

**ROUND SPRING ARCHEOLOGY,  
OZARK NATIONAL SCENIC RIVERWAYS,  
SOUTHEAST MISSOURI**

by

Mark J. Lynott

Midwest Archeological Center  
Technical Report No. 2

United States Department of the Interior  
National Park Service  
Midwest Archeological Center  
Lincoln, Nebraska

1991

## ABSTRACT

Archeological investigations at Round Spring have produced evidence for human occupation beginning with the Dalton culture. Intermittent prehistoric use of the area surrounding Round Spring continued until about A.D. 1300 when the area was abandoned. Euro-American occupation at the site began in the early nineteenth century. Evidence for a farmstead/cabin and a mill are presented. Systematic testing in 1981 included excavation of nine test pits and about 50 shovel tests. A substantial

quantity of prehistoric and historic artifacts were collected from undisturbed contexts. Previous research conducted by the University of Missouri provides evidence of a Mississippian cemetery adjacent to the spring. The archeological resources at Round Spring have the potential to contribute data to research problems relating to the Late Archaic, Woodland, Emergent Mississippian, Mississippian, and nineteenth century Euro-American occupation of the Upper Current River valley.

## ACKNOWLEDGEMENTS

The 1981 archeological investigations were conducted by Forest Frost, Doug Kennedy, Jeff Richner, Chris Schoen, and Jim Zalesky under the direction of the author. Their dedication is greatly appreciated, particularly considering the wet and cold conditions under which the fieldwork was performed.

Preparation of this report has benefitted from the constructive comments and cooperation of many individuals. Mary Oman and Alan May, American Archaeology Division, University of Missouri located and transferred the collections from the pre-1981 investigations to the Midwest Archeological Center, making them available for inclusion in this study. The late Dr. Carl Chapman shared his knowledge about the site with the author, and was particularly helpful in providing information on the location of excavated human

remains. Dr. James Price and Cynthia Price visited the site and shared their knowledge about Round Spring archeology with the author. Jim Price was particularly helpful in describing the nature and extent of the erosion that has exposed human remains from the edge of the sinkhole spring. Alan Banks graciously made photographs of the shell tempered elbow pipe from Round Spring available for this report. The author also appreciates the opportunity provided by Dan Lenihan and the National Reservoir Inundation Study Team to visit the site during their diving studies at Round Spring.

The preparation of this manuscript has benefitted from useful comments provided by Jim Price and Jeff Richner. The manuscript was edited by Judy Pace and the figures were prepared by Carrol Moxham.

## TABLE OF CONTENTS

Abstract .....	i
Acknowledgements .....	ii
Table of Contents .....	iii
List of Tables .....	iii
List of Figures .....	iii
Introduction .....	1
1981 Field Investigations .....	5
Radiocarbon and Thermoluminescence Dating .....	9
Artifacts .....	11
Subsistence Data .....	19
Conclusions .....	21
References Cited .....	25

## LIST OF TABLES

1. Radiocarbon and Thermoluminescence Dates .....	29
2. Provenience of prehistoric artifacts collected in 1981.....	31
3. Vertebrate faunal remains from 1981 test excavations ...	32

## LIST OF FIGURES

1. Location of 1981 excavation units, 23SH19 .....	34
2. Location of archeological test units on south side of Round Spring .....	35
3. Test excavations in small rockshelter within the Round Spring sinkhole .....	35
4. Test units 5 and 6 revealed the remains of an early nineteenth century farmstead .....	36
5. Profile of historic feature in Test Unit 7, 1981 .....	36
6. Selected historic artifacts .....	37
7. Selected prehistoric chipped stone tools .....	38
8. Selected projectile points .....	38
9. Selected projectile points .....	39
10. Selected prehistoric ceramics .....	39
11. Prehistoric shell tempered pipe .....	40

## INTRODUCTION

Round Spring is a large sink-hole spring located on a hillside above the Current River in Shannon County, Missouri. The picturesque spring rises from a large circular basin that was formed by the collapse of a solution cavity. A small part of the cave is still present in the form of an arch or grotto, through which Round Spring discharges into Round Spring Branch. Records indicate that the flow of Round Spring varies greatly, but averaged 26,000,000 gallons per day during a 16-year period (Vineyard and Feder 1974).

The scenic values which make Round Spring so attractive to contemporary residents and visitors have apparently existed for thousands of years. Archeological investigations, which began in the late 1940s, have provided evidence that people have been visiting the spring for as much as 10,000 years. The archeological data which has been collected provides evidence that the Round Spring site, 23SH19, contains a significant archeological record of the prehistoric and early historic occupation of the area now called Shannon County, Missouri.

The earliest written record of cultural remains at Round Spring occurs in a report on the geological resources of Shannon County (Williams 1876). This report describes Round Spring as being 84 feet wide and 45 feet deep. The report estimates the flow of Round Spring at 425 cubic feet per second, with a prospective horsepower of about 800. A map accompanying the report shows the location of two mills on the spring branch, one labeled "new mill" and the other "old mill." This is the only written record of these historic features, but evidence of the "old mill" is preserved in the channel and banks of the Round Spring Branch. During episodes of low water, the base of the mill dam can be seen immediately above the foot-bridge which connects the visitor parking lot with Round Spring. An 1863 journal, written by a Union army soldier describes Round Spring and Round Spring Cavern, along with the Deathridge Store near Old Eminence. The absence of any description of mills along Round Spring Branch may indicate that neither were standing at that time.

In 1924 Round Spring State Park was established by the State of Missouri. In 1948, Leo Anderson reported to the Archaeological Survey of Missouri that a prehistoric burial had been exposed by erosion along the south side of Round Spring. The burial was in a supine position with the left arm extended at a 45 degree angle and the legs spread 2.5 feet. The right arm of the individual was missing. The burial was oriented with the head to the north, toward the spring. The burial was badly fragmented, having been found under the former location of a county road. A series of mussel shells were laid around the skull of the individual to form a crescent, and a bifacial preform and shell tempered elbow pipe were found laying against the skull. The elbow pipe has a face incised on the bowl with a weeping eye motif (Banks 1978:33). On the basis of this discovery, the Round Spring site was designated 23SH19 by the Archaeological Survey of Missouri.

In 1959 workers digging footings for a picnic shelter foundation discovered a cache of eight flint preforms (Haslag 1959). A subsequent visit to the site by a team of University of Missouri archeologists under the direction of Carl Chapman resulted in the discovery of a

second human skeleton eroding from the footpath area south of the spring. Excavation of the burial revealed that it was fully extended and had been interred with part of a shell tempered ceramic vessel. The interment was oriented east-west, with the head to the west. The University of Missouri team also collected a Dalton point from an eroded area near the spring.

Artifacts recovered during excavations near the burial were described by Wyatt (1959) and included five dart points (one corner notched, two stemmed), and limestone tempered ( $n = 15$ ), shell tempered ( $n = 5$ ), grit tempered ( $n = 4$ ), sand tempered ( $n = 1$ ) and clay tempered ( $n = 1$ ) pottery. In direct association with the burial were 54 shell tempered sherds and four limestone tempered sherds. The shell tempered ceramics were believed to be from a single medium-size jar with an approximate seven-inch orifice. Artifacts found in the area of the biface cache discovery included hematite fragments, limestone tempered pottery, square cut nails, and an iron projectile point made from a square cut nail (Wyatt 1959). The nails and the iron projectile point were collected from a small ash filled pit, about 11 inches below surface

in the area of the existing picnic shelter.

In June 1964, Alan Banks of Eminence, Missouri reported to the University of Missouri that erosion had exposed another human burial at Round Spring. Subsequent excavations by the University of Missouri (Bray 1964) produced evidence that this individual had been interred in a fully extended and prone position. Since the epiphyses had not fused, the individual was believed to be a subadult. Artifacts associated with the burial included four chert projectile points, an end scraper, two barrel shaped limestone beads, a bone sliver awl, and a triangular chert biface. The beads were found in the neck area of the individual and appear to have been interred as ornaments. Since the burial had been dug into midden fill, the remaining artifacts were not believed to be directly associated with the individual.

A major flood in 1966 exposed another human burial around the southern rim of Round Spring (Henning 1966). The burial was found in a prone position with head and shoulders to the west. The lower extremities had been eroded away in the flood, but the body had apparently been extended. No grave goods were found

with the burial, but excavations near the burial produced a dart point, an end scraper, a blade, several limestone tempered potsherds, and a lump of burned limestone. A substantial amount of chipped stone tools and debris, and shell and limestone tempered ceramics were collected from the surface of the eroded area.

In 1972, the University of Missouri conducted survey and testing at major developments within the Ozark National Scenic Riverways. Major problems related to changes in project personnel greatly diminished the quality of the data available in the published report (Garrison et al. 1976). During the 1972 research, two 6 ft x 6 ft test units were excavated near the location of the former State Park store. The test units encountered a trash pit filled with early nineteenth century cultural remains, including refined earthenware ceramics and gunflints. This material has been described and illustrated by Garrison et al. (1976), but maps of the features and the location of the test units are not available. A site designation of 23SH70 was assigned to the historic component investigated during this project.

In 1978, the National Reservoir Inundation Study Team vis-

ited Round Spring and Alley Spring for the purpose of conducting tests on the effect of inundation on artifacts. As part of the study, the diving team explored the bottom of the Round Spring sinkhole and the grotto which connects the spring with the spring branch. While no artifacts were found on the bottom of the sinkhole, a number of prehistoric artifacts were found in the grotto. These included Maramec Springs Cordmarked ceramics, flakes, cores, biface fragments, an adze, and a corner notched projectile point. The materials appear to be associated with the Maramec Springs occupation of the area and have been fully described and illustrated in Carrell, May, and Garrison (1980).

On the basis of these studies, it is clear that potentially significant archeological remains are present at Round Spring. Unfortunately, the absence of a base map and adequate documentation about many of the these projects made it difficult to assess the condition, content and size of the Round Spring site. The 1981 investigations were designed to develop a base map of the site, and evaluate the condition, content, and potential significance of the site.



## 1981 FIELD INVESTIGATIONS

In May, 1981 a crew of six from the Midwest Archeological Center conducted test excavations at Round Spring. Nine test units and 78 shovel tests were excavated during a two-week period. The field investigations during this time were intermittent, being interrupted by the need to conduct survey work at other locations, frequent rainfall, and local flooding.

Shovel testing focused on the hillside and terraces north and east of Round Spring, and overlooking the Current River. A series of five transects, with shovel tests spaced at 10 m intervals along each transect, was executed. Transects were spaced at about 10 m intervals. Individual shovel tests were about 30 cm in diameter, and were excavated to 30 cm below surface. Matrix from the shovel tests was not screened, but was carefully trowelled back into each hole.

The location of the five shovel test transects is shown in Figure 1. Shovel testing revealed that archeological remains are present along the entire hillside north and east of Round Spring. Soils were gen-

erally deep and loamy on the southern and eastern ends of the area covered by shovel testing. The shovel tests excavated on the higher ground encountered shallow clay soils and a considerable number of rocks.

Shovel testing was conducted in an area designated as site 23SH70 by Garrison et al. (1976). The shovel testing conducted in 1981 revealed that a continuous scatter of prehistoric artifacts occurs from Round Spring to the edge of the second terrace above the Current River. The early to mid-nineteenth century component identified by Garrison et al. (1976) is confined to the area immediately east of Round Spring and north of the former Missouri State Park Concession Building.

Test units were designed in two sizes: 50 cm x 50 cm, and 1 m x 1 m. Each unit was excavated in arbitrary 10 cm levels. Matrix from the test units was screened through 1/4-inch mesh hardware cloth. Selective samples of matrix (usually about four to five liters) were collected and later water screened through 1/16-inch

mesh cloth. Excavations were made with shovels and trowels, and stratigraphic profiles were prepared for each unit. Soil samples for potential chemical and structural analysis were collected from major strata. Due to the frequent periods of inclement weather, sterile geological strata were not reached in any of the test units.

Test units one, two, three, four, and nine were excavated in the area south of Round Spring and above the spring branch (Figure 2). The area has been extensively eroded by floods, and the upper 30 cm of all of these units appears to have been truncated and redeposited at some time in the past. The upper stratum in all of these units contained abundant trail gravel and historic artifacts in associations with prehistoric artifacts. This area was designated Area A, during the 1959 field work conducted by the University of Missouri (Wyatt 1959). It is also the area from which human remains were exposed by erosion in 1948, 1959, 1964, and 1966. Below the disturbed zone in this area, there is a rich organic midden horizon. The black loamy matrix extends to varying depths and contains a rich archeological assemblage relating to the Maramec Springs and Emergent Mississippian occupations of

the site. Along the southeast edge of the sinkhole is a small rock shelter. Test Unit 8, a small 50 cm x 50 cm unit, was excavated at the dripline of the shelter (Figure 3). The fill within the shelter was similar in composition and content to the midden deposit found along the south rim of the sinkhole.

Test units 5 and 6 were positioned in an area which data from shovel testing indicated might contain habitation debris from the early to mid-nineteenth century (Figure 4). Unfortunately, construction of an asphalt road and other activities relating to the State Park disturbed this area extensively. Soils in this area are more rocky and compact than those near the lip of the sinkhole spring. While historic artifacts are abundant in the upper 30 cm of each of these two units, prehistoric artifacts extend to at least 50 cm below surface in this area.

Test Unit 7 was located near the edge of the T-2 landform immediately north of the point where Round Spring Branch enters the Current River floodplain. An old road-cut running roughly east-west, is present to the south of Test Unit 7. The soil in this area is a deep sandy loam, and the test unit produced abundant prehistoric and historic artifacts in mixed con-

texts to about 40 cm below surface. At this point a large pit containing burned limestone slabs, charcoal, and historic and prehistoric artifacts was encountered. The feature extended into the north and east walls of the test unit, but appeared to be rectangular in shape. Burned limestone slabs lined the south and west sides of the pit which measured 90 cm East-West, and 60 cm North-South. The feature extended to about 70 cm below surface, where an abrupt and flat bottom to the pit was encountered (Figure 5). The fill of the pit contained both prehistoric and historic remains. It appears that the feature is an historic pit which was dug through a relatively rich prehistoric deposit.

The 1981 test excavations produced evidence that the archeological deposit on the south side of the sinkhole spring is quite deep. The basal stratum exposed during testing is a tan silt loam. Immediately above the tan silt loam is a black loamy stratum, with a soil pH of 8.3 and a relatively high content of organic matter. This midden stratum extends from about 40 cm to nearly 70 cm below surface. It is likely that erosion resulting from major floods has truncated the midden in most areas on the south side of the spring. The

uppermost stratum in the area south of the spring is a brown sandy loam with considerable gravel content. This latter stratum appears to be largely reworked archeological deposits and fill from erosional episodes.

The soils on the hillside to the east and northeast of Round Spring are comprised of loams and clay loams. The uppermost soils are brown loam deposits which extend about 35 cm below surface. Below this point the clay content of the matrix increases and soil color becomes lighter. Soils in this area contain little organic matter and are slightly acidic. At the base of the hillside on the second terrace of the Current River, the soils are deep sandy loams. These strata contain relatively little organic matter and are slightly acidic. On the basis of topography, it seems likely that soils on the terrace are alluvial in nature, while those higher on the hillside are colluvial in origin.

The 1981 test excavations at Round Spring have shown that the area has been intensively used during both the prehistoric and historic periods. Archeological remains cover more than 17,000 square meters from the Spring Branch on the south, to the sinkhole spring on the west, to the edge

of T-2 along the Current River on the east, and to a point about 30 m north of the existing National Park Service vault toilet. Prehistoric artifacts are present across this entire area. Early to mid-nineteenth century remains are concentrated along the Spring Branch where the remains of at least one, and possibly two mills are present. Other historic remains from that time period are also present in the area adjacent to 1981 test units 5 and 6, where evidence of domestic activities has been collected. Historic remains from the late nineteenth and twentieth centuries are likely present at several places within the site. The location of features and 1981 test units are shown in Figure 1.

## RADIOCARBON AND THERMOLUMINESCENCE DATING

Four radiocarbon and six thermoluminescence samples have been submitted for dating. The purpose of using the two dating techniques was to obtain age estimates which might accurately estimate the date of the Woodland and Emergent Mississippian/Mississippian occupation near the spring. The use of radiocarbon dating techniques made it possible to date burial features and thermoluminescence techniques permitted direct dating of prehistoric ceramics. Use of the two techniques in combination reduces the chance of accepting an erroneous date. This latter consideration was judged to be of considerable importance, because all of the radiocarbon samples which were submitted had been stored in paper bags for over twenty years.

Initially, two samples of human bone were submitted to the Radiocarbon Laboratory, University of Texas for dating. These samples were selected from remains collected by Leo Anderson in 1948 (TX-4093), and Carl Chapman (TX-4094) in 1959. Both of the samples were believed to be about the same age, yet the sample collected in 1948 (TX-4093)

yielded a date of only 300 years B.P. It was decided that additional samples from the same contexts should be dated to provide additional evidence for evaluating the age of the two burials. A sample of charcoal believed to be associated with the burial uncovered in 1959 was submitted, along with another bone sample from the burial collected in 1948. While the charcoal (Beta-3193) produced a modern date, the second sample of human bone (Beta-3194) produced a date which is in accord with the date from the burial uncovered in 1959. Both of the burials which have been dated by radiocarbon are associated with the Mississippian culture, and have produced dates between A.D. 1200 and A.D. 1250 (Table 1).

The thermoluminescence samples were all collected during the 1981 investigations at the site. The samples were collected while trowelling and shovelling the test units. Samples were collected beginning at 20 cm below surface, with all samples being promptly placed in a zip-lock plastic bag and sealed. A soil sample from the area adjacent

to the ceramic sample was also taken and sealed in a zip-lock plastic bag. The ceramics and soil were given corresponding sample numbers and bagged together in a larger plastic bag. These were placed in a paper bag and stored out of direct sunshine. The ceramics were removed briefly, one to three minutes, from the bags in the laboratory to examine temper and surface treatment. A total of six thermoluminescence samples were submitted to the Center for Archaeometry, Washington University (Table 1).

Two different types of ceramics were submitted for thermoluminescence dating. Four samples of limestone tempered (plain or smoothed) ceramics characteristic of the Maramec Springs culture were dated and yielded ages ranging from A.D. 700 to A.D. 1070. Two samples of shell tempered ceramics, characteristic of the Emergent Mississippian and Mississippian cultures yielded dates of A.D. 810 and A.D. 890. On the basis of the six samples submitted for thermoluminescence dating, the age differences between the limestone and shell tempered wares is not significant. The general contemporaneity of shell tempered and limestone tempered ceramics has been recorded at several other sites in the Current River drainage,

most notably the Owls Bend and Shawnee Creek sites.

The available radiocarbon and thermoluminescence dates from the Round Spring site provide evidence that both Maramec Springs and Emergent Mississippian people were occupying the area around the spring on an intermittent basis during the period between A.D. 700 and A.D. 1100. Then about A.D. 1200, a number of people associated with the Mississippian culture were interred in the same area which had been used as a habitation area by Woodland and Emergent Mississippian peoples. A summary of the radiocarbon and thermoluminescence dates and their contexts is presented in Table 1.

## ARTIFACTS

A wide range of artifacts has been collected from the Round Spring site during numerous episodes of research. The materials described in this section are curated at the Midwest Archeological Center and have been obtained from excavations conducted by the University of Missouri in 1959 and the Midwest Archeological Center in 1981. A small amount of material from the research reported by Garrison et al. (1976) is included, but the majority of material described by Garrison et al. (1976) has not been transferred to the Center. Other artifacts from the Round Spring site were collected by National Park Service staff and private citizens following major episodes of flooding and erosion along the spring and spring branch.

### Historic Artifacts

Historic artifacts occur across the entire extent of the Round Spring site. This is largely due to the intensive activities associated with the Round Spring State Park and Ozark National Scenic Riverways. Two areas investigated in 1981 produced evidence of earlier historic activity. During the 1981 inves-

tigations, a fairly large quantity of early twentieth century material was found in association with a feature in Test Pit 7. An extensive collection of early nineteenth century artifacts was reported by Garrison et al. (1976), but the precise location of this component of the site is unclear. Testing in 1981 indicates that this was apparently in the vicinity of test pits 5 and 6, where evidence of an early historic farmstead was recorded. It is also important to note that evidence of two nineteenth century mills along the spring branch occurs in documentary sources (Williams 1876). Physical evidence of at least one mill dam can be observed in the spring branch during periods of low water flow.

The majority of historic artifacts from the Round Spring site are related to food storage and service or construction of a structure. A few objects related to hunting/fishing, personal apparel, and currency exchange have also been collected. Food service and storage artifacts were collected primarily from test pits 5 and 6 in 1981. These materials include crown caps from soft

drink bottles, glass from bottles, jars and serving dishes, and refined earthenware ceramics (Figure 6). Construction artifacts consist of nails, window glass, and one piece of ornamental iron hardware. These were also collected from test pits 5 and 6. The remaining historic objects were collected primarily from test pits near the spring, or near the group picnic shelter.

The historic ceramics from the Round Spring site are all refined earthenware, with the exception of a single gray stoneware sherd. The ceramics are all similar to refined earthenware from southeast Missouri described by Cynthia R. Price (1979). While most of the sherds are very small fragments, they appear to be pieces of plates. Whiteware, without any decoration, represents the most common ceramic type ( $n = 78$ ). Decorated ceramics include blue shell-edge ( $n = 5$ ), transfer print (blue = 4, red = 1, brown = 1), flow blue ( $n = 5$ ), annular ware (blue = 1, mocha = 3, black = 1), hand painted polychrome floral ( $n = 6$ ), and hand painted (blue floral = 12, burgundy floral = 1) types. In comparing this assemblage to the chronology proposed by Cynthia R. Price (1979: 31) for the Ozark Border area, it appears likely that the majority of activity associated

with these ceramics occurred during the period between 1830 and 1850. Most of the decorated earthenware ceramics were collected from test pits 5 and 6, but a good sample was also collected from Test Pit 7.

Other historic food service and storage vessels are made from glass. Vessel form cannot be determined from the small size of most of the glass sherds. Fifteen pieces of clear curved glass were collected, along with one piece of clear square glass, and two pieces of green curved glass. These are most likely fragments of bottles or jars. Other glass objects include a sherd of embossed milk glass, and one sherd of embossed clear glass. These are probably fragments of serving vessels. Seven crown caps from soft drink bottles were collected, apparently from the State Park- era at Round Spring.

Objects related to construction of an historic structure at Round Spring include nails, window glass and miscellaneous hardware. The hardware represented includes a cotter pin, a piece of ornamental iron trim and both square cut ( $n = 64$ ) and wire nails ( $n = 30$ ). Both square cut and wire nails were collected from Test Pit 7, but only square cut nails were collected in the vicinity of test pits 5 and 6. Square cut nails



were manufactured in the United States from the late eighteenth century until the late nineteenth century, while wire nail manufacturing machinery was not perfected until the 1860s or 1870s (Nelson 1968). This suggests that a structure was present in the area of test pits 5 and 6, and it was built prior to 1860. A somewhat later structure is reflected in the presence of wire nails from Test Pit 7.

A total of 20 sherds of flat window glass was collected in 1981. These were collected from test pits 5, 6, and 7. The thickness of each glass sherd was measured, and a mean or average thickness of 1.59 mm was calculated. Several studies have shown that mean thickness of window glass is temporally diagnostic (Chance and Chance 1976, Moir 1982, Roenke 1978 and Schoen 1985). The mean thickness of 1.59 mm is consistent with the 1830 to perhaps 1860 temporal span of the refined earthenware ceramics and square cut nails described above. In addition to the flat glass, four sherds of what appears to be lamp chimney glass have also been recovered from test pits 5 and 6.

Artifacts reflecting personal apparel are limited from Round Spring. Four glass or porcelain

buttons, and one brass button were collected. A single barrel shaped glass bead (clear glass, 15 mm long, 10 mm diameter) was also collected.

Artifacts related to hunting include a Winchester 12 gauge shotgun shell, two .22 caliber short shot shells, and an iron projectile point. The cartridges are likely from the twentieth century, but the iron projectile point is a traditional fishing tool in the Current River valley (J. Price 1990). The iron projectile point appears to have been made from a square cut nail, and has been wrought to produce a barbed head (Figure 6). The projectile point is 77 mm long with a rectangular cross section (5 mm x 4 mm). This object was collected by the University of Missouri in 1959 from a test excavation in the area of the picnic shelter.

The only other historic artifacts collected from the Round Spring site are coins. These include an 1899 nickel, 1919 Lincoln penny, and a 1959 Lincoln penny. All are related to twentieth century activities at the site.

## Prehistoric Artifacts

The prehistoric artifacts from the Round Spring site consist of chipped stone tools and debris, ground stone tools, ceramics, faunal remains, macrobotanical remains, fire-cracked rock, and burned soil. In addition to these, limestone beads, a bone awl, and mollusc shells have been reported by previous investigators (Bray 1964). The material described here is curated at the Midwest Archeological Center. This consists largely of artifacts collected during the 1981 testing program plus collections from the 1959 University of Missouri investigations. Additional materials from surface collections and the 1966 salvage excavations (Henning 1966) are also included. This report does not include materials collected from the Round Spring grotto by the Submerged Cultural Resources Unit, because those materials have been fully described elsewhere (Carrell, May, and Garrison 1980). Prehistoric artifacts collected in 1981 are presented in Table 2.

Chipped stone tools and debris represent the most abundant artifact class found at the Round Spring site. A total of 1,131 flakes, 799 proximal flakes, and 4,133 pieces of non-diagnostic shatter was collected during the 1981 investigations.

The laboratory portion of this study included examination of 186 chipped stone tools and two ground stone tools, most of which were collected in 1981. These chipped stone materials are made primarily from local cherts, but 1.1 percent of the sample is made from white quartzite. Chipped stone tools and debris occur across the entire extent of the Round Spring site, but are most numerous in the area near the spring.

The diagnostic chipped stone debris (flakes and proximal flakes) are dominated by the later stages of core/biface reduction sequence. Only 1.5 percent of the sample exhibited cortex across the entire dorsal surface, and only 19 percent of the sample exhibit any cortex on the dorsal surface. With over 80 percent of the flakes and proximal flakes lacking any dorsal cortex, the lithic debris indicates that the primary stages of the lithic reduction sequence were being conducted elsewhere. Examination of platform preparation indicates that a range of different platform types were in use, with the following relative frequencies observed from the 1981 data sample: 8.5 percent cortex, 8.5 percent faceted, 71.3 percent plain, 9.5 percent crushed, and 2.2 percent lipped and faceted. As noted earlier, nearly 99 percent of the sam-

ple is made from local cherts, with the remainder being made from white quartzite.

A wide range of stone tools has been collected from the Round Spring site (Figure 7). Most of these are chipped stone tools made from chert or quartzite. However, a fragment of hematite celt or axe was collected following a major flood in 1982, and the 1981 investigations produced a circular pitted anvil stone. The latter is 80 mm in diameter and 47 mm thick. Two hammerstone fragments were collected during the 1966 investigations. The remainder of the specimens available for study are cores, bifaces or unifaces.

The cores from the Round Spring site are limited in number and diversity. Single platform ( $n = 4$ ) and tested cobbles ( $n = 3$ ) represent the majority of the identifiable core types. With the exception of a single multi-platform core, the remaining eight specimens are core fragments. All of the cores are local cherts. The relatively limited number of cores, and the dominance of single platform and tested cobble types indicates that the primary stage of stone tool production was not a primary activity at Round Spring.

Sixty-three unifacially retouched tools were examined as part of this study. These include 36 retouched pieces: 27 retouched flakes, three graters, one notch, three end scrapers and two chopper/scrapers. The retouched pieces and flakes all exhibit limited unifacial retouch on either the ventral or dorsal surface of one edge. The graters exhibit unifacial retouch which forms a small but distinct beak. These tools are a regular component of tool kits during the Emergent Mississippian substage in the Upper Current River Valley. The chopper/scrapers are large flakes with steep retouch from deep percussion scars along one margin. All of the unifacial tools are made from local cherts.

Bifacially chipped stone tools from Round Spring include arrow points, dart points, bifaces, and two bifacially retouched flakes. The latter are similar to the unifacially retouched flakes, but have been retouched bifacially. Bifaces are the most common artifact type in the sample, and include 11 complete specimens and 59 fragments. While most of the bifaces were too fragmentary to be more specifically classified (59 percent), the more complete specimens are comprised of 28 percent preforms, nine percent blanks and four

percent roughouts. The dominance of well shaped blanks and preforms provides further evidence that primary lithic reduction was of minimal importance at Round Spring.

The 48 projectile points which were examined as part of this study include 40 dart points and eight arrow points (Figures 8 and 9). The arrow points include two complete and six fragmentary specimens, all of which are small stemmed and corner notched forms. Several of these exhibit plano-convex cross sections and/or unifacial retouch, attributes which are diagnostic of the Emergent Mississippian substage in this area. The dart points include eight complete and 20 fragmentary specimens. Most of the dart points appear to be corner notched, shallow side-notched, or expanding stem forms which occur during both the Archaic and Woodland stage. However, ten of the dart points may be assigned to other types which permit more specific interpretation of the chronology of their manufacture.

The earliest point form represented is the base of a Dalton point. This point was collected from Test Pit 3 at a depth of 80 cm below surface. The specimen has the characteristic lanceolate shape and concave

base with basal thinning. A more complete Dalton point was collected at the Round Spring site by the University of Missouri in 1959 (Haslag 1959). Based upon dating of Dalton points throughout the southeastern United States, it is likely that the Round Spring site was occupied as early as 8500 B.C. (Goodyear 1974, Morse and Morse 1983).

A single side-notched dart point was collected from the 1981 test excavations. The side notched point is a basal fragment which is similar in form to the type Big Sandy (Lewis and Kneberg 1961) from the Middle Archaic substage in Tennessee and Missouri. These points date primarily between 5000 B.C. and 3000 B.C. (Chapman 1975).

Projectile points associated with the Late Archaic substage are relatively numerous at Round Spring. A wide range of large basal notched, corner notched points, as well as straight and expanding stem forms is present. Particularly notable among these is the frequent use of white quartzite, rather than chert. The Late Archaic substage in the Upper Current River Valley is characterized by the relatively high frequency of white quartzite in the manufacture of lithic tools (Price, Price, and Saucier 1987).

Points from this stage probably date between 3000 B.C. and 500 B.C.

Projectile points characteristic of the Early Woodland substage are relatively uncommon at Round Spring. However, two contracting stem point bases have been collected from the site. These points are similar to the Gary points described by Price (1986) from southeast Missouri. One of the points was collected from the shovel tests east of the spring, while the other was exposed by erosion between the spring and the spring branch. These projectile points probably date between 500 B.C. and A.D. 500.

Based upon the temporally diagnostic chipped stone tools, most of the prehistoric artifacts from the site appear to date to the Archaic stage. However, the numerous large dart points may be over-represented in this sample due to the continuing erosion of the archeological deposit adjacent to the spring. It is likely that much of the more recent prehistoric deposits in this area has been washed away in past flood episodes. Fortunately, some of the 1981 test units produced evidence that some of the Woodland and Emergent Mississippian occupation is still present. These later occupations are best documented by

the presence of two different ceramic industries.

The prehistoric ceramics from Round Spring are comprised of shell tempered and limestone tempered sherds (Figure 10). The limestone tempered ceramics are the same as those described for the Maramec Spring Focus (McMillan 1965, Chapman 1980). The shell tempered ceramics are the same as Emergent Mississippian types found through the Eastern Ozark region. The context of the two different ceramic industries at Round Spring are sufficiently mixed as to make it impossible to determine if they are contemporary. However, at the Owls Bend site (Lynott 1989, Lynott, Monk, and Price 1984) and the Shawnee Creek site (Price and Price 1986, Lynott and Price 1989) limestone and shell tempered ceramics have been found in contexts which clearly indicate that the two existed as contemporaries in the Upper Current River drainage.

Maramec Springs ceramics are tempered with finely crushed particles of limestone. These vessels are known primarily from the Meramac, Gasconade and Lower Osage drainages of the Ozark Highland region (Chapman 1980). Vessel forms include globular to conoidal jars

and bowls with conical to round bases (McMillan 1965). Vessels occur with either a cordmarked or smoothed exterior. Decoration is rare, but when present occurs near the rim or one of the lips of the vessel. Maramec Springs ceramics are associated with the Woodland stage in the Upper Current River Valley and are found from about Owls Bend to the headwaters. A total of 75 limestone tempered sherds was examined as part of this study. Most of these were collected from the area between Round Spring and the spring branch during either the 1959 investigations or the 1981 investigations.

The Maramec Springs ceramics are comprised of four rimsherds and 71 body sherds. Sixty percent of the ceramics are cordmarked, with the remainder being smoothed. Of the rimsherds, two have flat lips and two are round. None of the rim or body sherds exhibit any decoration. All of these sherds are typical of Maramec Spring Plain or Maramec Spring Cordmarked.

The other prehistoric ceramic industry represented in the collections from the Round Spring site is shell tempered. These include 69 body sherds and six rimsherds. All are tempered with finely crushed

shell and are macroscopically indistinguishable from Mississippian ceramics found throughout southeast Missouri. Two different vessel forms are present. The most common is a jar, but at least one pan is also represented. Unfortunately, none of the vessels are sufficiently complete to provide detailed descriptions about form, but jars apparently occur with either slightly everted or vertical rims. Rims occur in both flat and round forms, without any decoration. All but one of the shell tempered ceramics are smooth or plain. A body sherd from Test Unit 6 exhibits cross hatched incised lines on the exterior. It is also worth noting that a shell tempered elbow pipe with a weeping eye motif on the bowl was associated with one of the burials that eroded from the site. The pipe is illustrated in Banks (1978) and has been reproduced here (Figure 11) through the courtesy of Alan Banks.

## SUBSISTENCE DATA

During the 1981 investigations, bulk samples of soil matrix were collected and returned to the Midwest Archeological Center for fine screening. This approach was designed to permit collection of small bones and macrobotanical remains which might provide a more complete record of the subsistence practices of the past residents of the Round Spring site. In addition to the fine screen samples, some samples of animal bone and macrobotanical remains were collected through normal screening of test units.

A total of 135.8 grams of macrobotanical remains was collected in 1981. A scan of these materials indicates that the sample is comprised entirely of charred nut hulls and wood charcoal. No charred seeds were observed. The high frequency of charred nut hulls is consistent with other sites in the Current River Valley. Nuts were clearly an important food item and have been found, preservation conditions permitting, in association with all habitation sites in this region.

Vertebrate faunal remains from the Round Spring site were identified by Susan M. Monk and Therese C. Ryder (1982). A relatively wide range of fish, reptile, amphib-

ian, bird, and mammal remains are present (Table 3). Approximately 12 percent of the sample was either completely or partially charred. The species which exhibited charring included Odocoileus virginianus (n = 8), Vulpes sp. (n = 1), Canis spp. (n = 1) and Terrapene sp. (n = 1). Cut marks relating to butchering were identified only on three elements of Odocoileus virginianus. Rodent gnawing was noted on four elements from three species: Terrapene or-nata (n = 1), Terrapene carolina (n = 1) and Odocoileus virginianus (n = 2).

The fish remains from the Round Spring site include a minimum of 96 elements from six different taxa. The most common taxa represented are the perch family (n = 7), the sucker family (n = 5), and the genus Ictalurus spp. (n = 7), which includes catfish and bullheads. Other identifiable fish include Moxostoma sp. (redhorse), Amia calva (bowfin), and Serranidae (bass). The majority of elements from the fine screen samples can only be identified to more generalized taxa which include sucker, catfish, and perch. These taxa are consistent with other fish remains from sites in the Upper Current River Valley.

Reptiles and amphibians are represented by six different taxa. The only amphibian identified during this study is the genus Rana sp. (frog, n = 2). Reptile remains from the Round Spring site are somewhat more diverse, but are comprised entirely of turtles. The turtle taxa and number of identifiable elements include Emydinae (n = 1), Terrapene sp. (n = 2), Terrapene carolina (n = 2), Terrapene ornata (n = 1), and Chrysemys sp. (n = 1).

Identifiable bird remains are even more limited. Only one element each of goose (Goose spp.) and turkey (Melagris gallopava) have been identified.

Mammal remains from the Round Spring site are comprised of 45 elements from nine taxa. Smaller mammalian elements include five squirrel, three Plains pocket gopher, two New World rat, one cotton rat, one muskrat, and one eastern cottontail. Medium size mammalian elements include two fox and five Canis spp. The only larger mammals which have been identified include one domestic pig and 24 white-tailed deer.

The majority of fauna identified in this study were collected from the test units nearest the sinkhole. Consequently, most of these remains are

probably related to the prehistoric occupation of the site. The subsistence data from the Round Spring site provides evidence that a wide range of vertebrate animal forms were exploited. This practice is consistent with other sites in the Upper Current River Valley. The character of prehistoric Eastern Ozark subsistence strategies appears to be linked to exploitation of a wide range of plants and animals. While white-tailed deer probably contributed the largest amount of meat, the presence of several taxa of fish, turtle and bird indicates that all animals were likely collected. Most of the animals identified during this study represent aquatic or river bottom dwelling creatures. Since this is exactly the location of the Round Spring site, it appears that most of the animals represented were collected from relatively near the site.



## CONCLUSIONS

The presence of archeological remains at Round Spring became known in the nineteenth century when the Acting State Geologist provided a map showing the location of an "old mill" (Williams 1876). This map is important because it shows the location of a mill and farmstead that were in use in 1876. More formal recognition of the archeological resources at Round Spring did not occur until 1948, when Leo Anderson reported the presence of an extended human burial that had eroded from the south side of the spring. The site was assigned the number 23SH19 at that time.

Subsequently, erosion has exposed human remains along the south side of the spring on three other occasions (Haslag 1959, Bray 1964, Henning 1966). These episodes of limited research provide evidence documenting that Round Spring was used as a cemetery during the period between A.D. 900 and A.D. 1300. Testing in 1981 was designed to produce a base map of the archeological resources at Round Spring and to evaluate the condition and significance of archeological remains in this area.

Current evidence indicates that people associated with the Dalton culture were the first humans to visit Round Spring. This is documented by a Dalton projectile point collected from the surface in 1959 (Haslag 1959) and the base of another Dalton point collected from one of the 1981 test units. It appears that occupation associated with the Dalton culture was limited with the site likely serving as a temporary camp. Evidence relating to the Early and Middle Archaic indicates that occupation during those substages was similar to that described for the Dalton culture.

On the basis of projectile points collected from the site, it appears that human activities at Round Spring increased considerably during the Late Archaic substage. Testing has yet to reveal any features from this period, so the nature of Late Archaic activities at Round Spring remains unclear. Much of the habitation debris immediately below the midden stratum around the rim of the sinkhole relates to the Late Archaic substage, and the site clearly contains significant data

about Late Archaic life in the Upper Current River Valley.

During the Woodland stage, Round Spring was occupied intensively by people associated with the Maramec Spring culture. The intensity of the occupation during this period is documented by the presence of extensive artifacts and a dark midden stratum. Most of the vertebrate remains from the site are probably related to either the Maramec Spring occupation or the Emergent Mississippian occupation. Despite the intensity of the Maramec Springs use of the Round Spring, it does not appear that habitation at the site was permanent.

Beginning sometime between A.D. 700 and A.D. 900, Emergent Mississippian peoples began visiting Round Spring. Evidence of Emergent Mississippian occupation occurs in the form of arrow points and shell tempered ceramics. During this period and continuing until perhaps A.D. 1200, Round Spring was apparently utilized by both Maramec Springs and Emergent Mississippian groups. The presence of limestone tempered and shell tempered ceramics mixed throughout the midden stratum near the spring documents the temporal overlap of these two groups at

Round Spring. It is unlikely that either group used the site as a permanent settlement.

About A.D. 1200, Round Spring was used by one or more Mississippian groups as a cemetery. Little is known about the domestic lives of the people occupying Round Spring at this time. The radiocarbon dates from the human burials excavated by the University of Missouri (Haslag 1959, Henning 1966) represent some of the last prehistoric dates recorded in the Upper Current River Valley. The last prehistoric occupation of Round Spring occurred about A.D. 1300. This coincides with a widespread abandonment of the Upper Current River Valley by Emergent Mississippian people and the appearance of major Mississippian civic ceremonial centers in the Mississippi River alluvial valley to the southeast. It is possible that the extreme northwestern portions of the Upper Current River Valley continued to be used by Maramec Springs people, but most of the drainage was simply abandoned.

During the early years of the nineteenth century, Round Spring must have served as a landmark for early settlers in the region. The presence of habitation debris from a farmstead in the area of test units 5

and 6, indicates that the area was occupied by Euro-Americans about 1820-30. It is unclear when the first mill was built on Round Spring branch, but it predated the Civil War. The scenic values offered by Round Spring were recognized by the Missouri legislature, which established Round Spring State Park in 1924.

From the standpoint of culture history, the Round Spring site is significant because it contains evidence pertaining to the Dalton, Late Archaic, Woodland, Emergent Mississippian, and early nineteenth century Euro-American occupations of the Upper Current River Valley. The information contained within the remaining site deposits can contribute to a better understanding of these stages of the archeological record. The site contains valuable data on subsistence practices reflected in vertebrate faunal remains and macrobotanical remains. Also of significance is the Emergent Mississippian cemetery which has been recorded along the south side of the sinkhole. Human remains offer the opportunity to collect data on population demography, health, and nutrition. The presence of an early nineteenth century farmstead and mill at the site provides the opportunity to study early efforts at

industry, as well as homesteading in the region.

Round Spring is clearly one of the more significant archeological sites in Ozark National Scenic Riverways. The proximity of significant archeological remains to a scenic natural feature offers an excellent opportunity to interpret the archeology of the Upper Current River Valley. Since visitors are already visiting this archeological site, Round Spring offers a significant opportunity for public education and interpretation of the archeology of the Upper Current River Valley.



## REFERENCES CITED

- Banks, Alan  
1978 *Indians of the Upper Current River*. Privately Published.
- Bray Robert T.  
1964 Report on Excavation of Indian Skeleton, Round Springs State Park. Manuscript, on file Archaeological Survey of Missouri, Columbia.
- Carrell, Toni L., J. Alan May, and Ervan G. Garrison  
1980 National Reservoir Inundation Study Research at Round Spring and Alley Spring, Ozark National Scenic Riverways, Missouri. Manuscript on file, United States Department of the Interior, National Park Service, Southwest Cultural Resources Center, Sante Fe.
- Chance, David H., and Jennifer V. Chance  
1976 *Kanaka Village/ Vancouver Barracks, 1974*. Reports in Highway Archaeology, No. 3. Office of Public Archeology, University of Washington, Seattle.
- Chapman, Carl H.  
1975 *The Archaeology of Missouri, I*. University of Missouri Press, Columbia.
- 1980 *The Archaeology of Missouri, II*. University of Missouri Press, Columbia.
- Garrison, Ervan G., V. Ann Tippitt, Ward F. Weakly, and John Graham  
1976 Archaeological Investigations of the Ozark National Scenic Riverways Park. Manuscript on file, American Archaeology Division, Department of Anthropology, University of Missouri, Columbia.
- Goodyear, Albert C.  
1974 *The Brand Site: A Techno-functional Study of a Dalton Site in Northeast Arkansas*. Arkansas Archeological Survey. Research Series, No. 7. Fayetteville.
- Haslag, Leonard  
1959 Recent Archaeological Discoveries - Missouri State Parks. *Missouri Archaeological Society Newsletter* 132: 7-8.

- Henning, Dale R.  
 1966 Letter report to Mr. Lee Fine, Director of Parks, Missouri State Parks Board. On file, Missouri Department of Natural Resources, Jefferson City.
- Lewis, Thomas M. N. and Madeline Kneberg  
 1961 *Eva: An Archaic Site*. University of Tennessee Press, Knoxville.
- Lynott, Mark J.  
 1989 *An Archeological Evaluation of the Gooseneck and Owls Bend Sites, Ozark National Scenic Riverways, Southeast Missouri*. Midwest Archeological Center, Occasional Studies in Anthropology, No. 23. Lincoln.
- Lynott, Mark J., Susan M. Monk, and James E. Price  
 1984 The Owls Bend Site, 23SH10: An Emergent Mississippian Occupation in the Eastern Ozarks. *Missouri Archaeological Quarterly* 1(1): 12-14, 20.
- Lynott, Mark J., and James E. Price  
 1989 Shawnee Creek, An Eleventh Century, Emergent Mississippian Occupation in the Upper Current River Valley, Southeast Missouri. Manuscript, on file, Midwest Archeological Center, National Park Service, Lincoln.
- McMillan, R. Bruce  
 1965 Gasconade Prehistory: A Survey and Evaluation of the Archaeological Resources. *Missouri Archaeologist* 27: 3-4.
- Moir, Randall W.  
 1982 Windows to Our Past: A Chronological Scheme for the Thickness of Pane Fragments From 1635 - 1982. Manuscript, on file, Department of Anthropology, Southern Methodist University.
- Monk, Susan M., and Therese C. Ryder  
 1982 Unmodified and Modified Vertebrate Remains Recovered from the Lepold, Round Spring and Limekiln Sites. Manuscript, Midwest Archeological Center, Lincoln.
- Morse, Dan F., and Phyllis A. Morse  
 1983 *Archaeology of the Central Mississippi Valley*. Academic Press, New York.

- Nelson, Lee H.  
1968 Nail chronology as an aid to dating old buildings. American Association for State and Local History, *Technical Leaflet* 48, Nashville.
- Price, Cynthia R.  
1979 *19th Century Ceramics in the Eastern Border Region*. Monograph Series, Number 1, Center for Archaeological Research, Southwest Missouri State University, Springfield.
- Price, James E.  
1986 Tchula period occupation along the Ozark Border in Southeast Missouri. In, *Early Woodland Archaeology*, edited by Kenneth B. Farnsworth and Thomas E. Emerson, p. 535-545. Center for American Archeology, Kampsville Seminars in Archeology No. 2, Kampsville.
- 1990 Bowin' an' Spikin' in th' Jillikins. *The Gristmill* 58: 8-11.
- Price, James E. and Cynthia R. Price  
1986 Archaeological Investigations in the Ozark National Scenic Riverways, 1984-1985. Center for Archaeological Research, Project No. CAR-640, Southwest Missouri State University, Springfield.
- Price, James E., Cynthia R. Price, and Roger T. Saucier  
1987 Archaeological Investigations in the Ozark National Scenic Riverways, 1984-1986. Manuscript on file, Center for Archaeological Research, Southwest Missouri State University.
- Roenke, Karl G.  
1978 Flat Glass: Its uses as a dating tool for Nineteenth Century sites in the Pacific Northwest and elsewhere. *Northwest Anthropological Research Notes*, Memoir 4, Vol. 12, (2, Part 2), Moscow, Idaho.
- Schoen, Christopher M.  
1985 Windows on the Plains: Flat Glass from the Nineteenth Century Plains Frontier. Masters thesis, Department of Anthropology, University of Nebraska - Lincoln.
- Vineyard, Jerry D. and Gerald L. Feder  
1974 *Springs of Missouri*. Missouri Geological Survey and Water Resources, Jefferson City.
- Williams, Charles P.  
1876 Industrial Report on Lead, Zinc, and Iron

together with Notes on  
Shannon County and Its  
Copper Deposits.  
Manuscript on file,  
Geological Survey of  
Missouri, Jefferson City.

Wyatt, R.  
1959 Round Springs Cultural  
Material. Manuscript on  
file, Archaeological  
Survey of Missouri,  
Columbia.



Table 1: Radiocarbon and Thermoluminescence Dates, 23SH19

Lab #	Age	Context and Comments
TX-4093	A.D. 1650 +/- 70	The date is from a sample of human bone from a Mississippian burial collected in 1948 with an associated shell tempered elbow pipe. This date seems too recent. Beta-3194 dates a sample of bone from the same burial.
TX--4094	A.D. 1240 +/- 150	The date is from a sample of human bone collected in 1959 by the University of Missouri-Columbia. The nature of the burial (extended, supine) indicated it was associated with the Mississippian culture.
Beta-3193	Modern	A charcoal sample collected along with human remains (TX-4094) in 1959 by the University of Missouri-Columbia.
Beta-3194	A.D. 1200 +/- 90	A sample of human bone collected in 1948 from same context as TX-4093. Sample accurately dates Mississippian interments at Round Spring.
WU-TL-112e	A.D. 780 +/- 140	A limestone tempered body sherd from Test Unit 9, 30 - 40 cm below surface.
WU-TL-112f	A.D. 810 +/- 160	A shell tempered body sherd from Test Unit 3, 35 cm below surface.
WU-TL-112g	A.D. 890 +/- 140	A shell tempered body sherd from Test Unit 9, 40 - 50 cm below surface.

- WU-TL-112h A.D. 1070 +/-100 A limestone tempered body sherd from Test Unit 8, 60 - 70 cm below surface.
- WU-TL-112i A.D. 700 +/- 200 A limestone tempered body sherd from Test Unit 8, 70 - 80 cm below surface.
- WU-TL-112j A.D. 700 +/- 300 A limestone tempered body sherd from Test Unit 8, 50 - 60 cm below surface.

Table 2: Provenience of prehistoric artifacts collected in 1981

Test Unit	1	2	3	4	5	6	7	8	9	ST*	Total
flake	51	62	20	29	165	181	251	87	122	162	1131
proximal flake	22	44	25	24	153	156	148	14	84	129	799
non-diagnostic shatter	107	141	329	27	699	920	729	315	285	581	4133
core	2		1		1	5	4		1	1	15
projectile point	3	1			1	1	3		8	3	20
biface	4		1	2	13	9	6	2	5	12	54
uniface	5	4	1	1	24	7	4		8	7	61
ceramic	19	2	4		2	1	5	28	23		84

ST\* = shovel tests

Table 3: Vertebrate Faunal Remains from the 1981 test excavations

Taxa	< grade 3	> grade 3	Total no	% Total
<b>FISH</b>				
<u>Amia calva</u> (bowfin)	1	0	1	0.8
Catostomidae (suckers)	5	20	25	20.3
<u>Moxostoma</u> sp. (redhorse)	2		2	1.6
<u>Ictalurus</u> sp. (catfish, bullheads)	7	1	8	6.5
Serranidae (bass)	3		3	2.4
Perdididae (perch, walleye)	7	9	16	13.0
Misc. fish	11		11	8.9
<b>REPTILE</b>				
Emydinae (box/water turtle)	1		1	0.8
<u>Terrapene</u> sp. (box turtle)	2	1	3	2.4
<u>Terrapene carolina</u> (three-toed/ Carolina box turtle)	2		2	1.6
<u>Terapene ornata</u> (ornate box turtle)	1		1	0.8
<u>Chrysemys</u> sp. (painted turtle)	1		1	0.8
<b>AMPHIBIAN</b>				
<u>Rana</u> sp. (frog)	2		2	1.6

Table 3: Vertebrate Faunal Remains (continued)

BIRD

<u>Goose</u> sp. (goose)	1		1	0.8
<u>Melagris gallopavo</u> (turkey)	1		1	0.8

MAMMALS

<u>Sciurus</u> sp. (squirrel)	4	1	5	4.1
<u>Geomys bursarius</u> (Plains pocket gopher)	2	1	3	2.4
Cricetidae (New World rat)	2		2	1.6
<u>Sigmodon</u> sp. (Cotton rat)	1		1	0.8
<u>Sylvilagus floridanus</u> (eastern cottontail)		1	1	0.8
<u>Ondatra zibethicus</u> (muskrat)	1		1	0.8
<u>Canis</u> spp. (dog, coyote, wolf)	5		5	4.1
<u>Vulpus</u> sp. (fox)	2		2	1.6
<u>Sus scrofa</u> (domestic pig)	1		1	0.8
<u>Odocoileus virginianus</u> (white-tailed deer)	24		24	19.5
TOTAL	89	34	123	

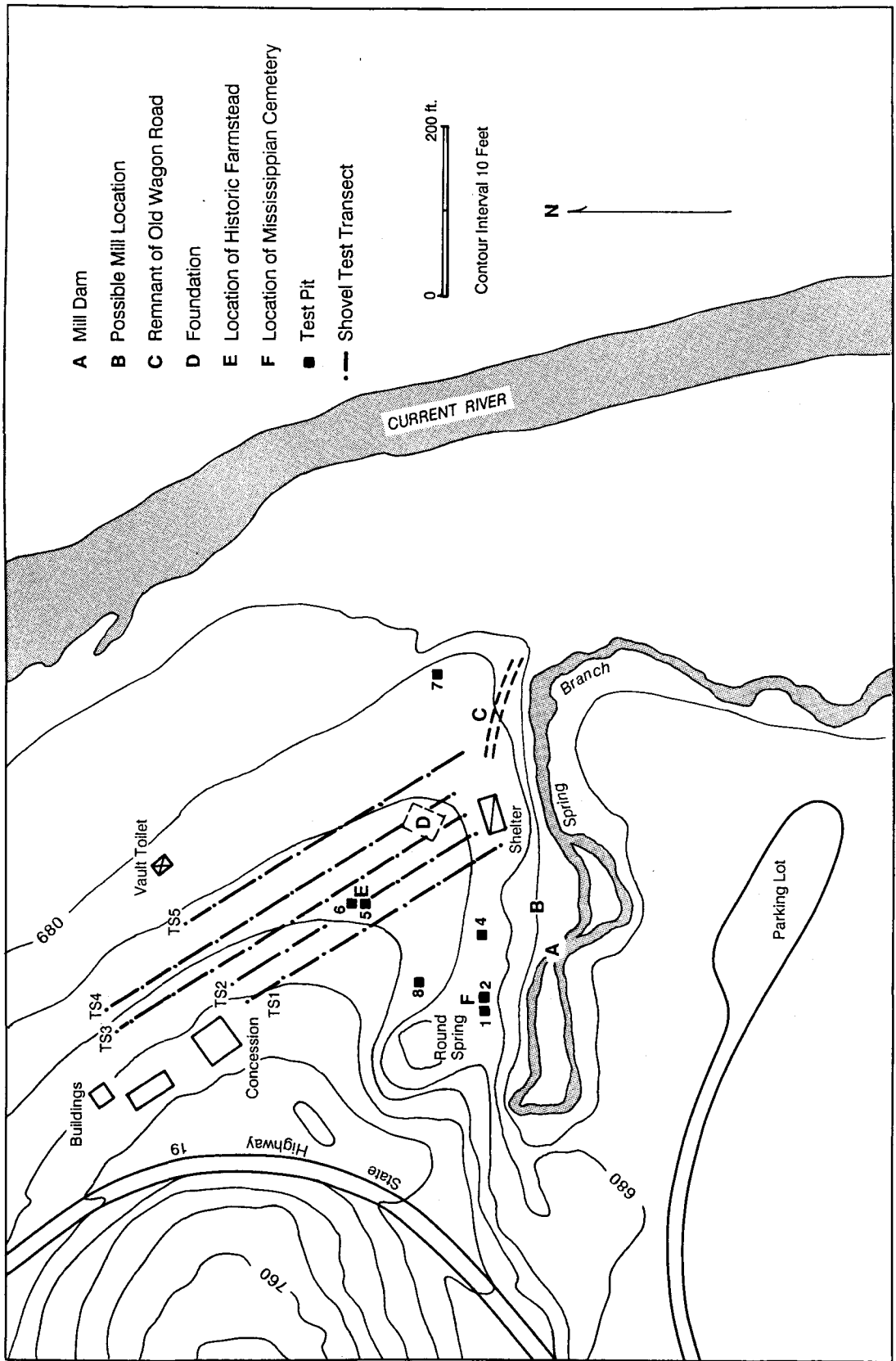


Figure 1. Location of 1981 excavation units, 23SH19



Figure 2. Location of archeological test units on south side of Round Spring

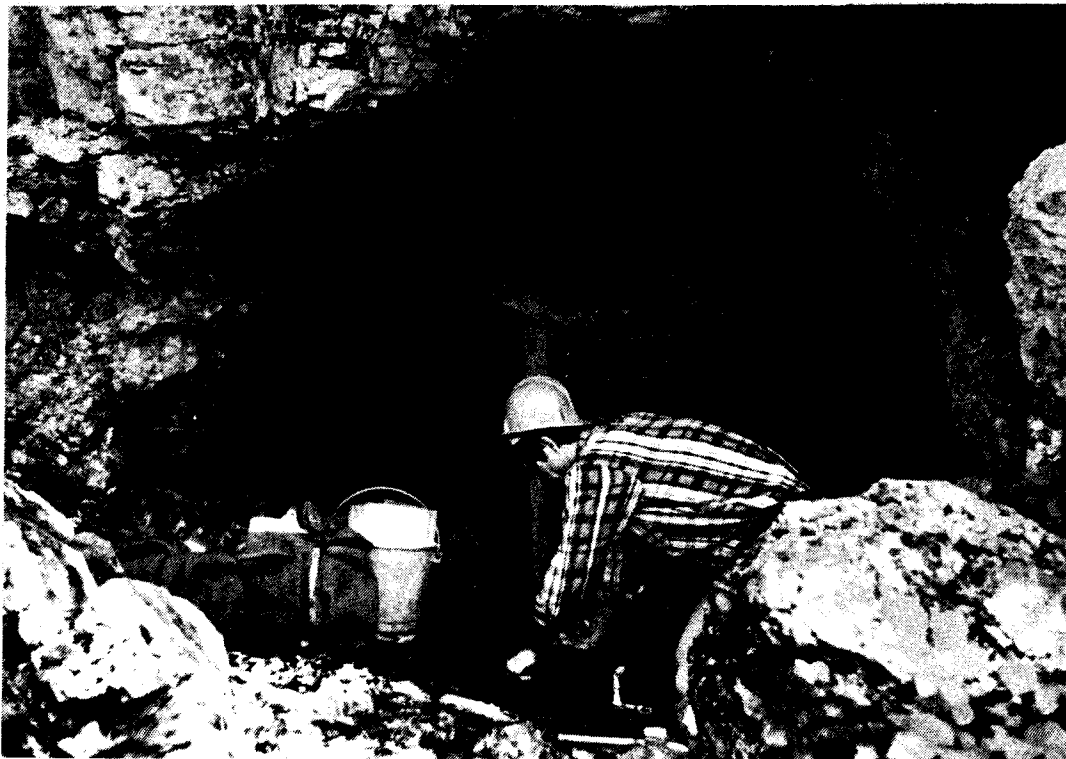


Figure 3. Test excavations in small rockshelter within the Round Spring sinkhole



Figure 4. Test units 5 and 6 revealed the remains of an early nineteenth century farmstead

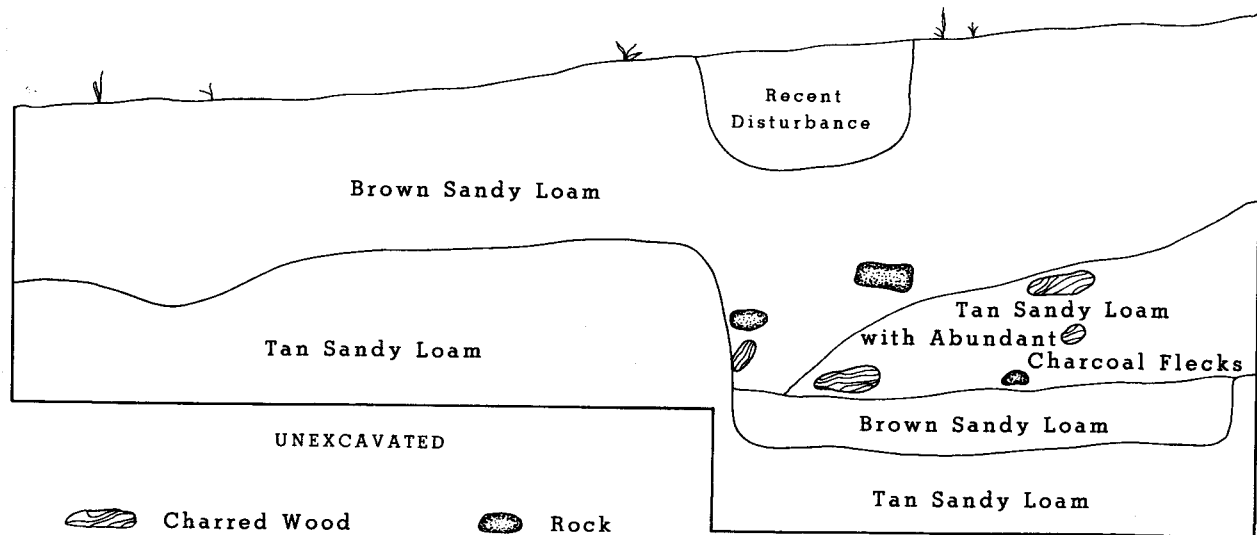


Figure 5. Profile of historic feature in Test Unit 7, 1981



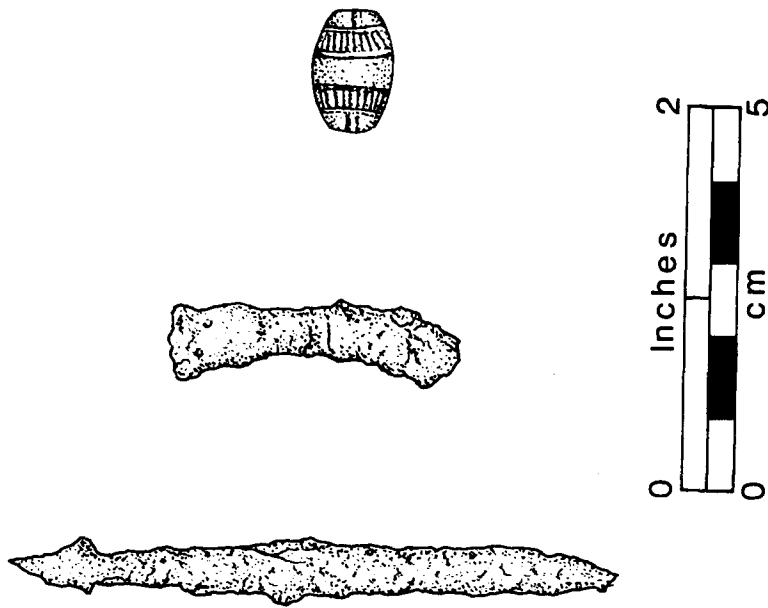
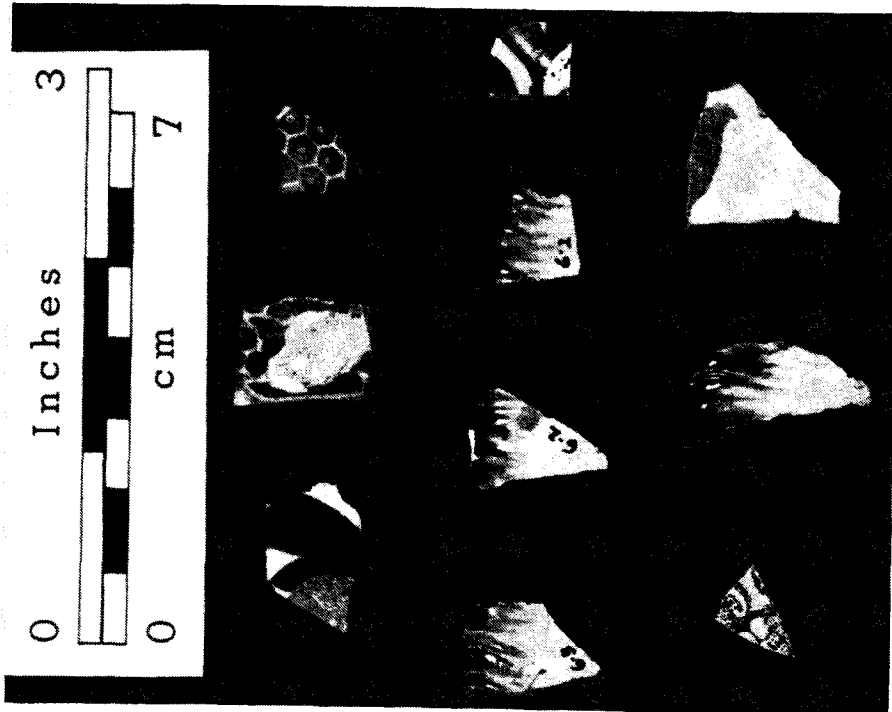


Figure 6. Selected historic artifacts

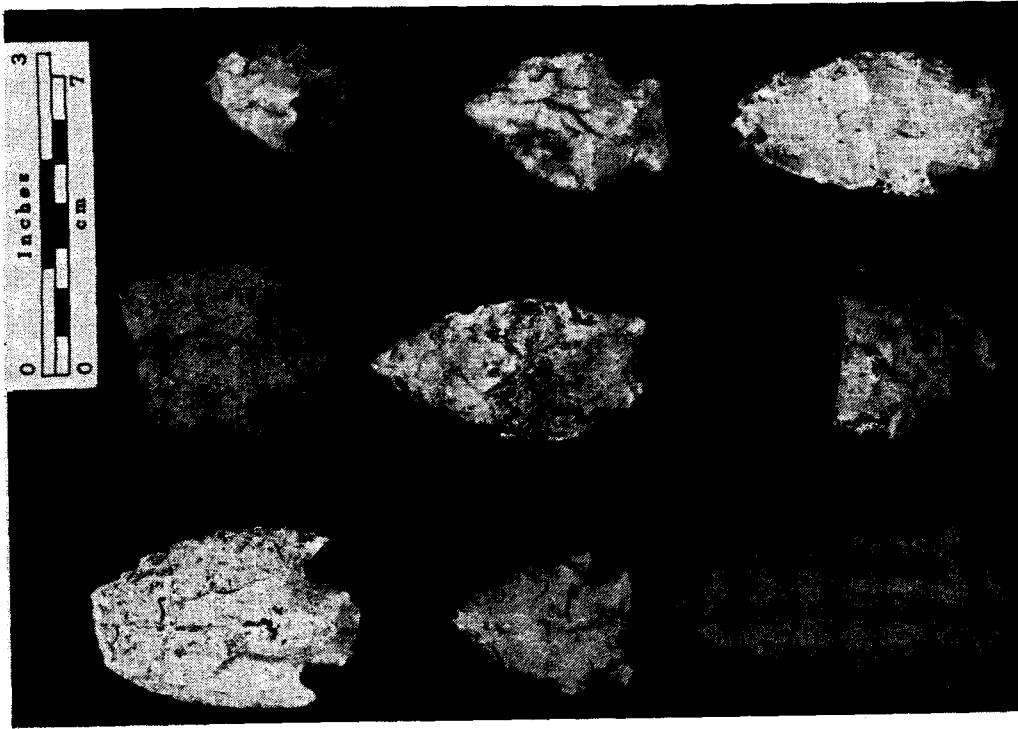


Figure 8. Selected projectile points

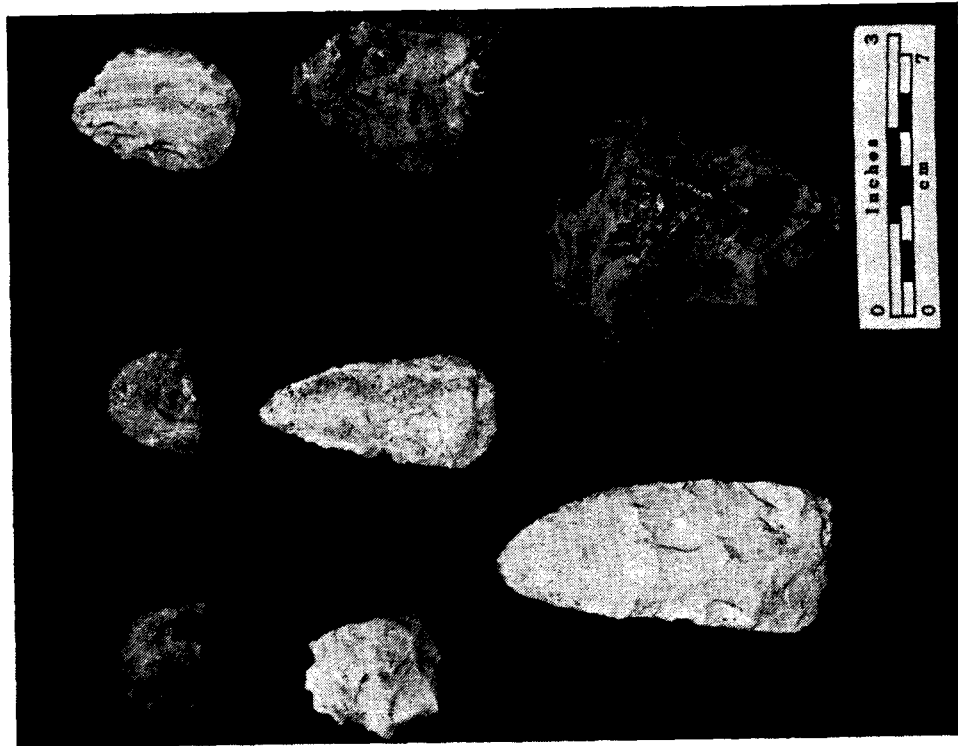


Figure 7. Selected prehistoric chipped stone tools

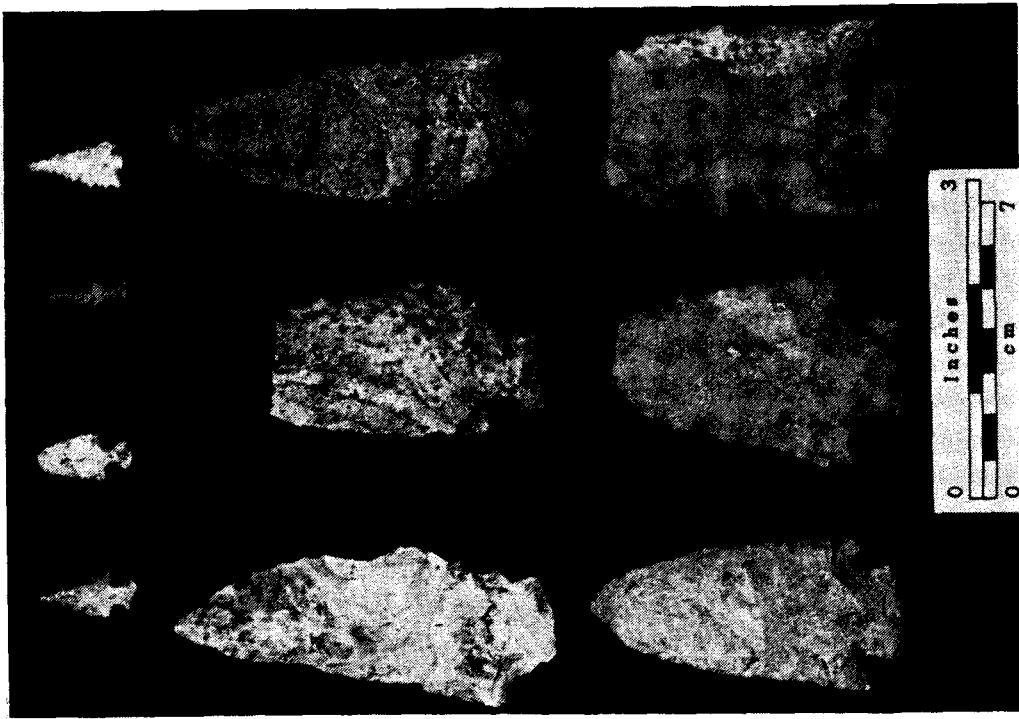


Figure 9. Selected projectile points

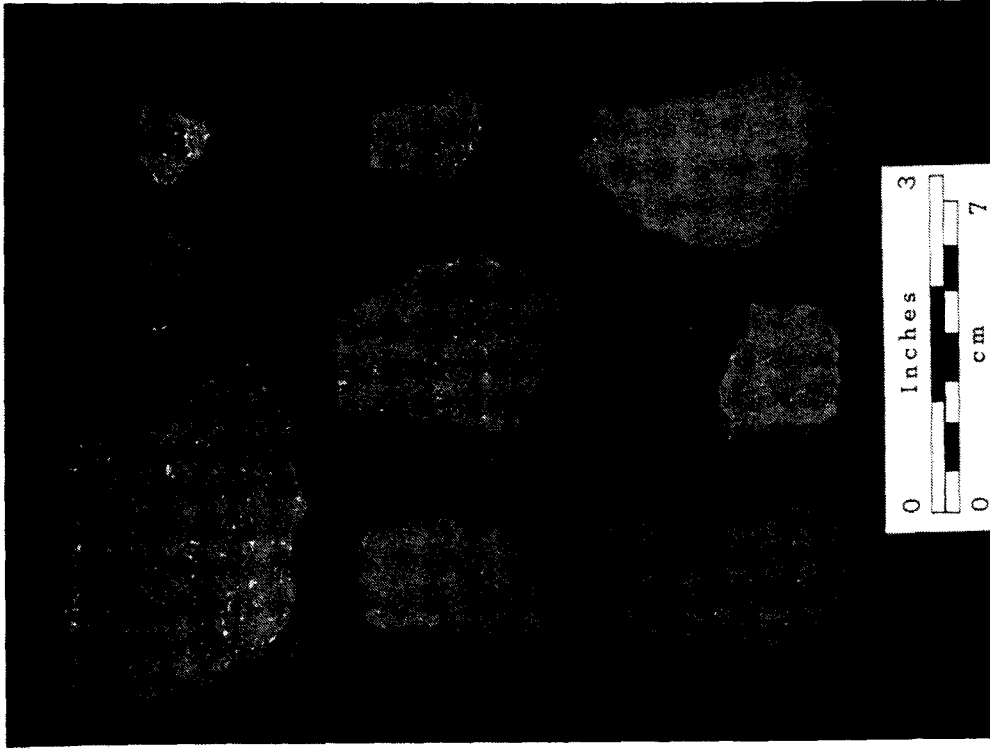


Figure 10. Selected prehistoric ceramics

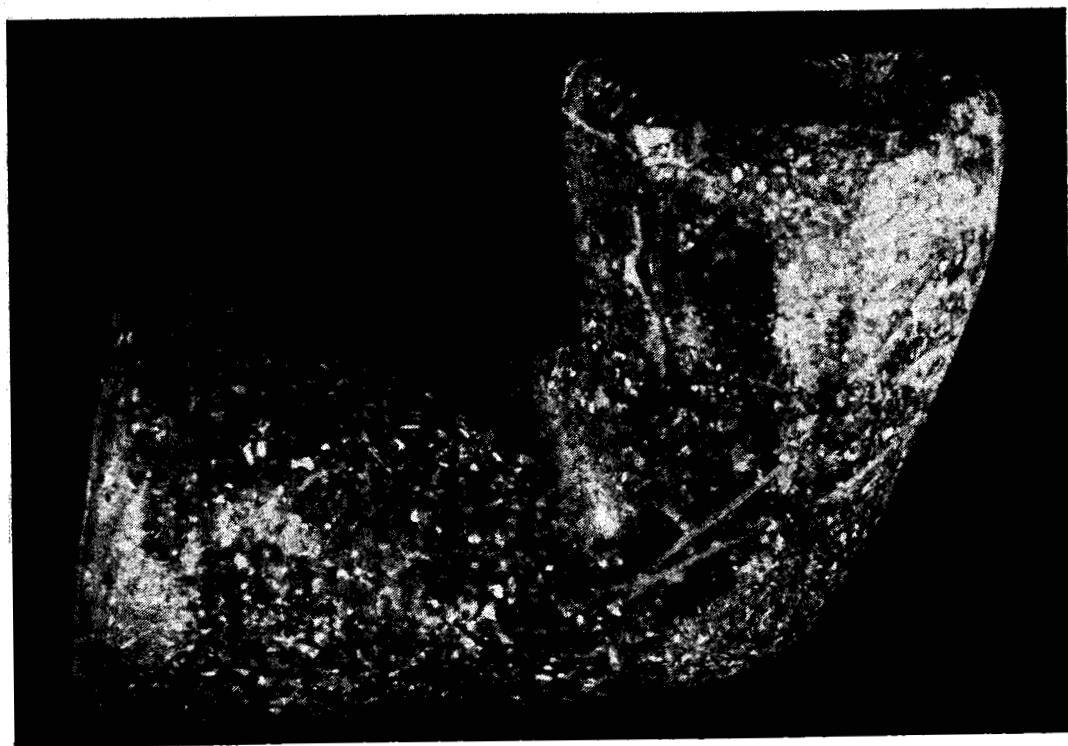
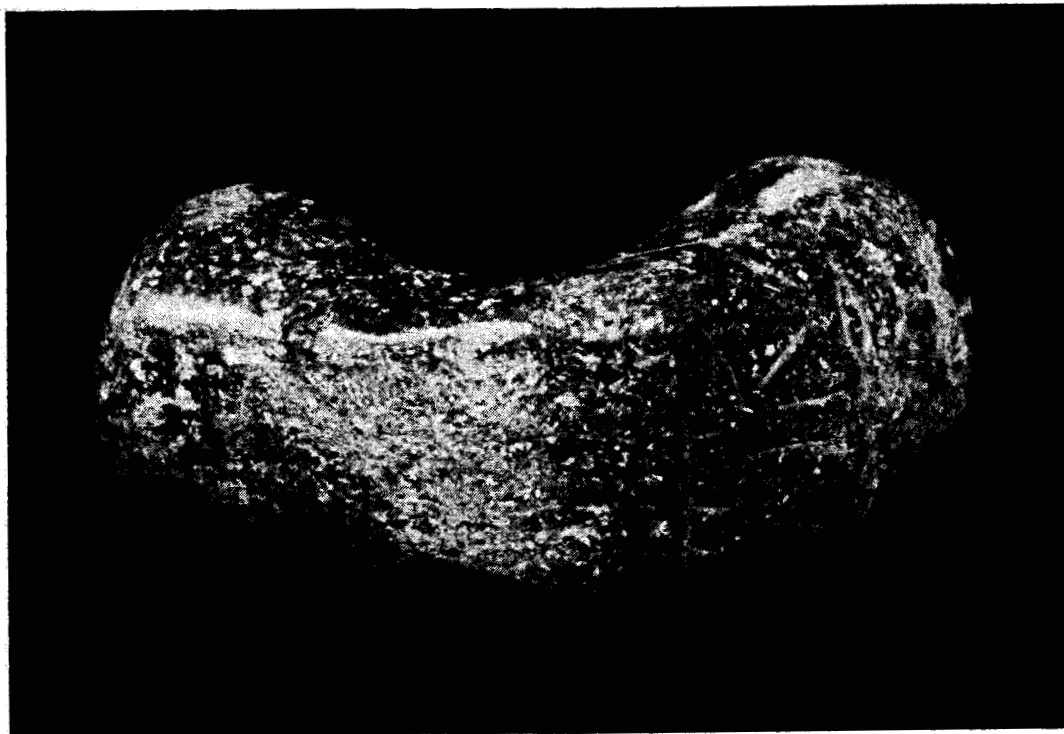


Figure 11. Prehistoric shell tempered pipe