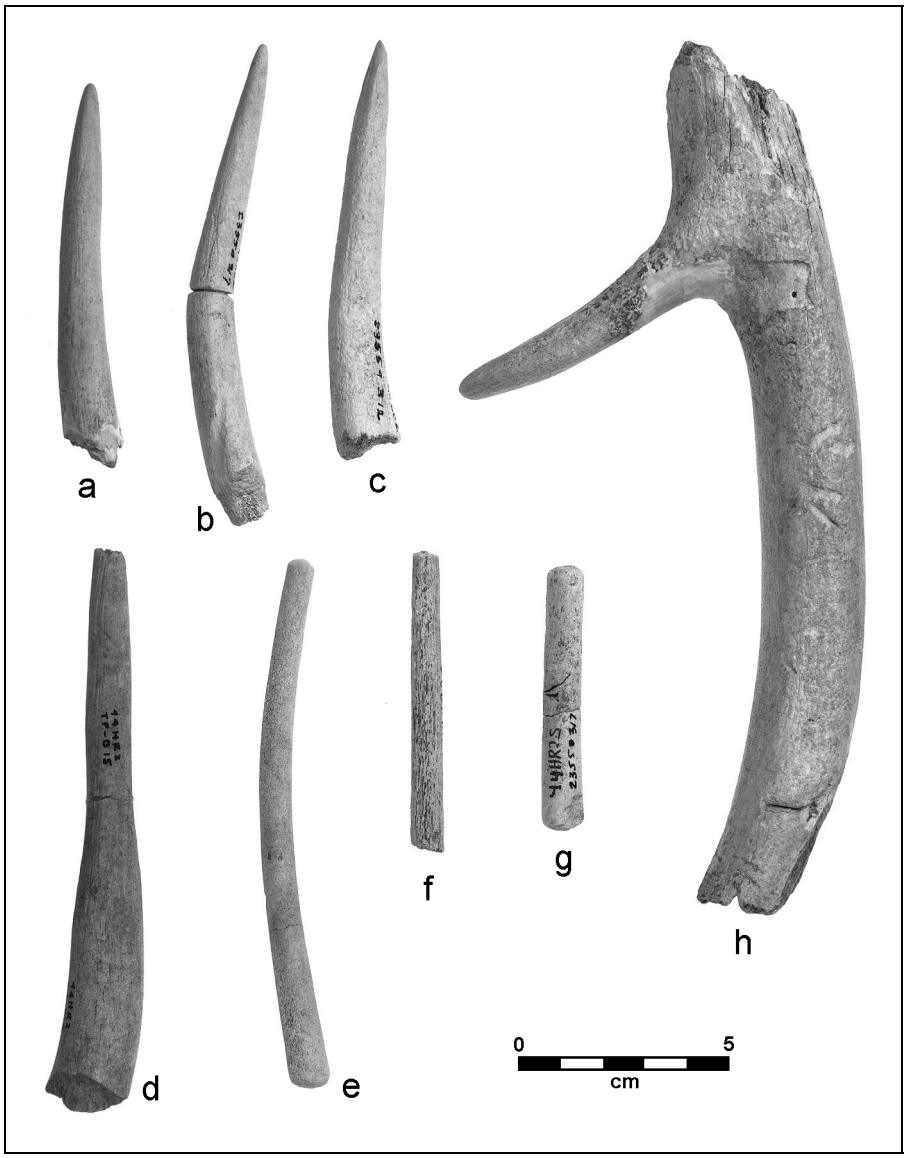

Figure 38. Antler tools from the Box Plant site: tines with modified tips (a-c); ground tine segments with rounded ends (d-g); and pick (*h*).

was finished. The third fragment has evidence of cutting along the outer edge of the carapace. It was heavily polished and the interior ridges had been ground flush with the interior surface.

Other Modified Bone

The remaining 16 pieces of bone cannot be assigned to a particular artifact class. Many of these may represent scraps or residues of bone tool-making while others may be the result of butchering. They are briefly described as follows: (1) the proximal end of a deer ulna that has striations roughly parallel to long axis, and is polished over much of its surface; (2) the distal end of a deer tibia that has cut marks near the joint; (3) a deer metacarpal (from TP-B8) that has cut marks near one end; (4) part of a turtle (cooter, snapping, or painted) scapula with notching along

Table 13. Distribution of bone beads and bead-making detritus found at the Box Plant site.

Type of Bone	TP-B3a	TP-B6	TP-B39	General*	Total
Turkey (phalanx)	-	-	-	4	4
Turkey (first phalanx)	-	-	-	2	2
Turkey (radius)	1	4	-	4	9
Turkey (tibio-tarsus)	-	-	-	1	1
Turkey (ulna)	-	-	-	1	1
Unknown Bird (unidentified)	-	-	2	-	2
Raccoon (tibia)	-	-	-	1	1
Deer (first phalanx)	-	-	-	2	2
Total	1	4	2	15	22

*This context includes all features excavated in 1964, 1965, and 1966.

one edge; (5) the radius bone of a large turkey with incisions or cut marks along the shaft; (6) two turkey spurs that have been grooved and snapped off tarsometatarsus bones; (7) an unidentified bird bone (from TP-B6) with cut marks; (8) two unidentified rib fragments with cut marks; (9) four unidentified bone fragments (from TP-B6, TP-B11, TP-B15, and unknown context) with grinding and cut marks; (10) an unidentified bone with polishing and cut marks; and (11) a deer thoracic vertebra (from TP-B30) with a small, triangular stone projectile point embedded in the centrum with evidence of subsequent bone remodeling.

SHELL ARTIFACT

Only one shell artifact was found at the Box Plant site. It is an oblong, rounded, marine-shell bead. This bead is 5.2 mm long and 6.1 mm wide with a bi-directional drill hole 2.4 mm in diameter. It is unprovenienced.

SUBSISTENCE REMAINS

The faunal and floral remains from the Box Plant site have not been analyzed. The quantities of animal bone, shell, and charcoal recovered from the site are summarized in Table 14. The preservation of animal bone ranges from good to excellent; however, of the 3,356 pieces of bone in the collection, approximately 35% (by count or weight) are unprovenienced.

TP-B14 contained the largest quantity of provenienced animal bone (14.7% by count and 17.4% by weight of the total sample). It also contained most of the charcoal recovered from the site (72.5% by weight of all charcoal). TP-B32 also contained significant amounts of animal bone, shell, and charcoal that were retrieved for future study. TP-B6 and TP-B6a also yielded significant amounts of animal bone and shell, but little charcoal. The largest amount of shell was found in TP-B11.

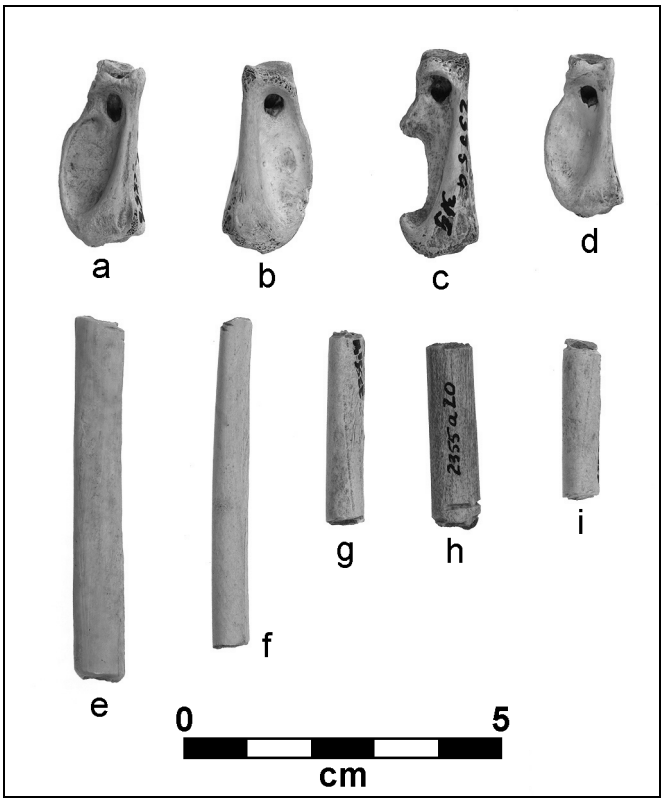

Figure 39. Bone beads from the Box Plant site: drilled turkey wing phalanx beads (*a-d*); and turkey long-bone beads (*e-i*).

Gravely indicates in his summary report on the early excavations at the Box Plant site that fresh-water mussel and snail accounted for much of the shell at the site and that deer bone made up most of the faunal remains that were recovered (see Appendix 1). He also observed that "charred acorns, hickory nuts, corn kernels and corn-cobs" were found, and that fish bones and spines also were present. Unfortunately, no flotation samples or soil samples were retrieved from any of the excavated features. Given the methods of excavation, any analysis of the subsistence remains likely would have to forego strict quantification of the data and focus instead upon listing the species that are represented at the site and subjectively assessing their significance to the inhabitants' diet.

The information at hand, without analysis, indicates that the people who lived at the Box Plant site were fairly intensive agriculturalists who grew corn, squash, beans, and probably other native domesticates, who collected other wild plant foods that grew near their village, and who hunted, trapped, and fished a wide variety of terrestrial and aquatic animal species.

CHRONOLOGY

Two archaeological features excavated at the Box Plant site have been radiocarbon dated. The first sample, an unspecified quantity of wood charcoal collected from TP-B15, was submitted by Mr. Howard MacCord, Sr. of the Virginia State Library in 1973. It produced an uncorrected date of 620 ± 60 B.P. (A.D. 1330 ± 60) (UGa-619). Tree-ring calibration of this date produces intercepts at cal A.D. 1315, cal A.D. 1347, and cal A.D. 1390, a one-sigma range of cal

Table 14. Summary of animal bone, shell, and charcoal recovered from the Box Plant site.

Context	Bone N	Bone Wt. (g)	Shell N	Shell Wt. (g)	Charcoal N	Charcoal Wt. (g)
TP-B1 & 2	22	47.6	1 vial	0.1	1 bag	-
TP-B3	85	333.0	1 vial	1.8	1 jar	-
TP-B3a	19	55.7	1 vial	0.8	-	-
TP-B5	82	83.5	-	-	1 jar	-
TP-B6 & 6a	83	922.1	1 bag	84.9	1 bag	0.8
TP-B6	361	156.9	1 bag	56.4	1 bag	-
TP-B6a	4	183.0	-		1 bag	5.0
TP-B8	116	635.0	-	-	1 bag	-
TP-B10	100	152.3	-	-	1 bag	-
TP-B11	39	50.0	1 bag	305.7	1 bag	-
TP-B12	18	55.9	-	-	1 jar	-
TP-B13	2	3.2	-	-	3 jars	-
TP-B14	492	1847.0	2	2.9	2 bars	421.5
TP-B15	114	375.7	1 vial	7.6	2 bags	-
TP-B16	23	63.7	1 vial	2.9	1 vial	0.4
TP-B17	1	3.8	-	-	1 jar	-
TP-B19/20	1	3.8	-	-	1 jar	-
TP-B20	11	12.8	-	-	1 vial	0.2
TP-B21	22	44.4	1	1.1	1 bag	39.8
TP-B22	-	-	-	-	1 vial	5.1
TP-B23	6	1.6	1 vial	4.0	-	-
TP-B27	5	2.9	-	-	-	-
TP-B29/30	72	307.7	1 vial	11.5	-	-
TP-B30	1	-	-	-	-	-
TP-B31	11	66.3	1	2.9	1 vial	1.1
TP-B32	122	513.6	1 vial	11.8	1 bag	41.2
TP-B33	7	23.7	-	-	-	-
TP-B34	27	99.5	1	0.1	1 vial	0.3
TP-B35	18	52.3	-	-	-	-
TP-B36	11	35.6	-	-	-	-
TP-B37	138	116.9	-	-	-	-
TP-B38	37	79.0	-	-	1 vial	0.1
TP-B39	101	370.0	1 bag	15.4	1 bag	8.6
TP-B40	1	1.7	-	-	-	-
TP-B42	22	70.1	1	0.3	-	-
TP-?	13	52.3	1 bag	16.0	-	-
Area B	4	4.2	-	-	-	-
General Site	1160	3795.7	1 bag	87.9	1 bag	25.7
Surface	-	-	69	-	-	-
Total	3356	10629.2	-	614.1	-	581.5

A.D. 1295 to cal A.D. 1407, and a two-sigma range of cal A.D. 1279 to cal A.D. 1435 (Calibrated with the program CALIB 3.0.3c [Stuiver and Reimer 1993]; also see Eastman 1994).

A second sample, approximately 23 g of wood charcoal from TP-B32, was submitted by the authors to try and corroborate MacCord's initial date. It produced an uncorrected date of 590

± 50 B.P. (A.D. 1360 ± 50) (Beta-101585). Tree-ring calibration of this assay produces a mean date of cal A.D. 1398, a one-sigma range of cal A.D. 1307 to cal A.D. 1411, and a two-sigma range of cal A.D. 1295 to cal A.D. 1434 (Calibrated with the program CALIB 3.0.3c [Stuiver and Reimer 1993]).

Both radiocarbon samples appear to date a single occupation of the site. The calibrated means and age ranges (both one-sigma and two-sigma) correspond very closely, and they indicate that the occupation represented by archaeological features at the west side of the site took place during the fourteenth century. Other sites within the Smith River drainage which, based on radiocarbon data, appear to be contemporary fourteenth-century villages include Belmont (44Hr3), Koehler (44Hr6), Wells (44Hr9), Dallas Hylton (44Hr20), and Stockton (44Hr35) (Davis et al. 1997a, 1997b; Eastman 1994).

CONCLUSIONS

The Box Plant site is one of several Dan River phase sites in the Martinsville area which have been destroyed during the past 30 years by industrial and commercial development along the Smith River valley. While the techniques used to excavate the site are considered inadequate by today's standards, and much important information was either lost or simply not written down, the remaining collection of artifacts, field notes, and photographs comprise a significant resource for understanding and interpreting the lifeways of Dan River phase peoples. Given its overall size and density of artifacts and archaeological features, the Box Plant site clearly was an important place during the fourteenth century. The village (or villages) that stood here were home to several hundred Native Americans and likely formed part of a larger, regional community that included the Koehler site, located a short distance upstream, and other villages situated along the Smith River and its tributaries.

Although no clear architectural evidence was found, the large number of pits and artifacts indicate that the occupation was intense and likely permanent. Given what we know about other late Dan River phase communities (Davis and Ward 1991), the Box Plant village probably was palisaded. Subsistence pursuits focused on the growing of maize, but crops of squash, beans, and other indigenous seed-bearing species probably also were planted and harvested. The specifics of these pursuits await further study of the ethnobotanical remains from the site. Likewise, the hunting and trapping of wild game focused upon a single species—white-tailed deer—but numerous other animal species supplemented and added variety to the diet. The analysis of bone tools and a more cursory perusal of the faunal remains collected during feature excavation suggest that turkey, bear, gray fox, turtle, and several other species of mammals, birds, reptiles, and fish also were taken, sometimes in great quantity. The large numbers of freshwater mussel and gastropod (i.e., periwinkle) shells observed in most excavated features suggest that shell fishing also was an important subsistence pursuit, if perhaps only seasonally.

The collection of pottery, stone tools, bone tools, and other ceramic artifacts provide a glimpse into Dan River tool-making technologies. In particular, the Box Plant pottery analysis represents the first detailed study into the variety of decorative techniques employed by Dan River potters. Because vessel decoration is one of the characteristics that distinguishes Dan River pottery from other ceramic series, this study should be of broad interest to those interested in the late prehistory of piedmont Virginia and North Carolina. As large pottery samples from

other Dan River phase sites are studied in similar fashion, we should begin to understand better the spatial and temporal significance of specific pottery designs.

To conclude, the purpose of this report has been to describe the archaeological investigations at the Box Plant site and to present and interpret the archaeological features and artifacts that were found. While several other Dan River phase sites also were excavated by the Patrick-Henry Chapter of the Archeological Society of Virginia during the 1960s and 1970s—including Leatherwood Creek (44Hr1), Belmont (44Hr3), Philpott (44Hr4), Koehler (44Hr6), Wells (44Hr9), Dallas Hylton (44Hr20), Gravely (44Hr29), and Stockton (44Hr35)—most of these have not been fully reported. Comparative study of these sites and previously reported sites, such as Bessemer (Geier and Moldenhauer 1977), Lipes (MacCord 1971), Leggett (Egloff et al. 1980), Reedy Creek (Coleman 1982), Elm Hill (MacCord 1968), and Clarksville (Miller 1962), should permit a more detailed picture of the Dan River phase than presently exists for most late prehistoric archaeological complexes in the Virginia and North Carolina Piedmont.

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APPENDIXES

Appendix 1

THE BOX PLANT SITE (44Hr2)
by
R. P. Gravely Jr.

[Note: This is a previously unpublished summary report of archaeological investigations at the Box Plant site. While it is undated, all of the references to specific archaeological features and artifacts suggest that it was written after the 1966 investigations but before 1969 when an additional burial was salvaged at the site.]

Clifford Evans, on page 21 of BAE Bulletin 160 entitled "A Ceramic Study of Virginia Archeology," includes the following brief description of a site in Henry County, in the Virginia Piedmont:

> MARTINSVILLE (HENRY COUNTY) Mr. L. C. Carter of Clarksville sent some materials from a surface collection of a village site for inclusion in this study. Although the sample was small, the sparsity of properly documented materials from this region demanded its inclusion in the study. The site was on the right (west) bank of the Smith River one mile below the power company dam at Martinsville and just off Route 220.

This is the Box Plant site, so named since most of it lay on or adjacent to the property of the Old Dominion Box Company of Martinsville.

Location

Henry County is situated in the rolling foothills of the Blue Ridge, in the Virginia Piedmont. The easternmost ridges of the mountains lie twenty-five to thirty miles to the north and west. It is traversed north to south by Smith River in the Roanoke River upper drainage system. The Smith flows into the Dan eighteen miles south at Leaksville, N. C. In the western section of the county the North and South forks of the Mayo River also flow south into the Dan at Mayodan, N. C. Major tributary streams of the Smith are Town Creek, Reed Creek, Beaver Creek, Mulberry Creek, Marrowbone Creek, and Leatherwood Creek. Along these streams sixteen prehistoric village sites have been discovered in the rich level bottom land and it is probable that others exist which have not been located.

Smith River (originally the "Irvine") and Mayo River received their names in honor of the two surveyors in William Byrd's party which surveyed the border between Virginia and North Carolina in 1728. Byrd left an account of the difficulties which he encountered making his way through the terrain around the southern course of the Smith, which is rugged and broken.

Description

Just to the south of the highway bridge over Smith River at the Martinsville power dam a long triangular bottom stretches between the river and Route 220, about fifteen hundred yards long and one hundred and fifty yards wide at the base of the triangle, which is to the south. Smith River at this point runs northwest-southeast. The bottom land tapers gradually to the

northwest between the river and a low range of hills to the vest, along which the highway runs. To the southeast the base of the triangle is formed by a sharp bend in the river which here turns and approaches within a few feet of the highway at the base of the ridge. Seventy-five yards from the base of the site a small spring-branch flows under the highway, across the end of the site, and empties into the river. The ridge to the west, and a higher ridge running along the left bank of the river, provide ample protection against the cold winter winds.

Along the edge of the river a narrow terrace ten to fifteen feet wide and a few feet above normal water-level forms the river bank. At an elevation of eight to ten feet above this narrow first terrace is a low sandy ridge running parallel to the river and sloping gradually towards the highway and the small spring-branch. Along this ridge the soil is a deep black sandy loam, cultivated in the upper twelve inches. Below the plow-line the soil is sterile light brown sand which extends to a bed of hard sandy red clay and pebbles which lies at a depth of thirty inches below the surface. There no other stratification, nor with the exception of features such as trash pits and burials does the cultural material extend below the plowed soil. Many potsherds, charcoal flakes, bits of mussel shell, and animal bones, triangular arrow points, and complete or fragmentary artifacts occur in the cultivated soil, as is well known to local relic collectors who have for years searched the area after it had been plowed.

Dwelling Area

Situated on a heavily-traveled highway, the land on which the site is located has in recent years become a center of industrial and commercial construction. It was obvious that the site would be completely destroyed in a very short time when in early April 1964 the Patrick-Henry Chapter of the Archeological Society of Virginia undertook a salvage excavation to recover as much as possible of the information from the site before it was irretrievably lost. The work was continued through October 1964, at which time most of the site was obliterated by the removal of the upper twelve feet of soil for fill to permit the construction of a service station on the highway just to the west.

A sixty-foot trench five feet wide was dug due south from the river bank, with everything being removed down to sterile soil. Test squares sunk to the east and west of the primary trench indicated a heavier concentration of material to the east and the decision was made to extend the entire wall of the trench laterally in that direction, throwing the spoil dirt to the rear into the open trench as the excavation progressed. The trench was removed In five-foot increments, with profiles and plots being made at each increment.

At the southeastern end of the site along the low ridge bordering the river is an area containing numerous trash pits, hearths, and three burials. This area extended upstream a distance of one hundred and fifty yards and from fifty to seventy-five yards inland. No features such as a palisade wall, house outlines, or identifiable post molds were found, nor did there emerge any pattern in the location of the trash pits, which appeared to cluster irregularly along the river. Several roughly circular areas of scorched and reddened clay were uncovered at depths of eighteen to twenty-two inches below the surface. The presence of charcoal and considerable quantities of white wood-ash on and above these features indicate that they may have served as hearth areas, perhaps for fires which were kept burning continually. The trash pits were usually vertical-walled with slightly concave bottoms. Diameters varied between twenty-six and forty inches, and depths between twenty-two and thirty-six inches. Several pits were kettle-shaped,

expanding six or seven inches at the bottom. Larger, irregularly shaped pits also occurred with diameters up to fifty-six inches and depths to eighty inches. During the process of grading for earth removal traces of large deep refuse pits were observed to a depth of over nine feet below the surface. Pottery and other material recovered from the lowest levels of this group of pits appeared to be identical to that from the smaller and shallower features. It was impossible to determine if any of these deep pits were overlain with sterile sand or it they all extended to the surface.

The refuse pits contained charcoal, much dark ashy soil, quantities of light-colored wood ash, bone scrap, entire deer antlers as well as numerous fragments, a great many potsherds, occasional lumps of unfired blue clay, mussel and fresh-water snail shell, and lost or broken and discarded tools and ornaments. There were numerous fire-blackened and cracked stones, which may have been hearth-stones, pot boilers, or heating stones for sweat-houses, which were in common use in historic times among the Siouan tribes in the Piedmont. Here and there were small pits almost entirely filled with masses of mussel shell, periwinkle shell, or a combination of the two, indicating that these river mollusks were gathered and cooked in quantities with the shells being dumped in masses into small pits dug to receive them. These animals still abound among the shallows and large rocks which dot the river along the sites.

Subsistence

Food remains and implements indicate an economy based on the cultivation of corn and other vegetables supplemented by hunting, fishing, and the gathering of wild food. Broken deer bones and antler are very numerous throughout the site and make up the great majority of all bones recovered. The larger bones were invariably cracked and splintered, presumably to extract the nutritious marrow. In many cases they were scorched or partially burned. Butchering marks in the joint area appear on many bones. Tooth marks of larger mammals such as dogs, wolves, or foxes sometimes occur, as do those of the smaller rodents. Catfish spines and a variety of fish-bones are plentiful; one garfish jaw was found. Fish nets were inferred from their imprints on many potsherds. Fish-hooks, fish-hook blanks, and residue, of several types, were frequently encountered. A variety of bird, small mammal, turtle, and box-tortoise bone and shell was recovered. Charred acorns, hickory nuts, corn kernels, and corn-cobs indicated some of the vegetable foods that were utilized. Stone hoes or grubbing-tools, many of which showed considerable soil polish at the working end, were found in the topsoil and in trash pits to evidence some degree of agricultural activity.

During the excavation of one refuse pit by troweling, a group of circular objects with an apparent internal structure of concentric circles appeared. Careful vertical sections through several of these indicated that they were globular with a series of several layers similar to a large hollow onion. These objects filled the lower two-thirds of the pit solidly and may be the remains of small melons or gourds. None of the actual plant material was found; nothing was left but stains in the light brown sand which filled the pit outline. Diameters varied from two to three and one half inches with the average being slightly under three inches. Over eighty of the objects were identified.

Several large potsherds contained on the inner surface a thick layer of friable charred material which in some cases had run down the outer surface also. The substance resembled scorched and blackened mush.

Pottery

A large number of sherds was recovered, well over fifteen thousand. Most of these belong in the Clarksville series, but several significant differences appear. Coiling was the method of construction used on a majority of the vessels, with a few sherds showing the irregular inner surface and variations in thickness characteristic of stretching and patching. The very small vessels were made by direct modeling. Fine sand or grit-temper predominates with less than six percent of the sherds having angular crushed quartz temper. The texture of the paste is generally hard, compact, and well-fired. The color of the core runs from dark gray or black to dark brown and reddish, usually with a thin lighter colored surface. Exterior surfaces are earth color to light tan or brown with the darker shades predominating. Although the firing was well-controlled and uniform, fire-clouds are frequent, indicating a certain degree of smothering of the fire during the later stages of the baking of the vessels. Interiors vary from dark earth color to glassy black, with an occasional lighter brown or gray surface. Over half the interiors show combing or scraping with a serrated tool. Those not combed show various degrees of smoothing from a gritty, sandy-feeling surface to a smooth, polished, almost burnished treatment.

Most surfaces were fabric roughened. Next in frequency is net-impressing with a variety of types of nets including large, medium, and small meshes made by knotting, looping, and twining. Other minority types in order of frequency are cord-marked with a neatly-applied vertically oriented design showing very little overlap or criss-cross; fabric-impressed (mostly with twined fabrics); corn-cob impressed or rolled; smoothed; scraped or brushed; and polished (usually in a deep glossy black).

There was a variety of decoration including incising and trailing in irregular parallel lines; patterned figures; geometric designs; punctate straight or zig-zag lines; incised triangles filled with punctate marks or lines; and combinations of these elements. Three sherds show what may be painted designs. Lips and upper rims are nicked in sixty-five percent of the rimsherds. The most common decoration on the body of the vessels, occurring on about half of them, is a band of finger-pinching running around the vessel at the shoulder.

Most of the jars have vertical to slightly excurvate rims with rounded smoothed lips. Necks are usually constricted. Bowls show either sides that curve smoothly up to the rim or angular constricted cazuela-type necks. Miniature vessels are in general patterned after the full-size types but show cruder workmanship. On the large vessels body-walls are thim and uniform in thickness, usually being between three-sixteenths to three-eighths of an inch thick. Bases are conoidal except on the shallow bowl forms which have slightly thickened, flattened bottoms. The conoidal bottoms usually show considerable thickening .

The larger jars are found in two shapes. One type is a round vessel with a globular body, orifice smaller than the body diameter, and rim recurved, vertical, or slightly everted. A second type is taller and more slender, with the sides tapering with less curvature to the conoidal base. Bowls occur in two forms also, as described above. The first type is a wide shallow form with gently curving sides and flattened bottom. The second is the cazuela with straighter sides and necks tapering sharply with little curvature toward the center, with the orifice of smaller diameter than the body at the shoulder. Bowls are usually smoothed or polished both inside and out. Direct modeling is used to produce most of the miniature vessels of all types.

There are several types of appendages. Flattened to slightly rounded narrow strap handles curve from the lip or just below the lip to the lower neck or shoulder. In a majority of cases the rim immediately above the upper point of attachment of the handles is given a

characteristic treatment, being pinched upwards into a small semi-circular projection or double semi-circle which is nicked along the upper edge, even if the remainder of the rim is un-nicked. The exterior surface of the handle is given a variety of decorative treatments: several rows of round or elongated punctations, incised triangular or heart-shaped designs which sometimes cut completely through the handle, and impressed surface treatments similar to the one on the body of the vessel to which the handle is attached. Handles are applied by a riveting process into the vessel wall while the clay is still in a plastic condition before firing. Holes are drilled or punched through the vessel at the point of attachment; the ends of the handle are rolled to a point and forced through the two holes and clinched on the interior followed by smoothing down of the interior wall and forming of the lip and rim decoration. Several rimsherds were found with a vertical fracture extending through the point of attachment of a handle, exposing the rivet still in position in the vessel wall.

Long raised ribs or short narrow nodes with the upper edges slashed or nicked are found on the neck and shoulder areas, as are single or paired smooth semi-circular nodes or bosses. About a third of the rimsherds have folded thickened rims that exhibit the same surface treatment as the body of the vessel. None of these folded rims show the incised or punctate lower margins which are characteristic of the Clarksville series vessels. Several sherds were found with holes perforated through the vessel wall. Some had been drilled through the fired clay with a conical or bi-conical cross-section and were located on the body of the vessel, possibly for the purpose of repairing a cracked jar by lacing though a series of holes along both edges of the crack. Other holes were punched through the clay in the neck area before baking, and may have been designed to permit the use of a cord or thong as a handle. Three sherds carried an unusual imprint on the interior surface of a slightly curved thin line bordered on the concave side by a series of connected slightly zig-zag angular punctations. The appearance is though a serrated comb-like object and a thin flat object had been held together and pressed edgewise into the moist clay.

Several small ladles or dippers were found in trash pits, as well as fragments of the bowls and handle of others. A few of the handles were decorated by incising and punctating but the majority were smoothed, made by direct modeling and showed rather crude workmanship. Other baked clay objects: sherd disks or game tallies with ground edges; large heavy pottery discoidals; sections of clay coils thrown or dropped into the fire and baked; irregular lumps of fired clay showing squeezing, pinching, random forming, and finger-prints; baked objects of indeterminate form and use—a small dumb-bell, a broken rounded cylinder, and several irregularly shaped but carefully made objects. Large lumps of un-fired moist blue clay were found in several of the trash pits.

Tobacco Pipes

Several complete clay pipes, three stone pipe-blanks, and numerous broken clay bowls and stems were recovered. The stone pipe blanks consisted of two roughly-formed green chlorite blanks with the surfaces pecked and partly ground, and a gray steatite bowl and section of stem that had been completed except for the boring out of the bowl and stem opening. Surface collections from the site contained two split and broken sections of steatite pipestems.

The elbow shape, varying from a forty-five degree angle to an almost straight stem and bowl, predominated in the clay pipes. A series of nicks around the lip of the bowl of one small pipe was the only attempt at decoration on any of the elbow types. Elbow pipes were made in various shapes: a pot-bellied bowl with circular stem and rim and bit flanges; a type with round

bowl and stem and squared lip and bit flanges; a round bowl and stem with round lip and bit flanges; a smoothly tapered form without flanges or projecting bit. One example of the last type had a small rounded knob at the base of the bowl. One stem fragment had a series of deep parallel incisions running around and along the stem producing a rectangular "ear of corn" pattern. A second broken stem was covered with corn-cob rolled imprint. All other stems were smoothed or scraped and polished. Two were irregular in outline with large lumpy particles of crushed quartz in the paste.

The broken bowls of two small clay platform pipes were found. One of these had what appeared to be an incised deer's head with antlers on the bottom surface. The second example had a projecting shoulder with two parallel rows of small punctations running around the bowl. A small section of broken bowl with an un-pierced downward-curving projection notched on the convex edge is apparently from a keeled pipe resembling similar steatite pipes found in the Piedmont area. The bowls and stems of most of the pipes were blackened on the interior and lip from use; several contained the actual charred dottle.

Bone Artifacts

In addition to large quantities of unworked scrap bone, worked bone was plentiful. Large, medium-sized, and small splinter awls of deer and bird bone were most frequently encountered. Two double-pointed deer bone splinters may have been used as projectile points. Several examples of the typical turkey-leg awl with notched spine were found, made from the tarso-metatarsal bone with the spur removed. These were carefully made with considerable polish on the pointed end. Deer and raccoon ulnas were used to produce awls of several shapes. One large curved awl or gouge had been made from a deer humerus with the proximal joint surface serving as the handle. There were several polished and well-sharpened awl tips which had been grooved completely around, broken off, and discarded. The possible object of this procedure may have been to obtain from the remainder of the awl a section of smoothed and flattened bone suitable for the manufacture of a fish-hook.

A considerable fish-hook industry was evident from the presence of several complete hooks, a number of blanks and partly formed hooks, and numerous examples of bone residue from which hooks had been made. There were several types. One was made by splitting a deer phalanx longitudinally and working a hook from one or both of the roughly triangular split sections, with the point at the proximal and of the bone. Completed hooks of this type exhibit the characteristic curvature and dimpling of the distal end of the bone, and have a very finished and efficient look. Oddly, while most of the hooks and fragments of hooks were of this type, very few blanks or partly completed hooks were found of deer phalanges. Other bones utilized were deer and bird bone splinters, deer ulnae, and deer metapodia. Hooks from these bones were made by drilling two holes through the blank the proper distance apart longitudinally, scraping and cutting away the bone between the holes, and finishing the point, base, and shank while the hook was still attached to the bone. The point was scraped and ground down until it separated from the blank and the shank was encircled by two grooves as the upper and. The lower shallow groove was for attachment of the line and the upper groove was cut deep enough to permit the almost completed hook to be broken free. Certain bone were obviously selected to make this type of hook, deer ulna residue being very frequently found. There were no barbs on any points nor were any shanks knobbed instead of being grooved for attachment and retention of the line.

Two examples of beamers or draw-knives used in preparing dressed hides were recovered, made from deer metapodia. Both were highly polished along the working surface and the sharp scraping edges. One perforated needle made of deer-rib was found, and three long, slender highly-polished bone pins. There were two cut and polished tubular turkey wing-bones identified as turkey calls. These are still usable. It is extremely interesting to note that hunters in the more remote areas of this section still manufacture and use a turkey-bone game call which is identical in every way to those recovered from Indian trash pits on the Box Plant and other sites in Henry County. It is logical to assume that the first European hunters, explorers, and traders learned the techniques of hunting the native wild turkeys from the Indians they encountered, and that the art of manufacturing the simple bone turkey-call has come down to modern times without change.

A variety of simple beads was made from tubular bird-bones, the phalanges from turkey-wings, end-perforated joint section of bird-bone, perforated turtle-bones, and perforated wolf and bear canine teeth. A long curved and polished round object of deer antler was probably a bodkin or hair-pin.

Other items made of deer antler were two picks or digging tools utilizing the basal section of the antler with the first prong retained, which was beveled on both sides on the end to form a chisel-like edge; cut and polished flakers for chipping flint, some of which appeared to have been fire-hardened; a cut and scraped section of antler the use of which is unknown but which may be a partially-completed handle for a knife or other tool; a long tine which had been deeply grooved completely around; a cache of four partly scraped and sharpened tines. These had probably been intended for conversion into projectile points or flakers.

Three cups or small bowls were made from the carapace of box-tortoise by cutting away the marginal edges of the shells, scraping down the attached backbone and ribs, and polishing the interior and exterior surfaces. No perforated shells were found to indicate their use as rattles although several polished fragments of heavy turtle-shell may have been pieces of a large rattle.

Beaver and squirrel teeth were split and ground at the end to produce small chisels, scrapers, or gouges. Deer toes (the terminal phalanges) were drilled from the proximal end and ground down to a sharp point on the exterior to make a form of projectile point. Cut turkey-spurs and sections of bone with tool marks indicating grooving, cutting, scraping, and perforating were found as well as unmodified bone scrap with butchering marks and the tooth imprints of dogs, wolves or foxes and various rodents.

Shell

Unworked fresh-water mussel and snail shell of several species occurred in considerable quantity. An unusual feature of some of the snail shells was the occurrence of specimens in which a calcareous deposit had formed near the apex followed by the erosion or breaking-away of the portion of the apex above the deposit to produce a smooth flat truncated surface as though the apex of the shell had been intentionally ground down. Holland surmises that the Indians may actually have so ground off the ends of such shells, possibly to facilitate the removal of the snail for food. It is difficult to believe that the fine amount of food contained in these small shells would justify the considerable effort required to got at them in this way, whereas boiling or roasting for a short period permits the animal to be drawn or shaken very easily from its shell. The fact that the calcareous deposit is found in practically all of such truncated shells, the break in the shell is always at the upper edge of the deposit, and the broken edges of the shell when

carefully examined shows an irregular angular surface with no sign of grinding, indicates that a natural process may be at work, possibly involving the more delicate upper apex of the shell produced by the mollusk when very young, or with water acidity and calcium carbonate content. In this connection, examination of scavenger snails in several fresh-water aquaria disclosed that a high percentage of the shells showed pitting and partial erosion of the apices, which are sometimes broken completely off. Those which are broken have a smooth calcareous surface evidently deposited by the snail to seal off the upper end of its shell. Unbroken dried shells from aquaria tend to break or crumble very easily from the apex back to the upper edge of this deposit, producing a truncated effect identical to many of the shells recovered from this and other sites in the Piedmont area.

There were no marginella shells recovered from the Box Plant site. Two columella beads were found: a large barrel-shaped form and a small short tubular bead. There were no shell disc beads, or other worked shell.

Chipped Stone

A substantial number of Archaic projectile point types were found in surface collections, in the topsoil, and in trash pits and other features. The oldest type identified was a typical Hardaway point made of heavily patinated argillite. The complete sequence of Archaic points from the Piedmont area that has been described and given approximate datings by Dr. Joffre Coe appeared at this site, beginning with the Hardaway point and continuing through Palmer, Stanly, Kirk, a bifurcated-base type (not LeCroy) Greenbrier, Big Sandy, Morrow Mountain I and II, Guilford, Halifax, Yadkin eared, Yadkin crude triangular, othr crude triangular types, and miscellaneous unidentified side- and corner-notched types. There were none of the Savannah River points usually appearing on most sites in this area.

A large number of late Woodland triangular projectile points were found. These are thin, delicately flaked with secondary pressure-flaking, and are usually made of chert with an occasional point of quartz or vein-quartz. The typical form has incurvate to straight sides, slightly flared corners, and straight to slightly incurvate base, and is sharp and symmetrical. Six of the smaller Clarksville equilateral triangular type points were recovered, made of both chert and white vein-quartz. This point is considered to indicate a fairly late dating, as they were widely ussd during the early historic period.

There were three forms of elongated chert drills: with flat expanded base, with rounded expanded base, and with a slightly expanded bifurcated base with rounded tangs. It has been suggested that objects of this sort, which seldom show any sign of abrasion or polish at the point or along the shanks were actually pins or ornaments. The drills from the Box Plant site were characteristically free from wear or polish, showing no indication of usage as perforating tools. Some of the shorter forms with less pronounced flaring of the basal corners resemble the elongated Uwharrie triangular point which Coe describes and may actually have served as projectile points although they have tentatively been placed in the drill category.

Flint scrapers of various types were fairly numerous. Several examples of carefully made small thumbnail scrapers were noted, as well as end scrapers, side scrapers, and miscellaneous types. Several unmodified sharp flakes of chert showed numerous tiny chips along one edge; they may have been natural flakes used briefly as scrapers or small knives and discarded after a short use. Three flakes with worked edges showed sharp projections which may have served as graver points, although it was not possible to determine from the chipping pattern whether the

spurs were accidental or had been intentionally formed. Small, thin, elongated flakes with lateral chipping were probably held between the fingers or set in grooves worked in a wooden or bone handle and used as knives.

Heavy semi-circular quartz flakes had been shaped by percussion flaking into rough choppers. Three objects classified as knives were found. One, of black flint, resembled a long narrow Guilford point. Another was a long, thin, beautifully-flaked triangle of translucent gray-green chert. The third was an ovate flake, fairly heavy in cross-section, chipped along one edge and heavily patinated and water-polished. It had the appearance of great age.

One of the most frequently found stone artifacts on the Box Plant site was the percussion-chipped hoe or grubbing tool. These were generally fashioned from a slightly curved surface flake pounded off of a rounded granite boulder. Shapes vary; triangular, roughly rectangular, axe-shaped, and ovate types occur. The convex upper surface is usually chipped around the outer edges and especially at the cutting end to form the working surface. Little attempt is made to improve the flat surfaces, and most of then still retain a portion of the original boulder cortex. Soil polish is found on many of these tools, usually along the cutting edge but sometimes extending back along the sides for a quarter to a third of the length of the hoe. They were found scattered through the topsoil on the site as well as in trash pits, indicating that some of the tools had been lost or discarded in the cultivated area as well as in the dwelling area.

There were several crudely flaked flattened axes with the edges chipped and the ends showing signs of battering. In addition, flat flaked celts, many of them with ends polished from use, were found. A large flaked chert object, triangular in shape with a truncated stem and serrated base, probably served as a chopper or axe, perhaps held in the hand. One very large heavy oval tool, pecked and ground, with the large end slightly flattened, resembled a maul or battering tool. A variety of hammerstones were collected. These ranged from unmodified river cobbles with battered ends, rough heavily pounded quartzite balls, ovate, flattened and singly or doubly pitted stones, to round, well-pecked and partially ground tools.

Ground or Pecked-and-Polished Stone

Several flat pieces of fine-grained brown sandstone were identified as whetstones or grinders. Some of the edges and flat surfaces were polished, others had grooves or slight concavities worn into the stone. Longitudinal scratches and scraps marks indicated the use to which these tools had been put. One long, slender, tapered sandstone with polished edges was probably a type of abrader, possibly for use in finishing the interior of pipe bowls. A short thick heavy tool, well polished and with a flat blunt base and a double-beveled end resembled either a thick celt or a hammer-axe combination. There were several small flat granite and slate celts, completely or partially pecked and polished. A few fully-worked celts were round to oval in cross-section with sharply tapering polls and flattened polished working edges. One oval-shaped celt that had been carefully polished over the entire surface was found during the grading operations. Most of these polished celts were of a hard close-grained, greenish granite.

One small discoidal game-stone or tally was made of a fine-grained hard stone, symmetrical and smoothed to a high polish. Two entire and several fragmentary chunkey-stones were made of dark steatite. These are biconcave with a central perforation about three and a half inches in diameter and three-quarters of an inch thick. There was one fragment, perhaps forty percent, of a flat, gray slate, tapered-end gorget with a drilled hole near the end.

A round, heavy, highly-polished concretion and a small dark-brown polished oval pebble may have been picked up and retained by the Indians for some purpose, possibly as charm-stones. Other than the high surface polish there was no indication of any attempt to modify either of these two objects.

Burial Customs

Three burials were uncovered. The graves were located at random through the dwelling area, scattered among the trash pits and other features. All were oval, twenty-six to thirty-six inches deep, with vertical walls and slightly concave bottoms. The bodies were semi-flexed, lying on the side with the head oriented in an easterly direction. Two were young children and the third was an adult woman. No grave-offerings were found in either of the burials. The body of the young woman had been placed on a carefully prepared layer of large sherds and covered with other sherds with the concave side down to follow the body contours. Each limb had been covered separately. The large sherds which were used may have come from vessels intentionally broken for the purpose, as two complete large pots and ninety percent of a third have been restored from these fragments. The teeth in the several burials were in poor condition, with many cavities. The remaining skeletal material was extremely soft and fragile and in most cases partly disintegrated; it was not possible to recover the bones or to determine if abnormalities existed or if bones were missing.

Relationships

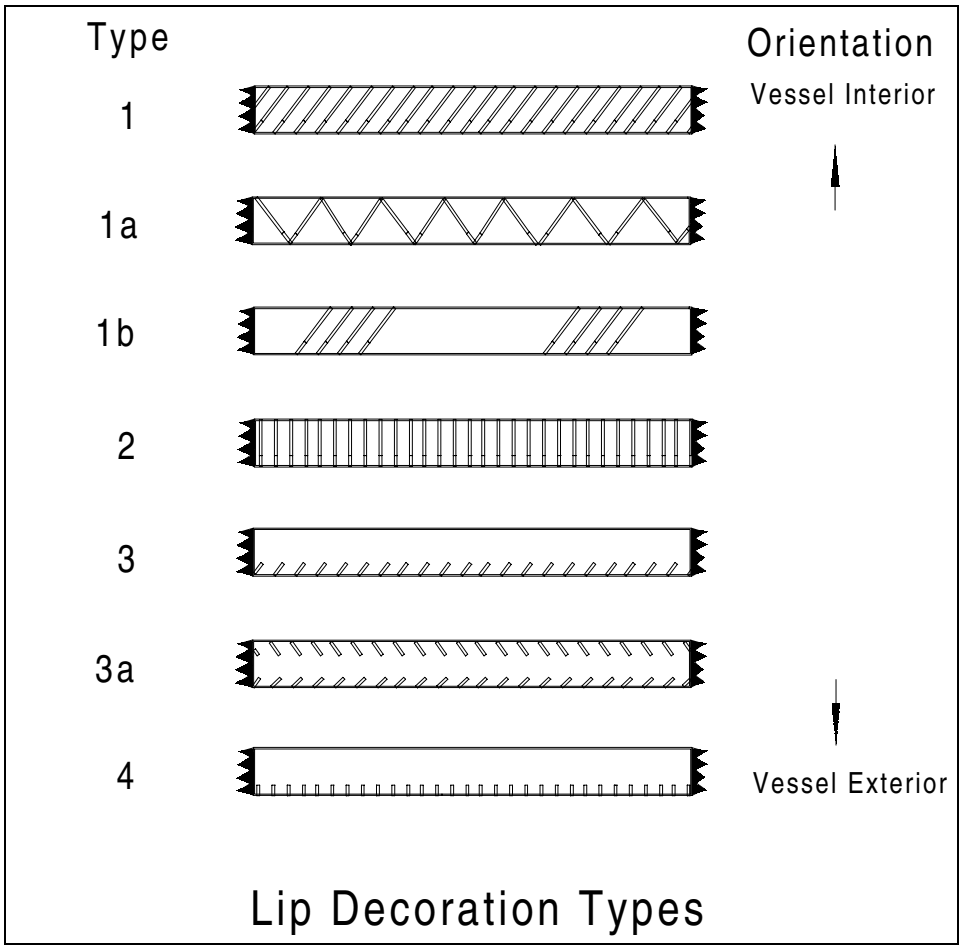
No trade goods, metal, or other evidence of direct or indirect contact with Europeans appeared. Other than parts of several cazuela-type bowls, there were no very late vessel forms. The pottery belongs in the Clarksville series but with resemblances in handle shape and decoration, decorative slashed rims, single and paired nodes, and surface treatments, with the Radford and New River wares to the northwest. No shell-tempered paste was found. The turkey-leg awls of a wide-spread type, with notched ribs, resemble the diagnostic Fort Ancient form. Projectile points with a few exceptions appear to be somewhat earlier than those common on the Clarksville sites, and more nearly resemble those of the western Piedmont in Virginia and North Carolina and those in east Tennessee. The Archaic forms of projectile points probably originated in small temporary camps of these early people or were lost by then in hunting or in warfare.

One bowl with a polished black exterior may possibly be from a trade vessel from the Catawba area. Perforated chunkey-stones are typical of many village sites in the Piedmont Siouan area and were still in use by the Indians at the time of the first penetration of the region by the Europeans in the mid-1600s.

As might be inferred from its geographical location midway between the Clarksville area to the east and the Radford-New River area to the northwest, the artifacts show numerous similarities to both these areas but also differences and modifications that evidence the changes, particularly in the pottery, that took place over the distance and perhaps the time separating the three groups. Contact and trade with distant areas is evidenced by the presence on the Box Plant site of the sherds from the polished trade bowl previously described, green chlorite, gray fine-textured steatite, flakes of red and yellow jasper, glassy chalcedony and fine-grained chert, and

other minerals not common to this area. Beads of conch columella indicate contact with southern coastal areas.

The general appearance and relative quantities of the material recovered would seem to point toward a fairly low level of village development. No radiocarbon dating has been done on the several samples of charcoal that were preserved. A “guess-timate" based on the artifactural material would place the occupation of the Box Plant site in the late prehistoric period, probably sometime in the period 1600-1650 or a little earlier.



Appendix 2. Types of lip decoration found on Dan River series vessels at the Box Plant site.

Appendix 3. Distribution of lip decorations by pottery type at the Box Plant site.

Pottery Type	Type 1	Type 1a	Type 1b	Type 2	Type 3	Type 3a	Type 4	None	Total
Dan River series									
Net Impressed	231	-	5	66	158	3	58	262	783
Roughly Smoothed	29	-	-	4	12	-	5	50	100
Plain	9	-	-	3	7	-	1	80	100
Cord Marked	46	-	-	18	28	-	4	20	116
Corncob Impressed	1	3	-	-	-	-	-	16	20
Brushed	1	1	1	-	-	-	-	6	9
Uwharrie series									
Cord Marked	-	-	-	-	-	-	-	1	1
Vincent/Clements series									
Fabric Impressed	1	-	-	-	-	-	-	-	1
Burnished Exterior	-	-	-	-	-	-	-	3	3
Total	318	4	6	91	205	3	68	438	1,133
Percent	28.07	0.35	0.53	8.03	18.1	0.26	6	38.66	100.00

Appendix 4. Distribution of vessel decoration types by pottery types at the Box Plant site.

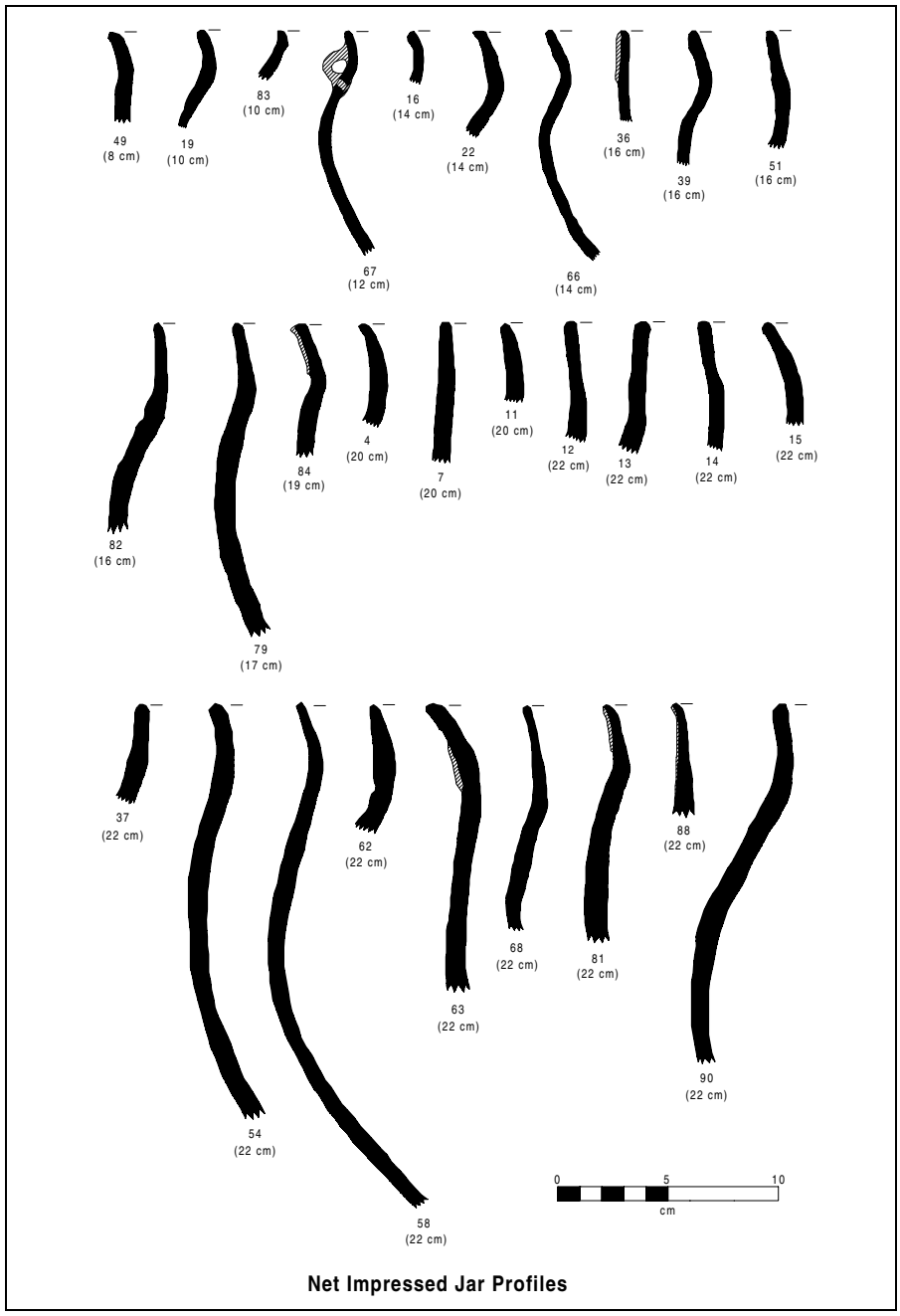
Decoration Type	Dan River Net Impressed	Dan River Roughly Smoothed	Dan River Plain	Dan River Cord Marked	Dan River Cob Impressed	Dan River Brushed	Vincent or Clements Fabric Impressed	Indet.	Total
I-A-1	356	57	11	19	4	-	1	23	471
I-A-2	8	-	-	-	-	-	-	-	8
I-A-3	11	1	1	1	-	-	-	-	14
I-A-4	31	-	-	-	-	-	-	-	31
I-A-5	-	1	-	-	-	-	-	-	1
I-A-6	16	3	-	4	-	-	-	1	24
I-A-7	1	-	-	-	-	-	-	-	1
I-A-8	13	-	1	-	-	-	-	2	16
I-B-1	5	-	-	-	-	-	-	1	6
I-B-4	-	2	-	-	-	-	-	-	2
I-B-5	21	1	28	-	-	-	-	1	51
I-C-1	-	1	-	-	-	-	-	-	1
I-C-2	1	-	-	-	-	-	-	-	1
I-C-3	1	-	-	-	-	-	-	-	1
I-D-1	1	-	-	-	-	-	-	-	1
I-D-2	-	-	-	8	-	-	-	-	8
I-D-3	1	4	-	-	-	-	-	-	5
I-D-4	3	-	-	-	-	-	-	-	3
II-A-1	20	-	4	-	-	-	-	3	27
II-B-1	3	1	-	-	-	-	-	1	5
II-B-2	5	-	-	-	-	-	-	-	5
II-C-1	-	2	1	-	-	-	-	-	3
III-A-1	2	-	2	3	-	-	-	-	7
III-B-1	1	-	-	-	-	-	-	-	1
III-B-2	1	-	-	1	-	-	-	-	2
III-B-3	-	-	-	-	-	1	-	-	1
III-C	3	-	-	-	-	-	-	1	4
III-C-1	1	-	-	-	-	-	-	-	1
III-C-2	4	-	-	-	-	-	-	-	4
III-D-1	-	-	1	-	-	-	-	-	1
III-D-2	-	-	1	-	-	-	-	-	1
III-E-1	-	-	2	-	-	-	-	-	2
III-E-2	-	-	1	-	-	-	-	-	1
III-E-3	-	-	1	-	-	-	-	-	1
III-E-4	-	-	1	-	-	-	-	-	1
III-E-5	-	-	1	-	-	-	-	-	1
III-E-6	-	-	1	-	-	-	-	-	1
IV-A-1	1	-	-	-	-	-	-	-	1
IV-A-2	-	-	1	-	-	-	-	-	1
IV-B-1	1	-	-	-	-	-	-	-	1
V-A-1	1	4	-	-	-	-	-	2	7
V-A-2	-	-	7	-	-	-	-	-	7
V-A-3	-	-	1	-	-	-	-	-	1
V-B-1	-	-	2	-	-	-	-	-	2
V-B-2	-	2	-	-	-	-	-	-	2
VI-A-1	26	12	7	10	2	-	-	5	62
Punctation	-	4	-	1	-	-	-	-	5
Total	538	95	75	47	6	1	1	40	803

Appendix 5. Description of individually numbered vessels from the Box Plant site.

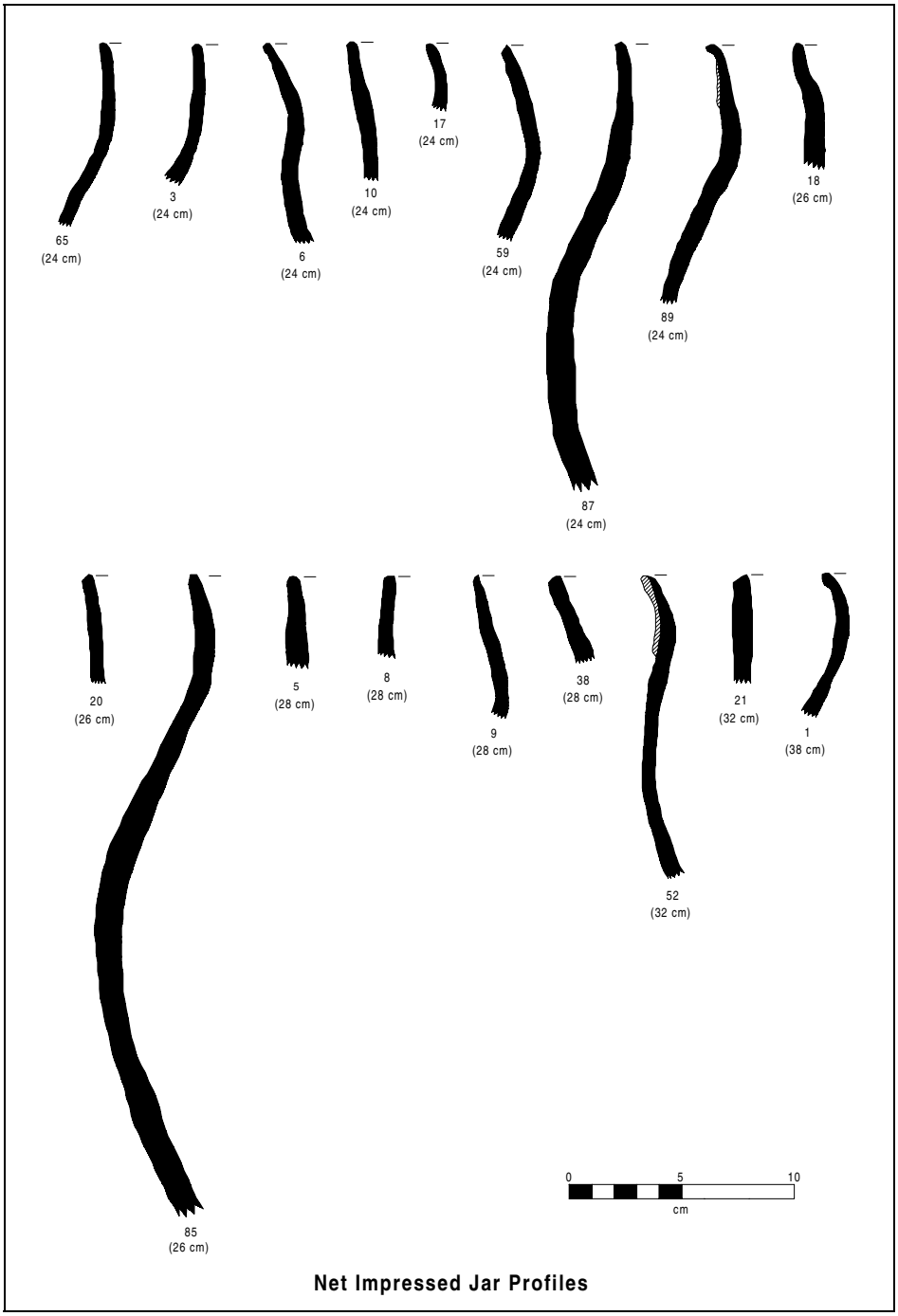
No.	Context	Type	Temper	Interior	Lip	Decoration/Other	Form	Diameter
1	General Site	Dan River Net Impressed	Sand	Plain	None		Jar	38 cm
2	General Site	Dan River Net Impressed	Quartz & Sand	Plain	None		Bowl	22 cm
3	General Site	Dan River Net Impressed	Quartz & Sand	Plain	None		Jar	24 cm
4	General Site	Dan River Net Impressed	Sand	Scraped	Type 2		Jar	20 cm
5	General Site	Dan River Net Impressed	Sand	Plain	Type 2		Jar	28 cm
6	General Site	Dan River Net Impressed	Sand	Scraped	Type 2		Jar	24 cm
7	General Site	Dan River Net Impressed	Sand	Scraped	Type 2		Jar	20 cm
8	General Site	Dan River Net Impressed	Quartz & Sand	Plain	Type 4		Jar	28 cm
9	General Site	Dan River Net Impressed	Sand	Plain	Type 1		Jar	28 cm
10	General Site	Dan River Net Impressed	Sand	Plain	Type 1		Jar	24 cm
11	General Site	Dan River Net Impressed	Quartz & Sand	Plain	Type 1		Jar	20 cm
12	General Site	Dan River Net Impressed	Quartz & Sand	Plain	Type 1		Jar	22 cm
13	General Site	Dan River Net Impressed	Quartz & Sand	Plain	Type 1		Jar	22 cm
14	General Site	Dan River Net Impressed	Quartz & Sand	Plain	Type 1		Jar	22 cm
15	General Site	Dan River Net Impressed	Quartz & Sand	Scraped	Type 1		Jar	22 cm
16	General Site	Dan River Net Impressed	Sand	Plain	Type 3		Jar	14 cm
17	General Site	Dan River Net Impressed	Sand	Scraped	Type 3		Jar	24 cm
18	General Site	Dan River Net Impressed	Sand	Plain	Type 3		Jar	26 cm
19	General Site	Dan River Net Impressed	Sand	Plain	Type 3		Jar	10 cm
20	General Site	Dan River Net Impressed	Quartz & Sand	Plain	Type 3		Jar	26 cm
21	General Site	Dan River Net Impressed	Quartz & Sand	Plain	Type 3		Jar	32 cm
22	General Site	Dan River Net Impressed	Quartz & Sand	Plain	None	I-A-1	Jar	14 cm
23	General Site	Dan River Cord Marked	Quartz & Sand	Plain	Type 2		Jar	24 cm
24	General Site	Dan River Cord Marked	Sand	Plain	None	Folded Rim	Jar	28 cm
25	General Site	Dan River Cord Marked	Quartz & Sand	Scraped	Type 3	Folded Rim	Jar	32 cm
26	General Site	Dan River Cord Marked	Sand	Plain	Type 1		Jar	38 cm
27	General Site	Dan River Cord Marked	Quartz & Sand	Scraped	Type 1		Jar	20 cm
28	General Site	Dan River Cord Marked	Sand	Plain	Type 2	I-A-1	Jar	26 cm
29	General Site	Dan River Cord Marked	Sand	Plain	Type 2	I-A-1	Jar	10 cm
30	General Site	Dan River Cord Marked	Sand	Plain	Type 1	Punctations	Jar	16 cm
31	General Site	Dan River Cord Marked	Quartz & Sand	Scraped	None	Folded Rim	Jar	20 cm
32	General Site	Dan River Roughly Smoothed	Quartz & Sand	Plain	Type 1		Jar	26 cm
33	General Site	Dan River Roughly Smoothed	Quartz & Sand	Plain	Type 1	I-A-1, VI-A-1	Jar	14 cm
34	General Site	Dan River Roughly Smoothed	Sand	Scraped	Type 4		Miniature Jar	8 cm
35	General Site	Dan River Roughly Smoothed	Quartz & Sand	Plain	None		Bowl	26 cm
36	General Site	Dan River Net Impressed	Quartz & Sand	Plain	None	Folded Rim	Jar	16 cm
37	General Site	Dan River Net Impressed	Quartz & Sand	Plain	Type 2	I-B-5	Jar	22 cm
38	General Site	Dan River Net Impressed	Sand	Plain	Type 1	III-A-1	Jar	28 cm
39	General Site	Dan River Net Impressed	Sand	Plain	Type 1	IV-A-1	Jar	16 cm
40	General Site	Dan River Plain	Sand	Plain	None		Bowl	16 cm
41	General Site	Dan River Plain	Sand	Plain	None		Bowl	14 cm
42	General Site	Dan River Plain	Quartz & Sand	Plain	None		Bowl	14 cm
43	General Site	Dan River Plain	Quartz & Sand	Plain	None		Bowl	20 cm
44	General Site	Burnished	Quartz & Sand	Scraped	None		Jar	20 cm
45	General Site	Dan River Plain	Sand	Plain	None	I-B-5	Miniature Jar	6 cm
46	General Site	Dan River Plain	Quartz & Sand	Plain	None	III-E-1	Jar	14 cm
47	General Site	Dan River Plain	Fine Feldspar	Scraped	None	V-A-2	Bowl	10 cm
48	TP-B6a	Dan River Roughly Smoothed	Sand	Plain	None		Miniature Bowl	5 cm
49	TP-B6a	Dan River Net Impressed	Sand	Scraped	None	I-A-1	Jar	8 cm
50	TP-B8	Dan River Roughly Smoothed	Quartz & Sand	Plain	Type 1	Folded Rim	Jar	18 cm

Appendix 5 continued.

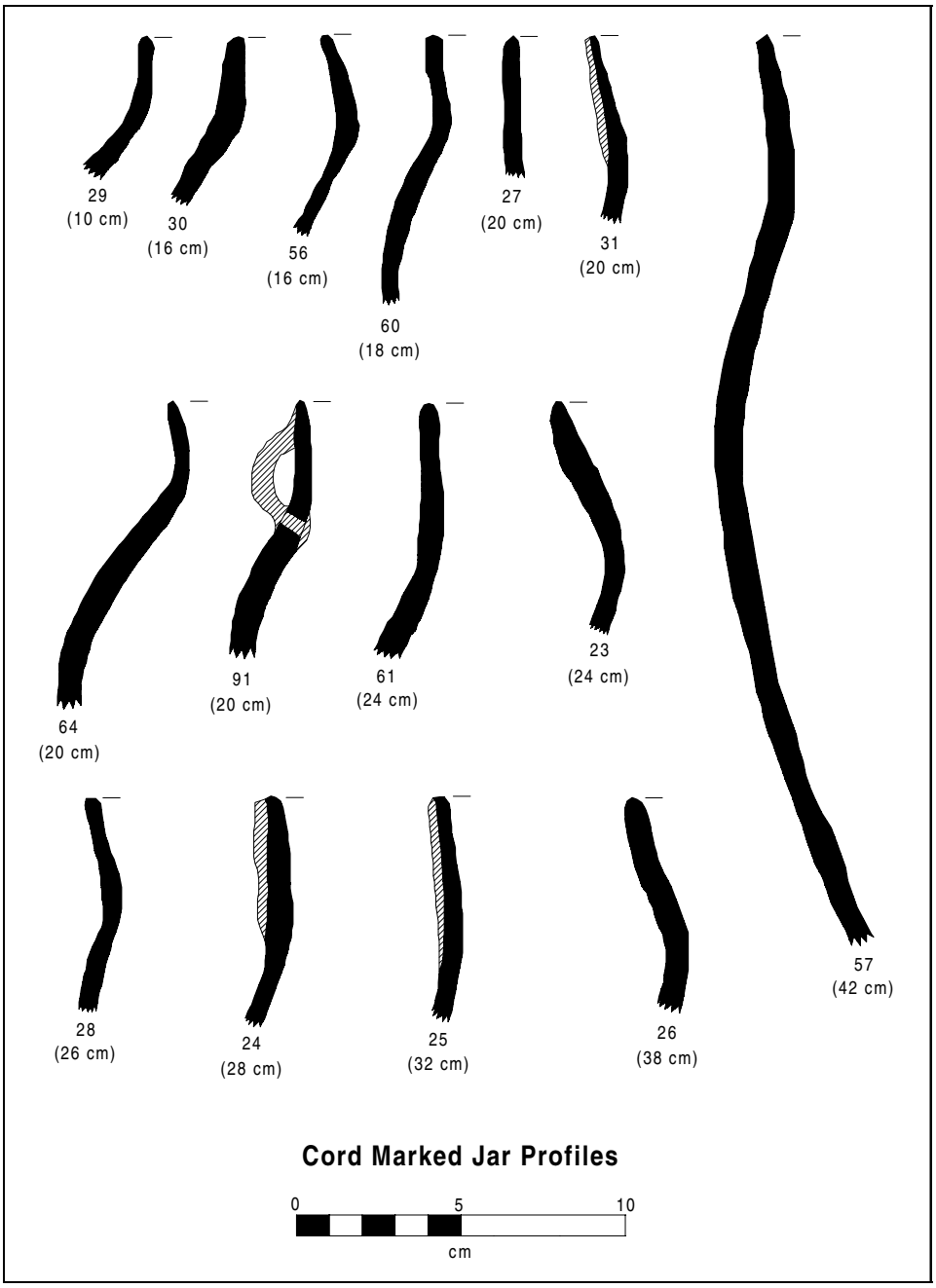
No.	Context	Type	Temper	Interior	Lip	Decoration/Other	Form	Diameter
51	TP-B8	Dan River Net Impressed	Quartz & Sand	Plain	Type 1	I-B-5	Jar	16 cm
52	TP-B10	Dan River Net Impressed	Sand	Scraped	None	Folded Rim	Jar	32 cm
53	TP-B12	Dan River Roughly Smoothed	Sand	Scraped	Type 1	V-B-2	Jar	8 cm
54	TP-B12	Dan River Net Impressed	Quartz & Sand	Plain	Type 3	I-A-4	Jar	22 cm
55	TP-B14	Dan River Plain	Sand	Plain	None	I-B-5	Bowl	6 cm
56	TP-B15	Dan River Cord Marked	Quartz & Sand	Scraped	Type 3	I-D-2	Jar	16 cm
57	General Site	Dan River Cord Marked	Sand	Plain	Type 1		Jar	42 cm
58	General Site	Dan River Net Impressed	Quartz & Sand	Scraped	None	I-A-1	Jar	22 cm
59	General Site	Dan River Net Impressed	Quartz & Sand	Plain	Type 3		Jar	24 cm
60	General Site	Dan River Cord Marked	Quartz & Sand	Plain	None		Jar	18 cm
61	General Site	Dan River Cord Marked	Quartz & Sand	Scraped	Type 3	I-A-1	Jar	24 cm
62	General Site	Dan River Net Impressed	Quartz & Sand	Plain	Type 3a	I-A-1, III-B-1, 2 Nodes	Jar	22 cm
63	General Site	Dan River Net Impressed	Quartz & Sand	Plain	None	Rim Fold	Jar	22 cm
64	TP-?	Dan River Cord Marked	Sand	Plain	None		Jar	20 cm
65	General Site	Dan River Net Impressed	Quartz & Sand	Plain	None	2 Nodes	Jar	24 cm
66	General Site	Dan River Net Impressed	Quartz & Sand	Scraped	Type 1	II-A-1	Jar	14 cm
67	General Site	Dan River Net Impressed	Quartz & Sand	Plain	Type 1	I-A-6	Jar	12 cm
68	General Site	Dan River Net Impressed	Quartz & Sand	Plain	Type 1	I-A-8	Jar	22 cm
69	General Site	Dan River Roughly Smoothed	Quartz & Sand	Scraped	Type 1	I-A-1	Jar	26 cm
70	General Site	Dan River Roughly Smoothed	Quartz & Sand	Plain	None	Cob-Impressed Neck	Miniature Jar	6 cm
71	General Site	Dan River Brushed	Quartz & Sand	Plain	None		Bowl	18 cm
72	General Site	Dan River Roughly Smoothed	Quartz & Sand	Plain	None		Bowl	28 cm
73	General Site	Dan River Corncob Impressed	Sand	Plain	None		Miniature Bowl	8 cm
74	General Site	Dan River Roughly Smoothed	Quartz & Sand	Plain	None		Miniature Bowl	5 cm
75	General Site	Dan River Roughly Smoothed	Sand	Plain	None		Miniature Jar	4 cm
76	General Site	Dan River Plain	Sand	Plain	None		Miniature Jar	2 cm
77	General Site	Dan River Brushed	Sand	Plain	None		Miniature Jar	4 cm
78	General Site	Dan River Roughly Smoothed	Sand	Plain	None		Miniature Jar	4 cm
79	TP-B19 & 20	Dan River Net Impressed	Quartz & Sand	Plain	Type 1		Jar	17 cm
80	TP-B32	Dan River Roughly Smoothed	Quartz & Sand	Scraped	None	I-D-3, V-A-1, Folded Rim	Jar	12 cm
81	TP-B20	Dan River Net Impressed	Quartz & Sand	Scraped	Type 3	I-A-4, Folded Rim	Jar	22 cm
82	TP-B20	Dan River Net Impressed	Quartz & Sand	Scraped	Type 1	I-A-1	Jar	16 cm
83	TP-B20	Dan River Net Impressed	Sand	Plain	Type 2	I-A-1	Jar	10 cm
84	TP-B20	Dan River Net Impressed	Quartz & Sand	Plain	None	I-A-4, Folded Rim	Jar	19 cm
85	TP-B20	Dan River Net Impressed	Quartz & Sand	Plain	Type 1		Jar	26 cm
86	TP-B33	Dan River Corncob Impressed	Quartz & Sand	Plain	None	Random Cord Impressions	Jar	27 cm
87	TP-B33	Dan River Net Impressed	Quartz & Sand	Plain	Type 1	I-A-1	Jar	24 cm
88	TP-B35	Dan River Net Impressed	Sand	Plain	None	Folded Rim	Jar	22 cm
89	TP-?	Dan River Net Impressed	Quartz & Sand	Plain	None	Folded Rim	Jar	24 cm
90	TP-?	Dan River Net Impressed	Quartz & Sand	Plain	Type 1b		Jar	22 cm
91	General Site	Dan River Cord Marked	Quartz & Sand	Plain	Type 1	I-A-1, VI-A-1, Loop Handle	Jar	20 cm
92	General Site	Dan River Cord Marked	Quartz & Sand	Plain	None		Miniature Jar	10 cm
93	TP-B33	Dan River Roughly Smoothed	Quartz & Sand	Scraped	None		Jar	10 cm
94	General Site	Dan River Net Impressed	Sand	Plain	None		Jar	39 cm



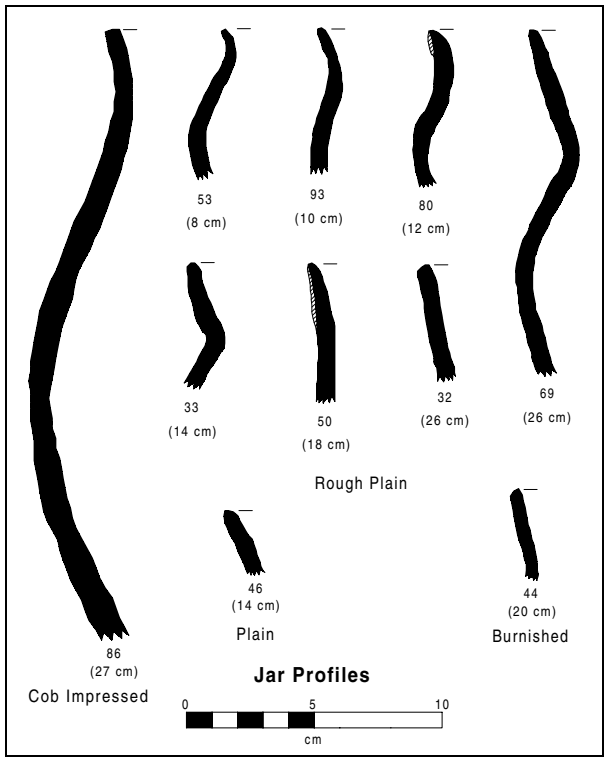
Appendix 6. Profiles of individually numbered vessels from the Box Plant site.



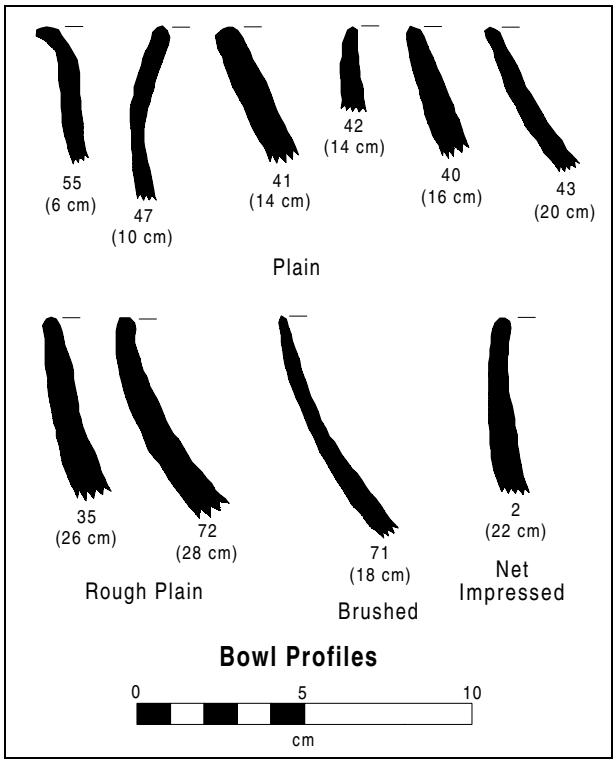
Appendix 6 continued.



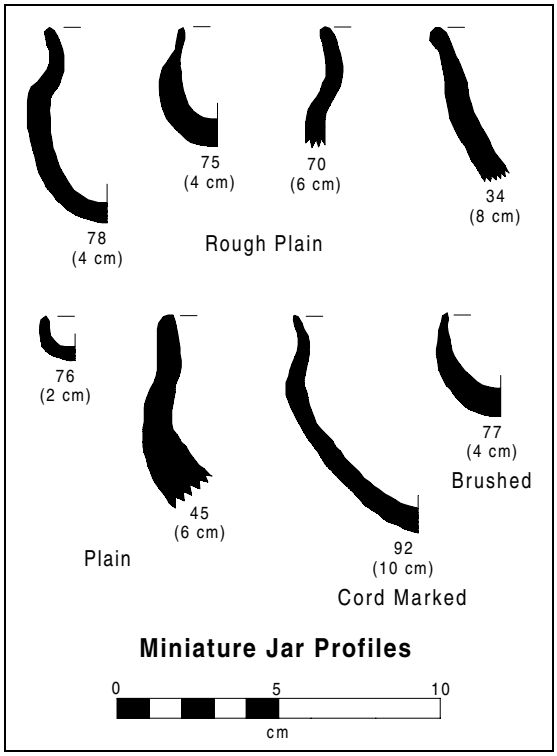
Appendix 6 continued.



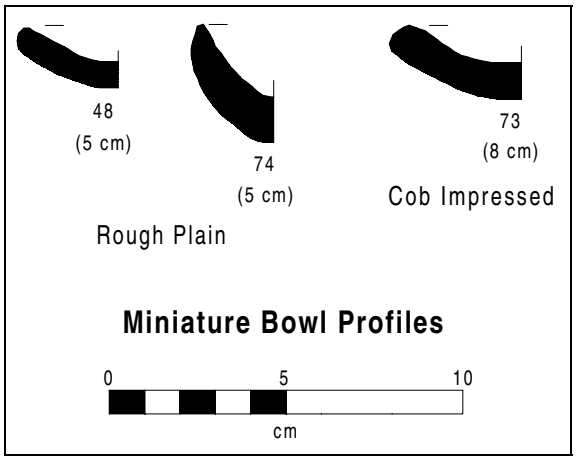
Appendix 6 continued.



Appendix 6 continued.



Appendix 6 continued.



Appendix 6 continued.

Appendix 7. Description of small triangular projectile points from the Box Plant site.

Context	Raw Material	Condition	Weight (g)	Length (mm)	Width (mm)	Thickness (mm)	Comment
TP-B1 & 2	Metavolcanic	Whole	1.4	21.4	16.3	3.9	
TP-B1 & 2	Metavolcanic	Whole	2.4	30.7	16.3	4.5	Possibly made from an old flake
TP-B3a	Metavolcanic	Broken	-	31.2	-	3.4	Made from an old flake
TP-B5	Metavolcanic	Whole	11.4	39.8	23.1	14.8	Unfinished
TP-B6	Metavolcanic	Broken	-	32.1	-	4.5	
TP-B10	Quartz	Broken	-	-	8.8	4.5	
TP-B12	Metavolcanic	Broken	-	-	20.9	-	
TP-B12	Metavolcanic	Broken	-	-	19.2	5.8	Made from an old flake
TP-B13	Metavolcanic	Broken	-	-	18.7	-	
TP-B13	Metavolcanic	Broken	-	-	16.7	4.6	
TP-B14	Metavolcanic	Broken	-	-	-	-	
TP-B14	Metavolcanic	Whole	1.3	21.8	15.4	5.1	
TP-B14	Metavolcanic	Broken	-	-	15.9	-	
TP-B14	Metavolcanic	Broken	-	24.9	-	5.6	Made from an old flake
TP-B15	Metavolcanic	Whole	3.0	31.4	19.0	5.9	
TP-B15	Metavolcanic	Whole	1.3	23.6	14.2	4.3	
TP-B15	Metavolcanic	Broken	-	-	17.6	5.9	
TP-B15	Metavolcanic	Broken	-	-	-	-	
TP-B15	Metavolcanic	Broken	-	-	26.4	-	
TP-B20	Quartz	Broken	-	-	17.9	5.9	
TP-B21	Quartzite	Broken	-	19.4	17.0	4.7	
TP-B30	Chalcedony	Whole	0.9	21.4	16.8	3.1	
TP-B30	Metavolcanic	Broken	-	-	-	5.8	
TP-B32	Metavolcanic	Broken	-	-	-	4.1	
TP-B34	Metavolcanic	Broken	-	-	15.8	2.6	Made from an old flake
TP-B36	Quartz	Broken	-	-	-	-	
TP-B40	Metavolcanic	Whole	5.9	34.2	15.6	13.1	Unfinished
Unknown	Chert	Broken	-	-	20.9	4.5	
Unknown	Chert	Broken	-	-	21.8	3.6	
Unknown	Chert	Whole	1.4	32.7	18.0	3.9	
Unknown	Chert	Whole	1.3	25.2	17.1	4.1	
Unknown	Chert	Whole	1.9	27.4	22.5	4.5	
Unknown	Chert	Broken	-	-	14.7	4.0	
Unknown	Chert	Broken	-	30.6	-	2.9	
Unknown	Chert	Whole	1.5	22.2	20.2	5.3	
Unknown	Jasper	Whole	4.4	29.2	20.9	9.6	
Unknown	Jasper	Whole	1.6	21.9	20.7	4.5	
Unknown	Metavolcanic	Broken	-	-	20.3	8.0	
Unknown	Metavolcanic	Broken	-	-	22.1	5.7	
Unknown	Metavolcanic	Broken	-	-	18.9	4.6	
Unknown	Metavolcanic	Whole	2.6	33.7	19.6	4.3	
Unknown	Metavolcanic	Whole	1.0	24.5	11.1	4.7	
Unknown	Metavolcanic	Whole	1.2	27.7	14.7	3.7	
Unknown	Metavolcanic	Whole	0.9	22.9	13.2	3.6	
Unknown	Metavolcanic	Broken	-	-	15.6	6.2	
Unknown	Metavolcanic	Whole	0.7	21.4	15.5	2.4	

Appendix 7 continued.

Context	Raw Material	Condition	Weight (g)	Length (mm)	Width (mm)	Thickness (mm)	Comment
Unknown	Metavolcanic	Broken	-	25.6	-	4.7	
Unknown	Metavolcanic	Whole	2.7	30.3	18.8	6.6	
Unknown	Metavolcanic	Whole	1.3	21.6	16.3	5.7	
Unknown	Metavolcanic	Broken	-	-	-	-	
Unknown	Metavolcanic	Whole	1.4	27.4	17.8	3.5	
Unknown	Metavolcanic	Broken	-	-	13.2	3.4	
Unknown	Metavolcanic	Whole	1.1	24.0	15.1	3.2	
Unknown	Metavolcanic	Broken	-	-	-	-	
Unknown	Metavolcanic	Whole	1.1	17.5	15.7	4.6	
Unknown	Metavolcanic	Broken	-	-	15.8	-	
Unknown	Metavolcanic	Broken	-	19.6	-	2.2	Unifacial retouch on a flake
Unknown	Metavolcanic	Whole	0.8	18.8	13.4	4.4	
Unknown	Metavolcanic	Broken	-	-	-	-	
Unknown	Metavolcanic	Whole	0.9	21.2	16.2	3.4	
Unknown	Metavolcanic	Broken	-	23.0	-	4.4	
Unknown	Metavolcanic	Whole	1.4	22.1	16.6	5.4	
Unknown	Metavolcanic	Broken	-	-	-	-	
Unknown	Metavolcanic	Broken	-	-	-	-	
Unknown	Metavolcanic	Broken	-	-	15.8	3.7	
Unknown	Metavolcanic	Broken	-	-	16.7	5.9	
Unknown	Metavolcanic	Broken	-	23.0	-	4.3	
Unknown	Metavolcanic	Whole	1.0	24.4	10.8	4.3	
Unknown	Metavolcanic	Broken	-	-	16.1	2.8	
Unknown	Metavolcanic	Broken	-	24.0	-	4.9	
Unknown	Metavolcanic	Broken	-	-	-	-	
Unknown	Metavolcanic	Broken	-	-	16.3	3.9	
Unknown	Metavolcanic	Broken	-	-	-	-	
Unknown	Metavolcanic	Broken	-	-	17.8	4.1	
Unknown	Metavolcanic	Whole	0.5	18.0	-	2.3	
Unknown	Metavolcanic	Whole	1.2	19.9	14.2	5.2	
Unknown	Metavolcanic	Broken	-	-	13.2	3.5	
Unknown	Metavolcanic	Broken	-	-	-	-	
Unknown	Metavolcanic	Broken	-	-	12.0	6.1	
Unknown	Metavolcanic	Broken	-	34.4	-	6.5	
Unknown	Metavolcanic	Whole	3.3	38.6	17.4	6.0	
Unknown	Metavolcanic	Broken	-	-	17.3	7.0	
Unknown	Metavolcanic	Broken	-	-	15.3	7.2	
Unknown	Metavolcanic	Whole	0.7	21.5	10.4	3.4	Notched base
Unknown	Metavolcanic	Whole	1.5	26.3	16.8	3.9	Made from an old flake
Unknown	Metavolcanic	Broken	-	-	18.6	7.9	Made from an old flake
Unknown	Metavolcanic	Whole	1.9	25.7	15.0	6.6	Possibly made from an old flake
Unknown	Metavolcanic	Whole	1.6	30.4	13.3	5.6	Possibly made from an old flake
Unknown	Metavolcanic	Whole	2.6	35.0	14.4	7.2	Possibly made from an old flake
Unknown	Metavolcanic	Whole	1.6	22.1	18.3	5.9	Possibly made from an old flake
Unknown	Metavolcanic	Whole	1.5	20.8	14.9	5.2	Made from an old flake
Unknown	Metavolcanic	Whole	2.9	31.7	16.6	7.7	Possibly made from an old flake
Unknown	Metavolcanic	Whole	1.9	27.4	18.7	6.0	Made from an old flake

Appendix 7 continued.

Context	Raw Material	Condition	Weight (g)	Length (mm)	Width (mm)	Thickness (mm)	Comment
Unknown	Metavolcanic	Broken	-	28.9	-	7.8	Possibly made from an old flake
Unknown	Metavolcanic	Broken	-	-	17.6	-	Possibly made from an old flake
Unknown	Metavolcanic	Broken	-	-	17.0	6.1	Made from an old flake
Unknown	Metavolcanic	Whole	0.9	22.9	15.3	3.2	Possibly made from an old flake
Unknown	Metavolcanic	Broken	-	-	17.1	7.2	Possibly made from an old flake
Unknown	Metavolcanic	Whole	1.6	28.2	14.8	4.4	Made from an old flake
Unknown	Metavolcanic	Whole	2.6	30.5	22.6	6.7	Made from an old flake
Unknown	Metavolcanic	Broken	-	21.2	-	3.8	Possibly made from an old flake
Unknown	Metavolcanic	Whole	1.0	20.9	16.3	3.9	Made from an old flake
Unknown	Metavolcanic	Broken	-	27.6	-	5.6	Made from an old flake
Unknown	Metavolcanic	Whole	0.9	25.4	14.1	2.5	Made from an old flake
Unknown	Metavolcanic	Whole	2.2	24.9	19.2	6.1	Made from an old flake
Unknown	Metavolcanic	Broken	-	-	16.6	3.9	Made from an old flake
Unknown	Metavolcanic	Whole	1.1	23.4	14.8	3.6	Made from an old flake
Unknown	Metavolcanic	Broken	-	-	19.5	3.1	Possibly made from an old flake
Unknown	Metavolcanic	Whole	1.0	27.1	13.9	3.2	Possibly made from an old flake
Unknown	Metavolcanic	Broken	-	-	15.2	2.2	Possibly made from an old flake
Unknown	Metavolcanic	Whole	5.4	34.7	17.4	10.5	Unfinished
Unknown	Metavolcanic	Whole	15.8	40.4	29.4	16.3	Unfinished
Unknown	Metavolcanic	Broken	-	31.8	-	12.3	Possibly a scraper
Unknown	Quartz	Whole	2.6	27.7	17.9	7.3	
Unknown	Quartz	Broken	-	-	-	-	
Unknown	Quartz	Whole	1.0	18.3	16.3	4.8	
Unknown	Quartz	Broken	-	16.8	-	4.0	
Unknown	Quartz	Broken	-	35.3	-	9.2	Unfinished