

PART 2

FINAL TESTING PHASE REPORT ON PREHISTORIC
ARCHAEOLOGICAL SITES ON AMAX'S LITTLETON
FIELD HAUL ROAD

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ABSTRACT

Phase II operations were carried out for sites adjoining Amax's partially constructed Littleton Field Haul Road. Reporting has emphasized only those sites likely to contain subsurface features, since other impact will be to the margins of Archaic plowzone scatters, most of which are already cut through. Descriptions of eight sites (all of which are of Woodland affiliation) are presented, while results for all other sites encountered are present in tabular form.

6.0 PHASE I AND II WORK ALONG THE HAUL ROAD

6.1 Introduction

The purpose of this report is to present survey and testing phase data from Western Illinois University's archaeological investigations along Amax's Littleton Field Haul Road. This road is partially constructed and traverses a path from Amax's proposed Littleton Mine Field (along the West Branch of Sugar Creek in Schuyler County) northeastward parallel to, and on the east side of Sugar Creek, crossing the extreme southeastern corner of McDonough County before proceeding directly east to Amax's Sunspot Mine (southeast of Vermont, Illinois). The easternmost portion (1.7 miles, 2.7 km.) has not yet been started. The road will be approximately 10.2 miles (16.4 kilometers) long and was initiated in 1975 and 1976. Previous archaeological work along this road consisted of unfinished emergency salvage excavations at four Woodland sites and post construction survey of damaged areas for indications of intersected sites (see Green 1977).

Survey and testing phase work for the Haul Road under the existing contract was started with comprehensive coverage of the entire Haul Road permit boundary (a band averaging approximately 180 meters wide, centered on the existing load bed) but gradually was narrowed in focus as direct impact areas became known. With the exception of the eastern end, the result was what may be characterized as only a narrow band of potential further impact along only part of the Haul Road. Given this situation, continuing multiple controlled surface collections (as discussed in Section IA) on these narrow, usually somewhat disturbed, transects of site scatters was deemed to be unnecessary. A full controlled collection has been carried

out on each of the sites identified in the Haul Road's impact zone and three such collections have been made on the one Late Woodland site (F-2603) which is directly in the path of proposed construction at the eastern end. Potentially significant information in these site "margins", would not be found in the surface distribution of artifacts, since only thin strips of sites can be investigated. This, then, automatically shifted the emphasis of "site potential" to intact/subsurface features. In this case, such features would occur either on Woodland period or buried sites (or both). Sites along the road alignment which appear to have such deposits and which are likely to sustain impact from further construction are detailed here. Information on these and the balance of sites investigated along the Haul Road are presented in tabular form in Appendix D.

6.2 Method

6.2.1 Field Methods

New sites were located along the Haul Road by systematic pedestrian survey. (Previously known sites had been located only by scrutinizing areas damaged by construction in 1975 and 1976.) Since field work continued under an increasingly refined understanding of the likely impact areas, not all of the Haul Road Permit Boundary was surveyed. A minimum 50 foot buffer zone on each side of the 100 foot wide direct impact zone was surveyed in order to insure that all sites bordering the Haul Road were identified. A 50 foot buffer zone around four proposed borrow areas was also surveyed. Vital information regarding topography, site size, soil type, density of

archaeological materials and exact location was recorded for each site. This information was submitted to the Illinois Archaeological Survey, where formal site numbers were assigned. Field activities were carefully recorded on field journals.

Surface collections were made on each site. A variety of collection controls were used dependent on what was known at the time of potential impact and the site of material density. In the event of a site which was not judged likely to be impacted, only a general pickup of materials was carried out. On a few sites which displayed a very heavy scatter which needed to be collected under more rigorous spatial controls, a 10 meter interval grid was utilized; on less dense sites, individual items were flagged and pieceplotted by transit or alidade. Since all areas of impact had been plowed at some time, replowing of a few pastured areas was carried out to enable efficient surface survey and evaluation. Surface reconnaissance was augmented by coring and deep testing to search for buried cultural deposits in only one location (the Sugar Creek Valley) at which the Dogbone Site (11-Sc-466) was located. No shovel testing or "bulldozer survey" was necessary along the Haul Road alignment.

6.2.2 Laboratory Methods

Site materials were processed following standard laboratory techniques as have been described in Section 1.2 in this report. Site size was measured in square meters by plotting the site on aerial photos (1:500 scale). The extent of some sites is unknown due to construction damage, ground cover, or incomplete survey of sites extending beyond the impact zone or permit boundary.

A quick metric assessment of the overall material density for each site (of known size) was generated by dividing the total weight of material collected by the site area. The results of this "density index" were grouped by histogram plotting into light, moderate, or heavy densities. The shortcomings of such a measure are obvious and its analytic importance for determining site function, intensity of occupation, etc., is questionable; however, it was felt to better express site density for the purposes of this report than purely subjective field estimates. To quantify the amounts of work to be undertaken on subsequent visits to sites, catalogues of temporal and functionally diagnostic artifacts were recorded for each site and are presented as part of Appendix D.

7.0 TESTING PHASE RESULTS FOR HAUL ROAD SITES

7.1 Discussion

The archaeological survey and evaluation of the Littleton Haul Road located a total of 64 archaeological sites within the Haul Road Permit Boundary, 32 of which may be affected by construction and/or fall within a 50 foot buffer zone. Site locations are presented in Figure 7:1a-c while Appendix D provides relevant information on these sites.

Although many Archaic occupations are present along the Haul Road, the nature of these sites and the constraints of potential further impact do not allow for the likelihood of gathering further useful data from narrow strips of them. Since Archaic sites in the uplands are generally sparse and entirely disturbed by plowing, the most efficient (and speaking realistically, the only) means of gathering useful archaeological data from them is by a controlled surface collection technique which records data from a large portion of the site. Thus, only eight of the 32 sites which may sustain impact from further construction could realistically be expected to contain data preserved in intact deposits (F-2603, Sc-356, Sc-359, Sc-360, Sc-351, Sc-466, Sc-452, and Sc-87). These sites are all assignable to the Woodland period. Descriptions of each one are presented below in east to west order.

7.2 Site Descriptions

F-2603 (Astoria 3) (Figure 7:2)

Location: NE 1/4 Astoria 5; UTM E719430 N4461060

Size: 61,750 m²

Astoria 3 is located on the far eastern, unconstructed portion of the Haul Road in the upper reaches of the Otter Creek drainage. It measures



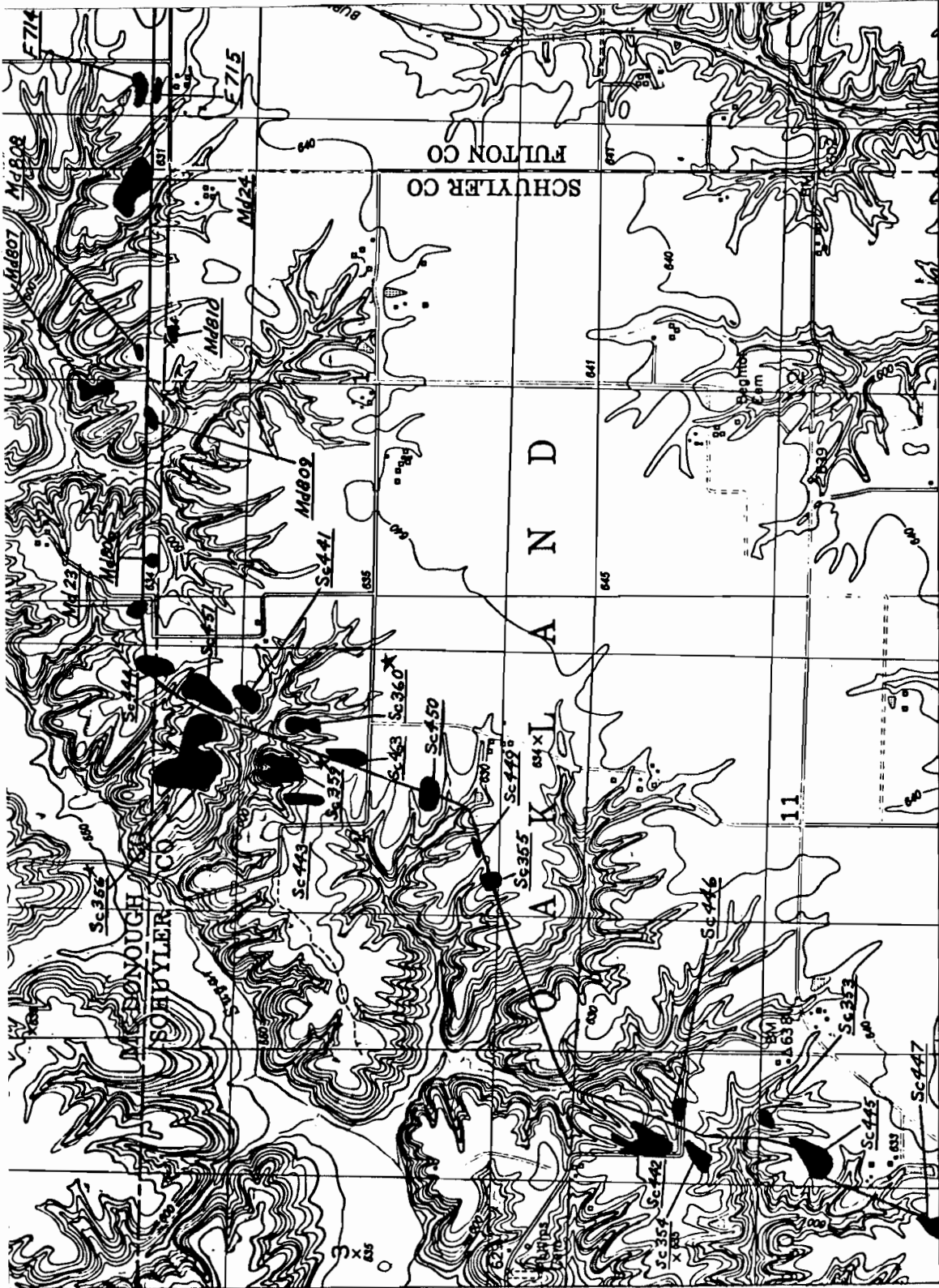
Adapted from USGS Rushville North Quadrangle II, 7.5 minute Topographic series, scale 1-24,000.

1 mi.

1 km.

*Site discussed in Chapter 7

Figure 7:1a Haul Road Sites



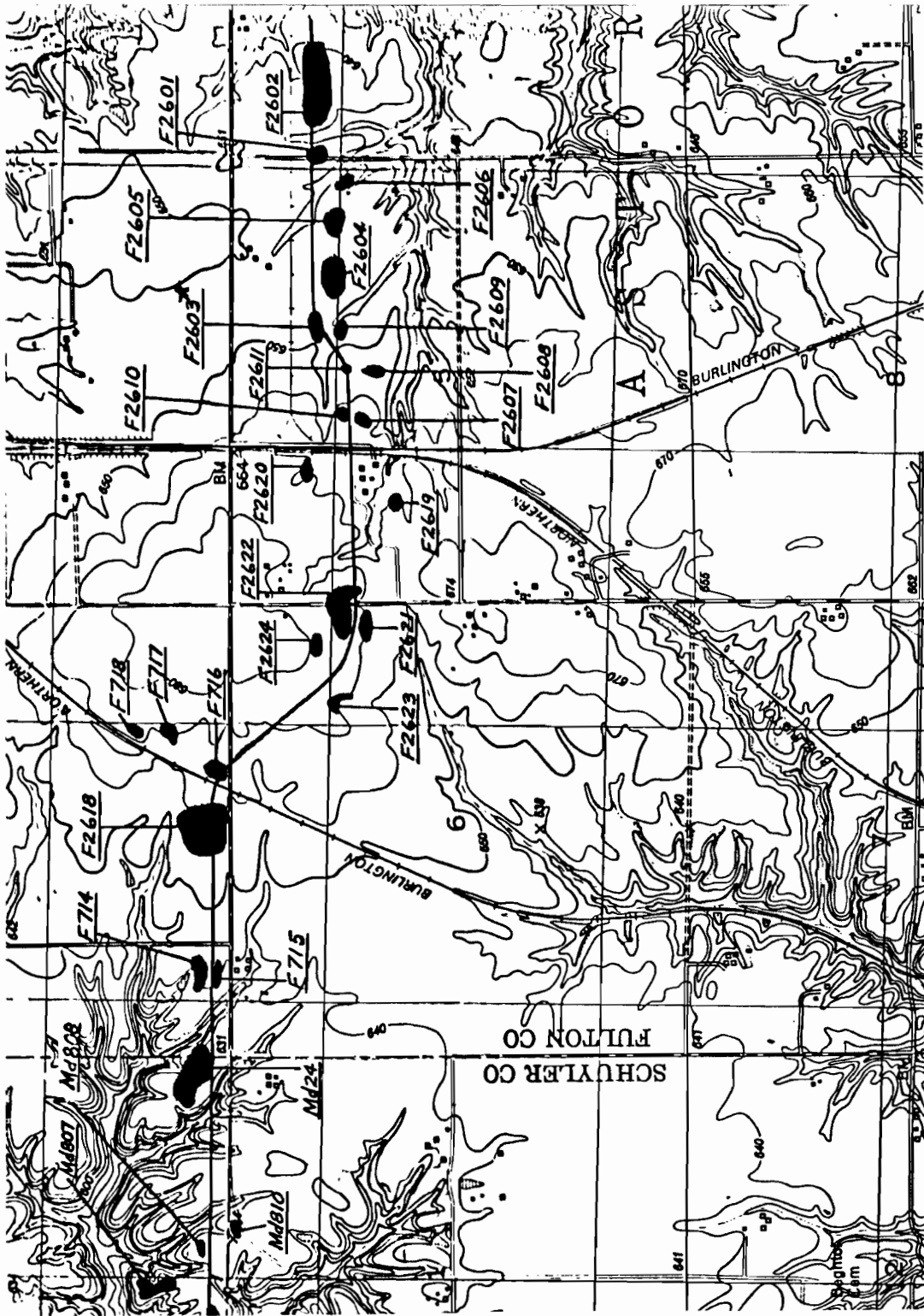
Adapted from USGS Vermont Quadrangle II, 7.5 minute Topographic series, scale 1-24,000

1 mi.

1 km.

*Site discussed in Chapter 7

Figure 7:lb Haul Road Sites



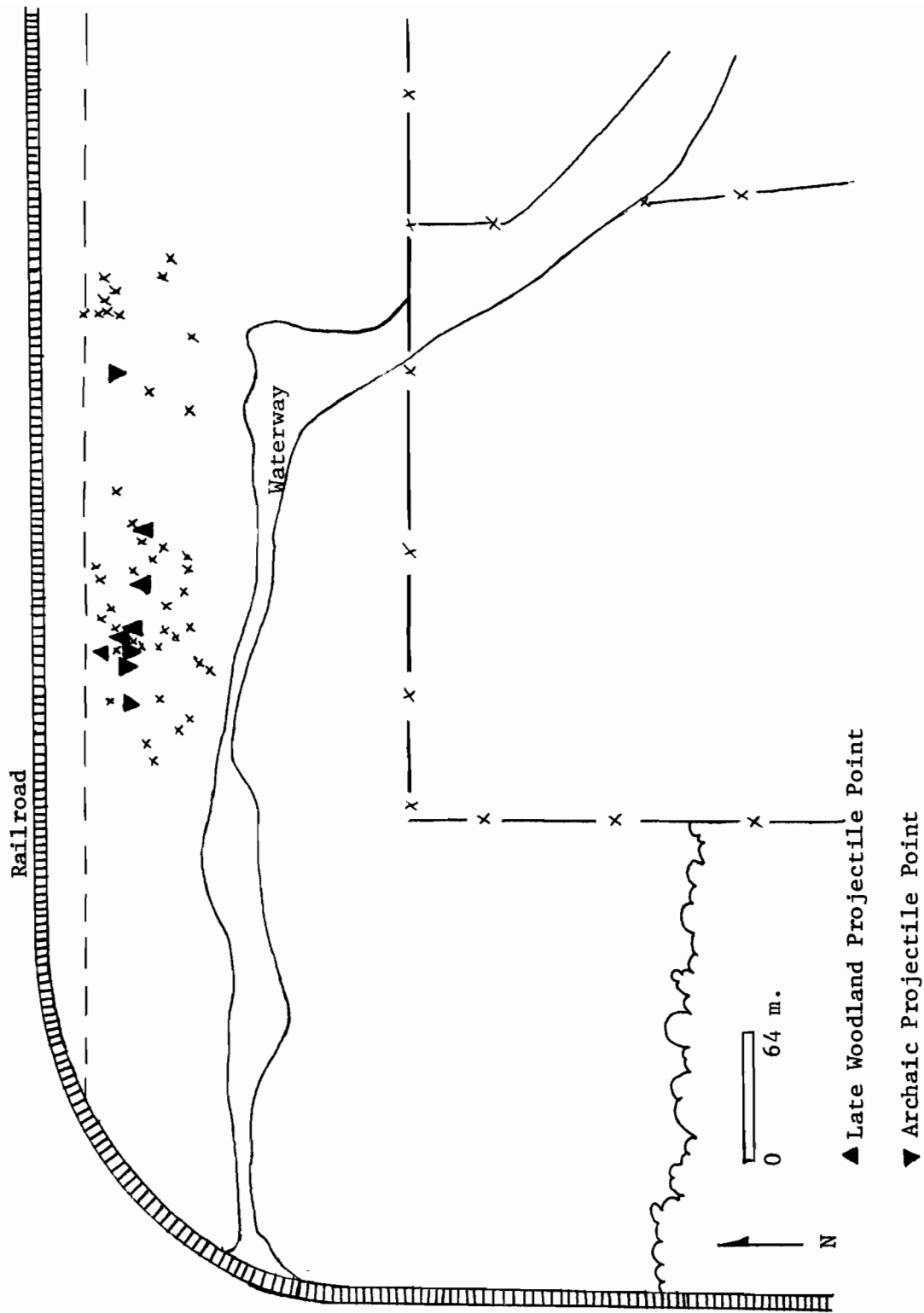
Adapted from USGS Vermont Quadrangle II, 7.5 minute Topographic Series, scale 1-24,000

1 mi.

1 km.

*Site discussed in Chapter 7

Figure 7:1c Haul Road Sites



(See Table 3:2)

Figure 7:2 Site Map for F-2603

approximately 125 meters east/west by 45 meters north/south, and is directly in the path of the proposed Haul Road alignment for this area. This generally sparse site yielded four Late Woodland arrowpoints (Mounds Stemless) on the first visit (51 total pieceplots) clustered near the center of the site. A small probable Early Archaic point tip was found in the sparse far eastern end of the scatter, also.

A second pieceplotting after plowing, discing, and heavy rain, yielded 132 items, including a small Madison point (Late Woodland). The increase in material recovered was due to both field conditions and the intensity of scrutiny utilized for this pickup. The site area was surveyed practically shoulder to shoulder twice (at 90° angles) to produce an adequate distribution for what appeared at this time to be a single component Late Woodland site.

A third visit to the site following another episode of plowing, discing, and rain produced only 40 pieceplots. No Late Woodland materials were recovered on this pickup. An Early Archaic Thebes point was found approximately 40 meters west of the Late Woodland material, and an untyped, probable Middle Archaic side-notched point was located near the western margin of this same cluster.

The number and distribution of the Late Woodland projectile points on Astoria 3 indicates the strong probability of subsurface features being present. A lack of pottery on the site may represent a functional differentiation between Astoria 3 and the other Late Woodland sites in the project area (which are all to the west in the Sugar Creek drainage). The

absence of pottery could be due to plowzone preservation as well, though. In all probability, there is also a cultural difference between Astoria 3 and the other Late Woodland sites as evidenced by the Mounds Stemless points.

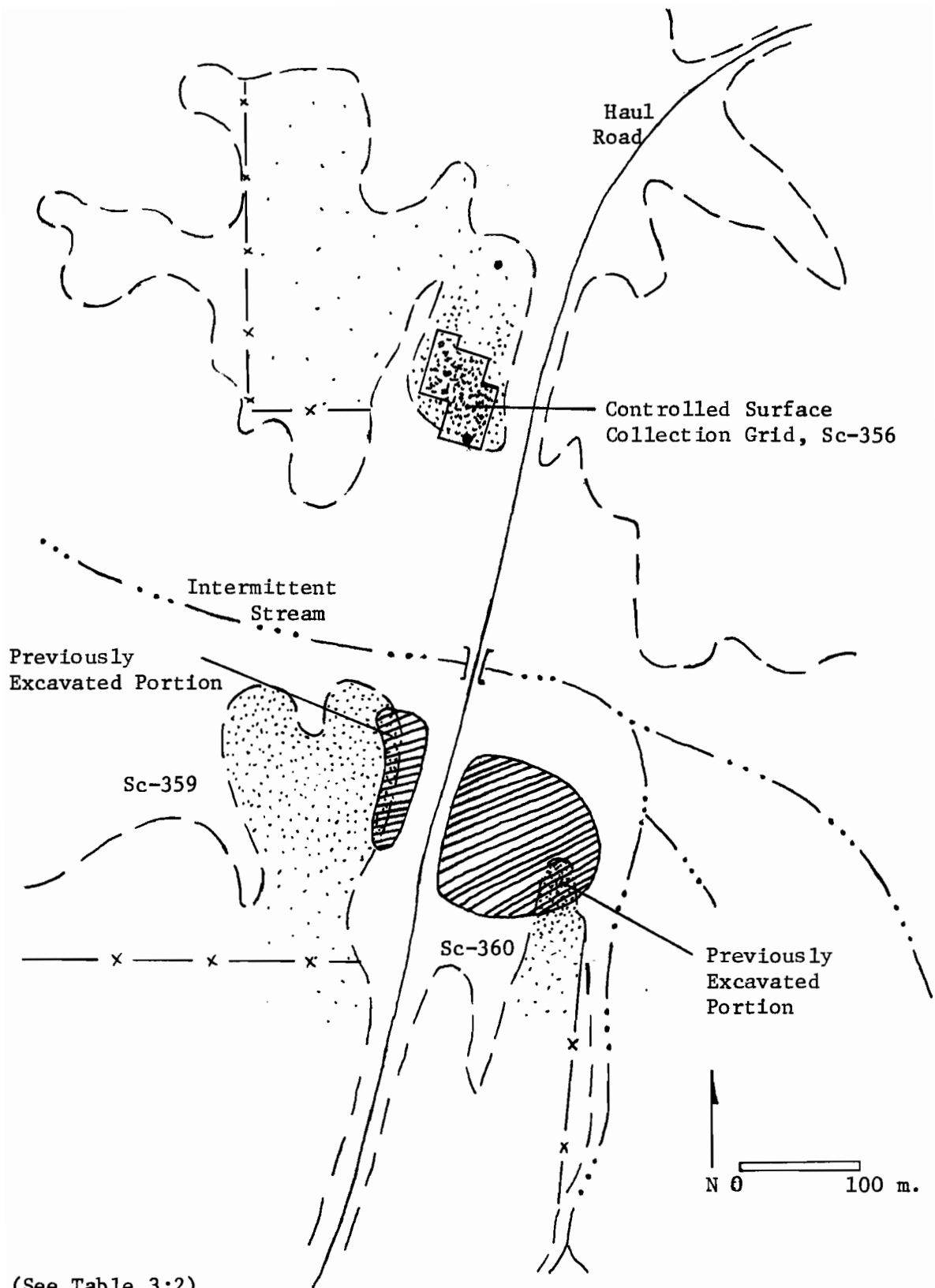
Figures B:4c, B:13c, B:21b, B:21f, B:21g, B:21h, and B:21i

Sc-356 (LN-48) (Figure 7:2)

Location: NE $\frac{1}{4}$ Oakland 2; UTM E714460 to E714740, N4461080 to N4461340

Size: Unknown

This site was first reported by Green (1977:131). A Late Woodland Triangular knife led him to believe that this dense site was a Late Woodland occupation, but no pottery was recovered at that time. Upon visiting the site for Phase II work, a very dense scatter containing many projectile points and other tools, as well as rough rock and chert debitage was observed. A large block of 45 ten meter collection squares was gridded out over the heaviest (southern) portion of the site and the material in each square was collected as a unit. Approximately 1500 items were collected from this 4500 square meters. A large number of Woodland diagnostics projectile points (one arrowpoint, two Ansell points, and one Late Woodland triangular knife) were present on this scatter as well as several points from earlier periods. A single sherd was found and a probable feature was observed being plowed out at the somewhat scalped southern extreme of the lobe end. Potential impact to this site by further construction as planned would occur in a strip along the eastern margin. Since the centerline of the Haul Road is substantially to the west side within its existing cut,



(See Table 3:2)

Figure 7:3 Site Maps for Sc-356, Sc-359, and Sc-360

and a slope for the elevation difference present will have to be graded, a band (approximately 89 feet wide?) along the edge of the site is within a potential impact zone and very likely to contain intact features.

Figures B:2e, B:8d, B:10e, B:10g, B:10h, B:16a, B:17e, B:21c, B:21j,
B:21k, B:22e, B:22j (Also see Green 1977:Plates 12e and 14h)

Sc-359 (Flatwoods 1)(Figure 7:3)

Location: NE 1/4 Oakland 2; UTM E714500-E714630, N4460760-N4460915

Size: Remaining portion is approximately 95 meters N/S by 55 meters
E/W

Sc-359 is an intensive Late Woodland occupation, which has been heavily impacted by Haul Road construction. Much of the eastern portion of the site has been either scalped or plowzone or cut away. Twelve features were excavated by unfunded effort in 1976 and reported in detail by Green (1977:134-143). Regrading of the eastern cut along the site revealed ten more features which were excavated in 1979, also by volunteer labor. One additional feature was excavated by the 1980 Western Illinois University Field School. Present erosion along the slope is not so severe, but several features have become visible (and have not been excavated).

Late Woodland artifacts recovered from Sc-359 include various stone tools such as knives, scrapers, projectile points, and grinding stones. Also, an abundance of pottery and several smoking pipes have been found. Organic remains include fish scales and seeds of such plants as goosefoot, knotweed, mustard, and sumac. Hickory nut shell is ubiquitous, and walnut shell occurs

as well. One sample of nut shell submitted for radiocarbon dating produced a date of 940±75 A.D. Subsequent carbon samples from Sc-359 have been assayed at 700 and 900 A.D. with the same standard deviation (see Green in this text, Section 1.5). Quite a few Archaic points have also been found on the site.

Work on the site during Phase II investigations consists of a single visit to a plowed strip along the eastern margin of the site. A large Kirk Cluster (Decatur) point reworked as a drill, a point midsection, and a Late Woodland rim sherd were collected. The location of these and three small sherds were noted on a sketch, but the sherds were not collected and a comprehensive survey and collection was not made.

Further potential impact to the site appears to be likely only along the eastern edge where a borrow pit is scheduled to adjoin the undisturbed portion of the site.

Figures B:2g, B:7c, B:10f (Also see Green 1977:Plates 2c, 2k, 2l, 10a-n, 12f, 13e, 13f, 13k)

Sc-360 (Flatwoods 2) (Figure 7:3)

Location: NE¼ Oakland 2; UTM E714665-E714760, N4460680-4460830

Size: Unknown

The situation at Flatwoods #2 is very similar to that of Flatwoods #1. The impact of 1975 Haul Road construction was severe, as all but the southern part of the site was damaged by borrowing activities. Many prehistoric

features were exposed on the graded surface and in steep 10-15 foot cuts along the site's edges. Sixteen features were excavated by unfunded efforts in 1976 and 1979. Radiocarbon dates are presented in Figure 1:3 and Table 1:2. Full descriptions of most of this was given by Green (1977:143-152). Regrading to control erosion in the late summer of 1979 damaged some previously undisturbed areas. Nevertheless, intact areas almost certainly remain in the southern and central portions of the site. No Phase II work was done on this site.

Further potential impact to the site appears to be limited to the northern margin of the site's remainder, where a borrow pit is scheduled.

Sc-351 (LN-41) (Figure 7:4)

Location: NW $\frac{1}{4}$ Oakland 15; UTM E712080-712260, N4457460-4457570

Size: Unknown

Sc-351 is located on a large bluff top ridge overlooking the confluence of Sugar Creek with its West Branch. Sc-357 (at which a Late Woodland structure was excavated [see Green 1977:131-134]) is situated directly across the valley, and Sc-466 (Dogbane Site, where Late Woodland occupation was found on the surface as well as buried one meter deep) is on the floodplain between them. The site is, and has been since prior to its discovery, in pasture. Green's scrutiny along damaged areas of the Haul Road located this site and recovered a medium sized collection of artifacts, including a undiagnostic projectile point fragment. Phase II work at the site consisted of plowing and discing a strip along the Haul Road cut and pieceplotting. A total of 42 prehistoric items were pieceplotted in this

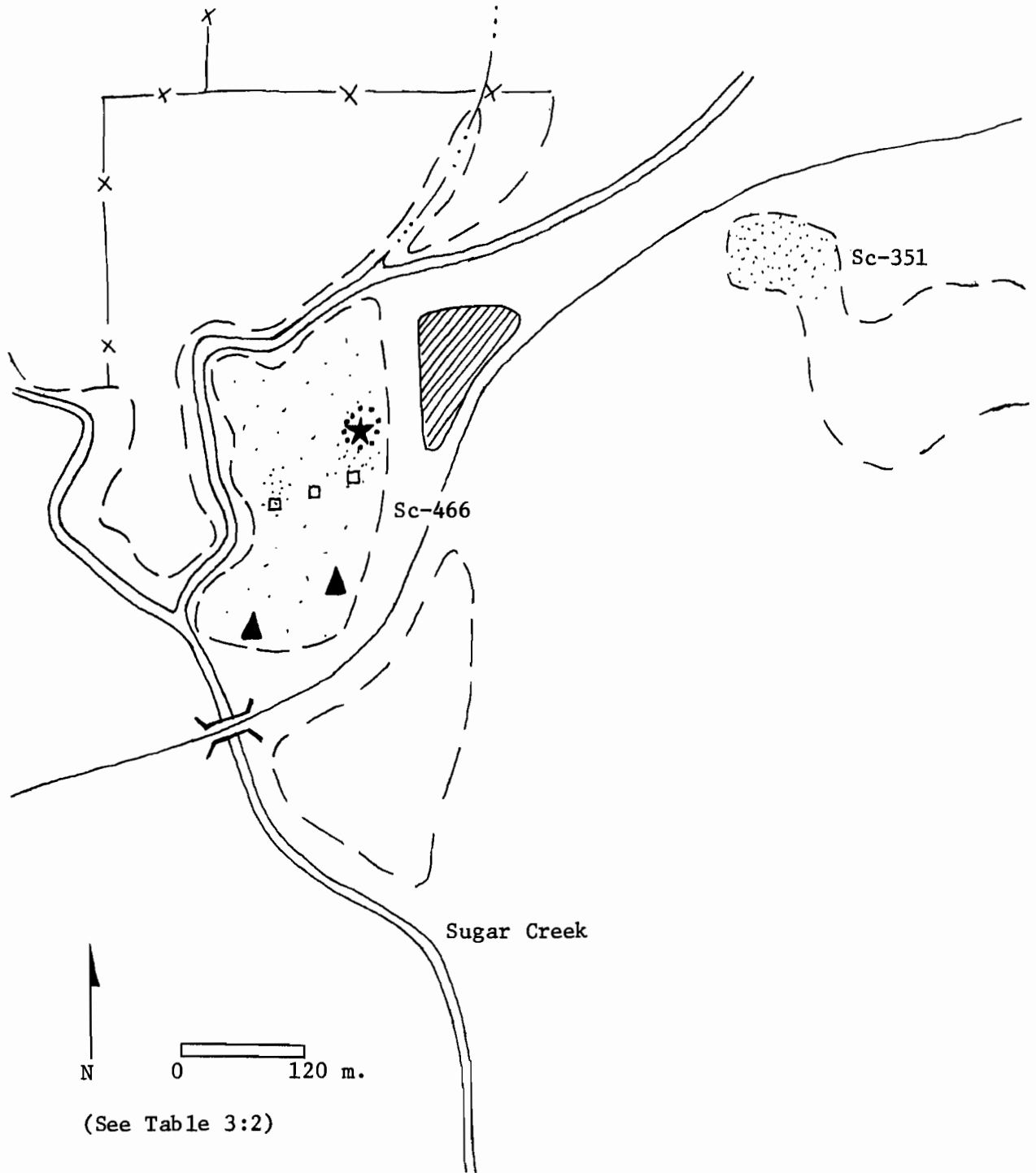


Figure 7:4 Site Maps for Sc-351 and Sc-466

area. The plowzone contained much chert gravel from construction activities which complicated recovery. A Late Woodland sherd was recovered indicating the probability of intact features being present. Plans for Haul Road construction include a realignment of the existing road to seventy feet south of the presently disturbed area (personal communication, Carol Thompson 7-15-81), which would heavily impact the site.

Sc-466 (Dogbane)(Figure 7:4)

Location: SE $\frac{1}{4}$ Oakland 16; UTM E711600-711780, N4457090-447290

Size: Unknown (partially buried)

Sc-466 represents an anomaly among Late Woodland sites known to date. It is located on the floodplain of Sugar Creek at its confluence with its West Branch. Part of the site is present as a surface cluster of artifacts, among which was a piece of Late Woodland pottery. To the south of this cluster was found a probable terminal Middle Woodland projectile point (Figure B:18a) and far to the southeast, on a very slight rise next to the stream, was a large, untyped, barbed, Archaic point blade (Figure B:13a).

Three test units measuring three by one meters were placed on the floodplain on a east/west transect. The easternmost test unit (#2) was placed adjacent to the surface scatter containing the pottery and closest to the bluff base of the three units. A 20 centimeter plowzone was underlain by a friable, yellowish clay soil. Several cracked rocks were found at the base of the plowzone, and a chert flake was found at 74 centimeters below surface in the yellowish clay subsoil.

The middle test unit (#1) was placed towards the creek, approximately 60 meters west of (and 25 centimeters below) the surface scatter.. Approximately 100 centimeters of recent silts were excavated before encountering a Late Woodland feature. A piece of pottery and a single chert flake were collected from the top of this feature. At this time, we were informed that proposed construction plans would not alter this specific area. Therefore, the part of the feature in the test unit was excavated as a unit for flotation and the excavation closed.

The westernmost test unit (#3) was placed near the creek bed but had not penetrated through the recent silts when operations were suspended.

The site then appears to have a Late Woodland occupation sufficiently close to the surface towards the eastern bluffs to be intersected by the plowzone. Further out onto the floodplain, recent alluvium has been deposited up to at least one meter deep over this occupation. A slight floodplain rise to the southwest of this may be a more stable surface. Potential impact to the site is difficult to determine. Current plans for Haul Road realignment call for a movement of the road 50 feet to the south onto an area that is already covered by fill (personal communication, Carol Thompson). However, the crossing of Sugar Creek by a dragline may cause disturbance to the southwest part of the site through construction of a temporary bridge just upstream from the Haul Road bridge.

Figures B:13a and B:18a

Sc-452 (Laura Li) (Figure 7:5)

Location: SE $\frac{1}{4}$ Oakland 17; UTM E709910-E710255, N4456550-N4456650

Size: Unknown

Sc-452 is a large, multicomponent scatter transected by the Haul Road. The Late Woodland component at this site is documented by the recovery of a sandstone discoidal (gamestone) immediately to the south of the Haul Road during controlled surface collection in the spring of 1981 (see Figure B:29a). Other artifacts found here include two grooved hammers or mauls (Figures B:29b and B:30) and several Archaic projectile points. The discoidal almost certainly indicates a permanent Late Woodland occupation (perhaps a farmstead or hamlet) as such artifacts are rarely found in an isolated context or on an ephemeral campsite. However, no other Late Woodland materials were recovered here. Impact to the site could possibly occur through construction, but this part of the Haul Road is supposedly at full width (100 feet) already.

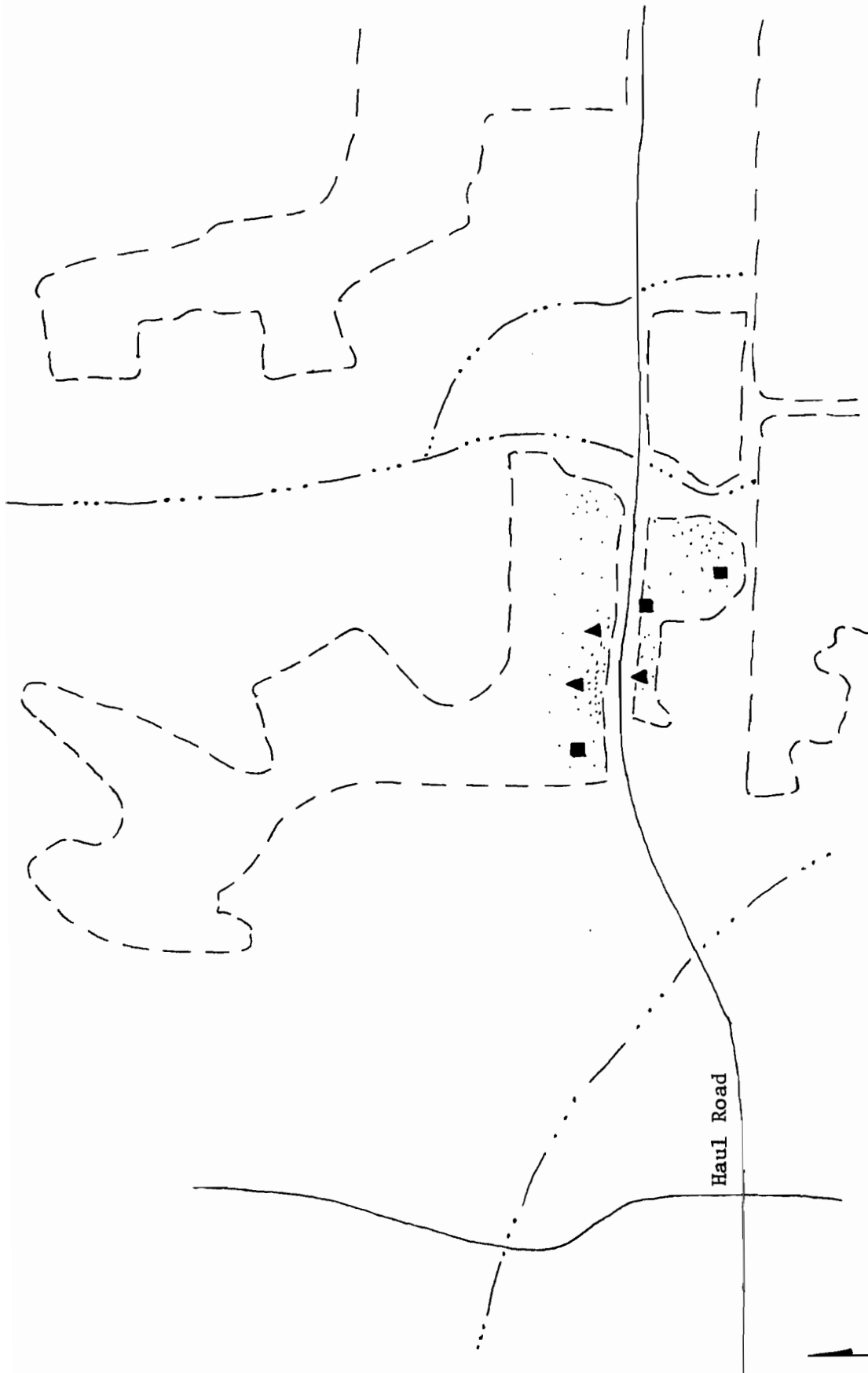
Figures B:4a, B:7g, B:22b, B:29, and B:30

Sc-87 (Bauer Branch) (Figure 7:6)

Location: SE $\frac{1}{4}$ Oakland 18; UTM E708229-E708585, N4456710-N4456860

Size: Unknown

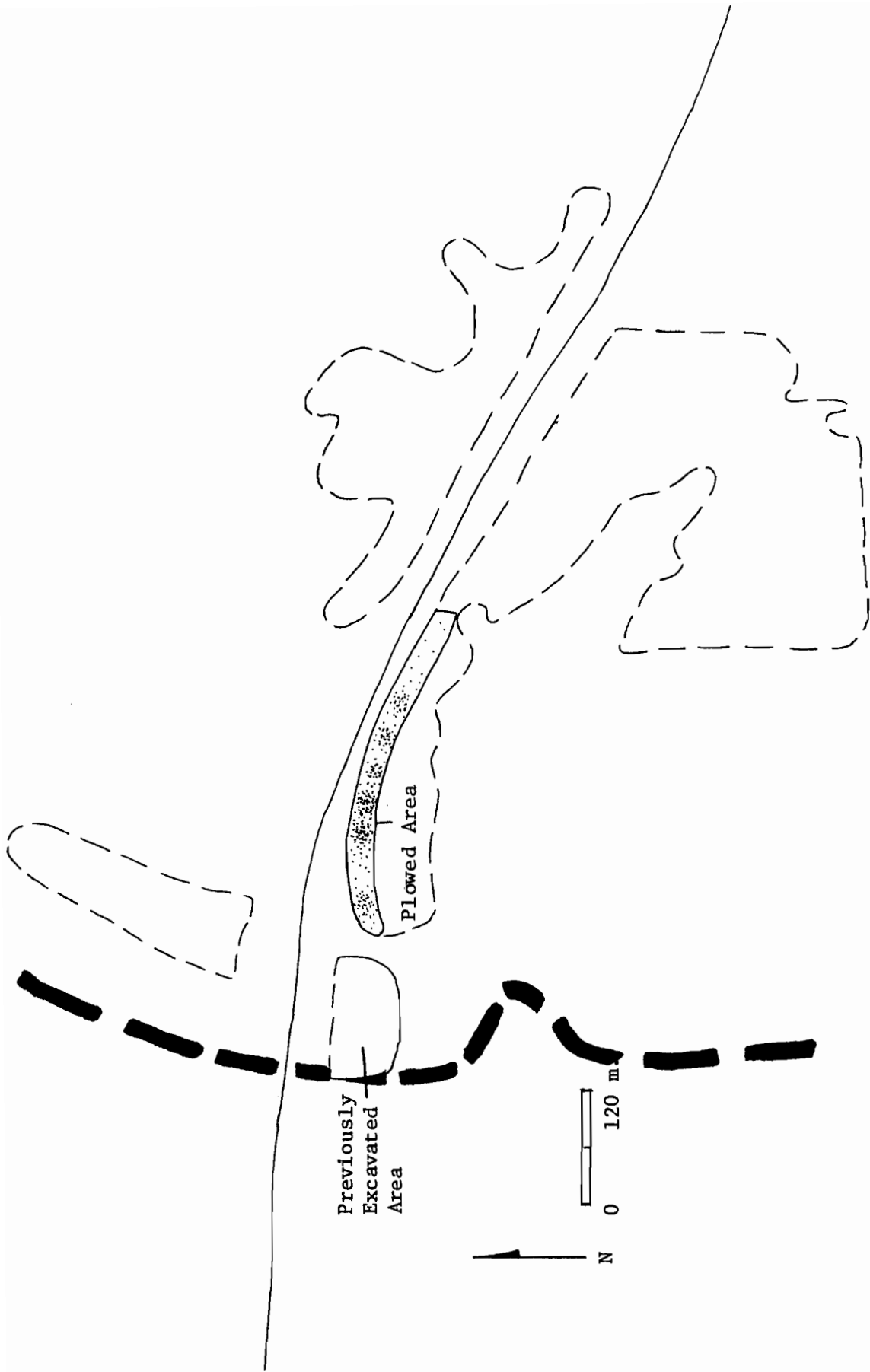
This site was discovered in August, 1975, as Haul Road construction was underway. Unfunded salvage excavations were carried out in the northern and central portions of the site. Soon after excavations were completed, those parts of the site were destroyed by road construction. Subsequent erosion along the southern edge of the site revealed several archaeological



(See Table 3:2)

N 0 120 m.

Figure 7:5 Site Map for Sc-452



(See Table 3:2)

Figure 7:6 Site Map for Sc-87

features; these were excavated by volunteers in August of 1976. A total of 44 pit features (hearths, etc.) were excavated in the northern, central, and southern portions of the site (Green 1977:107-129).

The site's eastern portion was not investigated until 1981, when controlled surface collections revealed a very dense concentration of artifacts in a strip adjacent to the Haul Road. This density and the continuous scatter which existed between this eastern area and the remainder of the site suggests that Late Woodland features may be present in this part of the site as well. Features at this site have produced abundant floral material (e.g., walnut, butternut, and hickory nut shells, squash rind, knotweed, various grasses, possibly corn) and artifacts (pottery, stone tools, pipes, discoidals, etc.). Radiocarbon dates are presented in Table 1:2 and Figure 1:3. Impact to the site would occur if further construction for the Haul Road disturbed areas adjacent to those presently modified; however, the Haul Road is supposed to be at its maximum dimensions at this location already (Carol Thompson, personal communication).

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APPENDICES

APPENDIX A: SITE DATA FOR CHAPTERS 2.0, 3.0 AND 4.0

APPENDIX B: ARTIFACT ILLUSTRATIONS

APPENDIX C: KEY TO SITES

APPENDIX D: SITE DATA FOR HAUL ROAD SITES

APPENDIX E: ADDENDUM - Sc-268 EXCAVATIONS

APPENDIX A

SITE DATA FOR CHAPTERS 2.0, 3.0 AND 4.0

Table A:1 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 472 (Charon)	Unknown	None	1 unifacially retouched blade, 1 sandstone abrader
Sc 475 (Deer-slayer)	Unknown	None	1 untyped projectile point fragment
Sc 476 (New Tanis)	Early Archaic	1 Dalton point, 1 Early Archaic point tip	2 untyped projectile point fragments, 1 thin biface, 2 unifacially retouched flakes, 2 scrapers, 2 manos, 1 pitted stone, 5 hammerstones
Sc 477 (Indiana Jones)	Archaic ?	1 possible Archaic point fragment	1 projectile point fragment, 2 manos, 1 metate, 3 hammerstones
Sc 478 (cult.) (Marion Ravens-wood)	Late Archaic Late Woodland	1 Late Archaic (Riverton) point, 1 probable Steuben point base	1 untyped projectile point, 3 projectile point tips, 1 adze, 2 choppers, 4 unifacially retouched flakes, 1 scraper, 1 mano

Table A:2 Chapter 3.0 Sites (n=71 discrete sites and 5 partial sites)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 236, 268 and 268 South (Apple 3, 4, 5)	Late Woodland Late Archaic Early Archaic	4 rim sherds and 40 body sherds of Late Woodland grit tempered pottery (Bauer Branch complex); 2 Ansell points; 1 Late Woodland arrowpoint tip; 1 Late Archaic (Riverston) micropoint; 1 Modal Matanzas point; 1 base of a Sedalia point; 1 Kirk point; 1 Early Archaic point tip	5 cores (1 LRC), 1 core fragment, 2 thick bifaces (1 LRC), 2 crude biface/blanks (1 quartzite-like), 5 crude biface knives (2 LRC), 3 biface/knife fragments, 1 knife, 3 projectile point/knives, 4 untypable projectile point fragments, 1 LRC biface/spokeshave, 3 broad spokeshaves (2 LRC), 6 scrapers (3 LRC), 1 sidescraper, 5 unifacially retouched flakes (3 LRC), 1 blade, 2 metates, 1 pitted stone, 15 manos, 1 mano/hammerstone, 4 hammerstones.
Sc 240, 267 348 and 348 North (Ln 3, 4, 5)	Late Woodland Late Archaic Early Archaic	24 body sherds of Late Woodland grit tempered pottery (Bauer Branch complex); 2 Steuben points; 1 Ansell point; 2 Late Woodland triangular point/knives; 2 Late Woodland unnotched triangular arrowpoints; 2 Late Woodland side notched triangular arrowpoints; 1 untyped Woodland projectile point; 1 Kirk point; 1 Hardin point; 1 Agate Basin point	2 cores, 9 core fragments, 1 crude biface fragment, 2 biface fragments (1 LRC), 4 bifaces (1 knife/shredder ?), 1 biface/knife, 1 projectile point/knife fragment, 2 untypable projectile point fragments, 2 untypable projectile serrated notched projectile points, 2 scrapers (1 LRC), 2 end scrapers, 1 scraper/spokeshave, 1 spokeshave, 1 unifacially retouched flake/spokeshave, 9 unifacially retouched flakes (2 LRC), 1 unifacially retouched glacial cobble, 1 metate, 1 pitted stone, 26 manos, 1 mano/hammerstone, 6 hammerstones (1 chert).

Table A:2 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 253 (Cin 4)	Late Woodland	1 grit temper (rim ?) sherd of Late Woodland pottery	1 projectile point tip, 1 unifacially retouched flake, 1 bifacially re-touched flake, 3 hammerstones, 5 manos.
Sc 255 (Cin 6)	Late Woodland	1 grit tempered Late Woodland body sherd	1 scraper/spokeshave (LRC), 1 multiple spokeshave (LRC), 1 unifacially re-touched edge flake, 1 pitted stone, 1 mano, 1 hammerstone.
Sc 257 (Cin 8)	Late Woodland Middle or Late Archaic	1 grit tempered Late Woodland body sherd; 1 Middle to Late Archaic side-notched point	1 untyped projectile point, 1 basally notched drill, 1 untypable point tip, 1 side-scraper, 2 multiple spokeshaves, 2 cores, 2 hammerstones (1 chert)
Sc 259 South (Cin 10)	Unknown for this part of the site	None	None for this part of site
Sc 262 and 262 South (Cin 14)	Late Woodland	1 grit tempered Bauer Branch shoulder sherd and 5 body sherds	1 unifacially retouched flake (LRC), 1 biface, 6 pieces daub, wood charcoal, and burned nutshell.
Sc 263 and 263 South (Cin 15)	Late Middle Woodland or Early Late Woodland	1 Manker cornernotched-like point	1 pitted stone; 2 manos, one rock filled feature and subplowzone fill noted.

Table A:2 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 264 and 264 South (Cin 16)	Late Woodland	2 grit tempered Late Woodland sherds, 1 Late Woodland side-notched arrowpoint	1 crude biface/blank, 1 unifacially retouched flake (LRC), 1 mano, hammerstone.
Sc 265 and 265 South East and Northeast (Skowronek 1)	Late Woodland Early Archaic Middle Archaic (?)	1 rim sherd and 52 body sherds of grit tempered Late Woodland pottery; 1 Ansell point, 1 Steuben-like point; 1 Steuben point base, 1 grooved sandstone abrader; 1 contracting stemmed untyped Woodland point; 1 Early Archaic point tip; 1 Early Archaic probable Hardin point; 1 Middle Archaic Jakie Stemmed point	1 crude biface/blank, 4 bifaces, 2 biface/knives, 1 knife/reamer, 4 unidentifiable projectile point/knife fragments, 1 end scraper, 2 side scrapers, 1 spokeshave, 1 unifacially retouched flake (LRC), 1 unifacially retouched blade/blade-like flake fragment forming a point tool/graver, 1 blade tip, 1 burin (?), 1 metate, 2 pitted manos, 15 manos, 2 hammerstones, 1 core.
Sc 266 (Cin 12)	Late Woodland	1 sherd, 1 sandstone grooved abrader	1 knife/end scraper, 1 end scraper, 1 side scraper, 1 quarry blank, 6 manos, 1 metate fragment, 2 hammerstones, 1 pitted stone, 1 core, 1 battered chert nodule.
Sc 273 (SCB-D)	Late Woodland	2 rims, 2 shoulders and 46 body sherds of grit tempered Late Woodland pottery (Bauer Branch complex); 1 Late Woodland unnotched triangular arrowpoint	4 cores, 1 knife, 1 untypable projectile point fragment, 1 scraper, 1 metate, 2 manos.
Sc 275 West (SCB-I)	Unknown	None from this part of the site	1 biface fragment.

Table A:2 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 276 and 276 East (SCB-C)	Late Woodland Archaic	4 rims and 22 body sherds of grit tempered Woodland pottery (Bauer Branch complex); 4 notched Late Woodland arrowpoints; 1 possible Steuben-like projectile point; 1 three quarter grooved axe	5 cores, 2 bifaces, 1 large thin biface fragment, 1 scraper/spokeshave (LRC), 1 flake drill/awl, 1 flake graver or perforator, 2 hammerstones, 1 mano/hammerstone.
Sc 279 (SCB-B)	Late Woodland	14 body sherds of grit tempered Late Woodland pottery; 1 celt or axe fragment; 1 fine side-notched Matanzas point	1 core, 1 serrated biface fragment, 1 thick biface, 3 biface fragments (1 LRC), 2 end scrapers, 1 scraper/spokeshave (LRC). 1 uniface, 1 unifacially retouched flake (LRC), 1 blade, 1 hammerstone, 1 blank.
Sc 280 (SCB-E)	Late Woodland Late Archaic ? Early Archaic	1 small celt; 2 Late Woodland side-notched triangular arrowpoints; 1 Late Woodland triangular point/knife; 1 three quarter grooved axe; 1 possible Titterington horizon midsection; 1 Early Archaic Theban subtriangular knife	1 small biface/blank, 1 large bifacially retouched decortication flake, 1 projectile point fragment, 1 end scraper, 2 scrapers (1 LRC), 2 spokeshaves (1 LRC), 1 bifacially retouched flake, 1 flake knife, 2 pitted stones, 1 pitted mano or metate, 2 manos, 2 hammerstones (1 chert).
Sc 281 (SCB-A)	Late Woodland Late Archaic Middle Archaic Early Archaic	6 body sherds of grit tempered Late Woodland pottery; 1 Late Woodland triangular point/knife; 1 Ansell point; 1 unnotched Late Woodland arrowpoint (lost prior to analysis); 1 possible early Late Woodland point; 1 LeCroy point; 2 Karnak Stemmed points; 1 finely serrated point tip	9 cores (1 LRC), 1 crude biface fragment (LRC), 1 graver, 6 bifaces (1 LRC), 1 biface fragment, 1 blank, 3 bifacially retouched flakes (2 LRC), 1 unifacially retouched flake, 1 scraper (LRC), 1 side scraper, 1 blade (LRC), 1 mano, 1 metate, 1 hammerstone ?

Table A:2 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 285 North (LN-2)	Unknown	Nothing for this part of site	None for this part of site.
Sc 290 (Apple 2)	Late Woodland Late Archaic	3 body sherds of grit tempered Late Woodland pottery; 1 Merom expanding stem point (Riverton)	1 core, 1 mano, 1 hammerstone, 1 blade
Sc 315 (Foster 3)	Late Woodland Archaic ?	1 shoulder and 3 body sherds of grit tempered Late Woodland (Bauer Branch complex) pottery; 1 untyped Archaic point	1 core, 1 hammerstone
Sc 317 (Bill- lingsly Site)	Late Woodland Archaic	1 rim sherd, 1 shoulder, and 27 body sherds of grit tempered Late Woodland pottery (Bauer Branch complex); 2 Late Woodland side notched arrowpoints, 1 possible Late Woodland triangular point/knife; 1 three quarter grooved axe; 1 full grooved axe	1 thin biface/knife fragment, 1 biface fragment, 1 circular biface, 3 projectile point/knife, 1 untyped projectile point, 1 possible drill base, 1 unifacially retouched flake/spokeshave, 3 unifacially retouched flakes (2 LRC), 2 scrapers (1 LRC), 1 end scraper, 1 blade or blade-like flake unifacially retouched on both sides.
Sc 323 and 323 South (CIN 17)	Late Woodland Late Archaic Early Archaic	4 body sherds of grit tempered Late Woodland pottery; 1 Nebo Hill point, 1 Late Woodland unnotched triangular arrowpoint; 1 Late Woodland triangular point/knife; 1 grooved sandstone abrader; 1 three quarter grooved axe; 1 Neuberger point	1 untyped projectile point fragment, 1 unifacially retouched flake with spokeshave, 1 unifacially retouched flake, 6 cores, 9 hammerstones (2 chert), 28 manos, 1 metate.

Table A:2 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 334 East (Martin 1)	Unknown (remainder of site is Late Woodland)	None for this portion of the site	None for this portion of the site.
Sc 335 Southeast (Martin 2)	Unknown (remainder of site is Early and Late Archaic)	None for this portion of the site	None for this portion of the site.
Sc 362 North (LN-58)	Unknown	None for this portion of the site	1 large plano-convex end scraper/ knife
Sc 433 and 433 North, and East (Home- stead 1)	Late Woodland	9 body sherds of grit tempered Late Woodland pottery (including one possible miniature vessel fragment); 1 Steuben- like projectile point	2 very crude biface/blanks, 1 biface fragment, 1 biface/knife (LRC), 1 non- diagnostic projectile point/knife fragment, 1 end scraper, 1 blade-like unifacially retouched flake w/side scraper, 1 spokeshave, 1 unifacially retouched blade-like flake, 4 uni- facially retouched flakes, bifacially retouched flake.
Sc 454 (Mouse's Maze)	Late Woodland Archaic	1 shoulder and 6 body sherds of grit tempered Late Woodland pottery (Bauer Branch complex); 1 side-notched Late Woodland projectile point; 1 untyped Archaic side-notched projectile point	1 crudely flaked bifacial tool, 2 manos, 3 metates

Table A:2 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 455 (Snail)	Late Woodland Archaic	1 body sherd of grit tempered Late Woodland pottery, 1 Late Woodland triangular point/knife; 1 polyhedral core; 1 probable Graham Cave point	1 biface fragment, 1 discoidal biface, 1 bifacial preform/knife, 1 hammerstone
Sc 457 Northeast (Corner Dozen)	Unknown	None	None
Sc 461 (Mata Hari)	Early Late Woodland	7 rims and 296 body sherds of thick grit tempered Late Woodland pottery (apparently Weaver Ware); 4 Ansell points and 1 Ansell-like point base; 1 untyped Woodland projectile point	Mammal, reptile, and fish bone, shell, 1 biface/knife, 1 untyped projectile point fragment, 1 large bifacially retouched glacial chert flake/knife, 2 unifacially retouched flakes, 1 scraper (LRC), 1 core remnant, 4 smoothed surface sandstone abraders, burned clay.
Sc 468 and 468 West (Caracol)	Late Woodland Middle to Late Archaic Early Archaic	2 Late Woodland side notched arrowpoints; 1 Table Rock point; 1 barbed, serrated Early Archaic point fragment (probably a Kirk point); 1 untyped Early Archaic cornernotched and basally thinned point; 1 Hardin point	3 biface fragments (2 LRC), 1 untyped stemmed or notched projectile point, 1 untyped projectile point, 1 core remnant blank/chopper, 1 thin knife/scraper, 1 side scraper, 1 steeply unifacially retouched edge flake, 3 unifacially retouched flakes (2 LRC), 2 cores, 1 chert hammerstone, 4 manos.
Sc 470 (Born Grinner)	Early Archaic	1 Neuberger point	1 preform/knife, 1 unifacially retouched flake (LRC)

Table A:2 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 479 and 479 East (River Rat)	Late Woodland Early Archaic	2 rims and 7 body sherds of grit tempered Late Woodland pottery; 1 probable Late Woodland arrowpoint tip, 1 Hardin point	1 extremely crude biface (shredder ?), 1 serrated point tip, 1 projectile point fragment, 1 graver flake, 1 utilized flake (LRC), 1 unifacially re-touched flake, 4 hammerstones, 2 manos, 1 possible sandstone abrader, 4 pieces burned clay.
Sc 480 (Quail)	Late Woodland	1 sherd	None
Sc 481 (South-east Site)	Unknown	None	Intact feature discovered in shovel probes.
Sc 520 (Power-line)	Unknown	None	None
Sc 521 (Grandfather)	Unknown	None	None
Sc 522 (Cosmos)	Unknown	None	None
Sc 523 (Big Boulder)	Unknown	None	1 metate

Table A:2 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 524 (Turn-Around)	Unknown	None	1 hammerstone
Sc 525 (Land's End)	Unknown	None	1 hammerstone, 1 mano
Sc 526 (Prairie)	Late Woodland	28 body sherds of grit tempered Late Woodland pottery; 1 Steuben point base; 1 Late Woodland triangular point/knife	one feature exposed and mapped. 10 pieces baked clay, 1 smoothed surface abrader.
Sc 527 (King-bird)	Late Woodland	1 body sherd of grit tempered Late Woodland pottery	None
Sc 528 (Compression)	Unknown	None	None
Sc 529 (Tin Roof)	Unknown	None	None
Sc 530 (Arglope)	Unknown	None	1 possible metate
Sc 531 (Crow)	Unknown	None	None

Table A:2 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 532 (Full Circle)	Unknown	None	None
Sc 533 (Sassafrass)	Unknown	None	1 crude biface
Sc 534 (Ruffle Road)	Unknown	None	None
Sc 535 (Logjam)	Early Archaic	1 Neuberger point	1 untyped point
Sc 536 (Cross-cut)	Late Woodland or Late Archaic	1 untyped Late Woodland arrowpoint or Late Archaic micro-point	None
Sc 537 (Tributary)	Unknown	None	None
Sc 538 (Rain Dance)	Late Woodland ?	1 sandstone abrader	2 untyped point fragments
Sc 539 (Julie)	Unknown	None	None

Table A:2 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 540 (Margin)	Unknown	None	None
Sc 541 (Red Oak)	Unknown	None	Undisturbed ?
Sc 548 (Branch)	Unknown	None	1 possible metate
Sc 549 (Pleasant Clearing)	Unknown	None	None
Sc 550 (Sapling)	Unknown	None	None
Sc 551 (Day- Break)	Unknown	None	None
Sc 552 (J. Fard)	Late Woodland	1 Late Woodland unnotched arrowpoint	None
Sc 553 (Surveyor)	Unknown	None	None
Sc 554 (Lost Ridge)	Unknown	None	2 manos (1 pitted) and a metate/anvil stone

Table A:2 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 555 (Short-stop)	Unknown	None	1 mano, 1 metate
Sc 556 (Narrow Run)	Unknown	None	1 end scraper
Sc 557 (Gingham)	Unknown	None	1 rock filled feature noted
Sc 558 (Twin Deer)	Unknown	None	1 mano, 1 metate
Sc 559 (Deadfall)	Late Archaic	1 untyped, expanding stemmed, barbed, Late Archaic point	1 biface, 1 smoothed sandstone tablet
Sc 560 (Blue Racer)	Unknown	None	None
Sc 561 (Separation)	Unknown	None	1 rock filled feature noted
Sc 562 (Bee-Sting)	Unknown	None	1 mano

Table A:3 Chapter 4.0 Sites (n=27)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 234 (LN-16)	Unknown	None	1 unifacially retouched blade or blade-like flake
Sc 235 (North portion) (LN-1)	Unknown	None	mussel shell, 1 biface/side scraper, 1 pitted stone, 2 hammerstones
Sc 238 (cult.) (Skowronek 2)	Early Archaic Late Archaic	1 Hardin point, 1 Karnak stemmed point	1 untyped corner notched ? projectile point fragment, 1 untyped projectile point, 1 biface fragment, 1 plano-convex end scraper, 1 core, 1 mano
Sc 241 (CIN 2)	Unknown	None	1 mano, 1 pitted stone, 1 hammerstone
Sc 252 (CIN 3)	Unknown	None	1 unifacially retouched flake, 1 piece reddened sandstone with possible drilled hole, 7 manos, 1 pitted stone
Sc 254 (CIN 5)	Early Archaic Late Archaic Late Woodland	1 Neuberger point; 1 Table Rock; 1 Late Archaic side notched point; 1 possible Matanzas point midsection; 1 Late Woodland unnotched triangular arrow-point; 2 probable Sedalia blades; 1 Wadlow blade	1 untyped projectile point, 3 projectile point/knife fragments, 1 Ovoid flake knife, 1 scraper, 4 unifacially retouched flakes, 2 quartzite cores, 2 cores, 10 manos, 2 mano/hammerstones, 3 hammerstones, 1 igneous/metamorphic lithic with possible manufactured socket

Table A:3 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 256 (CIN 7)	Unknown	None	2 projectile point/knife fragments, 1 core, 1 metate
Sc 258 (CIN 9)	Middle to Late Archaic	1 Hill-like point	1 projectile point tip, 1 crude biface, 1 core, 3 manos, 1 pitted mano
Sc 259 (cult.) (CIN 10)	Late Woodland	1 Ansell point	2 biface fragments, 1 core, 3 manos, 1 hammerstone
Sc 260 (CIN 11)	Middle or Late Archaic	1 probable Middle to early Late Archaic side-notched point	1 projectile point/knife fragment, 1 bifacially retouched flake (LRC), 1 core remnant, 1 pitted mano, 1 hammerstone
Sc 261 (CIN 13)	Unknown	None	1 end scraper, 2 cores (1 LRC), 3 manos, 1 pitted mano, 2 hammerstones
Sc 269 (cult.) (SCB-L)	Unknown	None	1 biface/projectile point ? fragment, 1 biface/knife fragment, 1 side scraper, 2 cores, 4 manos, 2 hammerstones
Sc 270 (SCB-G)	Early Archaic Late Woodland	1 Agate Basin point; 1 Thebes point; 1 Hardin point; 1 Neuberger point; 1 large Late Woodland side-notched triangular arrowpoint	1 biface fragment, 2 untyped projectile point tips (1 LRC), 1 unifacially re-touched edge flake, 1 end/side scraper, 5 cores, 5 metates, 1 mano, 1 mano/hammerstone, 1 hammerstone, 1 battered quartz nodule, 1 battered chert nodule, 1 untyped projectile point

Table A:3 (Cont.)

<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 271 (SCB-F)	Middle to Late Archaic	2 Middle to Late Archaic side-notched points	2 bifaces, 1 unifacially retouched flake/spokeshave, 8 cores and core fragments, 3 manos, 1 battered chert nodule
Sc 274 (SCB-J)	Middle to Late Archaic	1 Table Rock point	1 biface/knife, 2 metates
Sc 275 (cult.) (SCB-I)	Late Archaic	2 probable Late Archaic stemmed (Riverton) micropoints	1 biface, 1 end scraper, 4 cores, 1 mano/hammerstone, 1 battered quartzite cobble
Sc 277 (SCB-H)	Early Archaic	1 Dalton point	1 biface fragment (Cobden/Dongola chert?), 1 projectile point/knife fragment, 1 uni- facially retouched flake, 4 manos, 1 pitted mano, 1 pitted stone, 2 cores, 1 hammerstone, 1 battered chert cobble
Sc 278 (SCB-K)	Early Archaic Late Woodland ?	1 probable St. Charles point; 1 possible Late Woodland "micro-Steuben" point	1 thick biface, 1 thin biface, 1 scraper, 2 hammerstones, fauna
Sc 285 (cult.) (LN-2)	Middle to Late Archaic	1 Table Rock point	1 biface fragment, 1 ovoid end/side scraper, 3 manos, 1 piece sandstone with abraded surface
Sc 313 (Foster 1)	Late Archaic Middle Archaic?	1 Late Archaic corner notched, serrated (Riverton) point; 1 Middle Archaic side-notched point	1 large biface fragment, 1 core, 2 manos, 1 battered chert nodule, 1 pitted stone/ mano, 1 untyped projectile point

Table A:3 (Cont.)

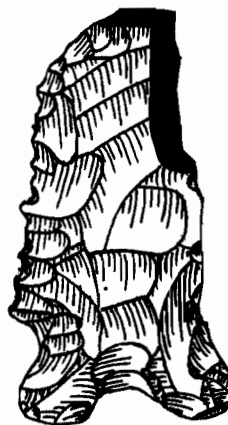
<u>Site</u>	<u>Temporal Affiliation</u>	<u>Temporal Diagnostics</u>	<u>Functional Diagnostics</u>
Sc 314 (Foster 2)	Unknown	None	2 spokeshaves, 2 hammerstones, 2 manos
Sc 318A (Apple 1A)			1 mano/metate, 1 hammerstone
Sc 318B (Apple 1B)	Early Archaic	2 Hardins	1 projectile point tip, 1 unifacially retouched flake/graver/spokeshave, 1 hammerstone
Sc 320 (cult.) (LN-53)	Unknown	None	1 projectile point fragment, 1 chert hammerstone, 1 mano/hammerstone, 1 pitted mano, 1 mano
Sc 335 (cult.) (Martin 2)	Early Archaic Late Archaic ?	1 Theben cluster subtriangular knife, 1 probable Sedalia	1 biface fragment, 1 biface/knife, 2 knives, 1 scraper, 3 cores
Sc 349 (Beam)	Late Archaic Early Archaic ?	1 Nebo Hill point, 1 possible Neuberger point	1 pitted mano
Sc 361 (CIN 1)	Unknown	None	1 bifacially retouched core remnant, 2 unifacially retouched flakes, 3 manos, 7 hammerstones

APPENDIX B
ARTIFACT ILLUSTRATIONS

* Designates Haul Road Site Artifact



a
Sc-277
81-1145-11



b
Sc-476
81-1200-59

TC



c
Sc-270
81-1143-31



d
F-2618*
81-955-83

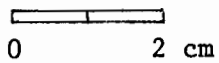
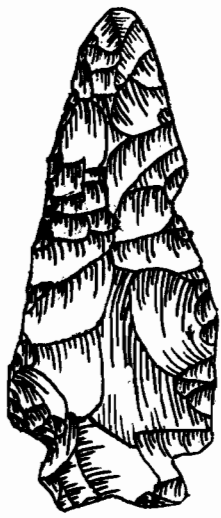
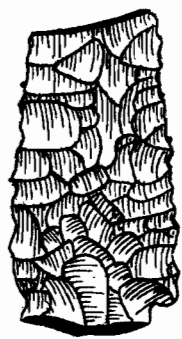


Figure B:1 Dalton and Agate Basin Points (Early Archaic)



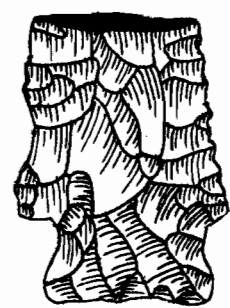
a
Sc-468
81-1233-72



b
Sc-440*
81-458-2



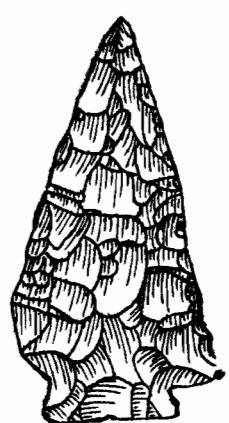
c
Sc-442*
81-1003



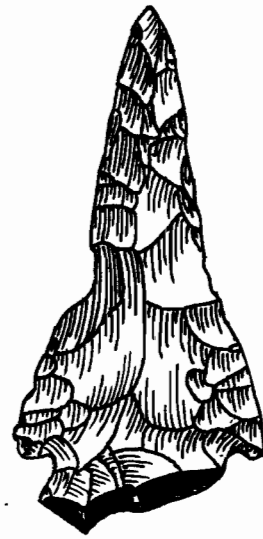
d
F-2605*
81-857-10



e
Sc-356*
81-915
&
81-914



f
F-2604*
81-856-1



g
Sc-359*
81-1269

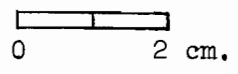


Figure B:2 Kirk and Kirk Cluster Points (Early Archaic)

76

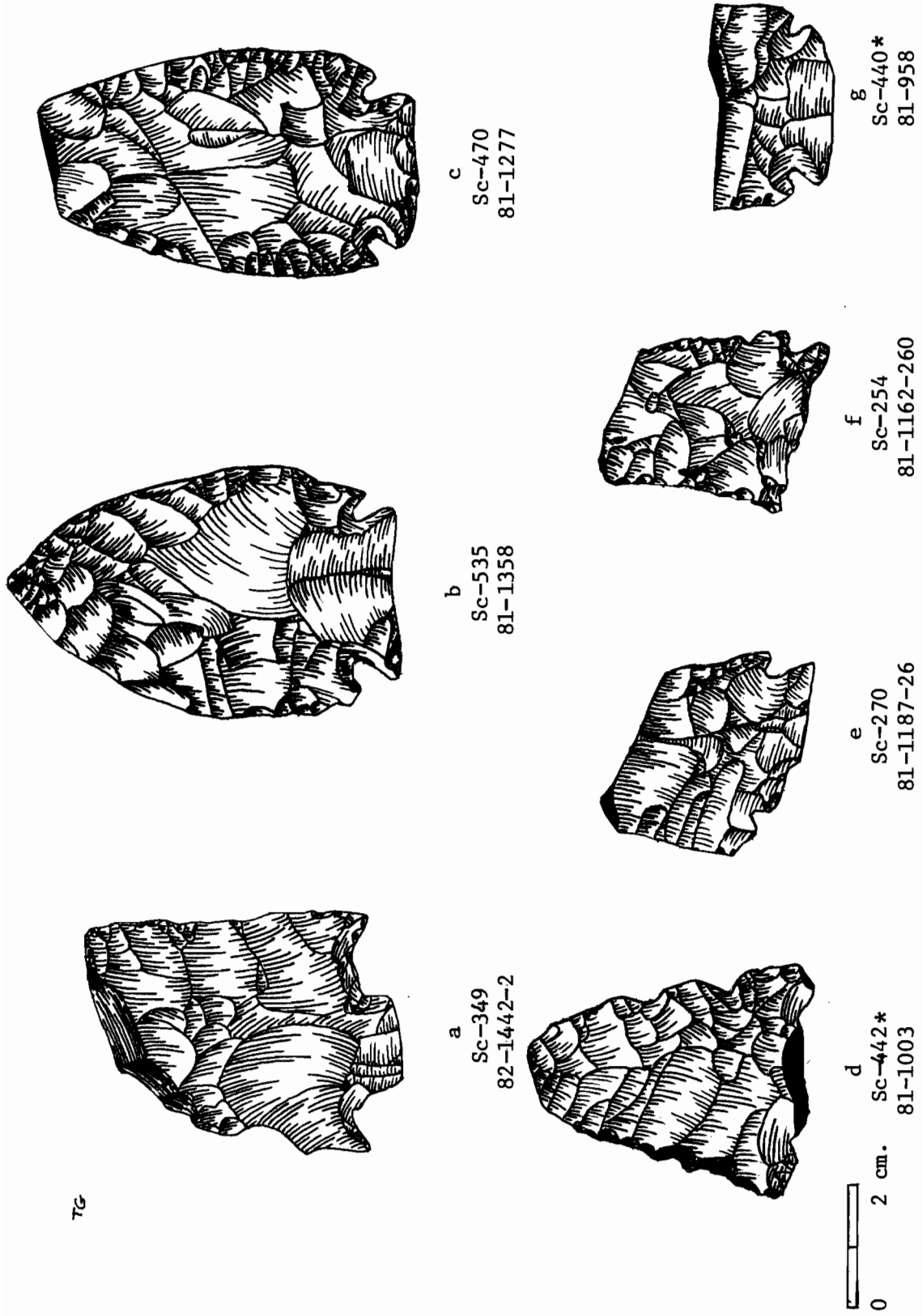


Figure B:3 Neuberger Points (Early Archaic)

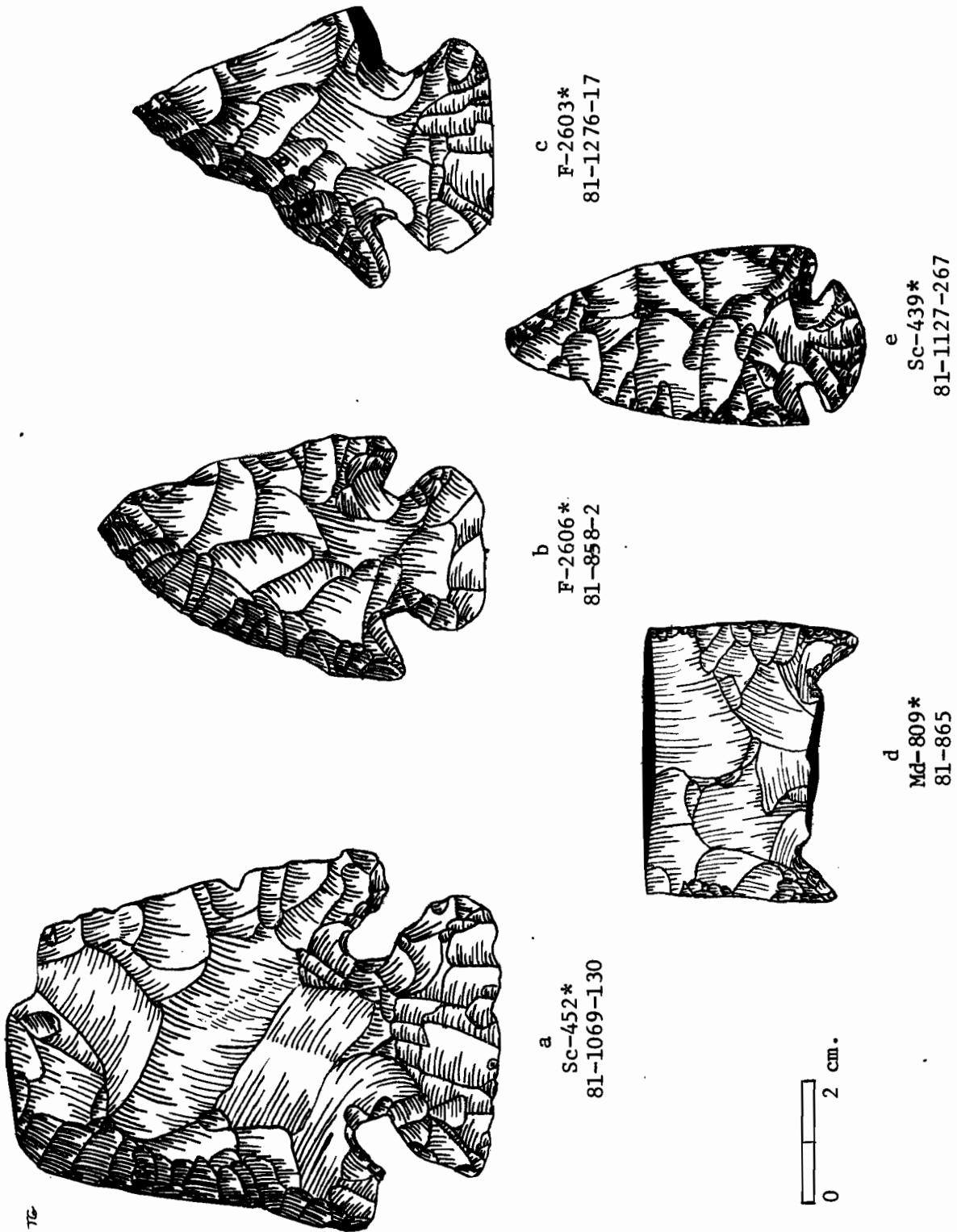


Figure B:4 Thebes and Theban Cluster Points (Early Archaic)

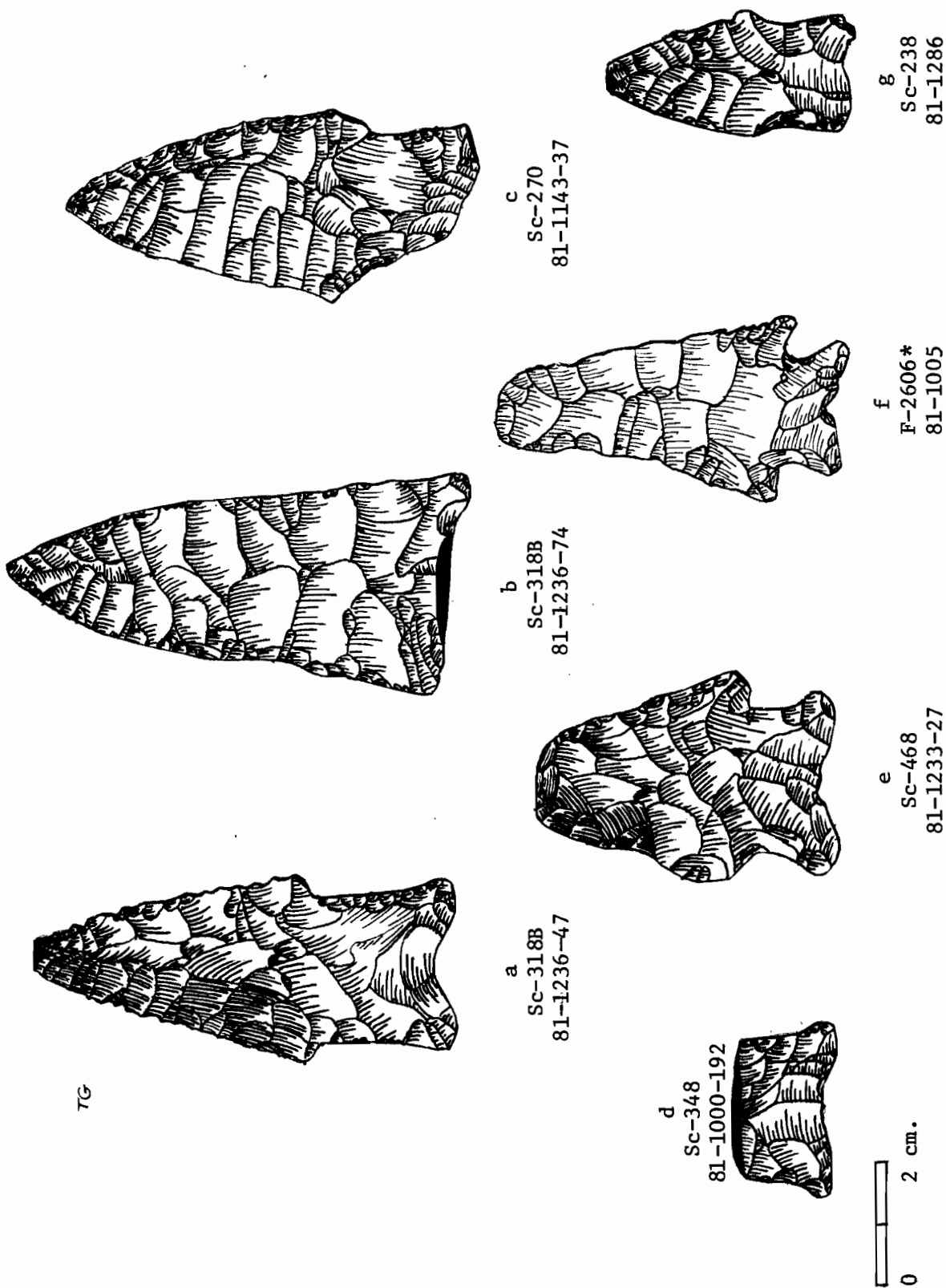


Figure B:5 Hardin Points (Early Archaic)

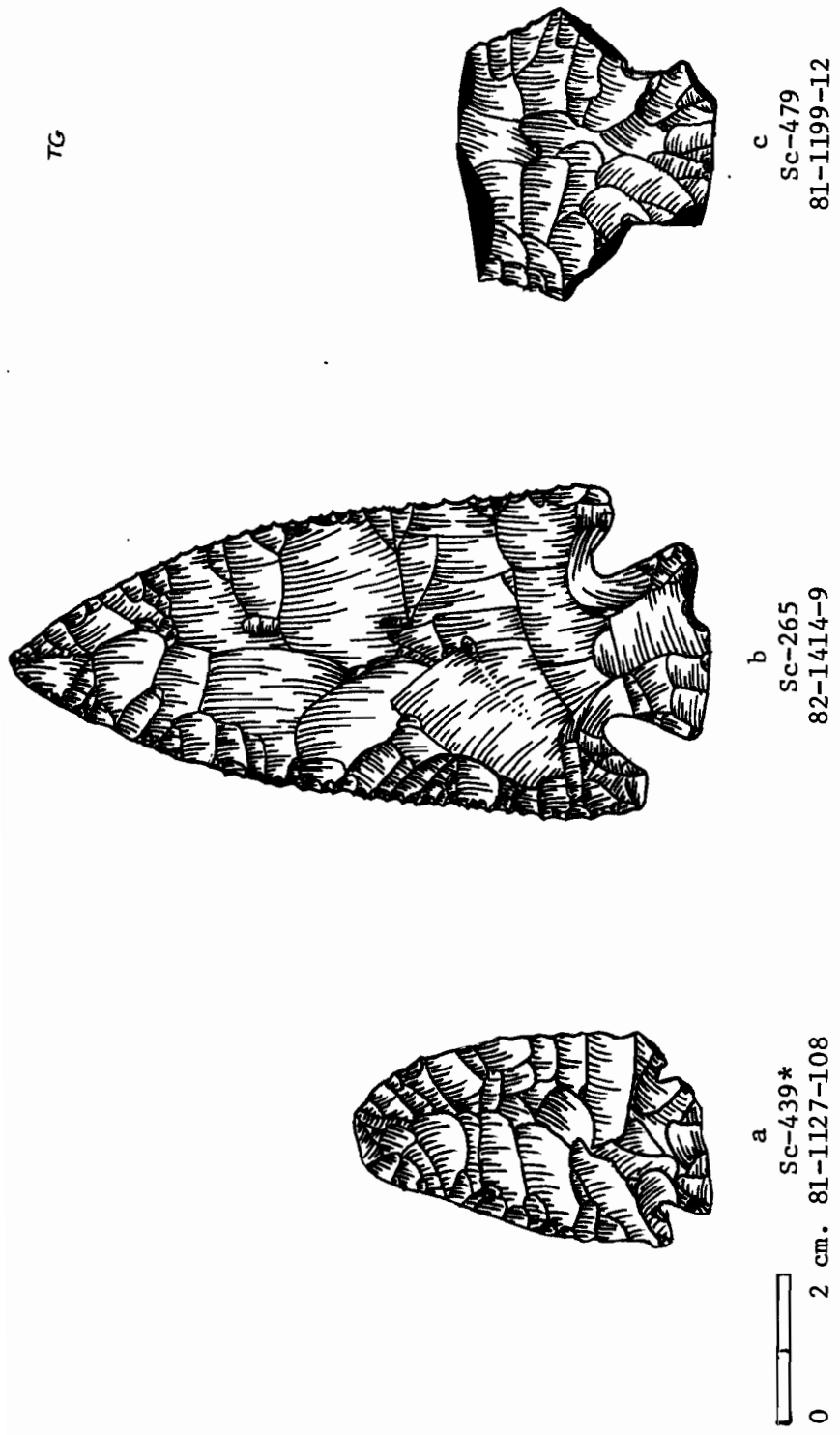


Figure B:6 Hardin Points (Early Archaic)

Probable Middle Archaic Hill-like Points

76



a
Sc-258
82-1419-2



b
F-2622*
81-888-4



c
Sc-359*
79-764

Probable
Early-Middle
Archaic



d
Sc-440*
81-958-3

Probable Early Archaic



e
Sc-317
81-1157-741



f
Sc-455
81-1328



g
Sc-452*
81-1069-129

0 2 cm.

Figure B:7 Side-Notched Projectile Points



a
Sc-260
81-1395



b
Sc-265
82-1414-10



c
Sc-438*
81-957



d
Sc-356*
81-911



e
Sc-257
82-1404-4



f
Sc-254
81-1162-152

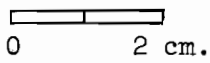


Figure B:8 Side-Notched Projectile Points
(Probable Late Middle Archaic)



a
Sc-238
81-1136-21



b
Sc-439
81-1127-79

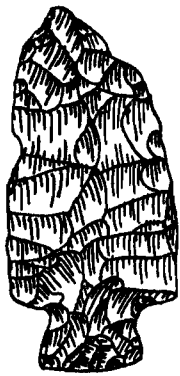


c
Sc-267
81-1054



d
Sc-439*
81-1127-122

TG



e
Sc-285
82-1422-1



f
Sc-254
81-1162-82



g
Sc-468
81-1233-75



h
F-2602*
81-881-58

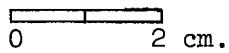


Figure B:9 Middle to Late Archaic Projectile Points

TG



a
Sc-445*
81-1123-25



b
Sc-281
81-1171



c
Sc-279
82-1445-4



d
Sc-442*
81-1003



e
Sc-356*
81-943



f
Sc-359*
81-909



g
Sc-356*
81-923



h
Sc-356*
81-924

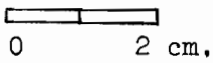
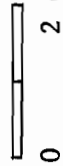
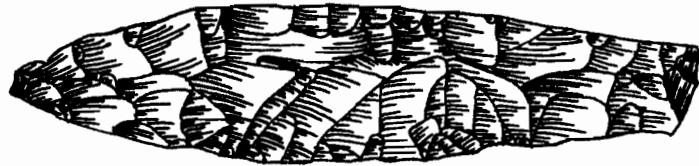


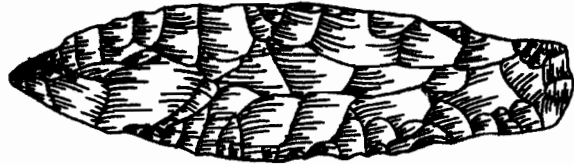
Figure B:10 Faint Side-Notched Matanzas Points (Late Archaic)



a
Sc-268
81-1222-194



b
Sc-349
82-1442-1



c
Sc-323
82-1417-4



d
F-2602*
81-953

Figure B:11 Late Archaic Lanceolate Points

Riverton Projectile Points
(Late Archaic)

76



a
Sc-478
81-1197-243



b
Sc-236
81-1223-1



c
Sc-439
81-1127-61



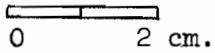
d
Sc-313
82-1403



e
Sc-275
81-1140-1



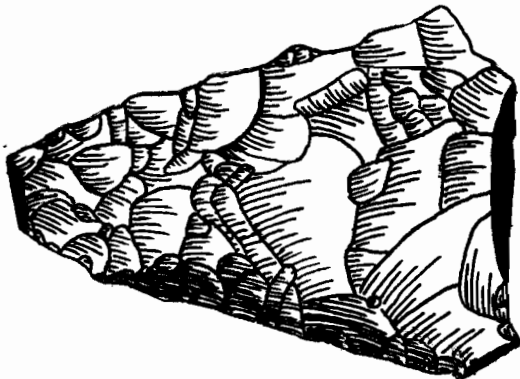
f
Sc-257
82-1404-1



Archaic Drill

Figure B:12 Riverton and Other Archaic Artifacts

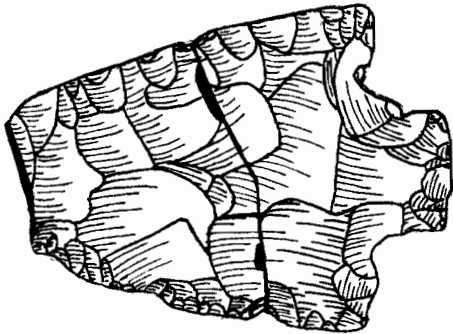
TG



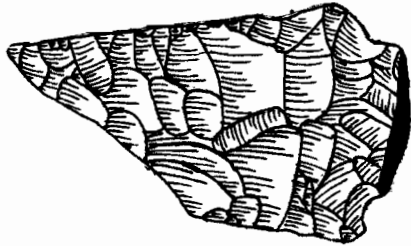
a
Sc-466*
81-1209-1



c
F-2603*
81-1276-12



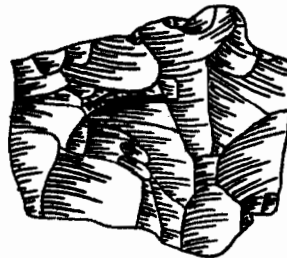
b
F-2601*
81-859-4
&
81-859-3



d
Sc-315
81-1294



f
Sc-270
81-1187-55



e
Sc-320
82-1418-6



g
Sc-559
81-1345



h
Find Spot
82-1448



Figure B:13 Untyped Archaic Projectile Points

TG



a
Sc-468
81-1233-103



b
Sc-257
82-1404-5



c
Sc-536
81-1356



d
Sc-468
81-1233-93



e
Sc-456
81-1086-80

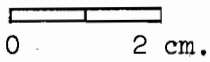


Figure B:14 Untyped Archaic Projectile Points



a
Sc-433
81-1319



b
Sc-348
82-1478
Fea. 13



TG
c
Sc-348
81-1000-109



d
Sc-478
81-1320-1



e
Sc-440*
81-980



f
Sc-265
82-1414-5



g
Sc-265
81-1311



h
Sc-526
82-1441-6

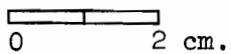
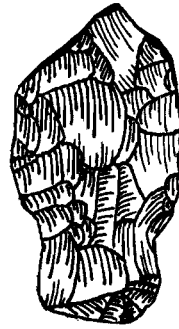


Figure B:15 Steuben and Steuben-like Projectile Points
(Middle to Late Woodland)



a
Sc-356*
81-912



TC

b
Sc-461
81-1087-235



c
Sc-461
81-1101



d
Sc-348
82-1464



e
Sc-461
81-1154



f
Sc-458
81-1128-174



g
Sc-461
81-1090

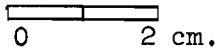


Figure B:16 Ansell and Ansell-like Projectile Points
(Middle to Late Woodland)

76



a
Sc-259
82-1410-3



b
Sc-268
81-1347



c
Sc-461
81-1087-250



d
Sc-265
81-1131-590



e
Sc-356*
81-914



f
Sc-236
81-1223-57

0 2 cm.

Figure B:17 Ansell and Ansell-like Projectile Points (Middle to Late Woodland)

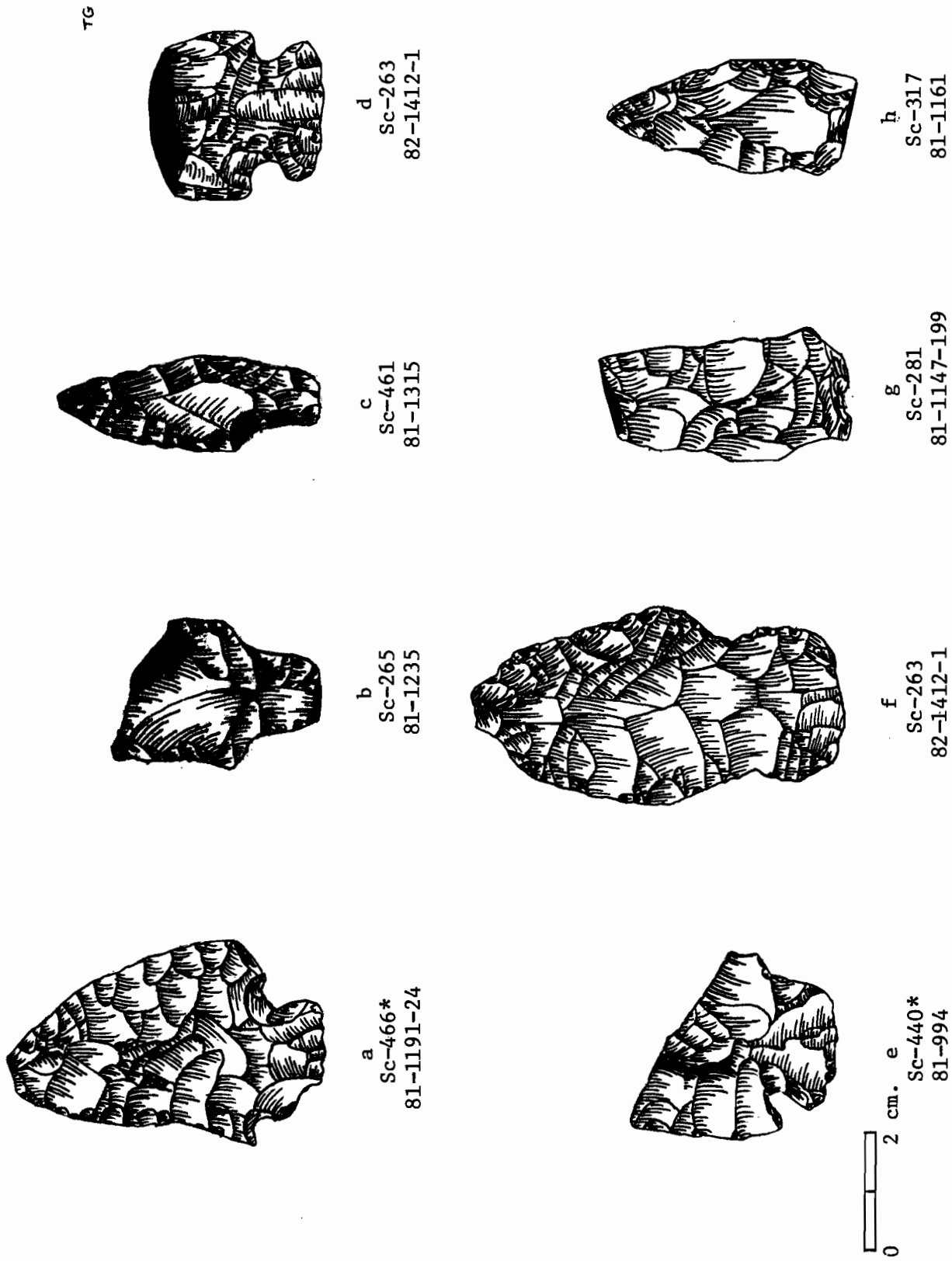


Figure B:18 Other Woodland (a-d) and Probable Woodland (e-h) Projectile Points

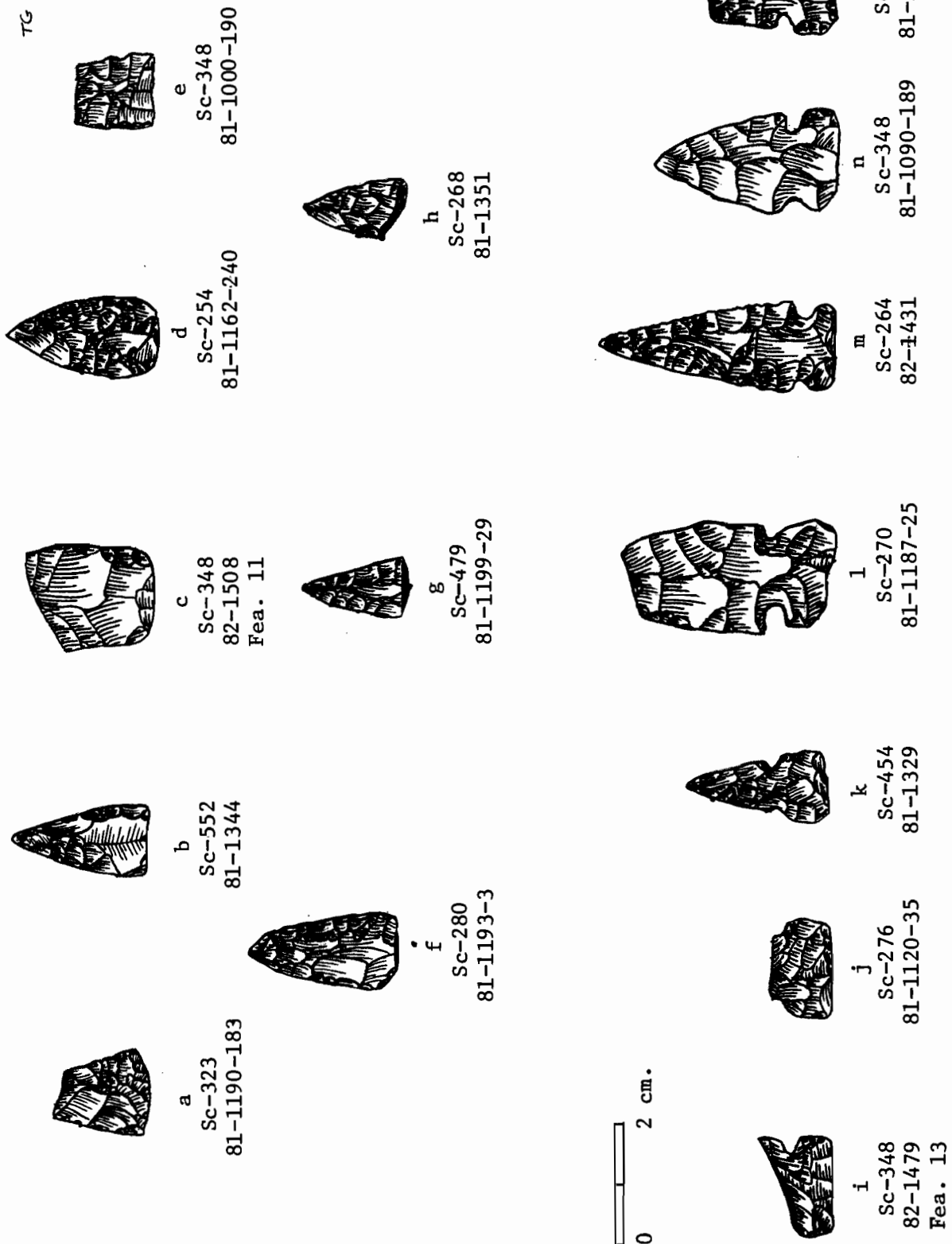


Figure B:19 Late Woodland Arrowpoints

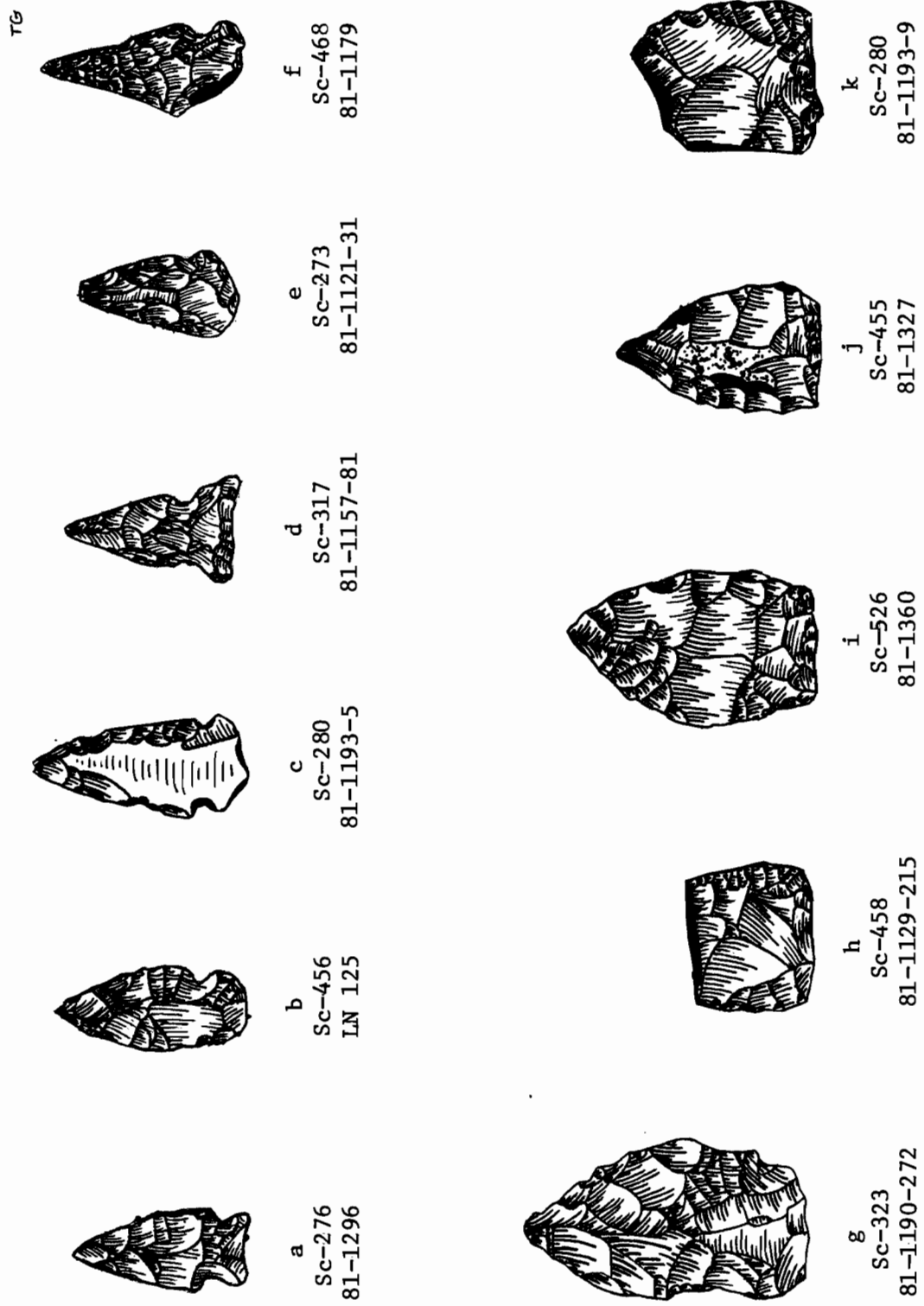


Figure B:20 Late Woodland Arrowpoints and Triangular Knives



Figure B:21 Late Woodland Arrowpoints and Triangular Knives

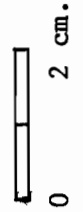
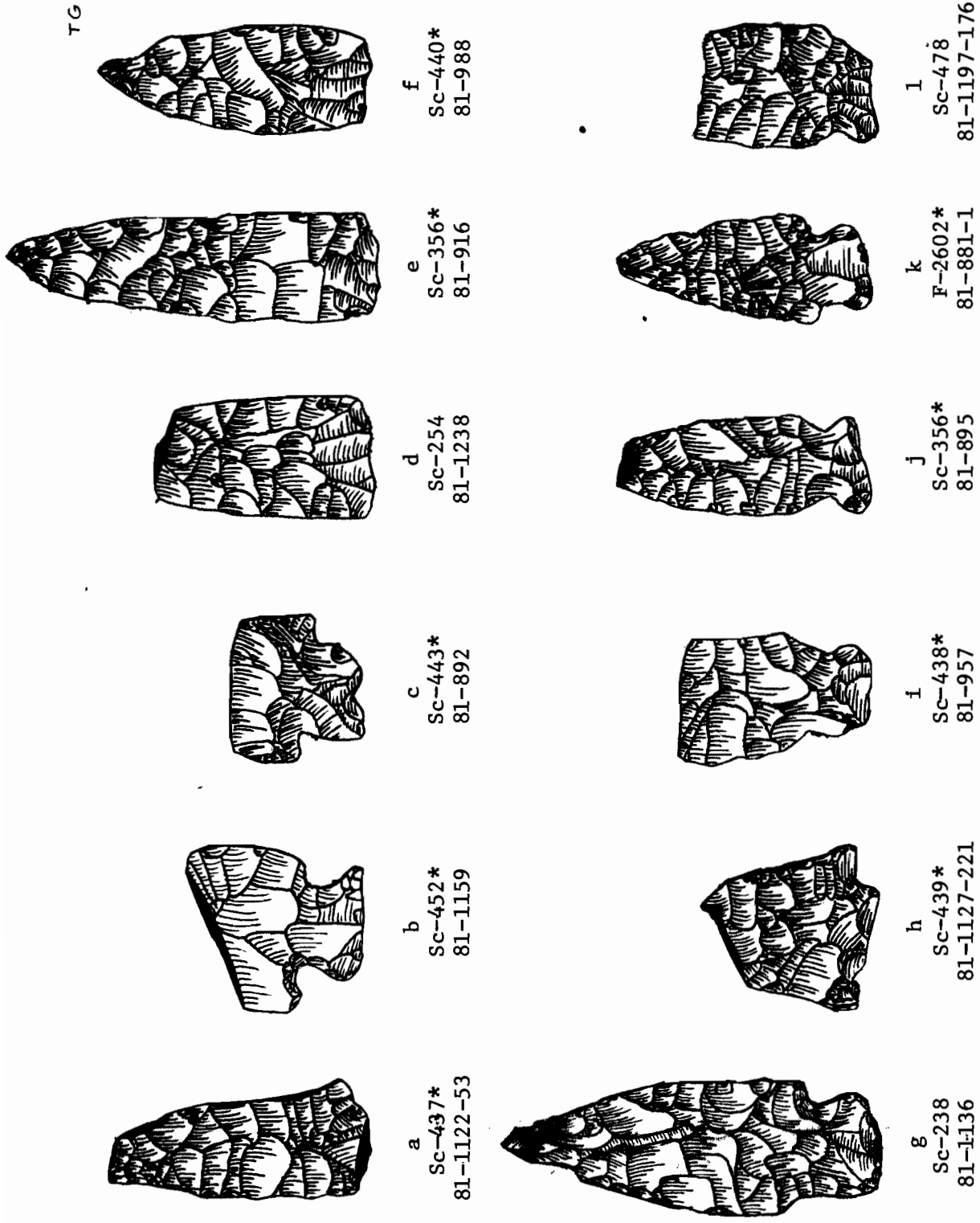
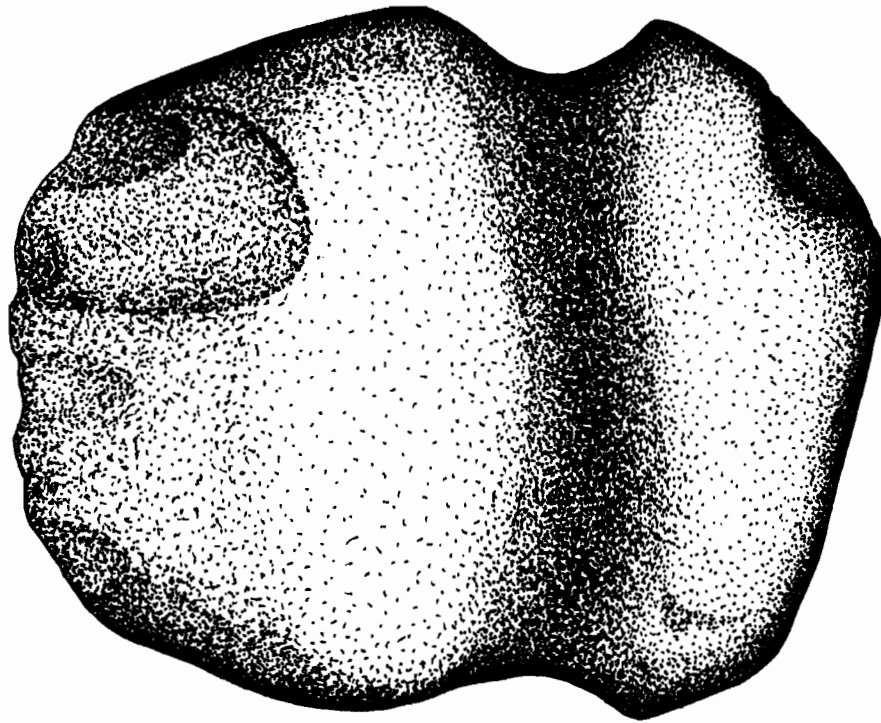
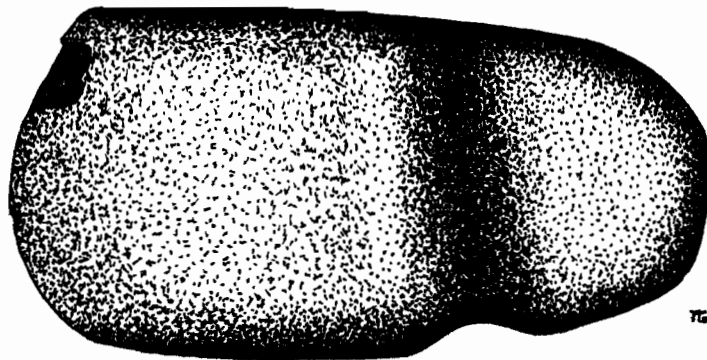


Figure B:22 Untyped Projectile Points



a
81-1157-5



b
81-1157-887

0 2 cm.

Figure B:23 Grooved Axes from Sc-317

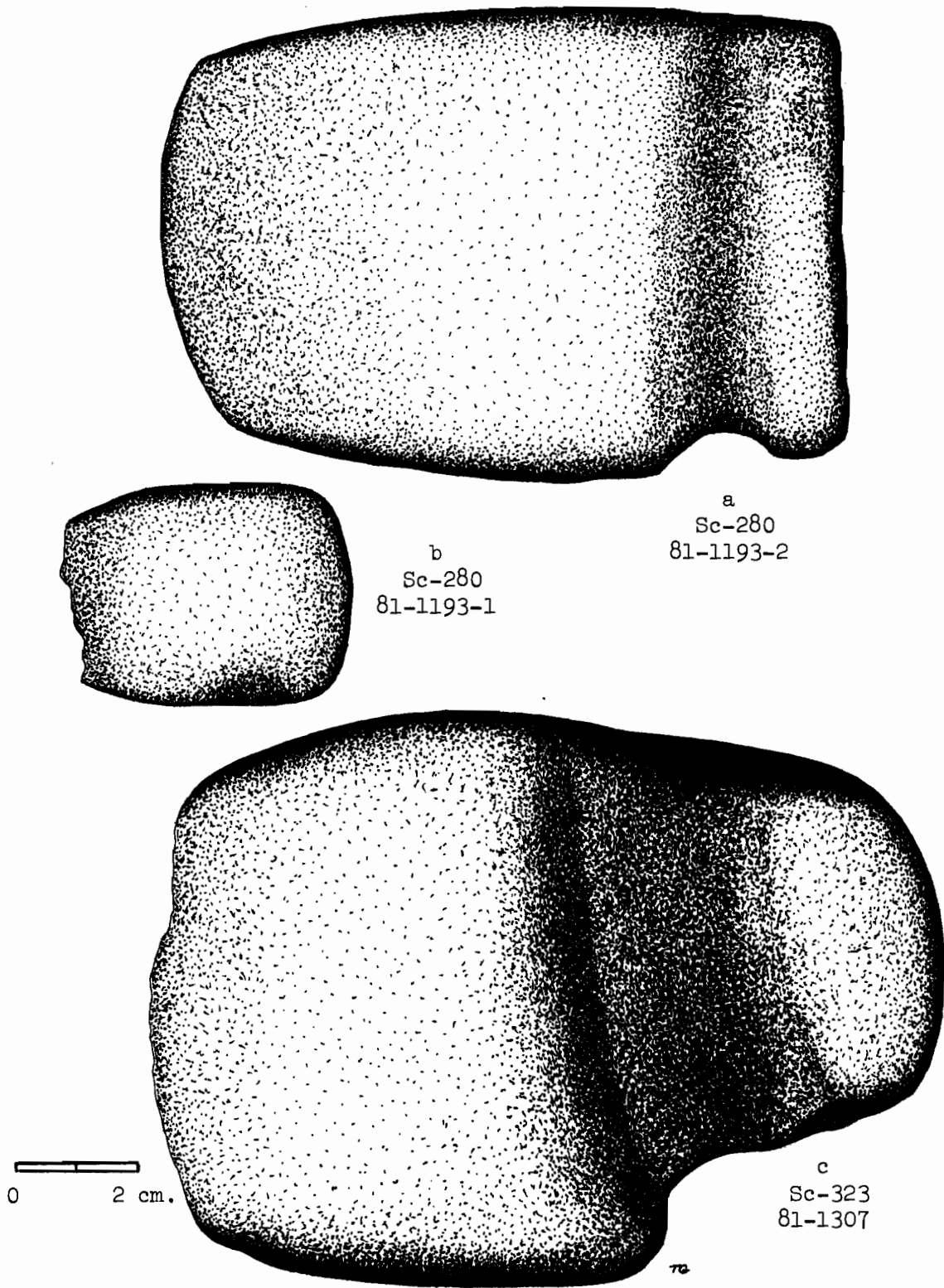
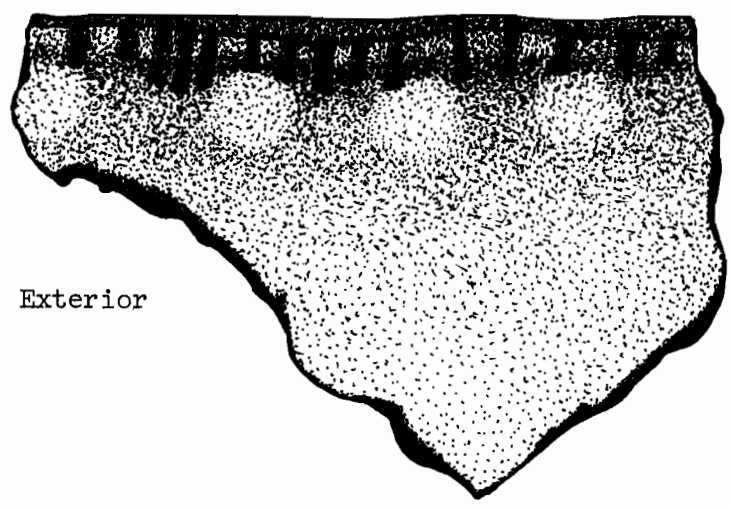
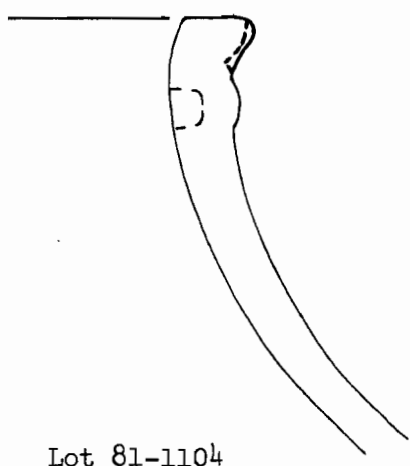


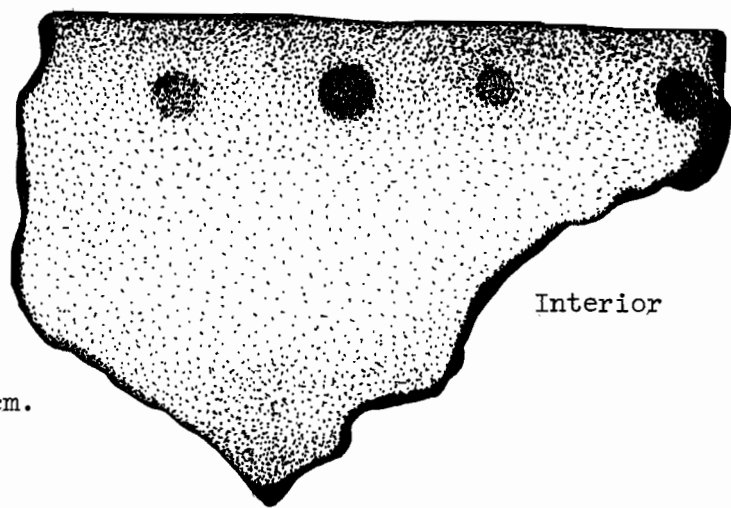
Figure B:24 Grooved Axes and Celt



Exterior



Lot 81-1104



Interior

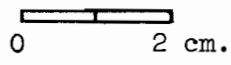


Figure B:25 Rimsherd from Sc-461

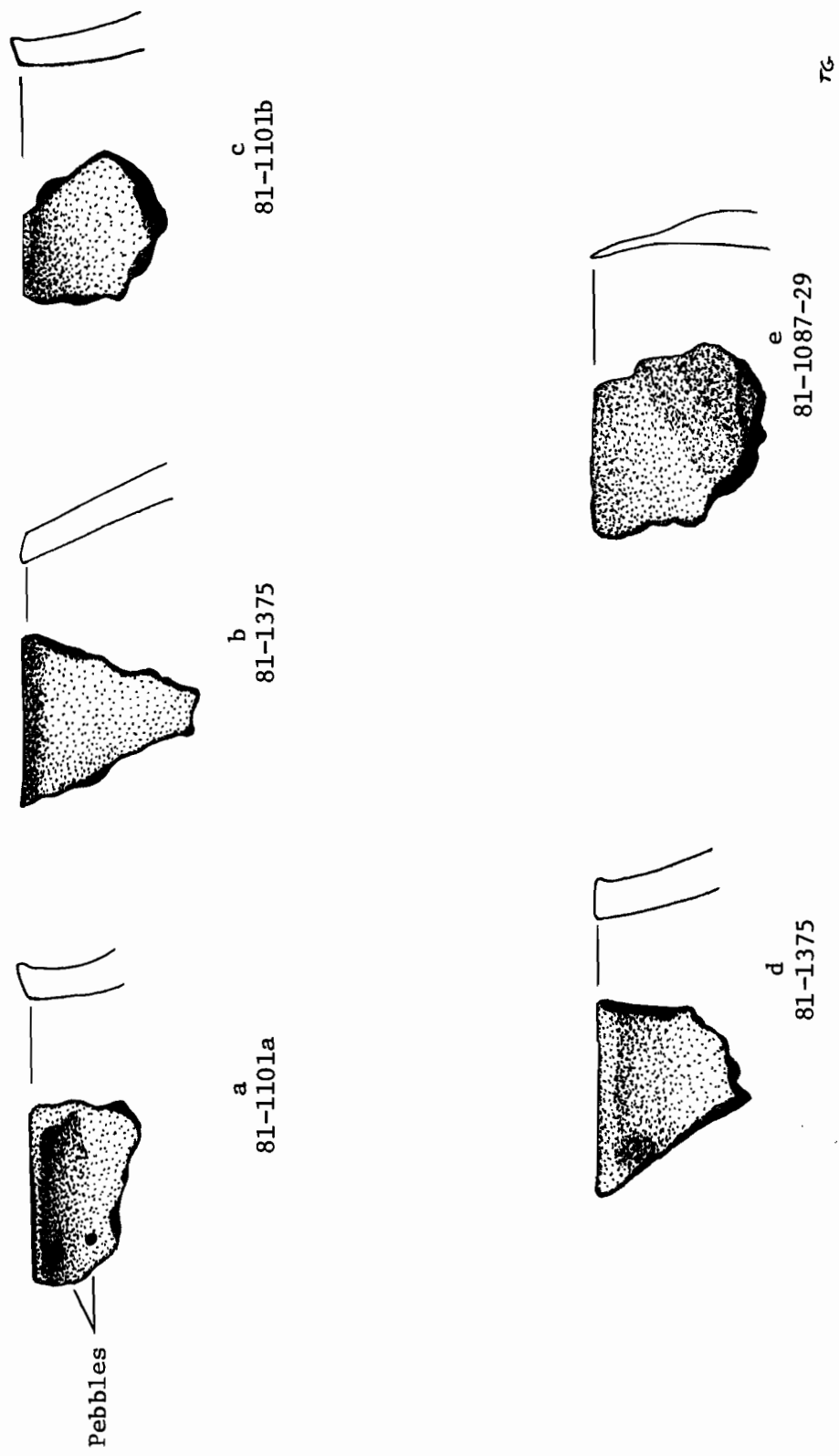
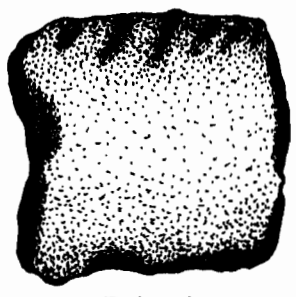
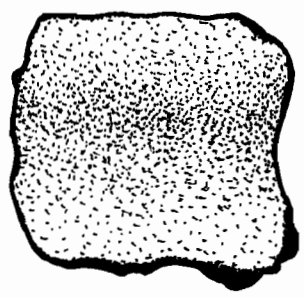


Figure B:26 Rimsherds from Sc-461

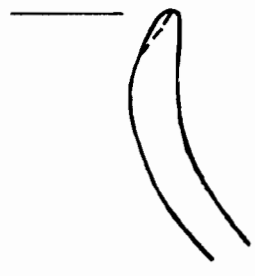
TG



Interior



Exterior



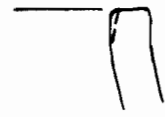
a
81-1299



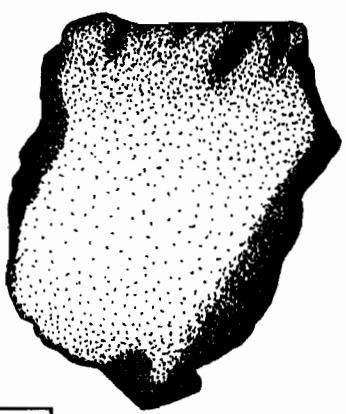
Interior



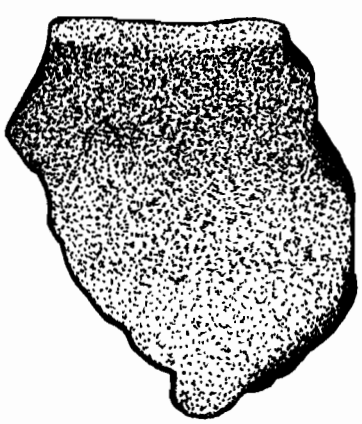
Exterior



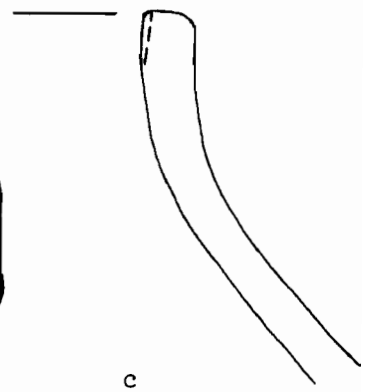
b
81-1301



Interior



Exterior



c
81-1301

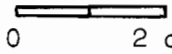


Figure B:27 Rimsherds from Sc-276

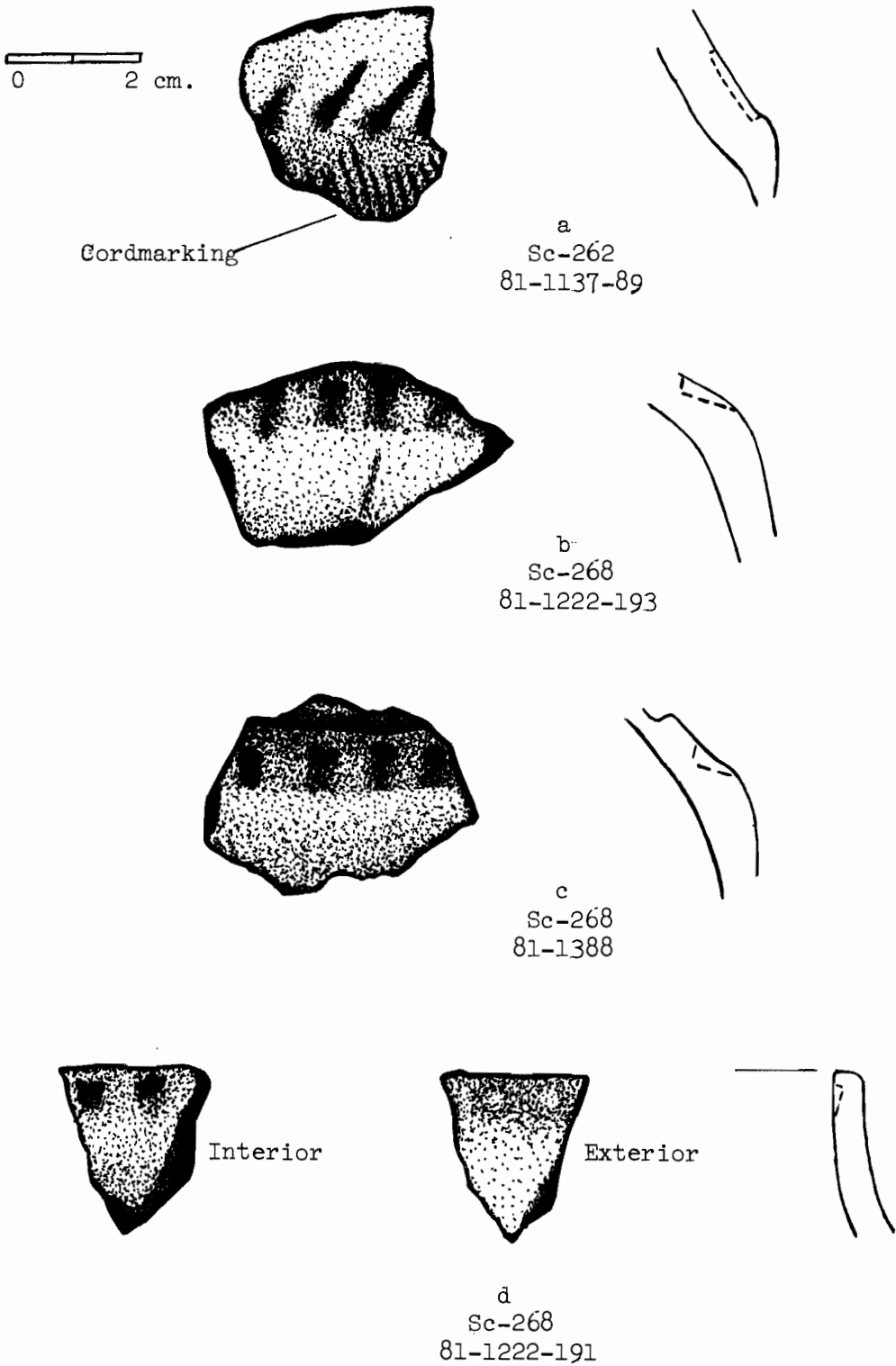
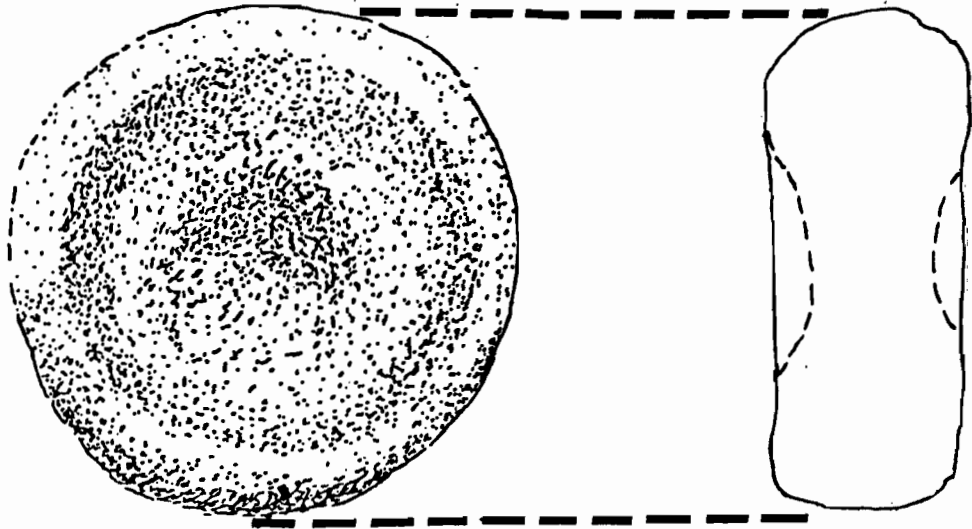
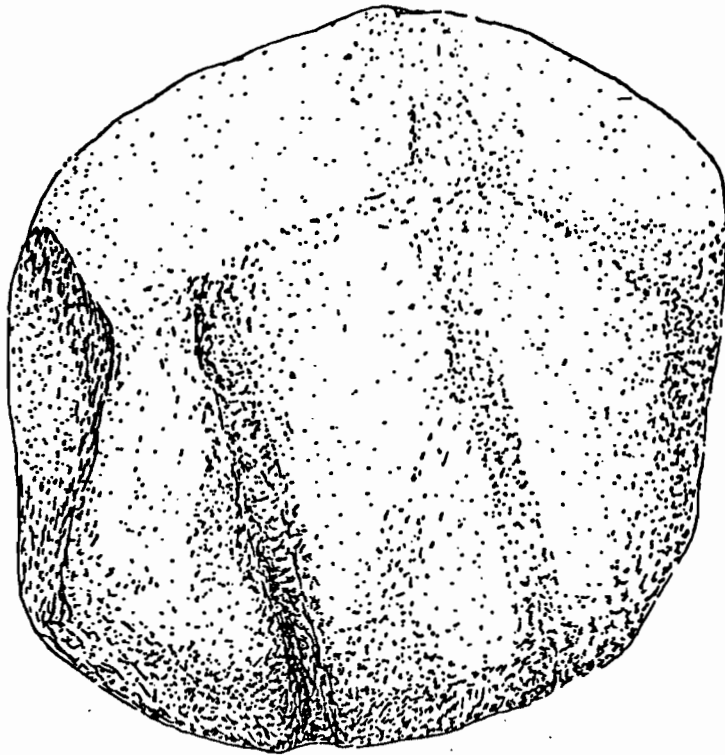


Figure B:28 Shoulder Sherds and Rimsherd



a
81-1069-138



0 2 cm.

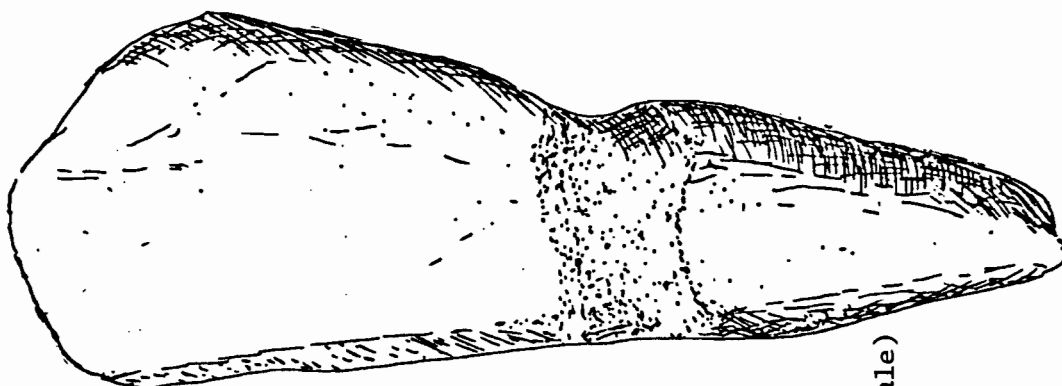
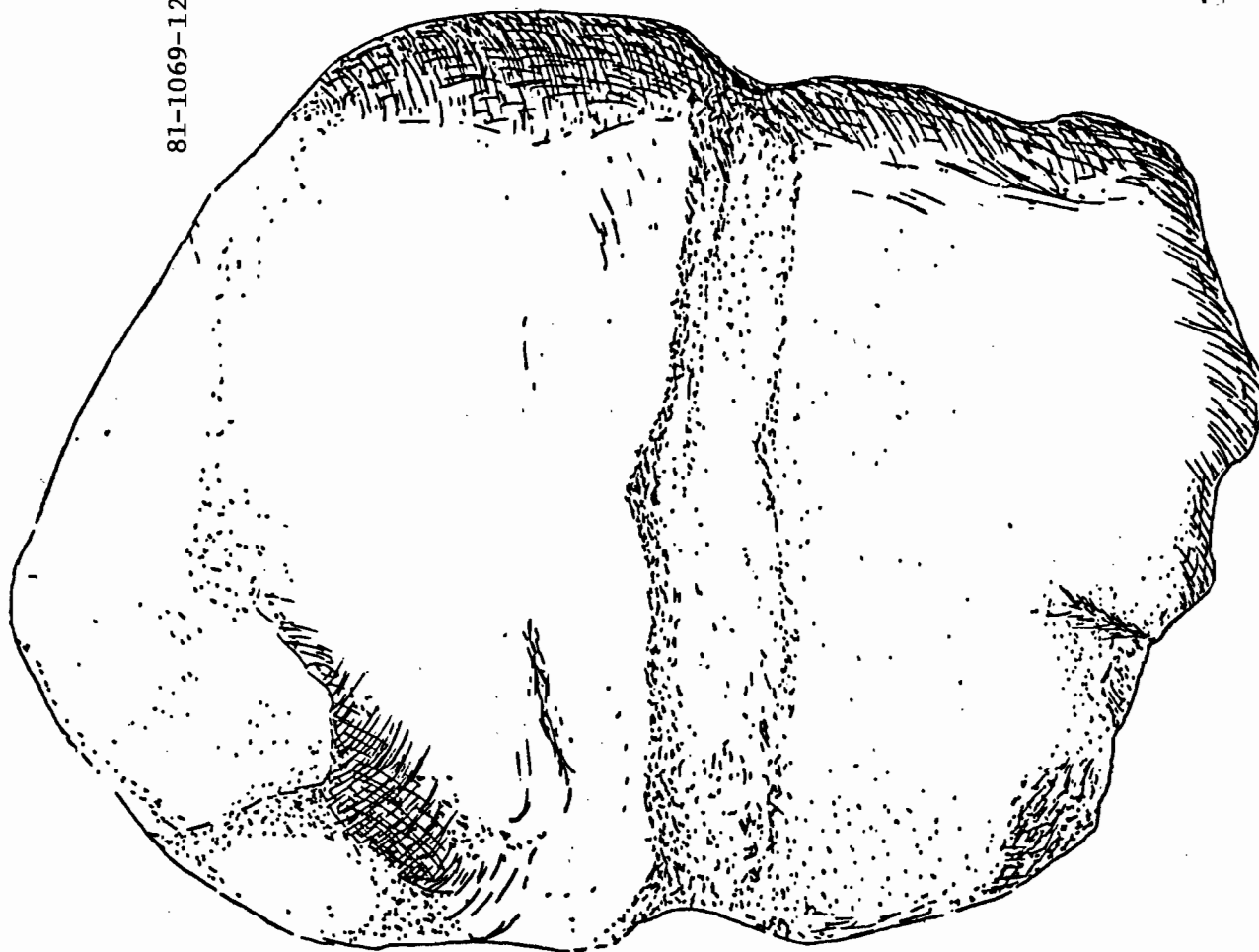
b
81-1069-179

P. H. Anderson '81

Figure B:29 Discoidal (a) and Double Grooved Maul (b) from Sc-452*

81-1069-122

P. Anderson
81



Side
View
(Not to Scale)

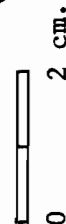


Figure B:30 Grooved Maul from Sc-452*

APPENDIX C
KEY TO SITES

Table C:1 Key to Sites

	II	III	IV	V
Sc-234			X	
Sc-235 North			X	
Sc-236		I.F.		
Sc-237		I.F.		
Sc-237 West				X
Sc-238			X	
Sc-238 West				X
Sc-240		I.F.		
Sc-241			X	
Sc-252			X	
Sc-253		I.F.		
Sc-254			X	
Sc-254 North 1				X
Sc-254 North 2				X
Sc-254 North 3				X
Sc-255		I.F.		
Sc-256			X	
Sc-257		I.F.		
Sc-258			X	
Sc-259			X	
Sc-259 South		U.D.S.		
Sc-260			X	
Sc-261			X	
Sc-262		I.F.		

Table C:1 (Cont.)

	II	III	IV	V
Sc-262 South		I.F.X.		
Sc-263		I.F.		
Sc-263 South		I.F.X.		
Sc-264		I.F.		
Sc-264 South		I.F.X.		
Sc-265		I.F.		
Sc-265 South		I.F.X.		
Sc-265 East		I.F.X.		
Sc-265 Northeast		I.F.X.		
Sc-265 West				X
Sc-266		I.F.		
Sc-267		I.F.		
Sc-267 East				X
Sc-268		I.F.		
Sc-268 South		I.F.X.		
Sc-269			X	
Sc-269 West				X
Sc-270			X	
Sc-271			X	
Sc-273		I.F.		
Sc-274			X	
Sc-275			X	
Sc-275 West		U.D.S.		
Sc-276		I.F.		

Table C:1 (Cont.)

	II	III	IV	V
Sc-276 East		I.F.X.		
Sc-277			X	
Sc-278			X	
Sc-279		I.F.		
Sc-280		I.F.		
Sc-281		I.F.		
Sc-285			X	
Sc-285 North		U.D.S.		
Sc-290		I.F.		
Sc-313			X	
Sc-314			X	
Sc-315		I.F.		
Sc-317		I.F.		
Sc-318A			X	
Sc-318B			X	
Sc-320			X	
Sc-320 North				X
Sc-323		I.F.		
Sc-323 South		I.F.X.		
Sc-334 East		U.D.S.		
Sc-335			X	
Sc-335 Southeast		U.D.S.		
Sc-348		I.F.		
Sc-348 North		I.F.X.		

Table C:1 (Cont.)

	II	III	IV	V
Sc-348 East				X
Sc-348 Northwest				X
Sc-349			X	
Sc-361			X	
Sc-362 North		U.D.S.		
Sc-433		I.F.		
Sc-433 North		I.F.X.		
Sc-433 East		I.F.X.		
Sc-434	X			
Sc-435	X			
Sc-435 North				X
Sc-436	X			
Sc-436 East				X
Sc-454		I.F.		
Sc-455		I.F.		
Sc-456	X			
Sc-457	X			
Sc-457 Northeast		U.D.S.		
Sc-458	X			
Sc-461		I.F.		
Sc-468		I.F.		
Sc-468 West		I.F.X.		
Sc-469	X			
Sc-470		U.D.S.		

Table C:1 (Cont.)

	II	III	IV	V
Sc-472	X			
Sc-475	X			
Sc-476	X			
Sc-477	X			
Sc-478	X			
Sc-478 South				X
Sc-479		I.F.		
Sc-479 East		I.F.X.		
Sc-480		I.F.		
Sc-481		I.F.		
Sc-520		U.D.S.		
Sc-521		U.D.S.		
Sc-522		U.D.S.		
Sc-523		U.D.S.		
Sc-524		U.D.S.		
Sc-525		U.D.S.		
Sc-526		I.F.		
Sc-527		I.F.		
Sc-528		U.D.S.		
Sc-529		U.D.S.		
Sc-530		U.D.S.		
Sc-531		U.D.S.		
Sc-532		U.D.S.		
Sc-533		U.D.S.		

Table C:1 (Cont.)

	II	III	IV	V
Sc-534		U.D.S.		
Sc-535		U.D.S.		
Sc-536		U.D.S.		
Sc-537		U.D.S.		
Sc-538		U.D.S.		
Sc-539		U.D.S.		
Sc-540		U.D.S.		
Sc-541		Undist.		
Sc-542				X
Sc-543				X
Sc-544				X
Sc-545				X
Sc-546				X
Sc-548		U.D.S.		
Sc-549		U.D.S.		
Sc-550		U.D.S.		
Sc-551		U.D.S.		
Sc-552		I.F.		
Sc-553		U.D.S.		
Sc-554		U.D.S.		
Sc-555		U.D.S.		
Sc-556		U.D.S.		
Sc-557		I.F.		
Sc-558		U.D.S.		

Table C:1 (Cont.)

	II	III	IV	V
Sc-559		U.D.S.		
Sc-560		U.D.S.		
Sc-561		I.F.		
Sc-562		U.D.S.		
Sc-563				X
Sc-564				X
Sc-565				X
Sc-566				X
Sc-567				X
Sc-568				X

SUMMARY:

Section II	12 Sites
Section III	68 Whole Sites
	3 Partial Sites w/no counterpart in study area (5 Partial Sites)
Section IV	27 Sites
Section V	11 Whole Sites
	(14 Partial Sites)
	<u>121</u> Sites Total

I.F.= Intact Feature

U.D.S.=Uncultivated Debris Scatter

Undist.=Undisturbed

I.F.X.= Extension of Site with Intact Features

APPENDIX D

SITE DATA FOR HAUL ROAD SITES

Table D:1 Site Data for Haul Road Sites

Site	Location (Twp., Sec.)	Size (m ²)	Material Density	Temporal Artifacts	Chronological Placement	Functional Artifacts
F-714 (LN-51)	Astoria Sec. 31	Unknown	--	1 Wadlow point, 1 contracting-stemmed point	Titterington Phase Late Archaic; Terminal Late Archaic or Early Woodland	1 biface; 1 core, 1 hammerstone
F-715 (LN-52)	Astoria Sec. 31	Unknown	--		Unknown	1 chert blank ?; 3 bifaces; 1 utilized flake; 1 bipolar core or wedge; 1 pitted mano/metate; 1 metate
F-716 (LN-55)	Astoria Sec. 31	3321	--		Unknown	1 projectile point fragment; 1 biface/ knife or projectile point; 2 hammerstones
F-717 (LN-56)	Astoria Sec. 31	4158	--		Unknown	
F-718 (LN-57)	Astoria Sec. 31	2829	--		Unknown	1 biface; 2 cores
F-2601 (Astoria 1) Figure B:13b	Astoria Sec. 4	4400	Light		Unknown	1 untyped projectile point; 1 worked flake

Table D:1 (Cont.)

F-2602 (Astoria 2) Figures B:9h, B:11d, B:22k	Astoria Sec. 4	30,000	Light	1 Table Rock point 1 Nebo Hill point	Middle and Late Archaic	2 projectile point fragments; 1 untyped projectile point; 1 biface; 3 scrapers; 3 worked flakes/ scrapers; 3 manos; 3 hammerstones; 1 pitted mano
F-2603 (Astoria 3) Figures B:4c, B:13c, B:21b, B:21f, B:21g, B:21h, B:21i	Astoria Sec. 5	6750	Light	1 Madison point; 4 Mounds Stemless points; 1 Thebes point, 1 probable Middle Archaic side- notched point; 1 Early Archaic point tip	Early Archaic Middle Archaic Late Woodland	1 projectile point fragment; 4 scrapers; 3 retouched flakes; 3 manos
F-2604 (Astoria 4) Figure B:2f	Astoria Sec. 5	10,000	Light	1 possible Decatur point	Early Archaic	1 large metate
F-2605 (Astoria 5) Figure B:2d	Astoria Sec. 5	2500	Light	1 large Kirk point	Early Archaic	1 core; 1 hammerstone
F-2606 (Astoria 6) Figures B:4b, B:5f	Astoria Sec. 5	100	Light	1 Thebes point 1 Hardin point	Early Archaic	

Table D:1 (Cont.)

F-2607 (Astoria 7)	Astoria Sec. 5	2500	Light	1 untyped Early Archaic projectile point	Early Archaic ?	1 mano
F-2608 (Astoria 8)	Astoria Sec. 5	3000	Light		Unknown	4 scrapers; 1 mano
F-2609 (Astoria 9)	Astoria Sec. 5	2500	Light		Unknown	
F-2610 (Astoria 10)	Astoria Sec. 5	2800	Light		Unknown	1 worked blade- like flake
F-2611 (Astoria 16)	Astoria Sec. 5	7000	Light		Unknown	1 utilized blade- like flake
F-2618 (Vermont 1) Figure B:1d	Astoria Sec. 31	25,000	Light	1 Agate Basin point	Early Archaic	1 abrader?
F-2619 (Astoria 11)	Astoria Sec. 5	5500	Light		Unknown	1 projectile point fragment; 1 metate
F-2620 (Astoria 12)	Astoria Sec. 5	6500	Light		Unknown	1 thin biface; 2 manos
F-2621 (Astoria 13)	Astoria Sec. 6	2800	Light		Unknown	1 mano
F-2622 (Astoria 14) Figure B:1b	Astoria Sec. 6	3500	Light	1 Hill-like point	Middle Archaic ?	2 projectile point fragments; 2 worked flakes; 2 manos; 1 hammerstone

Table D:1 (Cont.)

F-2623 (Astoria 15)	Astoria Sec. 6	2500	Light	Unknown	1 projectile point fragment; 2 worked flakes; 1 worked blade-like flake
F-2624 (Astoria 17)	Astoria Sec. 6	8400	Moderate	Unknown	1 large biface; 1 mano
Md-23 (LN-49)	Eldorado Sec. 36	Unknown	--	Unknown	1 untyped projectile point; 1 end- scraper
Md-24 (LN-50)	Eldorado Sec. 36	Unknown	--	1 large Kirk point 1 possible large Kirk point	1 projectile point fragment; 1 utilized quartzite flake
Md-806 (Eldorado 1)	Eldorado Sec. 36	800	--	Unknown	
Md-807 (Eldorado 2)	Eldorado Sec. 36	6050	Light	Unknown	1 scraper
Md-808 (Eldorado 3)	Eldorado Sec. 36	900	Light	Unknown	1 mano
Md-809 (Eldorado 4) Figure B:4d	Eldorado Sec. 36	3600	Light	1 Theban cluster point	1 hammerstone
Md-810 (Eldorado 5)	Eldorado Sec. 36	300	--	Unknown	

Table D:1 (Cont.)

Sc-87 (Bauer Branch)	Oakland Sec. 18	Unknown	Very Heavy	See Green (1977: 107-129) Late Woodland pottery; 2 Ansell points; 1 Steuben and 1 Steuben-like points; 1 untyped Woodland projectile point; 4 Late Woodland arrow-- points	Late Woodland	Excavations have displayed full range of features and tools diagnostic of a Late Woodland base camp
Sc-350 (LN-40)	Oakland Sec. 15	Unknown	--		Unknown	
Sc-351 (LN-41)	Oakland Sec. 15	Unknown	--	1 Late Woodland sherd	Late Woodland	1 side-notched projectile point; 1 sidescraper; 1 metate; 1 core; 3 retouched flakes
Sc-352 (LN-42)	Oakland Sec. 15	Unknown	--		Unknown	1 projectile point fragment; 1 worked flake; 1 biface or projectile point fragment; 1 blade flake; 1 core
Sc-353 (LN-43)	Oakland Sec. 10	Unknown	--	1 beveled, serrated Early Archaic projectile point fragment	Early Archaic	1 point fragment

Table D:1 (Cont.)

Sc-354 (LN-44)	Oakland Sec. 10	Unknown	---	1 side-notched basally-ground projectile point	Middle Archaic	4 projectile point fragments; 1 knife; 4 bifaces; 1 blade flake; 4 cores, 1 utilized flake; 1 hammerstone; 2 manos (1 pitted)
Sc-355 (LN-45)	Oakland Sec. 2	Unknown	---		Unknown	1 mano
Sc-356 (LN-48) Figures B:2e, B:8d, B:10e, B:10g, B:10h, B:16a, B:17e, B:21c, B:21j, B:21k, B:22e, B:22j	Oakland Sec. 2	7000	Heavy	2 triangular knives, 5 Matanzas points, 2 Ansell points, 1 Klunk side-notched point, 1 Early Archaic serrated point tip, 1 Karnak Stemmed point, 1 Middle-Late Archaic side-notched projectile point, 1 Kirk Cluster point	Early Archaic; Middle Archaic; Late Archaic; Late Woodland	2 untyped projectile points; 17 projectile point fragments; 7 bifaces; 2 drills; 4 scrapers; 1 end- scraper, 1 awl or reamer; 6 blanks; 1 retouched blade flake; 4 worked flakes; 2 utilized flakes; 1 spokeshave; 2 flake knives; 13 cores; 9 hammerstones; 10 manos (3 pitted); 1 pitted metate

Table D:1 (Cont.)

Sc-357 (W. J. Phillips)	Oakland Sec. 16	4976	--	7 grit-tempered potsherds; 1 LeCroy point; 1 celt or adze	Middle Archaic Late Woodland	1 untyped projectile point; 3 bifaces; 1 core; 1 pitted mano; 1 mano/metate; hickory nut shells; corn; 1 excavated structure
Sc-358 (LN-7)	Oakland Sec. 18	240	--		Unknown	1 shredder ?; 1 endscraper
Sc-359 (Flatwoods 1) Figures B:2g, B:7c, B:10f	Oakland Sec. 2	1894	--	Grit-tempered pottery; 1 Hill-like point and 1 Faint Side-Notched Matanzas point; 1 Late Woodland un- notched arrowpoint; 1 pipe; 1 Decatur (reworked to drill) point	Early, Middle, Late Archaic; Late Woodland	Surface: 1 untyped projectile point; 1 point/knife fragment; 2 sand- stone abraders; 2 manos; 1 worked flake; 1 worked blade-like flake. 22 excavated features have displayed a full range of base camp artifacts

Table D:1 (Cont.)

Sc-360 (Flatwoods 2)	Oakland Sec. 2	947	--	Grit-tempered pottery; 1 Graham Cave-like point; 1 contracting stemmed (Late Archaic or Woodland projectile point)	Early Archaic Late Archaic ? Late Woodland	16 excavated features have produced chert tools (projectile points, scrapers); cores; grit-tempered pottery; hammer- stones; manos; metate; burned clay
Sc- 431 (7-80-13)	Oakland Sec. 20		--	1 untyped Early Archaic projectile point tip	Early Archaic	
Sc-437 (Oakland 2) Figure B:22a	Oakland Sec. 10	3000	Heavy	2 Karnak Stemmed points; 1 Thebes point tip	Late Archaic	2 untyped points, 1 projectile point fragment; 1 rectangular biface; 1 blank; 1 scraper; 1 mano; 1 worked flake
Sc-438 (Oakland 5) Figures B:8c, B:22i	Oakland Sec. 10	7500	Light	1 Middle to Late Archaic side- notched projectile point	Middle to Late Archaic	1 untyped side- notched projectile point; 2 point fragments; 1 biface; 1 blank; 1 unifacially flaked potlid; 5 worked flakes

Table D:1 (Cont.)

Sc-439 (Oakland 6) Figures B:4e, B:6a, B:9b, B:9d, B:12c, B:21d, B:22h	Oakland Sec. 16	85,800	Moderate	1 Merom point, 1 side-notched projectile point; 1 Koster Corner- Notched point; 2 Matanzas point; 1 Hardin point; 1 St. Charles point; 1 Karnak Stemmed point	Early Archaic; Late Archaic; Helton Late Archaic; Middle Late Archaic; Late Woodland	1 untyped projectile point; 6 projectile point fragments; 3 bifaces; 3 scrapers; 3 blanks; 1 drill; 1 knife; 6 worked flakes; 11 manos; 1 anvilstone
Sc-440 (Oakland 7) Figures B:2b, B:3g, B:7d, B:15e, B:18e, B:21a, B:22f	Oakland Sec. 16	10,500	Moderate	1 Middle Archaic side-notched point; 1 Neuberger point; 1 Koster Corner- Notched point; 1 Matanzas point; 1 large Kirk point; 2 Karnak Stemmed points; 1 untyped Woodland projectile point, 1 Steuben point	Early Archaic; Middle Archaic; Late Archaic; Late Woodland	8 projectile point fragments; 1 projectile point/ knife; 1 biface; 1 drill; 1 scraper; 2 blanks; 1 blade flake; 2 spokeshaves; 6 worked flakes; 9 hammerstones; 3 manos
Sc-441 (Oakland 1)	Oakland Sec. 2	10,000	Light		Unknown	3 projectile point fragments; 1 scraper; 1 blank; 8 manos; 1 metate; 1 hammerstone; 1 worked flake
Sc-442 (Red Rock) Figures B:2c, B:3d; B:10d	Oakland Sec. 10	Unknown		1 Faint Side-Notched Matanzas point; 1 large Kirk point; 1 Neuberger point	Early Archaic; Late Archaic	2 projectile point fragments; 2 scrapers; 1 biface; 2 hammerstones; 1 mano; 1 worked flake

Table D:1 (Cont.)

Sc-443 (Oakland 3) Figures B:21e, B:22c	Oakland Sec. 2	--	--	1 Koster Corner- Notched-like point	Late Woodland	1 untyped projectile point; 4 projectile point fragments; 2 blanks; 2 worked flakes; 4 manos; 2 hammerstones (1 pitted)
Sc-444 (Oakland 4)	Oakland Sec. 2	Unknown	--	1 Karnak Stemmed point	Late Archaic	1 scraper; 1 mano; 1 pitted mano
Sc-445 (Oakland 8) Figure B:10a	Oakland Sec. 10	?	--	1 Matanzas point; 1 Titterington Horizon blade	Late Archaic	4 projectile point fragments; 1 rectangular biface; 1 mano; 1 metate
Sc-446 (Dead Elm)	Oakland Sec. 10	Unknown	--		Unknown	2 manos (1 pitted)
Sc-447 (Oakland 10)	Oakland Sec. 10	Unknown	--		Unknown	1 projectile point fragment; 6 hammer- stones; 2 manos
Sc-448 (Oakland 9)	Oakland Sec. 16		--		Unknown	2 manos; 1 worked flake
Sc-449 (Hay Bale)	Oakland Sec. 2	Unknown	--		Unknown	
Sc-450 (Gottrock)	Oakland Sec. 2	Unknown	--		Unknown	1 projectile point fragment; 1 scraper; 4 hammerstones; 2 manos; 1 knife/biface

Table D:1 (Cont.)

Sc-451 (Mariner)	Oakland Sec. 2	Unknown	--	Unknown	1 projectile point/ knife; 1 rectangular biface
Sc-452 (Laura Li) Figures B:4a, B:7g, B:22b, B:29a, B:29b, B:30	Oakland Sec. 17	Unknown	--	1 Thebes point; 1 Graham Cave point; 1 sandstone discoidal; 2 grooved mauls	3 bifaces; 4 cores; 13 hammerstones; 8 manos; 3 pitted manos; 1 untyped projectile point
Sc-453 (Pamela Annette)	Oakland Sec. 20	Unknown	--		1 worked flake; 1 untyped projectile point fragment
Sc-463 (Halo Site)	Oakland Sec. 2	Unknown	--		
Sc-464 (Little Foot)	Oakland Sec. 18	Unknown	--	1 Karnak Stemmed point	Late Archaic
Sc-465 (Mikey Burger)	Oakland Sec. 18	Unknown	--	1 Karnak Stemmed point	Late Archaic
Sc-466 (Dogbane- Sugar Creek Crossing) Figures B:13a, B:18a	Oakland Sec. 16	Unknown	--	Late Woodland pottery; 1 barbed slightly beveled untyped Early Archaic projectile point blade; 1 untyped Woodland corner- notched point	Early Archaic; Woodland
					1 feature located 106 centimeters below surface

Table D:1 (Cont.)

Sc-474 (Tiptoe)	Oakland Sec. 18	3,500	Heavy	None	Unknown	2 projectile point fragments; 1 unifacially retouched flake; 7 manos
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APPENDIX E

ADDENDUM - Sc-268 EXCAVATIONS

APPENDIX E ADDENDUM - Sc-268 EXCAVATIONS

Sc-268 was chosen as one of the three sites in which to test for the presence of intact subsurface features. Due to machinery problems and inclement weather, excavations were not opened until after the report was drafted. Four blocks (Figures 3:3 and E:1) were placed in the southern end of the plowed field, and the adjacent pasture along the top of a ridge. Using a bulldozer to remove the plowzone, the Northwest Unit was opened back from the crest of the ridge along the western edge of the site's scatter. The Southwest Unit transected the linear scatter near two pieces of pottery revealed during earlier bulldozer surveying. The Northwest Unit contained no features, while the Southwest Unit had one pit feature at the extreme eastern end, near the two pieces of pottery.

The Northeast Excavation Unit was placed in the cultivated part of the site just below the crest of the ridge. It was this location which had yielded most of the pottery previously, due to the rapidly eroding topsoil and downcutting plowzone. Two features were exposed here. The Southeast Excavation Unit was located along the crest of the ridge, which was much less eroded in the pasture. One oval single post construction structure, six pit features, and several post holes were revealed. The features were excavated by volunteer effort and are now being analyzed.

The Northwest Excavation Unit (11.5 x 3.0 meters) exposed 34.5 m². The Northeast Excavation Unit (12.0 x 4.5 meters) exposed 54.0 m². The Southwest Excavation Unit (31.0 x 3.0 meters) totaled 93.0 m². The Southeast Excavation Unit (22.0 x 11.0 meters) exposed 242.0 m². Assuming Sc-237, Sc-236, and

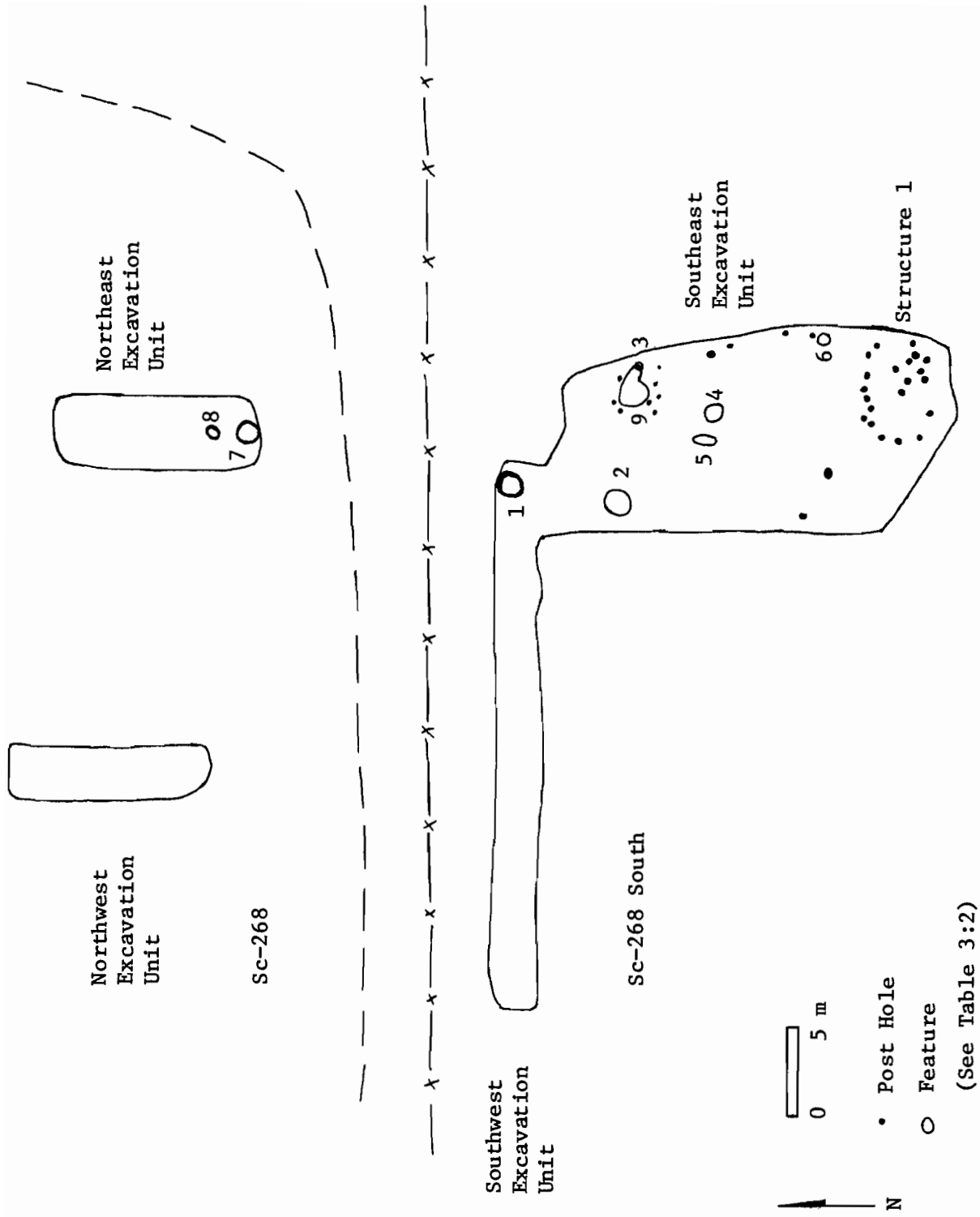


Figure E:1 Excavation Units of Sc-268

Sc-268 are one site (see section 3.2) this total 423.5 m² equals a little less than 1% of the site (47,500 m²). This should not be construed to indicate representation of nearly 1000 features on this site, however. Perhaps one quarter of that number could possibly be expected for the three combined sites.