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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Mitigation of Adverse Effects of Long Branch Lake Project upon the Archeological Resources		5. TYPE OF REPORT & PERIOD COVERED Final 1978-1981
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Larry Grantham		8. CONTRACT OR GRANT NUMBER(s) DACW41-78-C-0103
9. PERFORMING ORGANIZATION NAME AND ADDRESS Northeast Missouri State University Kirksville, Missouri		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Engineer District, Kansas City 700 Federal Bldg., 601 E. 12th Street Kansas City, MO 64106-2896		12. REPORT DATE 1986
		13. NUMBER OF PAGES 968
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for Public Release; distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Macon County subsistence patterns Chariton River trade networks archeology Middle and Late Archaic culture history Early, Middle, and Late Woodland settlement patterns Mississippian/Oneota		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The report contains the findings of an archeological investigation conducted at the Long Branch Lake project, located in the Chariton River Valley, in northeastern Missouri. Documentation is provided for 7,000 years of continuous occupation of the river valley from the Middle Archaic to the Historic periods. Subsistence, settlement, and trade patterns are discussed.		

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2

LONG BRANCH LAKE ARCHAEOLOGICAL RESOURCES

MITIGATION OF ADVERSE EFFECTS OF LONG BRANCH
LAKE PROJECT UPON THE ARCHAEOLOGICAL RESOURCES

FINAL

by
Larry Grant ham

AN ARCHAEOLOGICAL PROJECT CONDUCTED FOR
U.S. ARMY CORPS OF ENGINEERS
KANSAS CITY DISTRICT

by
NORTHEAST MISSOURI STATE UNIVERSITY
KIRKSVILLE, MISSOURI

DACW 41-78 -C -0103

1986

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Funds for this investigation and report were provided by the U.S. Army Corps of Engineers. The Corps may not necessarily agree with the contents of this report in its entirety. The report reflects the professional views of the contractor who is responsible for collection of the data, analysis, conclusions and recommendations.

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This site lies on the left (east) bank of the East Fork. The site lies at the northwest corner of a large series of hills which project out into the floodplain. The hill is bounded on the east by a narrow deep draw and on the south by a broad shallow draw. Hill slopes along the river edges are very steep and highly eroded, indicating that the river flowed along that edge at one time. The river originally flowed along the base of the hill. The size of the site is estimated to be 200 feet north-south by 150 feet east-west. The elevation of the site is estimated to be 790-800 feet m.s.l. Vegetation consisted of a number of trees which had been cut down with dense grass and secondary growth. The edges of the hill had been disturbed under the clearing contract. Although most of the site lies above the level of the clearing, some material was collected from these areas. Material density was not high. The site appeared to be in a good state of preservation and had not been plowed.

MATERIAL COLLECTED

PREHISTORIC

CHIPPED LITHIC ARTIFACTS

Thick Biface Fragment 1

HEMATITE

Fire-cracked Hematite 1

LITHIC WASTE

Chert Flakes 7

Chert Shatter 1

Fire-cracked Rock 7

None of the recovered material is diagnostic of any chronological period, site function, or of seasonality. When the site was originally located on survey (Grantham 1977), the site was heavily covered with vegetation, and material was recovered from shovel tests only. Material was recovered this season from the extreme lower edges of the site, and the upper portion of the site still appears to be in a good state of preservation. Little can be said of site function on the basis of the recovered material.

This site lies on the left (east) bank of the East Fork on a small hill overlooking the river. The river originally flowed along the base of the hill. The hill is bounded by a broad deep draw to the northwest and by a narrow draw to the southeast. Hill slopes are slight to the northwest and west; steep to the south. The hill on which the site lies is bisected by a gravel road as it enters the floodplain. The size of the site is estimated to be 150 feet northeast-southwest by 100 feet northwest-southeast. The elevation of the site is 790-800 feet m.s.l. Vegetation consisted of oak-hickory forest, and visibility was very poor. The area was cleared under the clearing contract. The entire surface of the site was cleared, and surface material was collected from the entire surface of the site. Material density was moderate. Except for the disturbance of the site during clearing, the area was in a relatively good state of preservation.

MATERIAL COLLECTED

PREHISTORIC

GROUND/PECKED STONE

Pecked Stone (Figure 117, a)	 1
Ground Stone (Figure 117, b)	 1
Edge Battered Cobble (Figure 117, c)	 1

LITHIC WASTE

Chert Flakes	25
Chert Shatter	 1
Fire-cracked Rock	10

None of the recovered material is particularly informative in determining the components present on the site. None of the material is temporally diagnostic. The ground and pecked stone does, however, indicate that plant processing was an important activity on the site. Little else can be said of the activities on the site. The site will be heavily disturbed by wave action after impoundment.

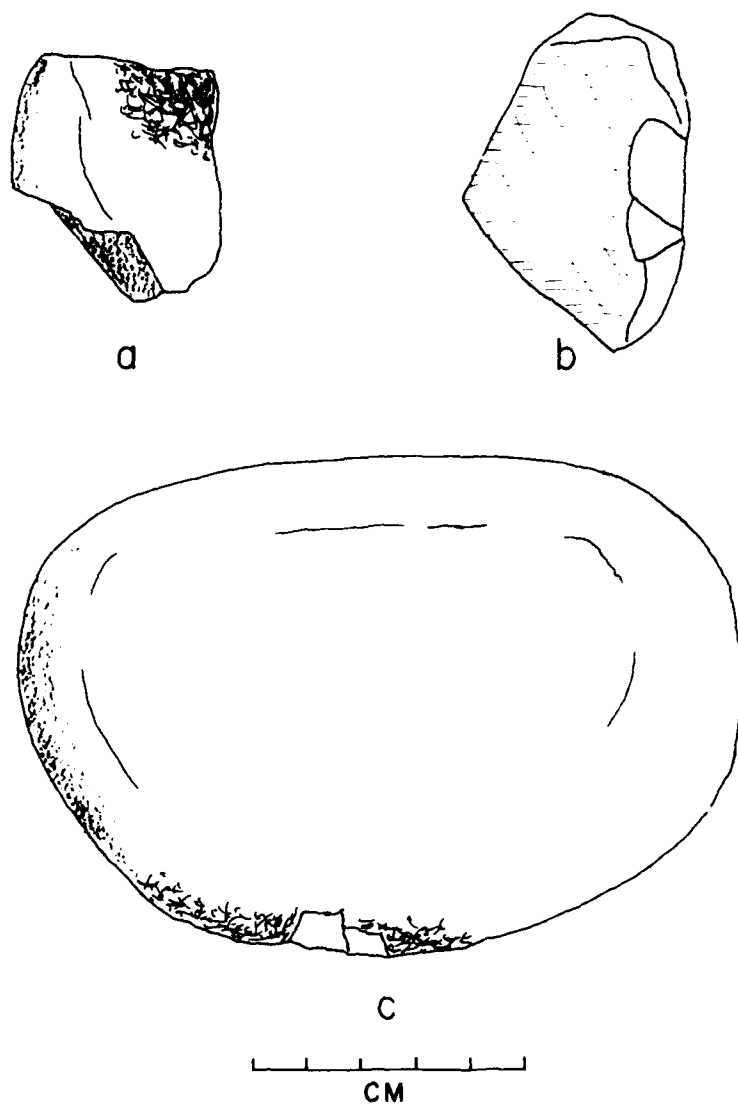


Figure 117. 23MC124. Artifacts. (a) Pecked stone, (b) Ground stone, (c) Edge battered cobble.

This site lies on the left (east) bank of the East Fork. The site lies on a high hill which projects out into the floodplain near the end of the ridge which divides the East Fork and the Long Branch. The site lies approximately one-quarter mile north of their confluence. The site is bounded by an old meander loop cut of the East Fork just south of the hill and by an old meander loop of the river along the northern and western edges. The river originally flowed along the southern edge of the site. The size of the site is approximately 300 feet northeast-southwest by 170 feet northwest-southeast. The elevation of the site is 730-815 feet m.s.l. Vegetation consisted of dense grass and secondary growth, and visibility was poor. Material density was high. The site did not appear to have been plowed and was in a good state of preservation. The site area was cleared under the clearing contract. The entire site was cleared, and surface material was collected from the entire surface of the site.

MATERIAL COLLECTED

PREHISTORIC

CHIPPED LITHIC ARTIFACTS

Large Straight-based, Side-notched
Point - Proximal Fragment
(Figure 118, a) 1
Oblique Point Shoulder Fragment 1
Thick Chert Biface Fragment 1

FLAKE TOOLS

Utilized Flakes 1

CORES

Chert Polyhedral Core 1

GROUND/PECKED STONE

Chert Core Hammerstone (Figure 118, c). 1
Pecked Stone (Figure 118, d). 1
Ground and Pecked Stone
(Figure 118, e-f) 2
Heavily Facially Battered Stone
(Figure 118, g) 1

HEMATITE

Ground Hematite (Figure 118, b) 1
Glacial Hematite 1

LITHIC WASTE

Chert Flakes	.12
Chert Shatter	7
Chert Potlids	2
Fire-cracked Rock	188
Unmodified Stone	1

The side-notched point fragment is a common type recovered in the reservoir area. The specimen is similar to materials which are part of the Big Sandy Complex. The specimen falls within the type Big Sandy Notched (Chapman 1975:242). Specimens are common in Early/Middle Archaic contexts (cf. Group 11 - 23MC55 and 23MC56, this volume). While this might tend to indicate an Early/Middle Archaic component on the site, it is dangerous to postulate such a component on the basis of a single specimen. Sites such as 23MC65 and 23MC74 (this volume) contain similar points from the surface but lack any evidence of an Archaic component in the excavated stratigraphy of the site. The projectile point shoulder fragment is not particularly informative.

The numbers of ground and pecked stone indicates that plant processing was an important activity on the site. The chert core hammerstone and the heavily facially battered stone are characterized by direct contact with dense materials and do not appear to be connected with plant processing. The ground hematite specimen was ground for pigment. The remainder of the materials are waste materials. Chert flakes are characterized by biface thinning, trimming, and retouch flakes. The large numbers of fire-cracked rock indicate that thermal activities, probably connected with cooking, were important on the site.

The site is similar in nature to the sites in the lower end of the reservoir on the west side. Plant processing was an important activity, but the numbers of ground and pecked stone are lower than on fall seasonal sites. Those sites were apparently occupied intermittently and occupations were relatively short in duration. Unfortunately, we do not have sufficient data from this site to know the periodicity or intensity of occupation.

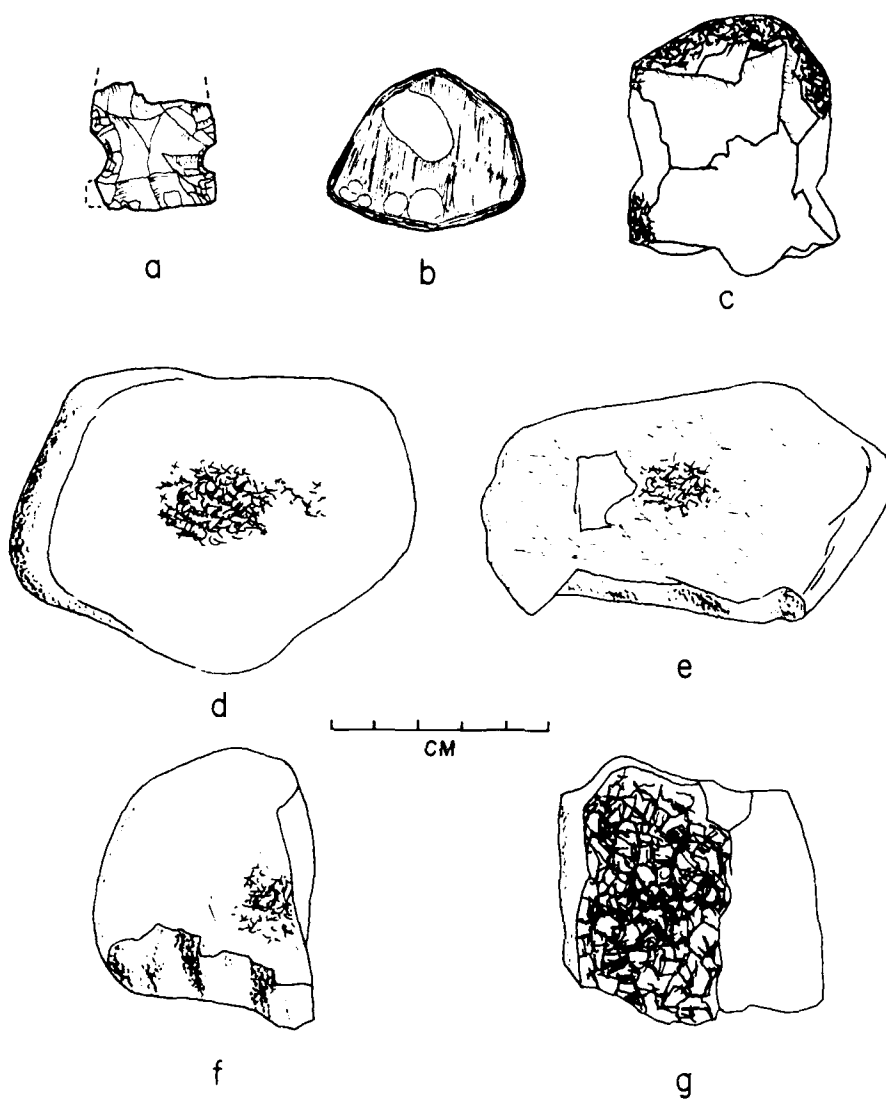


Figure 118. 23MC131. Artifacts. (a) Side-notched projectile point, (b) Ground hematite, (c) Chert core hammerstone, (d) Pecked stone, (e-f) Ground and pecked stone, (g) Heavily facially battered stone.

23MC135

This site lies on the left (east) bank of the East Fork approximately one mile north of the dam axis. The site is separated from 23MC65 on the north by a broad deep draw and from 23MC136 on the south by a broad shallow wash. Hill slopes are moderate on the north and west; slow on the south. The river originally flowed some 100 feet west of the site area. The size of the site is estimated to be 400 feet east-west by 130 feet north-south. Vegetation consisted of dense grass pasture, and visibility was very poor. Surface material was subsequently collected along the western edge after clearing. Material density was high. Most of the site had been plowed. The western edge was in forest but was disturbed during clearing.

Testing of the site was desired in order to obtain information on the site's relationship to 23MC65. The latter lies just to the north of 23MC135, and information on the temporal placement and function of the site was desired. Material density was relatively high, and we anticipated that the site was temporally and functionally similar to 23MC65. The site area is relatively large, and if materials were similar to those at 23MC65, we did not wish to replicate data. We did not anticipate that testing of the site would yield a great amount of data. Impacts to the site also were not expected to be as severe as those to 23MC65.

Two, one and one-half meter squares were laid out for excavation. One was near the center of the site and the other near the western edge of the site (Figure 119). The squares were excavated in arbitrary ten centimeter levels. Although we believed that the site area had been plowed, we did not know how much of the area had been plowed. The squares were excavated to a depth which was culturally sterile. A total of two levels were excavated to a total depth of 13 to 20 centimeters below the surface. Excavations were ceased at that point when a heavy, tenacious, culturally sterile clay was reached. The area of both excavation units had been plowed.

The only physical stratigraphy noted in the excavations was the result of soil horization. An Ap-horizon extended from the surface to a depth of 12.7 to 15 centimeters below the surface. Depths of the Ap-horizon in the eastern test square was slightly less and appears to be the result of slightly greater erosion. A B1-horizon was present in both squares, but depths varied considerably. In the northern portion of the eastern test square, a B1-horizon was absent and ranged up to four centimeters in depth in the southeast

23MC135
1978 EXCAVATIONS
ONE FOOT CONTOUR INTERVAL

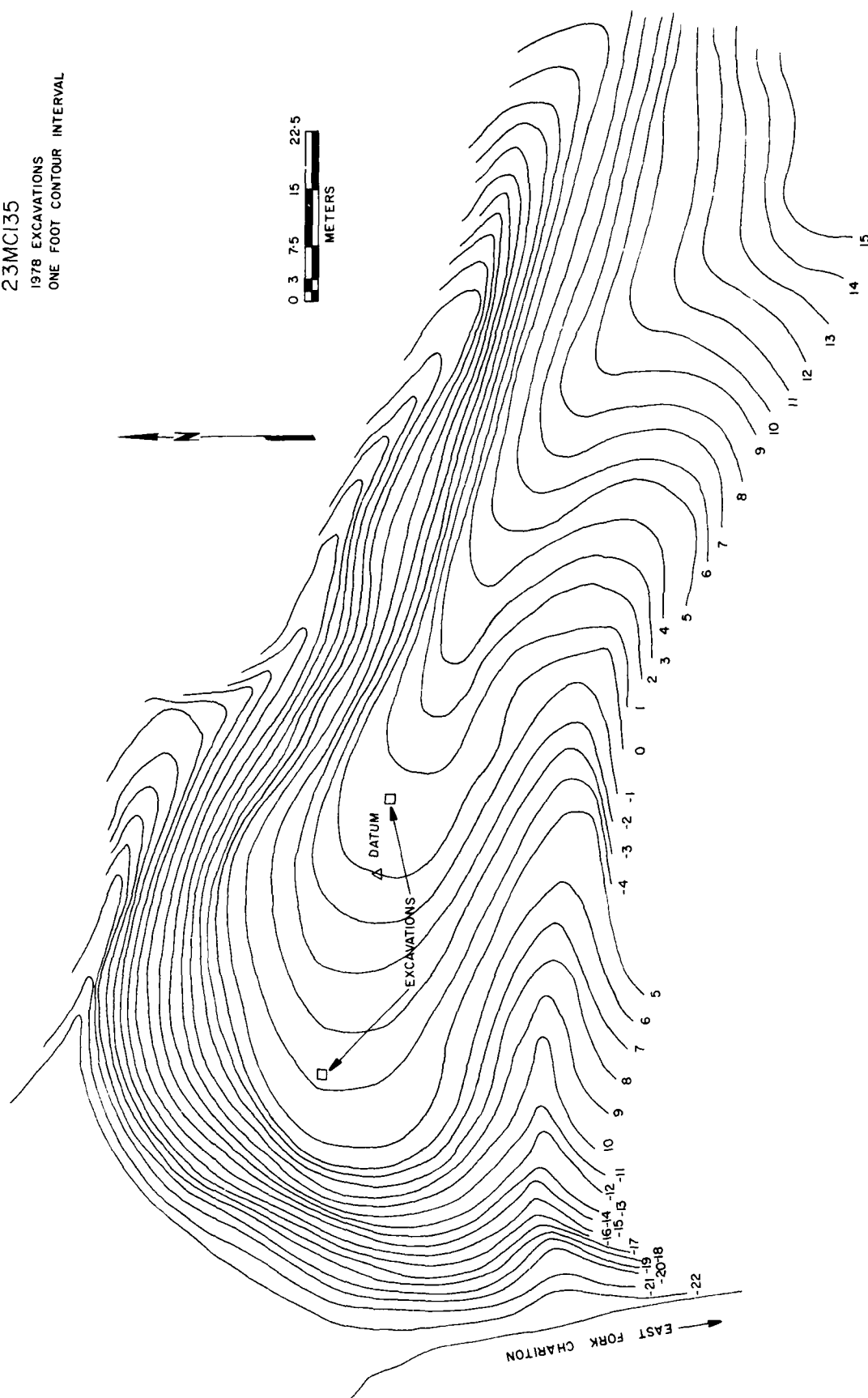


Figure 119. 23MC135. Site map and location of excavations.

corner of the square. In the western test square, a B1-horizon averaging four centimeters thick was present. A B2t-horizon extended from 12.7 to 20 centimeters below the surface to an undetermined depth below that point. Additional excavations were not deemed necessary due to the relatively thin undisturbed segment of the site.

Description of Materials

Points

Group 34:a Medium, Slightly Concave-based, Corner-notched
Point - 1 proximal fragment
(Figure 120, a)

The specimen in this category exhibits a slightly concave base, undetermined stem-base junctures, expanding stem, corner notches, abrupt shoulders, and a bi-convex cross-section. Both stem-base junctures have been fractured. The chipping pattern consists of primary percussion and secondary pressure flaking. Primary flake scars are present only in small areas below the transverse fracture, and little can be said of them. Secondary pressure flakes are relatively small, lamellar to slightly expanding, uneven in size and inconsistent in distribution. An insufficient amount of the specimen is present to determine if resharpening had occurred. Blank material is difficult to determine but appears to have passed through a preform stage based on the chipping pattern and the relative thickness. The specimen exhibits a transverse stress fracture.

Group 37:a Small, Corner-notched Point -
1 distal fragment (Figure 120, b)

The specimen in this category exhibits a stress fracture through the notches, but enough of the specimen remains to indicate that it was originally corner-notched. The specimen exhibits abrupt shoulders, straight lateral margins, and a plano-convex cross-section. The specimen is small in size. The chipping pattern consists of light secondary flaking only. Flake scars are small, lamellar to slightly expanding, somewhat even in size, and inconsistent in distribution. Blank material consisted of a chert flake based on relative thickness and the islands of the original flake surfaces on both faces. Blank orientation with regard to the original flake was distal at the bulb of percussion.

Group 45:a Unclassified Projectile Point Base -
1 proximal fragment (Figure 120, c)

The specimen in this category exhibits a straight base, rounded stem-base juncture, expanding stem, and a bi-convex cross-section. The specimen does not exhibit sufficient external attributes to allow an inclusion in any other category.

Group 47:a-b Distal Projectile Point Fragments - 2

The specimens in this category exhibit two lateral margins converging to a point. The chipping pattern varies. Specimen 47:a is small, relatively thin, and worked by secondary pressure flaking. The specimen appears to have been a fragment of a relative small point. It exhibits a transverse stress fracture. Specimen 47:b is considerably larger. The specimen is relatively thick and was originally worked by both percussion and pressure flaking. A single primary flake scar remnant appears on one face. The specimen has been highly altered by tertiary or resharpening flaking. The specimen appears to have been from a relatively large point. It exhibits an undetermined compound transverse fracture.

Group 48:a-b Medial Projectile Point Segments - 2

These two specimens have little in common. Both specimens exhibit two lateral margins converging toward a point and two transverse fractures. Specimen 48:a exhibits primary and secondary flaking. The specimen exhibits a transverse stress fracture toward the distal end. A number of flakes were subsequently removed longitudinally, apparently in an attempt to repair the fracture. The specimen exhibits a second transverse stress fracture nearer the proximal end. This fracture may have occurred as the attempt to rework the point was in progress. Specimen 48:b is a fragment of a very large, corner-notched point. Both shoulder stubs are present although both shoulders received additional fractures. The specimen exhibits clear primary percussion flaking as both faces have preserved islands of primary flaking. The specimen exhibits a transverse stress fracture toward the distal end and a transverse stress fracture through the notches removing the entire base.

Bifaces and Biface Fragments

Group 70:a Proximal Fragment - Thin, Narrow Biface with
Rounded Base - 1 (Figure 120, d)

The specimen in this category exhibits a rounded base, straight parallel lateral margins, and a bi-convex cross

section. The specimen is not large. The chipping pattern consists of secondary pressure flaking. Primary flaking originally present, has been completely obscured by later flaking. The specimen exhibits little or no wear along the lateral margins. The proximal end exhibits light wear in the form of minute flake removal. This wear, although occurring bifacially, is heavier on one face than the other. The specimen exhibits a transverse stress fracture.

Group 75:a-c Miscellaneous Thin Biface Fragments - 3

This category consists of miscellaneous thin biface fragments too small to be able to determine what kind of tool they represent. All specimens exhibit secondary flaking. All specimens are too small to determine if primary flaking was ever present. Specimen 75:a exhibits two transverse stress fractures and a longitudinal fracture. Specimen 75:b exhibits two intersecting transverse stress fractures. Specimen 75:c exhibits a multidirectional compound fracture, possibly thermal.

Group 76:a-b Miscellaneous Thick Biface Fragments - 2

This category consists of miscellaneous thick biface fragments too small to be able to determine what kind of tool they represent. They exhibit no external attributes other than bifacial working which would allow their inclusion in any other category. Specimen 76:a exhibits both primary and secondary flaking. Lateral margins have been trimmed and exhibit a straight edge. The specimen exhibits an undetermined compound fracture. Specimen 76:b exhibits primary flaking only. There is no edge trimming and the lateral margin exhibits a highly sinuous edge. The specimen also exhibits an undetermined compound fracture.

Cores

Group 71:a-b Polyhedral Cores - 2

This category consists of chert nodules from which flakes have been driven in a highly irregular fashion. Both specimens still retain cortex on at least one margin. Both specimens appear to be glacial chert, and specimen 77:a exhibits numerous fracture planes within the material. Specimen 77:b is a large core flake which has had numerous flakes removed subsequently from the lateral margins.

Group 73:a-d Core Fragments - 4

The specimens included in this category are fragments of cores. They exhibit all of the external criteria of cores and one or more faces representing fracture planes or

stress fractures. All are fragments of polyhedral cores. Two specimens still retain cortex and exhibit fracture planes. All specimens are local glacial chert.

Group 80:a-b Nuclei - 2

The specimens in this category include chert cores which have been exhausted. Both originally were polyhedral cores. Neither specimen retains any cortex. Flakes have been struck from the edges in an irregular fashion. Specimen 80:a is Jefferson City formation chert, and specimen 80:b is Burlington formation chert. Neither are local glacial material.

Flake Tools

Group 84:a Retouched Flake - 1

The specimen in this category exhibits intentional modification of the flake margin by additional flake removal. The specimen is fragmentary. The distal flake edge exhibits flake removal from the ventral face. Retouch is relatively acute and unifacial. There is little or no wear on the retouched edge. It appears that the specimen may have been intended to be a flake scraper.

Group 86:a-c Utilized Flakes - 3

The specimens in this category exhibit utilization in the form of minute flake removal along the flake margins through utilization. All three specimens are fragmentary. Specimen 80:a exhibits three remaining flake edges, all of which have been utilized. Both lateral margins are straight and the distal end is slightly convex. Utilization is largely bifacial. Working elements are acute, and the degree of utilization is not heavy. Specimen 86:b exhibits a single utilized edge. The lateral edge is slightly convex and is acute. The degree of utilization is not heavy. Specimen 86:c exhibits two original flake margins. These margins are irregular, acute, and utilization is bifacial. The flake was then fractured, and the two intersecting fractures were then utilized. Fracture margins are relatively steep. Utilization is unifacial, one fracture dorsally utilized and the other utilized ventrally. Utilization is relatively heavy on the entire specimen.

Ground and Pecked Stone

Group 92: End Battered Cobble - 1 (Figure 120, e)

The specimen in this category is a quartzite cobble with heavy battering on one end. Wear consists of heavy edge crushing but lacks edge shattering. The tool was used in direct contact with dense materials.

Hematite

Group 116:a Hematite Hammerstone - 1 (Figure 120, f)

The specimen in this category is a hematite cobble which had been heavily altered by removal of multiple flakes from the entire margin of the cobble. Flakes have been driven from the margins as the result of use of the specimen as a hammerstone. Wear is characterized by heavy edge crushing and some edge shattering. The specimen was used in direct contact with dense materials. Cortex is still evident in numerous places around the exterior of the specimen. Wear is heavier along the edges than on the ends or faces. The specimen is roughly ovate. The specimen also exhibits one small ground area on one face. Striations on the ground surface are fine, light, and unidirectional indicating that the specimen was ground on a fine-grained material (e.g. sandstone).

Group 117:a-b Chipped Hematite - 2 (Figure 120, g,i)

The specimens in this group have numerous flakes removed, but there is no discernible pattern to the removal. Specimens are irregular and do not appear to be part of a tool-shaping process.

Group 119:a Hematite Flake - 11 (Figure 120, j)

This group consists of a single hematite flake. The specimen does not exhibit classic criteria of flakes but is faceted on one face and relatively smooth on the other face. The specimen is quite thin for its length and is an expanding flake.

Group 120:a Chipped and Ground Hematite - 1 (Figure 120, h)

This specimen exhibits flakes removed bifacially-bilaterally and was in the process of being shaped toward a tool. It is also lightly ground on one end.

Ceramics

Group 126:a-c Pottery - 3

Ceramics One

Sample - 1 cordmarked body sherd and 2 eroded body sherds.

Paste:

Temper: Highly rounded, sand-sized particles, mainly quartz. Particles are generally small (.1 to 1 mm).

Texture: Paste is rather friable. Lamination tends to occur parallel to the interior-exterior surfaces. Sherds break irregularly.

Color: Color is reddish yellow (5YR7/8) with interior colors dark gray (5YR4/1) to black (5YR2/1).

Method of Manufacture: The probability is high that vessels were lump modeled, as there are no straight breaks indicative of coiling.

Surface Finish: Cordmarking appears on the only sherd with the surface not highly eroded.

Decoration: Undetermined.

Form: The vessel(s) was probably somewhat conoidal, as one sherd is tremendously thick and appears to have been a basal fragment.

Group 133:a-e Burned Clay - 5

The specimens in this category are clay which has been fired intentionally or unintentionally. They differ from pottery only in that they lack temper. All specimens are eroded and somewhat irregular in shape.

Lithic Waste

Group 134: Chert Waste - 281

A total of 162 unmodified chert flakes and thirty pieces of unmodified chert shatter were recovered from the excavations. Surface material included 85 unmodified chert flakes, three pieces of unmodified chert shatter, and one chert potlid.

Group 135: Quartzite Waste - 1

A single piece of unmodified quartzite shatter was recovered from the surface.

Group 136: Quartz Waste - 1

A single unmodified quartz flake was recovered from the surface.

Group 138: Chalcedony Waste - 1

A single unmodified chalcedony flake was recovered from the surface.

Group 141: Fire-cracked Rock - 554

Fire-cracked rock is the term used for thermally altered stone. The fire-cracked rock was recovered from the excavations.

Group 142: Unmodified Stone - 311

These specimens lack any indication of intentional or unintentional cultural modification. These include largely residual materials which appear to have been unintentionally transported to the site.

TABLE 60
Artifact Measurements and Attributes - 23MC135

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Points</u>						
<u>Medium, Slightly Concave-based, Corner-notched Point</u>						
34:a	Sur.	20*	25*	7*	4g*	proximal fragment
<u>Small, Corner-notched Point</u>						
37:a	Sur.	17*	12	3	1g*	distal fragment
<u>Unclassified Projectile Point Base</u>						
45:a	107	15*	32*	8*	2g*	basal fragment
<u>Distal Projectile Point Fragments</u>						
47:a	104	11*	12*	3*	1g*	
47:b	Sur.	21*	18*	7*	2g*	
<u>Medial Projectile Point Segments</u>						
48:a	109	17*	18*	7*	2g*	
48:b	Sur.	32*	38*	7*	13g*	
<u>Bifaces and Biface Fragments</u>						
<u>Proximal Fragment - Thin, Narrow Biface with Rounded Base</u>						
70:a	Sur.	31*	27	7	7g*	proximal fragment
<u>Cores</u>						
<u>Polyhedral Cores</u>						
77:a	Sur.	65	61	36	141g	
77:b	Sur.	69	39	17	44g	
<u>Nuclei</u>						
80:a	Sur.	29	25	14	11g	
80:b	Sur.	52	40	15	31g	
<u>Ground and Pecked Stone</u>						
<u>End Battered Cobble</u>						
92:a	Sur.	84	55	50	412g	
<u>Hematite</u>						
<u>Hematite Hammerstone</u>						
116:a	108	60	48	39	288g	
<u>Chipped Hematite</u>						
117:a	Sur.	26	15	14	7g	
117:b	104	52	34	17	43g	
<u>Hematite Flake</u>						
119:a	104	13	11	3	1g	
<u>Ground and Chipped Hematite</u>						
120:a	Sur.	70	61	14	103g	

TABLE 61
DISTRIBUTIONAL SUMMARY - 23MC135

	34	37	45	47	48	70	75	76	77	78	80	84	86	92	116	120	126	133	134	135	136	138	141	142
Xu102 L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	2	-	77	-	-	-	139	88
L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	15	-	-	-	43	19
Xu103 L.1	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	11	-	5	74	-	-	-	337	175
L.2	-	-	-	1	1	1	1	-	-	-	-	-	-	-	1	3	-	-	26	-	-	-	35	29
Surface	1	1	-	1	1	1	1	1	2	4	2	1	3	1	-	2	1	-	89	1	1	1	-	-

The Site Assemblage: 23MC135

Comparisons with the specimen in Group 34 are probably not well made due to its fragmentary nature. The specimen does fit well with other corner-notched varieties in the area. The specimen is closest to specimens recovered from 23MC58 (Grantham 1979:276). The type is somewhat similar to the type Manker Notched (White 1968). Similar material is common on Middle Woodland sites in the Kansas City area (Shippee 1967:Fig. 21, k) and in northeastern Missouri (Henning 1961:139, 175; and Hunt 1976:8 9). Similar material also occurs from the Middle Woodland component of the Thurman site (Falk and Lippincott 1974:45) and at Phillips Spring (Chomko 1976:33-34; Fig. 17, d-f).

The specimen in Group 37 is very similar to the type Koster Corner-notched (Perino 1971a:100). The earliest dates for these were estimated to be A.D. 650. The form is common in Illinois (Perino 1973:166) and in northeastern Missouri (Eichenberger 1939; Eichenberger 1944:Pl. III; and Eichenberger 1956:Fig. 4; Henning 1961:139, 175; and Hunt 1976). Dates from the Pigeon Roost Creek site (O'Brien and Warren 1979:241) were A.D. 1360 $\pm$ 90 and A.D. 1400 $\pm$ 100 on levels including Koster Corner-notched. It may be that the type persists later in time than Perino's estimate.

The remainder of the projectile point fragments are not particularly informative but do give us a relative idea of the importance of hunting on the site. There appears to be both Middle Woodland and Late Woodland components on the site based on the recovered projectile points.

The specimen in Group 70 is a fragment of a completed tool. The function of the specimen is unknown. It appears, however, based on the wear on the proximal end that the tool was utilized in a chopping motion, slightly angled toward the user, with the axis of use parallel to the longitudinal axis. The specimens in Groups 75 and 76 as well as the fragmentary condition of almost all chert tools indicates a long use-life and reuse of tools until too fragmentary to be useful. The retouched flake in Group 84 have been utilized in a scraping motion while the utilized flakes in Group 86 have been utilized in a cutting motion.

The specimens in Groups 77, 78, and 80 exhibit the use of local sources of raw materials. Their number is relatively large considering the sample size.

The end battered cobble (Group 92) was utilized in direct contact with dense materials. The specimen in Group

116 also was utilized as a hammerstone. The type of wear indicates that it was utilized in direct contact with dense materials as well. The other hematite specimens have been altered by chipping. The single piece of chipped and ground hematite (Group 120) was chipped bifacially-bilaterally and appears to have been in a tool-shaping process. A single hematite flake was recovered (Group 119).

The ceramics in Group 126 are not particularly informative. They are similar to the ceramics recovered from 23MC65 just to the north in both temper and surface finish. The ceramics are too highly eroded to make any meaningful comparisons between the two, however.

The remainder of the specimens are waste materials. The chert waste is characterized by a preponderance of biface thinning, trimming, and retouch flakes. The proportion of local and non-local cherts was not calculated. The presence of quartzite, quartz, and chalcedony waste all indicate the use of local raw materials.

In summary, the site appears to have Middle Woodland and Late Woodland components on it. The site is, except for the absence of large numbers of ground and pecked stone, quite similar to the materials recovered from 23MC65. This may be an artifact of the small sample size. Ground and pecked stone was recovered in previous surface collections on the site (Grantham 1977).

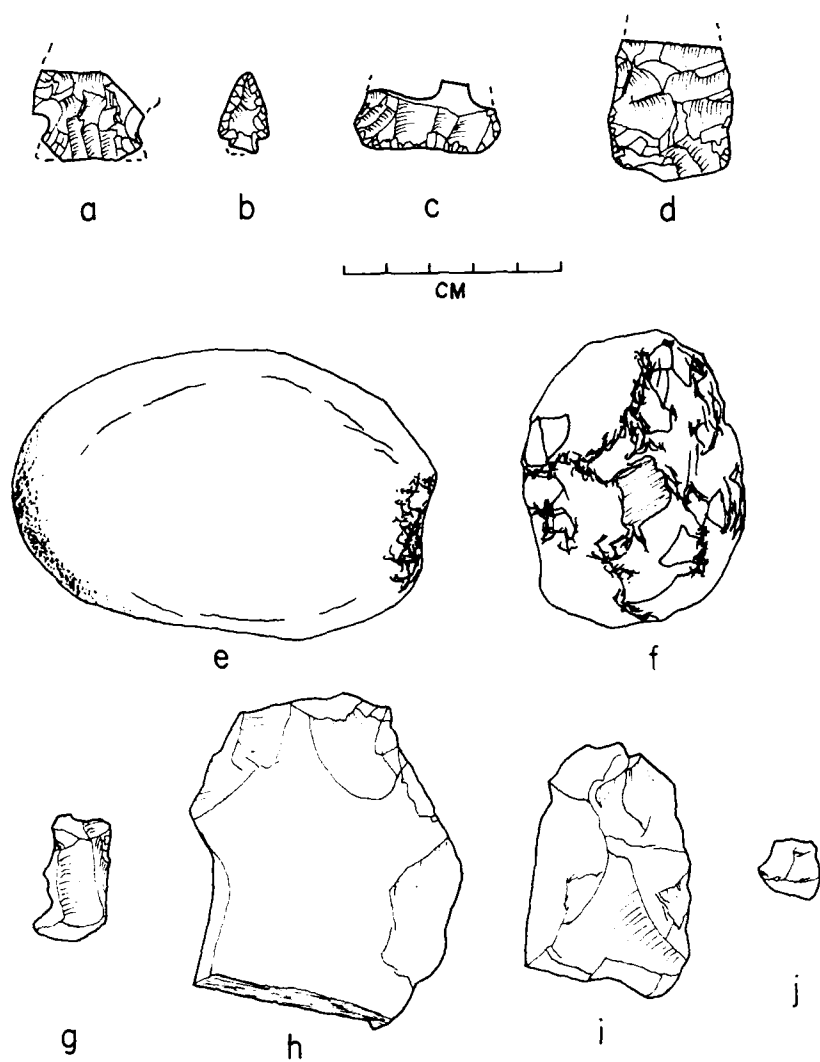


Figure 120. 23MC135. Artifacts. (a) Group 34, (b) Group 37, (c) Group 45, (d) Group 70, (e) Group 92, (f) Group 116, (g,i) Group 117, (h) Group 120, (j) Group 119.

23MC136

This site lies on the left (east) bank of the East Fork across a small wash from 23MC135. The site is bounded by a large broad draw on the southern edge. Slopes on the western and southern edges are moderate to steep; slight on the northern edge. The river originally flowed some 70 feet west of the site area. The site is approximately a mile north of the dam axis. The site size is estimated to be 370 feet east-west by 200 feet north-south. The elevation of the site is 775-793 m.s.l. Vegetation consisted of dense grass pasture, and visibility was very poor. Surface material was collected from the western edge of the site after clearing. Material density was high. Most of the main body of the site appeared to have been plowed.

Testing of this site, like 23MC135, was desired in order to obtain information on the site's relationship to 23MC65 and 23MC135. This site lies south of 23MC135 and information on the temporal placement and the function of the site was desired. Material density was relatively high. We anticipated that the site would be temporally and functionally similar to 23MC65 and 23MC135. If materials on these sites were similar, excavations would only replicate data. We did not anticipate that testing of the site alone would yield a great amount of useful data in answering our questions about the site but would give us some indication of the condition of the site. Impacts to the site were not expected to be as severe as impacts to 23MC65 after impoundment due to their differing physiographic settings.

Two, one and one-half meter squares were laid out for excavation. One was near the center of the site and the other near the western edge of the site (Figure 121). The squares were excavated in arbitrary ten centimeter levels. Although we believed that the site area had been plowed, we did not know how much of the area had been plowed. The squares were excavated to a depth which was culturally sterile. A total of two levels were excavated to a depth of 12.5 to 17.5 centimeters below the surface. Excavations ceased at that point when a heavy, tenacious, culturally sterile clay was reached. The area of both excavation units had been plowed.

The only physical stratigraphy noted in the excavations was the result of soil horization. An Ap-horizon extended from the surface to a depth of 9 to 14 centimeters below the surface. Depths averaged approximately 11 centimeters. A B1-horizon was present in both squares ranging from two to five centimeters. A B2t-horizon extended from 12.5 to 17.5

23MC136
1978 EXCAVATIONS
ONE FOOT CONTOUR INTERVAL

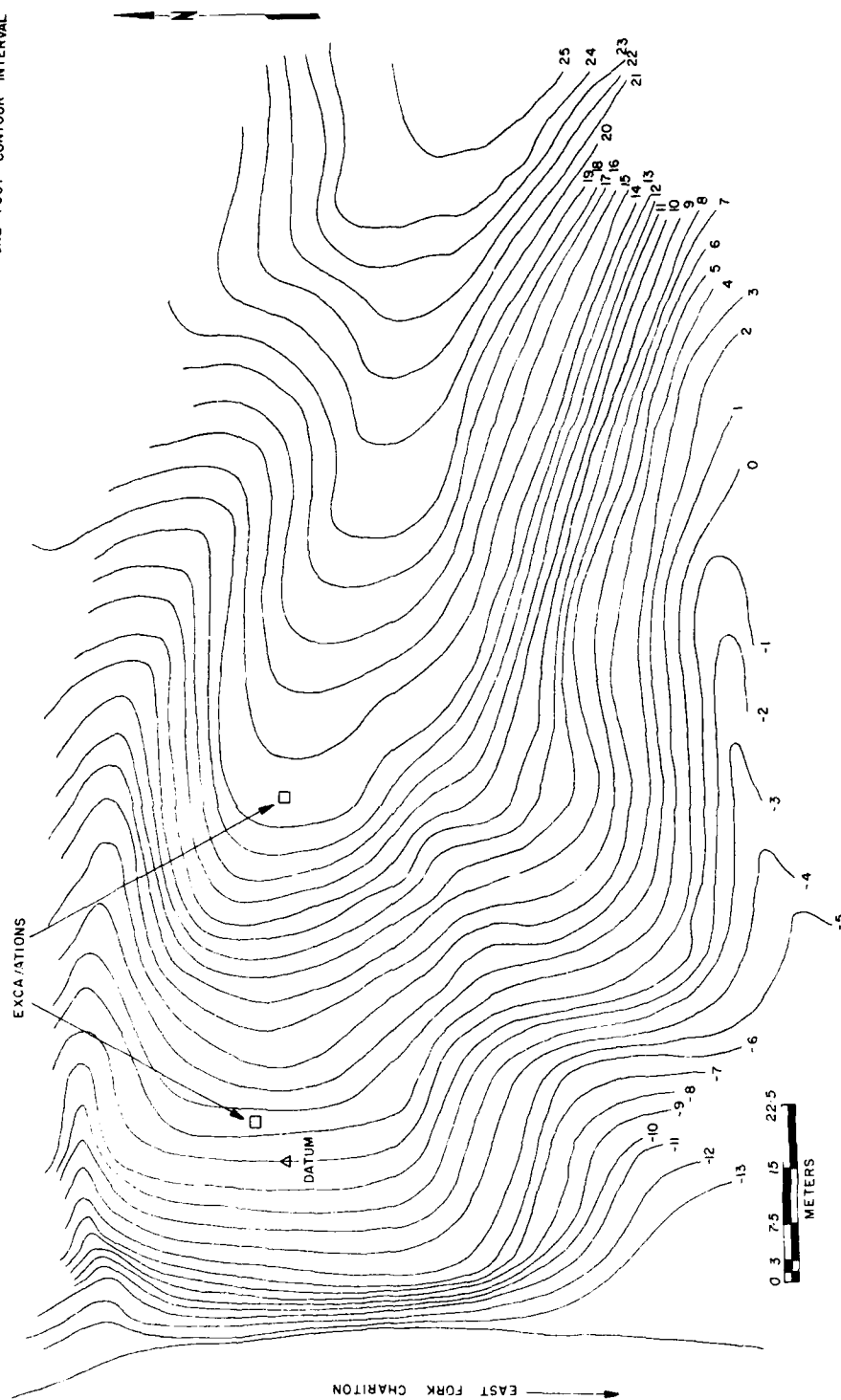


Figure 121. 23MC136. Site map and location of excavations.

centimeters below the surface to an undetermined depth below that point. Additional excavations were not deemed necessary due to the relatively thin undisturbed portion of the site.

Features

Feature 1

Feature one was a small circular feature encountered near the base of level two. Vertical profile was roughly conical. The feature was located in the south central portion of excavation unit 102. The feature was 22.5 centimeters east-west by 17.5 centimeters north-south. The greatest depth of the feature was 12.5 centimeters. The feature contained slightly darker brown organic soil than the surrounding matrix. Associated material included chert waste, charred nut shell (Carya sp.), and unidentified wood charcoal.

Description of Materials

Points

Group 33:a Small, Corner-notched Projectile Point - 1
(Figure 122, a)

The specimen in this category exhibits a straight base, sharp stem-base juncture, expanding stem, corner notches, oblique shoulders, straight lateral margins, and a bi-convex cross-section. The chipping pattern consists of secondary pressure flaking only. Flake scars are small to medium, generally lamellar, uneven in size, and inconsistent in distribution. Blank material consists of a chert flake as evidenced by the island of original ventral flake surface present on one face.

Group 48:a Medial Projectile Point Segments - 2

The specimens in this category have little in common. Specimen 48:a is a portion of a relatively large point. It exhibits primary percussion and secondary pressure flaking and appears to have passed through a preform stage. Specimen 48:b is a fragment of a relatively small point. It exhibits secondary pressure flaking only and is relatively thin. Blank material appears to have been a chert flake. Specimen 48:a exhibits multiple compound fractures which appear to be thermal fractures. Specimen 48:b exhibits double transverse stress fractures.

Bifaces and Biface Fragments

Group 62:a Ovate Biface - 1 (Figure 122, b)

The specimen in this category is roughly ovate in outline. The specimen is relatively large in size. The chipping pattern consists of primary percussion flaking only. Flake scars are medium to large, expanding, uneven in size, and inconsistent in distribution. The lateral margins still retain sinuous edges. The specimen exhibits little or no wear.

Group 65:a Small, Asymmetrical Biface - 1 (Figure 122, c)

The specimen in this category is roughly square but somewhat asymmetrical. The specimen is relatively small in size. The chipping pattern consists of secondary pressure flaking only. Flake scars are small to medium, lamellar to slightly expanding, uneven in size, and inconsistent in distribution. The specimen exhibits little or no wear.

Group 67:a Proximal Fragment - Thin, Broad Biface with a Square Base - 1 (Figure 122, d)

The specimen in this category exhibits a relatively straight base, rounded base-margin juncture, slightly convex lateral margins, and a bi-convex cross-section. The chipping pattern consists of primary percussion and secondary pressure flaking. Careful edge trimming has produced a relatively straight edge. The specimen lacks any observable wear. It exhibits a transverse stress fracture.

Group 75:a Miscellaneous Thin Biface Fragment - 1

The specimen in this category is a biface fragment too small to be able to determine what kind of tool is represented. It exhibits no external criteria which would allow inclusion in any other category. The specimen exhibits secondary pressure flaking only. The specimen exhibits an oblique stress fracture and a transverse stress fracture.

Flake Tools

Group 84:a Retouched Flake - 1

The specimen exhibits intentional modification of the flake margin by additional flake removal. The specimen is fragmentary, and only the proximal end remains. One lateral margin exhibits retouch. Retouch is unifacial and acute. It appears that the specimen was utilized in a scraping motion.

Hematite

Group 119:a-f Hematite Flakes - 6

The specimens in this category are hematite flakes. The specimens exhibit the criteria of percussion flakes. Two of the specimens exhibit exterior cortical surfaces. The other four specimens are interior specimens and lack any cortical surface.

Ceramics

Pottery - 3

Group 126:

Ceramics One

Sample: 3 highly eroded body sherds.

Paste:

Temper: Sand sized particles, mainly quartz but with some plagioclase.
Particles are highly rounded.
Particles are very small (.1 to 1 mm.).

Texture: Paste is fairly friable. Lamination tends to occur parallel to the interior/exterior surfaces. Sherds break irregularly.

Color: Color is relatively dark. Sherds range from reddish brown (2.5YR5/4) to brownish gray (10YR6/2).

Method of Manufacture: It would appear that specimens were lump modeled as there are no straight breaks indicative of coiling.

Surface Finish: Undetermined.

Decoration: Undetermined.

Form: Undetermined.

Lithic Waste

Group 134: Chert Waste - 361

A total of 346 unmodified chert flakes and 15 pieces of unmodified chert shatter were recovered from the excavations.

Group 141: Fire-cracked Rock - 959

Fire-cracked is the term used for thermally altered stone. All fire-cracked rock was recovered from the excavations.

Group 142: Unmodified Stone - 162

The specimens in this category consist of unmodified cultural material. They exhibit no intentional or unintentional cultural modifications. These include largely residual materials which appear to have been unintentionally transported to the site.

Historic

Group 144:a-ag Miscellaneous Historic Material - 33

A total of 33 pieces of historic material were recovered from the excavations. Material included twenty-eight cinders, two pieces of glass, and three miscellaneous iron fragments.

TABLE 62

Artifact Measurements and Attributes - 23MC136

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Points</u>						
<u>Small, Corner-notched Projectile Point</u>						
	33:a	105	26	20	4	2g
<u>Bifaces</u>						
<u>Ovate BiFace</u>						
	62:a	104	50	35	14	32g
<u>Small, Asymmetrical Biface</u>						
	65:a	107	23	21	7	3g
<u>Proximal Fragment-Thin, Broad Biface with a Square Base</u>						
	67:a	108	31*	43*	9*	14g*
<u>Flake Tools</u>						
<u>Retouched Flake</u>						
	84:a	106	18*	25*	3	2g*

TABLE 63

DISTRIBUTIONAL SUMMARY - 23MC136

	33	48	62	65	67	75	84	119	126	134	141	142	144
Xu102, L.1	1	1	1	-	-	1	-	17	-	135	384	26	-
L.2	-	-	-	-	-	-	-	10	-	49	119	19	-
Xu103 L.1	-	1	-	-	1	-	1	15	3	136	364	88	33
L.2	-	-	-	1	-	-	-	7	-	41	92	29	-

The Site Assemblage: 23MC136

The specimen in Group 33 is slightly larger than Koster Corner-notched (Perino 1971a:100) but appears to fit best within that type. Koster Corner-notched is Late Woodland in most of northeastern Missouri (cf. 23MC135, this volume). The type may extend later than the estimated range of A.D. 600 or 650 through A.D. 900. The remainder of the projectile point fragments are not particularly informative, although they do indicate the relative importance of hunting activities.

The bifaces (Groups 62, 65, and 67) are not particularly informative either. The ovate biface in Group 62 was shaped by primary percussion only and does not appear to have been a completed tool. There is little or no wear apparent on the specimen. The asymmetrical biface in Group 65 is very small and, although it exhibits careful edge trimming, lacks any observable wear. The proximal fragment in Group 67 also lacks any wear and appears to have been a preform for another tool. The retouched flake (Group 84) was used in a scraping motion.

The hematite in Group 119 are hematite flakes only. Two-thirds of the total hematite recovered has been fire-cracked and represents unintentional modifications.

The ceramics recovered (Group 126) are not particularly informative. All three specimens have highly eroded surfaces, and little can be said of them. The tempering agent (sand) is the common tempering agent for most of the ceramics in the area. It is thus impossible to make any meaningful statements about them.

The remainder of the specimens are waste materials. The chert waste is particularly high and similar to densities at 23MC65. The chert waste is characterized by a preponderance of biface thinning, trimming, and retouch flakes. The proportion of local to non-local cherts was not calculated. The use of other sources of local raw materials (e.g. quartzite or quartz) was not encountered in the sample. Fire-cracked rock is numerous and indicates that thermal activities, probably connected with cooking, were important on the site.

In summary, the site has at least a Late Woodland component on it. The site appears, except for the absence of large numbers of ground and pecked stones, to be quite similar to the materials recovered from 23MC65. The absence of ground and pecked stone may simply be an artifact of

sample size. Ground and pecked stones were recovered in previous surface collections from the site (Grantham 1977). It is estimated that the site is probably contemporaneous with and functionally similar to 23MC65.

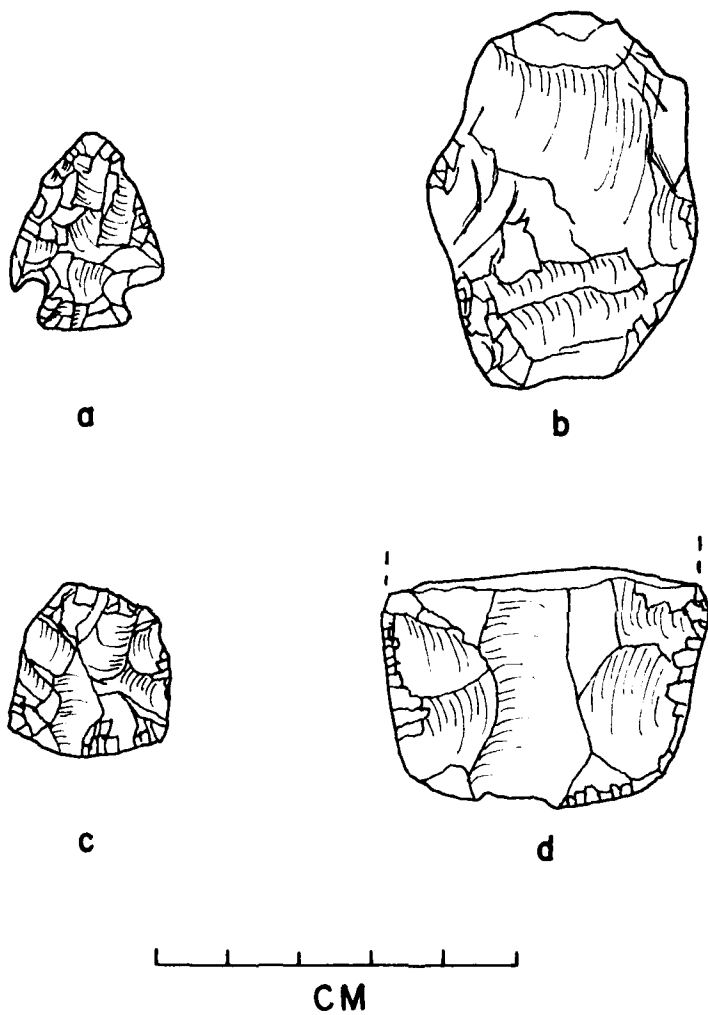


Figure 122. 23MC136. Artifacts. (a) Group 33, (b) Group 62, (c) Group 65, (d) Group 67.

This site lies on the left (east) of the East Fork. The site lies on a high steep-sided hill and is bounded on the north by a large deep draw and on the south by a narrow deep draw. The western edge is truncated by an old meander loop cut of the river. Hill slopes are moderate to steep on all edges. The river originally flowed some 390 feet west of the site. The size of the site is estimated to be 370 feet northwest-southeast by 170 feet northeast-southwest. The elevation of the site is approximately 790-812 feet m.s.l. Vegetation consisted of dense grass pasture, and visibility was poor. Material was collected along the western edge of the site after clearing. Material density was moderate, and the site appeared to be in a good state of preservation.

MATERIAL COLLECTED

PREHISTORIC

LITHIC WASTE

Chert Flakes	15
Chert Shatter	2
Fire-cracked rock	3

None of the material recovered in this collection is indicative of any chronological period, site function, or seasonality. Previous collections on the site (Grantham 1977) recovered a small corner-notched point (Koster Corner-notched) and a corner-notched, convex-based point (Snyders-like). It appeared, based on these points, that Middle Woodland and Late Woodland components were present on the site. Ground and pecked stone was recovered from the site but in relatively small numbers. It appears that the site is roughly contemporaneous with the sites to the north and was probably functionally similar as well.

This site lies on the left (east) bank of the East Fork near the juncture of a large intermittent stream with the East Fork. The site lies on a somewhat low hill which extends southwest from the main hill. The site is bounded by a narrow, deep draw to the northwest; by a truncated slope to the west; and by a broad deep draw to the east. A large intermittent stream flows just south of the site area. Hill slopes are moderate to steep on all edges. The river originally flowed some 60 feet west of the site. The size of the site was estimated to be 300 feet north-south by 200 feet east-west. The elevation of the site is 785-792 feet m.s.l. Original vegetation consisted of dense grass and secondary growth in the center of the site with oak-hickory forest on all of the site margins. Surface material was collected after the site had been cleared. Material density was very high. The central portion of the site was destroyed by the placement of a tree disposal pit.

This site was selected for excavation on the basis of the components present on the site and the apparent site function. The site appeared to be a fall seasonal site, and a number of manos, metates, nutting stones, and hammerstones were recovered from the surface. The site appeared to have both Archaic and Woodland components based on surface collections. The site had suffered moderate to severe damage from reservoir clearing. It was believed that excavation in the southern part of the site, which was relatively intact, was desirable. It appeared that as the reservoir filled, the site would suffer severe damage through wave action.

Thirteen, one and one-half meter squares were excavated during the 1978 field season (Fig. 123). All of these were near the southeastern corner of the site. All of the central portion of the site had been impacted when a tree disposal pit was excavated during the reservoir clearing. The area west of the tree disposal pit was intermixed and scalped when the pit was filled. Thus, this relatively small area was all that remained which we were reasonably sure was still relatively well preserved. All squares were excavated in arbitrary ten centimeter levels. Although the central portion of the site had been plowed, the edges of the site were still in trees when the site was first recorded. A total of two, ten centimeter levels were excavated to a total depth of twenty centimeters below the surface. Excavations were ceased at that point. A heavy, tenacious, culturally sterile clay was reached at 13 to 18 centimeters below the surface. Although the area did not

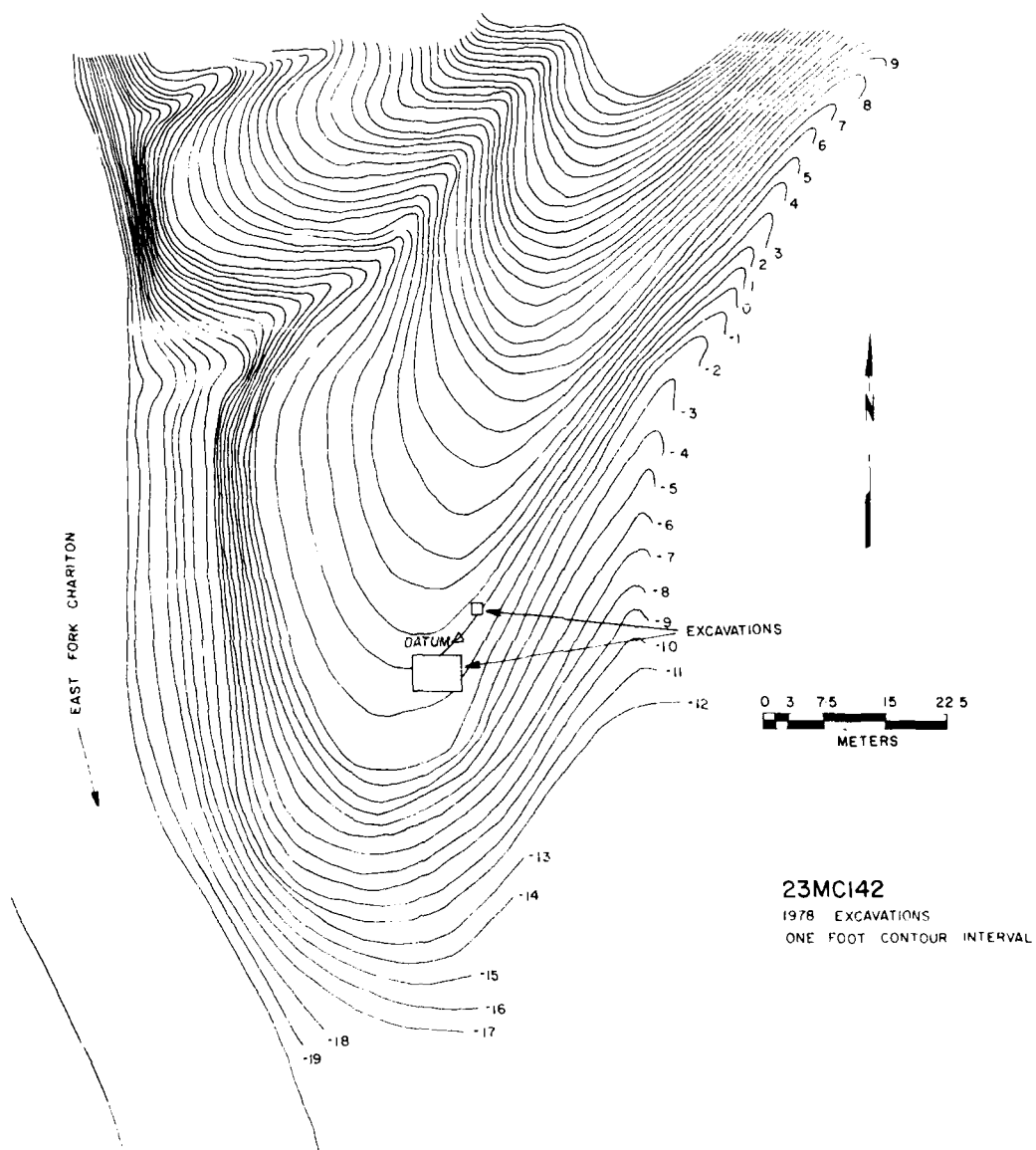


Figure 123. 23MC142. Site map and location of excavations.

23MC142

MATERIAL DISTRIBUTION 1978 EXCAVATIONS

○	Fire-cracked Rock	Pkd	Pecked Stone
C	Chert	G&B	Ground and Battered Stone
U	Utilized Flake	P&B	Pecked and Battered Stone
BF	Biface Fragment	EBC	End Battered Cobble
pp	Projectile Point	Grnd	Ground Stone
H	Hematite	G,P,&B	Ground, Pecked, and Battered Stone
Ch A	Chipped Argillite	UHL FCR	Utilized Fire-cracked Rock

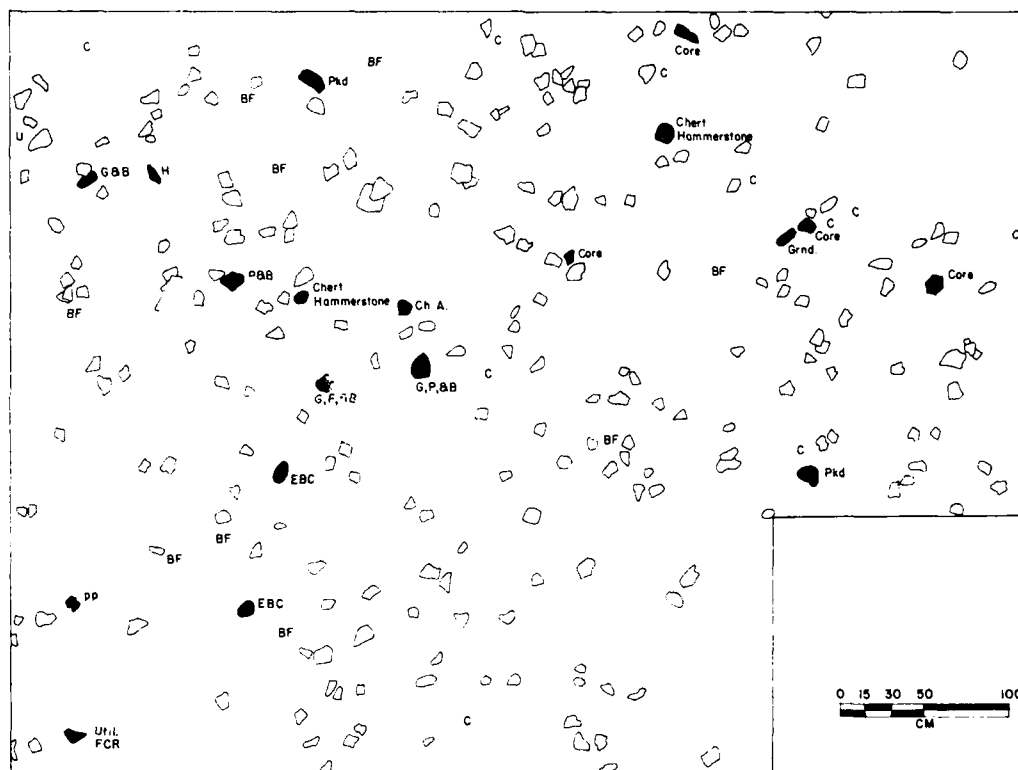


Figure 124. 23MC142. Distributional Map.

appear to have been plowed, cultural deposits were heavily compressed and exhibited little or no stratigraphy. Erosion on the site had been severe.

No cultural stratigraphy with clear horizons was noted in the excavations nor did deposits exhibit relative cultural stratigraphy. Deposits were fairly uniform throughout. The only physical stratigraphy was the result of soil horizonation. An A1-horizon extended from the surface to a mean depth of 8.7 centimeters below the surface. A B1-horizon extended from that point to a depth of approximately 13 to 18 centimeters below the surface. A B2-horizon extended for an undetermined depth below that point.

Description of Materials

Points

Group 1:a Contracting-stemmed, Straight-based Point -
1 proximal fragment (Figure 125, a)

The specimen in this category exhibits a straight base, contracting-stem, abrupt shoulders, and a bi-convex cross-section. The chipping pattern consists of primary percussion and secondary pressure flaking. Primary flake scars are large, generally expanding, uneven in size, and inconsistent in distribution. Primary flake scars cover most of the surface, and secondary flake scars are present only along the margins of the stem and blade. Secondary flake scars are generally small, lamellar, fairly even in size and consistent in distribution. Blank material is difficult to determine but appears to have passed through a preform stage. The specimen exhibits a transverse stress fracture and a percussion fracture from the transverse fracture through one shoulder.

Group 4:a-b Straight-based, Slightly Expanding-stemmed Points -
2 proximal fragments (Figure 125, b-c)

The specimens in this group exhibit straight bases, sharp stem bases, very slightly expanding stems, weak to abrupt shoulders, and bi-convex cross-sections. Specimens exhibit primary percussion and secondary pressure flaking. Primary flake scars are medium to large, lamellar to expanding, uneven in size, and inconsistent in distribution. Primary flake scars cover all of the blade on specimen 4:a and one face of the blade on specimen 4:b. Secondary flake scars are limited to the base of specimen 4:a and the blade

and one face of specimen 4:b. Secondary flake scars are small to medium, lamellar to expanding, uneven in size, and inconsistent in distribution. Blank material is difficult to determine, but both specimens appear to have passed through a preform stage. Specimen 4:a exhibits a transverse stress fracture, and specimen 4:b exhibits a transverse compound fracture.

Group 9:a-c Large, Square-stemmed Points -
3 proximal fragments (Figure 125, d-f)

The specimens in this group exhibit straight bases, sharp stem-base junctures, straight parallel stems, abrupt shoulders, and bi-convex cross-sections. The chipping pattern is impossible to determine as all three retain little or none of the blade portion. Remaining flake scars are secondary pressure flake scars. These are small to medium, lamellar to expanding, uneven in size, and inconsistent in distribution. Blank material is difficult to determine as little of the blade segments remain. Specimen 9:c exhibits slight basal grinding. Specimen 9:a exhibits an oblique compound fracture. Specimen 9:b exhibits a transverse stress fracture with multiple flakes removed from the fracture after the transverse stress fracture occurred. Specimen 9:c exhibits a transverse stress fracture across the stem.

Group 18:a-b Large Triangular Points - 2 (Figure 125, g-h)

The specimens in this category exhibit straight bases rounded to sharp stem-base junctures, convex lateral margins, and bi-convex cross-sections. The chipping pattern consists of primary percussion and secondary pressure flaking. Primary flake scars are large, generally expanding, uneven in size, and inconsistent in distribution. Secondary flake scars are small to medium, lamellar to expanding, uneven in size, and inconsistent in distribution. Both specimens appear originally to have been stemmed forms which have been heavily resharpened. Tertiary flaking on both specimens are apparent. Specimen 18:a exhibits traces of fine pressure retouch along one edge, but most of this has been removed by heavier percussion flaking. Specimen 18:b has been chipped largely by percussion with slight secondary pressure flake scars along the base. This primary flaking may be retouch but is difficult to determine.

Group 19:a-b Small, Unnotched Triangular Points - 2
(Figure 125, i-j)

The specimens in this category exhibit straight to slightly convex bases, square to rounded stem-base

junctures, straight lateral margins, and bi-convex cross-sections. The chipping pattern consists of secondary pressure flaking only. Flake scars are small, lamellar, fairly even in size, and consistent in distribution on specimen 19:a but lack evenness in size and distribution on specimen 19:b. Blank material is a chert flake in both cases. Both specimens exhibit one face with the original ventral flake scar island.

Group 20:a-b Small, Triangular Points with Single High Side Notches - 1, 1 proximal fragment
(Figure 125, k-l)

The specimens in this category exhibit straight bases, sharp stem-base junctures, straight lateral margins, single side notches approximately one-third the distance up the edges, and bi-convex cross-sections. The chipping pattern consists of secondary pressure flaking. Flake scars are small, generally lamellar, uneven in size, and inconsistent in distribution. Specimen 20:a exhibits a small impact fracture. Specimen 20:b exhibits a transverse stress fracture and a recent fracture. Blank material in both cases appears to have been chert flakes based on relative thickness and chipping pattern.

Group 22:a-b Convex-based, Corner-notched Points -
2 proximal fragments (Figure 126, a-b)

The specimens in this category exhibit convex bases, sharp stem-base junctures, expanding stems, abrupt shoulders, and bi-convex cross-sections. The chipping pattern consists of primary percussion and secondary pressure flaking. Primary flake scars are large, expanding, uneven in size, and inconsistent in distribution. Secondary flake scars are small to medium, lamellar to expanding, uneven in size, and inconsistent in distribution. Blank material appears to have passed through a preform stage, based on thickness and chipping pattern. Specimen 22:a exhibits a transverse fracture with numerous flakes removed to repair the fracture, as well as a small fracture across the base. Specimen 22:b exhibits a transverse stress fracture across the stem.

Group 25:a-c Large, Straight-based, Expanding-stemmed Points -
3 proximal fragments (Figure 126, c-e)

The specimens in this group exhibit straight to slightly concave bases, sharp stem-base junctures, expanding stems, abrupt weak shoulders, and bi-convex cross-sections. Specimen 25:a exhibits largely primary percussion flaking with slight secondary pressure flaking along the stem and

blade margins. Specimens 25:b and 25:c are too small to determine chipping pattern. Primary flake scars on specimen 25:a are medium, expanding, uneven in size, and inconsistent in distribution. Secondary flake scars are small to medium, lamellar to expanding, uneven in size, and inconsistent in distribution. Blank material is difficult to determine but appear to have passed through a preform stage based on thickness and chipping pattern. Specimen 25:a exhibits a compound transverse fracture, and specimens 25:b and 25:c exhibit transverse stress fractures through the stems.

Group 27:a-b Convex-based, Expanding-stemmed Points -
2 proximal fragments (Figure 126, f-g)

The specimens in this group exhibit slightly convex bases, rounded stem-base junctures, expanding stems, rounded to abrupt shoulders, and bi-convex cross-sections. The chipping pattern consists of primary percussion and secondary pressure flaking. Primary flake scars are medium, lamellar to expanding, uneven in size, and inconsistent in distribution. Secondary flake scars are small, lamellar, uneven in size, and inconsistent in distribution. Blank material is difficult to determine but appear to have passed through a preform stage. Specimen 27:a exhibits a transverse stress fracture across the blade. Numerous flakes have been removed down one face and along both lateral margins in an attempt to repair the fracture. Specimen 27:b exhibits a transverse stress fracture just above the notches.

Group 33:a-d Small, Straight-based, Corner-notched Points -
2, 2 proximal fragments (Figure 126, h-k)

The specimens in this category exhibits straight to slightly convex bases, sharp stem-base junctures, expanding stems, abrupt to oblique shoulders, convex lateral margins, and bi-convex cross-sections. The chipping pattern consists of secondary pressure flaking only. Flake scars are small, generally lamellar, fairly consistent in size and distribution. Blank material appears to have been chert flakes in all cases based on thickness and chipping pattern. Specimens 33:a and 33:b are complete; specimen 33:c exhibits an oblique stress fracture; and specimen 33:d exhibits a transverse stress fracture. Specimens 33:a and 33:c exhibit slight basal grinding.

Group 34:a-b Medium, Straight-based, Corner-notched Points -
2 proximal fragments (Figure 126, 1;
Figure 127, a)

The specimens in this group exhibit straight bases, sharp stem-base junctures, expanding stems, abrupt shoulders, and bi-convex lateral margins. Specimens are slightly larger than the preceding category. The chipping pattern is impossible to determine as both specimens are fragmentary. They do exhibit secondary pressure flaking, but it is not possible to determine if primary flaking was present. Flake scars are small to medium, lamellar to expanding, uneven in size, and inconsistent in distribution. Blank material is difficult to determine but appears to have been flakes based on thickness. Specimen 34:a exhibits an undetermined transverse fracture. Attempts to repair the fracture have removed the original fracture line. Specimen 34:b exhibits a transverse stress fracture and a compound longitudinal fracture.

Group 38:a-b Large, Broad Corner-notched Points -
2 proximal fragments (Figure 127, b-c)

The specimens in this category exhibit straight to convex bases, rounded stem-base junctures, expanding stems, large broad corner notches, abrupt shoulders, and bi-convex cross-sections. The chipping pattern consists of primary percussion and secondary pressure flaking. Primary flake scars are large, expanding, uneven in size, and inconsistent in distribution. Secondary flake scars are small to medium, generally lamellar, uneven in size, and inconsistent in distribution. Blank material is difficult to determine but appears to have passed through a preform stage. Specimen 38:a exhibits a transverse stress fracture and an oblique thermal fracture. Specimen 38:b exhibits a transverse stress fracture.

Group 39:a Large, Corner/Basal Notched Point -
1 proximal fragment (Figure 127, d)

The specimen in this category exhibits a slightly convex base, rounded stem-base juncture, short expanding stem, relatively narrow corner/basal notches, oblique shoulders, and a bi-convex cross-section. The chipping pattern consists of primary percussion and secondary pressure flaking. Primary flake scars are large and generally expanding. Secondary flake scars are small to medium, lamellar to expanding, uneven in size, and inconsistent in distribution. Blank material is difficult to determine but appears to have passed through a preform stage. The specimen exhibits an oblique stress fracture from one blade margin through one notch.

Group 40:a Concave-based Lanceolate Point - 1
(Figure 127, e)

The specimen in this group exhibits a concave base, sharp basal-stem juncture, straight lateral margins, and a bi-convex cross-section. The chipping pattern is difficult to determine. The majority of the flakes have been removed by percussion. Flaking is rough, and it is not possible to determine if this is an alteration of an earlier chipping pattern. Flake scars are small to medium, expanding, uneven in size, and inconsistent in distribution. It appears that the blade portion has been heavily resharpened, but this may be part of the reworking of the specimen. The specimen is probably reworked rather than resharpened. It exhibits an impact fracture which was partially reworked.

Group 41:a Medium, Unnotched Triangular Point - 1
(Figure 127, f)

The specimen in this group exhibits a straight base, relatively sharp stem-base juncture, convex lateral margins, and a bi-convex cross-section. The chipping pattern consists of secondary pressure flaking only. Flake scars are small to medium, lamellar to expanding, uneven in size, and inconsistent in distribution. Blank material appears to have been a chert flake based on thickness and chipping pattern.

Group 42:a-b Small, Side-Notched Triangular Points with
Notches Near the Base - 2
(Figure 127, g-h)

The specimens in this group exhibit straight bases, sharp to rounded stem-base junctures, single side notches one-sixth to one-eighth the distance up the margins, straight lateral margins, and bi-convex to concavo-convex cross-sections. The chipping pattern consists of secondary pressure flaking only. Flake scars are small, lamellar, uneven in size, and inconsistent in distribution. Blank material is chert flakes in both cases. Specimen 42:a does not retain original flake scars, while specimen 42:b still retains islands of the original dorsal and ventral flake surfaces. Notches were created by the removal of multiple flakes with final notch flakes originating from the same face on specimen 42:a; alternate faces on specimen 42:b. Specimen 42:b exhibits a small impact fracture.

Group 43:a Small, Concave-based, Side-notched Point -
1 proximal fragment (Figure 127, i)

The specimen in this category exhibits a concave base, sharp stem-base juncture, relatively broad side notches, and

TABLE 64

Projectile Points

Artifact Measurements and Attributes - 23MC142

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Points</u>						
<u>Contracting-stemmed, Straight-based Point</u>						
1:a	Sur.	35*	38*	7	9g*	proximal fragment
<u>Straight-based, Slightly Expanding-stemmed Points</u>						
4:a	Sur.	32*	31	11*	12g*	proximal fragment
4:b	Sur.	22*	31*	8*	4g*	proximal fragment
<u>Large, Square-stemmed Points</u>						
9:a	Sur.	21*	22*	8*	3g*	proximal fragment
9:b	Sur.	21*	21*	7*	4g*	proximal fragment
9:c	Sur.	11*	24*	7*	2g*	proximal fragment
<u>Large Triangular Points</u>						
18:a	Sur.	48	29	8	11g	
18:b	Sur.	44	21	10	7g	
<u>Small, Unnotched Triangular Points</u>						
19:a	Sur.	17	12	2	1g	
19:b	Sur.	16	13	3	1g	
<u>Small, Triangular Points with Single High Side Notches</u>						
20:a	Sur.	17*	13	3	1g*	impact fracture
20:b	2004	9*	11*	2*	1g*	proximal fragment
<u>Convex-based, Corner-notched Points</u>						
22:a	Sur.	38*	32	9	11g*	proximal fragment
22:b	Sur.	14*	30*	9*	3g*	proximal fragment
<u>Large, Straight-based, Expanding-stemmed Points</u>						
25:a	2206	39*	26	7	9g*	proximal fragment
25:b	Sur.	10*	27*	6*	1g*	proximal fragment
25:c	Sur.	13*	23*	7*	2g*	proximal fragment
<u>Convex-based, Expanding-stemmed Points</u>						
27:a	2025	28*	24	8	6g*	proximal fragment
27:b	Sur.	18*	24*	9*	4g*	
<u>Small, Straight-based, Corner-notched Points</u>						
33:a	Sur.	30	22	6	4g	
33:b	Sur.	31	21	6	3g	
33:c	Sur.	19*	21*	5	2g*	proximal fragment
33:d	Sur.	12*	22*	5*	1g*	proximal fragment

Projectile Points

Artifact Measurements and Attributes - 23MC142

		Length	Width	Thickness	Weight (gm)	Remarks
<u>Medium, Straight-based, Corner-notched Points</u>						
34:a	Sur.	18*	25*	6*	3g*	proximal fragment
34:b	Sur.	28*	18*	6*	3g*	proximal fragment
<u>Large, Broad Corner-notched Points</u>						
38:a	Sur.	41*	31*	9	11g*	proximal fragment
38:b	Sur.	34*	31	11	11g*	proximal fragment
<u>Large, Corner/Basal-notched Point</u>						
39:a	106	33*	37*	7	8g*	proximal fragment
<u>Concave-based Lanceolate Point</u>						
40:a	Sur.	39*	22	9	8g*	impact fracture
<u>Medium, Unnotched Triangular Point</u>						
41:a	Sur.	31	29	5	3g	
<u>Small, Side-notched Triangular Points with Notches Near Base</u>						
42:a	Sur.	20	12	3	1g	
42:b	2269	17	11	2	1g	
<u>Small, Concave-based, Side-notched Point</u>						
43:a	2001	11*	12	2	1g*	proximal fragment
<u>Unclassified Proximal Projectile Point Fragments</u>						
45:a	Sur.	18*	27*	7*	3g*	proximal fragment
45:b	Sur.	20*	23*	8*	3g*	proximal fragment
45:c	Sur.	10*	25*	5*	1g*	proximal fragment
45:d	Sur.	11*	17*	4*	1g*	proximal fragment
45:e	Sur.	18*	21*	5*	3g*	proximal fragment
45:f	Sur.	12*	20*	6*	1g*	proximal fragment
<u>Miscellaneous Small Basal Point Fragments</u>						
46:a	2004	18*	8*	5*	1g*	
46:b	2205	14*	11*	6*	1g*	
46:c	2292	16*	9*	4*	1g*	
46:d	2026	16*	15*	7*	2g*	
46:e	Sur.	18*	13*	8*	2g*	
46:f	Sur.	20*	11*	6*	1g*	
46:g	Sur.	24*	11*	5*	1g*	
46:h	Sur.	12*	10*	7*	1g*	
46:i	2004	15*	9*	4*	1g*	

a bi-convex cross-section. The chipping pattern consists of secondary pressure flaking. Flake scars are small, generally lamellar, uneven in size, and inconsistent in distribution. The notches were created by the removal of multiple pressure flakes with final notch flakes originating from alternate faces. It exhibits a transverse stress fracture.

Group 45:a-f Unclassified Proximal Projectile Point Fragments
- 6 (Figure 127, j-l; Figure 128, a-c)

The specimens in this category exhibit enough attributes that they are definable as proximal projectile point fragments but do not exhibit sufficient external attributes to include them in any other category. Specimens 45:a, 45:b, and 45:c are straight- to slightly convex-based, expanding-stemmed points. Although probably originally medium to large in size and corner-notched, specimens do not retain enough of the shoulders to include them in any other category. Specimens 45:a and 45:b exhibit primary percussion and secondary pressure flaking. Specimen 45:c was worked largely by pressure flaking, but an insufficient amount of the specimen remains to clearly define chipping pattern. Specimens 45:a and 45:c exhibit transverse stress fractures across the notches. Specimen 45:b exhibits compound transverse and longitudinal thermal fractures.

Specimen 45:d is a small expanding-stemmed point fragment. The chipping pattern consists of secondary pressure flaking only. Again, the specimen was probably originally corner-notched, but an insufficient amount of the point remains to classify it as such. It exhibits intersecting oblique stress fractures.

Specimens 45:e is apparently a straight-based point with traces of shallow side notches. Little can be said of its original morphology. Specimen 45:f was possibly a square-stemmed point fragment. Both exhibit secondary flaking on the remaining portion, but it is not possible to determine if primary flaking was ever present. Both exhibit transverse stress fractures.

Group 46:a-i Miscellaneous Small Basal Point Fragments - 9
(Figure 128, d-l)

Specimens in this category are not complete basal fragments. In all cases, there are fractures from one stem margin through the base. They exhibit the criteria of basal fragments, but none retain enough of the base to determine width of the base or notching patterns. All are fragments of expanding-stemmed points. A number of these were

probably corner-notched, but there is no way to adequately ascertain this. Four specimens have oblique stress fractures, two have oblique compound fractures, two have transverse stress and longitudinal compound fractures, and one has a transverse stress fracture and a longitudinal stress fracture.

Group 47:a-q Distal Projectile Point Fragments - 17

The specimens in this category exhibit pointed distal ends and well-worked lateral margins. Fifteen of the specimens exhibit both primary percussion and secondary pressure flaking. Specimens 47:f and 47:m exhibit secondary flaking only. All are fragments of medium to large points except for specimen 47:m, which is a fragment of a small point. Four specimens exhibit small impact fractures.

Group 48:a-m Medial Projectile Point Segments - 13

The specimens in this group exhibit two transverse fractures with both proximal and distal ends missing. Specimens exhibit primary percussion and secondary pressure flaking. Specimen 48:c exhibits secondary flaking only but it is impossible to determine if primary flaking was ever present. All are fragments of medium to large points. Only specimen 48;j exhibits pressure flaking only. Eleven specimens exhibit two transverse stress fractures; one specimen exhibits two transverse thermal fractures; and one specimen exhibits one transverse stress fracture and one compound transverse fracture. Two specimens exhibit attempts to repair the distal fracture.

Group 49:a-b Projectile Point Shoulder Segments - 2

The specimens in this group are small segments of projectile point shoulders. Specimen 49:a is an abrupt shoulder. The fragment is too small to be able to say anything about the size of the point or about the chipping pattern. Specimen 49:b is also an abrupt shoulder with only a small portion of the stem and blade. The specimen exhibits pressure flaking only.

Scrapers

Group 51:a-b End Scrapers Made from Flakes - 2 (Figure 129, a-b)

Specimen 51:a is a large end scraper. It exhibits bifacial working along the remaining lateral margin and end. Cortex is present on both dorsal and ventral surfaces and

was made on a tabular piece of chert. The ventral surface has flakes removed from the edges which have heavily step fractured and are concave shaped into the ventral face. The angle of force was directly into the ventral face. The ventral face on specimen 51:b is unmodified. The dorsal face of both specimens exhibits steep-angled flakes removed from the entire edge. All flakes have been removed by percussion. Light wear is apparent on the distal end of specimen 51:a in the form of light edge rounding. Specimen 51:a exhibits a longitudinal stress fracture. Specimen 51:b exhibits a transverse compound fracture.

Group 52:a Hafted Scraper - 1 (Figure 129, c)

This specimen is a modified proximal projectile point fragment. It was probably fractured, although the entire remaining distal end has been modified. The working element is convex. Reworking is bifacial, although one face is considerably more heavily reworked resulting in a pronounced steep-angled working element. The specimen is identical to the projectile points in Group 22. It exhibits a convex base, expanding stem, broad corner notches, abrupt shoulders, and a bi-convex cross-section. Light wear is apparent in the form of slight step fracturing up the steep face.

Group 53:a Scraper Made from a Biface Fragment - 1
(Figure 129, d)

This specimen is a biface fragment with steep-angled reworking along one end. It may be a distal point fragment, but it is no longer possible to determine. There is a transverse stress fracture on the proximal end. Only the distal end has been reworked for a distance of approximately fifteen millimeters. Retouch is fine and steep-angled. Flake scars are small and lamellar. Edge wear on the distal end is heavy and was used for some time. Wear consists of heavy edge rounding and slight step fracturing.

Drill-like Implements

Group 54:a-g Narrow Drill-like Implements - 1, 4 distal fragments, 2 medial fragments
(Figure 129, e-k)

Specimens in this category exhibit long, narrow working elements. Edge angles are steep with the exception of specimens 54:c and 54:e, which have lower edge angles. Thickness approaches width. The chipping pattern consists of percussion flaking only. Flake scars are small to medium

and expanding. Specimens 54:c, 54:e, and 54:f are considerably broader than the other specimens. Specimens 54:a and 54:d are fire-blackened. Specimen 54:a exhibits a transverse stress fracture near the distal end and thermal fractures on the proximal end. Specimens 54:b, 54:e, and 54:f exhibit a single transverse stress fracture. Specimen 54:c exhibits two transverse stress fractures, and specimen 54:d exhibits an oblique stress fracture.

Bifaces and Biface Fragments

Group 65:a Small, Thin, Asymmetrical Biface - 1
(Figure 129, l)

This specimen is somewhat asymmetrical with a slightly pointed distal end. The chipping pattern consists of primary percussion and secondary pressure flaking. Secondary flake scars are present only along one lateral margin with slight secondary flaking along the proximal end. Blank material appears to have been a chert flake based on relative thickness. The specimen exhibits little or no wear.

Group 67:a-c Proximal Fragments - Thin Broad Bifaces with
Square Bases - 3 (Figure 129, m;
Figure 130, a-b)

The specimens in this category exhibit straight bases and straight to convex lateral margins. The chipping pattern consists of primary percussion with slight secondary flaking. Secondary flaking was performed only to trim the edges. All specimens exhibit little or no wear and appear to have been preforms. Specimen 67:a exhibits a transverse stress fracture. Numerous flakes were removed in an attempt to repair the fracture with one large flake removing one lateral margin. Specimen 67:b exhibits a transverse stress fracture and a longitudinal compound fracture. Specimen 67:c exhibits transverse and longitudinal stress fractures.

Group 68:a Proximal Fragment - Thin Broad Biface with Rounded
Base - 1 (Figure 130, c)

The specimen in this category exhibits a convex base and straight lateral margins. The chipping pattern consists of primary percussion flaking only. There is little edge trimming, and the edge is still sinuous. The specimen exhibits little or no wear. It exhibits an oblique stress fracture.

TABLE 65

Scrapers, Drills, and Bifaces
Artifact Measurements and Attributes - 23MC142

Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Scrapers</u>					
<u>End Scrapers Made from Flakes</u>					
51:a Sur.	65	33*	13	34g*	lateral fragment
51:b Sur.	25*	17*	7*	4g*	distal fragment
<u>Hafted Scraper</u>					
52:a Sur.	38	32	9	11g	
<u>Scraper Made from a Biface Fragment</u>					
53:a Sur.	26	28	7	5g	
<u>Drill-like Implements</u>					
<u>Narrow Drill-like Implements</u>					
54:a 104	37*	12*	7*	3g*	medial fragment
54:b 2309	11*	8*	4*	1g*	distal fragment
54:c Sur.	36*	15*	9*	5g*	medial fragment
54:d Sur.	28*	7*	5*	1g*	distal fragment
54:e Sur.	41*	17*	7*	5g*	distal fragment
54:f Sur.	53*	9*	7*	4g*	distal fragment
54:g Sur.	41	18	8	6g	
<u>Bifaces and Biface Fragments</u>					
<u>Small, Thin, Asymmetrical Biface</u>					
65:a Sur.	37	29	7	7g	
<u>Proximal Fragments - Thin, Broad Bifaces with Square Bases</u>					
67:a Sur.	32*	28*	9*	8g*	
67:b Sur.	37*	37*	10*	16g*	
67:c Sur.	31*	25*	11*	8g*	
<u>Proximal Fragment - Thin, Broad Biface with Rounded Base</u>					
68:a Sur.	39*	32*	10*	11g*	
<u>Proximal Fragments - Thin, Narrow Bifaces with Square Bases</u>					
69:a 2179	25*	29	6*	3g*	
69:b Sur.	18*	22	4	2g*	
<u>Distal Fragments - Thick, Broad Pointed Bifaces</u>					
71:a Sur.	52*	24*	14*	11g*	
71:b Sur.	44*	41*	17*	18g*	
71:c Sur.	42*	42*	10*	12g*	
71:d Sur.	27*	23*	9*	4g*	
71:e Sur.	37*	36*	12*	11g*	
<u>Distal Fragments - Thin, Broad Pointed Bifaces</u>					
72:a Sur.	54*	36*	8*	17g*	
72:b Sur.	55*	29*	8*	9g*	

Group 69:a-b Proximal Fragments - Thin, Narrow Bifaces with Square Bases - 2 (Figure 130, d-e)

The specimens in this group exhibit straight bases and straight to slightly convex lateral margins. Specimen 69:a exhibits primary percussion and secondary pressure flaking. Specimen 69:b exhibits secondary pressure flaking only. The latter specimen appears to have been a flake blank. Specimen 69:a exhibits fire blackening. Both specimens exhibit transverse stress fractures. Specimens exhibit little or no edge wear.

Group 71:a-e Distal Fragments - Thick, Broad Pointed Bifaces - 5 (Figure 130, f-j)

The specimens in this category exhibit pointed distal ends and rapidly expanding lateral margins. The chipping pattern consists of primary percussion flaking only. There is little or no edge trimming, and edges are still sinuous. Specimens exhibit little or no edge wear. Specimens 71:d and 71:e exhibit transverse stress fractures; specimen 71:b exhibits a transverse compound fracture; specimen 71:c exhibits an oblique stress fracture; and specimen 71:a has an oblique compound fracture.

Group 72:a-b Distal Fragments - Thin, Broad Pointed Bifaces - 2 (Figure 130, k-l)

The specimens in this category exhibit pointed distal ends and straight to convex lateral margins. Specimens are considerably thinner than the preceding category. The chipping pattern consists of primary percussion and secondary pressure flaking. Specimens have edge trimming and do not have sinuous edges. Specimens exhibit little or no edge wear. Specimen 72:a exhibits a transverse stress fracture, and specimen 72:b exhibits an oblique stress fracture.

Group 75:a-by Miscellaneous Thin Biface Fragments - 77

The specimens in this category are miscellaneous thin biface fragments too small to be able to determine what kind of tools they represent. They exhibit no external criteria other than bifacial working which would allow their inclusion in any other category. Sixteen specimens exhibit primary flaking only and retain sinuous edges. A total of 57 specimens exhibit primary percussion and secondary pressure flaking. Three of these specimens exhibit tertiary flaking as well. Only four specimens exhibit secondary flaking only. Two specimens exhibit fire-blackened surfaces. A wide variety of fracture patterns is present in the sample.

Group 76:a-y Miscellaneous Thick Biface Fragments - 25

The specimens in this category are miscellaneous thick biface fragments too small to be able to determine what kinds of tools they represent. They exhibit no external criteria other than bifacial working which would allow their inclusion in any other category. Nineteen specimens exhibit primary percussion flaking only. Only six specimens exhibit both primary percussion and secondary pressure flaking. Specimens exhibit a wide variety of fracture patterns.

Cores

Group 77:a-aa Chert Polyhedral Cores - 27

The specimens in this category are chert nodules from which flakes have been removed. Flakes have been struck from the nodules in multiple directions. No pattern in flake removal is apparent. All specimens have a fairly large number of flakes removed. Nineteen specimens are glacial cherts, seven are black chert, and one specimen is of non local material. Twenty-three specimens still retain some cortex.

Group 78:a-n Chert Core Fragments - 14

The specimens in this category exhibit flakes struck from the exteriors and have at least one fracture separating it from larger cores. Twelve are fragments of polyhedral cores, and two are fragments of bifacial cores. Thirteen specimens are glacial cherts, and one specimen is non local Mississippian chert. Twelve specimens exhibit traces of cortex on at least one edge. All fractures are failures along fracture planes.

Group 79:a-b Chert Raw Material - 2

The specimens in this category are chert nodules which have a very small number of flakes removed from the lateral margins. Flakes removed are generally small and are not subsequently usable. It appears that the flakes removed were largely a test of the material. Both specimens are glacial chert and have large areas of cortex.

Group 80:a-m Chert Nuclei - 13

The specimens included in this category are chert cores which have been exhausted. All were polyhedral chert cores, although the removal of the later flakes may have altered their shape. Seven specimens are glacial material, one

TABLE 66

Cores

Fact Measurements and Attributes - 23MC142

Cat No.			Width	Thickness	Weight (gm)	Remarks
<u>Chert Cores</u>						
<u>Polyhedral Cores</u>						
77:a	2034	78	45	23	85g	
77:b	2107	68	56	34	84g	
77:c	2143	100	44	31	120g	
77:d	2004	49	47	19	45g	
77:e	2204	60	32	22	32g	
77:f	Sur.	65	51	50	126g	
77:g	Sur.	51	37	33	64g	
77:h	Sur.	52	41	27	51g	
77:i	Sur.	57	48	27	87g	
77:j	Sur.	56	36	28	32g	
77:k	Sur.	56	46	28	74g	
77:l	Sur.	77	43	29	84g	
77:m	Sur.	72	54	22	83g	
77:n	Sur.	61	39	22	58g	
77:o	Sur.	59	42	24	68g	
77:p	Sur.	52	33	16	29g	
77:q	Sur.	48	36	23	35g	
77:r	Sur.	77	63	33	101g	
77:s	Sur.	57	25	22	25g	
77:t	Sur.	50	47	33	88g	
77:u	Sur.	75	41	37	127g	
77:v	Sur.	65	39	21	46g	
77:w	Sur.	70	54	27	82g	
77:x	Sur.	39	36	26	37g	
77:y	Sur.	47	35	35	53g	
77:z	Sur.	56	30	28	69g	
77:aa	Sur.	69	41	28	76g	
<u>Chert Raw Material</u>						
79:a	Sur.	66	48	25	98g	
79:b	Sur.	52	42	40	138g	

TABLE 66 (cont'd)

Cores

Artifact Measurements and Attributes - 23MC142

Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Chert Core with Flat Striking Platform</u>					
81:a Sur.	76	66	36	199g	
<u>Chert Bifacial Cores</u>					
82:a Sur.	71	49	18	72g	
82:b Sur.	56	53	23	63g	
82:c Sur.	69	44	14	45g	
<u>Chert Nuclei</u>					
80:a Sur.	41	27	20	21g	
80:b Sur.	38	31	29	29g	
80:c Sur.	38	30	29	29g	
80:d Sur.	38	33	22	21g	
80:e Sur.	41	36	27	32g	
80:f Sur.	52	31	20	30g	
80:g Sur.	43	32	13	14g	
80:h Sur.	31	30	15	11g	
80:i Sur.	27	25	12	7g	
80:j Sur.	37	35	15	18g	
80:k Sur.	46	35	18	23g	
80:l Sur.	44	37	29	27g	
80:m Sur.	37	26	15	14g	

specimen is probably non local chert, four specimens are black chert, and one is gray chert. Seven specimens still retain some cortex.

Group 81:a Chert Core with Flat Striking Platform - 1

A single specimen has multiple flakes struck downward from a single flat striking platform. The striking platform appears to have been created by the removal of a single large flake with flakes subsequently removed from that face. The chert is from a Mississippian-age formation and is not local material. There is no cortex apparent on the specimen.

Group 82:a-b Chert Bifacial Cores - 3

The three specimens in this category have multiple flakes removed from the edges bifacially-bilaterally. Specimen 82:a is a worked cobble, while specimens 82:b and 82:c are large chert flakes. Specimens 82:a and 82:b are glacial cherts, and specimen 82:c is black chert. Flake removal was performed so that the resulting core could be used as a blank for another tool.

Miscellaneous Worked Chert

Group 83:a-x Miscellaneous Worked Chert - 24

Specimens in this group are irregular or blocky pieces of chert which exhibit working on at least one edge. Working is highly irregular, and there is no discernible pattern to the flake removal. Ten specimens exhibit unifacial-unilateral flake removal, three have bifacial-bilateral working, eight have bifacial-unilateral flake removal, two specimens exhibit unifacial-bilateral working, and one specimen exhibits one edge with unifacial working and one edge with bifacial flake removal. One specimen is silicified sediments, and all of the others are chert. Six appear to be irregular tabular pieces of chert, sixteen are attempts to work irregular shatter, and two specimens are irregular worked flakes.

Flake Tools

Group 84:a-ab Retouched Flakes - 28

The specimens in this category exhibit intentional modification of the flake margins by additional flake removal. Twelve specimens are complete, and the other

sixteen specimens are flake fragments. Ten specimens exhibit relatively acute working elements, while eighteen specimens have relatively steep working elements. Only two specimens (84:g and 84:z) exhibit bifacial retouch. Fifteen specimens have only one retouched edge, and two specimens have only part of one edge retouched. One specimen exhibits retouch on the distal end. Five specimens exhibit retouch on two edges, one of which exhibits alternate faces retouched on the alternate edges (84:n). Two specimens exhibit one edge and the distal end retouched, and three specimens exhibit both edges and the distal end retouched. Angle of retouch on fifteen specimens is steep enough that they would have been utilized in a scraping motion. Seven specimens are acute and have been used in a cutting motion, and six specimens may have been utilized as either.

Group 86:a-fn Utilized Flakes - 170

Specimens in this category exhibit modification of the flake margins by the removal of numerous small flakes through use. There are 66 complete flakes and 104 flake fragments. With the exception of three specimens, all have acute working elements. There are 68 specimens with unifacial utilization of one edge, 25 specimens with bifacial utilization of one edge, 31 specimens exhibit unifacial utilization of two edges, eleven specimens exhibit bifacial utilization of two edges, one specimen exhibits bifacial utilization of two edges and unifacial utilization of one edge, two specimens exhibit unifacial utilization of two edges and bifacial utilization of one edge, seven specimens exhibit three unifacially utilized edges, one specimen exhibits three bifacially utilized edges, and one specimen exhibits bifacial utilization of four edges. A total of 79 specimens have one edge utilized, fourteen have one end utilized, 22 exhibit utilization on one edge and one end, 41 have two edges utilized, eleven have two edges and one end utilized, one has two edges and two ends utilized, and three specimens have fractures utilized. A total of 163 straight working elements, thirteen convex working elements, seven concave working elements, 23 subconvex working elements, 20 subconcave elements, and one V-shaped notch are present on the 170 flakes.

Group 87:a-c Utilized Shatter - 3

A total of three pieces of modified chert shatter were recovered. One specimen (87:a) exhibits a small concave notch with steep unifacial utilization. Specimen 87:b exhibits small areas of unifacial utilization on two edges. Specimen 87:c is a roughly triangular piece of shatter with two utilized edges and was utilized in a rotary motion. The

degree of wear is heavy on specimens 87:a and 87:c; light on specimen 87:b.

Ground/Pecked Stone

Group 90:a-z Pecked Stone - 16, 10 fragments
(Figure 131, a-f)

The specimens in this group exhibit pecking on one or both faces of the cobbles. All exhibit central facial pecking. The degree of use ranges from light surficial pecking to deep pits depending on the length of usage. None of the pits were intentionally created and were generated through usage. Nine specimens exhibit two pecked faces, seven specimens have only one pecked face, and ten specimens exhibit one pecked face but are fragmentary so that a determination of the number of pecked faces is impossible. The pecked areas are often diffuse, and individual peck marks are not clearly distinguishable. Pecked areas are generally centered on the faces.

Group 91:a-q Ground Stone - 2, 15 fragments
(Figure 132, a-f)

Specimens in this group exhibit at least one ground face. Specimens were included as ground stone if cortex had been removed since glacial deposition. Specimens with readily discernible striations other than glacial striations include specimens 91:a, 91:b, and 91:m. Light polish on the higher surfaces are discernible on specimens 91:g and 91:h. Only two specimens are relatively complete and the remaining fifteen specimens are fragmentary. All of the latter are fire-cracked. It is quite possible that a number of these are fragments of multifunctional tools, and the remaining portions contain grinding as the only apparent modification. The degree of wear on complete specimens is relatively light, while wear on fragments ranges from light to heavy.

Group 92:a-n End and Edge Battered Cobbles - 10, 4 fragments
(Figure 133, a-g)

The specimens in this category exhibit battering on one or more ends or edges. Battering varies from light edge crushing to heavy edge crushing and edge shattering. Ten specimens exhibit edge crushing only, three specimens exhibit edge crushing as well as moderate to heavy edge shattering, and one specimen (92:a) exhibits edge crushing along the margins of a fracture. Four specimens are fragmentary and have been fire-cracked. Edge crushing ranges from light with somewhat indistinct peck marks to

TABLE 67
Pecked/Ground Stone
Artifact Measurements and Attributes - 23MC142

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Pecked Stone</u>						
90:a	2243	92	72	46	444g	Quartzite 1p
90:b	Sur.	81	52*	37	275g*	Argillite 1p?
90:c	Sur.	96*	62*	68*	487g*	Diorite 1p?
90:d	Sur.	108	80	57	587g	Glacial Sandstone 2p
90:e	Sur.	94	64	43	236g	Flint Hill Sandstone 2p
90:f	Sur.	87	64*	49*	347g*	Argillite 1p?
90:g	Sur.	87	70	50	406g	Quartzite 2p
90:h	Sur.	116	110	52	876g	Diorite 2p
90:i	Sur.	87	63	42	347g	Argillite 2p
90:j	Sur.	91	72	52	481g	Argillite 1p
90:k	105	84*	55*	35*	183g*	Gabbro 1p?
90:l	Sur.	86	71	35	281g	Argillite 2p
90:m	Sur.	62*	73	47	266g*	Argillite 1p?
90:n	Sur.	56*	50*	47*	207g*	Gabbro 1p?
90:o	2154	87	70	38	352g	Argillite 1p
90:p	Sur.	94	85	53	642g	Quartzite 2p
90:q	Sur.	102	80	51	607g	Quartzite 1p
90:r	Sur.	84	77	44	444g	Diorite 2p
90:s	Sur.	79	78	62	415g	Argillite 1p
90:t	Sur.	84	80*	48	387g*	Argillite 1p
90:u	Sur.	69*	62*	53*	200g*	Argillite 1p
90:v	Sur.	84*	51*	46*	292g*	Argillite 1p?
90:w	Sur.	73*	51*	60*	358g*	Diorite 2p
90:x	Sur.	88*	57*	50*	235g*	Argillite 1p?
90:y	Sur.	39*	29*	28*	58g*	Argillite 1p?
90:z	Sur.	59*	46*	32*	94g*	Argillite 1p?

TABLE 67 (cont'd)
 Pecked/Ground Stone
 Artifact Measurements and Attributes - 23MC142

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Ground Stone</u>						
91:a	2033	52*	37*	24*	81g*	Diorite lg?
91:b	2162	51*	49*	30*	108g*	Diorite lg?
91:c	Sur.	89*	74*	57*	517g*	Quartzite lg
91:d	Sur.	47*	35*	28*	52g*	Diorite lg?
91:e	Sur.	45*	39*	33*	64g*	Argillite lg?
91:f	Sur.	66*	34*	30*	109g*	Diorite lg?
91:g	Sur.	93	73	43	370g	Argillite lg
91:h	Sur.	85	64	50	361g	Quartzite lg
91:i	Sur.	72*	38*	29*	95g*	Argillite lg?
91:j	Sur.	74*	72*	44*	348g*	Diorite lg?
91:k	Sur.	74*	52*	28*	99g*	Argillite lg?
91:l	Sur.	37*	35*	27*	40g*	Argillite lg?
91:m	Sur.	41*	36*	36*	65g*	Argillite lg?
91:n	Sur.	73*	47*	43*	174g*	Argillite lg?
91:o	Sur.	71*	49*	36*	186g*	Argillite 2g
91:p	Sur.	59*	54*	26*	93g*	Argillite lg?
91:q	Sur.	39*	34*	26*	41g*	Argillite lg?

heavy and distinct. Most specimens have been utilized in direct contact with dense materials.

Group 93:a-f Ground and Pecked Stone - 4, 2 fragments
(Figure 134, a-e)

Specimens in this group exhibit one or more ground faces and one or more pecked faces. Two specimens exhibit one ground face and one pecked face, one exhibits one ground face and two pecked faces, one exhibits both faces ground and pecked, and two specimens exhibit one ground and pecked face but are fire-cracked in such a way that it is impossible to determine if the other face was modified. Specimens exhibit central facial pecking. The degree of use varies from light pecking and grinding to heavy wear. Striations are not readily discernible, but several specimens exhibit polish along higher areas. Most specimens have relatively heavy usage. Cortex removal is apparent on all specimens.

Group 94:a-k Pecked and Battered Stone - 11
(Figure 135, a-f)

Specimens in this category exhibit one or more pecked faces and multiple battered ends and edges. Pecking on the faces varies from light pecking to pits. Only two specimens exhibit pits, although pecking is readily discernible. Individual peck marks are not readily discernible. Pecking is generally centered on the faces. Battering on the ends and edges ranges from light edge crushing to heavy edge shattering. Specimen 94:d exhibits light edge shattering, and specimen 94:j exhibits heavy edge shattering. These two specimens have been used in direct contact with dense materials. All specimens are relatively complete, although two specimens are fire-cracked. Patterns of pecked faces and battered ends and edges varies.

Group 95:a Ground and Battered Stone - 1
(Figure 134, f)

The specimen in this group exhibits one ground face and battering on both ends. Grinding is light and detectable only by cortex removal. There are no readily apparent cultural striations and no polish. Battering on the ends is readily detectable. Wear consists of moderate edge crushing with slight edge shattering. Battering is present only on the high points of the ends.

TABLE 68
ed/Ground and Pecked Stone
Measurements and Attributes - 23MC142

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Battered Cobbles</u>						
92:a	2223	67	47	.	110g	Argillite 1 edge, 1 end
92:b	Sur.	93	43	30	225g	Quartzite 1 end
92:c	Sur.	62	57	38	191g	Argillite 1 end
92:d	Sur.	90	67	41	339g	Quartzite 1 end
92:e	Sur.	68	57	36	217g	Quartzite 1 end
92:f	Sur.	77	70	43	339g	Quartzite 2 ends, 2 edges
92:g	Sur.	55	47	23	80g	Quartzite 2 edges
92:h	Sur.	61*	59*	48*	158g*	Quartzite 2 ends
92:i	Sur.	113	56	45	394g	Quartzite 2 ends
92:j	Sur.	41*	40*	33*	46g*	Quartzite 1 end?
92:k	Sur.	79	58	49	359g	Quartzite 2 ends
92:l	Sur.	80	46	42	223g	Argillite 2 ends
92:m	Sur.	59*	32*	16*	39g*	Argillite 1 end?
92:n	Sur.	61*	54*	30*	116g*	Argillite 1 end?
<u>Ground and Pecked Stone</u>						
93:a	Sur.	80	66	46	378g	Argillite lg, lp
93:b	Sur.	101	71	40	409g	Quartzite 2g, 2p
93:c	Sur.	132	100	54	1105g	Argillite lg, 2p
93:d	Sur.	110	95	58	814g	Argillite lg, lp
93:e	Sur.	72*	41*	36*	130g*	Argillite lg?, lp?
93:f	2277	78*	39*	27*	77g*	Argillite lg?, lp?

Group 96:a-j Ground, Pecked, and Battered Stone - 10
(Figure 136, a-f)

The specimens in this category exhibit one or more pecked faces, a ground face, and one or more battered ends and edges. Pecking is centered on the faces except for specimen 96:i which is off-center. Most specimens have been utilized for a protracted period of time, and wear is generally heavier. All specimens exhibit only one ground face. Grinding is readily apparent by cortex removal. Some specimens exhibit light striations and polish. Battering is present on ends and edges. Wear consists of light to heavy edge crushing and occasional edge shattering. Only two specimens exhibit detectable edge shattering. Although only a single face is ground, pecked faces and battered ends and edges vary in number.

Group 97:a-e Chert Core Hammerstones - 4, 1 fragment
(Figure 137, a-d)

Specimens in this category are chert nodules from which flakes have been removed prior to battering of the edges. Specimen 97:a was only marginally modified prior to use as a hammerstone. Only specimen 97:c does not still retain some cortex. Specimens exhibit edge crushing, and only specimen 97:a exhibits distinct edge rounding. All specimens lack indications of heavy battering as edge shattering is lacking. All have been utilized in direct contact with dense materials except for specimen 97:a. Specimens are all roughly circular. Specimen 97:e is fragmentary and exhibits a percussion scar removing it from a larger tool.

Group 98:a-b Heavy Facially Battered Stone - 2
(Figure 138, a-b)

Specimens in this category exhibit heavy pitting on one or more faces. The degree of force was heavier on these specimens. Pitting on the faces is distinct, and individual peck marks are readily distinguishable. Peck marks are present on both faces of specimen 98:a and one face of specimen 98:b. Pecking is scattered across the faces of specimen 98:a and centered on specimen 98:b. Both specimens exhibit wear typical of direct contact with dense materials and would thus be true "anvilstones". Both specimens are relatively large.

Group 101:a Ground Sandstone, Small, Flat - 1
(Figure 137, f)

The specimen in this category is a small piece of locally available micaceous sandstone. It exhibits two flat

TABLE 69
Ground/Pecked/Battered Stone
Artifact Measurements and Attributes - 23MC142

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Pecked and Battered Stone</u>						
94:a	104	80	68*	22*	163g*	Argillite 1p?, 2b
94:b	106	79	77	42	346g	Diorite 2p, 2b
94:c	Sur.	91	72	23	218g	Argillite 2p, 2b
94:d	Sur.	103	86	55	574g	Argillite 1p, 3b
94:e	Sur.	81	79	48	418g	Quartzite 1p, 2b
94:f	Sur.	69	65	48	293g	Argillite 1p, 3b
94:g	Sur.	87	79	51	373g	Argillite 1p, 1b
94:h	Sur.	83	58*	48*	259g*	Argillite 1p, 1b?
94:i	Sur.	83	81	57	349g	Argillite 1p?, 2b
94:j	Sur.	102	86	67	787g	Felsite 2p, 2b
94:k	Sur.	70	62	31	218g	Argillite 2p, 3b
<u>Ground and Battered Stone</u>						
95:a	2237	76	63	37	206g	Argillite 1g, 2b
<u>Ground, Pecked, and Battered Stone</u>						
96:a	105	83	64	35	211g	Argillite 2p, 1g, 2b
96:b	2255	95	77	55	503g	Argillite 1p, 1g, 2b
96:c	Sur.	99	79	44	580g	Argillite 2p, 1g, 2b
96:d	Sur.	98	67	38	390g	Argillite 2p, 1g, 3b
96:e	Sur.	91	90	70	872g	Argillite 2p, 1g, 2b
96:f	Sur.	95	93	52	797g	Diorite 2p, 1g, 3b
96:g	Sur.	96	62	50	496g	Argillite 2p, 1g, 2b
96:h	2224	60	59	39	186g	Argillite 2p, 1g, 3b
96:i	Sur.	75	71	43	284g	Argillite 1p, 1g, 1b
96:j	Sur.	85	83	50	436g	Quartzite 1p, 2g, 2b

surfaces, both of which are ground. Although it exhibits fractures on four edges, it is not possible to adequately determine if the specimen was originally larger. Surfaces are highly smoothed but lack visible striations or polish.

Group 102:a Ground Sandstone, Grooved - 1
(Figure 137, e)

The specimen in this category is a small piece of glacial sandstone. It exhibits one modified surface. The specimen exhibits a single, narrow, shallow groove on one face. The groove does not exhibit readily observable striations. The specimen has been used to sharpen narrow, pointed objects.

Group 104:a Chipped Argillite - 1 (Figure 139, e)

The specimen in this category has been marginally modified. It exhibits several flakes removed from two remaining margins. The specimen was fire-cracked prior to chipping. The reason for the alteration is unknown.

Group 110:a-1 Utilized Fire-cracked Rock - 12
(Figure 138, c-f; Figure 139, a-c)

The specimens in this group are pieces of fire-cracked rock which were utilized after fracture. Two specimens have relatively thick working edges, and ten specimens have relatively thin working elements. Wear on eight specimens consists of very light to moderate step fracturing on the working edges, and four specimens exhibit moderate to heavy edge rounding without observable step fracturing. Five specimens exhibit largely unifacial wear, and the other seven exhibit bifacial wear. Two of the specimens (110:c and 110:d) exhibit fairly heavy wear and were probably used in a chopping motion.

Group 111:a Ground Stone/Utilized Fire-cracked Rock - 1
(Figure 139, e)

The specimen in this category is similar to the preceding category with the exception of one face which is part of a ground stone tool fragment. Grinding is observable in the form of cortex removal. The specimen exhibits utilization along the fracture margins in the form of flake removal. It exhibits bifacial step fracturing along three edges. The specimen is thin.

TABLE

Inventory

Artifact Measurements and Attributes - 23MC142

Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Chert Core Hammerstones</u>					
97:a	2042	62	54	46	179g
97:b	2148	62	56	48	210g
97:c	2272	53	46	32	78g
97:d	Sur.	89	77	60	458g
97:e	Sur.	49*	29*	20*	25g*
<u>Heavy Facially Battered Stone</u>					
98:a	Sur.	141	110	63	1412g Diorite 2b
98:b	Sur.	145	95	45	638g Sandstone 1b
<u>Ground Sandstone - Small, Flat</u>					
101:a	Sur.	38	31	12	16g Micaceous Sandstone
<u>Ground Sandstone - Grooved</u>					
102:a	2207	24*	21*	11*	5g* Glacial Sandstone
<u>Chipped Argillite</u>					
104:a	2226	46	37	16	24g
<u>Utilized Fire-Cracked Rock</u>					
110:a	2044	82	65	31	186g Argillite
110:b	2274	78	54	22	75g Argillite
110:c	Sur.	132	88	35	401g Argillite
110:d	Sur.	94	74	20	147g Argillite
110:e	Sur.	79	71	25	150g Argillite
110:f	Sur.	78	51	20	96g Argillite
110:g	Sur.	60	55	19	65g Argillite
110:h	Sur.	62	46	12	31g Argillite
110:i	Sur.	82	49	24	105g Argillite
110:j	Sur.	66	49	29	73g Argillite
110:k	Sur.	95	48	38	223g Feisite
110:l	Sur.	57	46	11	35g Schist
<u>Ground Stone/Utilized Fire-cracked Rock</u>					
111:a	Sur.	58	46	12	33g Argillite
<u>Ground Stone Axe Fragment</u>					
112:a	Sur.	81*	78*	43*	292g* Argillite

Group 114:a Ground Stone Axe Fragment - 1
(Figure 139, f)

The specimen in this category is a bit fragment of ground stone axe. It does not exhibit evidence of chipping prior to grinding. Cortex is present along the two edges. The specimen was a cobble with the two faces ground to the bit. The bit edge exhibits heavy edge damage. Flakes are driven up both faces of the bit and several smaller flakes are present near the bit edge. The severe edge damage is typical of usage as an axe.

Hematite

Group 117:a-h Chipped Hematite - 8
(Figure 141, g-m)

Three of the specimens in this group (117:a - 117:c) have been worked bifacially - bilaterally and appear to have been in the process of tool shaping. One specimen has had flakes removed bifacially along one margin (117:d). The remainder of the specimens have flakes removed in an irregular fashion. There is no detectable pattern to flake removal and were not part of a tool shaping process.

Group 118:a-v Ground Hematite - 22
(Figure 140, a-p; Figure 141, a-f)

The specimens in this category have from one to twelve ground facets. Grinding ranges from light grinding on one edge to heavy grinding on all surfaces. The majority of the specimens are relatively small with grinding around the exterior margins. All have been ground on a fine-grained abrasive. Only one specimen (118:t) exhibits coarser striations along one face.

Group 119:a-l Hematite Flakes - 12

Specimens exhibit the criteria of percussion flakes. When criteria are not clear, faceted dorsal surfaces and smooth ventral faces were categorized as flakes.

Group 120:a Ground and Chipped Hematite - 1
(Figure 141, n)

The specimen in this group was first ground along one edge. The edge exhibits fine multidirectional striations. Most of the striations are, however, largely unidirectional. The specimen was ground on a fine-grained abrasive. The specimen then had a number of flakes removed from the

TABLE 71
Hematite
Artifact Measurements and Attributes - 23MC142

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Chipped Hematite</u>						
117:a	Sur.	50	28	12	32g	BF, BL
117:b	Sur.	40	21	12	21g	BF, BL
117:c	2317	56	29	14	32g	BF, BL
117:d	Sur.	74	65	25	253g	BF, UL
117:e	Sur.	35	28	20	55g	Irreg.
117:f	Sur.	121	81	23	370g	Irreg.
117:g	Sur.	33	30	18	32g	Irreg.
117:h	2004	40	27	11	26g	Irreg.
<u>Ground Hematite</u>						
118:a	Sur.	47	32	11	24g	5 facets
118:b	Sur.	23	18	9	7g	5 facets
118:c	Sur.	20	15	4	2g	3 facets
118:d	Sur.	63	42	28	185g	7 facets
118:e	Sur.	40	26	9	14g	1 facets
118:f	Sur.	27	25	7	7g	2 facets
118:g	Sur.	20	17	11	4g	4 facets
118:h	Sur.	39	29	9	16g	5 facets
118:i	Sur.	49	45	29	81g	2 facets
118:j	Sur.	49	43	21	60g	1 facet
118:k	Sur.	69	41	23	24g	12 facets
118:l	2295	19	14	10	3g	1 facet
118:m	2204	20	16	3	2g	5 facets
118:n	104	11	6	5	1g	6 facets
118:o	2100	28	14	4	4g	7 facets
118:p	2003	30	28	8	9g	5 facets
118:q	2205	23	8	5	1g	1 facet
118:r	2270	21	14	8	4g	5 facets
118:s	2319	15	7	5	1g	3 facets
118:t	105	23	13	5	1g	4 facets
118:u	2102	23	12	5	3g	4 facets
118:v	2002	27	16	9	7g	3 facets
<u>Ground and Chipped Hematite</u>						
120:a	Sur.	74	55	27	218g	C. Irreg.; G. 1 facet
<u>Ground Hematite Flake</u>						
121:a	2103	18	14	2	1g	
<u>Scratched Hematite</u>						
123:a	2292	24	11	7	3g	4 facets
<u>Chipped, Ground, and Scratched Hematite</u>						
125:a	2100	54	25	16	45g	S, 2 faces; G. 1 facet; C. BF-UI

margins as well as across the ground edge. Flake removal is irregular, and there is no pattern typical of tool shaping.

Group 121:a Ground Hematite Flake - 1
(Figure 141, o)

The specimen in this category exhibits *eraillures* on the ventral face and is a percussion flake. The dorsal face of the flake is ground. Striations are fine and unidirectional. The specimen was ground on a fine-grained abrasive. It appears to be a flake removed from a completed tool.

Group 123:a Scratched Hematite - 1 (Figure 141, p)

The specimen in this group exhibits coarse and fine striations. Striations are paired in groups with coarser striations interspersed with finer striations. The specimen has been scraped or shaved with a chipped stone tool. All surfaces have been scratched, and there are four facets.

Group 125:a Chipped, Ground, and Scratched Hematite - 1
(Figure 141, q)

The specimen in this category exhibits multiple modifications. Initially, a small number of flakes were removed from one edge. Grinding is present along one edge-face juncture. Striations are fine and unidirectional, and the specimen was ground on a fine grained abrasive. Two faces exhibit coarse and fine striations. Striations are multidirectional. It appears to have been scratched with a chipped stone tool. All modifications are relatively minor.

Ceramics

Pottery - 790

Sample: 4 rim sherds, 155 body sherds,
and 631 eroded body sherds

Group 126:

Ceramics One: Sand-tempered, smooth and cordmarked
bodies

Sample: 4 rim sherds, 98 body sherds and
462 eroded body sherds

Paste:

Temper: Highly rounded, sand-sized particles. Particles are small (.1 to 1 mm). Temper constitutes only 5-15 percent of paste volume.

Texture: Paste is fairly friable. Lamination tends to occur parallel to the interior-exterior surfaces. Sherds break irregularly.

Color: Color is highly variable ranging from dark red (10YR3/6) through yellow (10YR7/6). Darker interior shades include grayish brown (10YR5/2) through black (7.5YR2.5/0).

Method of Manufacture: Vessels were lump modeled, as there are no straight breaks indicative of coiling, and finger marks on interiors of sherds are abundant. Specimens exhibit use of a paddle on exterior surfaces as temper is compressed from the surface. Exteriors often exfoliate as a unit, and particle sizes are smaller near the exteriors.

Surface Finish: Twenty-two sherds have cordmarked exteriors and 80 body sherds have smooth exteriors.

Decoration:

Rim: Three of the smooth rim sherds have smooth, slightly folded rims. The one cordmarked rim sherd has interior cordwrapped dowel impressions.

Neck: Two rim sherds exhibit bossing as does one body sherd.

Form: Undetermined.

Group 128:

Ceramics Three: Sand and grit-tempered, smooth and cordmarked bodies.

Sample: 57 body sherds and 169 eroded body sherds.

Paste:

Temper: Highly rounded, sand-sized particles with occasional inclusions of angular grit particles. Sand constitutes the bulk of the temper. Particle sizes tend to be slightly larger (.1 to 3mm). Temper constitutes 25-40 percent of the paste volume.

Texture: Paste is friable. Lamination tends to occur parallel to the interior-exterior surfaces. Sherds break irregularly.

Color: Color is highly variable, and colors are similar to the preceding group.

Method of Manufacture: Vessels were lump modeled, as there are no straight breaks indicative of coiling. Finger marks on interiors of sherds are abundant. Paddles were probably used on exteriors as temper is compressed on the surfaces.

Surface Finish: Sixteen sherds have smooth exteriors, and 41 sherds have cordmarked surfaces.

Decoration: Undetermined.

Form: Undetermined.

Group 133:a-dm Burned Clay - 117

The specimens in this category are clay which has been fired intentionally or unintentionally. They differ from pottery in that they lack temper. All specimens are eroded and irregular in shape. Although there are some grog inclusions in them, they lack the more regular shapes of pottery. Several specimens are relatively large and may represent daub but lack impressions.

Lithic Waste

Group 134: Chert Waste - 3600

A total of 1,338 unmodified chert flakes, 285 pieces of unmodified chert shatter, and four unmodified chert potlids were recovered from the excavations. Surface material included 1,831 unmodified chert flakes, 136 pieces of unmodified chert shatter, and six unmodified chert potlids.

Group 135: Quartzite Waste - 29

A total of fourteen unmodified quartzite flakes and three pieces of unmodified quartzite shatter were recovered from the excavations. Surface material included nine unmodified quartzite flakes and three pieces of unmodified quartzite shatter.

Group 136: Quartz Waste - 5

Five apparently unmodified quartz flakes or shatter were recovered from the surface.

Group 137: Silicified Sediments Waste - 37

A total of 25 unmodified silicified sediments flakes and seven pieces of unmodified silicified sediments shatter were recovered from the excavations. Surface material included three unmodified silicified sediments flakes and two pieces of unmodified silicified sediments shatter.

Group 138: Argillite Waste - 1

A single unmodified argillite flake was recovered from the surface.

Group 141: Fire-cracked Rock - 12,236

A total of 9,614 pieces of fire-cracked rock were recovered from the excavations, and 2,622 pieces of fire-cracked rock were collected from the surface.

Group 142: Unmodified Stone - 1,601

A total of 1,445 pieces of unmodified glacial gravel were recovered from the excavations, and 156 pieces were collected from the surface. Most of this material appears to have been unintentionally transported to the site as the underlying glacial till is relatively stone-free.

TABLE 72
DISTRIBUTIONAL SUMMARY - 23MC142

	1	4	9	18	19	20	22	25	27	33	34	38	39	40	41	42	43	45	46	47	48	49	51	52	53	54	64	67	68	69
Xu102, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu102, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu103, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu103, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1001, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1001, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1002, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1002, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1003, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1003, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1004, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1004, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1005, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1005, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1006, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1006, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1007, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1007, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1008, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1008, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1009, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1009, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1010, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1010, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1011, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xu1011, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surface	1	2	3	2	2	1	2	2	1	4	2	2	1	1	1	1	-	6	4	4	9	1	2	1	1	5	1	3	1	1

TABLE 72 (cont'd)
DISTRIBUTIONAL SUMMARY - 23MC142

	71	72	75	76	77	78	79	80	81	82	83	84	86	87	90	91	92	93	94	95	96	97	98	101	102
Xul02, L.1	-	-	-	-	-	-	-	-	-	-	-	3	-	5	-	1	-	-	-	-	-	1	-	-	-
L.2	-	-	4	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-
Xul03, L.1	-	-	1	1	-	-	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-	-	-
L.2	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul001, L.1	-	-	-	-	-	1	-	-	-	-	-	-	-	5	1	-	1	-	-	-	-	-	-	-	-
L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul002, L.1	-	-	2	-	1	-	-	-	-	-	-	1	3	-	-	-	-	-	-	-	-	1	-	-	-
L.2	-	-	1	-	-	1	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
Xul003, L.1	-	-	1	1	1	-	-	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-
L.2	-	-	2	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
Xul004, L.1	-	-	3	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
L.2	-	-	2	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-
Xul005, L.1	-	-	-	1	1	-	-	-	-	-	-	-	-	2	-	1	1	-	-	-	-	-	-	-	1
L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Xul006, L.1	-	-	-	-	-	-	-	-	-	-	-	-	1	6	-	-	-	-	-	-	-	-	-	-	-
L.2	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
Xul007, L.1	-	-	1	-	-	-	-	-	-	-	-	-	2	4	-	-	-	1	-	-	-	2	-	-	-
L.2	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	1	-	-	-
Xul008, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul009, L.1	-	-	-	1	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-
L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul010, L.1	-	-	2	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-
L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul011, L.1	-	-	3	1	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-
L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surface	5	2	55	19	22	12	2	13	1	3	22	22	119	1	23	15	13	5	9	-	7	2	2	1	-

TABLE 72 (cont'd)
DISTRIBUTIONAL SUMMARY - 23MC142

	104	110	111	114	117	118	119	120	121	123	125	126	128	133	134	135	136	137	139	141	142
Xul02, L.1	-	-	-	-	-	1	-	-	-	-	-	25	7	1	129	-	-	2	-	608	146
Xul02, L.2	-	-	-	-	-	-	1	-	-	-	-	31	5	10	97	-	-	1	-	40	8
Xul03, L.1	-	-	-	-	-	1	-	-	-	-	-	25	2	3	82	-	-	2	-	388	45
Xul03, L.2	-	-	-	-	-	-	-	-	-	-	-	22	7	4	83	1	-	1	-	401	55
Xul001, L.1	-	-	-	-	-	-	-	-	-	-	-	28	6	11	73	-	-	1	-	507	60
Xul001, L.2	-	-	-	-	-	-	-	-	-	-	-	12	4	4	35	1	-	2	-	223	34
Xul002, L.1	-	-	-	-	-	1	-	-	-	1	-	32	16	3	85	-	-	2	-	673	92
Xul002, L.2	-	-	-	-	-	-	1	-	-	1	-	6	-	3	32	-	-	-	-	231	37
Xul003, L.1	-	-	-	-	-	1	1	-	-	-	-	25	22	11	83	-	-	-	-	606	91
Xul003, L.2	-	-	-	-	-	-	-	-	-	-	-	10	3	-	40	3	-	-	-	257	40
Xul004, L.1	-	-	-	-	-	-	-	-	-	-	-	15	7	2	117	1	-	4	-	719	95
Xul004, L.2	-	-	-	-	1	-	-	-	-	-	-	4	5	3	34	-	-	-	-	196	43
Xul005, L.1	-	-	-	-	-	-	1	-	-	-	-	30	8	4	62	-	-	1	-	432	71
Xul005, L.2	-	-	-	-	-	-	-	-	-	-	-	17	4	3	44	1	-	2	-	204	24
Xul006, L.1	-	-	-	-	-	-	-	-	-	-	-	31	11	2	72	2	-	3	-	478	72
Xul006, L.2	-	-	-	-	-	-	-	-	-	-	-	-	2	1	22	-	-	-	-	168	45
Xul007, L.1	1	-	-	-	-	1	1	-	-	-	-	28	14	8	82	1	-	3	-	573	70
Xul007, L.2	-	-	-	-	-	2	-	-	-	-	-	14	8	4	38	1	-	1	-	102	21
Xul008, L.1	-	-	-	-	-	1	-	-	1	-	-	52	22	3	115	1	-	2	-	749	92
Xul008, L.2	-	-	-	-	-	-	-	-	-	-	-	11	6	3	34	-	-	-	-	211	29
Xul009, L.1	-	1	-	-	-	1	-	-	-	-	-	22	7	4	44	-	-	2	-	356	57
Xul009, L.2	-	-	-	-	-	1	-	-	-	-	-	5	3	3	22	1	-	1	-	174	20
Xul010, L.1	-	-	-	-	-	1	-	-	-	-	-	40	12	12	51	2	-	-	-	523	63
Xul010, L.2	-	-	-	-	-	-	-	-	-	-	-	3	-	5	11	2	-	-	-	97	16
Xul011, L.1	-	1	-	-	1	-	1	-	-	-	-	24	23	7	74	-	-	-	-	565	99
Xul011, L.2	-	-	-	-	-	-	2	-	-	-	-	8	7	4	17	-	-	2	-	133	20
Surface	-	10	1	1	6	11	4	1	-	-	-	44	13	2	1973	12	5	5	1	2622	156

The Site Assemblage: 23MC142

The projectile points recovered from the site are very diverse. The specimen in Group 1 belongs to the type Langtry. Langtry is found in a variety of contexts. Roper (1977:52) notes that they are common in Woodland contexts in southwestern Missouri and southeastern Kansan. Chomko (1976:32; Figure 16, f-i) noted their presence in ceramic contexts at Phillips Spring and that they did not occur prior to 1990 B.P. in the site. Falk (1969:85) and Lippincott (1972:47) indicated that they were found in ceramic contexts and suggested a time span of A.D. 1-1000. They occur commonly in Woodland contexts in the Kansas City area (Shippee 1967). It is often difficult to distinguish from earlier Hidden Valley points (cf. Ahler 1971:15). In general, they appear to be more characteristic of ceramic contexts.

The specimens included in Group 4 are diverse in morphology. Specimen 4:a has a broader base and relatively narrower blade than specimen 4:b. Finding comparable material is somewhat difficult. Although having some affinities for Stone Square Stemmed points (Chapman 1975:257), the bases on these specimens are more distinctly expanding. Variants of this basic form (Chapman 1975:Figure 8-9, c; Henning 1961:146: Figure 28, n; Chomko 1976:34; Fig. 17, m) are closer in shape. Shields (1966b:115-116) illustrates similar points. The closest material is from the Booth site (Klippel 1968:8, Pl.3A, a-b). They also resemble some Etley-like variants as illustrated by Chapman (1975:Figure 8-19, f, from the Pauling site, and Fig. 8-15, a, from the Cuivre River ceremonial component. Indications are strongest for a Late Archaic chronological assignment.

Specimens in Group 9 are similar to the type Stone Square Stemmed, although the type is somewhat broader across the base than these specimens (Chapman 1975:257). They do appear similar to other square-stemmed forms from Late Archaic sites; the Pauling site (Chapman 1975:Figure 8-19, q), the James River sites (Chapman 1975:Figure 8-1, b; 8-4, a; and 8-5, a-b), and the Booth site (Klippel 1968:9, Pl. 3B). A similar point from Phillips Spring (Chomko 1976:34; Figure 17, l) came from Stratum D. This stratum is the lower of two Late Archaic components with dates of 3050 to 2910 B.P. (Chomko 1976:108). Similar points are common in the Cannon reservoir area (Henning 1961:142).

The specimens in Group 18 are ubiquitous. Both are heavily modified from their original morphology. Specimen 18:a appears to have been a stemmed form, but resharpening

has altered all of the blade. The original morphology of specimen 18:b is impossible to determine.

The specimens in Group 19 belong to the type Madison (Scully 1951) in the east and Fresno (Bell 1960:Figure 22) in the west. Bell estimated their range to be approximately A.D. 800 or 900 to A.D. 1600. The type is common in late contexts in Missouri. They occur commonly in Mississippian contexts in southwestern Missouri (Vehik 1974:102; Wood 1961:97, 127; and Chomko 1977:Figure 15), and in the Kansas City area (Wedel 1943:52; Shippee 1967:Figure 12, q; and Calabrese 1969:95-96; Figure 2, a-b). In northeastern Missouri, the type appears in surface collections (Eichenberger 1944:12, Figure 4; and Henning 1961:142, 176). They are reported from Late Woodland contexts (Hunt 1976:5) in the Cannon reservoir area. The type occurs to be common in surface collections from north central Missouri as well (Chomko and Griffin 1975:Figure 3, m; Weichman 1976a:Pl. 3, c; and Shields 1966b:Figure 27, a). Although occurring in Late Woodland contexts, they occur most commonly on Mississippian sites.

The specimens in Group 20 are similar to the type Washita as defined by Bell (1958:98-99). The type is common in Mississippian contexts in Illinois (Perino 1971a:129; Figure 59, a,q) as well as southwestern Missouri (Wood 1961:Figure 7, p; Fig. 17, j; Roper 1977, Pl. 2, i; Bray 1963:Fig. 27, a and Chomko 1977:Figure 15, j-k) and in the Kansas City area (Wedel 1943:52, Cat. N3a1; Calabrese 1969:Figure 2, c; Pl. 4, m; and Shippee 1972:Figure 12, q; Fig. 16, n-o; Fig. 18, m). They also occur in northeastern Missouri (Eichenberger 1956:Figure 4, 41).

The specimens in Group 22 are common throughout Missouri. They are not unlike the type Snyders Notched (Scully 1951:88, Pl. 44). Somewhat similar material is present in surface collections throughout northern Missouri (Chomko and Griffin 1975:Figure 3, a; Vehik 1971:Figure 3, k; Henning 1961:140, 174; Shields 1966b:115, Fig. 20; and Eichenberger 1944:Convex-based forms No. 1, No. 2, and No. 21). In the Kansas City area, similar points are common on Middle Woodland sites (Shippee 1967, Bell 1976 and Reeder 1978). Middle Woodland sites in the Big Bend and lower Lamine River localities (Kay 1975) include the type, as do Middle Woodland sites in the St. Louis area (Blake 1942).

Specimens in Groups 25 and 27 are not particularly diagnostic. The specimens in Group 25 are heavily modified or are basal fragments. Likewise, specimen 27:a appears to have been corner-notched but is modified along the entire blade margin.

The specimens in Group 33 are diverse morphologically. Specimens range from almost basal-notched to nearly side-notched. All appear to date to about the same time period. All appear to be part of a Late Woodland component. Although not classifiable as micropoints, they do fall with the upper range of similar Late Woodland points from the Upper Mississippi River (Eichenberger 1939, 1944, and 1956), Cannon reservoir (Henning 1961:139; O'Brien and Warren 1979), north central Missouri (Veichman 1976a:Pl. 3, a; Vehik 1971:Figure 2, a), and into the Kansas City area (Shippee 1967; Bell 1976).

The specimens in Group 34 were corner-notched forms slightly larger than the preceding category. They exhibit broader bases and stems. The method of manufacture is similar to the preceding category although both are fragmentary. Specimens exhibit similar characteristics to a number of forms dating to the late Middle Woodland through early Late Woodland. White (1968) referred to these as late subtriangular varieties. They exhibit the later part of the trend in the Middle Woodland to smaller forms similar in morphology to earlier points (cf. Bell 1976:34-35). This trend was noted in the seriation of ceramics and points at the Trowbridge site in Kansas. Similar materials occur in surface collections from northeast Missouri (Eichenberger 1944; Henning 1961) as well as from excavations (Hunt et al. 1977) where they all appear to have late Middle Woodland to early Late Woodland contexts.

The specimens in Group 38 are difficult to place temporally. These broad corner-notched forms compare favorably with specimens from Rodgers Shelter (Ahler 1971:8; Pl. 1, 1c; Pl. 2, 2d, 2e). The form appears to have some relationships to Late Archaic materials from Phillips Spring (Chomko 1976:34; Figure 17, e-n), from Graham Cave (Klippel 1971:24; Figure 12, c) and from the Green Ridge site (Turner 1965:Figure 1, d, e). Similar broad corner-notched and expanding-stemmed points also are most numerous from Late Archaic contexts at Modoc Rock Shelter (Fowler 1959a). Although perhaps beginning earlier than the Late Archaic and extending into the Middle Woodland, they appear to be most common in the Late Archaic.

The specimen in Group 39 is closest to the type Smith Basal Notched (Chapman 1975:256-257) with the noticeable lack of a square stem and straight base. The only directly comparable material is illustrated by Klippel (1972:Figure 12, 2:65). Smith Basal Notched is common in southwest Missouri (Chapman 1956; Chapman 1975:184-200; Wood 1961; Roper 1977:50; Pl. 1, g-h; Marshall 1963:8; Figure 8; and Calabrese, Pangborn and Young 1969:Pl. 1,f). They appear as

a minor form in central Missouri from Sedalia Complex sites (Chapman 1975:Figure 8-14) and from Graham Cave (Logan 1952:35; Pl. X, e,f; Pl. XI, 1; Pl. XII, a; and Klippel 1971:30; Figure 14, i). They are uncommon in northern Missouri (Henning 1961:142, 174). Chapman (1975) considers the form to be primarily Late Archaic although having its beginning in the Middle Archaic.

The specimen in Group 40 does not appear to be diagnostic. Although the outline is similar to late Paleo-Indian/Early Archaic transitional points, the type of chipping on the base does not match the working on the rest of the specimen. It appears that the base has been reworked from another form or on a distal fragment.

The specimen in Group 41 is larger than the smaller unnotched triangular points in Group 19. This larger specimen also is believed to be relatively late but probably belongs to a Late Woodland component on the site. The degree of edge trimming is not good, and the specimen may be a preform rather than a finished projectile point. Similar forms, classified as bifacial blades occur in the Late Woodland sequence at the Trowbridge site in the Kansas City area (Bell 1976:35).

The specimens in Group 42 are similar in morphology to the type Klunk Side-notched as defined by Perino (in Bell 1971:100-101) and occur in Late Woodland contexts in Illinois (Perino 1973:Figure 31). Bell (1958:76-77) initially referred to the type as Reed and estimated its temporal range to be A.D. 500-1500. The latter estimate appears to be more accurate, as later Mississippian material often can be quite similar. Similar material occurs commonly in surface collections from northeastern Missouri (cf. Eichenberger 1944:Pl. III; Eichenberger 1956:Figure 4; and Teter and Warren 1979:241).

The specimen in Group 43 also falls within the range of the type Klunk Side-notched. The presence of the concave base is somewhat more typical (cf. Teter and Warren 1979:241) of the Late Woodland varieties in northeast Missouri. Other sites in the Cannon reservoir (Hunt et al. 1977) also have Late Woodland forms with concave bases more typical.

The specimens in Groups 45 and 46 are not diagnostic. None exhibit a sufficient amount of the points remaining to determine original morphology. Their fragmentary nature and attempts to rework a number of other point fragments indicates the degree of chert artifact recycling. The large number of points and fragments does illustrate the relative

importance of hunting in the subsistence base. Likewise, the number of distal point fragments (Group 47) medial fragments (Group 48), and shoulder fragments (Group 49) are not particularly informative. Most of these fragments are relatively large fragments and are part of the earlier components on the site. The numbers of these specimens does not exceed the number of proximal fragments and does not indicate differential return of these materials to the site.

The variety of scrapers (Groups 51, 52, and 53) are indicative of scraping activities. Their relatively small number compared with other artifact classes indicates that scraping activities were not important or occurred with sufficient frequency to create specific tools. All four tools in these groups are made on waste materials (flakes, biface fragments, or point fragments).

The drill-like implements (Group 54) are indicative of another activity on the site (drilling or reaming). Again, their percentage of the total artifact count is relatively low. Their number is higher than scrapers, however. Such activities appear to have been more common than scraping, but scraping activities may be accomplished by incidental tools (retouched or utilized flakes) while drilling or reaming can not.

The number of complete and proximal biface fragments (Groups 65, 67, 68 and 69) are low when compared with other sites in the area. All of these specimens exhibit little or no wear and are blank or preform fragments. The number of pointed distal biface fragments (Groups 71 and 72) are in line with the relative numbers of such artifacts recovered from other sites in the area. Their number is slightly higher than the total number of proximal fragments, while typically they are present in lower numbers.

The number of miscellaneous unidentifiable biface fragments (Groups 75 and 76) are high, but their relative number appears to be in line with most of the sites in the area. The large number of biface fragments as well as their small size and the attempts to rework a large number of these is indicative of a long use-life and heavy recycling of chert artifacts. Attempts to work irregular shatter and tabular pieces of chert (Group 83) illustrate the relative scarcity of chert and reinforces the indications of heavy recycling of other types of expended artifacts.

The numbers of chert cores, fragments, and chert raw material with test flakes (Groups 77, 78, 79, 80, 81, and 82) are indicative largely of the use of local raw materials. Their numbers are high when compared with other

sites in the area. Chert polyhedral cores (Group 77) are most numerous. Other processes involving bifacial cores (cf. Klippel 1968) are present, but the nature of most of the glacial cherts (numerous fracture planes) generally precludes such processes.

The flake tools (Groups 84, 86 and 87) are particularly numerous and comprise the most numerous artifact category. Although not uncommon for the area, the numbers of flake tools relative to the amount of chert waste recovered is high. While both cutting and scraping activities are present in the sample, scraping activities constitute the bulk of the retouched and utilized categories. Sixty percent of the retouched working elements, and sixty-seven percent of the utilized working elements were used in scraping activities.

As with most of the seasonal sites in the area, the numbers of ground and pecked stone recovered are high. Specimens in Groups 90, 91, 93, 94, 95, and 96 appear to have been utilized in plant processing. Pecking, grinding, and most battering on specimens is not indicative of direct contact with dense materials (cf. Baker 1975). All of these indicate that processing of plant materials was an important activity on the site. Ratios of ground and pecked stone to projectile points yields a ratio of almost 3:1.

End and edge battered cobbles (Group 92) exhibit a variety of types of edge damage. Ten specimens exhibit wear characterized by edge crushing only. This grades from light to heavy, generally as a direct function of size. Four specimens exhibit edge crushing as well as edge shattering. In most cases, individual peck marks are individually distinct, and they appear to have been utilized in direct contact with dense materials.

Chert core hammerstones (Group 97) also are characterized by direct contact with dense materials. Only one specimen (97:a) lacks wear characteristic of direct contact with dense materials. While most specimens exhibit edge crushing and slight edge shattering, specimen 97:a exhibits distinct edge rounding. Most of the specimens probably are part of a chert reduction process, while the cause of the alteration of specimen 97:a is unknown.

The specimens in Group 98 are both anvilstones. Individual peck marks on the faces are distinct, and dense materials appear to have been processed on their surfaces (cf. Baker 1975). Individual peck marks are larger, but variable in distribution. The nature of the materials being processed could not be determined.

Ground sandstone (Groups 101 and 102) is not numerous and indicates diverse functions. The specimen in Group 101 is small and indicates grinding of a large, flat object. The specimen in Group 102 was used to sharpen a narrow, pointed object. The specimen in Group 104 has had several flakes removed from two margins. Flake removal is somewhat irregular, and the reason for the alteration is unknown.

The specimens in Group 110 are incidental tools much the same as utilized flakes. Two specimens have thick working elements and were used in a chopping motion based on the degree of edge damage. The remainder of the specimens exhibit less severe edge damage. Most of these appear to have been used in a cutting motion. The specimen in Group 111 has utilized edges and is similar to the specimens in Group 110 except that one face was modified by grinding prior to fracture and subsequent utilizations.

The axe fragment (Group 114) was ground from a glacial cobble, and there is no indication of chipping into shape. Cortex is present on the two edges. The bit end exhibits heavy edge damage and was used as an axe.

Hematite was altered for a variety of purposes. Only three of the pieces of chipped hematite (Group 117) exhibit bifacial-bilateral flaking characteristic of a tool-shaping process. The other five specimens have irregular flake removal, and the purpose of these alterations is unknown. Ground hematite (Group 118) was altered for pigment only. All of the specimens exhibit outer edges ground or are highly irregular in shape. None exhibit any regular grinding indicative of tools. Hematite flakes (Group 119) are not numerous. Flaking was performed for tool-shaping as well as for as yet undetermined reasons. The ground and chipped hematite (Group 120) specimen was ground for pigment initially. The reason for subsequent flake removal is unknown. The ground hematite flake (Group 121) was removed from a completed tool. Whether the flake was removed as resharpening or through use is unknown. Scratched hematite (Group 123) was shaved with a chipped stone tool. This was probably done to obtain pigment. The chipped, ground, and scratched hematite in Group 125 was first ground and then scratched with a chipped stone tool for pigment. The reason for flake removal is unknown, although it may have been to remove cortex.

The ceramics (Groups 126 and 128) are, unfortunately, not particularly informative. Both sand-tempered as well as the sand and grit-tempered ceramics have little or no decoration. Only four rim sherds were recovered, and all of these were sand-tempered. Three of these rim sherds are

smooth with decoration of interior punch and boss on only one rim sherd. One cordmarked rim sherd exhibits interior punch and boss as well as interior cordwrapped dowel impressions. The latter is clearly part of Weaver wares in northeastern Missouri (Hunt 1976) and western Illinois (Fowler 1955). This sherd appears to be part of the Late Woodland component. The smooth sherds with interior punch and boss may belong to the early part of the Weaver ware sequence, but there is far too little information to substantiate this. None of the sand and grit-tempered ceramics exhibit any surface decoration. While clearly part of the Woodland components on the site, neither can be firmly tied to specific components. Burned clay (Group 133) is common in the excavations. Although several large pieces may be daub, none exhibit any impressions which would allow their inclusion as such.

The remainder of the materials recovered is lithic waste or unmodified stone. The density of chert waste is typical of seasonal sites in the area. The compression of the site into less than twenty centimeters of depth would indicate that the density of chert waste by component is lower than some sites in the area. Chert waste is characterized by a preponderance of biface thinning, trimming, and retouch flakes. The amount of local chert worked has resulted in several larger flakes and core flakes in the sample. The use of other material types (quartzite, quartz, silicified sediments, and argillite) indicate the use of local sources of raw materials. The density of fire-cracked rock is fairly high. This material is associated with thermal activities, often cooking. Much of this material is probably dispersed from its original location.

The lack of identifiable features in the excavations is uncommon on seasonal sites in the area. The high compression of deposits on the site may have disturbed features. The large amounts of fire-cracked rock recovered without any discernible concentrations would tend to indicate that this is true, but there were no clear indications of heavy admixture.

In summary, the site contains several components. A Late Archaic component is represented by points in Groups 4, 9, 38, and 39. Previous collections on the site (Grantham 1977) also yielded strong indications of a Late Archaic component. An Early/Middle Woodland component is represented by points in Group 22 and possible Group 25. The points in Group 34 belong to a late Middle Woodland or early Late Woodland component. The point in Group 1 probably belongs to a Woodland component. Earlier

collections on the site (Grantham 1977) also yielded materials belonging to an Early/Middle Woodland component. No ceramics indicative of an Early Woodland component were recovered. A Late Woodland component is also present. Points in Groups 33, 41, 42, and 43 belong to the Late Woodland component. Ceramics with decoration indicate that a Late Woodland component is present. Smooth ceramics with interior punch and boss may indicate late Middle Woodland or early Late Woodland temporal position, but the sample size is too small. A late component (Mississippian) may be represented by Groups 19 and 20. The types of tools recovered indicate that a large number of activities occurred on the site. Hunting and plant processing are the most important activities based on the percentages of tools. The latter activity appears to be more important in the subsistence base.

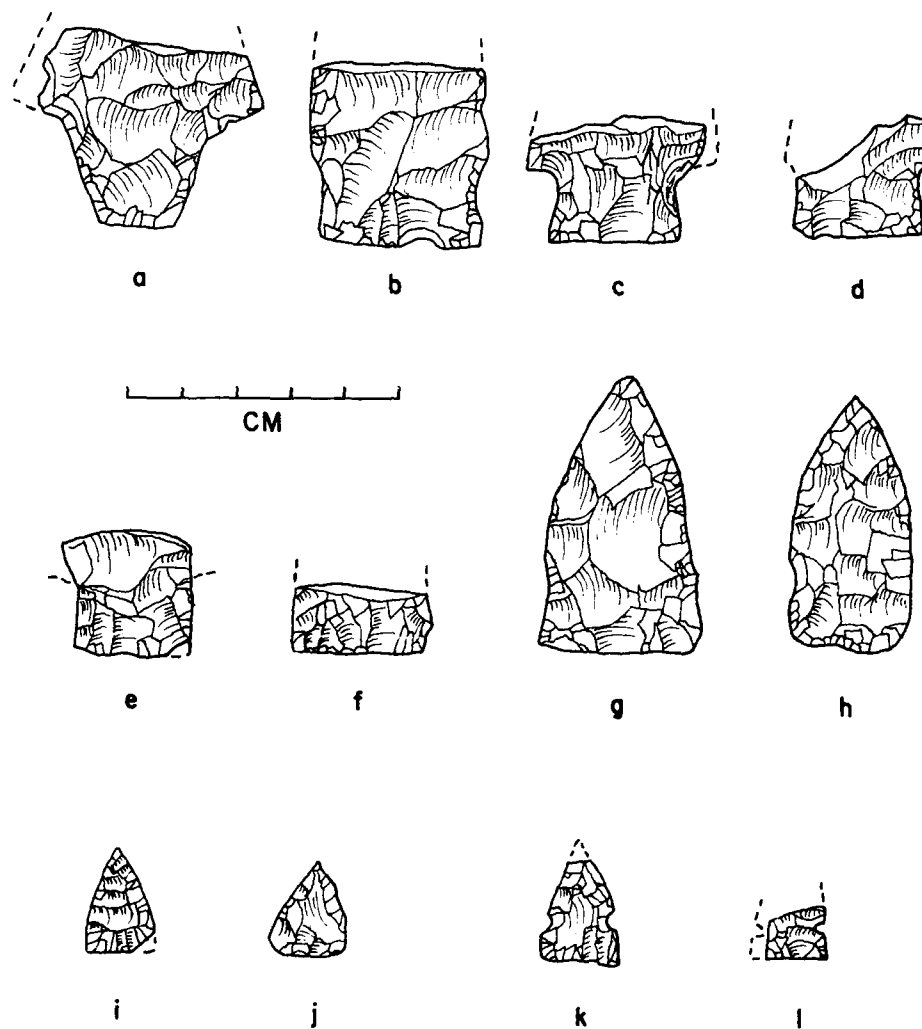


Figure 125. 23MC142. Artifacts. (a) Group 1, (b-c) Group 4, (d-f) Group 9, (g-h) Group 18, (i-j) Group 19, (k-l) Group 20.

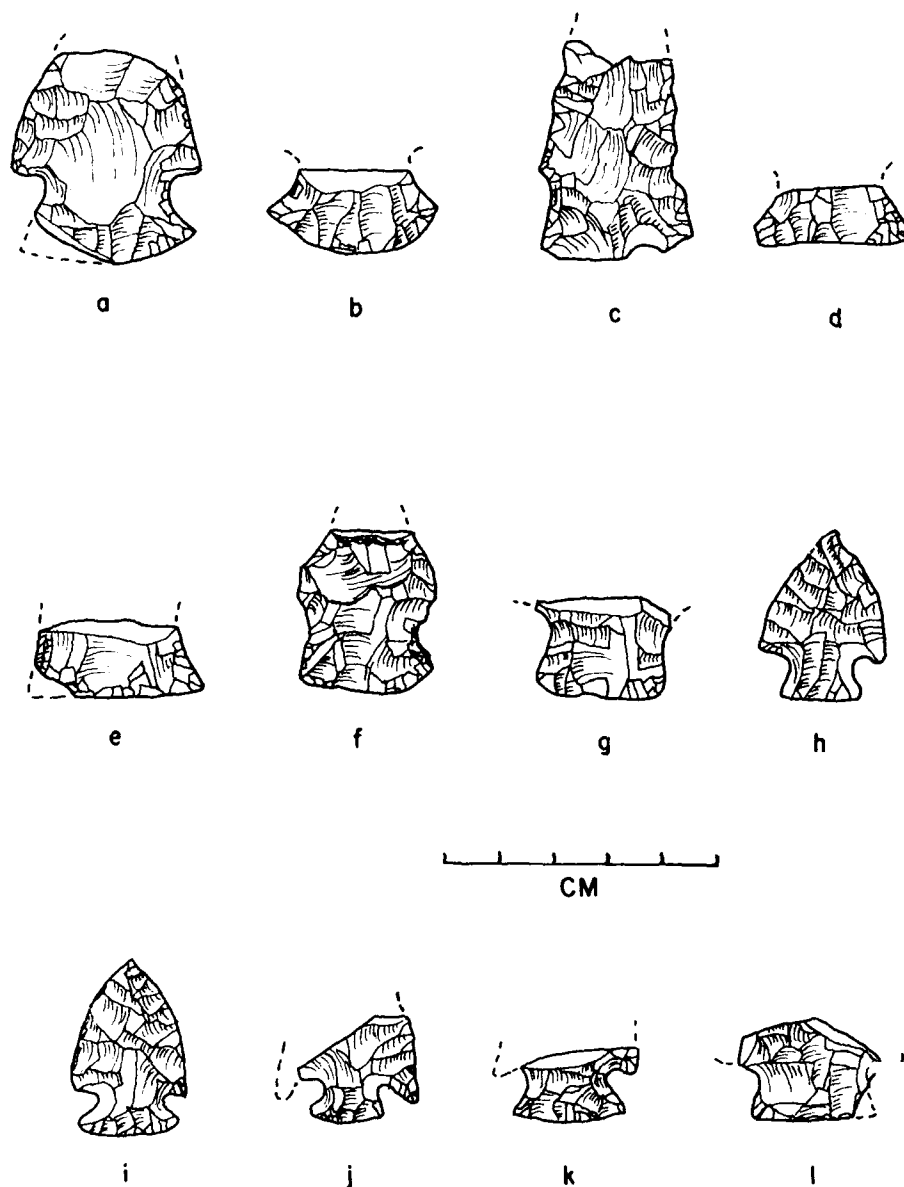


Figure 126. 23MC142. Artifacts. (a-b) Group 22, (c-e) Group 25, (f-g) Group 27, (h-k) Group 33, (l) Group 34.

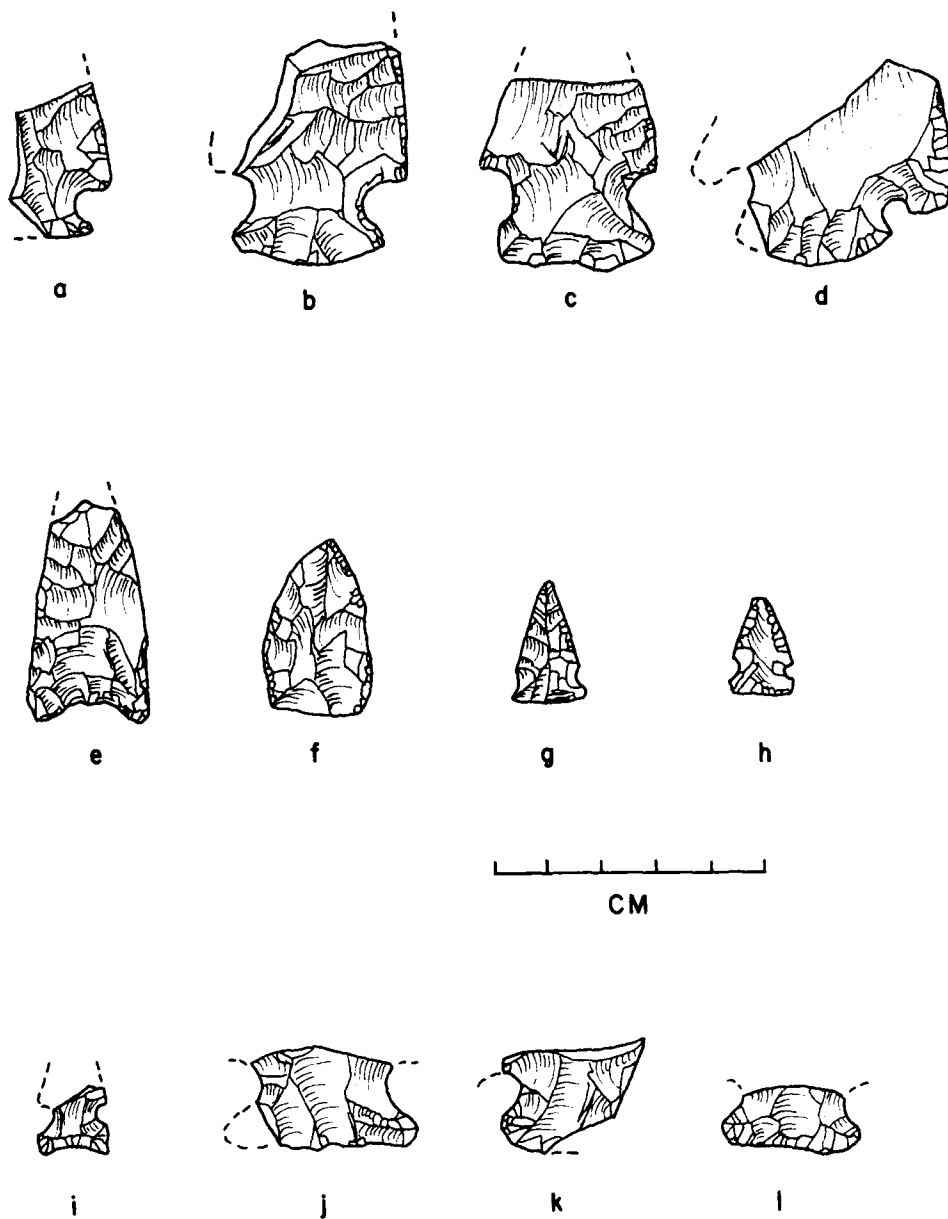


Figure 127. 23MC142. Artifacts. (a) Group 34, (b-c) Group 38, (d) Group 39, (e) Group 40, (f) Group 41, (g-h) Group 42, (i) Group 43, (j-l) Group 45.

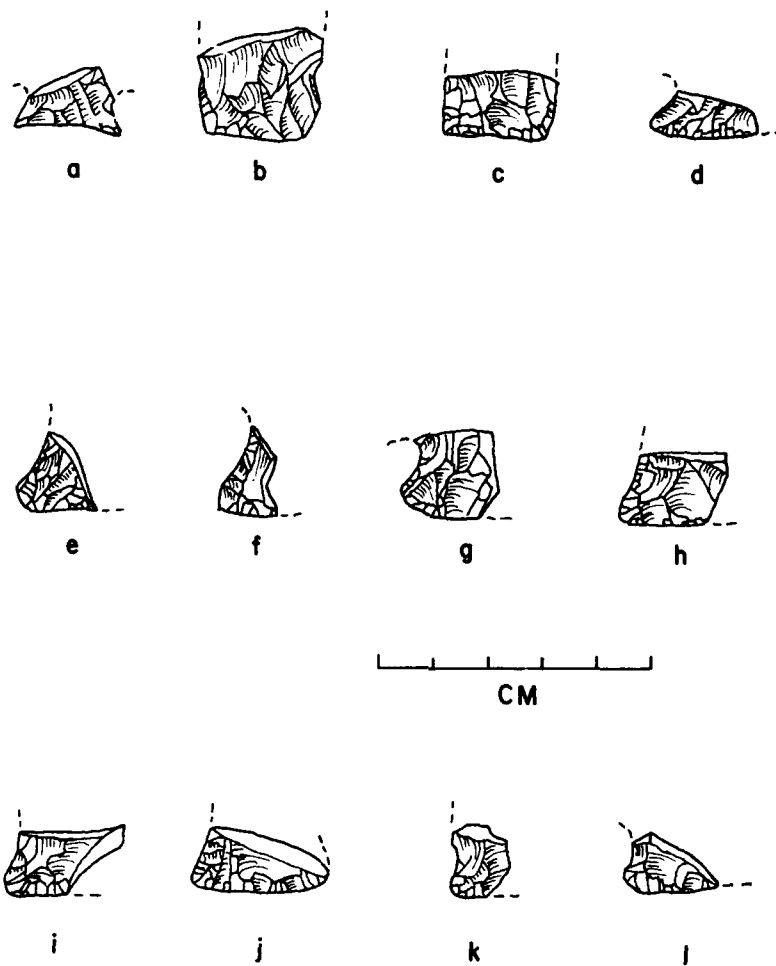


Figure 128. 23MC142. Artifacts. (a-c) Group 45,
(d-l) Group 46.

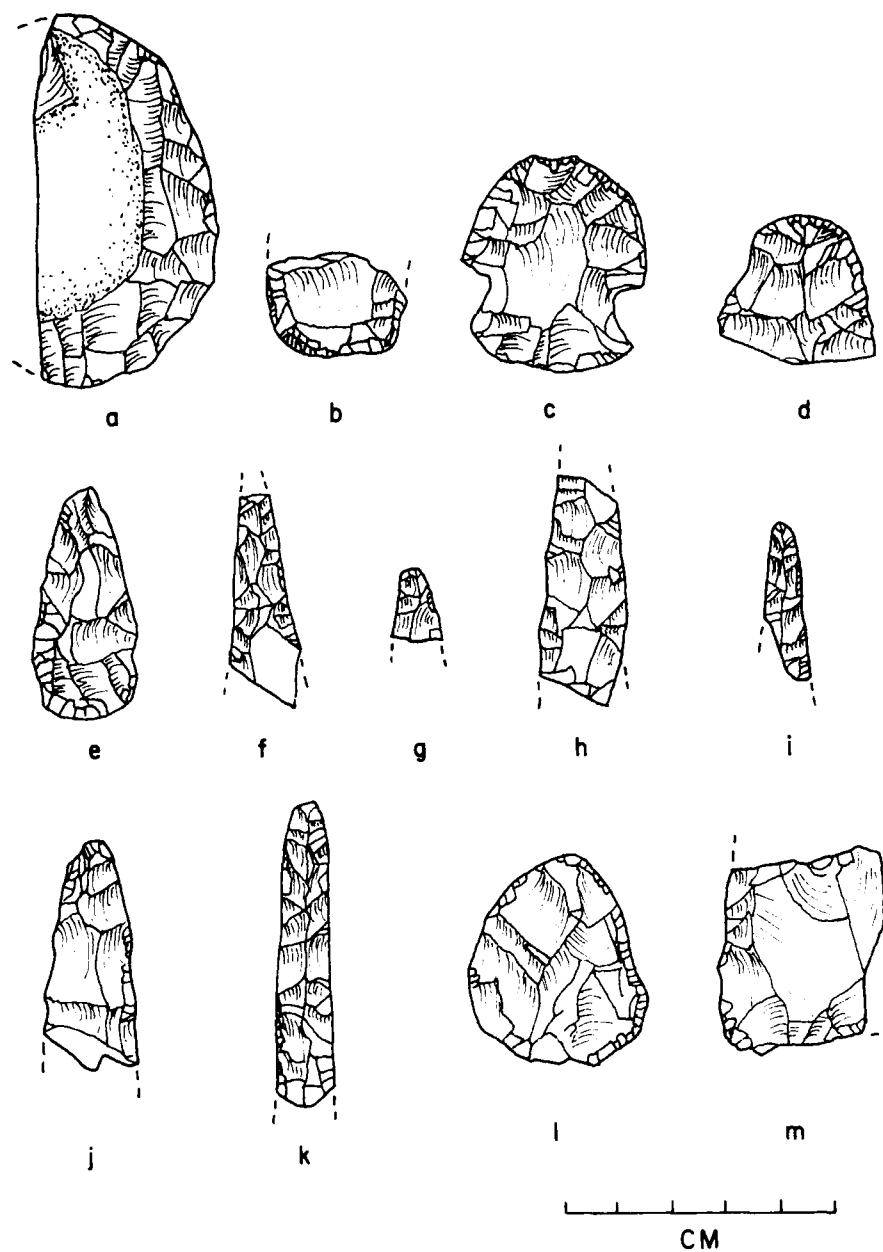


Figure 129. 23MC142. Artifacts. (a-b) Group 51, (c) Group 52, (d) Group 53, (e-k) Group 54, (l) Group 65, (m) Group 67.

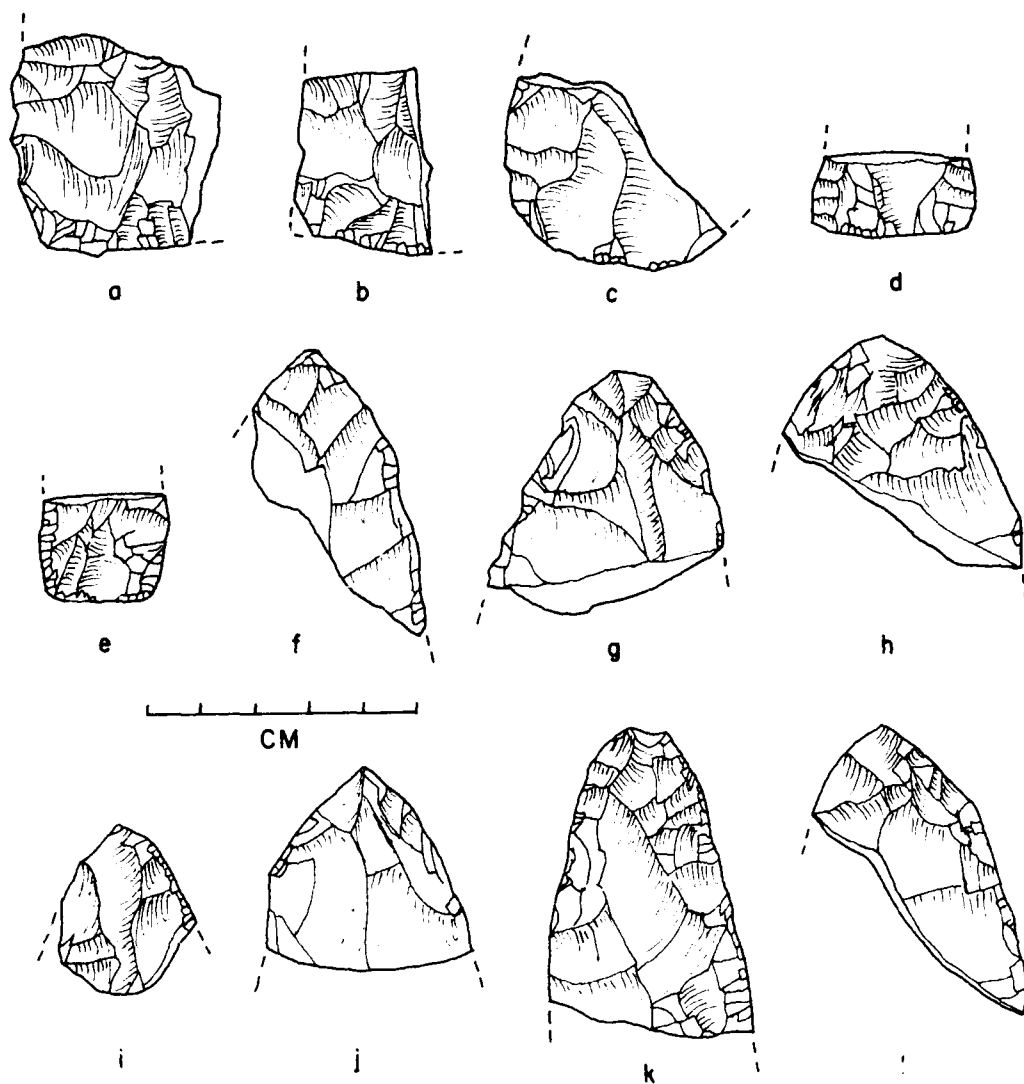
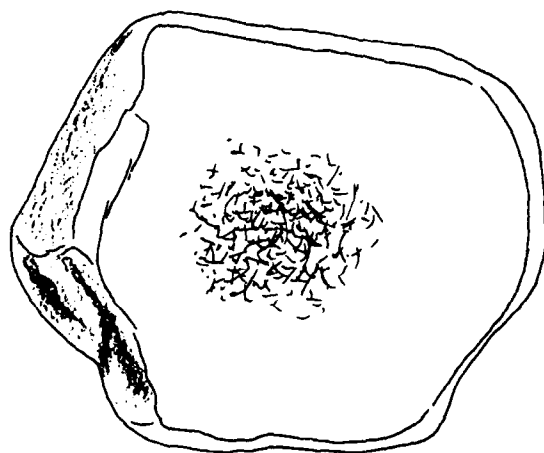
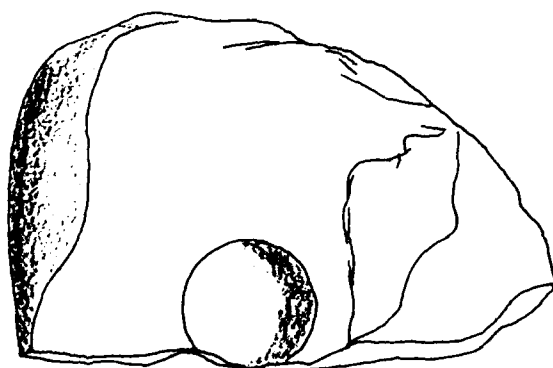


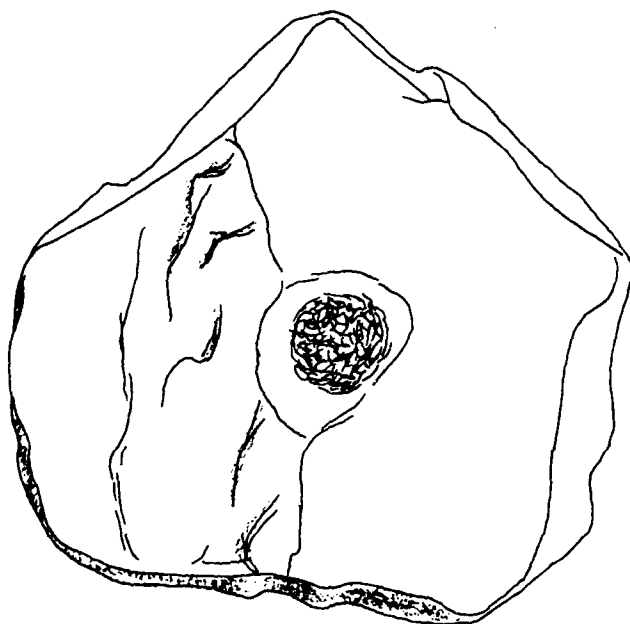
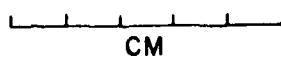
Figure 130. 23MC142. Artifacts. (a-b) Group 67, (c) Group 68, (d-e) Group 69, (f-i) Group 71, (k-l) Group 72.



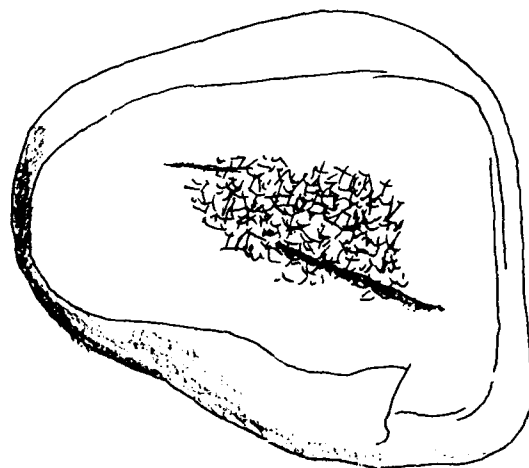
a



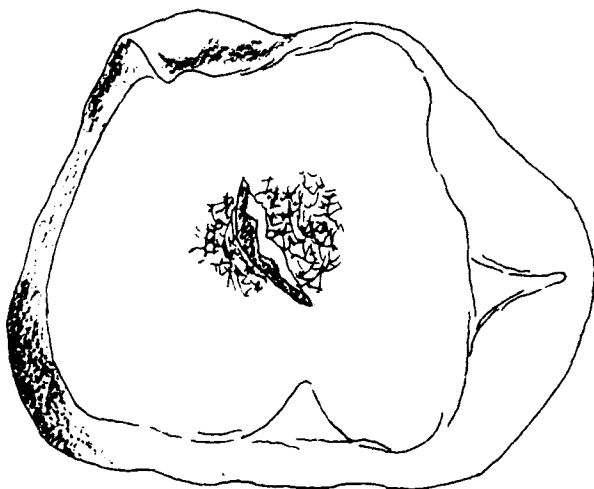
b



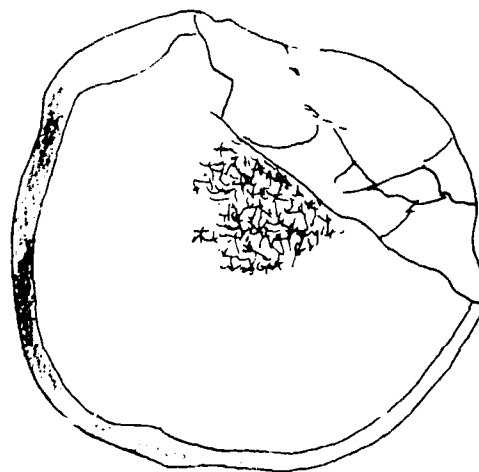
c



d



e



f

Figure 131. 23MC142. Artifacts. Pecked Stone, (a-f)
Group 90.

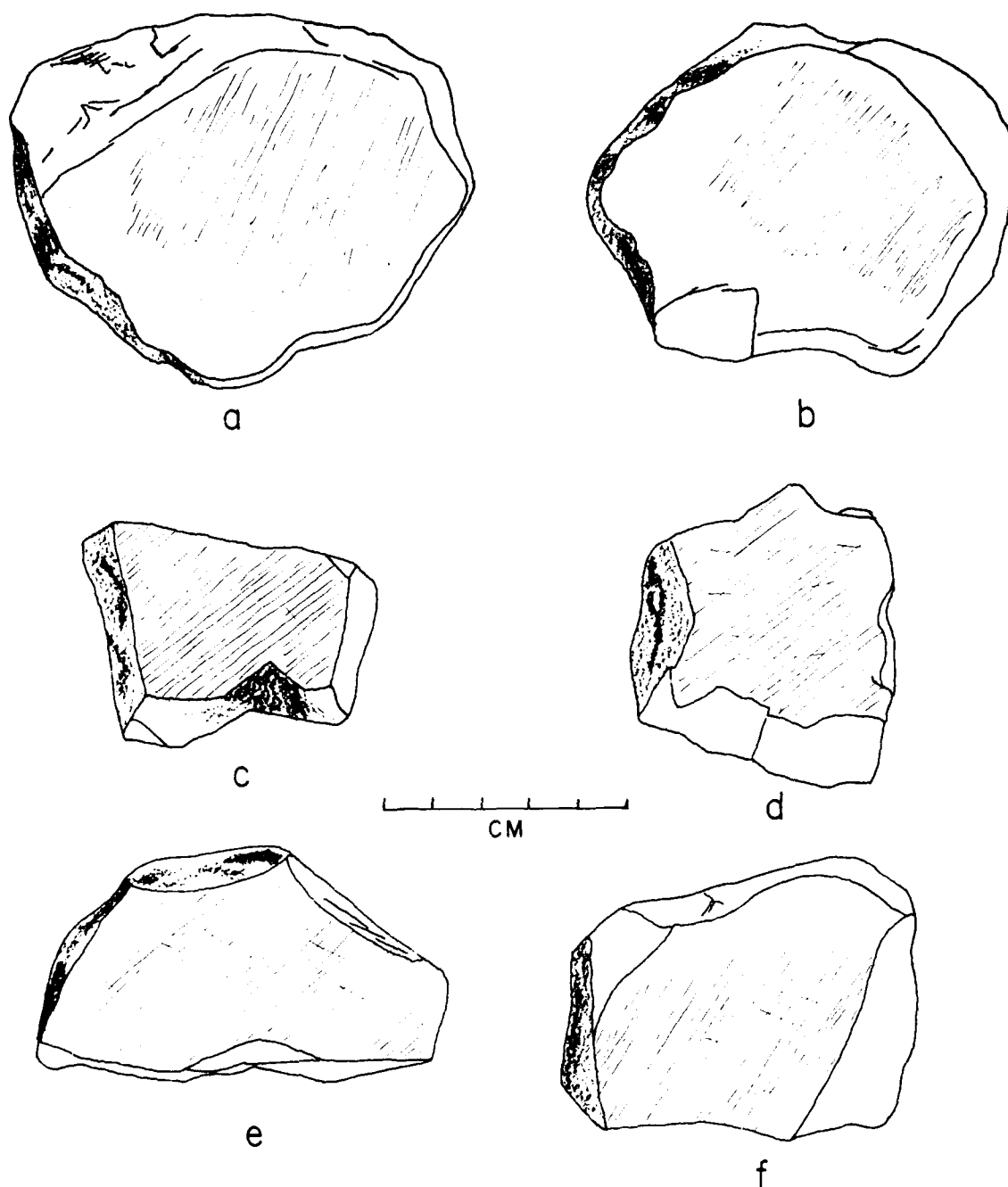


Figure 132. 23MC142. Artifacts. Ground Stone, (a-f)
Group 91.

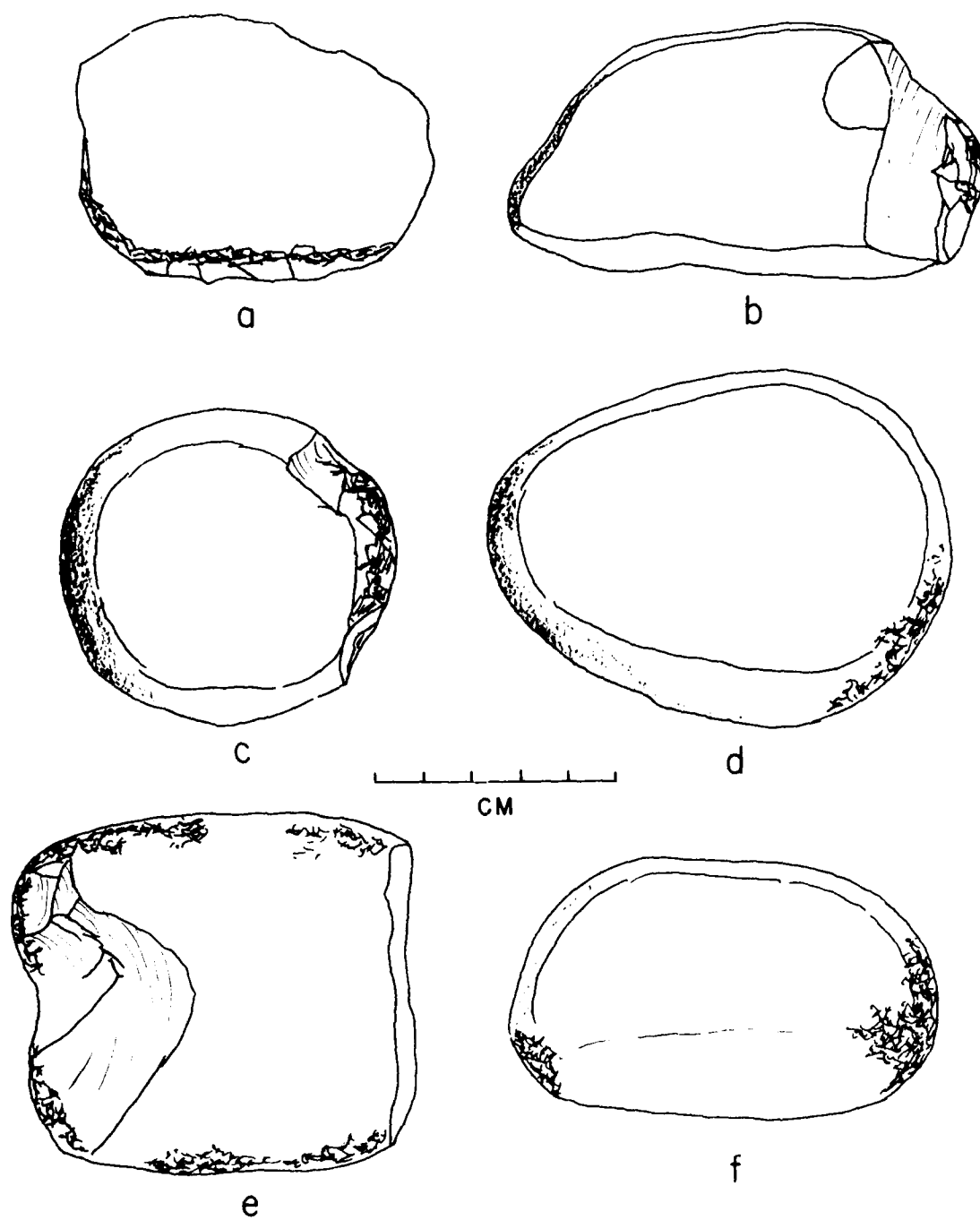


Figure 133. 23MC142. Artifacts. Battered Cobbles, (a-f)
Group 92.

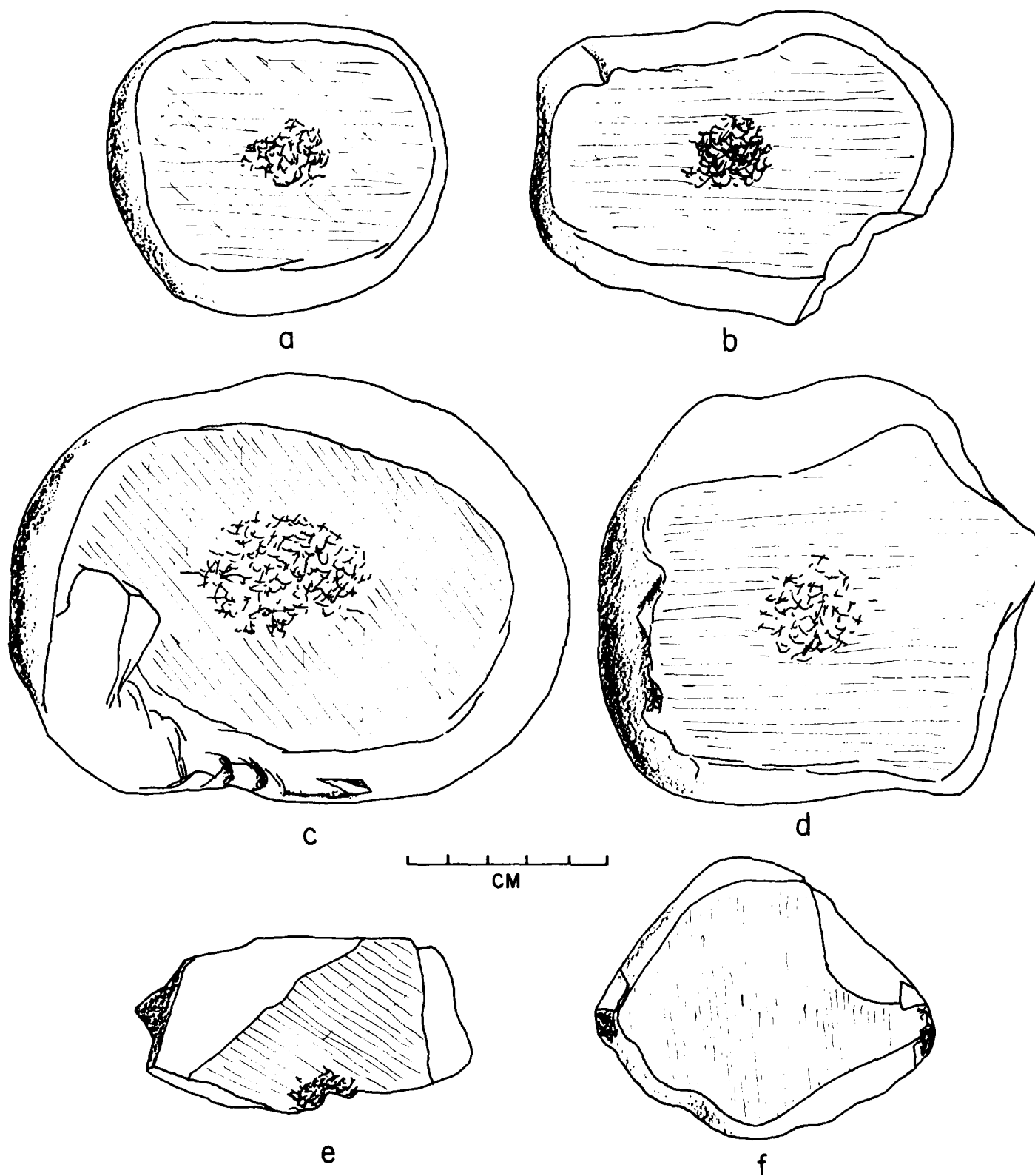


Figure 134. 23MC142. Artifacts. Ground and Pecked Stone.
(a-e) Group 93, (f) Group 95.

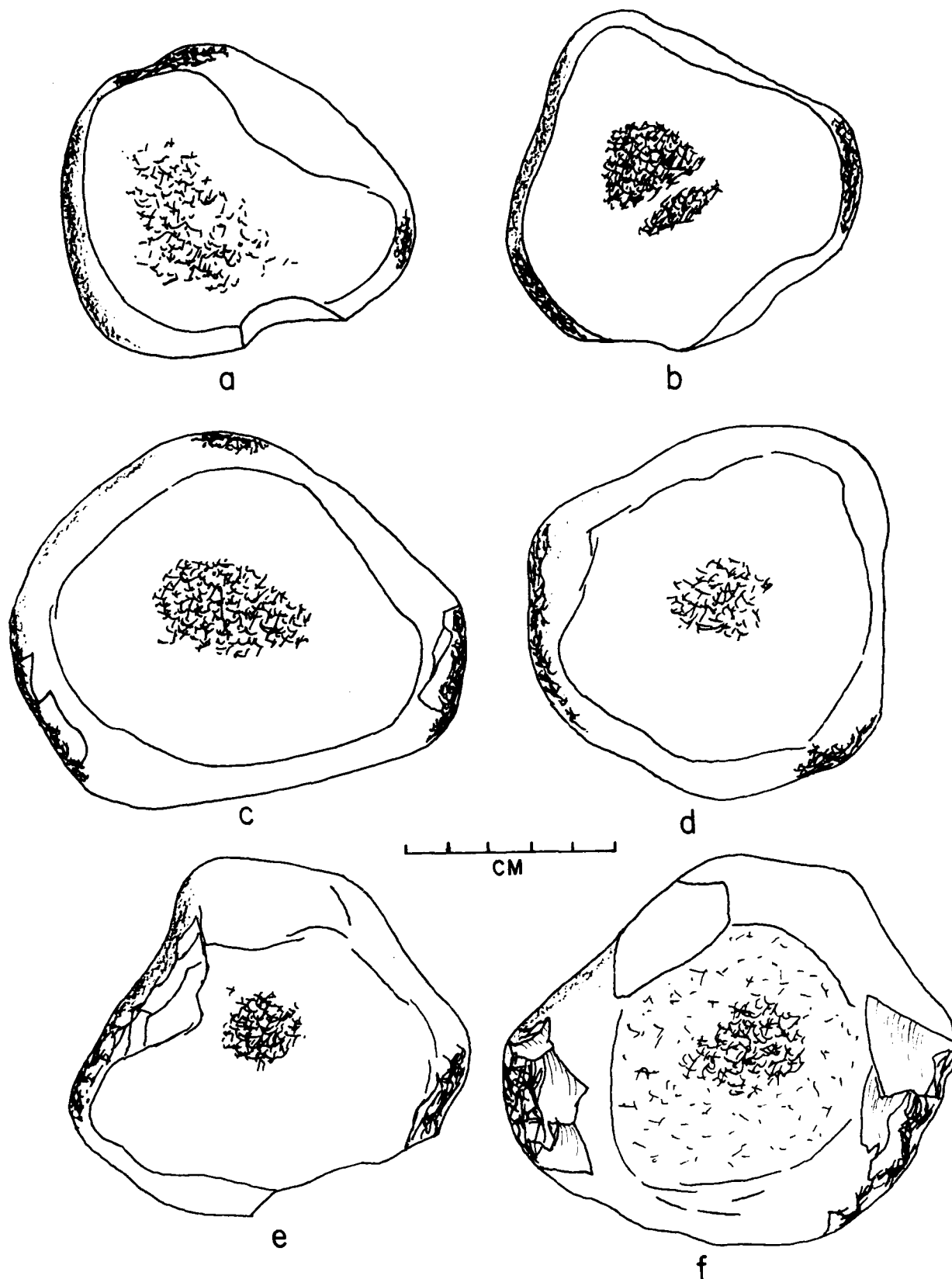


Figure 135. 23MC142. Artifacts. Pecked and Battered Stone. (a-f) Group 94.

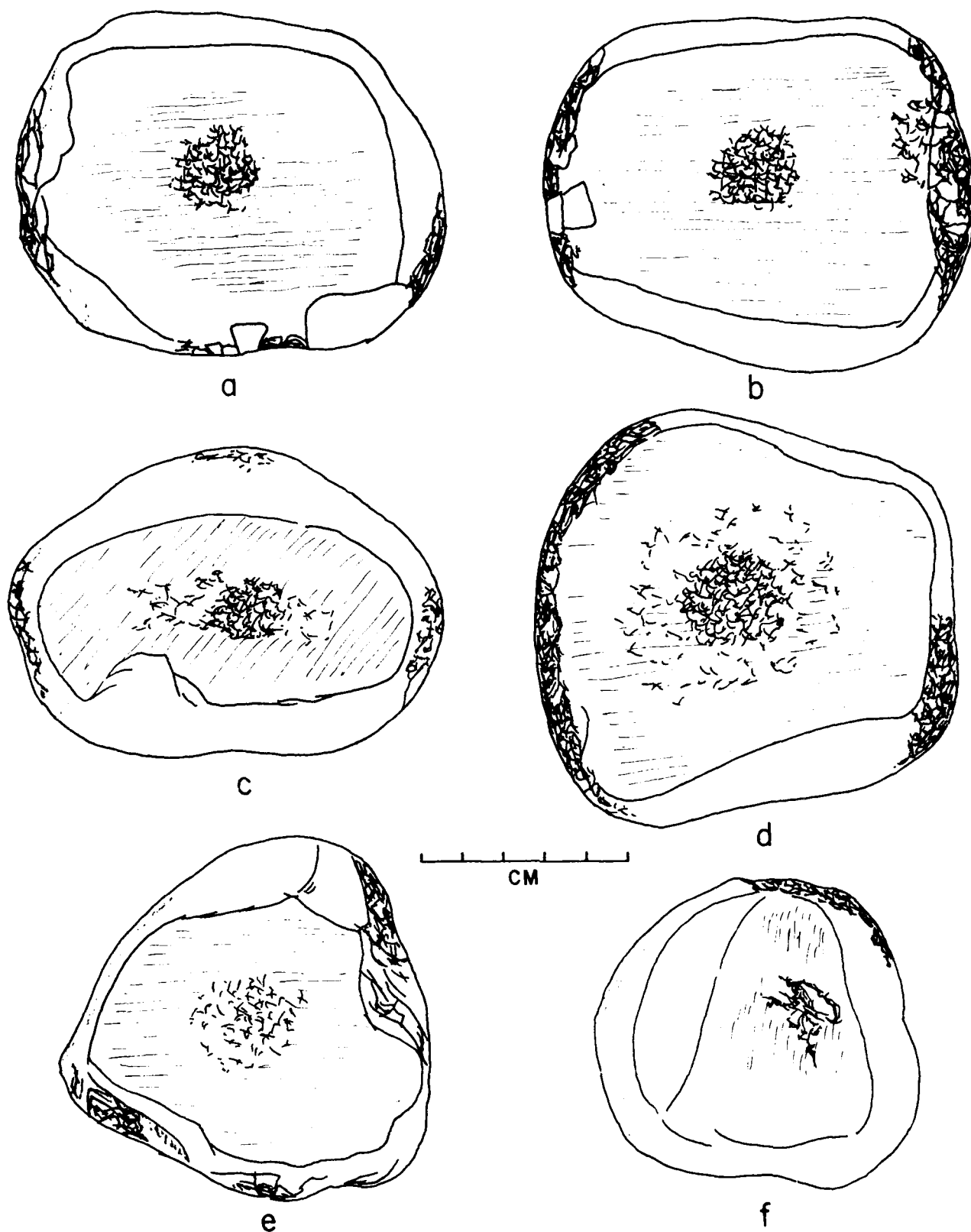


Figure 136 24MC142. Artifacts. Ground, Pecked, and Battered Stone. (a-f) Group 96.

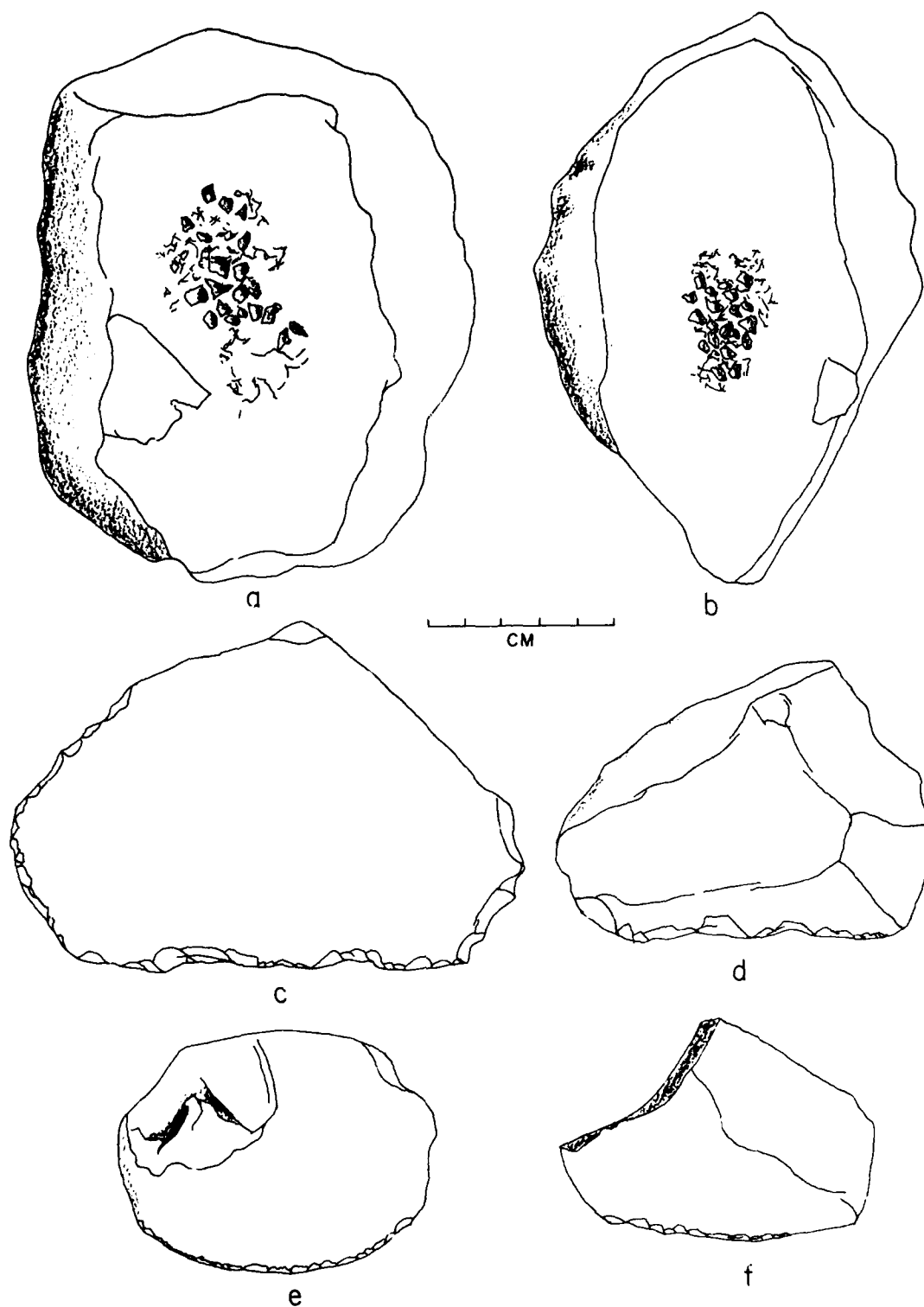


Figure 137. 23MC142. Artifacts. (a-d) Group 97, (e) Group 102, (f) Group 114.

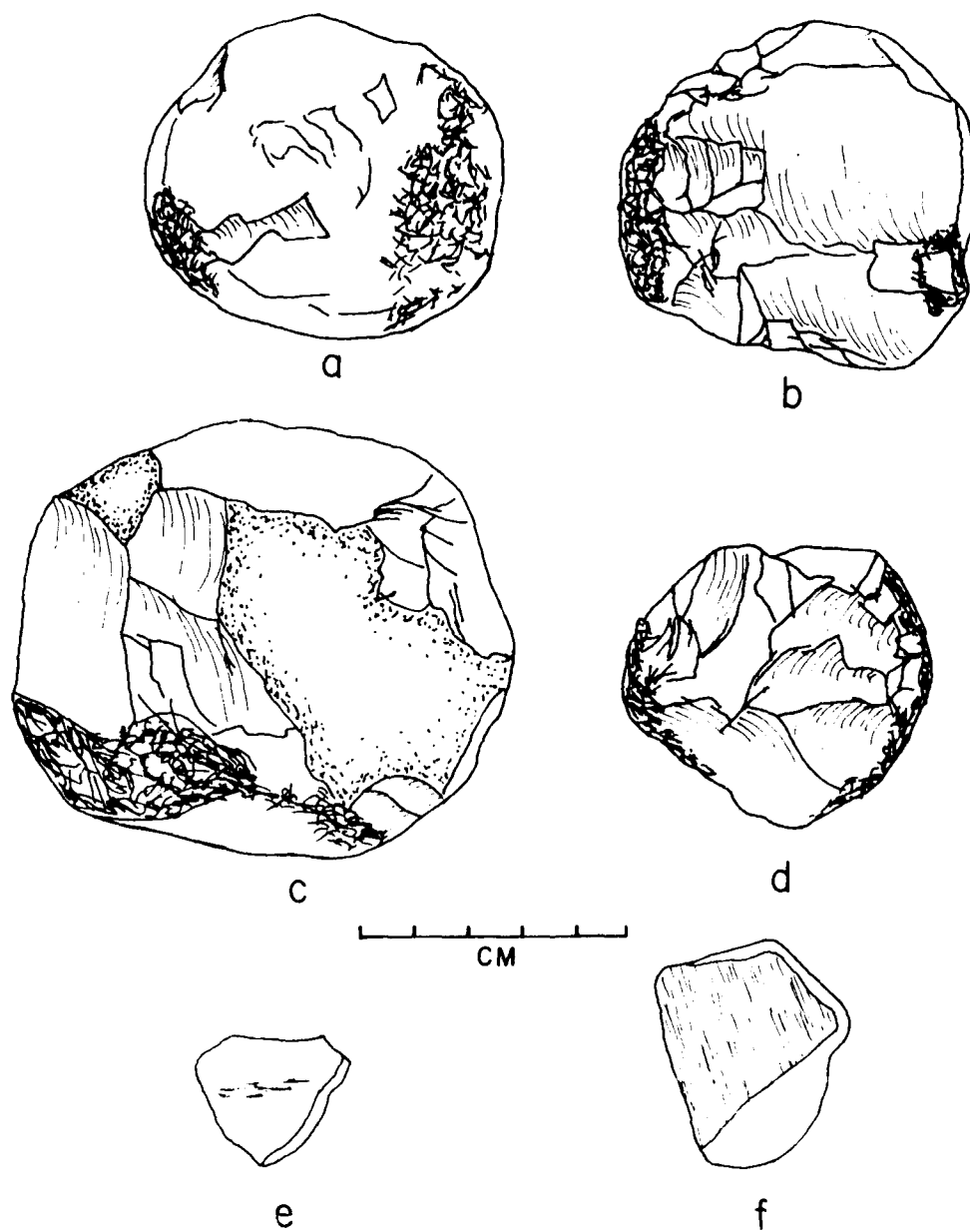


Figure 138. 23MC142. Artifacts. (a-b) Group 98, (c-f) Group 110.

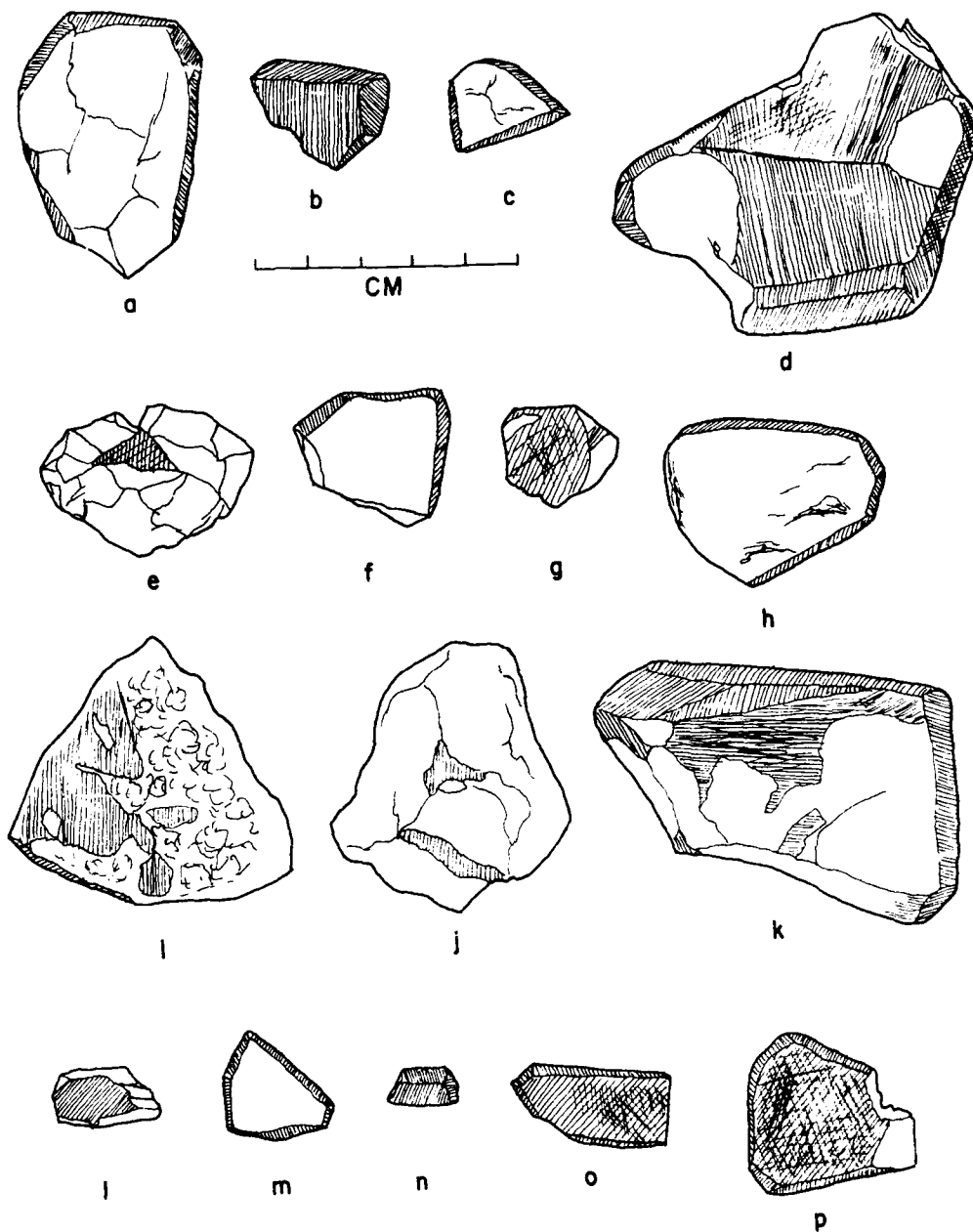


Figure 139. 23MC142. Artifacts. (a-c) Group 110, (d) Group 101, (e) Group 104, (f) Group 111.

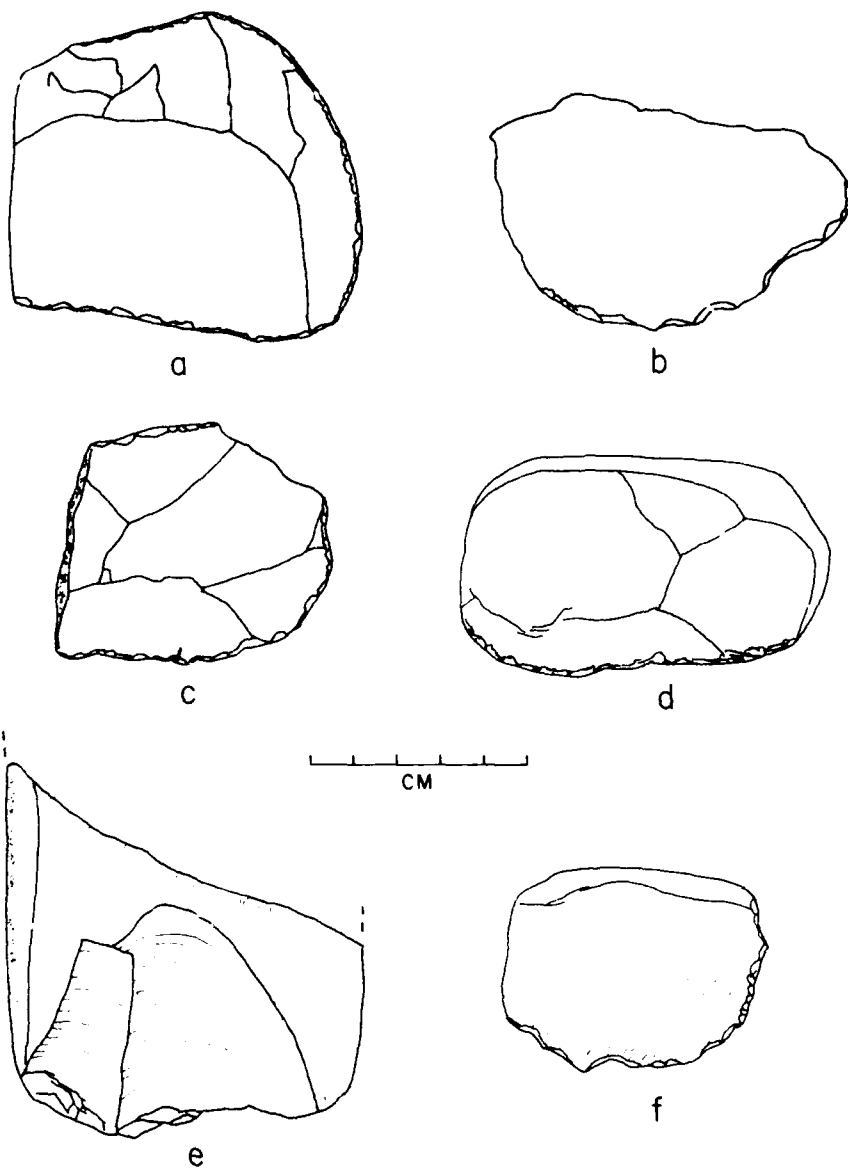


Figure 140. 23MC142. Artifacts. (a-p) Group 118.

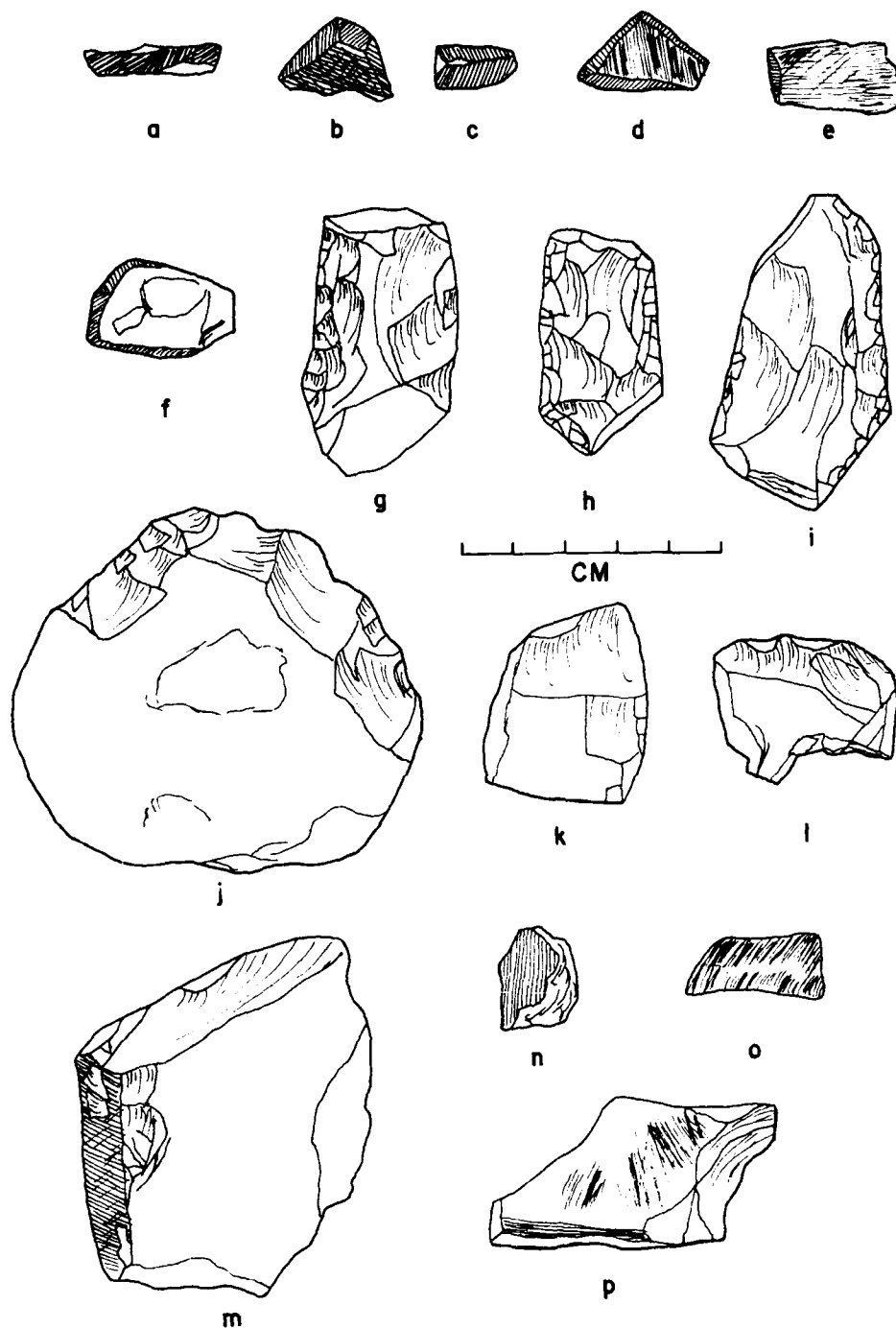


Figure 141. 23MC142. Artifacts. (a-f) Group 118, (g-m) Group 117, (n) Group 120, (o) Group 121, (p) Group 123, (q) Group 125.

This site lies on the left (east) bank of the East Fork. The site lies high on the hill well back from the river. The site is bounded on the south by a moderately deep draw and on the north by a large intermittent stream. The slope on which the site lies is moderate to steep. The river originally flowed some 410 feet west of the site. The size of the site is undetermined due to very poor visibility but is estimated to be 300 feet east-west by 100 feet north-south. The elevation of the site is estimated to be approximately 800-820 feet m.s.l. Vegetation consisted of oak-hickory forest, and visibility was very poor. During the survey a shovel test was dug about halfway up the slope. Materials were recovered from that test hole only. Material density was moderate.

MATERIAL COLLECTED

PREHISTORIC

CHIPPED LITHIC ARTIFACTS

Thick Biface Fragment. 1

LITHIC WASTE

Chert Flakes 5

Chert Shatter. 1

Fire-cracked Rock. 4

None of the materials recovered is diagnostic of any chronological period, site function, or of seasonality. Likewise, none of the material recovered in previous collections on the site (Grantham 1977) could be considered diagnostic.

This site lies on a high flat hill on the left (northeast) bank of the East Fork approximately one and one-half miles north of the dam axis. The hill on which the site lies is bounded by a deep broad wash just southeast and by a short shallow wash to the northwest. Hill slopes are moderate to the east; slight to the west; and steep along the southern edges. The river originally flowed some 250 feet south of the site area. The size of the site is estimated to be 400 feet north-south by 200 feet east-west. The elevation of the site is 780-785 feet m.s.l. Vegetation consisted of oak-hickory forest along the southern edge and a plowed field along the northern edge of the site. Material was collected along the southern edge after clearing. The southern edge of the site appeared to be in a good state of preservation.

Testing of the site was desired in order to obtain information on the temporal placement of the site and the site function. The site is one of the few deep, undisturbed sites in the area. The site lies at the margin of a large soil area which appears to have developed under prairie conditions. It also faces onto a large floodplain area which would have been forested. Both large seasonal sites with emphasis on gathered food products (e.g. 23MC55) and sites with a greater emphasis on hunting (e.g. 23MC74) occur in similar settings just to the west. Thus, we wished to determine temporal placement, site function, and the site's relationship to other sites in the area.

Five, one and one-half meter squares were laid out for excavation. Four of the squares were in the south-central portion of the site and one was near the southeastern edge of the site (Figure 142). All squares were placed along the southern edge, as this area had been in forest prior to clearing. The squares were excavated in arbitrary ten centimeter levels. The area to the north had been plowed, but the area of the excavations had been cleared but not plowed. Squares were excavated to a depth which was relatively culturally sterile. A total of four, ten centimeter levels were excavated to a total depth of forty centimeters below the surface. Features were excavated below that level. Although culturally sterile deposits were not reached, material density had decreased greatly. Clay content below that level had increased to the point where excavation had become difficult.

No cultural stratigraphy with clear horizons was noted in the excavations, although deposits do exhibit relative

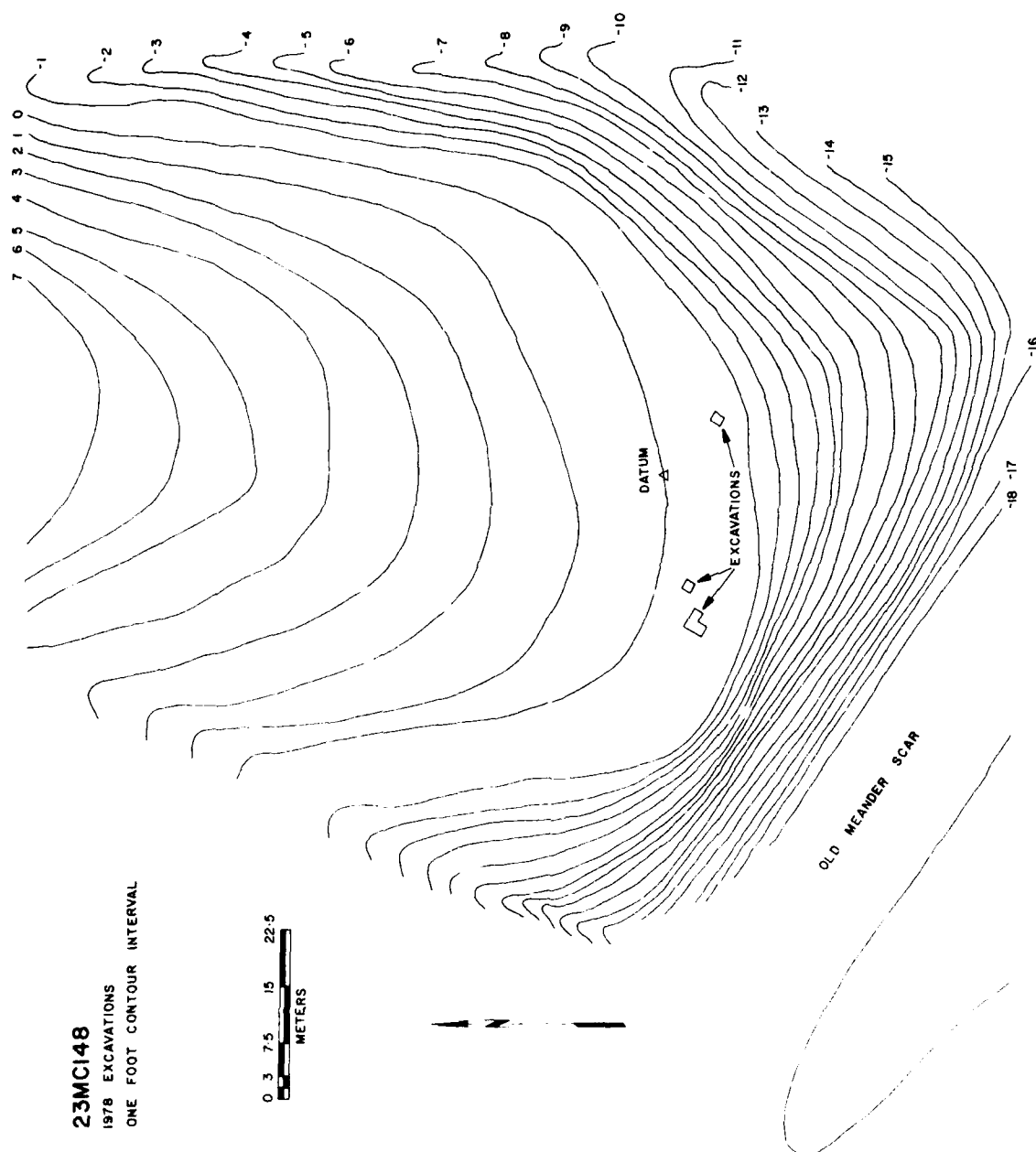


Figure 142. 23MC148. Site map and location of excavations.

cultural stratigraphy. Deposits are not uniform throughout. Near-surface deposits are relatively low in density. Material density increases to approximately 30-35 centimeters below the surface and then decreases sharply. The only visible physical stratigraphy was the result of soil horization. An A1-horizon extended from the surface to a depth of approximately twelve centimeters below the surface. A B1-horizon extended from that point to a depth of approximately forty centimeters below the surface. A B2-horizon extended for an undetermined depth below that point.

Features

Feature 1

Feature 1 was encountered in the northwest corner of excavation unit 201. The feature was a large, shallow basin-shaped pit. The feature extended beyond the edges of the excavation unit both to the north and west. The feature was readily identifiable by the large amount of decayed organics which contrasted sharply with the surrounding yellow loessial soil. The feature was roughly circular in horizontal plan and markedly basin-shaped in vertical plan (Figure 143). The feature was 93 centimeters north-south within the excavation unit and 69 centimeters east-west within the excavation unit. The feature was 14 centimeters in greatest depth. The total dimensions are, however, unknown. The feature contained only organic materials, and there were no associated materials.

Feature 2

Feature 2 was encountered in the southwest corner of excavation unit 201. The feature was a small, shallow basin-shaped pit. The feature is contained within the excavation unit. The feature, like Feature 1, was readily identifiable by the large amount of decayed organics which contrasted sharply with the surrounding yellow loessial soil. The feature was slightly ovate in horizontal plan with the longest axis east-west. The feature was markedly basin-shaped in vertical plan (Figure 143). The feature was thirty-eight centimeters east-west by thirty centimeters north-south. The feature was fourteen centimeters in greatest depth. The feature contained only organic materials, and there were no associated materials.

Feature 3

Feature 3 was encountered in the northeastern corner of excavation unit 201. The feature was a small, shallow

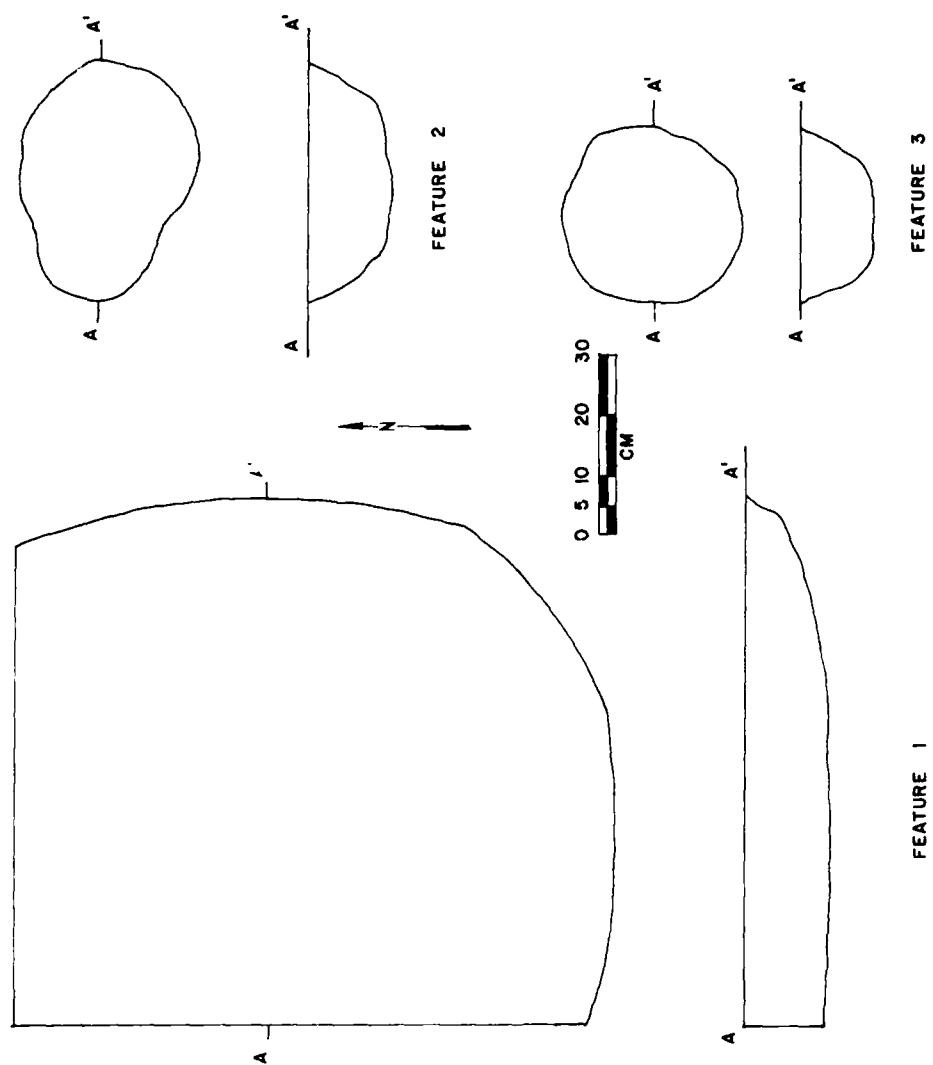


Figure 143. 23MC148. Features.

basin-shaped pit. The feature is contained within the excavation unit. The feature was readily identified by the large amount of decayed organics which contrasted sharply with the surrounding yellow loessial soil. The feature was roughly circular in horizontal plan and markedly basin-shaped in vertical plan (Figure 143). The feature was twenty-nine centimeters in diameter. The feature was twelve centimeters in greatest depth. The feature contained decayed organic material and a small amount of unidentified wood charcoal.

Description of Materials

Points

Group 47;a-c Distal Projectile Point Fragments - 3

The specimens in this category all appear to be from medium-sized points. All exhibit bi-convex cross-sections. Specimens exhibit pressure flaking only. Flake scars are small to medium, generally lamellar, uneven in size, and inconsistent in distribution. All three specimens exhibit transverse stress fractures.

Group 48:a Medial Projectile Point Segment - 1

The specimen in this category lacks both proximal and distal ends. The specimen appears to be a fragment of a relatively large point. The chipping pattern consists of pressure flaking only. Flake scars are small to medium, generally lamellar, uneven in size, and inconsistent in distribution. The specimen exhibits a transverse stress fracture and an oblique stress fracture.

Bifaces and Biface Fragments

Group 72:a-b Distal Fragments - Thin, Broad, Pointed Bifaces - 2

The specimens in this category exhibit convex distal points and still retain cortex on the distal ends. Both specimens exhibit largely pressure flaking. Although the relative thickness would suggest that primary percussion flaking preceded secondary flaking, there is no longer any evidence of such. One specimen exhibits a transverse stress fracture, and the other specimen exhibits a bipolar percussion fracture.

Group 75:a-b Miscellaneous Thin Biface Fragments - 2

The specimens in this category consist of miscellaneous thin biface fragments too small to be able to determine what kind of tool they represent. They exhibit no external attributes which would allow their inclusion in any other category. It is difficult to discuss the chipping pattern as both specimens are relatively small fragments. It appears, however, that both specimens were initially worked by percussion and then by pressure. Both specimens exhibit careful edge trimming and appear to be fragments of completed tools. Both specimens exhibit a transverse stress fracture and an oblique stress fracture.

Group 76:a-e Miscellaneous Thick Biface Fragments - 5

The specimens in this category consist of miscellaneous thick biface fragments too small to be able to determine what kind of tool they represent. They exhibit no external attributes other than bifacial working which would allow them to be included in any other category. All specimens exhibit primary flaking only. Specimens lack careful edge trimming and still retain a sinuous edge. It would appear that all specimens were in the process of tool production when failure occurred. One specimen exhibits a compound fracture, one exhibits a thermal fracture, one exhibits a percussion fracture, one exhibits two transverse stress fractures, and one exhibits a transverse stress fracture and an oblique stress fracture.

Cores

Group 77:a Polyhedral Core - 1

This category consists of a chert nodule from which flakes have been driven in a highly irregular fashion. The specimen lacks cortex. The specimen is glacial chert and is heavily riddled with fracture planes. Numerous failures along fracture planes are present.

Group 78:a Core Fragment - 1

The specimen in this category is a core fragment. It exhibits all the external criteria of a core as well as one face which is a fracture plane in the material. This fracture plane appears to have been the cause of failure. The type of core represented is unknown. The specimen still retains cortex on two edges. There are also thermal fractures on the specimen.

Group 81:a Core with a Flat Striking Platform - 1

The specimen in this category exhibits a single faceted striking platform from which multiple flakes have been driven, resulting in a slightly prismatic shape. The specimen is glacial chert but lacks observable fracture planes. The specimen lacks cortex.

Flake Tools

Group 84:a Retouched Flake - 1

The specimen in this category exhibits intentional modification of the flake margin by additional flake removal. The specimen is fragmentary, but retouch may have occurred after the fragmentation of the flake. It exhibits steep-angled unifacial retouch along one flake margin. Wear along the margin consists of slight edge rounding and step fracturing. It would appear that the specimen was used in a scraping motion.

Group 86:a-d Utilized Flakes - 4

The specimens in this category exhibit utilization of the flake margins in the form of minute flake removal. Three specimens are relatively complete, and only one is fragmentary. Three specimens exhibit acute working edges, and only one specimen exhibits a steep angled utilized edge. All four specimens exhibit a single utilized edge. One specimen exhibits light utilization, while the other three exhibit only moderate utilization. Specimen 86:a exhibits flakes removed on both faces and appears to have been utilized in a cutting motion. The other three specimens exhibit flake removal which is unifacial and would appear to have been utilized in a scraping motion.

Group 89:a Small Flake Perforator - 1 (Figure 144, a)

The specimen in this category is a retouched thick flake on which bifacial retouch has produced a narrow working element. Retouch flakes are small, fairly steep-angled, generally lamellar to slightly expanding, uneven in size, and inconsistent in distribution. The distal end is pointed. The specimen exhibits little or no wear.

Ground and Pecked Stone

Group 93:a Ground and Pecked Stone - 1 (Figure 144, b)

The specimen in this category exhibits one pecked face and two ground faces. The specimen exhibits pecking which is somewhat centered on one face, although offset slightly toward one edge. The degree of force was fairly heavy as the peck marks are fairly large and would appear to have resulted from direct contact with dense materials. The cortex has been pecked away and contrasts slightly with the surrounding color. Grinding is detectable by the grinding away of the cortex developed since deposition to reveal the slightly darker interior. Striations are not readily detectable. Polish is apparent on one face but is lacking on the alternate face.

Group 104:a Chipped Argillite Cobble - 1 (Figure 144, c)

The specimen in this category is an argillite cobble which has had the margins heavily modified by percussion flaking. The specimen has had a very large number of flakes removed from both edges of the cobble. Flakes are large and removed with heavy percussion. Flake removal was bifacial-bilateral. Only small areas on the two ends and on the two faces still retain cortex. The specimen appears to have been in the process of shaping for tool production but was not finished. There is no apparent working element, and lateral margins still retain sinuous edges.

Hematite

Group 117:a Chipped Hematite - 1 (Figure 144, d)

The specimen in this category is a piece of specular hematite with multiple flakes removed from the edges in an irregular manner. The specimen does not appear to have been part of a tool shaping process, and the reason for the flake removal is unknown.

Group 119:a-p Hematite Flakes - 16

There are sixteen specimens in this category. All specimens fall within three levels of a single excavation unit, and all specimens appear to be flakes from a single specimen. Flakes are platy and detection of standard characteristics of percussion flakes is difficult.

Ceramics

Pottery - 28

Group 126:

Ceramics One

Sample:

8 body sherds and 20 highly eroded body sherds

Paste:

Temper:

Round, sand-sized particles, mainly quartz but with some plagioclase. Particles are highly rounded. Particles are generally small (.1 to 1 millimeters) but with a few (up to 2.5 millimeters) larger particles.

Texture:

Paste is fairly friable. Lamination tends to occur parallel to the interior/exterior surfaces. Sherds exhibit irregular breaks.

Color:

Color is not highly variable and all sherds would appear to represent a single vessel. Exterior colors are reddish gray (10YR4/1) with interior colors gray (5YR4/1) to black (5YR2/1).

Method of Manufacture: The probability is high that vessels were lump modeled, as there are no straight breaks indicative of coiling, and finger marks on the interiors can be noted. Vessel walls are relatively thin (3.5 to 5 millimeters).

Surface Finish: On all non-eroded sherds, exteriors are smooth.

Decoration: Undetermined

Form: Undetermined

Group 133:a-i Burned Clay - 9

The specimens in this category are clay which has been fired unintentionally. They differ from pottery in that they lack temper. Specimens are eroded and irregular in shape. All specimens are directly related to the features and were located just above the detectable limits of the features.

Lithic Waste

Group 134: Chert Waste - 642

A total of 488 unmodified chert flakes and 47 pieces of unmodified chert shatter were recovered from the excavations. Surface material included six unmodified chert flakes and one piece of unmodified chert shatter.

Group 137: Silicified Sediments Waste - 2

A total of two pieces of unmodified shatter of silicified sediments were recovered from the excavations.

Group 139: Argillite Waste - 2

A single unmodified argillite flake was recovered from the excavations, and one unmodified argillite flake was recovered from the surface.

Group 141: Fire-cracked Rock - 3,819

Fire-cracked rock is the term used for thermally altered stone. A total of 3,768 pieces were recovered from the excavations, and 51 pieces were recovered from the surface.

Group 142: Unmodified Stone - 279

The specimens in this category consist of unmodified glacial material. They exhibit no intentional or unintentional cultural modification. They appear to be residual materials which were intentionally or unintentionally transported to the site.

Historic

Group 144: Miscellaneous Historic Material - 24

A total of twenty-four pieces of historic material were recovered from the excavations. Material included eight fence post staples, one lead shot, one iron wire, six cinders, one piece of concrete, two brick fragments, four

pieces of glass, and one piece of unidentifiable iron. Some of the material is agriculture-related while the remainder probably originates from the historic site just to the north.

TABLE 73
Artifact Measurements and Attributes - 23MC148

Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Cores</u>					
<u>Polyhedral Core</u>					
77:a	Sur.	77	50	34	109g
<u>Core with a Single Striking Platform</u>					
81:a	Sur.	54	40	34	78g
<u>Flake Tools</u>					
<u>Retouched Flake</u>					
84:a	108	38	28	12	11g 1 edge
<u>Utilized Flakes</u>					
86:a	211	21	19	10	3g 1 edge
86:b	216	33	22	5	4g 1 edge
86:c	216	17	11	2	1g 1 edge
86:d	212	26*	11*	8*	2g* 1 edge
<u>Small Flake Perforator</u>					
89:a	214	30	14	7	2g
<u>Ground and Pecked Stone</u>					
<u>Ground and Pecked Stone</u>					
93:a	Sur.	109	86	47	819g Argillite, lp, 2g
<u>Chipped Argillite Cobble</u>					
104:a	Sur.	147	130	58	1493g Argillite

TABLE 74
DISTRIBUTIONAL SUMMARY - 23MC148

	47	48	72	75	76	77	78	81	84	86	89	93	104	117	119	126	133	134	137	139	141	142	144
Xu102, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	208	19	7
L.2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	118	3	1
L.3	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	21	-	-	108	3	-
L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	9	-
Xu103, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	-	-	473	21	3
L.2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	4	-	-	73	-	-	448	22	3
L.3	-	-	-	-	1	-	-	-	-	-	-	-	-	-	11	-	-	76	-	-	328	19	-
L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	32	1	-	129	21	-
Xu201, L.1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	3	-	42	-	-	228	22	3
L.2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	-	-	257	20	-
L.3	-	-	1	1	1	-	1	-	-	1	-	-	-	-	-	-	-	31	-	-	161	17	-
L.4	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	15	-	-	97	13	-
Xu202, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	40	-	-	204	15	6
L.2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	4	-	33	1	1	177	14	-
L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	-	-	125	15	-
L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	23	5	-
Xu203, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	19	-	-	132	9	1
L.2	1	-	-	-	-	-	-	-	-	1	-	-	-	1	-	6	-	39	-	-	174	13	-
L.3	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	5	9	40	-	-	246	16	-
L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	68	2	-
Surface	-	-	-	-	-	1	-	1	-	-	-	1	1	-	-	1	1	7	-	1	51	1	-

The Site Assemblage: 23MC148

Unfortunately, none of the projectile point fragments are indicative of any components on the site. None appear to possess any temporally diagnostic elements. Although it would appear that the distal projectile point fragments are probably late Middle Woodland to early Late Woodland based on the method of manufacture, there are no external attributes which would allow their inclusion as such. The fact that similar late Middle Woodland to early Late Woodland points were recovered from 23MC149 just to the west would tend to strengthen such an assignment. The presence of a number of projectile point fragments does, however, indicate that hunting was a part of the subsistence base on the site.

The biface fragments (Groups 72, 75 and 76) are not particularly informative. The presence of a number of biface fragments and the fragmentary nature of almost all chert tools from the site indicates a long use-life and heavy reuse of chert tools until too fragmentary to be useful. Flake tools are not numerous on the site. The flake tools recovered indicate a variety of activities. The specimen in Group 89 appears to have been a flake perforator. The retouched flake (Group 84) and most of the utilized flakes (Group 86) have been utilized in a scraping motion. Only one of the utilized flakes exhibits bifacial flake removal and had been utilized in a cutting motion.

The cores (Groups 77 and 81) and core fragments (Group 78) illustrate the use of local sources of raw material. Their relatively low number would tend to indicate that little reliance was placed on local materials, however. The chert waste (Group 134) also illustrates that little reliance was placed on local materials. Some sixty-five to seventy percent of the chert waste appears to have a non-local point of origin. The presence of silicified sediments waste (Group 137) also indicates the use of local sources of raw materials.

Only a single ground and pecked specimen was recovered (Group 43). This may be an artifact of the sample size, as a larger number of ground and pecked specimens were recovered from the surface in previous collections (Grantham 1977). The presence of ground and pecked stone on the site tends to indicate that plant processing occurred on the site, but it was not as important on the site as on other fall seasonal sites in the area. The chipped argillite cobble (Group 104) appears to have been in the process of tool production but was not finished as there is no observable wear on the lateral margins.

Working hematite also was an important activity on the site. Of the total twenty-two hematite specimens, seventeen are altered. One specimen has been irregularly chipped, and there are sixteen hematite flakes. Most of these were recovered from three levels of one excavation unit. All of these flakes appear to have been struck from a single specimen.

The ceramics (Group 126) are not particularly informative. They are based on temper and surface finish, to be most similar to Weaver wares (cf. 23MC65). Without any decorative motifs, this is rather tenuous, however. Most of the earlier ceramics in the area are sand-tempered as well. If these do belong to the Weaver ware sequence in the area, the high proportion of smoothed exteriors would probably place them in the late Middle Woodland to early Late Woodland period. The burned clay (Group 133) is associated with the features.

The remainder of the materials are waste materials. The density of the chert waste is only moderate. The chert waste is characterized by a preponderance of biface thinning, trimming, and retouch flakes. The numbers of fire-cracked rock is relatively high and indicates that thermal activities, probably associated with cooking, was an important activity on the site. The historic materials are probably associated with the historic site (23MC150 H) located just to the north.

The features recorded are different from other features recorded in the area. Their function is unknown. Of the features recorded, only Feature 3 contained an appreciable amount of wood charcoal. The other features contained largely decayed organics. The purpose of the shallow, basin-shaped pits is unknown. They do not appear to be intimately connected with cooking, as they lack large amounts of fire-cracked rock and charcoal.

In summary, the components present on the site are uncertain. The method of manufacture of the distal projectile point fragments would tend to indicate that a late Middle Woodland or early Late Woodland component is present. This is, however, based on very tenuous assumptions. Earlier surface collections on the site (Grantham 1977) recovered a side-notched, concave-based point and a basal notched point. These points are more common in Early/Middle Archaic and Late Archaic contexts respectively. As we noted at 23MC65 and at 23MC74 (this volume), Archaic points may be present on the surface without corresponding occupations in the excavated stratigraphy. The ceramics are not particularly

informative, although it is estimated that they are probably Weaver wares and would tend to indicate a late Middle Woodland to early Late Woodland occupation based on the predominance of smoothed exterior surfaces. The presence of ground and pecked stone indicates that plant processing occurred on the site, but the numbers of these artifacts on the site are considerably lower than on fall seasonal sites in the area. The features are different from the features recorded on other sites in the reservoir. The low amounts of wood charcoal and ash would tend to argue against their being intimately associated with thermal activities and hence cooking activities.

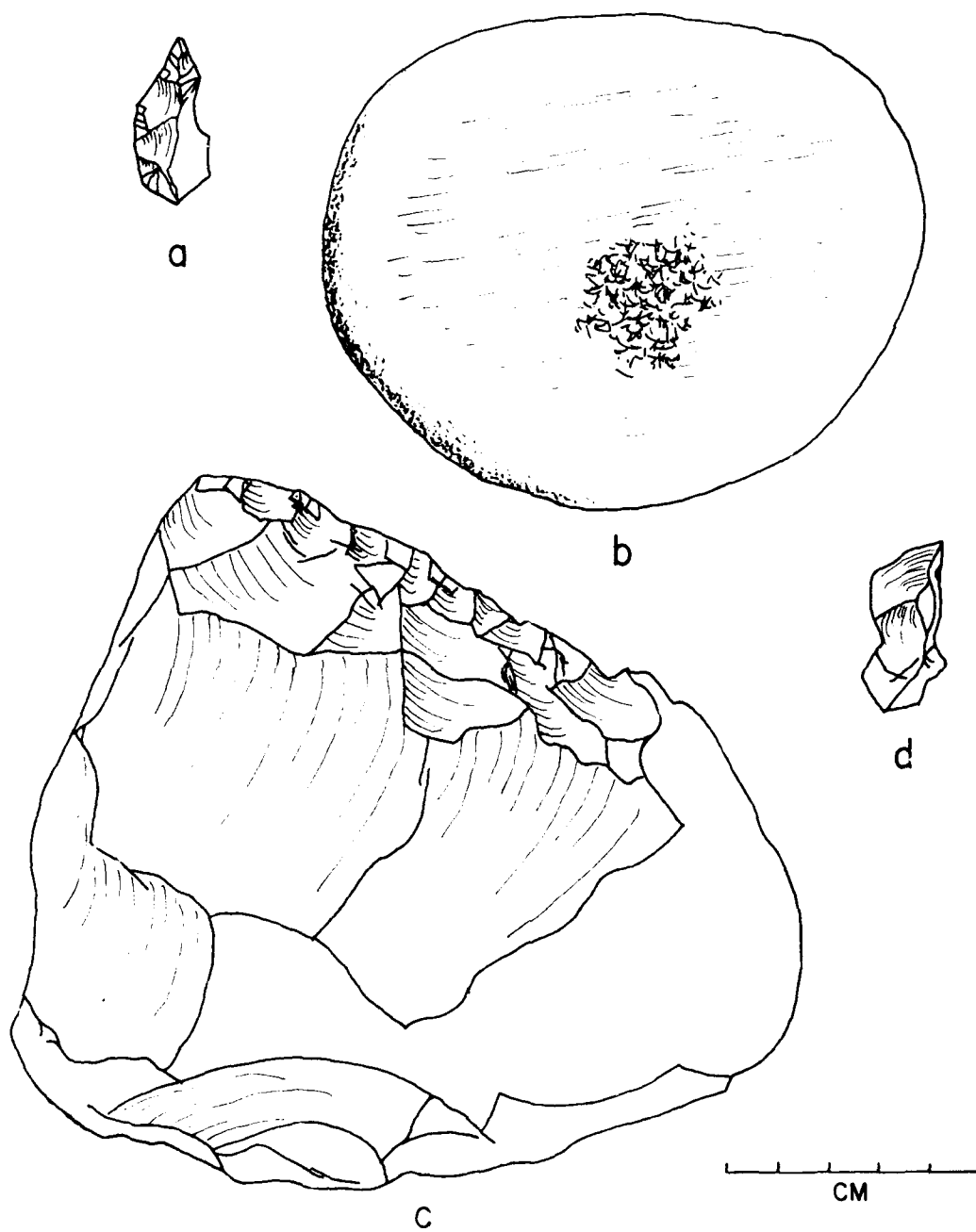


Figure 144. 23MC148. Artifacts. (a) Group 89, (b) Group 93, (c) Group 104, (d) Group 117.

This site lies on the left (northeast) bank of the East Fork. The site lies on a fairly high flat hill which has been truncated by the river along the southern edge. The river slope is steep, while slopes to the east and west are moderate to steep. The hill is bounded by a large broad draw to the southeast and by a large broad intermittent stream to the northwest. The river originally flowed some 480 feet south of the site. The size of the site is estimated to be 500 feet north-south by 450 feet east-west. The elevation of the site is 780-790 feet m.s.l. Vegetation consisted of oak-hickory forest over much of the site area. Surface material was recovered from the main body of the site after clearing. Material density was high, and the site appeared to be in a good state of preservation.

Excavation on the site was desired in order to obtain information on the temporal placement of the site and the site function. Previous testing on the site had indicated that the site was one of the few deep, undisturbed sites in the area. Previous testing had also indicated that the site was a large seasonal site, possibly Late Woodland. If the site was both Late Woodland and a fall seasonal site, then it was the only known case in the valley. The site lies at the margin of a large soil area which appears to have developed under prairie conditions and also lies at the edge of a large bottomland area. We also wished to determine the relationship of this site to others in the group around the large prairie area to the north.

A total of nineteen, one and one-half meter squares were laid out for excavation. Two excavation blocks were laid out in the denser portion of the site near the southeast edge of the hill. The northern block was a four and one-half meter square block. South of the northern block (7 meters), the southern block was six meters by three meters. Two individual squares were excavated east of the main blocks along the edge of the break down to the wash on the east (Figure 145). All squares were excavated in arbitrary ten centimeter levels. The area to the north had been plowed, but the area of the excavations had been cleared but not plowed. Squares were excavated to a depth which was culturally sterile. A total of four, ten centimeter levels were excavated to a total depth of forty centimeters below the surface. Most of the squares in the northern blocks of excavations did not reach the forty centimeter level before reaching a heavy, tenacious, culturally sterile clay. These squares only reached

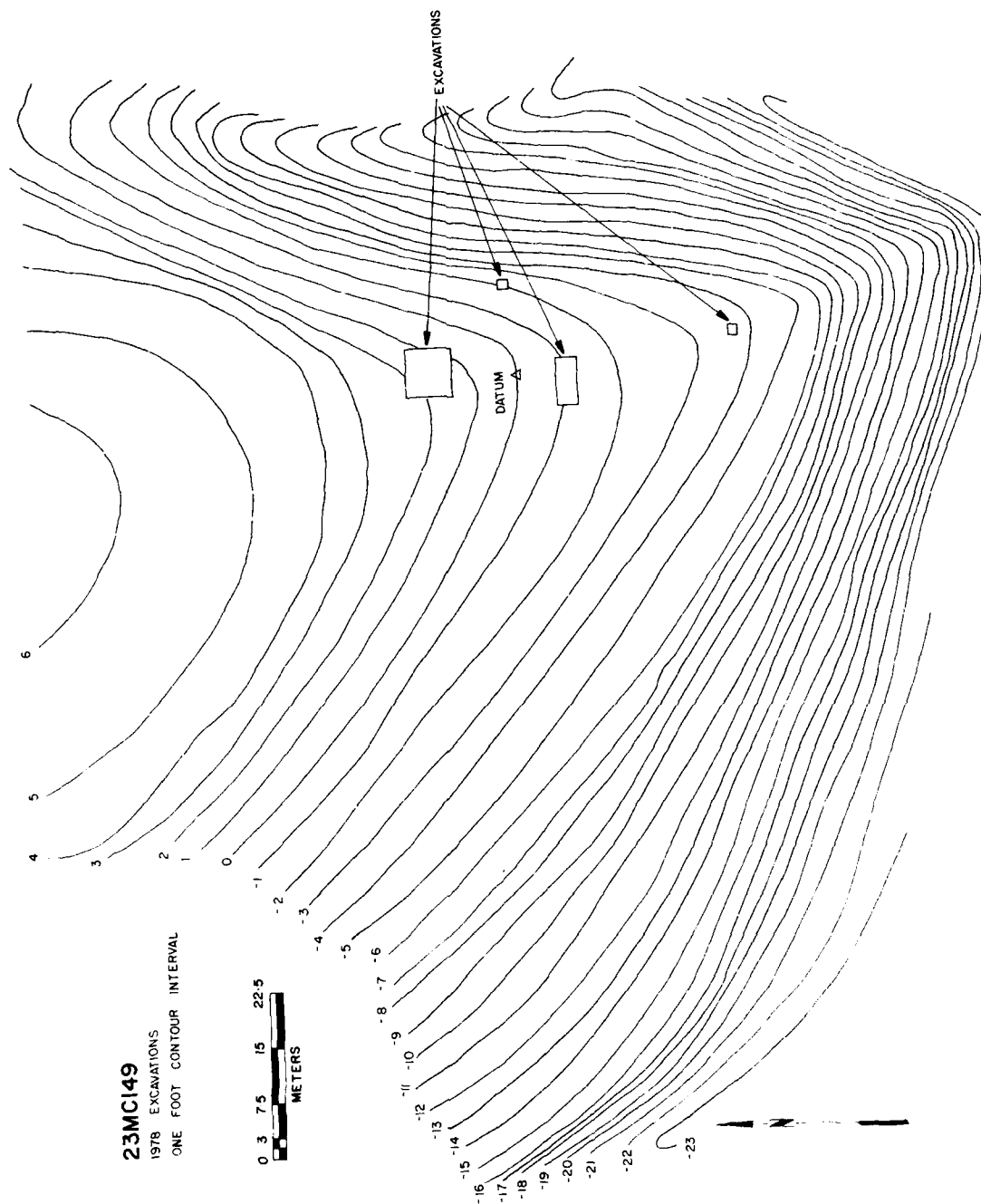


Figure 145. 23MC149. Site map and location of excavations.

approximately thirty-five centimeters. The southernmost individual square only reached thirty-two centimeters. All other squares were taken to forty centimeters.

No cultural stratigraphy with clear horizons was noted in the excavations, although deposits do exhibit relative cultural stratigraphy. Deposits were fairly uniform throughout. The only physical stratigraphy was the result of soil horization. An A1-horizon extended from the surface to a depth of approximately twelve centimeters below the surface. A B1-horizon extended from that point to a depth of 32 to 42 centimeters below the surface. A B2-horizon extended for an undetermined depth below that point.

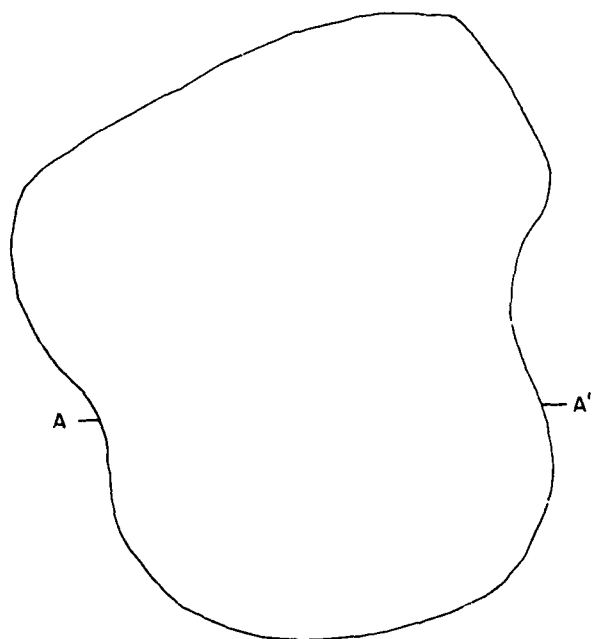
Features

Feature 1

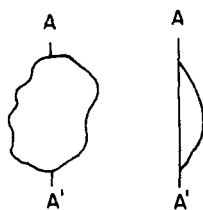
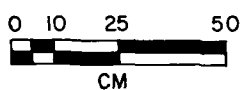
Feature 1 was encountered in the southwestern quarter of excavation unit 125 and the southeastern quarter of excavation unit 140. The feature extended into the northeastern corner of excavation unit 144 and the northwestern corner of excavation unit 123 (Figure 146). The feature was identified by its dark organic soil, fire-cracked rock concentration, and charcoal which contrasted dramatically with the surrounding yellow loessial soil. The feature was large and roughly circular in horizontal plan (Figure 146). The feature was slightly basin-shaped in vertical plan. The fill consisted of densely packed fire-cracked rock overlying organics, ash, and charcoal. Charcoal and ash were present in large amounts along the lower boundary of the pit outline. Associated material included a small amount of chert waste, a large amount of fire-cracked rock, and charcoal. Wood charcoal was not overly abundant compared to other features of this nature previously excavated. The wood charcoal consisted largely of fragments too small to identify. The feature appears to have been a shallow earth oven and compares structurally with Feature 5 of 23MC55. This feature appears to have been opened, with a greater concomitant loss of ash and charcoal. The feature was, however, buried quickly enough to retain most of the feature intact. The feature was 1.39 meters north-south by 1.26 meters east-west. The feature was 18 centimeters in greatest depth.

Feature 2

Feature 2 was a small conical pit located between excavation units 123 and 144 (Figure 146). The feature was



FEATURE 1



FEATURE 2



Figure 146. 23MC149. Features.

23MC149

MATERIAL DISTRIBUTIONS - NORTHERN BLOCK
1978 EXCAVATIONS

- - FIRE - CRACKED ROCK
- C - CHERT WASTE
- BF - BIFACE FRAGMENT
- GBP - GROUND AND PECKED STONE
- Pkd - PECKED STONE
- ▲ PP - PROJECTILE POINT

0 25 50 100
CM

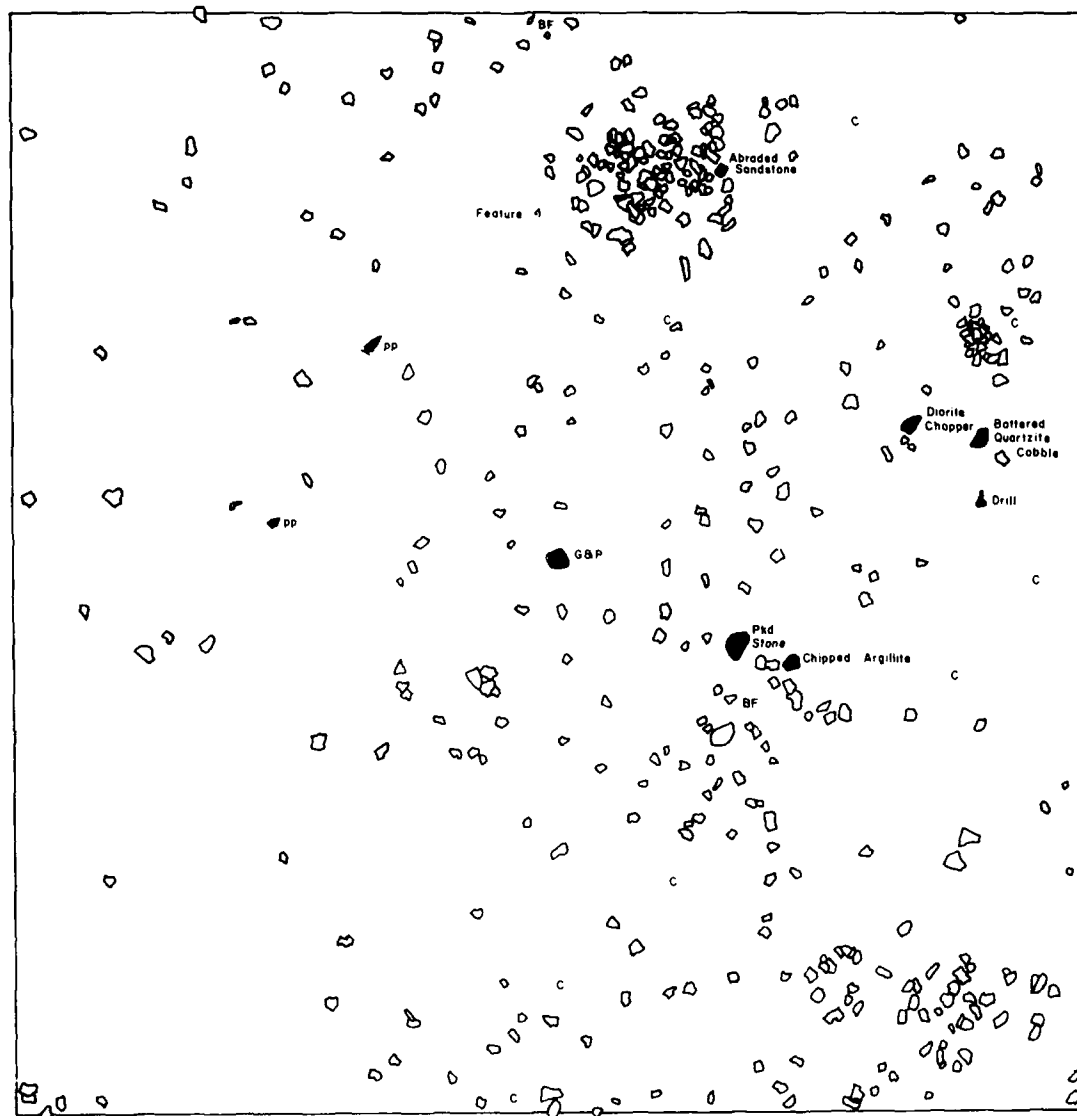


Figure 147. 23MC149. Distributional Map.

identified by ash and charcoal present in the feature which contrasted sharply with the yellowish loessial soil. The feature was roughly ovate in horizontal plan and roughly conical in vertical plan. The feature was 25.2 centimeters along the longest axis (north-south) by 20.3 centimeters on the shortest axis (east-west). The feature was 6.4 centimeters in greatest depth. Associated material included a small amount of unidentified wood charcoal.

Feature 3

Feature 3 was encountered in the center of excavation unit 104. The feature consists of a cache of chert blanks. There was no definable pit outline. All three specimens are well worked asymmetrically ovate blanks. They exhibit primary percussion flaking only. The three tools forming the cache were on edge with the lower ends toward the southwest at an angle of 40-65 degrees. The specimens were stacked with each specimen resting against the next.

Feature 4

Feature 4 was a loose concentration of fire-cracked rock. The feature was roughly circular in horizontal plan. The feature was largely confined to excavation 1004 and extended slightly into excavation unit 1007 (Figure 147). No pit outline was detectable. The feature is roughly 92 centimeters in diameter. As no pit outlines were detectable, the depth of the feature is only equal to the depth of the fire-cracked rock (ca. 6 centimeters). The feature appears to represent a shallow earth oven which was open and exposed for some time. The ash, charcoal, and even the pit outlines were subsequently obliterated through natural mechanisms. Associated material included fire-cracked rock only.

Description of Materials

Points

Group 10:a Medium, Square-stemmed Point - 1
(Figure 148, d)

The specimen in this group exhibits a straight base, straight parallel stem, abrupt shoulders, convex lateral margins, and a bi-convex cross-section. The specimen exhibits secondary pressure flaking only. Flake scars are small, generally lamellar, uneven in size, and inconsistent in distribution. It is not possible to determine if resharpening is present due to the relative initial

thickness of the specimen. Blank material can not adequately be determined. It exhibits three large potlids on the surface, one of which has removed a large portion of one lateral margin.

Group 33:a Small, Broad Corner-notched Point - 1
(Figure 148, c)

The specimen in this category exhibits a straight base, sharp stem-base juncture, very slightly expanding stem, broad deep corner notches, abrupt to slightly oblique shoulders, straight lateral margins, and a bi-convex cross-section. The chipping pattern consists of secondary pressure flaking only. Flake scars are small, generally lamellar, uneven in size, and inconsistent in distribution. The specimen lacks any evidence of resharpening. Blank material appears to have been a chert flake based on thickness and a small island of the original flake scar on one face. The notches were created by the removal of multiple pressure flakes, and final notch flakes originate from the same face. The specimen is relatively complete, although one face exhibits some thermal fracturing.

Group 34:a-c Medium, Concave- to Convex-based, Narrow
Corner-notched Points - 1, 2 proximal fragments
(Figure 148, a-b, f)

The specimen in this category exhibit slightly concave to convex bases, sharp to rounded stem-base junctures, expanding stems, narrow corner notches, abrupt to extended oblique shoulders, straight to convex lateral margins, and bi-convex cross-sections. The chipping pattern consists of secondary pressure flaking only, although the chipping pattern on specimen 34:c is difficult to determine. Flake scars are small to medium, lamellar to expanding, uneven in size, and inconsistent in distribution. There is no indication of resharpening on the remaining portions of the specimens. Blank material appears to have been chert flakes based on lack of primary flaking and relative thickness on specimens 34:a and 34:c. Specimen 34:b still retains an island of the original flake surface on one face. Specimen 34:a is complete. Specimen 34:b exhibits a transverse stress fracture and an oblique fracture running from the transverse fracture through one notch. Specimen 34:c is complex with an initial transverse stress fracture. This fracture was partially reworked. A large number of flakes have been removed from both faces, but traces of the original transverse fracture still remain. One blow produced a longitudinal fracture removing one entire edge.

Group 35:a Medium, Concave-based, Broad Corner/
Basal-notched Point - 1 proximal fragment
(Figure 148, e)

The specimen in this category exhibits a concave base, sharp stem-base juncture, very slightly expanding stem, broad corner/basal notches, oblique shoulders, and a bi-convex cross-section. It exhibits secondary pressure flaking only. Flake scars are small, lamellar to expanding, uneven in size, and inconsistent in distribution. The specimen is a proximal fragment and little of the lateral margins remain. Blank material appears to have been a chert flake, as there are areas on the faces which appear to be portions of the original flake scars. It exhibits a transverse stress fracture just above the notches and small fractures which have removed the lower portions of the shoulders.

Group 44:a-b Heavily Modified Proximal Point Fragments - 2
(Figure 148, g-h)

Both specimens in this category have fractures which are partially reworked. Both are proximal fragments. Specimen 44:a exhibits a slightly convex base and expanding stem. The entire area above the original notches has been heavily modified by the removal of a large number of flakes. It appears that there was a medial fracture, but there is no longer any of the fracture remaining. The basal morphology is suggestive of a corner-notched point. Specimen 44:b was probably a medium side-notched, concave-based point. It exhibits a transverse stress fracture across the blade. Attempts to repair the fracture resulted in a large percussion flake removing one entire lateral margin. Small fractures across the remaining notch and stem-base juncture make it difficult to determine original morphology.

Group 45:a Miscellaneous Unclassified Basal Point Fragments
- 3 (Figure 148, i-k)

The specimens included in this category exhibit sufficient criteria that inclusion as basal projectile point fragments is justified, i.e., they exhibit base, stem, and/or a portion of a shoulder. They do not, however, exhibit sufficient criteria to allow their inclusion in any other category. All exhibit straight bases and slightly expanding stems. All appear to have been corner-notched. All exhibit only secondary pressure flaking, but all are too fragmentary to discuss chipping patterns. Specimen 45:a exhibits a transverse stress fracture and a compound longitudinal fracture. Specimen 45:b exhibits transverse and longitudinal thermal fractures. Specimen 45:c exhibits a transverse stress fracture across the stem.

Group 47:a-g Distal Projectile Point Fragments - 7

Two of the specimens (Specimen 47:a and 47:b) are very small and consist of impact fractures. The other specimens are larger and consist of larger blade segments. Five specimens appear to be from medium-sized points while the other two specimens appear to be fragments of relatively large points. Three specimens have been worked by pressure flaking only but are too small to be able to determine much about their chipping pattern. Specimen 47:c, 47:d and 47:g have been worked by primary percussion and secondary pressure flaking. Specimens 47:a, 47:b, 47:f, and 47:g exhibit transverse stress fractures. Specimens 47:c and 47:d exhibit small distal impact fractures and transverse stress fractures. Specimen 47:e exhibits a compound transverse fracture.

Group 48:a-e Medial Projectile Point Segments - 5

The specimens in this category lack both the distal and proximal portions. Most are from medium to large points. The specimens have little in common ranging from thin segments to almost entire blade segments. All specimens exhibit two fractures removing the proximal and distal ends. All specimens have been worked largely by pressure flaking. Only specimen 48:b appears to have been thick enough to have been worked by percussion flaking. Specimen 48:d has been resharpened. None of the other specimens exhibit resharpening. Two specimens exhibit two transverse stress fractures, two specimens exhibit a transverse stress fracture and a transverse compound fracture, and one specimen exhibits an oblique stress fracture and a transverse stress fracture.

Group 49:a-d Projectile Point Shoulder Fragments - 4

The specimens in this category are fragments of projectile point shoulders. All have only one remaining shoulder. All specimens are slightly oblique to oblique shoulders. Specimen 49:a is a squared shoulder, while specimen 49:b exhibits a rounded stem-blade juncture. Specimens 49:c and 49:d have pointed shoulders. Specimen 49:a and 49:c exhibit transverse stress fractures across the shoulder from the blade to the notch. Specimen 49:b exhibits a transverse stress fracture and an oblique stress fracture. Specimen 49:d exhibits a compound transverse fracture and a longitudinal stress fracture.

Drill-like Implements

Group 54:a Narrow, Drill-like Implement - 2
proximal fragments (Figure 149, d-e)

The specimens in this category exhibit long, narrow working elements. The specimens exhibit convex bases expanding stems, and relatively narrow almost parallel margins. The specimens are not expended projectile points. The chipping pattern consists of pressure flaking only. The specimens exhibit little or no wear. Both exhibit transverse stress fractures.

Bifaces and Biface Fragments

Group 64:a-c Large, Asymmetric Bifaces - 3
(Figure 149, a-c)

The specimens in this category have somewhat irregular outlines. None exhibit consistent symmetry. The chipping pattern consists of primary percussion flaking only. Slight edge trimming is apparent along the lateral margins, but this was performed by percussion as well. The specimens exhibit no apparent pressure flaking. There is no apparent wear on the margins or ends. All specimens are complete. Specimens appear to be blanks.

Group 68:a Proximal Fragment - Thin, Broad Biface with
Rounded Base - 1 (Figure 149, f)

The specimen in this category exhibits a convex base, and little of the lateral margins remain intact. The chipping pattern consists of primary percussion flaking only. Only slight edge trimming was performed, and it still retains a relatively sinuous edge. There is no apparent secondary flaking. Little or no wear is present on the end. The specimen exhibits a transverse stress fracture.

Group 70:a Proximal Fragment - Thin, Narrow Biface with
Convex Base - 1 (Figure 149, q)

The specimen in this category is relatively small. It exhibits a convex base, straight lateral margins, and a bi-convex cross-section. The specimen exhibits largely primary percussion flaking with slight secondary pressure flaking. The edges are still slightly sinuous. The specimen exhibits little or no wear. The specimen exhibits a transverse stress fracture.

TABLE 75
Projectile Points, Drills, and Bifaces
Artifact Measurements and Attributes - 23MC149

Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Points</u>					
<u>Medium, Square-stemmed Point</u>					
10:a	155	30	23*	7	5g*
<u>Small, Broad Corner-notched Point</u>					
33:a	2322	27	24	5	3g
<u>Medium, Narrow Corner-notched Points</u>					
34:a	2407	40	28	5	6g
34:b	155	23*	28*	6*	3g* proximal fragment
34:c	116	25	20	5	3g lateral fragment
<u>Medium, Broad Corner/Basal-notched Point</u>					
35:a	155	15*	28*	6*	2g* proximal fragment
<u>Heavily Modified Proximal Point Fragments</u>					
44:a	129	27*	24*	8*	5g* proximal fragment
44:b	163	25*	23*	7*	5g* proximal fragment
<u>Drill-like Implements</u>					
<u>Narrow Drill-like Implements</u>					
54:a	2042	38*	23	5	4g* proximal fragment
54:b	141	33*	30	7	6g* proximal fragment
<u>Bifaces and Eiface Fragments</u>					
<u>Large Asymmetric Bifaces</u>					
64:a	118	97	53	22	119g
64:b	119	79	63	17	91g
64:c	120	87	60	16	91g
<u>Proximal Fragment - Thin, Broad biface with Rounded Base</u>					
68:a	132	59*	24	9	14g*
<u>Proximal Fragment - Thin, Narrow Biface with Convex Base</u>					
70:a	2053	19*	26	8	4g* proximal fragment
<u>Distal Fragment - Thin, Broad, Pointed Biface</u>					
72:a	159	29*	31*	8*	5g* distal fragment
72:b	161	29*	31*	7*	5g* distal fragment
<u>Distal Fragment - Thin, Narrow Pointed Bifaces</u>					
73:a	2003	19*	11*	4*	1g* distal fragment
73:b	Sur.	29*	18*	6*	3g* distal fragment
73:c	Sur.	29*	17*	5*	2g* distal fragment

Group 72:a-b Distal Fragments - Thin, Broad, Pointed
Bifaces - 2 (Figure 149, h-i)

The specimens exhibit primary percussion flaking only. The edges exhibit only slight edge trimming, and the edges are still sinuous. The margins exhibit little or no wear. Both specimens exhibit an oblique stress fracture and an oblique compound fracture.

Group 73:a-e Distal Fragments - Thin, Narrow Pointed
Bifaces - 3 (Figure 149, j-l)

The specimens in this category differ from drills in that they lack sharp points, and two of the specimens are considerably broader than drills but considerably narrower than the preceding category. The chipping pattern varies considerably. Specimens 73:a and 73:c exhibit secondary pressure flaking only. Specimen 73:b exhibits primary percussion as well as secondary pressure flaking. Primary flake scars have been largely obscured by later flaking. All three specimens exhibit transverse stress fractures. Specimen 73:b exhibits steeper-angled flaking along one lateral margin.

Group 75:a-r Miscellaneous Thin Biface Fragments - 23

This category consists of miscellaneous thin biface fragments too small to be able to determine what type of tools they represent. They exhibit no external attributes other than bifacial flaking which would allow their inclusion in any other category. Chipping pattern varies considerably. Five specimens exhibit primary flaking only. Only one of these specimens exhibits edge trimming, and all still exhibit sinuous edges. Twelve specimens exhibit primary and secondary flaking. Edges have been carefully trimmed and are straight. Six specimens have secondary flaking only or are too fragmentary to determine if any other flaking is present. Fracture patterns also vary considerably. Eight specimens exhibit undetermined compound fractures, five specimens exhibit two transverse and one longitudinal stress fracture, three specimens exhibit one transverse stress and one compound fracture, two specimens exhibit intersecting oblique fractures, two specimens exhibit one transverse and one oblique stress fracture, one specimen exhibits a percussion fracture, one specimen exhibits an oblique stress fracture, and one specimen exhibits a transverse stress fracture.

Group 76:a-q Miscellaneous Thick Biface Fragments - 9

This category consists of miscellaneous thick biface fragments too small to be able to determine what type of

tools they represent. They exhibit no external attributes other than bifacial flaking which would allow their inclusion in any other category. All specimens exhibit primary flaking only. Specimens lack edge trimming and still retain sinuous edges. Specimens exhibit a variety of fracture patterns. Two specimens exhibit transverse stress fractures, six specimens exhibit compound fractures, and one specimen exhibits a percussion fracture. One specimen with a transverse stress fracture exhibits an attempt to rework the fracture.

Cores

Group 78:a Core Fragment - 1

The specimen included in this category exhibits the external criteria of cores. It also exhibits a fracture plane which removed the specimen from a larger core. It appears to have been a fragment of a polyhedral core. Flakes have been removed by heavy percussion. The specimen is a metaquartzite which occurs rarely in the channel-fill Flint Hill Sandstone and is locally available.

Miscellaneous Worked Chert

Group 83:a-d Miscellaneous Worked Chert - 4

These specimens have little in common, other than the presence of some working on at least one face and one edge. They exhibit flaking which is without any discernible pattern. Flaking is largely by percussion. Flaking is bifacial on specimens 83:a, 83:b, and 83:c. Flaking on specimen 83:d is unifacial.

Flake Tools

Group 84:a-b Retouched Flakes - 2

The specimens in this category exhibit intentional modification of the flake margins by additional flake removal. Both specimens are fragmentary. One is a lateral fragment and one is a distal fragment. Both specimens exhibit acute edge angles. One specimen (84:a) exhibits unifacial retouch along one edge. Retouch is irregular, and it is questionable that the specimen was utilized after retouch. Specimen 84:b is relatively small and exhibits unifacial retouch on one edge and one end as well as bifacial retouch along the other edge.

TABLE 76

Miscellaneous Worked Chert/Flake Tools
Artifact Measurements and Attributes - 23MC149

Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Miscellaneous Worked Chert</u>					
83:a	151	30	25	10	8g
83:b	158	44	30	14	15g
83:c	2007	39*	20*	9*	6g*
83:d	Sur.	47*	27*	13*	14g*
<u>Flake Tools</u>					
<u>Retouched Flakes</u>					
84:a	165	32*	17*	7	3g* 1 edge
84:b	Sur.	18*	18	4	2g* 2 edges, 1 end
<u>Utilized Flakes</u>					
86:a	160	35	33	10	9g 2 edges
86:b	138	21*	20	3	1g* 1 edge
86:c	141	27*	24	6	4g* 2 edges, 1 end
86:d	163	17*	25	5	2g* 2 edges
86:e	163	16*	21*	4	1g* 1 edge
86:f	165	39*	37	11	14g* 1 edge
86:g	165	26*	25*	7	5g* 1 edge
86:h	Sur.	37	20*	10	7g* 1 end
86:i	2014	14*	21	4	1g* 2 edges
86:j	2014	14*	21	4	1g* 2 edges
86:k	2387	29	22	4	3g 2 edges, 1 end
86:l	2118	30	22	6	4g 2 edges
86:m	2264	20*	16*	6*	2g* 1 edge
86:n	2407	25*	14*	5	2g* 2 edges
86:o	2407	26*	20*	4	3g* 2 edges
86:p	2076	31	28	10	6g 2 edges, 1 end
86:q	2076	31	23	5	3g 1 edge
86:r	2076	11*	11	2	1g* 2 edges
86:s	2262	17*	10*	6*	1g* 1 edge
86:t	2008	19*	15	3	1g* 2 edges
86:u	2015	34	20	7	4g 1 edge
86:v	2010	35	26	13	9g 1 edge
86:w	2230	44	34	10	10g 1 edge
86:x	2381	43	26	5	4g 1 edge, 1 end

Group 86:a-x Utilized Flakes - 25

Specimens in this category exhibit utilization in the form of minute flake removal along the flake margins through utilization. The proportion of fragmentary flakes is relatively high. Seventeen specimens are fragmentary, and only eight are relatively complete. Almost all exhibit acute working elements. Twenty-three of the specimens have acute edges, and only two specimens have steep working elements. Ten specimens exhibit unifacial wear on both edges, and three specimens exhibit unifacial wear on both edges and the distal end. Bifacial wear appears on only three specimens with one exhibiting wear on one edge and the other two exhibiting wear on both edges. The degree of wear is relatively heavy. Only nine specimens exhibit relatively light wear, and sixteen specimens exhibit moderate to heavy wear.

Ground and Pecked Stone

Group 90:a-m Pecked Stone - 8, 5 fragments
(Figure 150, a-f)

These specimens exhibit pecking on one or both faces of the stone. All exhibit central facial pecking, although in some instances the pecking is slightly off-center. Only one specimen exhibits pecking on one face, and eight specimens exhibit pecking on both faces. Four specimens are fire-cracked in such a way that it is impossible to determine if more than one face was pecked. The degree of force on most specimens is relatively heavy. Six specimens have been pecked for a sufficient amount of time with pecks centered in one area to create an actual pit. Three specimens are of local Flint Hill sandstone, while the others are a variety of glacial materials.

Group 91:a-d Ground Stone - 4 (Figure 151, a-d)

The specimens in this category exhibit grinding on at least one face. Three of the four specimens exhibit grinding on one face, but are fractured in such a way that determination of the number of faces ground is not possible. All four specimens are fire-cracked. Sufficient cortex has been removed to consider specimens to be culturally ground stone. Striations are not readily apparent. Light polish is detectable on two specimens. It is possible that some of the tools may be fragments of more complex tools.

Group 92:a-b Battered Stone - 2 (Figure 151, e-f)

The specimens in this category exhibit battered areas on the ends and edges of the cobbles. Specimen 92:a is a

relatively small quartzite cobble. It exhibits light battering along the edges. Battering is absent on the ends. Light edge crushing is present on the edges and is roughly centered. Battered areas are elongate on the edge but is difficult to clearly delimit battered areas. Specimen 92:b is fire-cracked and the orientation of the original cobble is impossible to determine. The specimen is a fragment of an argillite cobble and exhibits one small battered area along one edge. The battered area is fairly small and roughly circular. The degree of force appears to have been fairly heavy. The battered area exhibits only edge crushing, but the pit marks are fairly deep. This specimen may have been a fragment of a more complex tool.

Group 93:a Ground and Pecked Stone - 1 (Figure 152, e)

The specimen in this category exhibits one ground and pecked face. Pecking is readily detectable by the degree of cortex removal created by centralized pecking. Pecking is centralized but located off center and has resulted in a slight depression. The specimen exhibits grinding on the same face as pecking. Striations are not readily detectable, but slight polish is present on the higher points.

Group 94:a-d Pecked and Battered Stone - 3, 1 fragment
(Figure 152, a-d)

The specimens in this category exhibit one or more pecked faces and one or more battered ends and edges. Pecking is detectable by cortex removal and by centralized peck marks. Pecking is generally somewhat diffuse, but readily detectable. None exhibit distinct pits. Two specimens exhibit pecking on one face only (specimens 94:b and 94:d) and one specimen exhibits pecking on both faces (specimen 94:c). One specimen is broken in such a way that determination of the number of pecked and battered faces and edges is impossible (94:c). Specimen 94:a exhibits battering on both ends, while specimen 94:d exhibits battering around most of the circumference of the tool. Specimen 94:b differs from the other specimens in that battering covers one entire face and the high point of the other face. The battered face is the same face with pecking. Pecking is roughly centered and has left a smoother area than the surrounding battered area.

Group 96:a-b Ground, Pecked, and Battered Stone - 2
(Figure 153, a-b)

The specimens in this category exhibit ground and pecked faces and multiply battered ends and edges. Pecking

TABLE 77

Modified Stone

Artifact Measurements and Attributes - 23MC149

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Ground and Pecked Stone</u>						
<u>Pecked Stone</u>						
90:a	109	111	71	42	474g	Diorite 2p
90:b	114	85	57	45	320g	Argillite 2p
90:c	112	75	62	37	263g	Argillite 2p
90:d	131	66*	63*	30*	126g*	Flint Hill Sandstone 2p
90:e	151	87*	45*	24*	96g*	Argillite 1p?
90:f	151	73*	50*	30*	112g*	Gabbro 1p?
90:g	171	69	69	55	415g	Diorite 2p
90:h	166	74	61	49	336g	Diorite 2p
90:i	2023	101	80	49	572g	Argillite 1p
90:j	Sur.	87	72	45	314g	Flint Hill Sandstone 2p
90:k	Sur.	80	68	32	279g	Diorite 2p
90:l	Sur.	68*	54*	30*	112g*	Flint Hill Sandstone 1p?
90:m	168	27*	20*	4*	2g*	Argillite 1p?
<u>Ground Stone</u>						
91:a	113	81*	57*	51*	227g*	Quartzite 1g?
91:b	111	19*	18*	18*	8g*	Argillite 1g?
91:c	130	74*	50*	49*	264g*	Argillite 1g
91:d	130	65*	64*	44*	214g*	Granite 1g?
<u>Battered Stone</u>						
92:a	107	74	59	36	237g	Quartzite 2b
92:b	130	61*	27*	13*	21g*	Argillite 1b?
<u>Ground and Pecked Stone</u>						
93:a	108	89	75	52	472g	Argillite 1p, 1g
<u>Pecked and Battered Stone</u>						
94:a	130	71	60	50	294g	Quartzite 2p, 2b
94:b	110	115	81	49	605g	Argillite 1p, 2b faces
94:c	151	42*	35*	27*	65g*	Argillite 1p?, 1b?
94:d	Sur.	116	79	53	572g	Argillite 1p, cb

is generally centered on the face but is somewhat diffuse and an actual pit has not been created on either specimen. These areas are readily discernible by their rougher character and by greater cortex removal. The force of the pecking appears to have been generally light. Grinding is apparent on both faces of specimen 46:b and on one face of specimen 46:a. Grinding has removed much of the cortex and revealed the darker interior. Surface smoothing and polish is evident on both specimens. There are, however, few readily apparent striations attributable to cultural grinding. The degree of grinding varies from moderate on specimen 96:b to heavy on specimen 96:a. Battering is present on one end and one edge on specimen 96:a and on one end of specimen 96:b. Specimen 96:b exhibits additional modification in the form of multiple percussion flakes which have removed most of one face and one end.

Group 101:a-b Ground Sandstone - Small, Flat - 2
(Figure 153, c-d)

Specimen 101:a is multifaceted. The material is local micaceous sandstone. Although locally available, the nearest locus is downstream about one and one-half miles. The specimen exhibits a total of four longitudinal facets. Grinding is fine and lacks any detectable striations. Slight ridges are formed on one facet, and the direction of grinding was longitudinal. Specimen 101:b is a fragment of a slightly concave longitudinal piece of Flint Hill sandstone. The specimen exhibits no readily observable striations. The ground surface is slightly concave with the deepest part of the concavity in a longitudinal axis with the length of the specimen.

Group 102:a Ground Sandstone - Grooved - 1
(Figure 153, e)

This is a small piece of glacial sandstone. The specimen exhibits two narrow, shallow grooves across the width of the specimen. There are no readily apparent striations in the grooves. The grooves are roughly V-shaped and were used to sharpen narrow, pointed objects.

Group 104:a Chipped Gneissic Cobble - 1 (Figure 153, f)

The specimen in this category is a small piece of fire-cracked rock. It exhibits additional alteration after fire-cracking in the form of multiple flakes removed from two margins. There is no apparent pattern in the removal of flakes. Although flakes have been removed from the margins, flake removal was not intended to be a tool shaping process, nor does the flake removal appear to have been a sharpening process.

TABLE 78
Modified Stone/Hematite
Artifact Measurements and Attributes - 23MC149

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Ground, Pecked and Battered Stone</u>						
96:a	2182	32	78	28	377g	Argillite 1p, 1g, 2b
96:b	Sur.	89	88	42	442g	Argillite 1p?, 2g, 1b?
<u>Ground Sandstone, Small, Flat</u>						
101:a	106	52	34	22	35g	Micaceous Sandstone 4 facets
101:b	151	52	39	22	45g	Flint Hill Sandstone 1face
<u>Ground Sandstone, Grooved</u>						
102:a	2327	43	35	18	26g	Glacial Sandstone, 2 narrow, deep grooves
<u>Chipped Gneissic Cobble</u>						
104:a	2030	65	53	30	114g	Gneiss
<u>Hematite</u>						
<u>Chipped Hematite</u>						
117:a	103	27	25	9	12g	
117:b	147	28	22	13	13g	
117:c	153	42	24	17	28g	
117:d	2262	19	13	11	5g	
<u>Ground Hematite</u>						
118:a	127	42	37	9	12g	4 facets
118:b	128	17	11	3	1g	1 facet
118:c	148	35	23	6	8g	1 facet
118:d	151	25	25	23	18g	4 facets
118:e	151	28	13	12	3g	3 facets
118:f	2150	47	25	16	24g	2 facets
118:g	2150	14	10	9	1g	1 facet
118:h	2150	14	10	9	1g	1 facet
<u>Hematite Flakes</u>						
119:a	111	13	11	2	1g	
119:b	170	18	16	8	3g	
119:c	150	12	9	3	1g	
119:d	157	11	7	2	1g	
<u>Chipped and Ground Hematite</u>						
120:a	147	25	11	11	7g	1 facet
<u>Scratched and Ground Hematite</u>						
124:a	165	37	31	8	17g	Sc, 1 face, G, 2 facets

Hematite

Group 117:a-d Chipped Hematite - 4 (Figure 154, k-n)

Specimens in this category exhibit numerous flakes removed. Flakes are removed in an irregular fashion, and there is no discernible pattern to the removal. Resulting specimens are irregular and do not appear to have been part of a tool-shaping process.

Group 118:a-h Ground Hematite - 8 (Figure 154, a-h)

Specimens vary considerably in morphology and nature of grinding. All specimens are fairly irregular. Specimens 118:b and 118:c are hard, specular hematite and are ground in such a way that they appear to be fragments of completed tools. Specimens exhibit ground surfaces over a chipped background on one specimen (118:b). The other six specimens are a softer, earthier hematite. Four of these specimens exhibit irregularly ground surfaces and have been ground with a small piece of fine-grained abrasive (probably sandstone) which follows the contours of the specimens. Specimens 118:e and 118:f have multiple flat ground facets which do not follow specimen contours. It would appear that these two specimens were ground on larger, flat (probably stationary) pieces of fine-grained abrasive. All specimens exhibit fine striations. Striations are multidirectional, but there is a majority of striations in one direction.

Group 119:a-d Hematite Flakes - 4

The specimens in this category exhibit the characteristics of percussion flakes. Most of the specimens lack cortex and are interior flakes.

Group 120:a Chipped and Ground Hematite - 1 (Figure 154, j)

The specimen was first ground. It exhibits one flat facet and was ground against a piece of fine-grained abrasive. Striations are fine and unidirectional. The specimen was subsequently chipped. It exhibits percussion flakes removed from two lateral margins. Flake removal was irregular and does not appear to have been the result of a tool-shaping process.

Group 124:a Scratched and Ground Hematite - 1 (Figure 154, i)

The specimen exhibits multiple gouges on one surface. This wear consists of groups of scratches with both fine and broad striations. This alteration is the same as would be

expected if the surface were scraped with a tool having a sinuous edge such as a chipped stone tool. The specimen also exhibits light grinding on two of the margins. Striations are fine and multidirectional although most of the striations are unidirectional. These striations are the result of grinding on a fine-grained abrasive.

Ceramics

Pottery - 79

Sample: 14 body sherds and 65 highly eroded body sherds.

Group 126:

Ceramics One: Sand-tempered, undetermined bodies.

Sample: 4 body sherds and 9 eroded body sherds.

Paste:

Temper: Highly rounded, sand-sized particles, mainly quartz but with some plagioclase. Particles are generally small (.1 to .8 mm). Temper constitutes only 5-15 percent of past volume.

Texture: Paste is fairly friable. Lamination tends to occur parallel to the interior-exterior surfaces. Sherds tend to break irregularly.

Color: Color is highly variable, ranging from dark red (10YR3/6) through yellow (10YR7/6). Darker shades include grayish brown (10YR5/2), dark gray (5YR4/1) and black (7.5YR2.5/0).

Method of Manufacture: The probability is high that vessels were lump modeled, as there are no straight breaks indicative of coiling, and finger marks are abundant on two of the body sherds. Specimens

exhibit the use of a paddle on the exterior, as temper has been compressed. Exteriors often tend to be structurally different and tend to exfoliate as a unit, and particle sizes are smaller near the exteriors.

Surface Finish: The four non-eroded sherds all have smooth exteriors.

Decoration: Undetermined.

Form: Undetermined.

Group 127:

Ceramics Two: Grit-tempered, smooth and cord-marked body sherds.

Sample: 10 body sherds and 56 highly eroded body sherds.

Paste:

Temper: Angular particles of quartz and plagioclase. Particles are relatively large (.5 to 8 mm). Origin is undetermined but most materials are not highly rounded and appear to be crushed granitic material.

Texture: Paste is friable. Lamination tends to be roughly parallel to the interior-exterior surfaces.

Color: Color of exterior is yellowish red (5YR4/3). Interiors range from reddish yellow (7.5YR6/6) to very dark gray (10YR3/1).

Method of Manufacture: The probability is high that vessels were lump modeled as there are no straight breaks indicative of coiling. Specimens appear to have been cord-marked with a paddle, as temper is slightly compressed. Exteriors often exfoliate as a unit, and particle size is smaller near the exteriors.

Surface Finish: Exteriors are cordmarked on nine sherds. Two sherds exhibit smoothed exteriors. The remainder are too highly eroded to determine surface finish. Only a single vessel appears to be represented based on thickness and color.

Decorations:

Lip: Undetermined.

Rim: Undetermined.

Body: As only a single vessel is represented, surface finish appears to have been smoothed on the neck and cordmarked on the body. There is no apparent decoration.

Form: Undetermined. Probably globular, as there are no conoidal sherds indicative of a thickened conoidal base.

Group 133:a-d Burned Clay - 4

The specimens in this category are clay which has been fired intentionally or unintentionally. They differ from pottery in that they lack temper. All specimens are eroded and highly irregular in shape.

Lithic Waste

Group 134: Chert Waste - 4,190

A total of 3,621 unmodified chert flakes, 319 pieces of unmodified chert shatter, and two chert potlids, were recovered from the excavations. Surface material included 569 unmodified chert flakes, 27 pieces of unmodified chert shatter, and one chert potlid.

Group 135:a-y Quartzite Waste - 25

A total of eighteen unmodified quartzite flakes and five pieces of unmodified quartzite shatter were recovered from the excavations. Surface material included a single unmodified quartzite flake and a single piece of unmodified quartzite shatter.

Group 136:a-c Quartz Waste - 3

A total of two unmodified quartz flakes were recovered from the excavations. An additional piece of unmodified quartz shatter was recovered from the surface.

Group 138:a-d Chalcedony Waste - 4

A total of four unmodified chalcedony flakes were recovered from the excavations.

Group 141: Fire-cracked Rock - 32,017

Fire-cracked rock is the term used for thermally altered stone. A total of 30,218 pieces came from the excavations, 1,733 came from Feature 2, and 66 pieces were recovered from the surface.

Group 142: Unmodified Stone - 1,236

The specimens in this category lack any evidence of intentional or unintentional cultural modification. These appear largely to be residual material which was unintentionally transported to the site.

Historic

Group 144:a-ac Miscellaneous Historic Material - 29

A total of 29 pieces of historic material were recovered from the excavations. Material includes 24 pieces of road gravel, two brass .22 shells, one brass .410 shell base, 1 flattened bullet, and 1 piece of iron wire.

TABLE 79

DISTRIBUTIONAL SUMMARY - 23MC149

	10	33	34	35	44	45	47	48	49	54	64	68	70	72	73	75	76	78	83	84	86	90	91
Xul02, L.1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul02, L.2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-
Xul02, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Xul02, L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul04, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul04, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1
Xul04, L.3	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Xul04, L.4	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
Xul123, L.1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul123, L.2	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
Xul123, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	1	2
Xul123, L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul125, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Xul125, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul125, L.3	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-
Xul125, L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul140, L.1	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	1	-	-	-	-	1	-	-
Xul140, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	1	-	-
Xul140, L.3	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	2	-	-
Xul140, L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul142, L.1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Xul142, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul142, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul144, L.1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul144, L.2	1	-	1	1	-	-	-	-	1	-	-	-	-	-	-	1	1	-	-	-	1	-	-
Xul144, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	2	-
Xul144, L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul146, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul146, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Xul146, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul149, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul149, L.2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul149, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul158, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-
Xul158, L.2	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	2	1	-	-	1	2	1	-
Xul158, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Xul158, L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul001, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul001, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul001, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul002, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul002, L.2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-
Xul002, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul003, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Xul003, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul003, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Xul003, L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul004, L.1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul004, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-
Xul004, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul005, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul005, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Xul005, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Xul006, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Xul006, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
Xul006, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-
Xul007, L.1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Xul007, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul007, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul007, L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul008, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Xul008, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-
Xul008, L.3	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	1	-	-
Xul009, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul009, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul009, L.3	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	2	-	-
Xul009, L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surface	-	-	-	-	-	-	-	2	1	-	-	-	-	-	2	4	1	1	1	1	1	3	-
Feature 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 79 (cont'd)

DISTRIBUTIONAL SUMMARY - 23MC149

		92	93	94	96	101	102	104	117	118	119	120	124	126	127	133	134	135	136	138	141	142	144
Xul02,	L.1	-	-	-	-	-	-	-	1	-	-	-	-	2	22	-	114	-	-	1	347	27	1
	L.2	1	1	1	-	1	-	-	-	-	-	-	-	-	2	-	174	2	-	-	455	36	-
	L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	128	-	-	1	172	22	-
	L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	12	8	-
Xul04,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	-	-	-	100	7	1
	L.2	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	84	-	-	-	199	15	-
	L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	-	1	-	261	10	-
	L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	-	-	-	43	20	-
Xul23,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	68	-	-	-	236	8	1
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	90	-	-	1	337	25	-
	L.3	1	-	1	-	-	-	-	-	-	-	-	-	1	-	-	84	-	-	1	266	23	-
	L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	-	-	-	64	6	-
Xul25,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	93	-	-	-	339	19	-
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	-	1	-	784	41	-
	L.3	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	63	-	-	-	1175	18	-
	L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83	-	-	-	202	11	-
Xul40,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	117	-	-	-	532	14	1
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	221	2	-	-	1204	37	1
	L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	-	-	-	233	1	-
	L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	-	-
Xul42,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	108	-	-	-	426	41	-
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73	2	-	-	801	18	-
	L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	-	-	-	114	15	-
Xul44,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	63	-	-	-	143	6	-
	L.2	-	-	-	-	-	-	-	-	1	-	-	-	2	6	-	79	1	-	-	220	10	-
	L.3	-	-	1	-	-	1	-	-	2	1	-	-	2	12	1	105	2	-	-	468	20	5
	L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	-	-	-	67	8	-
Xul46,	L.1	-	-	-	-	-	-	-	1	-	-	1	-	-	3	-	82	-	-	-	559	20	1
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	102	-	-	-	864	20	-
	L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	-	-	-	89	5	-
Xul49,	L.1	-	-	-	-	-	-	-	-	-	1	-	-	3	1	-	50	-	-	-	433	31	-
	L.2	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	46	1	-	-	68	19	-
	L.3	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	35	-	-	-	210	16	3
Xul58,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	49	1	-	-	43	23	2
	L.2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	87	7	-	-	629	39	13
	L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	172	17	-
	L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	12	4	-
Xul001,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	1149	11	-
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	-	-	-	1416	12	-
	L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	219	15	-
Xul002,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	-	-	-	851	27	-
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	2	-	-	700	6	-
	L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	1	-	-	189	8	-
Xul003,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	-	-	-	396	6	-
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	-	-	-	525	18	-
	L.3	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	57	-	-	-	196	12	-
	L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	2	-
Xul004,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	130	-	-	-	1264	39	-
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	-	-	-	1392	10	-
	L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	43	-	-	-	595	21	-
Xul005,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	-	-	-	809	13	-
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	1	-	-	396	28	-
	L.3	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	36	-	-	-	559	21	-
Xul006,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	40	-	-	-	690	30	-
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58	-	-	-	714	42	-
	L.3	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	20	-	-	-	289	27	-
Xul007,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-	499	10	-
	L.2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	60	1	-	-	938	13	-
	L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	-	-	-	251	16	-
	L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	1	-
Xul008,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	-	-	-	403	15	-
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	-	-	-	682	16	-
	L.3	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	33	-	-	-	432	25	-
Xul009,	L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	-	-	-	458	27	-
	L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	-	-	-	525	30	-
	L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	-	-	-	777	62	-
	L.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	60	13	-
Surface		-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	597	2	1	-	66	4	-
Feature 2		-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	39	-	-	-	1733	-	-

The Site Assemblage: 23MC149

The projectile point in Group 10 is not common in any area of northern Missouri. Larger square stemmed points are common in Archaic contexts, particularly Late Archaic sites (cf. Chapman 1975). Small to medium square stemmed points do not appear to be particularly diagnostic. Similar points occur at the Shields site (Shippee 1967: Fig. 21, A). Shippee estimated that they were part of a Late Woodland occupation, but since they were surface finds, their status was uncertain. Small square-stemmed points also occur in late Middle Woodland contexts in the Illinois River valley (White 1968). The late phases of Mankier Stemmed as well as some of the late sub-triangular variants are somewhat similar.

The specimen in Group 33 is common in northern Missouri. Similar material occurs in Cannon Reservoir (Henning 1961:139) and in the Saverton, Missouri, area (Eichenberger 1939, 1944, 1955). Somewhat related material occurs further west (Weichman 1976a:Pl. 3; Vehik 1971:Fig. 2, a; and Shippee 1967). It is similar to the type Koster Corner-notched although somewhat larger and with broader corner notches. Similar material is typical of Late Woodland contexts in the Cannon Reservoir area as well as to the south and west in the Kansas City area.

The specimens in Group 34 are also common in the Long Branch area and much of northeastern Missouri. Although somewhat similar to the type Norton in the Illinois River valley (White 1968), they are smaller and worked only by pressure flaking from flake blanks. They are somewhat similar to a variety of materials from the surface component at the Shields site (Shippee 1967:33, Fig. 21) in the Kansas City area as well as northeastern Missouri (Henning 1961:139, Fig. 25; Eichenberger 1944:Pl. X). The method of manufacture as well as the morphology of the points are similar to White's (1968) sub-triangular varieties. All are late Middle Woodland to early Late Woodland.

Comparative materials for the specimen in Group 35 are difficult to find. The specimen is similar to types ES-1 and ES-2 from Cannon Reservoir (Henning 1961:143, Fig. 26). No age estimation was made, and no other directly comparable materials could be found. Based on the relative method of manufacture (pressure flaking only) and the relative size of the point, it is estimated that it fits well with the other recovered points and probably belongs to a late Middle Woodland/early Late Woodland component.

The specimens in Group 44 are probably not particularly diagnostic due to their heavily modified condition. Specimen 44:a appears to have been a corner-notched point, while specimen 44:b appears to have been side-notched and concave-based. Specimen 44:a probably fits well with the other points recovered, although it exhibits both percussion and pressure flaking. Specimen 44:b does not initially appear to fit well with the other points morphologically. Side-notched, concave-based points are more typical of Archaic contexts, but the specimen appears to have been worked by pressure flaking only.

The other projectile point fragments in Groups 45, 47, 48 and 49 are not particularly informative, although they do illustrate the importance of hunting activities. Their fragmentary nature and the heavy incidence of reworking and attempts to rework specimens indicate the high degree of artifact recycling. The drill-like implements in Group 54 indicate another activity on the site (i.e. drilling or reaming).

The three asymmetric bifaces in Group 64 comprise the entire contents of Feature 3. This feature was a cache of blanks. All three specimens are thick and worked by percussion. None exhibit observable wear. The specimens in Groups 68 and 70 also are worked largely by percussion and lack observable wear. They appear to be blanks or preforms as well. The distal biface fragments in Groups 72 and 73 are not particularly informative. Groups 75 and 76 consist of biface fragments. The large number of biface fragments and their small size as well as the degree of reworking noted previously indicate a long use-life as well as heavy recycling of artifacts.

The core fragment in Group 78 is not particularly informative, although it does indicate the use of local sources of raw material in lithic utilization. The specimens in Group 83 indicate that attempts were made to work blocky or irregular pieces of chert.

The flake tools in Groups 84 and 86 are numerous but not to the degree of some sites in the area. Although the two retouched flakes exhibit unifacial retouch, edge angles are acute, and specimen 84:b exhibits both unifacial and bifacial retouch. The proportion of flake fragments in Group 86 is high. Although most exhibit acute working elements (22 of the 24 specimens), the types of edge damage indicate that both cutting and scraping activities occurred. Most have been used as scrapers.

The numbers of ground and pecked stone are relatively high. Specimens in Groups 90, 91, 93, 94, and 96 appear to be tools associated with plant processing. Wear on these specimens is indicative of contact with materials which were not dense (cf. Baker 1975). Specimens in Group 92 exhibit characteristics of direct contact with dense materials, and are not apparently part of plant processing.

The ground sandstone in Groups 101 and 102 indicate diverse grinding activities. Specimens in Group 101 have been used in grinding on smooth objects. Specimen 101:a is faceted. Both specimens are small and were hand-held. Specimen 102:a has narrow grooves on the surface. It was used to sharpen narrow, pointed objects. The specimen in Group 104 had multiple flakes removed, but the purpose of the alteration is unknown.

Hematite was altered for a variety of purposes. The chipped hematite in Group 117 was altered for unknown purposes. All are irregular, and there is no discernible pattern to the flake removal. Ground hematite in Group 118 is variable within the group. Two specimens (118:b and 118:c) appear to be fragments of ground tools, but the other specimens were ground for pigment. Hematite flakes (Group 119) are not numerous. Flaking was performed for tool shaping as well as undetermined reasons. The scratched and ground hematite in Group 124 are different alterations, but both have been performed to obtain pigment.

The ceramics in Groups 126 and 127 are not particularly informative. Sand-tempered ceramics are generally more typical of Weaver wares in the area, but the lack of decoration on the recovered sherds makes such an assignment very tenuous. The ceramics in Group 127 represent a single vessel, but the lack of decoration also makes it impossible to place chronologically. The vessel is quite thick and differs significantly from typical Late Woodland ceramics in the area.

The remainder of the material is lithic waste or unmodified stone. The density of chert waste is fairly high for sites in the area. Chert waste is characterized by a preponderance of biface thinning, trimming, and retouch flakes. The presence of other material types (quartzite, quartz, and chalcedony waste) indicate the use of local sources of materials. The density of fire-cracked rock is also fairly high. This material is associated with thermal activities, often cooking. Most of this material appears to have been dispersed from its original locations.

Features noted in the excavations are typical of sites of this nature. Feature 1 was a large basin-shaped pit filled with organic material, charcoal, and large amounts of fire-cracked rock. The construction methods are identical to Feature 1 at 23MC58 (Grantham 1979) and Feature 5 and 23MC55 (this volume). It appears that the feature was used as a shallow earth oven. The lack of clear indications of a domed earth configuration would indicate that the feature was opened but quickly buried.

Feature 2 is small and ubiquitous. The lack of any associated material other than charcoal does not lend itself to any functional interpretations. Feature 3 was a cache of chert blanks. Caching occurs on many of the larger sites excavated in the area. Caching of chert hammerstones occurred in the excavations at 23MC65 (Grantham 1979), and caching of plant processing tools was noted at 23MC55 (this volume).

Feature 4 is also a common feature type in the area. It appears to have originally been a shallow earth oven similar in nature to Feature 1. Such features in all states from unopened (Feature 1, 23MC58) to opened and concentrated (Feature 1, 23MC74 - Grantham 1979) to opened and highly dispersed (Feature 3, 23MC74 - Grantham 1979) occur in the area. This feature is only loosely concentrated and most of the fire-cracked rock has been dispersed.

In summary, most of the projectile points indicate a late Middle Woodland to early Late Woodland component on the site. The ceramics unfortunately are not particularly informative. The types of tools indicate that a number of activities occurred on the site. Hunting and plant processing were the most important activities, with the latter resulting in the most numerous recognizable tools.

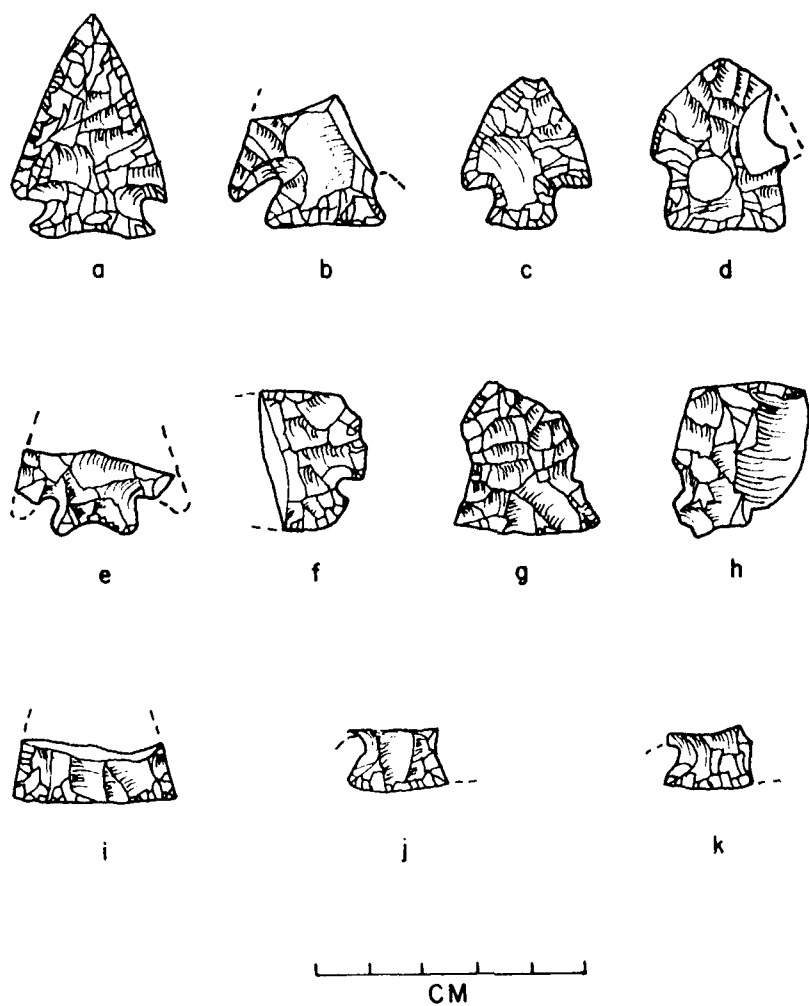


Figure 148. 23MC149. Artifacts. (a-b,f) Group 34, (c) Group 33, (d) Group 10, (e) Group 35, (g-h) Group 44, (i-k) Group 45.

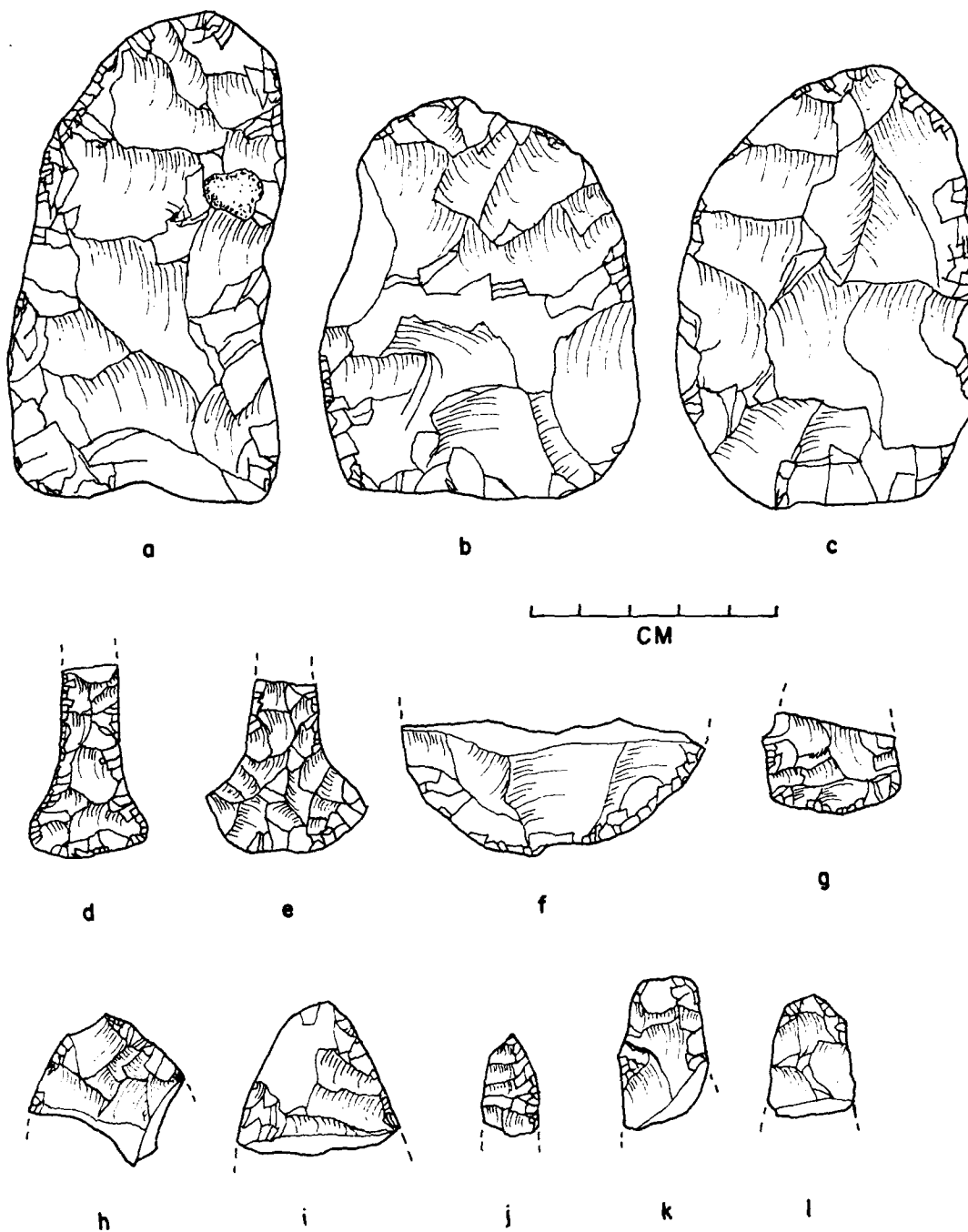


Figure 149. 23MC149. Artifacts. (a-c) Group 64, (d-e) Group 54, (f) Group 68, (g) Group 70, (h-i) Group 72, (j-l) Group 73.

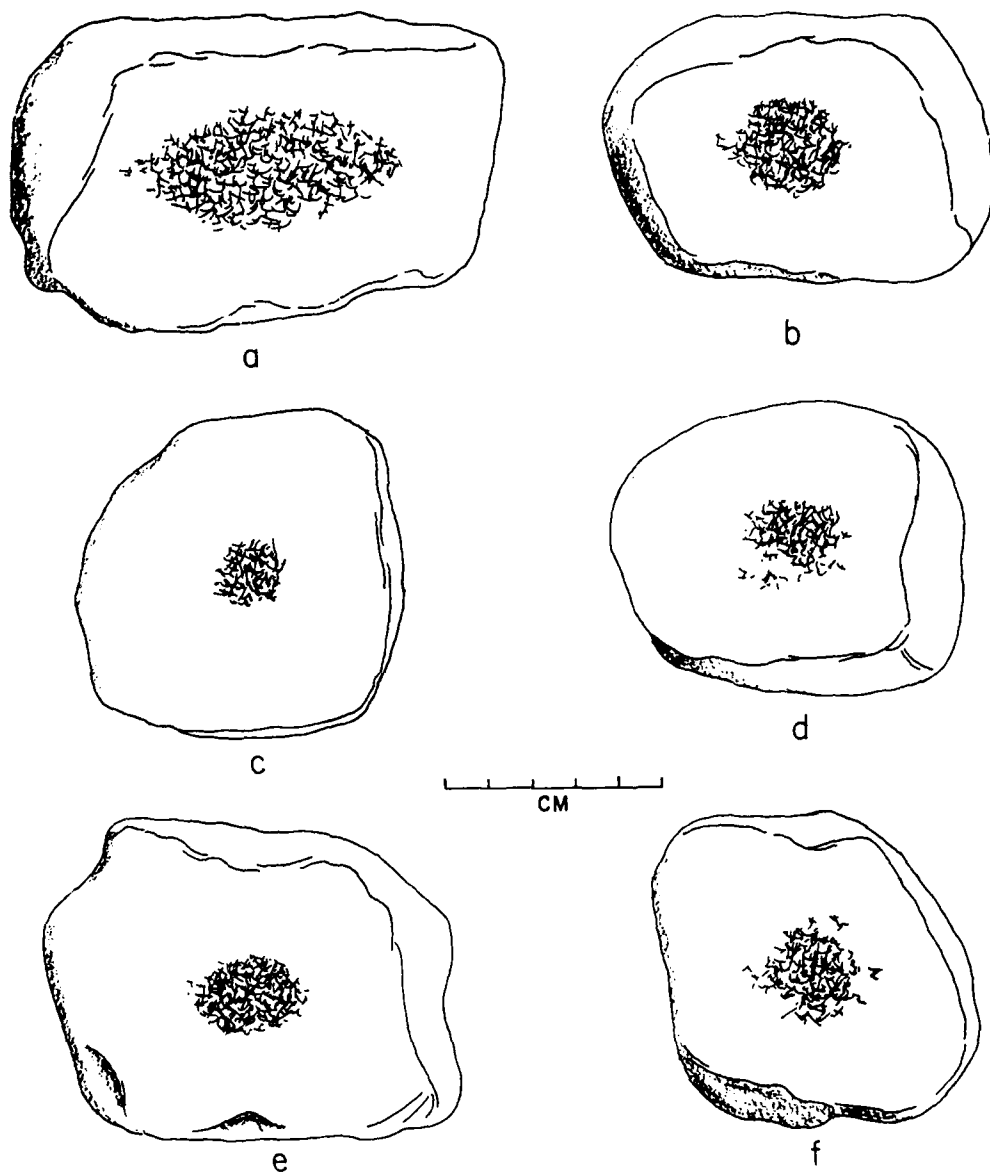


Figure 150. 23MC149. Artifacts. Pecked Stone. (a-f)
Group 90.

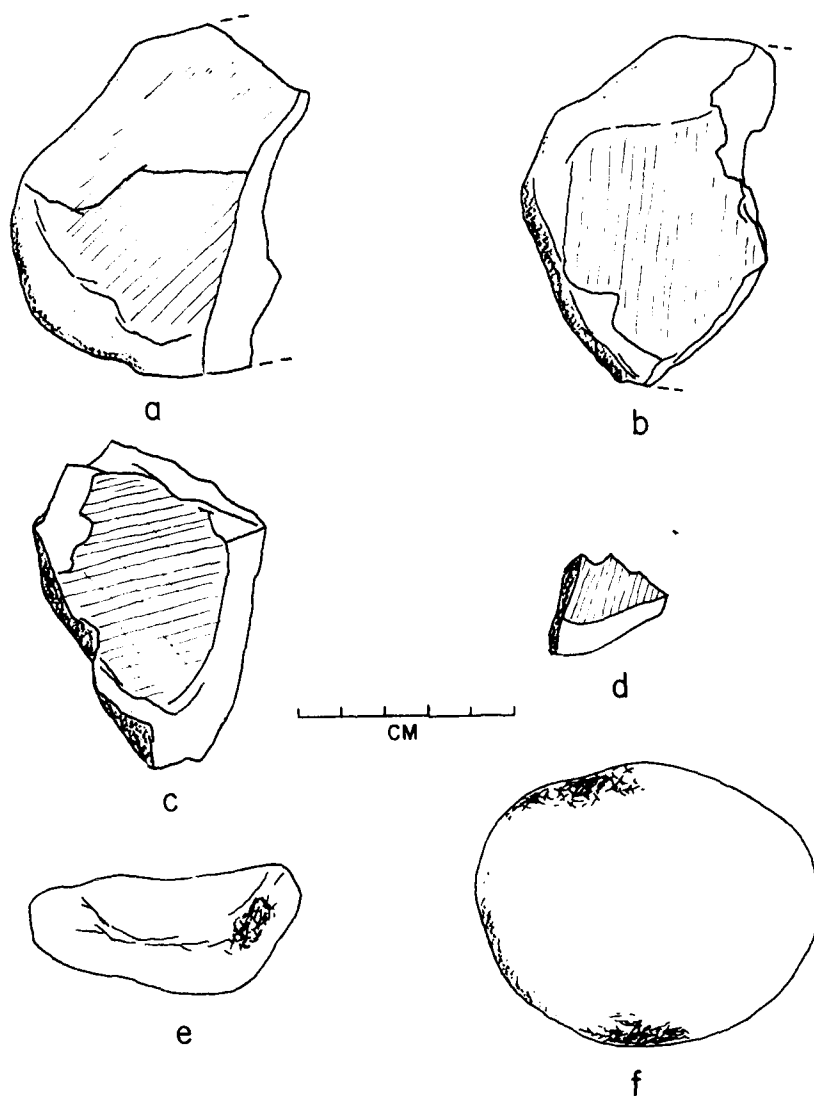


Figure 151. 23MC149. Artifacts. Ground/Battered Stone.
(a-d) Group 91, (d-f) Group 92.

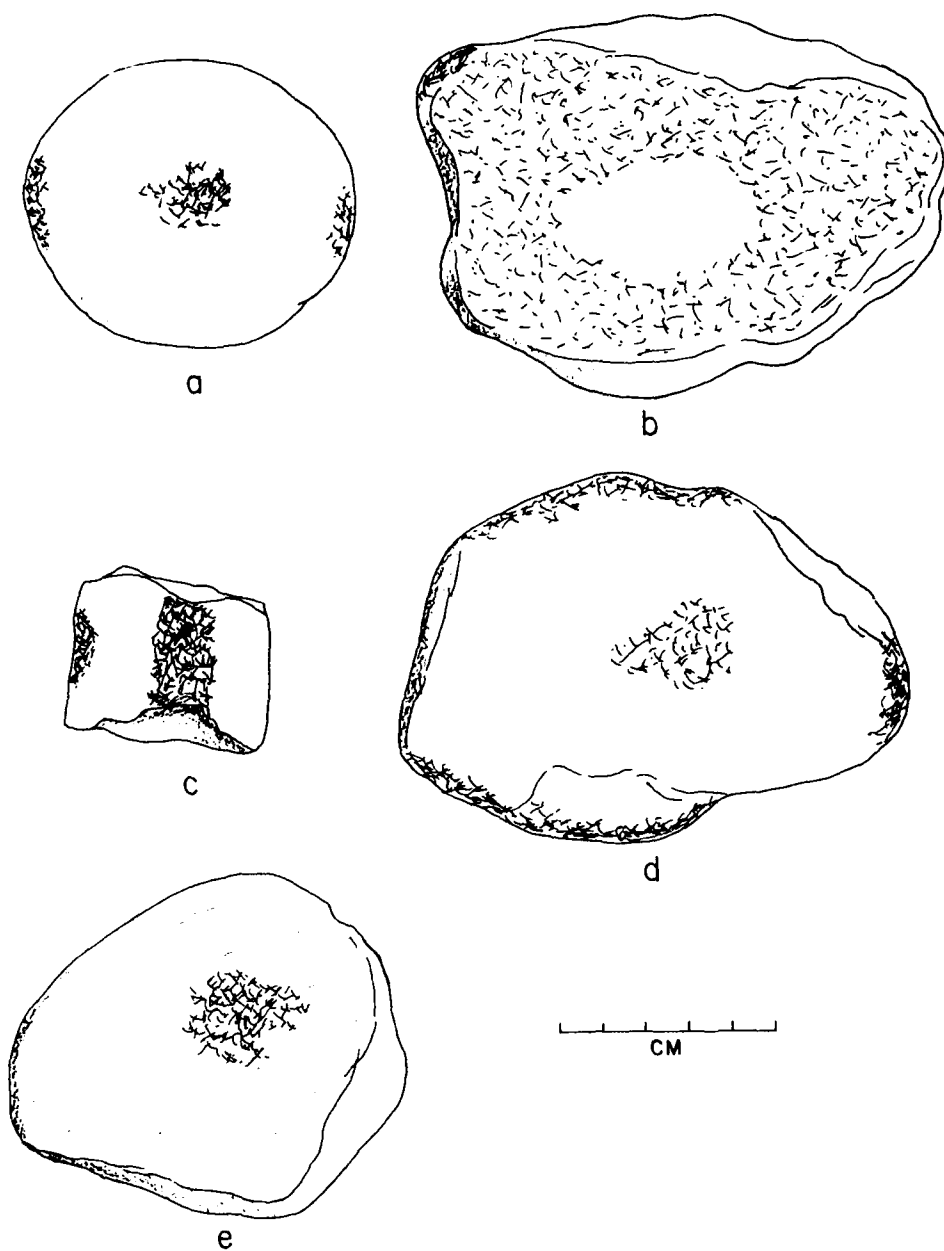


Figure 152. 23MC149. Artifacts. (a-d) Group 94, (e) Group 93.

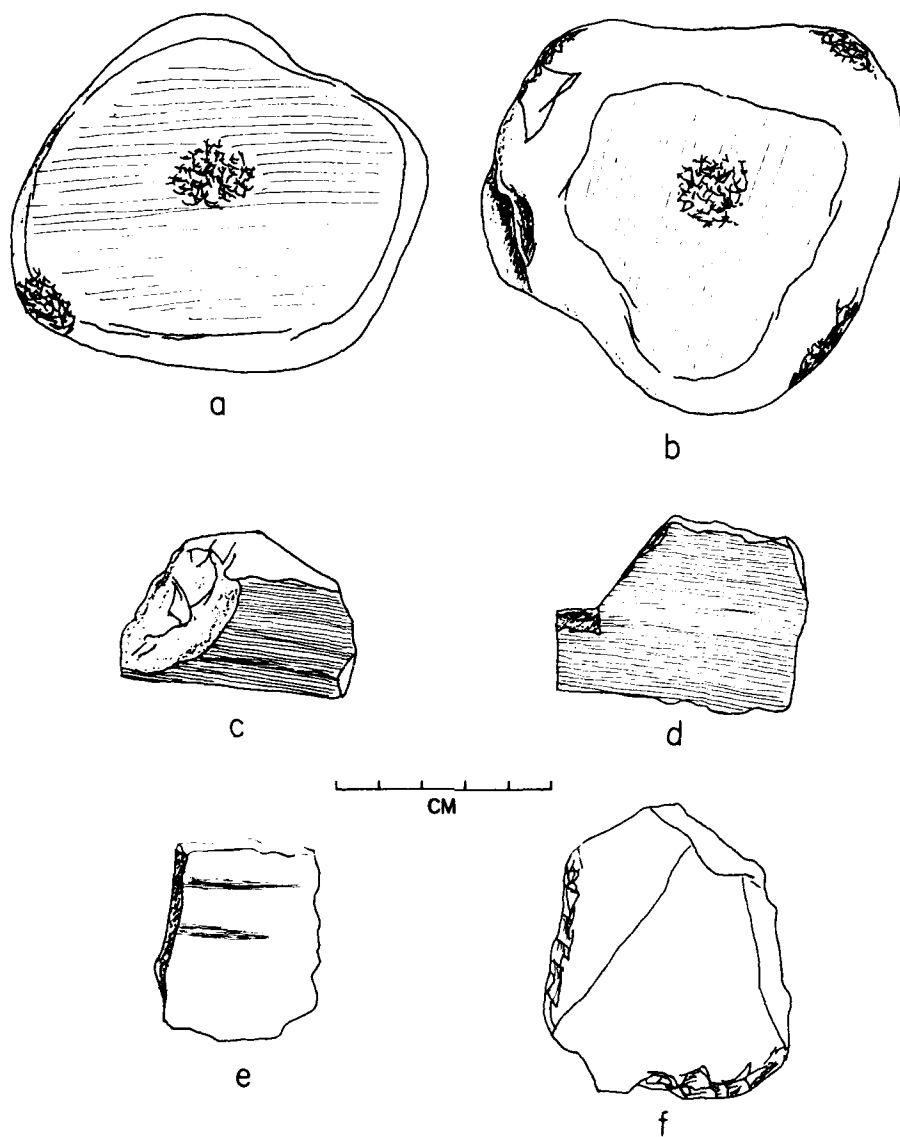


Figure 153. 23MC149. Artifacts. (a-b) Group 96. (c-d) Group 101, (e) Group 102, (f) Group 104.

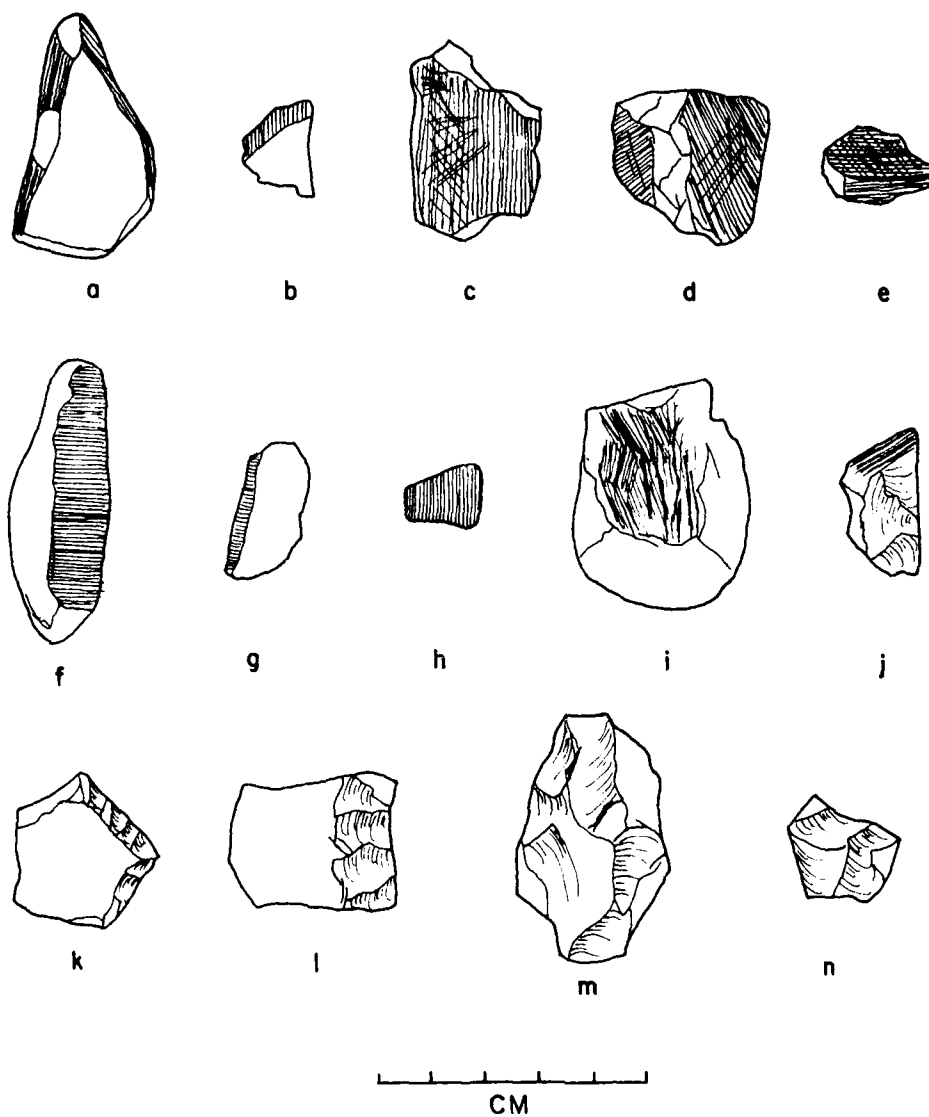


Figure 154. 23MC149. Artifacts. Hematite. (a-h) Group 118, (i) Group 124, (j) Group 120, (k-n) Group 117.

23MC150 H

This site lies on the left (northeast) bank of the East Fork and lies at the northern edge of 23MC148. The site consists of the remains of a single historic building. The site lies in a plowed field and consists of a large scatter of sandstone blocks and historic material. The site appears to have been a log cabin as the sandstone blocks were possibly arranged as footing stones. The blocks have subsequently been highly scattered by plowing. There is a well just to the north of the site. The size of the site is estimated to be 50 feet by 50 feet. Original orientation of the building could not be determined. The elevation of the site is approximately 780 feet m.s.l. The site had been recently plowed and visibility was good.

MATERIAL COLLECTED

HISTORIC

SHELL

Hinge Fragment 1

BONE

Horse Molar 1

METAL

Cast Iron 2

BRICK

Miscellaneous Fragments 8

BUTTONS

Milk Glass, Depressed Face, 4 hole . . 3

GIZZARD STONE

Light Blue Green Glass 1

GLASS

CLEAR

Bottle Base 1

LIGHT BLUE GREEN

Bottle Base 1

Window 5

AMBER

Bottle Top--Blown 1

STONEWARE

BODIES

Salt Glazed Interior and Exterior	1
Salt Glazed Exteriors, Unglazed	
Interior	1
Albany Slip Interior, Salt	
Glazed Exterior	3

IRONSTONE

Plain White	36
Flow Blue	1
Base with Makers Mark	1

None of the material is clearly diagnostic of the period of occupation. The flow blue (shell edge) whiteware was produced in the period 1830-1860 (Price 1979). This appears to be a good indication of the suggested time range. The ironstone fragment with the makers mark could not be traced. The structure does not appear in the 1876 historic atlas of Macon County, and it would appear that the structure was no longer standing by that time.

This site lies on the left (northeast) bank of the East Fork. The site lies on a low hill at the edge of the flood-plain. The hill is bounded on the east by a large intermittent stream and on the west by a broad, shallow wash. Site 23MC55 lies just to the west. Hill slopes are gentle on all edges. The river originally flowed some 580 feet south of the site area. The size of the site is estimated to be 200 feet north-south by 150 feet east-west. The elevation of the site is 770-780 feet m.s.l. Vegetation consisted of dense grass pasture, and visibility was poor. Surface material was collected along a levee at the southern edge of the site. The levee had been constructed by pushing down the southern edge of the hill. Material density was moderate. The northern part of the site had been plowed, and the site appears to be in a poor to fair state of preservation. It could not be determined surficially if sub-plowzone deposits were present.

Testing of the site was desired in order to obtain information on the site's relationship to 23MC55. The latter lies across a shallow wash to the west. Information on the temporal placement and function of the site was desired. The site lies at the margin of a large soil area, which appears to have developed under prairie conditions. It was important to understand the relationship between 23CM55 and this site as well as to understand the relationship to the other sites in the area. Both large seasonal sites with emphasis on gathered food products (e.g. 23MC55) and sites with a greater emphasis on hunting (e.g. 23MC74) all occur in this similar setting. We did not expect that a limited testing program would yield a great amount of data but would yield information on densities of material for comparison with other sites in the area.

Two, one and one-half meter squares were laid out for excavation. One was near the west central portion of the site and the other near the east central portion of the site (Figure 155). The squares were excavated in arbitrary ten centimeter levels. Although we expected that the site area had been plowed, the plowzone was not removed as a single unit. A total of three levels were excavated to a total depth of 30 centimeters below the surface. Excavations stopped at that point when culturally sterile deposits were reached.

The only physical stratigraphy noted in the excavations was the result of soil horization. An Ap-horizon extended from the surface to a depth of 17 to 20 centimeters below

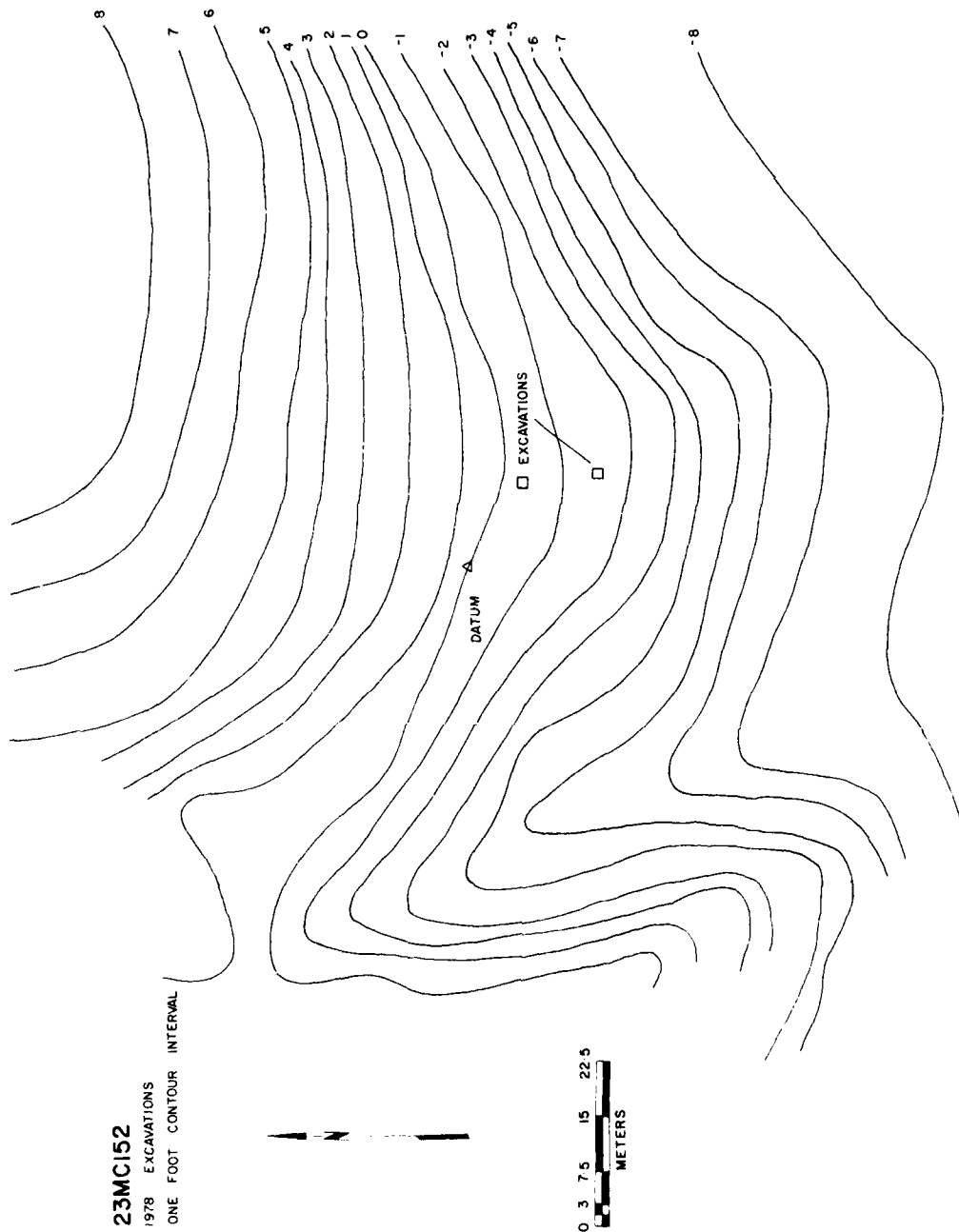


Figure 155. 23MC152. Site map and location of excavations.

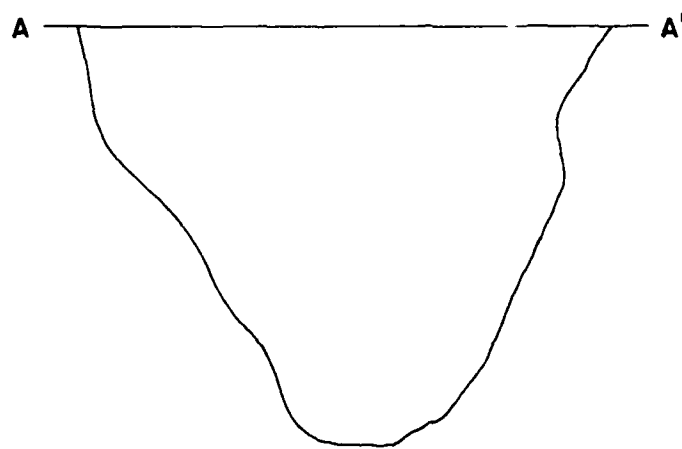
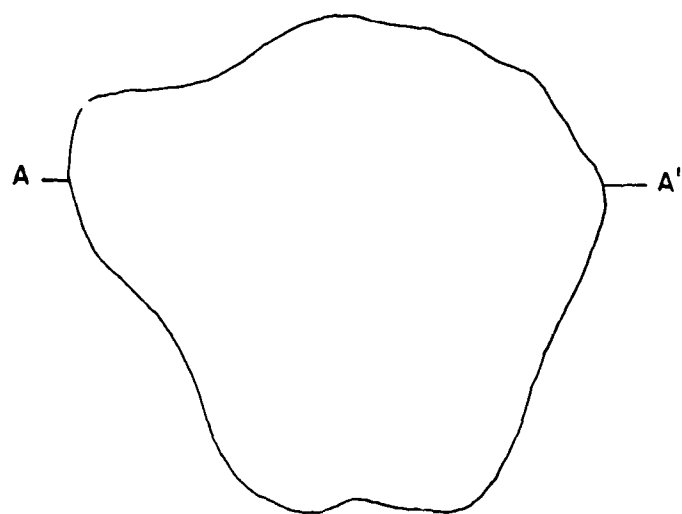


Figure 156. 23MC152. Feature 1.

the surface. A B1-horizon extended from that point to approximately 28 centimeters below the surface. A B2-horizon extended from that point to an undetermined depth.

Features

Feature 1

Feature 1 was encountered in the center of excavation unit 106 (Figure 156). The feature was identified by the darker organic material with charcoal flecks. The feature was roughly circular in horizontal plan and conical in vertical plan. The feature was 30 centimeters east-west by twenty-seven centimeters north-south. The feature was twenty-two centimeters in greatest depth. Wood charcoal consisted of small fragmentary pieces.

Description of Materials

Points

Group 34:a Medium, Corner-notched Point - 1
(Figure 157, a)

The specimen in this category exhibits a straight base, sharp stem-base juncture, expanding stem, oblique shoulders, convex lateral margins, and a bi-convex cross-section. The chipping pattern consists of primary percussion and secondary pressure flaking. Primary flake scars have largely been obscured by later flaking. Secondary flake scars are small to medium, lamellar to expanding, uneven in size, and inconsistent in distribution. Corner notches were created by the removal of multiple pressure flakes. Final notch flakes originate from alternate faces. Blank material is difficult to determine but appears to be an altered flake blank based mainly on the thickness. The specimen exhibits a small distal fracture and a small fracture through one base-stem juncture.

Drill-like Implements

Group 54:a Narrow Drill-like Implement - 1 medial fragment
(Figure 157, b)

The specimen in this category appears to be a medial fragment of a narrow drill-like implement. It exhibits the

parallel lateral margins. Lateral margins do not converge rapidly to a point. The chipping pattern consists largely of secondary pressure flaking. The specimen exhibits one transverse stress fracture. The other fracture is a reverse hinge fracture. There was an attempt to rework the transverse fracture. A flake in the reworking extends down the face and hinges back through the specimen. Wear along the lateral margins is slight and consists of very slight edge rounding with some step fracturing.

Bifaces and Biface Fragments

Group 75:a-b Miscellaneous Thin Biface Fragments - 2

The specimens in this category consist of miscellaneous thin biface fragments too small to be able to determine what kind of tools they represent. They exhibit no external attributes which would allow their inclusion in any other category. Specimen 75:a exhibits primary percussion and secondary pressure flaking. The specimen exhibits an undetermined compound fracture. Specimen 75:b is a very small fragment. Flaking is difficult to determine due to the small size. Multiple step flakes are apparent on two sides, and the specimen was in the process of attempting to repair the tool when fracture occurred. It exhibits a transverse stress fracture.

Flake Tools

Group 84:a Retouched Flake - 1 (Figure 157, c)

The specimen in this category exhibits intentional modification of the flake margin by additional flake removal. The specimen is fragmentary. It exhibits retouch on the remaining lateral margin. Retouch is unifacial and slightly steep. This has resulted in a long, slightly concave working element in facial aspect. The working element is also slightly concave in longitudinal aspect.

Group 88:a Utilized Core Fragment - 1

The specimen in this category exhibits multiple flakes driven from the margins in a highly irregular fashion. The specimen still retains cortex on two edges. The specimen exhibits a large percussion flake which removed the entire fragment and left a long, acute edge. The edge exhibits subsequent utilization in the form of minute flake removal through use. The working element is acute. Utilization is bifacial and appears to have been used in a cutting motion. The degree of utilization is relatively light.

Ground and Pecked Stone

Group 91:a Ground Stone - 1 fragment
(Figure 157, d)

The specimen in this category exhibits one face which has been ground. The specimen exhibits slight cortex removal. There is also slight polish on the ground face. The specimen is fragmentary and has been heavily fire-cracked.

Ceramics

Pottery - 1

Group 126:

Ceramics One

Sample: 1 highly eroded body sherd

Paste:

Temper: Round, sand-sized particles, mainly quartz but with some plagioclase.
Particles are small (.1 to .5 mm).
Particles are highly rounded.

Texture: Paste is fairly friable. Lamination tends to occur parallel to the interior/exterior surfaces.
The sherd exhibits irregular breaks.

Color: Color is dark brownish gray (10YR6/2).

Method of Manufacture: It would appear that the specimen was lump modeled as there is no straight breaks indicative of coiling.

Surface Finish: Undetermined.

Decoration: Undetermined

Form: Undetermined.

Lithic Waste

Group 134: Chert Waste - 57

A total of 43 unmodified chert flakes and seven pieces of unmodified chert shatter were recovered from the excavations. Surface material included five unmodified chert flakes and two unmodified pieces of chert shatter.

Group 135: Quartzite Waste - 1

A single piece of unmodified quartzite shatter was recovered from the excavations.

Group 141: Fire-cracked Rock - 1,546

Fire-cracked rock is the term used for thermally altered stone. A total of 1,272 pieces were recovered from the excavations, and 274 pieces came from the surface.

Group 142: Unmodified Stone - 126

The specimens in this category consist of unmodified glacial material. They exhibit no intentional or unintentional cultural modifications. These appear to be largely residual materials which have been unintentionally transported to the site.

Historic

Group 144:a-v Miscellaneous Historic Material - 22

A total of 22 pieces of historic material were recovered from the excavations. Material included three pieces of glass, two cinders, three pieces of bone, one nail, one fence post staple, one gizzard stone, and eleven pieces of miscellaneous unidentified iron.

TABLE 80
Artifact Measurements and Attributes - 23MC152

Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Points</u>					
<u>Medium, Corner-notched Point</u>					
34:a	104	39	30	5	6g
<u>Drill-like Implements</u>					
<u>Narrow, Drill-like Implement</u>					
54:a	Sur.	20*	13*	6*	2g*
<u>Flake Tools</u>					
<u>Retouched Flake</u>					
84:a	Sur.	40*	25*	8*	6g* 1 edge
<u>Utilized Core Fragment</u>					
88:a	Sur.	38	30	13	18g 1 edge
<u>Ground/Pecked Stone</u>					
<u>Ground Stone</u>					
91:a	Sur.	55*	40*	37*	129g* Quartzite 1g

TABLE 81
DISTRIBUTIONAL SUMMARY - 23MC152

	34	54	75	84	88	91	126	134	135	141	142	144
Xu 102, L.1	-	-	-	-	-	-	-	20	1	515	27	13
L.2	1	-	-	-	-	-	1	12	-	400	40	7
L.3	-	-	-	-	-	-	-	9	-	78	21	-
Xu 106, L.1	-	-	-	-	-	-	-	3	-	179	19	2
L.2	-	-	-	-	-	-	-	3	-	83	6	-
L.3	-	-	-	-	-	-	-	3	-	17	9	-
Surface	-	1	2	1	1	1	-	7	-	274	4	-

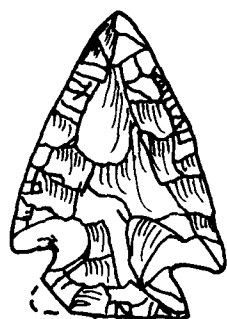
The Site Assemblage: 23MC152

The specimen in Group 34 is similar to the type Norton in Illinois (White 1968). The type is Middle Woodland in western Illinois. The type is not common on the Middle Woodland sites in the Kansas City area (cf. Shippee 1967; Bell 1976). Reeder (1978) illustrates somewhat similar material from the Middle Woodland component at the Sohn site. The type also is rare in the lower Lamine River and Big Bend localities on the Missouri River (Kay 1975). The type is more common in northeastern Missouri (cf. 23MC65, this volume).

The specimen in Group 54 illustrates that other activities occurred on the site (i.e. drilling or reaming). The number of highly fragmentary bifacial chert tools (Group 75) is common on sites in the area and illustrates the long use-life and heavy reuse of tools. The flake tools (Group 84) are not numerous, but the sample size is relatively small. The specimen in Group 84 appears to have been utilized in a scraping motion, and the specimen in Group 88 appears to have been utilized in a cutting motion.

The ground stone (Group 91) indicates that plant processing occurred on the site, but the relatively small sample size does not allow any meaningful statements regarding the importance of plant processing. The ceramics (Group 126) indicates only that there is probably a Woodland component on the site.

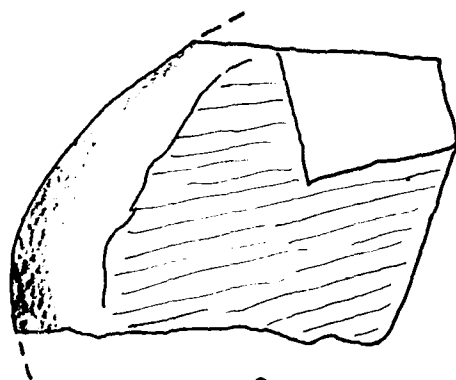
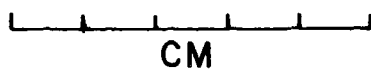
The remainder of the recovered specimens are waste materials. The proportion of local and non-local cherts was not calculated. As is typical of the area, the chert waste is characterized by a preponderance of bifacial trimming, thinning, and retouch flakes. There is a large amount of fire-cracked rock recovered from the test excavations. This tends to indicate that thermal activities were important on the site.



a



b



c

Figure 157. 23MC152. Artifacts. (a) Group 34, (b) Group 54, (c) Group 84, (d) Group 91.

23MC153

This site lies on the left (east) bank of the East Fork between 23MC54 and 23MC55. The site is bounded on the north and south by deep draws, and on the basis of a noncontinuous material distribution, the site was separated from the above two sites. The western edge of the site has been heavily truncated by the river, and eroded material may be found all the way down to the floodplain. The river originally flowed some 30 feet west of the site. The size of the site is estimated to be 200 feet east-west by 140 feet north-south. The elevation of the site is 770-782 feet m.s.l. Vegetation consisted of dense grass with secondary growth along the western edge. The site was designated on the basis of a small amount of material recovered prior to tree clearance. A large amount of surface material was recovered after clearing, and visibility was fair to good. The western edge of the site appears to be in a fair to good state of preservation. Material density was high.

Testing of this site was desired in order to obtain information on the site's relationship to adjoining sites. Site 23MC54 lies just to the north, and 23MC55 lies to the south. Information on the temporal placement and site function was desired. The site lies at the margin of a large soil area which appears to have developed under prairie conditions, and also lies adjacent to a broad bottomland area. It was important to understand the relationship of this site to other sites in the area. While we hoped to shed some information on the temporal placement, site function, and the site's relationship to other sites in the area, we did not expect that a limited testing program would yield a great amount of data relevant to these goals.

A single one and one-half meter square was laid out for the excavation. The excavation unit was near the central portion of the site (Figure 158). The square was excavated in arbitrary ten centimeter levels. Although a portion of the site had been plowed when the site was first recorded, clearing of the trees had disturbed areas outside the original forested area. Thus, we did not know whether the area of the test had been previously plowed or not. A total of three levels were excavated to a total depth of 25 centimeters below the surface. The third ten centimeter level was not completed, and excavations were ceased at that point when a heavy, tenacious, culturally sterile clay was reached.

The only physical stratigraphy noted in the excavations was the result of soil horizonation. An Ap-horizon extended

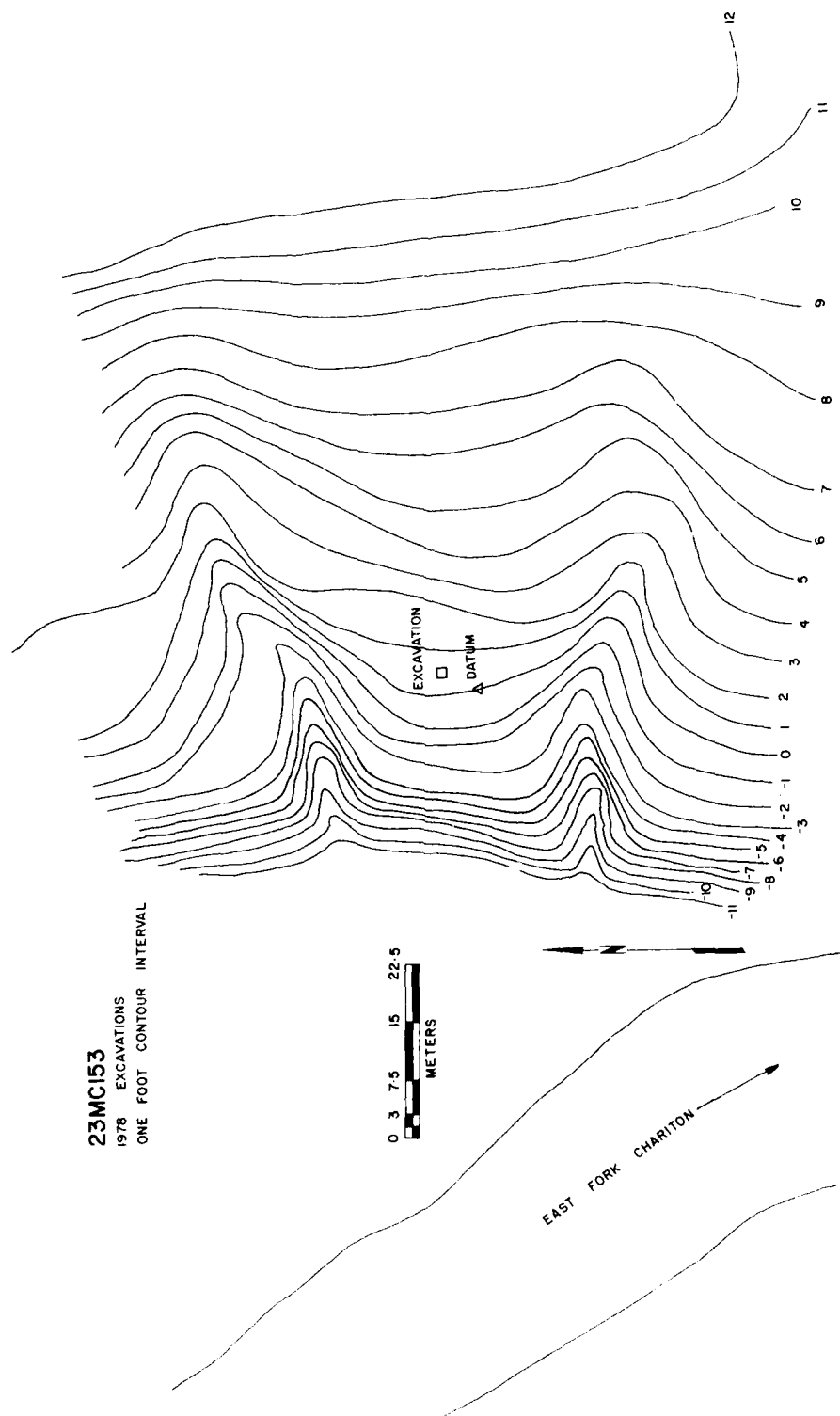


Figure 158. 23MC153. Site map and location of excavations.

from the surface to a depth of 15 to 17 centimeters below the surface. A B1-horizon extended from that point to approximately 25 to 27 centimeters below the surface. A B2t-horizon extended from that point to an undetermined depth.

Description of Materials

Points

Group 45:a Unclassified Projectile Point Base - 1
proximal fragment (Figure 159, a)

The specimen in this category is a projectile point base. Although the specimen appears to be corner-notched, there is an insufficient amount remaining to classify the specimen or to compare it with any other materials. The specimen exhibits a straight base, rounded stem-base juncture, expanding stem, corner notches, and a bi-convex cross-section. The specimen exhibits secondary pressure flaking, but an insufficient amount of the specimen remains to be able to discuss the chipping pattern. It exhibits an oblique stress fracture.

Group 47:a Distal Projectile Point Fragment - 1

The specimen in this category is a distal projectile fragment. The specimen appears to be from a relatively large point, and exhibits a bi-convex cross-section. The chipping pattern consists of primary percussion and secondary pressure flaking. Secondary flake scars are medium in size, expanding, uneven in size, and inconsistent in distribution. The specimen exhibits a small distal impact fracture and a transverse stress fracture.

Bifaces and Biface Fragments

Group 62:a Small, Ovate Biface - 1 (Figure 159, b)

The specimen in this category is a small, ovoid quartz biface. It exhibits a bi-convex cross-section. The chipping pattern consists of primary percussion flaking only. Flake scars are difficult to determine due to the nature of the material. The specimen lacks careful edge trimming and still retains a sinuous edge. It exhibits little or no wear.

Group 75:a-g Miscellaneous Thin Biface Fragments - 7

The specimens in this category consist of miscellaneous thin biface fragments too small to be able to determine what kind of tools they represent. They exhibit no external attributes which would allow their inclusion in any other category. Three specimens exhibit primary flaking only. Secondary flaking is absent, and specimens still retain sinuous edges. They lack any observable wear. Two specimens exhibit primary and secondary flake scars. One of these specimens lacks careful edge trimming and still retains a slightly sinuous edge, while the other specimen exhibits more careful edge trimming and lacks a sinuous edge. Two specimens exhibit secondary flaking only. Four of the total specimens appear to have been in the process of flaking, while the other three specimens are fragments of completed tools. Two specimens exhibit compound thermal fractures, two specimens exhibit a transverse stress fracture and a longitudinal fracture, and two specimens exhibit undetermined compound fractures.

Group 76:a Miscellaneous Thick Biface Fragment - 1

This category consists of a miscellaneous thick biface fragment too small to be able to determine what type of tool represented. It exhibits no external attributes other than bifacial working which would allow its inclusion in any other category. The specimen exhibits primary percussion and secondary pressure flaking. It also exhibits careful edge trimming and lacks a sinuous edge. The specimen is a fragment of a completed tool. It exhibits two compound fractures.

Flake Tools

Group 84:a Retouched Flake - 1

The specimen in this category exhibits intentional modification of the flake margin by additional flake removal. The specimen is fragmentary. Only one lateral margin remains. The remaining lateral margin exhibits steep-angled retouch. Retouch is unifacial. The tool was utilized in a scraping motion. Wear consists of slight edge rounding and slight step fracturing.

Group 86:a-c Utilized Flakes - 3

Specimens in this category exhibit utilization in the form of minute flake removal along the flake margin through utilization. One specimen is complete (86:a), and the other

two specimens are fragmentary. Utilized margins on all three specimens are acute. One specimen exhibits one utilized margin, one specimen exhibits two utilized margins, and one specimen exhibits the distal end and both lateral margins utilized. Utilization on two specimens is unifacial and would appear to have been utilized in a scraping motion. One specimen exhibits bifacial flake removal and appears to have been utilized in a cutting motion. All specimens exhibit moderate to heavy utilization.

Ground and Pecked Stone

Group 94:a Pecked and Battered Stone - 1
(Figure 159, c)

The specimen in this category exhibits pecking on one face. Pecking is somewhat centralized on the face, although the small pit created by pecking is slightly off-center. The specimen exhibits pecking across about twenty-five centimeters of the face. A small pit has been created approximately thirteen centimeters across at one edge of this pecked area. The degree of force was not heavy. The pecked area is generally circular although somewhat longer along the longitudinal axis. Battering is slight on one edge. Batter marks are quite similar in nature to the pecking on the face.

Ceramics

Pottery - 14

Group 126:

Ceramics One

Sample: 14 highly eroded body sherds

Paste:

Temper: Round, sand-sized particles, mainly quartz but with some plagioclase. Particles are highly rounded. Particles are generally small (.1 to 1.5 mm).

Texture: Paste is fairly friable. Lamination tends to occur parallel to the interior/exterior surfaces. Sherds exhibit irregular breaks.

Color: Color is highly variable ranging from reddish yellow (5YR7/8) to dark reddish gray (10YR4/1) and dark gray (5YR4/1).

Method of Manufacture: It would appear that specimens were lump modeled as there are no straight breaks indicative of coiling.

Surface Finish: Undetermined.

Decoration: Undetermined.

Form: Undetermined.

Lithic Waste

Group 134: Chert Waste - 218

A total of 38 unmodified chert flakes and three pieces of unmodified chert shatter were recovered from the excavations. Surface material included 163 unmodified chert flakes and 14 pieces of unmodified chert shatter.

Group 136: Quartz Waste - 5

A total of two unmodified quartz flakes were recovered from the excavation. Surface material included two unmodified quartz flakes and one piece of unmodified quartz shatter.

Group 137: Silicified Sediments Waste - 1

A single unmodified flake of silicified sediments was recovered from the excavation.

Group 141: Fire-cracked Rock - 711

Fire-cracked rock is the term used for thermally altered stone. All material came from the excavations.

Group 142: Unmodified Stone - 106

The specimens in this category consist of unmodified glacial material. They exhibit no intentional or unintentional cultural modifications. These appear largely to be residual materials which were unintentionally transported to the site.

TABLE 82

Artifact Measurements and Attributes - 23MC153

Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks	
<u>Points</u>						
<u>Unclassified Projectile Point Base</u>						
45:a	Sur.	13*	22*	6*	1g*	proximal fragment
<u>Bifaces</u>						
<u>Small, Ovate Biface</u>						
62:a	Sur.	36	29	10	9g	
<u>Flake Tools</u>						
<u>Retouched Flake</u>						
84:a	Sur.	19*	12*	13*	4g*	1 edge
<u>Utilized Flakes</u>						
86:a	Sur.	56	38	5	14g	2 edges, 1 end
86:b	Sur.	28*	21	3	5g*	2 edges
86:c	Sur.	22*	18*	7	5g	1 edge
<u>Ground/Pecked Stone</u>						
<u>Pecked and Battered Stone</u>						
94:a	Sur.	83	80	48	555g	Quartzite 1p, 1b

TABLE 83

DISTRIBUTIONAL SUMMARY - 23MC153

	45	47	62	75	76	84	86	94	126	134	136	137	141	142
Xu 102, L.1	-	-	-	2	-	-	-	-	3	11	1		239	54
L.2	-	-	-	-	-	-	-	-	10	29	1	1	443	51
L.3	-	-	-	-	-	-	-	-	1	1	-	-	29	1
Surface	1	1	1	5	1	1	3	1	-	177	3	-	-	-

The Site Assemblage: 23MC153

Little can be said of the materials recovered from the test excavations. The specimen in Category 1 is too fragmentary to determine the original morphology, and comparisons cannot adequately be made. Both the proximal fragment (Group 45) and the distal fragment (Group 47) indicate that hunting was a part of the subsistence base on the site. The small ovate biface (Group 62) was shaped by percussion and lacks careful edge trimming. It does not appear to have been a completed tool and lacks any observable edge wear. The biface fragments (Group 75 and 76) are typical of the area and indicate the long use-life and heavy reuse of tools until highly fragmentary. The flake tools (Group 84 and 86) indicate that scraping activities were dominant. The retouched flake (Group 84) and three of the four specimens in Group 86 have been utilized in a scraping motion. Only one of the utilized flakes was utilized in a cutting motion.

The pecked and battered stone (Group 94) appears to have been connected with plant processing. Unfortunately, the sample size is small, and we have no good indication of the relative importance of plant processing. The ceramics (Group 126) are not particularly informative. All of the specimens are highly eroded. They indicate that a Woodland component is probably present on the site.

The remainder of the specimens recovered are waste materials. The chert waste is not particularly dense. The percentage of chert waste with local origins and non-local origins was not calculated. The presence of quartz waste and silicified sediments waste do indicate the use of local materials. The largest category of culturally altered material is fire-cracked rock. The presence of a fairly large amount of fire-cracked rock indicates that thermal activities, probably connected with cooking, were important on the site.

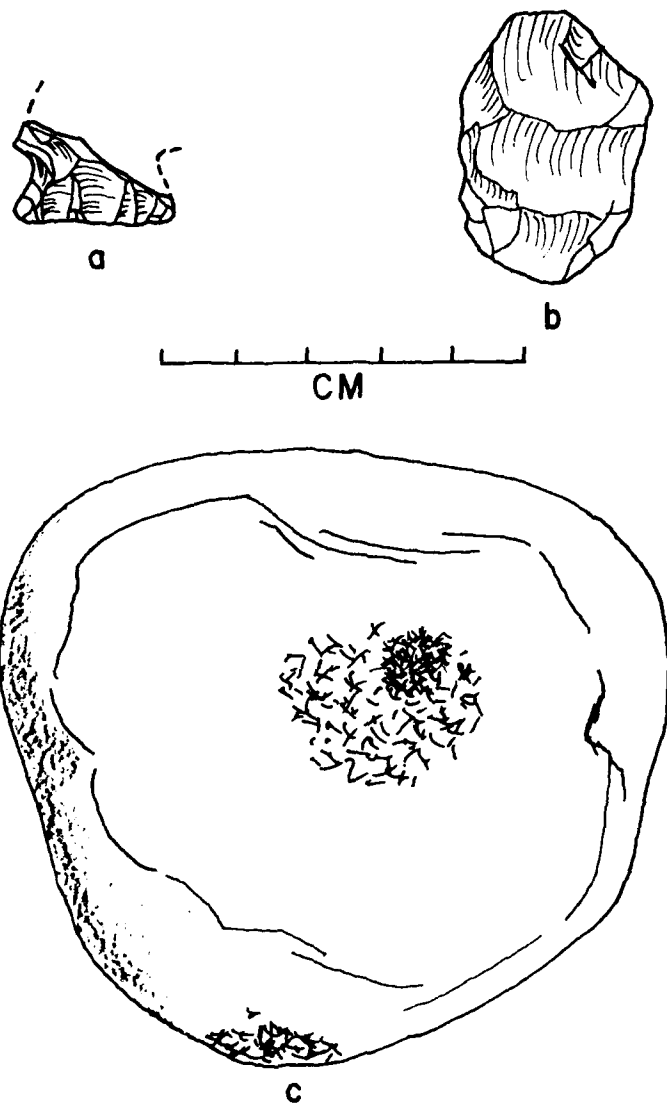


Figure 159. 23MC153. Artifacts. (a) Group 45, (b) Group 62, (c) Group 94.

This site lies on a low hill on the right (south) bank of the East Fork. Slopes are gentle on the eastern and western edges; moderate on the northern edge. There are broad, deep washes to the east and west of the site. The site is estimated to be approximately 180 feet north-south by 130 feet east-west. The elevation of the site is approximately 770-785 feet m.s.l. Vegetation originally consisted of grass pasture with oak-hickory forest along the northern edge. The trees were subsequently removed under the clearing contract. Visibility was fair to good. Material was collected from an erosional area along the western edge of the site and from the cleared area. Material density was not high. The site had apparently been plowed, and erosion along the western and eastern edges was severe.

MATERIAL COLLECTED

PREHISTORIC

LITHIC WASTE

Chert Flakes	3
Fire-cracked Rock	4

None of the recovered material is diagnostic of any chronological period, site function, or of seasonality. Likewise, previous collections on the site (Grantham 1977) did not recover any diagnostic material. Little can be said about the site.

This site lies on the small, narrow ridge which extends from the southern end of the ridge dividing the East Fork and the Long Branch. This small ridge has been isolated by meander loop cuts of the East Fork to the west and the Long Branch to the east. Slopes are steep to the east and west. The East Fork originally flowed at the base of the hill to the west, while the Long Branch flowed some 900 feet east of the site area. The size of the site was not accurately determined but appeared to be approximately 750 feet north-south by 200 feet east-west. The elevation of the site is approximately 790-803 feet m.s.l. The site boundaries could not accurately be determined and may overlap with 23MC71 to the south and 23MC72 to the north. The site was differentiated on the basis of material distribution in the road which was discontinuous to the north and the south of the boundaries established for the site. Vegetation consisted of dense oak-hickory forest, and visibility was very poor. A two-track ran through the site area. Material was originally collected from the two-track as well as from two shovel tests along the northern edge and in the central portion of the site. Material density appeared to be very high. The site was in an excellent state of preservation.

Testing of the site was desired in order to obtain information on the site's relationship to 23MC71 to the south and 23MC72 to the north. All of these sites are relatively close to each other, and the degree of visibility between all of these sites was very poor. Likewise, the site lies in a relatively unique topographic setting. While the site will not be below the multipurpose pool, it does fall within the floodpool. In addition, the site falls in an area which will be an island at the multipurpose pool level. It is anticipated that this would create logistical problems should further work be required. Public usage of such an area would also be expected to be relatively high. It was believed that a testing program at this point would be highly desirable.

Two, one and one-half meter squares were originally laid out for excavation. One was near the center of the site and the other was placed toward the northeastern part of the site (Figure 160). Only one of these was completed. The excavation unit near the central portion of the site produced such high quantities of material that excavation was extremely difficult. This, along with time constraints, forced abandonment of the northeastern square after only one level had been excavated. Both squares were excavated in

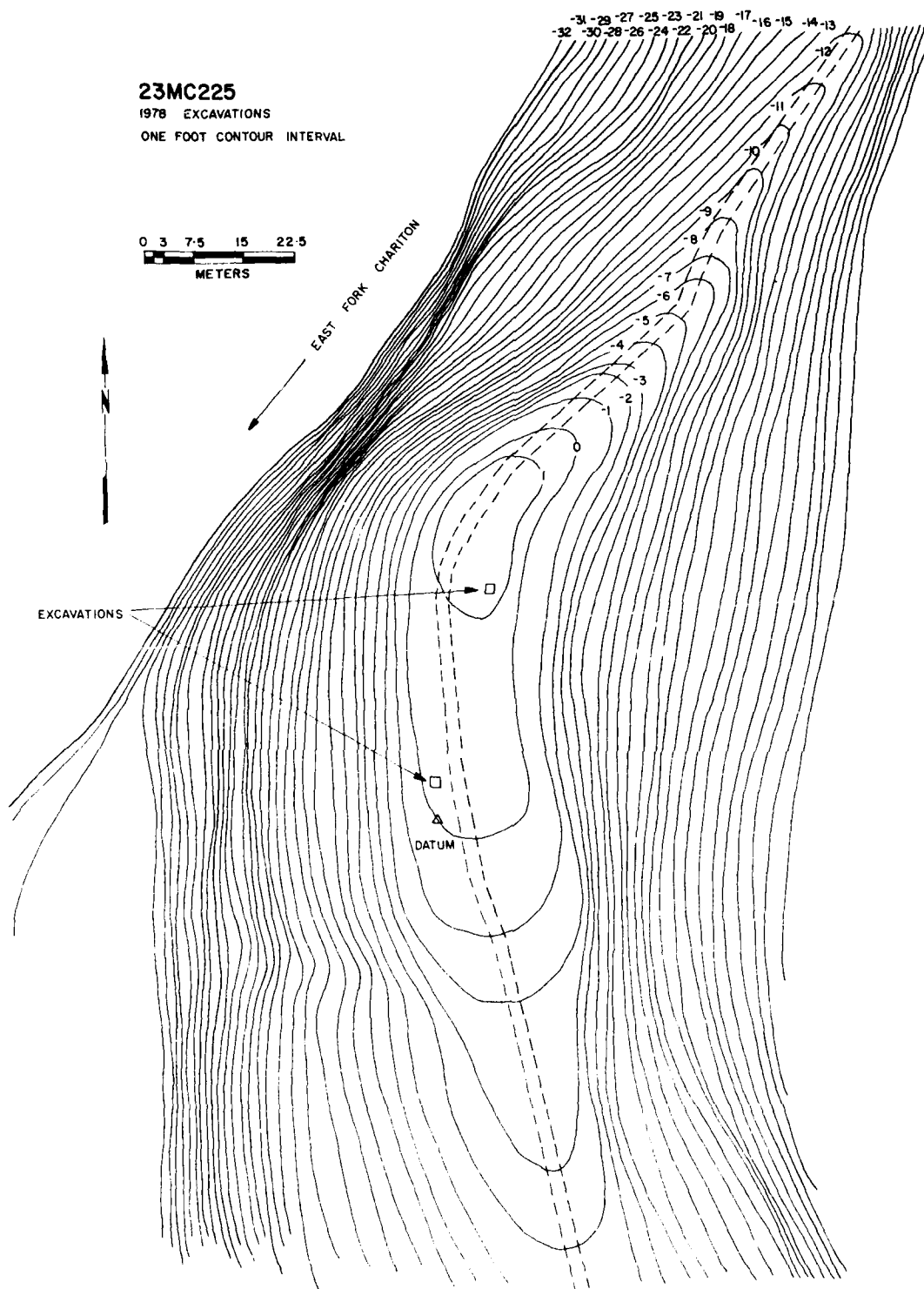


Figure 160. 23MC225. Site map and location of excavations.

arbitrary ten centimeter levels. The site area was in forest, and the area had not ever been cleared. A total of four ten centimeter levels was excavated in the completed excavation unit to a total depth of forty centimeters below the surface. Excavations were ceased at the point due to extreme difficulty in excavation. Culturally sterile deposits had not been reached, but material density was rapidly decreasing.

Cultural stratigraphy may be noted with a sharp increase in waste materials from level one to level two and a sharp decrease below that point. There was no readily observable physical stratigraphy with clear horizons. The only physical distinction in soil color resulted from soil horization. An A1-horizon extended from the surface to a depth of approximately eighteen centimeters below the surface. This A1-horizon appears to be abnormally thick for a forested soil and abnormally thick for the area. The A1-horizon to the north appears to be only eight to ten centimeters thick. This is more typical. A B1-horizon extended from that point to a depth of approximately thirty-five centimeters below the surface. A B2-horizon extended from that point to an undetermined depth.

Features

Feature 1

It appears that the upper levels of the completed excavation unit probably represents a feature greater in size than the excavation unit. Shovel tests to the north of this test square indicate significantly lower densities of fire-cracked rock, while tests just to the south of the test square indicate comparable densities. The presence of some 15,000 pieces of fire-cracked rock weighing some 120 kilograms indicates the extreme density of materials. The dimensions of the feature are unknown. Although matrix samples have not yet been processed, field notes indicate moderate densities of charred nut shells in the northwestern corner of the excavation unit at the base of the high density concentration of fire-cracked rock.

Description of Materials

Points

Group 44:a Heavily Modified Projectile Point - 1 (Figure 161, a)

The specimen in this category exhibits such heavy modification that the original morphology is uncertain. It exhibits a roughly straight base, slightly contracting stem, abrupt shoulders, and a bi-convex cross-section. The chipping pattern consists of primary percussion and secondary pressure flaking. Little of the original flaking is readily observable. The specimen exhibits percussion flaking along the base, through one notch and up one lateral edge. These modifications appear to be tertiary modifications. The specimen exhibits a distal impact fracture, an oblique stress fracture, and a compound longitudinal fracture which removed most of one lateral margin.

Flake Tools

Group 86:a-b Utilized Flakes - 2 (Figure 161, b-c)

The specimens in this category exhibit utilization in the form of minute flake removal along the flake margins through utilization. One specimen is complete and one is fragmentary. Both exhibit a single acute working edge. Utilization is bifacial, and they appear to have been utilized in a cutting motion. One specimen is chert, and one is silicified sediments. The degree of utilization is relatively light.

Group 87:a Utilized Shatter - 1 (Figure 161, d)

The specimen in this category exhibits minute flake removal on one edge through utilization. The utilized edge is relatively steep. Utilization is unifacial and is relatively light. That the specimen was not used for a protracted period of time.

Ground/Pecked Stone

Group 90:a Pecked Stone - 1 fragment (Figure 161, e)

The specimen included in this category exhibits pecking on one face. Although an actual pit has not been created, a depression is readily apparent. The degree of force was not

heavy. Individual peck marks are not visible. The pecked area is centered on the face and is small and slightly ovate with the longitudinal axis. The specimen is heavily fire-cracked and three individual fragments are present.

Group 92:a Battered Stone -1 (Figure 161, f)

The specimen in this category exhibits battering on one end. The battering appears to have been the result of heavy percussion. Although there is only light edge crushing, the degree of edge shattering is heavy. It would appear that the specimen was utilized in direct contact with dense materials. Slight edge crushing is apparent along one edge just off of the shattered area.

Hematite

Group 117:a Chipped Hematite - 1

One specimen has been intentionally altered. The specimen has been chipped bifacially along one margin. Multiple flakes have been removed. There is, however, no readily apparent pattern to the flake removal and does not appear to have been part of a tool shaping process. The specimen is irregular in shape.

Ceramics

Pottery - 12

Group 126:

Ceramics One

Sample: 3 cordmarked and 9 highly eroded, sand tempered sherds.

Paste:

Temper: Small, sand-sized particles, mainly quartz but with some plagioclase. Particles are highly rounded. Particles are small (.1 to 1 mm).

Texture: Paste is somewhat compact. Sherds exhibit lamination parallel to the interior-exterior surfaces. Sherds break irregularly. Temper constitutes 10-20 percent of the total paste volume.

Color: Color ranges from reddish yellow (10YR6/8) to brown (10YR5/4) on exteriors. Interior color is very dark gray (5YR3/1).

Method of Manufacture: The probability is high that vessels were lump modeled as there are no straight breaks indicative of coiling, and finger marks on the interiors are apparent. Specimens exhibit the use of a paddle on the exterior, as temper has been compressed.

Surface Finish: Cordmarking appears on the exterior of all non-eroded sherd.

Decoration:

Lip: Undetermined.

Rim: Undetermined.

Body: Interior punch and boss apparent along the edge of a single sherd. Position relative to the rim is unknown.

Form: Undetermined.

Group 133:a-f Burned Clay - 6

The specimens in this category are clay which had been fired intentionally or unintentionally. They differ from pottery only in that they lack temper. All specimens are eroded and highly irregular in shape. It would appear, based on the distribution of materials, that this material represents fired clay associated with the lower boundary of a feature. It is believed that the extremely high quantity of fire-cracked rock does represent a feature.

Lithic Waste

Group 134: Chert Waste - 75

A total of fifty-seven unmodified chert flakes and eighteen pieces of unmodified chert shatter were recovered from the excavations.

Group 135: Quartzite Waste - 2

Two unmodified quartzite flakes were recovered from the excavations.

Group 137: Silicified Sediments Waste - 4

Four unmodified silicified sediment flakes were recovered from the excavations.

Group 141: Fire-cracked Rock - 20,735

Fire-cracked rock is the term utilized for thermally altered stone. All material came from the excavations.

Group 142: Unmodified Stone -

The materials in this category lack any apparent intentional or unintentional cultural modification. These appear largely to be residual materials unintentionally transported to the site.

TABLE 84
Artifact Measurements and Attributes - 23MC225

Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Points</u>					
<u>Heavily Modified Projectile Point</u>					
44:a	107	37	24	7	17g
<u>Flake Tools</u>					
<u>Utilized Flakes</u>					
86:a	106	29*	19	3	2g*
86:b	110	32	24	9	6g
<u>Utilized Shatter</u>					
87:a	106	34	23	13	6g
<u>Ground/Pecked Stone</u>					
<u>Pecked Stone</u>					
90:a	108	74	59	42	245g Argillite 1p
<u>Battered Stone</u>					
92:a	104	79	72	38	284g Argillite 1b
<u>Hematite</u>					
<u>Chipped Hematite</u>					
117:a	103	23	20	8	6g

TABLE 85
DISTRIBUTIONAL SUMMARY - 23MC225

	33	86	87	90	92	117	126	133	134	135	137	141	142
Xu 102, L.1	-	-	-	-	-	1	-	-	11	1	-	4158	14
L.2	-	1	1	-	1	-	10	1	17	-	1	11676	23
L.3	1	-	-	-	-	2	2	5	32	-	1	1361	20
L.4	-	-	-	1	-	-	-	-	2	-	-	402	-
Xu 109, L.1	-	1	-	-	-	-	-	-	13	1	2	3138	11

The Site Assemblage: 23MC225

Unfortunately, only a single projectile point was recovered, and the specimen is so highly modified that its original morphology is unknown. Therefore, we have no idea of the components represented based on projectile points. The specimen does indicate that hunting was an activity on the site. Two of the utilized flakes have been utilized in a cutting motion as flake removal is bifacial. The utilized piece of shatter exhibits unifacial flake removal and was utilized in a scraping motion.

The pecked stone (Group 90) exhibits pecking on one face. The specimen appears to be connected with plant processing. The specimen in Group 92 exhibits battering on one edge. Due to the heavy edge damage on the specimen, it appears to have been utilized with considerable force. It was probably utilized in direct contact with dense materials and thus was not connected with plant processing. A single hematite specimen has been chipped bifacially-unilaterally. There was no pattern to flake removal and was not in the process of shaping toward a tool.

The ceramics are slightly more informative than is usually recovered from small test excavations. The punch and boss decoration and the cordmarked surface finish appear to be more characteristic of Weaver wares in the area (cf. 23MC65). The predominance of cordmarked exteriors would tend to indicate that the site has a Late Woodland component. All of the noneroded specimens are cordmarked. The burned clay (Group 133), based on relative distribution, is connected with the feature and is most numerous near the lower boundary of the feature.

The remainder of the specimens are waste materials. The density of chert waste recovered is not particularly high for the area. The percentage of local and non-local sources of chert was not calculated. The specimens typically are characterized by a preponderance of biface thinning, trimming, and retouch flakes. The amount of fire-cracked rock is extremely high. It was not possible to use a shovel to excavate the square. Fire-cracked rock had to be removed by hand. It is estimated that the fire-cracked rock was in a feature, as shovel tests indicated that the density of fire-cracked rock was considerably lower away from the excavation unit. It appears that if the area was a feature that it was inordinately large and the function of such a feature is unknown. Fire-cracked rock is usually associated with thermal activities, often cooking, but the size of the area is much too large to have been functional for cooking.

The relative dates of the sites in the area (23MC71, 23MC72, and this site) all appear to be roughly contemporary. The distribution of materials is still unknown. It was not possible to determine from the excavated areas on these sites if a single site was represented or if they are all separate sites.

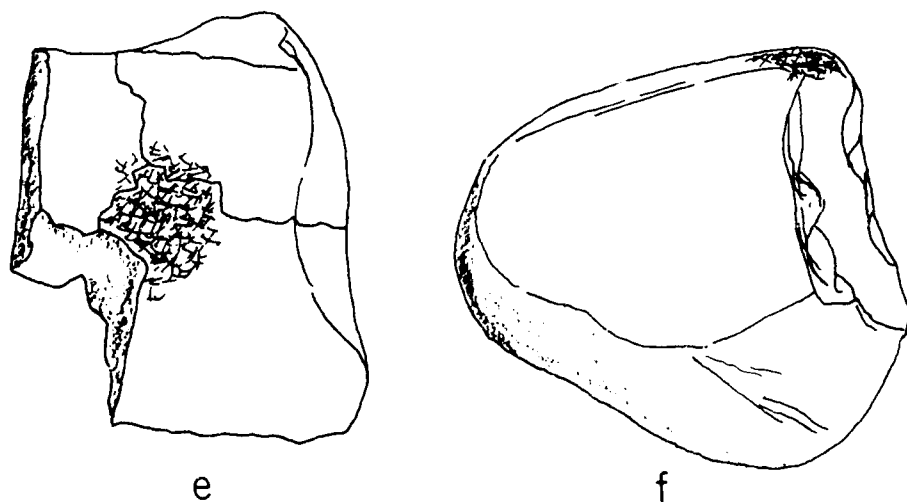
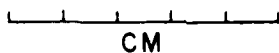
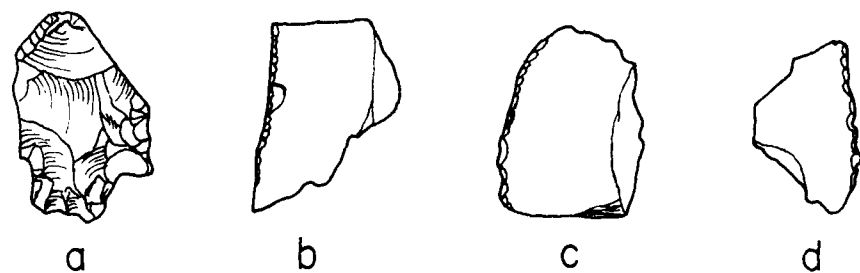


Figure 161. 23MC225. Artifacts. (a) Group 44, (b-c) Group 86, (d) Group 87, (e) Group 90, (f) Group 92.

This site lies on the right (southwest) bank of the East Fork. The site lies on a low hill on the southern edge of an old meander loop area. The hill is bounded by a broad, deep draw to the northwest and by a small intermittent stream to the southeast. Slopes are moderate to the northwest and southeast; steep to the northeast where the river has truncated that slope. The river originally flowed some 220 feet northeast of the site area. The size of the site was estimated to be 200 feet northwest-southeast by 150 feet northeast-southwest. The elevation of the site is approximately 780-792 feet m.s.l. Vegetation originally consisted of oak-hickory forest, and visibility was very poor. The trees were subsequently removed under the clearing contract. Material density was moderate. The site had not been plowed and appeared to be in an excellent state of preservation.

MATERIAL COLLECTED

PREHISTORIC

CHIPPED LITHIC ARTIFACTS

Miscellaneous Worked Chert

(Figure 164, a). 1

CORES

Chert Polyhedral Core

(Figure 164, b). 1

LITHIC WASTE

Chert Flakes 2

Fire-cracked Rock. 1

None of the material recovered is diagnostic of any chronological period, site function, or of seasonality. Likewise, previous work on the site (Grantham 1977) recovered only fire-cracked rock as the site was forested and material was recovered from a shovel test only. None of the material recovered from either of the collections from the site is diagnostic of temporal components or of site function.

This site is located on the left (southeast) bank of the Long Branch. The site lies on a fairly high hill bounded by a large, broad intermittent stream to the west and by a broad, shallow draw to the south. The northern slopes are steep where they have been truncated by the river. Slopes to the west are steep and are gentle to moderate on the south. The river originally flowed some 500 feet north of the site area. The size of the site could not be accurately determined due to vegetation, but is estimated to be 250 feet east-west by 180 feet north-south. The elevation of the site is approximately 790-805 feet m.s.l. Vegetation consisted of dense oak-hickory forest, and visibility was very poor. Material density appeared to be high. The site area had not been plowed, and the site appeared to be in an excellent state of preservation.

Testing of this site was desired in order to attempt to define site area. We also wished to attempt to obtain information on the temporal placement and function of the site. The southern edge of the site was to be impacted by the placement of a boat ramp, and we wished to determine what the impact to the site area would be. If the boat ramp were to impact the main body of the site and test excavations indicated that the site represented a significant resource, larger excavation blocks on the site would be required. Thus, our main thrust for testing was to assess the significance of the site area to be impacted as well as to attempt to gain some data on both temporal placement and site function.

Five, one and one-half meter squares were laid out for the excavation. Four of these excavation units were on the northern portion of the site (Area A), and one of these squares was in the southern portion of the site (Area B) to be impacted by the boat ramp (Figure 162). These two areas were separated by a shallow wash. One additional test square was laid out for excavation in Area B but was not excavated due to the low material density return from the completed test square. The squares were excavated in arbitrary ten centimeter levels, as the area did not appear superficially to have been plowed. A total of three levels were excavated to a total depth of thirty centimeters below the surface. Excavations were ceased at that point when a heavy, tenacious clay was reached which made excavation difficult. Culturally sterile deposits had not been reached.

No readily apparent pattern in cultural stratigraphy was observed. There was no readily observable physical

23MC238
1978 EXCAVATIONS
ONE FOOT CONTOUR INTERVAL



Figure 162. 23MC238. Site map and location of excavations.

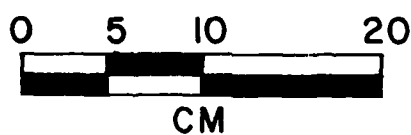
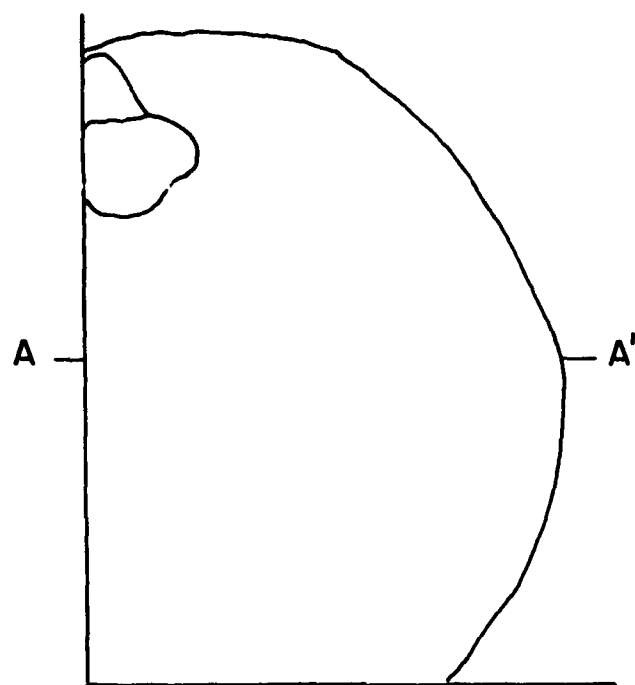


Figure 163. 23MC238. Feature One.

stratigraphy with clear horizons. The only physical distinction in soil color resulted from soil horizonation. An A1-horizon extended from the surface to a depth of approximately ten centimeters below the surface. A B1-horizon extended from that point to a depth of approximately thirty centimeters below the surface. A B2-horizon extended below that point to an undetermined depth.

Features

Feature 1

Feature 1 was encountered in the southwestern corner of excavation unit 118. The feature was first encountered twenty-five centimeters below the surface. The feature was a small, slightly conical pit. The feature extended beyond the limits of the excavation unit. The greatest dimensions of the feature within the excavation were 35.5 centimeters north-south by 23 centimeters east-west. The feature was readily distinguishable by the greater amount of decayed organics, ash, and charcoal which contrasted sharply with the yellowish-red surrounding soil. Associated material included two ground and pecked stones lying on top of and extending into the feature, small fragments of unidentified wood charcoal, hickory (*Carya* sp.) nut shell fragments, and black walnut (*Juglans nigra*) nut shell fragments.

Description of Materials

Points

Group 48:a Medial Projectile Point Segment - 1
(Figure 164, c)

Both distal and proximal ends are missing. The specimen is a fragment of a relatively large point. The chipping pattern consists of primary percussion and secondary pressure flaking. The specimen exhibits two transverse stress fractures.

Scrapers

Group 53:a End Scraper Made from a Biface Fragment - 1
(Figure 164, d)

The specimen exhibits steep unifacial working along one end. The entire specimen has been worked bifacially. Flake scars are medium to large, lamellar to slightly expanding,

uneven in size, and inconsistent in distribution. It exhibits a longitudinal stress fracture which occurred around an inclusion in the specimen. Steep unifacial working occurred after fracture as subsequent flaking occurs on the fracture. The specimen may have been a biface fragment which was subsequently reworked into a scraper. The specimen exhibits little or no observable wear.

Bifaces and Biface Fragments

Group 75:a-b Miscellaneous Thin Biface Fragments - 2

The specimens in this category lack any external criteria which would allow their inclusion in any other category. Specimen 75:a exhibits primary and secondary flaking. The specimen exhibits careful edge trimming and is a fragment of a completed tool. It exhibits an oblique stress fracture. Specimen 75:b exhibits primary flaking only. The specimen lacks edge trimming and still retains a sinuous edge. It exhibits a percussion fracture.

Miscellaneous Worked Chert

Group 83:a Miscellaneous Worked Chert - 1

The specimen in this category exhibits bifacial working but lacks any readily discernible pattern in flaking. The specimen is irregular in both chipping pattern and outline. Flake removal is by heavy percussion only. Flake removal does not appear to be part of a tool shaping process. The specimen exhibits some heat spalling as a final modification.

Flake Tools

Group 86:a-c Utilized Flakes - 3 (Figure 164, e-g)

These specimens exhibit modification of the flake margins through utilization. Specimen 86:a is a large, primary decortication flake. It has relatively acute lateral margins, with both lateral margins utilized. The degree of utilization is not heavy. Wear on the edges is bifacial-bilateral. The working edge of one lateral margin is slightly convex, while the utilized area on the alternate margin is slightly concave. Specimen 86:b is a small flake fragment. The one remaining edge is utilized. The edge is relatively steep-angled, and utilization is heavy. Wear is unifacial, and the specimen appears to have been utilized in a scraping motion. Specimen 86:c is a small complete flake. The utilized flake margin is acute, and the degree of utilization is relatively light. Wear is largely bifacial. The single utilized margin is slightly convex. It appears

uneven in size, and inconsistent in distribution. It exhibits a longitudinal stress fracture which occurred around an inclusion in the specimen. Steep unifacial working occurred after fracture as subsequent flaking occurs on the fracture. The specimen may have been a biface fragment which was subsequently reworked into a scraper. The specimen exhibits little or no observable wear.

Bifaces and Biface Fragments

Group 75:a-b Miscellaneous Thin Biface Fragments - 2

The specimens in this category lack any external criteria which would allow their inclusion in any other category. Specimen 75:a exhibits primary and secondary flaking. The specimen exhibits careful edge trimming and is a fragment of a completed tool. It exhibits an oblique stress fracture. Specimen 75:b exhibits primary flaking only. The specimen lacks edge trimming and still retains a sinuous edge. It exhibits a percussion fracture.

Miscellaneous Worked Chert

Group 83:a Miscellaneous Worked Chert - 1

The specimen in this category exhibits bifacial working but lacks any readily discernible pattern in flaking. The specimen is irregular in both chipping pattern and outline. Flake removal is by heavy percussion only. Flake removal does not appear to be part of a tool shaping process. The specimen exhibits some heat spalling as a final modification.

Flake Tools

Group 86:a-c Utilized Flakes - 3 (Figure 164, e-g)

These specimens exhibit modification of the flake margins through utilization. Specimen 86:a is a large, primary decortication flake. It has relatively acute lateral margins, with both lateral margins utilized. The degree of utilization is not heavy. Wear on the edges is bifacial-bilateral. The working edge of one lateral margin is slightly convex, while the utilized area on the alternate margin is slightly concave. Specimen 86:b is a small flake fragment. The one remaining edge is utilized. The edge is relatively steep-angled, and utilization is heavy. Wear is unifacial, and the specimen appears to have been utilized in a scraping motion. Specimen 86:c is a small complete flake. The utilized flake margin is acute, and the degree of utilization is relatively light. Wear is largely bifacial. The single utilized margin is slightly convex. It appears to have been utilized in a cutting motion.

Ground/Pecked Stone

Group 90:a-b Pecked Stone - 2 (Figure 165, a-b)

The specimens in this category exhibit a single pecked face. Specimens vary in the degree of usage. Specimen 90:a is a large cobble with a pit centered on the face. Specimen 90:b is a small cobble with pecking covering the central portion of the face, but the specimen lacks the intensity or length of utilization to have created a pit. Individual peck marks are not distinguishable on specimen 90:a but are distinguishable on specimen 90:b.

Group 94:a Pecked and Battered Stone - 1 (Figure 165, c)

The specimen in this category exhibits one pecked face, two battered ends, and two battered edges. Pecking covers most of the central portion of one face. Pecking has not occurred with sufficient intensity or duration to have produced a pit. Individual peck marks are not easily distinguishable but has removed most of the cortex, revealing the darker interior. Battering is apparent on both ends and both edges. Batter marks are the result of direct contact with dense materials. Individual batter marks are distinct and exhibit crumbling along the outer margins of the peck marks. Edge damage is characterized by edge crushing and slight edge shattering. The degree of force was moderate to heavy.

Group 96:a-b Ground, Pecked, and Battered Stone - 2 (Figure 165, d-e)

The specimens in this category exhibit ground and pecked faces and battered edges. The pecking is roughly centered on both faces of both specimens. Pecking is of sufficient intensity or of sufficient duration to have created pits on both faces of specimen 96:a. Pits have not been created on specimen 96:b. The latter specimen exhibits one heavily pecked face and one lightly pecked face. Individual peck marks are not visible on specimen 96:a but are visible on specimen 96:b. Both specimens lack the distinct crumbling effect noted on direct contact with dense materials. Grinding is present on both faces of both specimens. In both cases grinding is readily apparent by cortex removal. On specimen 96:a, grinding has been sufficient to create faceting along the cobble edges. Battering is apparent on one edge of the specimen. Battering appears to have been with heavy force, as edge shattering is the characteristic edge wear. Specimen 96:b exhibits less heavy battering. Battering is similar in nature to the pecking on the faces. Battering occurs in two

small discrete areas on the edges and one end near the face-end juncture.

Ceramics

Pottery - 15

Group 127:

Ceramics Two

Sample: 1 smooth body sherd and 14 highly eroded grit-tempered body sherds.

Paste:

Temper: Mainly quartz and plagioclase. Some of the particles are highly rounded but most are highly angular and appear to be crushed granite. Particle size is relatively large (.1 to 5 mm). A few small inclusions of grog are occasionally visible.

Texture: Paste is fairly friable with lamination roughly parallel to the interior/exterior surfaces. Sherds break irregularly. Temper constitutes 30-50 percent of the total paste volume.

Color: Color is fairly consistent, and sherds appear to represent a single vessel. Exterior color is yellowish red (5YR5/8) with interior color reddish brown (2.5YR4/4) to brownish gray (10YR5/2).

Method of Manufacture: The probability is high that vessels were lump modeled as there are no straight breaks of coiling, and finger marks on the interiors are apparent.

Surface Finish: The single uneroded sherd exhibits a smooth exterior.

Decoration: Undetermined.

Form: Undetermined.

Group 133:a Burned Clay - 1

The specimen in this category is clay which has been fired either intentionally or unintentionally. It differs from pottery only that it lacks temper. The specimen is eroded and irregular in shape.

Lithic Waste

Group 134: Chert Waste - 81

A total of fifty-six unmodified chert flakes, eighteen pieces of unmodified chert shatter, and seven unmodified chert potlids were recovered from the excavations. Surface material included five unmodified chert flakes.

Group 141: Fire-cracked Rock - 2,340

Fire-cracked rock is the term utilized for thermally altered stone. All material came from the excavations.

Group 142: Unmodified Stone - 5,565

The specimens in this category consist of unmodified glacial material. They exhibit no intentional or unintentional cultural modifications. Material in one of the excavation units is inclusions in the glacial till, while the others are in loessial deposits and were probably residual materials unintentionally transported to the other areas.

TABLE 86

Artifact Measurements and Attributes - 23MC238

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Points</u>						
<u>Medial Point Segment</u>						
48 a	Sur.	25*	27	8	17g*	medial fragment
<u>Scrapers</u>						
<u>End Scraper</u>						
53 a	112	50	36	11	18g	
<u>Miscellaneous Worked Chert</u>						
<u>Miscellaneous Worked Chert</u>						
84 a	1009	35	34	22	35g	
<u>Flake Tools</u>						
<u>Utilized Flakes</u>						
86 a	1010	120	60	23	178g	2 edges
86 b	103	14*	10*	8*	1g*	1 edge
86 c	122	27	20	9	4g	1 edge
<u>Ground-Pecked Stone</u>						
<u>Pecked Stone</u>						
90 a	104	164	119	64	1813g	Felsite 1p
90 b	105	79	58	41	254g	Argillite 1p
<u>Pecked and Battered Stone</u>						
94 a	123	100	74	41	435g	Argillite 1p, 4b
<u>Ground, Pecked, and Battered Stone</u>						
96 a	120	114	83	33	442g	Quartzite 2p, 2g, 1b
96 b	124	113	74	42	575g	Argillite 2p, 2g, 2b

TABLE 87
DISTRIBUTIONAL SUMMARY - 23MC238

	48	53	75	83	86	90	94	96	127	133	134	141	142
Area A													
Xul02, L.1	-	-	1	-	1	2	-	-	-	-	10	258	694
L.2	-	1	-	-	-	-	-	-	-	-	23	438	1293
L.3	-	-	-	-	1	-	-	-	-	-	18	764	2664
Xul18, L.1	-	-	-	-	-	-	-	-	-	-	2	59	62
L.2	-	-	-	-	-	-	-	-	-	-	2	104	70
L.3	-	-	-	-	-	-	1	2	-	-	2	68	6
Xul001, L.1	-	-	-	-	-	-	-	-	6	1	2	103	85
L.2	-	-	-	1	-	-	-	-	-	-	8	152	156
L.3	-	-	-	-	1	-	-	-	-	-	5	69	175
Xul002, L.1	-	-	-	-	-	-	-	-	3	-	4	82	72
L.2	-	-	-	-	-	-	-	-	5	-	4	128	132
L.3	-	-	-	-	-	-	-	-	1	-	-	98	143
L.4	-	-	-	-	-	-	-	-	-	-	-	1	12
Area B													
Xul02, L.1	-	-	-	-	-	-	-	-	-	-	-	9	-
L.2	-	-	-	-	-	-	-	-	-	-	-	5	1
L.3	-	-	-	-	-	-	-	-	-	-	-	2	-
Surface	1	-	1	-	-	-	-	-	-	-	5	-	-

The Site Assemblage: 23MC238

The projectile point fragment is not temporally diagnostic, but it does indicate that hunting was part of the subsistence base on the site. The biface fragments are typical of the area and indicate a long use-life and heavy reuse of tool on all sites in the area. The end scraper indicates another activity on the site, but the sample size is relatively small and its relative importance is unknown. The utilized flakes (Group 86) indicate that both scraping and cutting activities are present. A single specimen appears to have been utilized in a scraping motion while two of the specimens were utilized as cutting tools.

The most outstanding aspect of the small sample recovered is the relatively large numbers of ground and pecked stone (Groups 90, 94 and 96). All of these appear to be connected with plant processing. The pecked and battered stone (Group 94) and the ground, pecked, and battered stone (Group 96) were found in direct association with Feature 1. The feature contained large amounts of carbonized hickory and black walnut shells. These tools are intimately associated with the processing of nuts, and the feature represents the final discard locus of the waste nut shells.

The ceramics recovered are not particularly informative. All but one of the fifteen sherds are highly eroded. The uneroded sherd exhibits a smooth exterior. Grit-tempered sherds occur only occasionally in the area but are most common on Middle Woodland sites in the area (cf. 23MC70 - Grantham 1979, and 23MC298, this volume). Without any decorative motifs this is a very tenuous assignment, however.

The remainder of the recovered materials are waste materials. The chert waste density is relatively low for sites in the area. The percentage of local versus non-local cherts was not calculated. The chert waste is characterized by a preponderance of bifacial thinning, trimming, and retouch flakes. The amount of fire-cracked rock recovered from the site is moderate for sites in the area, but indicates that thermal activities, probably connected with cooking, were important on the site.

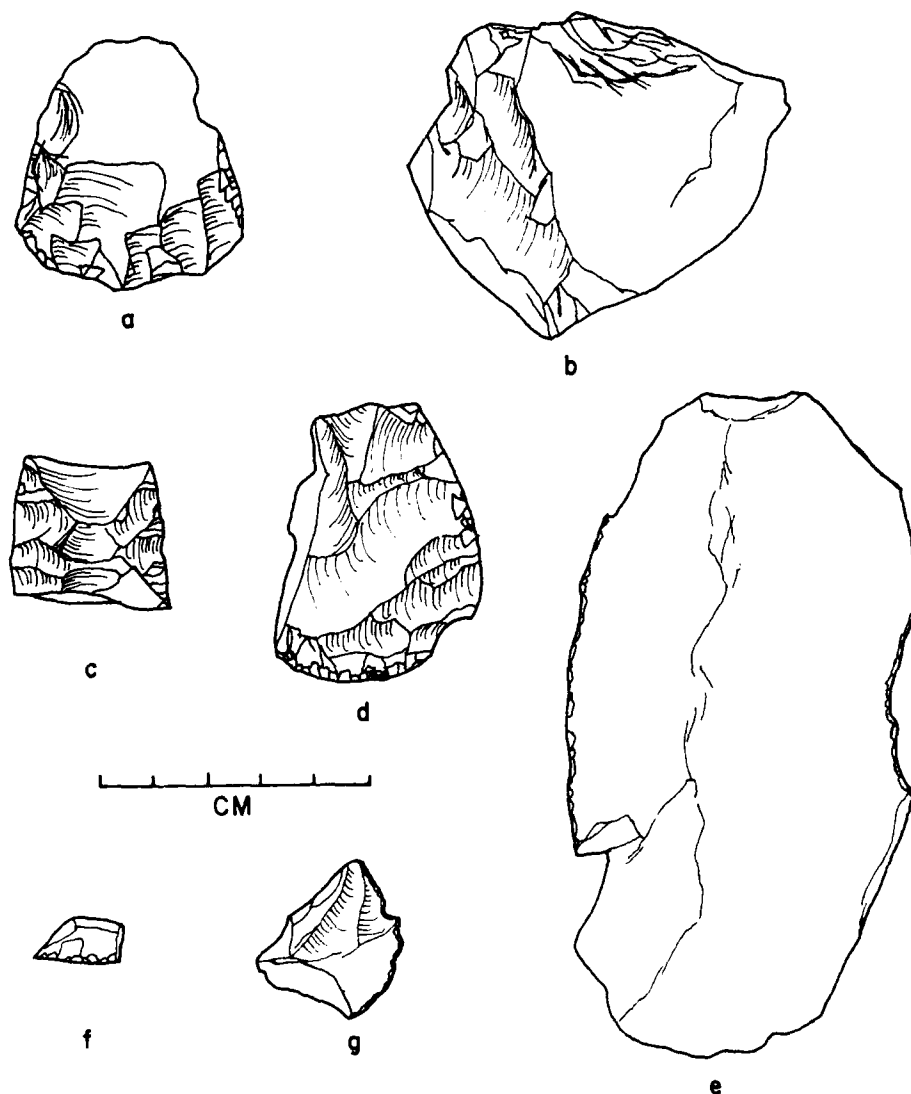


Figure 164. 23MC232 and 23MC238. Artifacts. (a-b) 23MC232 Artifacts. 23MC238 (c) Group 48, (d) Group 53, (e-g) Group 86.

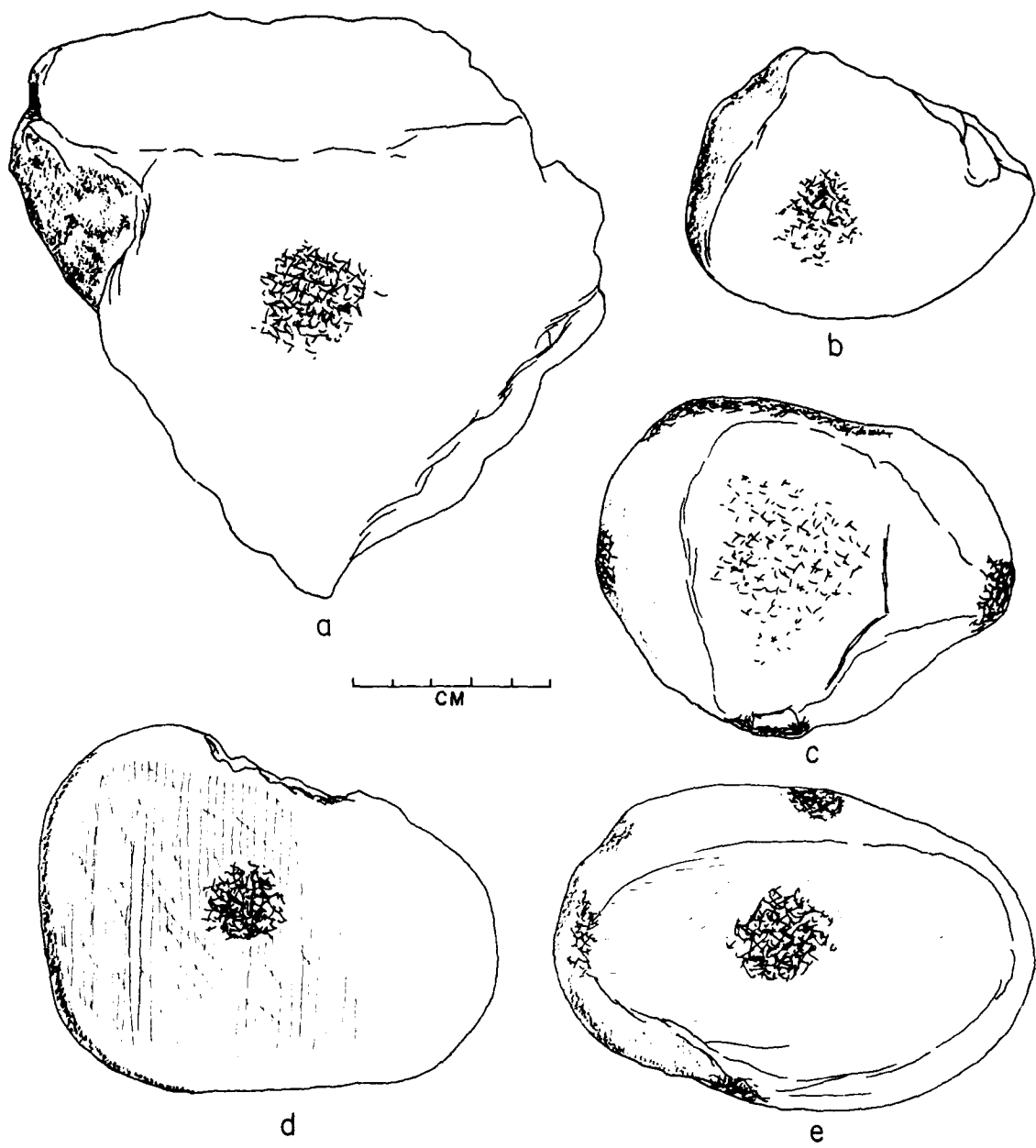


Figure 165. 23MC238. Artifacts. (a-b) Group 90, (c) Group 94, (d-e) Group 96.

23MC262

This site is located on the right (south) bank of the East Fork. The site lies on a low hill bounded by broad, shallow draws to the east and west of the site. Slopes are gentle to moderate on all edges. The river originally flowed some 500 feet north of the site area. The size of the site is estimated to be 70 feet north-south by 80 feet east-west. The elevation of the site is approximately 778-785 feet m.s.l. Vegetation consisted of grass pasture with several areas of severe erosion, and visibility was generally fair. Material was collected from these erosional areas only. Material density appeared to be low. The site area apparently had been plowed, and subsequent erosion along slope areas was severe.

MATERIAL COLLECTED

PREHISTORIC

LITHIC WASTE

Chert Flakes	3
Fire-cracked Rock	1

None of the material recovered is diagnostic of any Chronological period, site function, or seasonality. Previous collections from the site (Grantham 1977) likewise did not yield any diagnostic material. The site material density appeared to be low. Little can be said of the site.

This site is located on the left (east) bank of the East Fork approximately one-eighth mile north of the dam axis. The site lies on a high hill bounded on the north and on the south by large intermittent streams. Site 23MC46 lies higher on the hill to the east of this site. Hill slopes are relatively steep on all sides. The river originally flowed some 150 feet west of the site, while the intermittent streams flow 160 feet and 40 feet north and south of the site, respectively. The site size is approximately 320 feet east-west by 210 feet north-south. The elevation of the site is approximately 770-794 feet m.s.l. Vegetation originally consisted of oak-hickory forest on the western one-third of the site while the eastern two-thirds was in dense grass pasture. Visibility was very poor. Surface materials were recovered after the site had been cleared of trees and was collected from the entire surface. Material density was high. The western portion of the site was in a fair state of preservation, while the eastern portion had been plowed and appeared to be in a poor state of preservation.

Excavations were undertaken on the site, as the site appeared to be a multiple component site. One of the major components on the site was an Early/Middle Woodland one. Surface collections on the site indicated that the site was a large seasonal site. This site was one of the two sites with major identifiable Early/Middle Woodland components. It was therefore planned to have a block excavation on the site in order to obtain a sample of features, activity areas, and to attempt to isolate components.

A total of eleven, one and one-half meter squares were laid out for excavation (Figure 166). Two squares were laid out in the eastern portion to determine if any subplowzone deposits were present. These two squares were excavated first. These excavations indicated that no subplowzone deposits were present in the eastern excavation unit, and less than ten centimeters were present in the other square in the field. It was decided that the block excavation would need to be placed along the extreme western edge of the site, as this part of the site initially appeared to be in a fair state of preservation. Only three of the nine squares slated for excavations were dug. These three squares indicated that disturbance even in this area was great enough that excavation would be better invested elsewhere, and the other squares were not excavated.

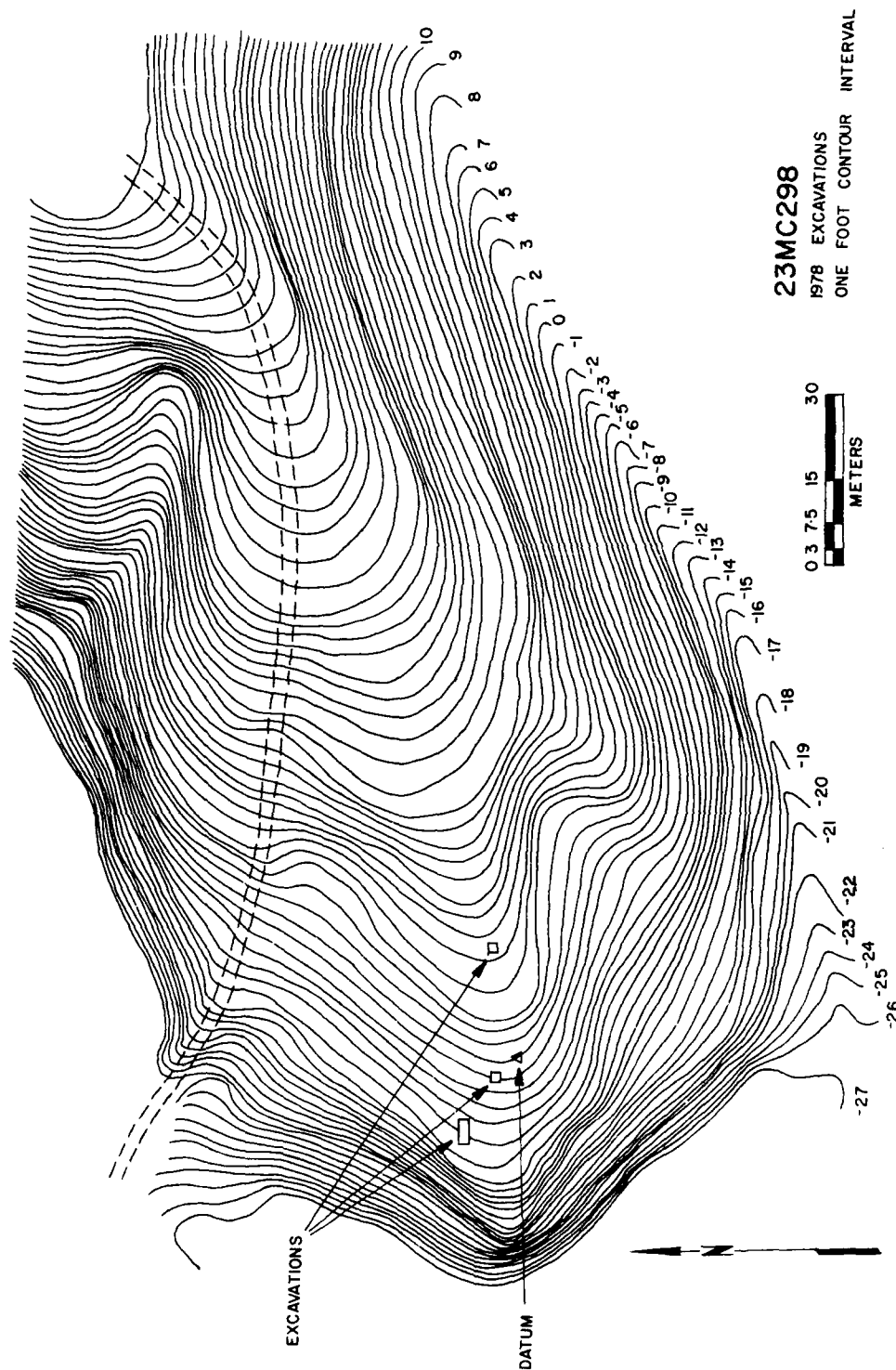


Figure 166. 23MC298. Site map and location of excavations.

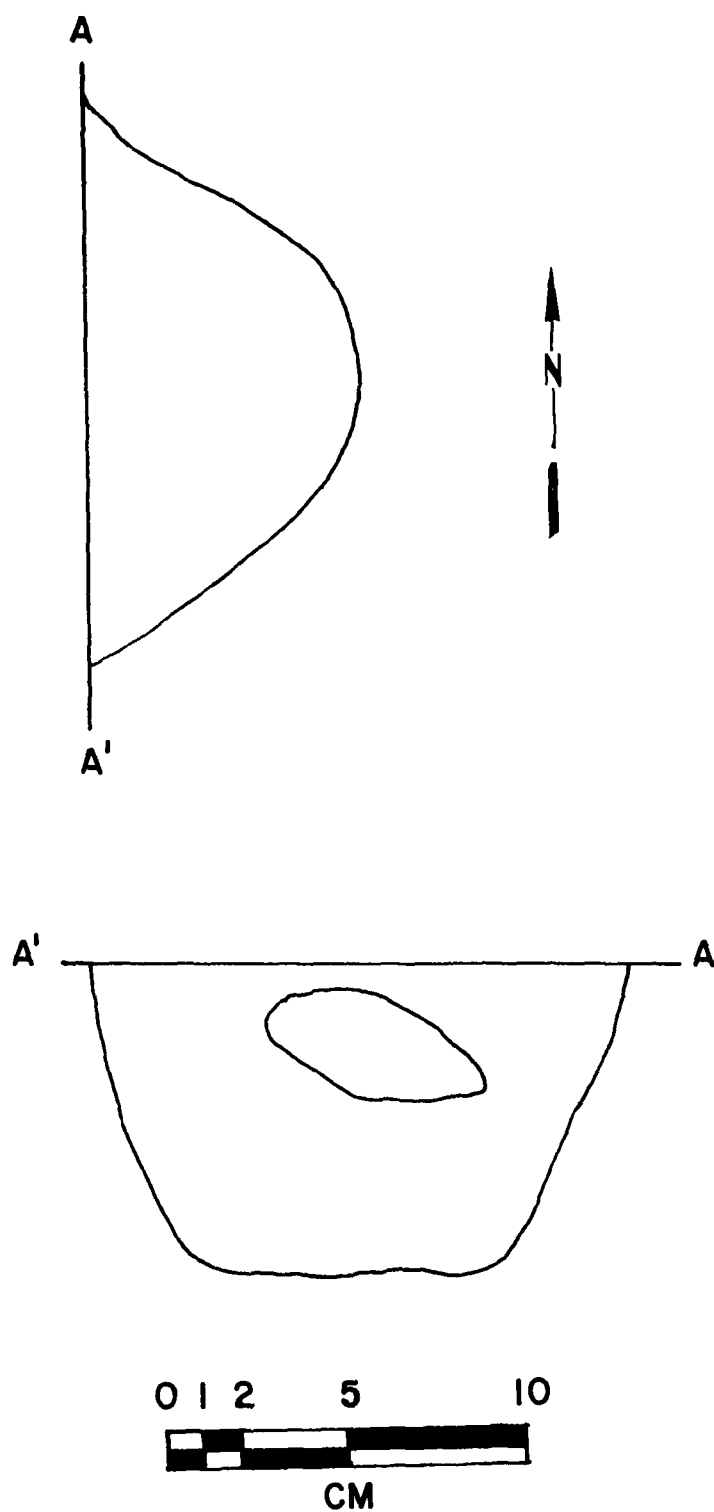


Figure 167. 23MC298. Feature 1.

The eastern squares exhibit a plowzone extending from the surface to a depth of approximately thirteen centimeters below the surface. A B2t-horizon extended from that point to an undetermined depth. The plowzone in excavation unit 103 was approximately the same depth. A thin B1-horizon ranged from one centimeter along the eastern edge to five centimeters along the western edge. A B2t-horizon extended for an undetermined depth below that point. In the eastern excavation units, a thick A-horizon extended from the surface to almost twenty centimeters below the surface.

Features

Feature 1

Feature 1 was encountered in the northwestern corner of excavation unit 103 and extended beyond the wall of the excavation unit (Figure 167). The feature was recognizable by its dark organic soil and limestone which contrasted dramatically with the surrounding matrix. The feature was a small conical pit roughly circular in horizontal profile. Associated material included one piece of buried limestone, organics, and a small amount of wood charcoal. The feature within the excavation unit was fifteen centimeters north-south by six centimeters east-west. Approximately one-half of the feature was contained within the excavation unit. The total depth of the feature in the excavation unit was eight centimeters. The total depth of the feature was not determined.

Description of Materials

Points

Group 6:a Large, Expanding-stemmed Point - 1
proximal fragment (Figure 168, f)

The specimen in this category exhibits a slightly concave base, rounded stem-base juncture, slightly expanding stem, very small abrupt shoulders, and a bi-convex cross-section. The chipping pattern consists of primary percussion flaking and secondary pressure flaking. Primary flake scars have largely been obscured. Secondary flake scars are small to medium, lamellar to expanding, uneven in size, and inconsistent in distribution. It exhibits moderate resharpening. Flake scars are relatively small, generally lamellar, uneven in size, and inconsistent in distribution. Blank material cannot be determined but appears to have passed through a preform stage. The

specimen is heavily heat discolored and exhibits a thermal fracture.

Group 22:a-d Large, Convex-based, Corner-notched Points
- 1, 3 proximal fragments (Figure 168, a-d)

The specimens in this category exhibit convex bases, sharp stem-base junctures, expanding stems, broad corner notches, slightly oblique shoulders, straight to slightly convex blade margins, and bi-convex cross-sections. The chipping pattern consists of primary percussion flaking and secondary pressure and percussion flaking. Primary flake scars are large, generally expanding, uneven in size, and inconsistent in distribution. Secondary flake scars are small to medium in size, lamellar to expanding, uneven in size, and inconsistent in distribution. There is no readily apparent evidence of resharpening. Blank material is difficult to determine but all appear to have passed through a preform stage. One specimen is complete; one exhibits a partially reworked oblique stress fracture; one exhibits a transverse stress fracture; and one exhibits a compound fracture across the base.

Group 23:a Large, Slightly Convex-based, Corner-notched Points - 1 (Figure 168, e)

The specimen in this category exhibits a slightly convex base, rounded stem-base juncture, expanding stem, narrow corner notches, slightly oblique shoulders, straight lateral margins, and a bi-convex cross-section. The chipping pattern consists of primary percussion flaking and secondary pressure flaking. Primary flake scars are large, lamellar to expanding, uneven in size, and inconsistent in distribution. Secondary flake scars are small, generally lamellar, uneven in size, and inconsistent in distribution. There is no readily apparent resharpening. Blank material is undetermined but appears to have passed through a preform stage.

Group 31:a Small, Side-notched Point - 1 (Figure 168, g)

The specimen in this category exhibits a straight base, rounded stem-base juncture, side-notches, straight lateral margins, and a bi-convex cross-section. The chipping pattern consists of secondary pressure flaking along the lateral margins. Blank material consists of a chert flake as determined by the islands of original flake scars on the faces. There is a small impact fracture on the distal end.

Group 47:a-b Distal Projectile Point Fragments - 2

The specimens in this category are both fragments of relatively large points. Both specimens were worked by percussion and by pressure. Both are heavily fire blackened. Specimen 47:a exhibits a transverse stress fracture and a longitudinal fracture from the point down one margin. Specimen 47:b exhibits a small impact fracture and transverse stress fracture.

Group 48:a-e Medial Projectile Point Segments - 5

The specimens in this category are missing both the distal and proximal ends. Both are fragments of medium to large points. Specimens 48:a, 48:b, and 48:c have been worked by percussion and by pressure. Specimens 48:d and 48:e have been worked largely by pressure. Specimens 48:b, 48:c, and 48:d exhibit evidence of resharpening on the lateral margins by percussion and are relatively steep-angled. Specimen 48:e exhibits unifacial retouch along both margins. This alteration appears to have occurred after fracture. It appears to have been used as a scraper. Specimen 48:c exhibits two compound transverse fractures. Specimens 48:a and 48:b exhibit impact fractures on the distal ends which are partially reworked as well as transverse stress fractures near the proximal end. Specimens 48:d and 48:e exhibit two transverse stress fractures.

Bifaces and Fragments

Group 66:a Thick, Gouge-like, Triangular Biface - 1 proximal fragment (Figure 168, n)

The specimen in this category is roughly triangular in outline. It exhibits straight lateral margins converging toward a point. The working element consists of the entire proximal end. Two large flakes removed from the proximal end created a thick, steep-angled working element. Subsequent flakes were removed from this element through use. Flake scars are fairly large and indicate that the degree of force was relatively heavy. The remainder of the specimen was worked largely by percussion. Flake scars are large, generally expanding, uneven in size, and inconsistent in distribution. Smaller flakes were removed along the crests of the primary flake scars to trim the edges. These flakes probably were removed by percussion as well. There is a transverse stress fracture toward the distal end.

TABLE 88
Chert Tools
Artifact Measurements and Attributes - 23MC298

Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Points</u>					
<u>Large, Expanding-stemmed Point</u>					
6:a	Sur.	39*	31*	9*	10g* proximal fragment, blackened
<u>Large, Convex-based, Corner-notched Points</u>					
22:a	Sur.	68	34	11	21g
22:b	Sur.	52*	32	9	14g* proximal fragment, partially reworked
22:c	Sur.	24*	29*	7*	5g* proximal fragment
22:d	Sur.	16*	20*	8*	2g* basal fragment
<u>Large, Slightly Convex-based, Corner-notched Point</u>					
23:a	Sur.	52	36	11	15g
<u>Small, Side-notched Point</u>					
31:a	1011	68*	13	2	1g* impact fractured
<u>Bifaces and Fragments</u>					
<u>Gouge-like, Thick Triangular Biface</u>					
66:a	Sur.	53*	47	14	39g* proximal fragment
<u>Proximal Fragment - Thin Biface with Rounded Base</u>					
68:a	Sur.	24*	34	9	8g* proximal fragment
<u>Proximal Fragment - Thin, Narrow Biface with Rounded Base</u>					
70:a	Sur.	40*	24	9	7g* proximal fragment, reused
<u>Distal Fragment - Thick, Broad Biface with Pointed End</u>					
71:a	Sur.	29*	38*	16*	15g* distal fragment, fire-blackened
<u>Cores</u>					
<u>Chert Polyhedral Core</u>					
77:a	Sur.	63	49	30	85g
<u>Chert Raw Material</u>					
79:a	Sur.	109	92	46	600g
<u>Miscellaneous Worked Chert</u>					
<u>Miscellaneous Worked Chert</u>					
83:a	Sur.	45	31	14	15g unifacial
83:b	Sur.	54	29	11	16g unifacial, fire-blackened
83:c	Sur.	51	32	20	41g unifacial
83:d	Sur.	44	40	15	29g unifacial
83:e	Sur.	39	26	13	12g bifacial

Group 68:a Proximal Fragment - Thin, Broad Biface with
Rounded Base - 1 (Figure 168, i)

The specimen in this category is a proximal fragment of a thin biface. It exhibits a rounded base, and little of the lateral margins remain. The chipping pattern consists of primary and secondary percussion flaking. The specimen exhibits little or no wear. It exhibits a transverse stress fracture.

Group 70:a Proximal Fragment - Thin, Narrow Biface with
Rounded Base - 1 (Figure 168, j)

The specimen in this category is a proximal fragment of a thin biface. It exhibits a rounded base and straight lateral margins. The chipping pattern consists of secondary pressure flaking only. The specimen exhibits an oblique stress fracture. One face exhibits an attempt to repair the fracture. Numerous flakes have been removed along one edge of the fracture down across one face. Wear along the edge consists of slight edge crushing. The pointed end of the fracture was then heavily used, apparently as a preforator. Edge damage along the fracture and one lateral margin consists of heavy edge rounding. Edge damage is heavy enough to have obliterated flake scar edges.

Group 71:a Distal Fragment - Thick, Broad Biface with
Pointed End - 1 (Figure 168, k)

The specimen in this category is the distal fragment of a thick biface. The specimen exhibits primary percussion flaking only. Little attempt was made to carefully trim the lateral margins. It is heavily fire-blackened and exhibits a transverse stress fracture. There is little or no apparent wear.

Group 75:a-i Miscellaneous Thin Biface Fragments - 9

This category consists of thin biface fragments too small to be able to determine what type of tools they represent. They exhibit no external attributes other than bifacial flaking which would allow their inclusion in any other category. Chipping pattern varies considerably. Three specimens have pressure flaking only; four have both percussion and pressure flaking; and two specimens exhibit percussion flaking only. Several specimens are too small to be able to determine if percussion flaking also occurred. Fracture pattern varies considerably. Seven of the specimens exhibit at least one stress fracture.

Group 76:a-c Miscellaneous Thick Biface Fragments - 3

This category consists of thick biface fragments too small to be able to determine what type of tools they represent. They exhibit no external attributes other than bifacial flaking which would allow their inclusion in any other category. All three specimens exhibit primary percussion flaking only. Specimens 76:a and 76:b are fire-blackened. Specimens 76:a and 76:c exhibit little or no wear. Specimen 76:b exhibits moderate wear along the remaining edge in the form of moderate edge rounding and slight polish. Specimen 76:a exhibits a stress fracture and a compound thermal fracture. Specimens 76:b and 76:c exhibit two transverse stress fractures and a longitudinal stress fracture.

Cores

Group 77:a Chert Polyhedral Core - 1

This specimen consists of a chert nodule from which flakes have been driven in a highly irregular fashion. cortex is present along one face. Flakes were struck off with heavy force as evidenced by flake sizes and the degree of shattering along the edges. The specimen is glacial chert.

Group 79:a Chert Raw Material - 1

The specimen in this category has three flakes removed from one lateral margin. It is a large chert glacial cobble unmodified except for the removal of those flakes. They appear to have been removed largely as a test of the quality of the material. Cortex is present over most of the rest of the material.

Miscellaneous Worked Chert

Group 83:a-e Miscellaneous Worked Chert - 5

These specimens have little in common other than the presence of some working on at least one face or edge. Specimens are roughly worked, and there is little or no pattern to the modifications. Two are worked flakes, and the other specimens are roughly worked tabular pieces. Flaking is by percussion in all cases. Flaking is unifacial on all specimens except 83:e. None exhibit any discernible wear.

Flake Tools

Group 84:a-b Retouched Flakes - 2

The specimens in this category exhibit intentional modification of the margins by additional flake removal. Specimen 84:a is a large flake with steep-angled retouch along 25 mm. of one flake margin. Retouch has created a concave working element. It appears to have been used in a scraping motion. Specimen 84:b is a large unifacially retouched flake. Flake removal is small but almost continuous on all flake margins. It exhibits a rounded distal end and a roughly pointed proximal end. Lateral margins are nearly parallel. Retouch is acute, and it appears to have been used in a cutting motion.

Group 85:a Retouched Shatter - 1

The specimen in this category exhibits intentional modification of the margins by flake removal. The specimen is a roughly triangular piece of chert shatter, also triangular in cross-section. Flakes have been removed from the two margins across the wide face and also up the shorter faces. Flakes were removed by percussion. The specimen exhibits little or no wear after retouch. Although roughly shaped like a perforator, there is no wear indicative of its use as such.

Group 86:a-au Utilized Flakes - 49

The specimens in this category exhibit minute flake removal from the edges and ends of the flakes through usage. Six specimens exhibit usage on the only remaining edge; eight specimens exhibit use on one edge; five specimens exhibit usage on one edge and one end, twenty-one specimens exhibit use on two edges; six specimens exhibit use on two edges and one end; two specimens exhibit use on the distal end; and one specimen is a flake fragment with use along one of the fracture edges. A total of nineteen specimens exhibit bifacial usage, and twenty-nine specimens exhibit unifacial wear. One specimen exhibits unifacial use on one edge, and bifacial wear on the other margin. Wear is relatively acute on twenty-six specimens, and steep-angled on twenty-three specimens. The degree of wear varies considerably with moderate to heavy wear present on most specimens.

Group 87:a-e Utilized Shatter - 5

The specimens in this category exhibit minute flake removal from the edges through use. Specimen 87:a exhibits

TABLE 89
Flake Tools
Artifact Measurements and Attributes - 23MC298

Cat. No.		Length	Width	Thickness	Weight (gm)	Remarks
<u>Flake Tools</u>						
<u>Retouched Flakes</u>						
84:a	Sur.	40	20	6	5g	1 edge
84:b	Sur.	60	31	11	22g	2 edges, 1 end
<u>Retouched Shatter</u>						
85:a	Sur.	48	36	17	18g	bifacial, 2 edges
<u>Utilized Flakes</u>						
86:a	1012	27*	23*	5*	3g*	1 edge
86:b	1019	37*	32*	6*	5g*	2 edges
86:c	1027	30	27	6	5g	2 edges, 1 end
86:d	1027	21*	11*	6*	1g*	1 edge
86:e	1013	45*	26	7	6g*	2 edges
86:f	Sur.	61	45	12	23g	2 edges, 1 end
86:g	Sur.	40	29	5	5g	2 edges
86:h	Sur.	48	23	8	8g	1 edge
86:i	Sur.	38	24	6	4g	2 edges
86:j	Sur.	33	29	6	4g	2 edges
86:k	Sur.	29	30	3	2g	2 edges
86:l	Sur.	29	21	4	2g	1 edge
86:m	Sur.	30	18	7	3g	1 edge, 1 end
86:n	Sur.	31	24	7	6g	2 edges 1 end
86:o	Sur.	31	21	4	2g	2 edges
86:p	Sur.	24*	21*	8*	3g*	1 edge
86:q	Sur.	31	21	6	3g	1 edge, 1 end
86:r	Sur.	22*	29*	4	2g*	1 edge
86:s	Sur.	26*	12*	6*	2g*	1 edge
86:t	Sur.	15*	23*	3*	1g*	2 edges, 1 end
86:u	Sur.	12*	21*	2*	1g*	1 edge
86:v	Sur.	21*	14*	5	1g*	1 edge
86:w	Sur.	16*	15*	3*	1g*	2 edges
86:x	Sur.	19*	14*	2*	1g*	2 edges
86:y	Sur.	16*	11*	3*	1g*	2 edges
86:z	Sur.	49	32	9	12g	1 edge, 1 end

TABLE 89 (cont'd)

Flake Tools

Artifact Measurements and Attributes - 23MC298

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Utilized Flakes (cont'd)</u>						
86:aa	Sur.	25*	25*	8*	4g*	1 edge
86:ab	Sur.	36	31*	5	4g*	1 edge, 1 end
86:ac	Sur.	45	30	5	6g	2 edges
86:ad	Sur.	35	28	6	4g	1 edge, 1 end
86:ae	Sur.	49	13	4	3g	2 edges
86:af	Sur.	29	27	6	4g	1 end
86:ag	Sur.	46	28	10	12g	1 edge
86:ah	Sur.	49	26	8	9g	1 edge
86:ai	Sur.	35	17	7	4g	1 edge
86:aj	Sur.	29	23	10	6g	1 edge
86:ak	Sur.	34	32	7	7g	2 edges
86:al	Sur.	31	19	7	3g	1 end
86:am	Sur.	28*	17	3	1g*	2 edges
86:an	Sur.	32*	17	4	3g*	2 edges, 1 end
86:ao	Sur.	30	21*	8	4g*	1 fracture edge
86:ap	Sur.	15*	8	2	1g*	2 edges
86:aq	Sur.	25*	13*	3*	1g*	2 edges
86:ar	Sur.	28	27	8	4g	2 edges
86:as	Sur.	51	26	5	6g	2 edges
86:at	Sur.	25	27	9	4g	2 edges, 1 end
86:au	Sur.	29	25	6	4g	2 edges
86:av	Sur.	29*	27*	5*	5g*	2 edges
86:aw	Sur.	23*	20*	4*	1g*	2 edges
<u>Utilized Shatter</u>						
87:a	Sur.	34	28	11	5g	1 concave edge
87:b	Sur.	28	20	10	4g	1 subconcave edge
87:c	Sur.	29	26	10	8g	1 subconcave edge
87:d	Sur.	39	19	8	8g	1 straight edge
87:e	Sur.	40	23	8	8g	1 straight edge
<u>Utilized Core Fragments</u>						
88:a	Sur.	65	36	19	32g	1 edge
88:b	Sur.	68	44	21	50g	2 edges

a relatively narrow, deep concavity on one edge. The concavity exhibits steep unifacial utilization within the concavity, but the concavity does not appear to have been man-made. The specimen is roughly triangular in cross-section. Specimens 87:b and 87:c exhibit one utilized lateral margin. Working elements are subconcave. Utilization is unifacial and extends only a short distance up the steep edge. Specimens 87:d and 87:e have single working elements. Utilized edges are straight and steep. Again utilization is not heavy. All appear to have been utilized in a scraping motion.

Group 88:a-b Utilized Core Fragments - 2

The specimens in this category exhibit use in the form of minute flake removal along the margins through usage. Both exhibit large percussion flakes along one edge on specimen 88:a and two edges of specimen 88:b. Both exhibit shatter fractures which have removed them from larger cores. Both exhibit additional minute flake removal along one edge on specimen 88:a and two edges on specimen 88:b. Specimen 88:a has a broad, slightly convex edge. Flake removal is unifacial and slightly steep, indicating that it was used in a scraping motion. Specimen 88:b exhibits unifacial flake removal, also indicating that it was also used in a scraping motion.

Ground and Pecked Stone

Group 90:a-e Pecked or Pitted Stone - 5 (Figure 169, a-e)

These specimens exhibit pecking on one or both faces of the stone. All exhibit central facial pecking. Specimens grade from pits to barely detectable pecked areas. Three specimens exhibit pecking on both faces, and two specimens exhibit pecking on a single face. Two specimens (90:c and 90:e) exhibit some fire-cracking. The degree of force was not heavy, and only one specimen (90:a) was utilized for a protracted period of time. All are glacial cobbles and lack any shaping prior to utilization.

Group 91:a Ground Stone - 1 (Figure 169, f)

The specimen in this category exhibits one lightly ground face. Grinding is light but detectable by the removal of surface cortex. There are no observable striations or polish on the face. Fire-cracks are present on the two ends of the specimen.

Group 92:a-e Battered Cobbles - 5 (Figure 170, a-b;
Figure 171, d-f)

The specimens in this category exhibit battered areas on the ends and edges of the cobbles. Two specimens (92:b and 92:d) have one battered end. One specimen (92:e) exhibits two battered ends and one battered edge. One specimen (92:a) is fire-cracked and exhibits battering along one end of the original cobble and battering along one edge of the fracture. Battering ranges from slight edge crushing to heavy edge crushing and edge shattering. Degree of force appears to be variable.

Group 93:a Ground and Pecked Stone - 1 (Figure 171, b)

The specimen in this category exhibits two ground and pecked faces. Pecking is detectable by roughened areas in the center of the faces. The degree of force was not heavy. Both faces also exhibit grinding. Grinding is detectable largely by cortex removal. Grinding is relatively light. There is no detectable polish or striations.

Group 94:a Pecked and Battered Stone - 1 (Figure 171, a)

The specimen in this category exhibits pecking on both faces and battering on one end and both edges. Pecking on the faces is centered. Pecking is readily detectable due to the removal of cortex. Battering is present on one end in a small circular area on the highest point. Battering along the edges is larger in area. One edge has a battered area approximately 45 mm. long, while the other edge has battering almost the entire length of the edge. Battering extends slightly up onto the faces. Battering is diffuse and lacks distinct peck marks indicative of direct contact with dense materials.

Group 96:a Ground, Pecked, and Battered Stone - 1
(Figure 171, c)

The specimen in this category exhibits two pecked faces, one ground face, and battering around almost the entire circumference of the cobble. Pecking on the faces is roughly centered on the faces. Pecking has removed the cortex and contrasts sharply with the surrounding area. Pecking has created a concavity on one face. Grinding is readily apparent on one face. Grinding has removed the surface cortex. Grinding is pronounced with considerable polish, and striations perpendicular to the longitudinal axis are readily apparent. Battering is present around almost the entire circumference of the tool. Battering is diffuse and lacks distinct peck marks indicative of direct

TABLE 90
Modified Stone
Artifact Measurements and Attributes - 23MC298

	Cat. No.	Length	Width	Thickness	Weight (gm)	Remarks
<u>Ground and Pecked Stone</u>						
<u>Pecked or Pitted Stone</u>						
90:a	Sur.	113	80	45	678g	Felsite 2p
90:b	Sur.	78	57	36	244g	Argillite 2p
90:c	Sur.	83	58	35	223g	Quartzite 2p
90:d	Sur.	83	65	43	317g	Argillite 1p
90:e	Sur.	85	54	38	217g	Argillite 1p
<u>Ground Stone</u>						
91:a	Sur.	72	59	32	215g	Diorite 1g
<u>Battered Cobbles</u>						
92:a	1028	93	72	40	347g	Argillite, 2b
92:b	Sur.	79	54	41	246g	Argillite, 1b
92:c	1015	80	67	50	325g	Argillite, 2b
92:d	Sur.	94	82	70	700g	Argillite, 1b
92:e	Sur.	83	61	38	248g	Argillite, 3b
<u>Ground and Pecked Stone</u>						
93:a	1021	87	64	43	430g	Diorite 2p, 2g
<u>Pecked and Battered Stone</u>						
94:a	Sur.	93	66	36	293g	Argillite 2p, 3b
<u>Ground, Pecked, and Battered Stone</u>						
96:a	Sur.	100	61	34	330g	Gabbro, 2p, 1g, 4b
<u>Ground and Heavily Facially Battered Cobble</u>						
99:a	Sur.	194	119	74	2100g	Argillite, 1g, 2b
<u>Utilized Fire-cracked Rock</u>						
110:a	Sur.	100	66	29	228g	Argillite, 1 edge
110:b	Sur.	85	68	33	218g	Argillite, 1 edge
<u>Ground Stone Tool Fragment</u>						
114:a	Sur.	48	38	14	28g	Diorite 1g
<u>Hematite</u>						
<u>Chipped and Ground Hematite</u>						
120:a	Sur.	64	49	19	92g	1 facet

contacts with dense materials. The degree of force in pecking and battering was not heavy, but the specimen was utilized for a protracted period of time.

Group 99:a Ground and Heavily Facially Battered Cobble - 1
(Figure 170, e)

The specimen in this category is considerably larger than most of the other altered stone categories. It exhibits one face with light grinding. Grinding is evidenced by light cortex removal. Neither polish nor striations are detectable. Peck marks on both faces are different from other pecked categories. Peck marks are deep and sharply defined, indicating direct contact with dense materials. Peck marks on the opposite face from the grinding is not as deep or sharply defined.

Group 110:a-b Utilized Fire-Cracked Rock - 2
(Figure 170, c-d)

The specimens in this category are pieces of fire-cracked rock which were utilized after fracture. Utilization occurs in the form of minute flake removal and edge rounding. Specimens demonstrate slight step fracturing which is bifacial. Both have been utilized in a chopping or cutting motion. Specimen 110:b exhibits modern nicks along the utilized edges, but wear is apparent on both sides of these recent modifications.

Group 114:a Ground Stone Tool Fragment - 1 (Figure 170, f)

The specimen in this category is substantially different from most ground stone. While most ground stone categories represents ground glacial cobbles, this category represents a fragment of a shaped, ground, and polished stone tool. The ground surface exhibits obvious longitudinal striations and was ground with a fine-grained abrasive. It is a fragment of a ground stone axe or celt.

Hematite

Group 120:a Chipped and Ground Hematite - 1

A single specimen of hematite has been altered. It exhibits five flakes removed from the margins, but there is no pattern to their removal. One side exhibits a lightly ground surface. Striations are fine and largely unidirectional.

Ceramics

Pottery - 359

Sample: 4 body sherds and 350 highly eroded body sherds.

Group 126:

Ceramics One: Sand-tempered, smooth and cord-marked bodies.

Sample: Three body sherds and 14 eroded body sherds.

Paste:

Temper: Fine, sand-size particles. Temper constitutes only 5-15 percent of paste volume.

Texture: Paste is fairly friable. Lamination tends to occur parallel to the interior-exterior surfaces. Sherds tend to break irregularly.

Color: Color is variable ranging from dark red (10YR3/5) through yellow (10YR7/6). Interior colors range from grayish brown (10YR5/2) through black (7.5YR2.5/0).

Method of Manufacture: Vessels were probably lump modeled as there are no straight breaks indicative of coiling.

Surface Finish: Two sherds have smooth surfaces, and one sherd exhibits a cordmarked surface.

Decoration: Undetermined.

Form: Undetermined.

Group 127:

Ceramics Two: Grit-tempered, smooth and cordmarked bodies.

Sample: 6 body sherds and 336 eroded body sherds.

Paste:

Temper: Small amount of sand-sized particles with heavy inclusions of large particles. Sand inclusions appear to be part of the clay matrix, as there is a sharp size distinction. Occasional inclusions of grog as temper are noted. Particle sizes of grit range from ca .5 mm to 3 mm. Temper constitutes approximately 20-30 percent of the paste volume.

Texture: Paste is fairly friable. Lamination tends to occur parallel to the interior-exterior surfaces. Sherds break irregularly.

Color: Color is highly variable.

Method of Manufacture: Apparently lump modeled, as there are no straight breaks indicative of coiling. Sherds are thicker than other ceramics. Sherds range from 4-12 mm. thick with a mean of 7 mm. thick.

Surface Finish: Of the uneroded sherds, three have smooth surfaces, and three have cordmarked surfaces.

Decoration: Undetermined.

Form: Undetermined.

Lithic Waste

Group 133:a-k Burned Clay - 11

The specimens in this category are clay which have been fired. They differ from pottery in that they lack temper. All specimens are eroded and highly irregular in shape.

Waste

Group 134: Chert Waste - 1,538

A total of 601 unmodified chert flakes and 34 pieces of unmodified chert shatter were recovered from the

excavations. Surface material included 858 unmodified chert flakes and 45 pieces of chert shatter.

Group 135: Quartzite Waste - 6

A total of two unmodified quartzite flakes were recovered in the excavations. Two unmodified quartzite flakes and two pieces of unmodified quartzite shatter were recovered from the surface.

Group 136: Quartz Waste - 1

A single unmodified quartz flake was recovered from the surface.

Group 137: Silicified Sediments Waste - 1

A single unmodified silicified sediments flake was recovered from the surface.

Group 141: Fire-cracked Rock - 963

Fire-cracked rock is the term for thermally altered stone. A total of 875 pieces were recovered from the excavations and 88 pieces came from the surface.

Group 142: Unmodified Stone - 2,044

The specimens in this category lack any evidence of intentional or unintentional cultural modification. These appear to be residual gravels present on the site as well as material unintentionally transported to the site.

Historic

Group 144:a Miscellaneous Historic Material - 1

A single .22 cartridge was recovered in the excavations. The depth of the specimen illustrates the degree of disturbance in the deposits.

TABLE 91
DISTRIBUTIONAL SUMMARY - 23MC298

	6	22	23	31	47	48	66	68	70	71	75	76	77	79	83	84	85	86	87	88	90	91	92
Xul02, L.1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Xul02, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul03, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul03, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul03, L.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul007, L.1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2	-	-	-	-	-
Xul007, L.2	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	2	-	-	-	-	-
Xul008, L.1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xul008, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Xul009, L.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Xul009, L.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surface	1	4	1	-	2	5	1	1	1	1	6	2	1	1	5	2	1	44	5	2	5	1	3

TABLE 91 (cont'd)
DISTRIBUTIONAL SUMMARY - 23MC298

	93	94	96	99	110	114	120	126	127	133	134		135		141	142	144
											a	b	a	b			
Xul02, L.1	-	-	-	-	-	-	-	3	3	1	97	4	-	-	-	66	236
L.2	-	-	-	-	-	-	-	1	1	-	30	2	-	-	-	21	87
Xul03, L.1	-	-	-	-	-	-	-	5	58	3	91	8	-	-	-	172	313
L.2	-	-	-	-	-	-	-	-	24	1	91	6	-	-	-	95	215
L.3	-	-	-	-	-	-	-	3	-	-	5	-	-	-	-	11	16
Xul007, L.1	-	-	-	-	-	-	-	2	56	-	44	2	-	-	-	79	263
L.2	-	-	-	-	-	-	-	3	53	-	44	5	1	-	-	84	216
Xul008, L.1	-	-	-	-	-	-	-	-	57	4	65	3	1	-	-	134	261
L.2	-	-	-	-	-	-	-	2	6	-	19	-	-	-	-	32	48
Xul009, L.1	-	-	-	-	-	-	-	3	41	2	70	3	-	-	-	119	224
L.2	1	-	-	-	-	-	-	1	30	-	45	1	-	-	-	62	157
Surface	-	1	1	1	2	1	3	1	5	-	858	45	2	2	1	88	8

The Site Assemblage: 23MC298

The specimen in Group 6 is not considered to be temporally diagnostic. Expanding-stemmed points first appear in the later part of the Middle Archaic (Chapman 1975) and are a dominant type in the Late Archaic. They do occur, however, throughout the Woodland period (cf. Shippee 1967, Bell 1976).

The points in Group 22 belong to the type Steuben Stemmed (Bell 1976:32. Fig. 13, d). All have moderate resharpener and were probably closer to Snyders Notched (White 1968) originally. Both types are Middle Woodland forms. Steuben Stemmed occurs on Hopewell sites in the Kansas City area (Bell 1976; Shippee 1967) as well as on Hopewell sites in central Missouri (Kay 1975, 1980) and the St. Louis area (Blake 1942). All these forms are identical to types in Illinois (White 1968), and ceramics recovered from these areas indicate direct relationships of these sites to Middle Woodland sites in Illinois. Radiocarbon dates from the Kansas City area (Johnson and Johnson 1975) suggest Middle Woodland occupations from about A.D. 1 to 500. White (1968) indicates that Steuben Stemmed falls in the middle of this sequence from ca. A.D. 100 to 250 in the Illinois River valley.

The specimen in Group 23 belongs to the type Manker Notched (Bell 1976; White 1968). This type is also a Middle Woodland type. The type occurs on Middle Woodland sites in the Kansas City area (Shippee 1967: Fig. 34, L; Fig. 35; and Bell 1976: Fig. 13, C). The type also appears in the central Missouri Hopewell sites (Shippee 1967: Fig. 4; and Kay 1975, 1980). White (1968) estimated their temporal range to be A.D. 1 to 250 in the Illinois River valley.

The specimen in Group 31 belongs to the type Klunk Side-notched (Perino 1973: Fig. 31). Bell (1958: 76-77) initially referred to the type as Reed and estimated its temporal range to be A.D. 500-1500. The type occurs commonly on Late Woodland sites in northeast Missouri (Eichenberger 1944: Pl. III; Eichenberger 1956: Fig. 4; Henning 191: Fig. 26; Hunt 1976; and Hunt et al. 1977). The type also extends into the Mississippian period in the area, but later forms are often more sharply triangular with narrow notches.

The projectile point fragments in Groups 47 and 48 are not particularly informative. Both distal fragments and three of the five medial fragments are fragments of relatively large points. A number of fragments exhibit attempts to resharpen or rework them prior to discard.

The specimen in Group 66 is identical to Clear Fork Gouges from the Late Archaic sites in central Missouri. Clear Fork Gouges occur on a number of sites in the Sedalia complex (Chapman 1975: Fig. 8-13, c; Fig. 8-15, e-d; Fig. 8-18, e-f; Fig. 8-21, a-c). Clear Fork Gouges and Sedalia Diggers are most commonly associated with Sedalia Complex sites since hundreds of these items have been collected. They have been used as adzes due to the types of wear encountered. It may be questioned whether such adzes are diagnostic. For the present, we will deal with the specimen only as it appears to represent another function on the site.

The proximal biface fragments are diverse. The large proximal biface fragment (Group 68) lacks observable wear and appears to have been a blank or preform. The specimen in Group 70 was used as a tool. It exhibits wear along one edge. The fracture of the specimen was partially repaired and subsequently used as a perforating tool. The distal biface fragment in Group 71 lacks observable wear and was apparently a fragment of a chert blank.

The thin and thick biface fragments (Groups 75 and 76) are not informative. They exhibit no attributes of specific tools and are highly fractured. This illustrates the long use-life of artifacts and attempts to rework tools indicates the degree of recycling of artifacts. Recycling of artifacts on this site appears to be lower than on a number of other sites in the area (cf. 23MC149, this volume).

The chert polyhedral core (Group 77) and the chert raw material (Group 79) indicate the use of local sources of raw material. Their relatively small number indicates that local sources of raw material were not relied upon. The miscellaneous worked chert (Group 83) represents attempts to work irregular tabular pieces or thick flakes.

The flake and shatter tools are particularly numerous and represent the most numerous artifact category. Retouched flakes (Group 84) and retouched shatter (Group 85) are relatively few in number. Utilized flakes (Group 86) are proportionally quite high. Approximately sixty percent of the utilized flakes are indicative of scraping activities. All of the utilized pieces of shatter (Group 87) indicate scraping activities as were the two utilized core fragments (Group 88).

Typical of a large number of sites in the area, ground and pecked stone constitutes a large percentage of the tool inventory. The specimens in groups 90, 91, 93, 94 and 96 are tools connected with plant processing. Pecking on the faces is generally light, and individual peck marks are not

distinguishable. They lack indications of direct contact with dense materials. Grinding is generally light with the exception of specimen 96:a. Battering on ends and edges is diffuse and lacks indications of direct contact with dense materials. The specimens in Group 92 are variable in the degree of wear, but several exhibit relatively heavy edge crushing and edge shattering indicative of direct contact with dense materials.

The specimen in Group 99 exhibits criteria characteristic of direct contact with dense materials. Individual peck marks on the surface are clearly distinguishable, and the specimen was utilized as a true anvilstone. Secondary wear in the form of grinding is present on one surface. The size of the specimen tends to indicate that it was stationary.

The specimens in Group 110 are incidental tools like utilized flakes. Both specimens exhibit slight bifacial step fracturing along the edges and indicate chopping or cutting activities. The size of the flakes removed indicate that the former is more likely.

The specimen in Group 114 exhibits a smooth, ground surface. Striations on the surface are longitudinal with reference to the remaining portion. It is a fragment of an axe or celt, but an insufficient amount of the specimen remains to determine what kind of tool is represented.

There was a single piece of altered hematite recovered. The specimen exhibits chipped margins, but the flake removal is irregular. There is no discernible pattern, and removal was not part of tool-shaping. One edge has been ground, apparently for pigment.

The ceramics are substantially different from other sites in the area. The ceramics in Group 126 are similar to Weaver wares recovered from other sites in the area (cf. 23MC65, this volume). Unfortunately, the sherds lack any observable wear, and classifying them as such would be highly tenuous. The ceramics in Group 127 are substantially different. Temper is higher in volume, and grit constitutes the bulk of the temper. Sherds are thicker than the sand-tempered ceramics. Based on the percentage of points recovered, it appears that these ceramics are part of a Middle Woodland component. The grit-tempered and grit and grog-tempered sherds from 23MC70 (Grantham 1979: 336-337) were part of the Middle Woodland component in the stratigraphy. The burned clay (Group 133) is not informative. Burned clay may result from a wide variety of thermal activities on a site.

The remainder of the material recovered is lithic waste or unmodified stone. The density of chert waste on the site is relatively high which is characteristic of many of the seasonal sites in the area. Chert waste is characterized by a preponderance of biface thinning, trimming, and retouch flakes. The use of other material types (quartzite, quartz, and silicified sediments) indicate the occasional use of local sources of raw materials. The density of fire-cracked rock is not particularly high. This material is associated with thermal activities, often cooking. Much of this material is probably dispersed from its original location.

The single feature encountered is of undetermined function. It has the characteristics of a postmold, but the feature extended outside the excavation unit, and the total dimensions are unknown.

In summary, the material recovered in the present investigations indicate that there is a Middle Woodland component on the site based on Groups 22 and 23. The small side-notched point (Group 31) indicates a minor Late Woodland component. Previous collections on the site (Grantham 1977) indicated that the principal components on the site were Middle Woodland and Late Woodland with the former being the denser of the two. Tools recovered indicate a number of activities with hunting and plant processing being the two major subsistence activities.

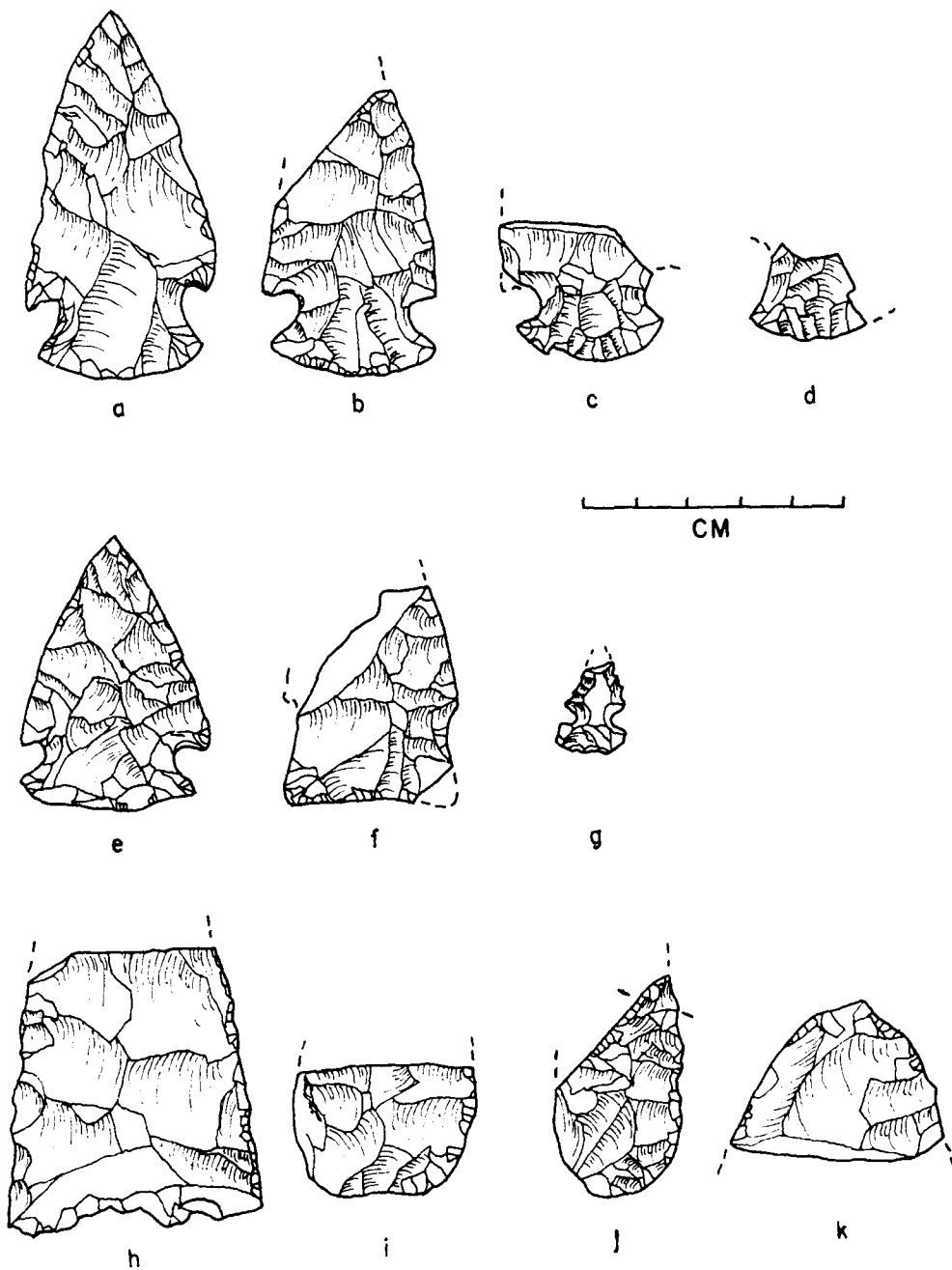


Figure 168. 23MC298. Artifacts. (a-d) Group 22, (e) Group 23, (f) Group 6, (g) Group 31, (h) Group 66, (i) Group 68, (j) Group 70, (k) Group 71.

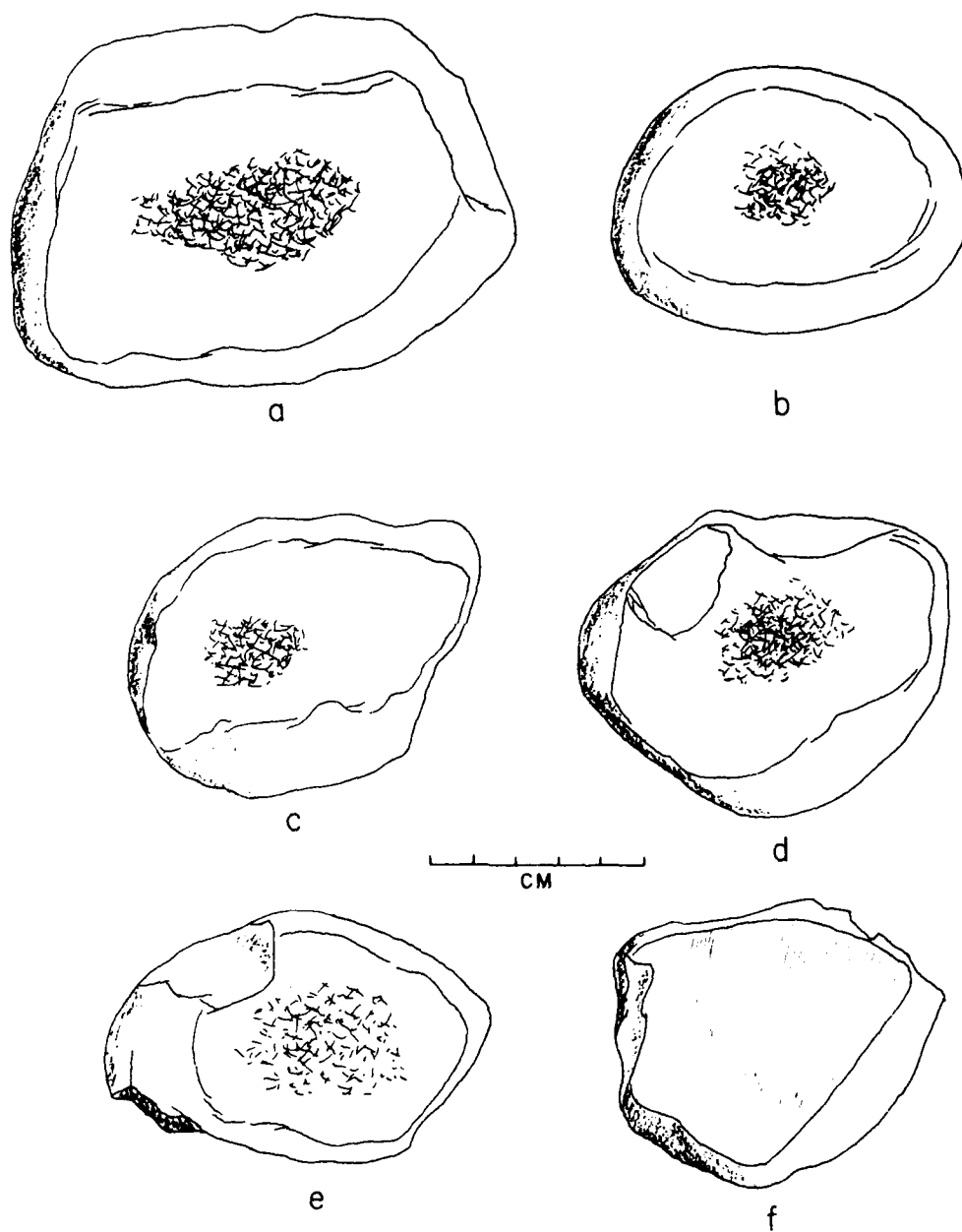


Figure 169. 23MC298. Artifacts. (a-e) Group 90, (f) Group 91.

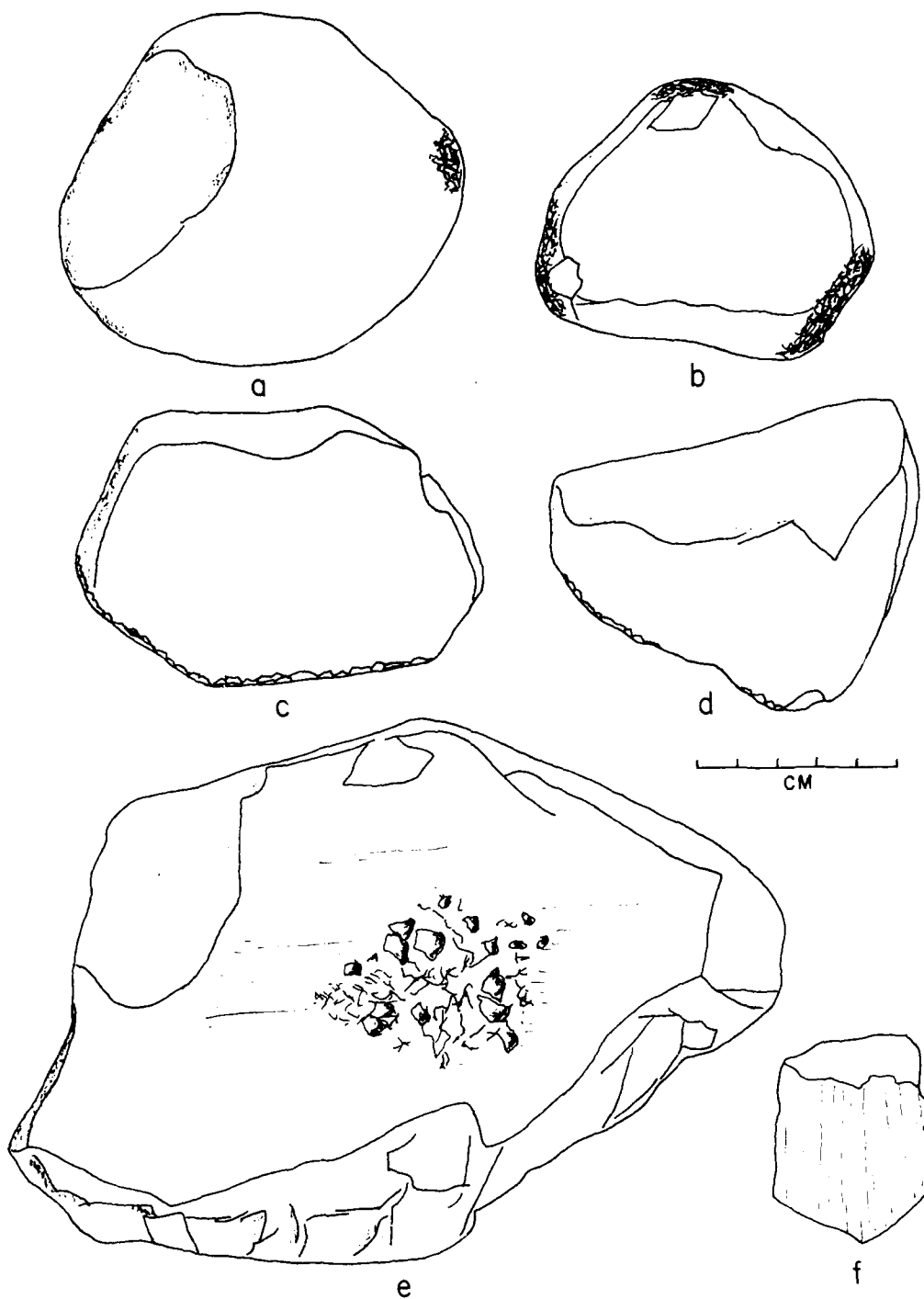


Figure 170. 23MC298. Artifacts. (a-b) Group 92, (c-d) Group 110, (e) Group 99, (f) Group 114.

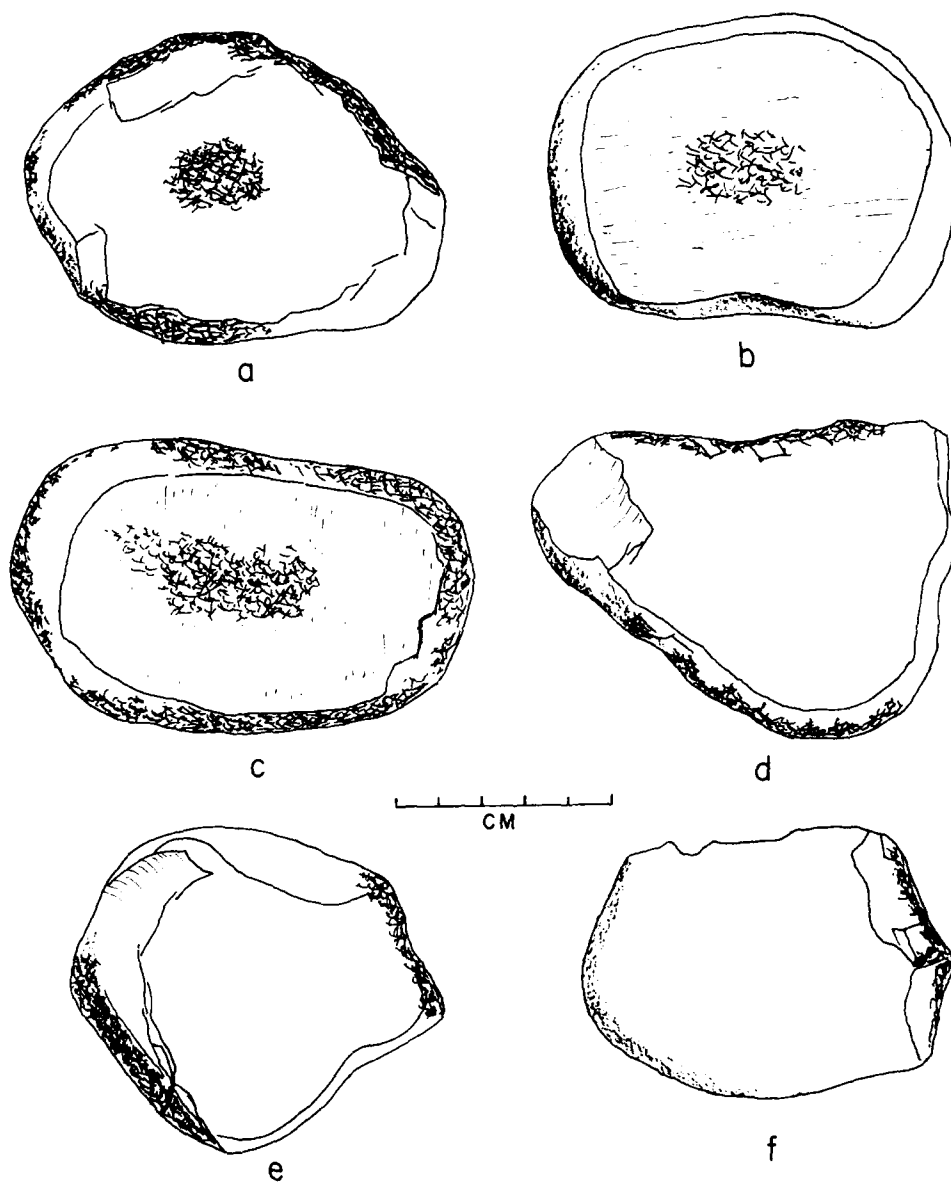


Figure 171. 23MC298. Artifacts. (a) Group 94, (b) Group 93, (c) Group 96, (d-f) Group 92.