ARCHEOLOGICAL SURVEY OF 13 ACRES AND TESTING IN THE BOXLEY AREA OF THE BUFFALO NATIONAL RIVER NEWTON COUNTY, ARKANSAS

by

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ABSTRACT

An Archeological Survey of a 13 acre parcel within the Boxley Area of the Buffalo National River, Newton County, Arkansas, was conducted by Mid-Continental Research Associates for the National Park Service. The parcel is scheduled for sale back to the previous landowners who intend to build a house and road on one portion of the tract. One prehistoric site 3NW534 was located and investigated during the project through controlled shovel tests and one 1m x 1m test unit. The site functioned as a campsite probably used repetitively during the Middle to Late Archaic Periods. Results of the subsurface testing program showed that the site was shallow, did not contain intact deposits, had a low feature potential, and had been disturbed by agricultural practices. For these reasons, the site by itself is not considered potentially eligible to the National Register. However, the site is one member of an important collection of sites located along the Buffalo River, and it does contain information concerning settlement pattern studies. Since the National Park Service requested specific recommendations concerning the house and road construction relative to the archeological site, MCRA recommends that if feasible and prudent, the house be constructed on top of the ridge south of the pond and the road follow the north side of the ridgespur thereby avoiding the main concentration of prehistoric material on the south facing edge. In addition, if land is cleared on the south edge of the ridge, then at least one surface collection by an archealgist representing the National Park Service should be conducted and the data placed on file with the state repository for use by professionals conducting research in the region.

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MANAGEMENT SUMMARY

by

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ARCHEOLOGICAL SURVEY AND TESTING IN THE BOXLEY VALLEY OF THE BUFFALO NATIONAL RIVER NEWTON COUNTY, ARKANSAS

INTRODUCTION

An archeological survey of 13 acres and testing of one prehistoric site located within the Boxley Valley of the Buffalo National River was accomplished by Mid-Continental Research Associates for the National Park Service. The purpose of the project was to conduct an intensive survey of the 13 acres, to test a known lithic site and any additional sites found in terms of their potential eligibility for inclusion in the National Register of Historic Places. The tract is scheduled for sale back to the previous owners who have expressed intent to build a house and access road on the ridge which is known to contain the archeological site. Assistant Park Superintendent Jim Liles and Park Ranger Mark Mosley requested MCRA's specific recommendations concerning the proper management of the archeological resources in relation to the proposed construction of the house and road.

WORK EXECUTED, RESULTS, AND RECOMMENDATIONS

The fieldwork was conducted by Carol S. Spears and S. Ishmael Williams on September 16-17, 1985. The methods utilized to accomplish the intensive survey involved shovel testing every 30 meters (m) on the tops of the two ridgespurs and by walking

transects 30 m apart down the slopes and in the drainages in order to examine the rugged terrain for bluffshelters, springs, and/or historic features. In addition to the tests on transects, exposed areas such as roads, trails, or overturned trees were examined for cultural material. Only the one previously known site was located and further documented. The site (3NW534) consists of a lithic scatter which covers the top of the ridge-spur and portions of the slope.

Subsurface investigations included 5 controlled columns or shovel tests and one 1m x 1m test unit. These units were positioned on the slopes and top of the ridges allowing for examination of cultural deposits in all areas of the site. The controlled columns involved the excavation of a 50 cm diameter unit in 10 cm levels with all soil dry screened through 1/4 inch mesh. The test unit was positioned in the center of the top of the ridge in a flat area just south of the pond. This test unit was also excavated in 10 cm levels and all soil was dry screened through 1/4 inch mesh.

The subsurface tests resulted in the collection of artifacts, mostly interior flakes in all but one controlled column. Artifact densities were fairly high in the positive shovel tests ranging from 10-39 artifacts each. Deposits, however, were relatively shallow with almost all of the material in the top 10 cm and soils were extremely gravelly and contained residual cherts. For example, in Test Unit #1, 20 flakes were recovered in the upper 10 cm and only five flakes in the 10-20 cm level. All five of these were less than one centimeter in diameter. The highest density of artifacts were collected in the subsurface tests on the south edge of the ridge and slightly deeper deposits were noted on the slopes. The latter may be accounted for by erosion downslope when the area was cleared and utilized for agricultural purposes (i.e. pasture). The former patterning is considered to represent the actual prehistoric utilization of the landform, in that the south side is directly above a perennial spring which is still utilized as a water source today. The southern exposure would have been warm in winter and the location afforded a dry and advantageous view (in terms of protection and observing wildlife/game) of the Buffalo River and its floodplain.

The artifacts collected at the site consisted of lithics including small interior flakes and shatter, core fragments, hammerstones, retouched/utilized flakes, a flake scraper, bifacial thinning flakes, biface fragments, a knife and a projectile point. Identification of the projectile point and knife types date them to the Middle and Late Archaic Periods. The kinds of artifacts present reflect activities such as tool manufacturing, use, and resharpening. The relatively high density of material probably is indicative of a campsite utilized upon several occasions.

In terms of the National Register criteria, the site is not considered potentially eligible for nomination in and by itself for the following reasons: (1) the context and integrity of the

site has already been altered due to agricultural practices such as land clearing for pasture and the construction of a large pond on the top center of the ridge, (2) the cultural deposits are relatively shallow and soil conditions are so gravelly that there is little chance for intact levels and there is little to no feature potential at the site.

However, since the site as a member of a collection of sites could contribute information important to the understanding of settlement systems in the area, and since the National Park Service is concerned with the proper management of all cultural resources, the following recommendations are made concerning the specific construction of a house and road on the site. MCRA recommends that if feasible and prudent the best portion of the site be protected by building: (1) the road access on the north side of ridgespur and not on the south edge of the terrace where the artifact density is highest and soil deeper, and (2) the house on the top center of the ridge just south of the pond where cultural deposits were found to be shallower and artifact densities lower. MCRA further recommends that if land altering activities are planned on the south edge of the ridgespur and if surface visibility is greatly increased, then surface collections should be undertaken at least once by a qualified archeologist representing the National Park Service. The information collected should be placed on file with the state repository for use by professional archeologists conducting research in the region.

Archeological Survey of 13 Acres and Testing in the Boxley Valley of the Buffalo National River Newton County, Arkansas

INTRODUCTION

An archeological survey of 13 acres and testing of one prehistoric site located within the Boxley Valley of the Buffalo National River was accomplished by Mid-Continental Research Associates for the National Park Service. The purpose of the project was to conduct an intensive survey of the 13 acres, and to test a known lithic site and any additional sites found in terms of their potential eligibility for inclusion in the National Register of Historic Places. The tract is scheduled for sale back to the previous owners who have expressed intent to build a house and access road on the ridge which is known to contain the archeological site. National Park Service personnel requested MCRA's recommendations regarding site management and the proposed construction. A map of the project area surveyed is shown in Figure 1.

EFFECTIVE ENVIRONMENT

The project area is in the Boston Mountains section of the Ozark plateau as shown in Figure 2. This is one of the typically rugged parts in the Ozarks with several hundred feet of local relief being common. This geologic deposit is composed of predominantly flat bedded limestones, sandstone and siltstones which have important inclusions of chert, lead and other minerals. The terrain was formed by the differential erosion of these formations. Today it is composed of remnant ridges, knobs, and incised valleys. Between these extremes there are steep slopes (20-90%) which often cover more than 50% of the surface area (Brown et al 1980; Sabo et al 1982). The floodplains tend to be narrow and constricted except in major river valleys such as the Buffalo River where they are a mile or more wide. The vegetation is typical of the Temperate Deciduous Forest biome (Shelford 1963) with upland hardwood forests and lowland beach hickory forests (Kuchler 1964). These plant communities support a wide range of fauna. There is evidence that the terrain has changed considerably over the past 15,000 years (King 1980), and today the area is covered with upland forests interspersed with pastures which were formerly cultivated. There has also been considerable cultural change in this and the adjacent regions which are slowly becoming rather well known through extensive archeological investigations (Raab et al 1982; Sabo et al 1982; Morse and Morse 1983, Chapman 1975, 1980; Price and Price 1981).

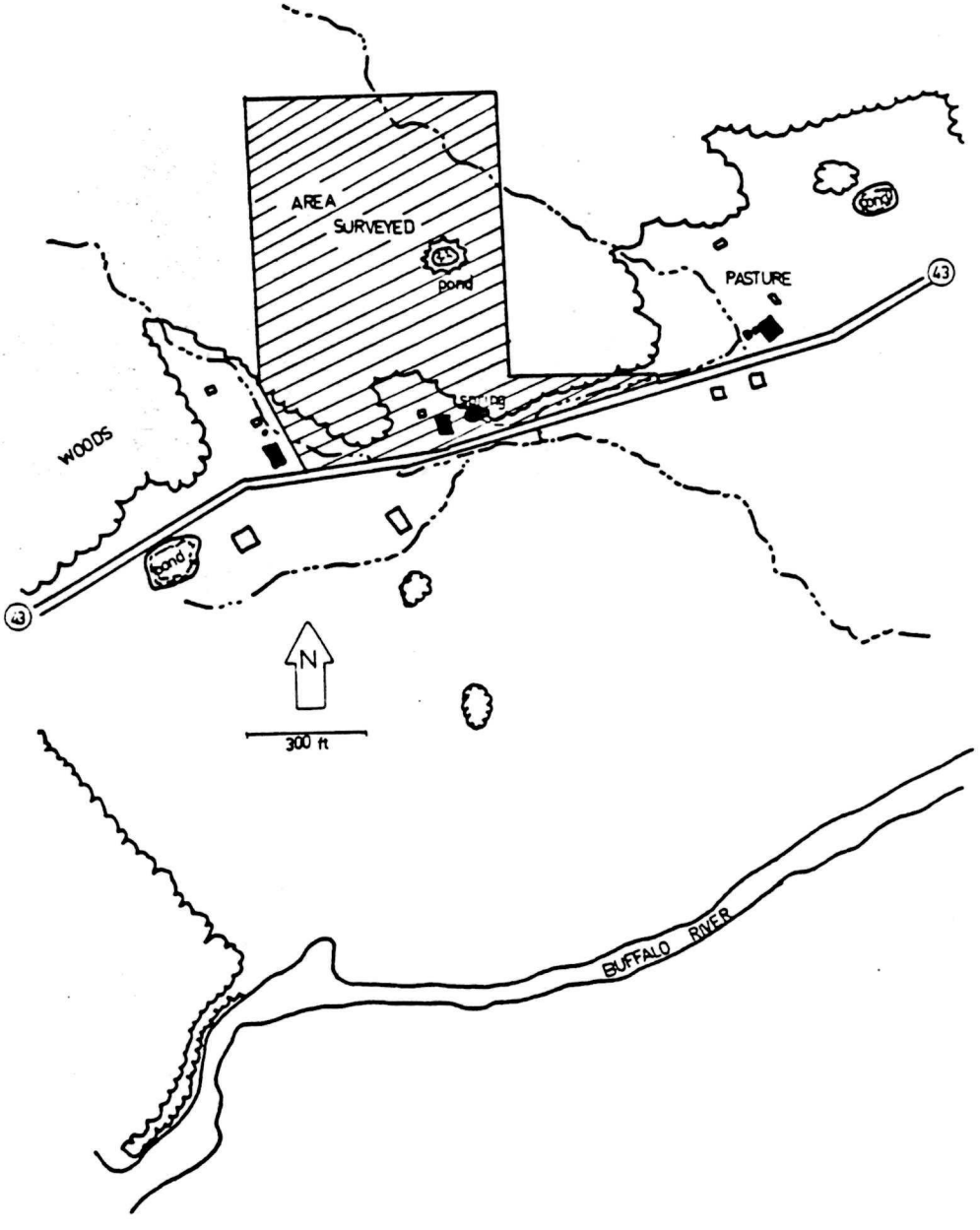


Figure 1. Map of Area Surveyed.

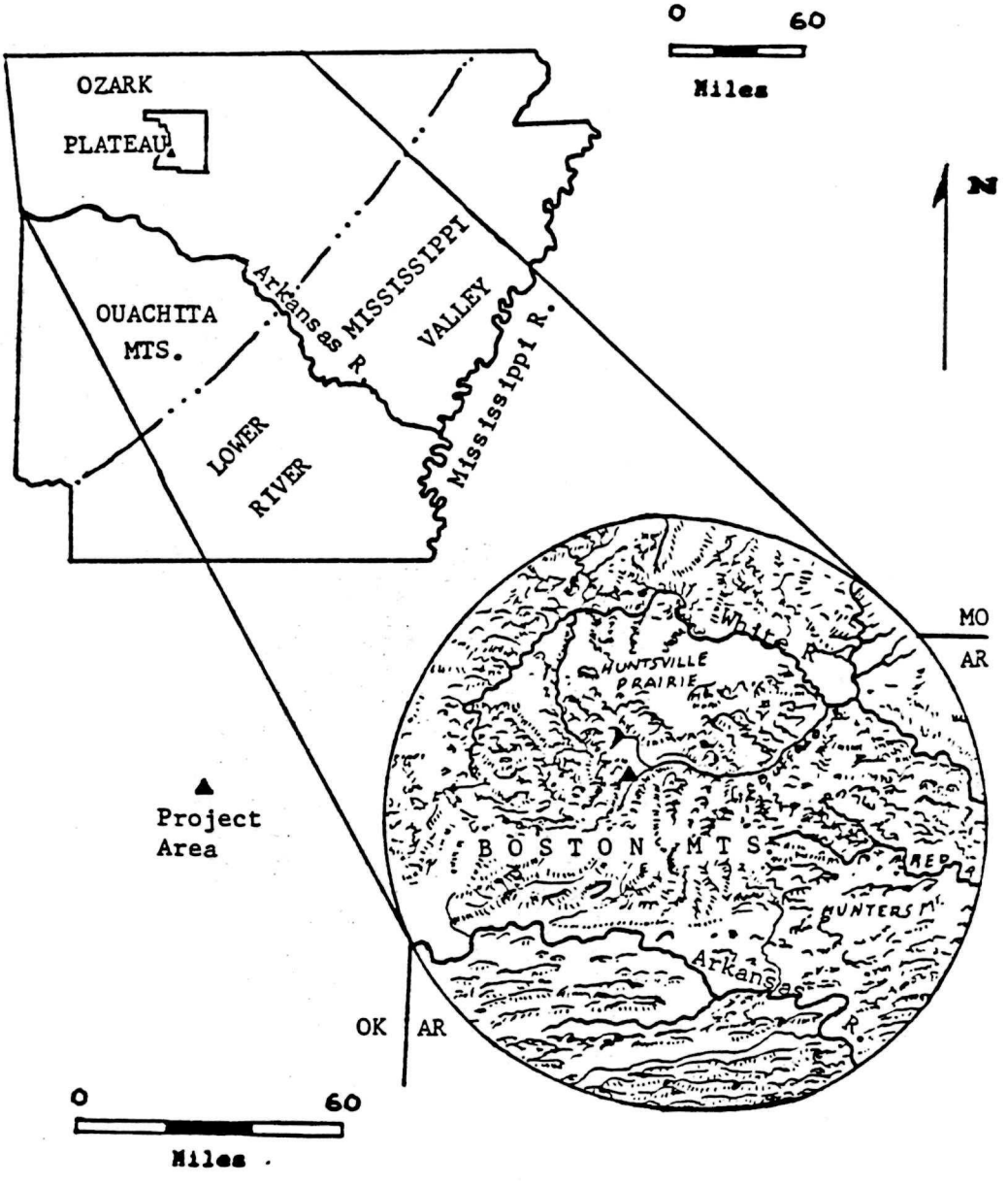


Figure 2. Project Location.

PREVIOUS RESEARCH IN THE OZARKS

The archeology of the Ozark Mountains is sketched out in broad patterns because of nearly a century of investigations primarily conducted in the dry bluff shelters present in the region. These shelters contained perishable artifacts rarely preserved in the eastern United States which were excavated by museums early in the 20th century (Dellinger 1932; Dellinger and Dickenson 1942; Harrington 1924, 1960; Peabody and Moorehead 1904). These excavations formed the corpus of data which has been slowly analyzed over the past 50 years and integrated into more recent work (eg. Fritz 1984; Cleland 1965; Gilmore 1931; Payne and Jones 1962; Scholtz 1975, Trubowitz 1980).

Beginning in the 1950's a rather large number of Federal construction projects, especially reservoirs, have resulted in a considerable number of archeological projects in and around the Ozark Mountain region. In the White River Basin major work has been conducted in connection with the Table Rock Reservoir (Chapman et al 1951, 1960a-e; Marshall 1956, 1958. 1962, 1963a-d; Marshall et al 1953; Ware 1963, Wood 1958), Bull Shoals Reservoir (Howard 1951), and Beaver Reservoir (Scholtz 1967; Thomas 1969; Thomas and Davis 1966; Wood 1963). These works, along with extensive important work in several adjacent regions (cf.Ahler 1971; Baerris 1951, 1953; Cobb 1976; Kay 1980; Spears, Myer and Davis 1975; Dickson 1982; Price and Price 1978) have recently resulted in several major summaries and synthesis of the regional prehistory (Chapman 1975, 1980, Chapman and Chapman 1983; Sabo et al 1982; Wyckoff 1974) and cultural historic adaptations (Price and Price 1981; Blassie 1968; Rafferty 1980). Many other smaller scale surveys and excavations have been carried out in the region. These are not renumerated here (see: Chapman 1980; Raab et al 1982; Sabo et al 1982; Cottier et al 1973, and AAB 1984 for extensive references to most of this research).

Recent research in the Buffalo River region since it was designated a National River has included the inventory and assessment by Wolfman (1974) and many small survey and testing projects funded by the National Park Service. All of these projects have been conducted on a piecemeal basis in areas to be disturbed in public use areas such as campgrounds, boat ramps, trails, etc. Reports on file with the Office of State Archeologist for Newton County were quickly scanned, but no previous research was found to have been conducted within the project boundaries. The larger of the small studies nearest to the project area included a survey by Bradford (1979a) in Lost Valley and Steel Creek. Other projects in the county conducted for the National Park Service were the assessment and inventory by Wolfman (1979), a survey by Panowski (1977) of selected use areas, a survey of trails in the Ponca Area by Jones and Abernathy (1979), a survey of the Van Dever exchange tract by Klinger (1982), the testing of 3NW287 and other selected areas by Sierzchula (1981, 1984), and a survey by Bradford (1979b) of Pruitt and Tyler Bend. The Forest Service has funded the best overview of the Ozarks especially in the Ozark National Forest, portions of which lie in

Newton County (Sabo et al 1982). This overview contains the best up to date summary of the status of regional knowledge in the Arkansas Ozarks. In addition the Forest Service has conducted roads surveys (Keller 1981), and unit surveys (Kay 1983).

The overall knowledge of prehistoric sites in and around the Buffalo River then is fairly scant with the majority of research having been derived from bluff shelter sites (Dellinger 1932; Harrington 1960). In fact, Wolfman (1979) noted only a few open sites on terraces, hilltops, and slopes in his study. The majority of all sites recorded are Archaic (Wolfman 1979). Recent research on the gemorphology of floodplains in the Ozarks has indicated the presence of complicated terrace development and alluvial fills which were inhabited in the Early Archaic up to the Mississippian and Caddoan periods. Many of these sites lie protected and buried such as 3RA78 along Mud Creek (Lafferty et al 1985) and at 3BE332 a buried site on the Illinois River presently being tested for the Forest Service (Spears and Lafferty report in preparation 1985). Evidence of similar important intact sites along the Buffalo are the Mississippian features removed by Weaver and the Arkansas Archeological Survey from 3NW313 this past summer (reports in preparation 1985). This site is less than one mile from the project area. Further research including intensive systematic surveys and deep subsurface testing in the floodplain is needed before archeologists will have a clear understanding of the prehistory of the Buffalo River basin.

GENERAL CULTURAL HISTORY

The above and other work in adjacent regions has resulted in the definition of the broad pattern of cultural history and prehistory in the region, which is still sketchy with some investigators considering it "terra incognita" (Raab et al 1982:NW-4). There has been a great deal of research accomplished in the bluff shelters; however, few open sites have been excavated which has seriously constrained our understanding of settlement systems. Therefore while this may be a fairly well known region in certain respects, much more work needs to be accomplished before the basic contents and definitions of archeological units in space and time are adequate. Presently we have a few key diagnostic types associated with some cultural units; however, the range of the artifact assemblages variations, chronological and spatial boundaries are not defined, nor are the ranges of site types known for any of the defined units. The current state of our knowledge of these periods is briefly described below.

The Paleo-Indian period (10,000-8,500 B.C.) is known in the region from scattered projectile point finds over most of the area. These include Clovis, and Clovis-like points, Scottsbluff, and other Plano Tradition points from eight or ten sites (Sabo et al 1982:51-52). No intact sites have yet been identified from this period, and the basal deposits of the major bluff shelters thus far excavated have contained Dalton period assemblages.

Lancelote points are known from bluff shelters and high terraces (Sabo et al 1982:34) which may represent different kinds of activities or extractive sites as they have been shown to have been in other parts of the country (Wilmsen 1970). For the present, any Paleo-Indian site in the region is considered significant.

The Dalton period (8,500-7,500 B.C.) is fairly well known in the Ozarks with modern controlled excavations from Rogers, Albertson, Tom's Brook, and Breckenridge shelters (McMillian 1971, Kay 1980; Dickson 1982; Bartlett 1964; Wood 1963; Thomas 1969, Price and Kraker 1975). Adjacent areas have also produced some of the better known Dalton components and sites in the central continent, including Graham Cave (Logan 1952), Sloan site (Morse 1973) and the Brand site (Goodyear 1974). These and other more limited or specialized excavations and analyses have resulted in the identification of a number of important Dalton tools (ie. Dalton points with a number of resharpening stages, a distinctive adze, spokeshaves and several varieties of unifacial scrapers, stone abraders, bone awls and needles, mortars, grinding stones and pestals). At least three different site types have been excavated: the bluff shelters which were seasonal habitation sites, a butchering station (the Brand Site) and a cemetery (Sloan site). The latter two sites are in the lower Mississippi Valley in Northeast Arkansas. Presently the other part of the seasonal pattern which should be present in the Ozarks is not known, nor have any specialized activity sites been excavated. Dalton sites are known in a number of locations including high terrace sites.

The Early to Middle Archaic periods (7,500 - 3,000 B.C.) are also best known from bluff shelter excavations (Rogers, Jakie's, Calf Creek, Albertson, Breckenridge and Tom's Brook Shelters). During this long period a large number of different projectile point types were produced (ie. Rice Lobed, Big Sandy, White River Archaic, Hidden Valley, Searcy, Rice Lanceolate, Jakie Stemmed, and Johnson). The Tom's Brook culture is the best known of these and has been defined on the basis of excavations at the Tom's Brook site in the southern Ozarks (Bartlett 1963) and the Paw Paw site (30UC2) near Camden. This culture is defined by the presence of Johnson points, hafted endscrapers and notched net sinkers. All of the known sites are bluff shelters and lowland middens (the latter have been only excavated in the Coastal Plains); however the range of site types is still unknown. In summary, the Middle Archaic archeological units are still in their initial stages of definition. We are seriously limited in our understanding of the placement of the units with respect to each other both temporally and spatially. Very little is known of the settlement patterns, site types, subsistence, etc. There is also a chronological problem with the termination of what are currently thought of as the Middle Archaic manifestations and the Late Archaic period manifestations. Thus while we know considerably more than the first half of the archeological record the information on the Middle Archaic is very biased toward large bluff shelters.

The Late Archaic to Early Woodland (3,000 B.C. - A.D. 150) appears to be a continuing adaptation to the wetter conditions in the Ozarks following the dry Hypsithermal. This corresponds to the sub-Boreal climatic episode (Sabo et al 1982). The majority of lithic technologies appear to run without interruption through both these periods with the addition of ceramics. Major excavations related to these components have been conducted at Rogers, Breckenridge, and Albertson shelters and a number of open sites in southern Missouri. There is a comparatively large number of radiocarbon dates from these manifestations which closely date these occupations. Characteristic artifacts include Smith Basal Notched, Stone Square Stemmed, Table Rock Stemmed, Afton Corner Notched, Stone Corner Notched, Langtry, Kings Corner Notched, Pandale, Gary and Uvalde points (Sabo et al 1982:61-62). Other tools include triangular bifaces, manos, grinding basins, double bitted chipped siltstone axes, atlatl parts and a variety of tools carried over from the earlier periods such as scrapers, perforators, drills, knives and spokeshaves. Excavations at the Phillips Spring site has documented the presence of tropical cultigens (squash and gourd) by ~2,200 B.C. (Kay et al 1980). The assemblages recovered in the bluff shelters from this time period indicate that there was a change in the use from general occupation to specialized hunting/butchering stations (Sabo et al 1982:63). At present we have excavated components from the above bluff shelters, and a series of hearths and apparent living floors from Phillips Springs. There are some indications of increasing sedentariness in this period; however, the range of site types have not been defined nor do we have an understanding of the details of the relationship of these upland manifestations with their lowland counterparts in the Buffalo and Arkansas river valleys. Late Archaic artifacts are well known from the region with artifacts usually present on any large multicomponent site. Our understanding of this period in the Ozarks is limited to excavations from a few sites. At present we do not know the spatial limits of any phases (which have not been defined), nor do we have control over variation in site types and assemblages.

Middle to Late Woodland periods (A.D. 150- A.D. 850) was a period of change in the Ozarks. Excavations have recovered components at Albertson, Prall, Rogers, Tom's Brook, Falling Waters Falls and Breckenridge shelters (Sabo et al 1982:64), and at least two settlement pattern studies conducted (Hoffman et al 1977; Trubowitz 1980). There is evidence of participation in the "Hopewell Interaction Sphere" (dentate and zone stamped pottery, exotic shell; Sabo et al 1982:64-67) and horticulture is increasing (corn, hoe chips and farmsteads). There is some mound (Hoffman et al 1977) and cairn construction (Scholtz 1963; Marshall 1956, 1963; Nicquette, personal communication), indicating greater social complexity. Typical artifacts include Snyder, Steuben, Dickson and Waubesa projectile points, and Honey Creek Plain, Cooper Zoned Stamped, and Ozark Zoned ceramics. Most of the dates for the Middle Woodland period comes from the adjoining areas of the Missouri Valley (Johnson and Johnson 1975, Kay and Johnson 1977; Chapman 1980) and are consistently between A.D. 300-700.

Albertson Shelter has produced one terminal Late Woodland date of A. D. 850. These dates fit nicely with the latter Mississippian period dates which start at ca A. D. 850 (Sabo et al 1982:64-70). There is some evidence of architecture in this period as well as mound center construction. There are a number of large open sites which have not been excavated. There appears, therefore, to be a rather large bias in what we know about this important period again toward the large bluff shelters. There is still a great deal which is not understood about the cultural sequence and changes which came about during this important period. The Late Woodland in this area has been suggested as the underlaying precursor to the Mississippian which came crashing into the area with the introduction (Invention ?; cf. Price and Price 1981) of shell tempered pottery and the introduction of the bow and arrow around A. D. 850.

The Mississippi period (A.D. 850-1650) is known from the Ozarks from a fairly large number of excavations. These include dated assemblages from the Huntsville mounds, Albertson, Bonke, Loftin, Vaughn, and Jakie shelters (Kay 1982). There are at least two cultural units defined for the Ozarks and there is continuing discussion about the identity of these and their connection. These are the Caddo mound centers in Northwest Arkansas and portions of the adjoining states (cf. Sabo et al 1982:67-75) and the stratigraphically later but just as controversial Neosho Phase (Freeman 1962; Chapman 1974; Sabo et al 1982:67-75).

The Caddo Tradition is divided into phases dating from about A.D. 1000 until the 16th century in the Arkansas valley. Characteristic artifacts include many types of plain, engraved, and burnished shell tempered pottery which are quite spectacular (Woodward Plain, LeFlore Plain, Parris Plain, Poteau Plain, Bell Plain, Mississippi Plain, Woodward Applique, Crockett Curvilinear and Davis Plain), several types of small arrow points (types include Alba, Agee, Haskill, Hayes, Homan, Keota, Massard, Morris, Reed, Salisaw, and Scallorn) and polished stone celts. There is evidence for cultural continuity with the preceding Fourche Maline, though the settlement patterns seem rather different. The Caddo habitation sites are small hamlets and farmsteads. Ceremonial centers contain single or multiple mounds. In the Ozark Mountains we have evidence for habitation sites, mound centers, single mound sites, and bluff shelters which were apparently used as hunting camps. More specialized sites such as quarries, butchering stations and mortuaries are suspected. Many more sites have been investigated in the Red and Arkansas valleys, which has resulted in a rather large literature on Caddoan archeology (cf. Schambach and Early 1982, Brown 1966, 1971; Webb and Gregory 1978; Wyckoff 1974). The Caddoan occupation extends into the historic period and is one of the cultures known in the most detail ethnohistorically (cf. Swanton 1942) in the eastern United States. Therefore, while much of our knowledge is rudimentary in the Ozark Mountains, it may be possible to use Caddoan data for more abstract research than is possible for the earlier manifestations, even with the deficiencies in our current knowledge.

The Neosho Phase position and interpretation is quite controversial. Wyckoff (1974) considers this a Caddoan manifestation while Chapman (1974, 1980) considers this the movement of the Osage Indians into this part of the Ozarks. Sabo's discussion (Sabo et al 1982:72-74) of the recent work at Bontke (Cobb 1976) and Albertson shelters goes along with the Caddoan interpretation. In short the nature and connection of these two manifestations are not well understood.

The Historic period begins in the early 19th century for the region. Until ca 1820 this area was owned by the Osage Indians who appear to have utilized it as a hunting reserve. It is probable that prior to this there were French trappers through parts of the region; however the principal Euro-American occupation did not begin until the 1820's. Settlers moved into the area from the East commonly up the White River from the southern Appalachians and overland along the National road to St. Louis and then down the Butterfield road which was opened into Northwest Arkansas by the 1830's (Rafferty 1980; Stewart-Abernathy and Watkins 1982). In 1850 the census of Newton County indicated a white population of 1,701, 47 slaves and 7 men of free color (Pitcaithley 1976:92). By 1860 the white population had increased to 3,369 and yet only 24 slaves were recorded (Pitcaithley 1976:92). The Civil War saw substantial populations in the Ozarks which were bitterly divided between north and south, like most of the mountain areas of the border regions. After the Civil War there were substantial population increases and prosperity as the railroads penetrated the mountains carrying out the virgin timber and connecting the mountains to eastern markets. In addition to timbering, areas such as the Buffalo region were mined for zinc, copper, and lead (Pitcaithley 1976). Census reports for Newton County show a population of 4,374 in 1870 which steadily increased to 10,364 in 1930 (Pitcaithley 1976:124). Between 1900-1920 the towns of Boxley and Ponca appeared (Pitcaithley 1976). In general, populations decreased drastically during the 1930's due to the depression, the dust bowl and the advent of mechanical agriculture which made it impossible for the small yeoman farmers to compete with the large lowland farms of the Mississippi Valley and Great Plains. Today, Newton County has one of the lowest population densities in the state averaging about seven people per square mile (Pitcaithley 1976).

PROJECT METHODS

Survey Techniques

A combination of survey techniques including shovel tests on transects and pedestrian walkovers were utilized depending upon the surface visibility and slope in the area.

Wooded Areas. Most of 13 acres were wooded and afforded little or no surface visibility. In these areas, the 2 crew members were spaced not more than 30 meters apart, and every thirty meters (paced) a shovel test was excavated. Usually, the transects followed natural topography in that the direction of the transect was dependent upon the direction of the ridges. Old logging and/or field roads bisected many of the ridgetops and ridgespurs, providing some ground visibility for surface inspection. On these transects, one person walked the road examining the surface for cultural material. Since the ridges were extremely narrow, only two lines of shovel tests were excavated down the transect.

Shovel tests were not conducted if the slopes were greater than 20%, however, because of the potential for historic resources, and/or prehistoric bluff shelters, or pictographs, even steeply sloping areas were inspected for these above ground cultural remains. None of these types of sites were found and recorded within the project area.

At least one shovel test was dug in each accessible bluffshelter which was large enough for one or more persons to sit or stand and be sheltered from the rain or snow. At least one shovel test was placed in all level areas, including small ridgespur projections. In addition, all exposed surfaces such as logging roads, overturned trees, bare spots, eroded areas etc. were examined for surface material.

Shovel tests varied in size but were usually at least 30 cm in diameter. All soils were examined by either trowel, or shovel, or hand sorting. If cultural materials were found, the soil levels in the test pits were measured and described and the depth of the artifact or level was recorded. All shovel tests on sites were described even if they did not contain material or anthropic soils. In areas where the soil had been deflated and rocks were exposed on the surface, the leaf litter was scraped aside in order to look for artifacts. Obvious disturbed areas such as road beds, dirt piles at the edges of fields, drainages, etc, were not shovel tested.

Pastures and Fields. The fields and pastures had for the last few years remained fallow and consequently were covered in high grasses and weeds. Scrub vegetation including cedars, some of which were now over 12 inches in diameter, had grown up in older pastures where 3NW534 was located.

Drainages. All drainages were examined for evidence of springs, bluffshelters and for historic features such as stills or moonshine operations which may have existed in the area (Pitcaithley 1976). Only one spring located near the Emmet house was found.

On Site Testing Techniques

Shovel Tests/Control Columns. Shovel tests or control columns were excavated at 3NW534 for two general purposes: (1) to delineate site boundaries and (2) to locate cultural bearing levels. Shovel tests varied slightly in size but were between 40-50 cm in diameter and were excavated to a sterile subsoil level, most often an orange clay with gravels. Each 10 cm level was dry screened through 1/4 inch mesh. The soil levels were then measured and described and the depth of the artifacts and levels noted on Control Column Forms. Each shovel test was considered a separate provenience unit and plotted on the site map (Figure 3).

Map removed in an effort to protect sensitive cultural resources.

Figure 3. Site Map, 3NW534.

Test Unit. The test unit size was a 1m x 1m and was positioned in the center of the ridgespur (Figure 3). It was laid out according to magnetic north and the southwest corner was designated as datum. Soil was excavated in either natural or arbitrary levels of not more than 10 cm in depth as measured from a line level strung from the southwest corner. All soil was screened through 1/4 inch shaker dry screens. The base of each level was trowel scraped and all soil stains and features were closely examined and fully documented on level forms. The unit was excavated well into sterile subsoil levels. Walls were scraped and profiled and notes and photographs taken. The Munsell Soil Color Chart was utilized to describe soil colors.

Artifact Processing

Upon completion of the fieldwork, artifacts were returned to the MCRA laboratory and checked in against the Field Specimen Log. All artifacts were washed over screens with window mesh. The samples were air dried and then the accession numbers were applied to artifacts with indelible ink as required by the Arkansas Archeological Survey curation standards. The artifacts were then roughly sorted, bagged, and boxed for analysis.

Artifact Analysis

Artifacts were analyzed by Carol S. Spears. All lithic categories are briefly described below. The projectile points were shown to Dr. George S. Sabo of the Arkansas Archeological Survey who verified the types according to Kay (1980).

Lithic Definitions

INTERIOR FLAKE = flakes of chert which have bulbs of percussion or compression rings indicating they have been removed from a larger piece of material. They are small in size and do not possess cortex.

DECORTICATION FLAKE = flakes with at least 10% of the dorsal surface covered with cortex. These were on the whole larger than interior flakes and represent an initial stage of lithic reduction.

RETOUCHED/UTILIZED FLAKE = flakes found below the surface and plowzone which exhibited edge damage.

FIRE-CRACKED ROCK = fragments of chert which exhibit evidence of being heated and broken including as an angular breakage pattern, potlids, and/or discoloration such as a reddening.

BIFACIAL THINNING FLAKE = flakes which have been removed during the thinning or resharpening of a chert biface. The striking platform of the flake

must exhibit part of the biface edge.

SHATTER = small angular lithic material produced during the reduction process that does not possess the distincitive characteristics of flakes (bulb of percussion, striking platform).

CORE = a piece of chert which had one or more flakes removed from its surface.

BIFACE FRAGMENT = a piece of chert which has flakes removed from both surfaces forming a well defined working edge.

HAMMERSTONE = a cobble exhibiting zones of abrasion and battering on its surfaces or edges.

SCRAPER = a flake with steeply angled retouch along one edge.

PERFORATOR = bifacial tools with steep marginal retouch creating an elongated surface which usually exhibited wear on the tip attributed to a circular or perforating motion.

PROJECTILE POINT/KNIFE = any symmetrical or slightly asymmetrical pointed biface with modification to facilitate hafting.

Records Search

The site files of the Arkansas Archeological Survey were examined to see if any recorded sites lay in the project area. None were found. In addition the archival/historic maps were consulted in order to determine if early historic structures were present and to more precisely date the construction of the present day Emmet house. This activity did not result in any new information because the area was not mapped by USGS until recently. Likewise no early Newton County maps were on file with the Office of State Archeologist. The General Land Office maps of 1843 were examined but no historic features were found inside the project boundaries. All reports on file with the Office of State Archeologist for Newton County were quickly scanned but as stated earlier, no previous research had been conducted within the project boundaries.

Curation

The artifacts, field notes and forms are to be curated with the National Park Service.

PROJECT RESULTS

Survey Results

The survey tract contained an interesting assortment of natural topographic features including a spring which is still used as a water source today, steep slopes, two narrow ridges, two intermittent drainages, bluff exposures, one narrow overhang, a "chimney rock", and an imposing view of the Buffalo River floodplain. The entire area was intensively surveyed and yet only one prehistoric site 3NW534 and one late period historic house were observed.

Historic cultural resources observed within the tract included an occupied "1930's vintage" white frame house. Located just east of the house is the perennial spring and to the west is a storage cellar with a small shed built on top. Only the house is situated on a relatively flat surface which conceivably was part of the floodplain but has been separated from it by the greatly improved Highway 43. A farm road runs behind the house through the pasture and up into the forest. An old barbed wire fence line with several large trees surrounds the property. Although there were a few bare patches of ground in and around the house and in the pasture, no prehistoric remains were noticed and historic artifacts such as old vehicles, canning jars in the cellar etc. and architectural features all dated to the more recent past.

The prehistoric site was first noticed when a shovel test on a transect south of a large dry pond contained a projectile point. This test was later enlarged and excavated as Control Column #3. After the initial positive test, the entire ridge was walked over in order to examine bare spots for cultural material and to obtain a rough estimate of the size of the flattest area. It was at this time that the bluff line below the site was examined for shelters. One flake tool (a flake scraper) was found in the soil at the base of a small overturned tree on the top of the bluff. Toward the base of the bluff one very narrow overhang was observed but a shovel test did not produce atifacts. Due to the lack of any other artifacts observed on the surface of the site, a series of 3 control columns and one 1m x 1m unit was then excavated and the site was mapped. These tests are described below.

Testing Results at 3NW534

Control Column #1 was positioned about 40 m southeast of the fence which delimited the eastern boundary of the survey tract. The area was covered by a thick stand of fescue, cedars, scrub vegetation and one fairly large black walnut tree. The test measured 50 cm in diameter and was about 33 cm deep. Artifacts collected are listed in Table 1. Most of the material found in the second level occurred between 10-20 cm with the majority of the material in the top 20 cm. Soil in the unit consisted of a thin humus level to about 10 cm. It was underlain by a grey silt with natural chert to about 20 cm where the soil color changed to a tannish grey silty clay with gravels. Then at 30 cm the soil became more orange in color and had a much higher percentage of clay and rock. The profile of this unit is shown in Figure 4.

TABLE 1. Site 3NW534 Artifacts

Abbreviations used: FSN=Field Specimen Number, FL=Interior Flake, DF=Decortication Flake, RU=Retouched/utilized Flake, FCR=Fire-cracked rock, BTF=Bifacial thinning flake, SH=Shatter, C=Core, B=Biface Fragment, H=Hammerstone SC=Scraper, P=Perforator, PPK=Projectile/knife

CONTROL COLUMN #1

FSN	DEPTH	FL	DF	RU	FCR	BTF	SH	C	B	H	SC	PPK	TOTAL
1	0-10	10					2						12
2	10-30	13					2	3					20
TOTAL		23					4	3					32

CONTROL COLUMN #2

FSN	DEPTH	FL	DF	RU	FCR	BTF	SH	C	B	H	SC	PPK	TOTAL
3	0-10	4			1				2	1			8
4	10-20	5											5
5	20-30	4	1					1					6
6	30-37	3		2			2						7
TOTAL		16	1	2	1		2	1	2	1			26

CONTROL COLUMN #3

FSN	DEPTH	FL	DF	RU	FCR	BTF	SH	C	B	H	SC	PPK	TOTAL
7	0-10	21				3		2	1			1	28
8	10-20	8											8
9	20-30	2		1									3
TOTAL		31		1		3		2	1			1	39

CONTROL COLUMN #5

FSN	DEPTH	FL	DF	RU	FCR	BTF	SH	C	B	H	SC	PPK	TOTAL
10	0-10	2										1	3
11	10-20	2		1									3
12	20-30	4											4
TOTAL		8		1								1	10

TEST UNIT #1

FSN	DEPTH	FL	DF	RU	FCR	BTF	SH	C	B	H	SC	PPK	TOTAL
13	0-10	15		1		1	4						21
14	10-20	5											5
15	20-30	1											1
TOTAL		21		1		1	4						27

SURFACE MATERIAL

FSN	DEPTH	FL	DF	RU	FCR	BTF	SH	C	B	H	SC	PPK	TOTAL
16										1			1
17											1		1
TOTAL										1	1		2

GRAND TOTAL FROM SITE 3NW534

	FL	DF	RU	FCR	BTF	SH	C	B	H	SC	PPK	TOTAL
TOTAL	101	1	5	1	4	10	6	3	2	1	2	136

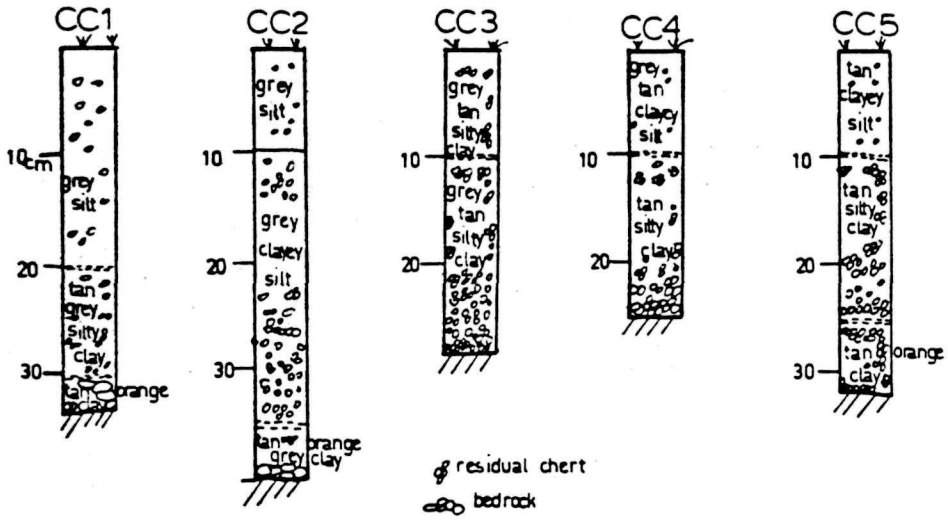


Figure 4. Profiles of Controll Columns at 3NW534.

Control Column #2 was positioned about 45 m northwest of the first test and just inside the project boundary and near the old fence gate. This area was covered in small scrub trees and fairly dense vegetation. It was obvious that the area had at one time been a pasture or field. Artifacts in Control Column #2 are listed in Table 1 and the profile is shown in Figure 4. The soil in this unit was slightly deeper than the first test. It contained a humus or plowzone to about 10 cm which was followed by 25 cm of a grey clayey silt. At about 35 the soil changed to a tannish orange silty clay with lots of natural rock and gravels. The unit was terminated at 40 cm below the surface and no artifacts were found between 37-40 cm.

Control Column #3 was positioned on the top south face of the slope where the first projectile point, a Bulverde (Figure 5) was found in a transect shovel test. Vegetation in this area consisted of scrub trees, cedars of all sizes, briars and a carpet of poison ivy. Artifacts collected in the unit are listed in Table 1 and the profile is shown in Figure 4. Soil in this Control Column was considerably shallower than the two tests located down the slope. The humus was about 10 cm thick and it was underlain by a greyish tan silty clay with numerous rock, gravels, and residual cherts.

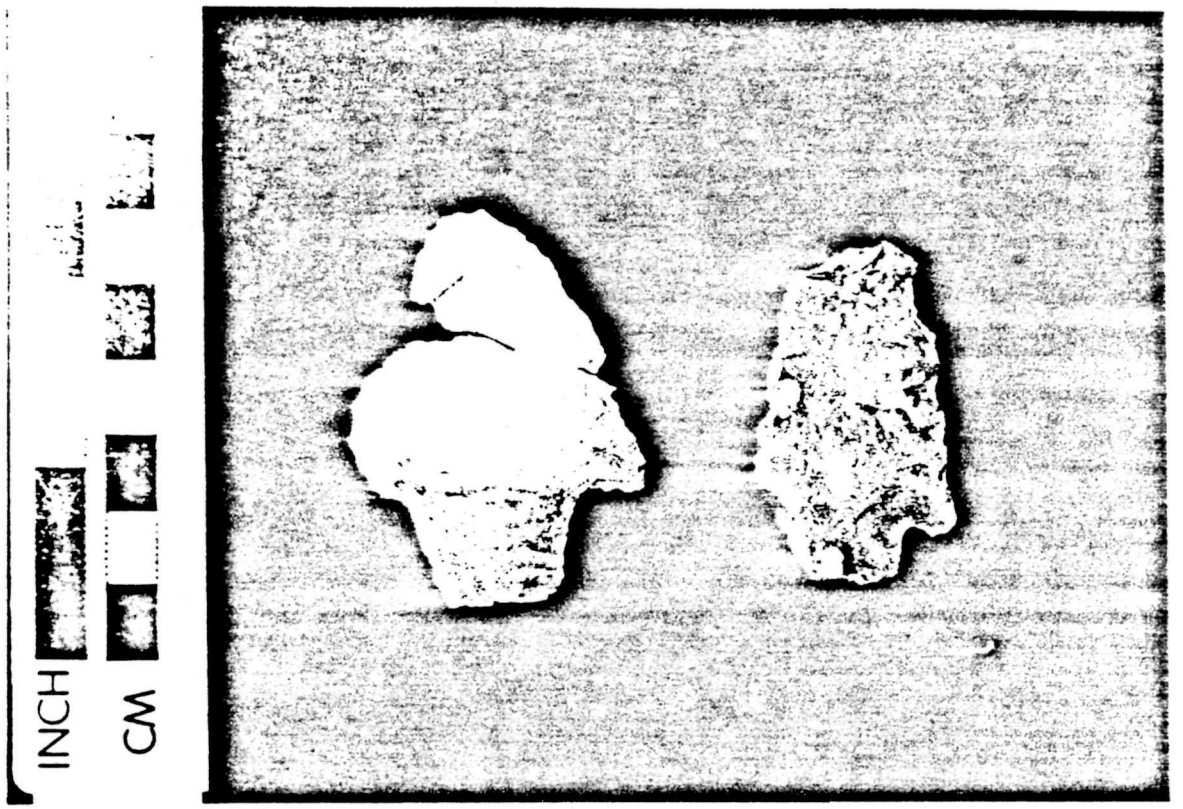


Figure 5. Projectile Points Collected at 3NW534 (left=Bulverde, CC#3; right=Etley, CC#3).

Control Column #4 was positioned on the north side of the ridge east of the survey tract boundary and south of the dry drainage. Vegetation in this vicinity consisted of thick pasture grasses and a large oak tree. The unit was excavated in 10 cm levels to about 25 cm below the surface. No artifacts were found in this unit. Soil consisted of a humus or plowzone level to about 10 cm (Figure 4). It was underlain by a tan silty clay which graded into a clay at about 25 cm where the unit was terminated. Numerous gravels and cherts were evident in all the levels.

Control Column #5 was positioned on the top center of the ridge south of the dry pond. Vegetation in this area consisted of cedars of all sizes and poison ivy. Artifacts collected in this unit were mostly flakes but one Etley projectile point (Figure 5) with a slightly retracting stem was found in the first level. Soils in this unit were very shallow and consisted of a thin humus followed by a tan silty clay to about 25 cm. Below this level the soil changed to a tannish orange clay. Again numerous gravels and residual cherts occurred throughout the unit. No artifacts were collected below 30 cm and the unit was terminated about 33 cm below the surface (Figure 4).

Test Unit #1 was positioned between Control Columns #5 and #3 and was situated on the top and flattest part of the ridge. Artifacts collected in the unit are listed in Table 1. The north wall profile is shown in Figure 6. The soil levels were similar

to soils in the Control Columns and excavating this unit was just like digging in a compacted gravel road. Basically, there was a thin humus level followed by a tan silty clay which became lighter and more orange with depth. There was much a higher clay content toward the base of the 1m x 1m which was terminated at 25 cm below the surface. No charcoal or burned clay was observed and due to the extremely high gravel content of the soil there is a very low feature potential at this site.

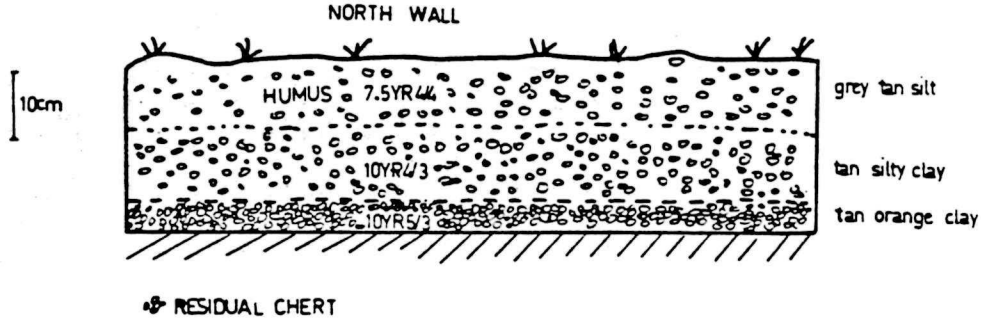


Figure 6. North Wall Profile of Test Unit #1, 3NW534.

In summary, the subsurface tests at 3NW534 disclosed that artifacts were more concentrated toward the south side of the ridgespur. This concentration, although fairly disturbed, indicates that this area was the preferred location for prehistoric activities. The slightly deeper soils in this area are probably an indication of soil erosion that occurred when the land was cleared and/or farmed. There is a low potential for features and intact levels at the site due to the extremely high density of gravels and residual chert in the subsurface tests.

PROPOSED SITE FUNCTION AND CULTURAL AFFILIATION

The kinds of artifacts present at the site (flakes, cores, bifaces, hammers, etc.) reflect specialized activities such as tool manufacturing, use, and resharpening. The relatively high density of material indicates that the site probably functioned as a campsite and/or activity area upon several occasions. The cultural affiliation is based on the collection of the two projectile points, the Etley and the Bulverde, in which the former is affiliated with the Late Archaic period and the latter is considered a Middle to Late Archaic type.

SITE SIGNIFICANCE

In terms of the National Register criteria (Federal Register 1976, 1977a, 1977b), the site in and of itself is not considered potentially eligible for nomination for the following reasons: (1) the context and the integrity of 3NW534 has been altered by a long history of agricultural practices such as logging, pasture production, and the construction of a pond, and (2) the cultural deposits are not only shallow but the high gravel content makes is unlikely that intact features remain.

PROJECT IMPACT

The land exchange itself will have little to no effect on the archeological site given its already disturbed nature.

SUMMARY AND RECOMMENDATIONS

The archeological survey of 13 acres resulted in the recording of one prehistoric site, 3NW534, which was a specialized activity site and/or campsite probably utilized upon several occasions during the Middle and Late Archaic periods. Its location on a ridgespur, with southern exposure, high above the the Buffalo River afforded a warm, dry, and an advantageous view of the floodplain below. The site by itself is not eligible to the National Register. However, it is a member of a collection of prehistoric settlements along an important river in the Ozarks. For this reason, it could contribute information to the understanding of settlement systems in the valley. Since the National Parks Service is interested in preserving the integrity of sites in the Boxley area, the following recommendations are made concerning the specific construction of a house and road relative to the site. If it is feasible and prudent, (1) the road access should be placed along the north edge of the ridgespur and would thus avoid the higher density of material on the south slope, (2) the house should likewise not be built on the south face but should be positioned immediately south of the pond on the top of the ridge where deposits are extremely shallow and have already been disturbed, and (3) if land altering activities are planned on the south edge of the ridge, and if surface visibility is greatly increased, then at least one controlled surface collection should be undertaken by a qualified archeologist representing the National Park Service. The information derived from this collection should be placed on file with the state repository for use by professional archeologists conducting research in the Ozark and/or Buffalo River regions.

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APPENDIX A

SCOPE OF WORK

Scope-of-Work

Archeological Survey and Testing
Boxley Valley, Buffalo National River, Arkansas

Description:

The Contractor shall conduct an intensive 100 percent archeological survey of 13 acres of land located in Boxley Valley, Buffalo National River. The specific tract of land is located in the western half of Section 35, Township 16N, Range 23W.

Particular attention will be centered on a small natural bench (about 1/2 acre of land) situated in the extreme southeastern corner of the tract (see attached map). Previous archeological reconnaissance at this location has suggested the presence of dense lithic debris.

The survey of the 13 acre tract will involve the use of controlled subsurface shovel tests or similar subsurface exploratory techniques, systematic artifact collection, and stratigraphic observations. The survey standards will be those recommended by the Arkansas Archeological Survey.

The purpose of the survey is to determine the number, distribution, boundaries, type, cultural affiliation, and importance of any archeological sites located within the borders of the designated tract. All recorded sites will be evaluated in terms of their potential eligibility for inclusion on the National Register of Historic Places.

The Contractor will prepare a written professional report on the survey results. All findings relevant to the above-stated goals will be included in this report. Completed site forms for all sites recorded in the course of the survey will be appended to the report.

Coordination with the National Park Service:

The Contractor will contact the Assistant Superintendent of Buffalo National River (501-741-5443) at least 3 days in advance of the fieldwork. The National Park Service will obtain the necessary permission for the work from the current occupant of the tract. Also, the National Park Service will accompany the Contractor to the tract and carefully describe its boundaries. All artifacts collected in the course of the survey will be returned to the National Park Service upon request.

Reports:

The Contractor will prepare a professional archeological report on the survey and test results. Its style and format shall be that of American Antiquity. This report shall contain adequate photographs, maps, and profiles to document the findings. Two copies of the final report will be delivered to the National Park Service.

Work Schedule:

Work under this contract will begin on or before September 16, 1985. All work must be completed by October 31, 1985.

Payment Schedule:

Payment for one half of the contract amount will be made upon completion of the fieldwork. Billing for the remainder of the total amount may be submitted after submittal and acceptance of the final written report on the work.

Explanatory Note:

As used herein, the term "shovel testing" refers to controlled or systematic subsurface archeological exploration. It should be interpreted to include standard shovel probes, and when necessary for adequate site identification and documentation, more formal test trenches and/or test grids. The choice of subsurface exploratory techniques is left to the professional discretion of the Contractor. All subsurface probes, pits or trenches shall be backfilled by the Contractor.

APPENDIX B

KEY PERSONNEL'S VITAE

NOVEMBER 1985

V I T A

CAROL S. SPEARS

Route 1, Box 186
West Fork, Arkansas 72774
(501) 839-3663

EDUCATION

1978	M.A., Anthropology (with emphasis on Southeastern Archeology and Cultural Resource Management), University of Arkansas, Fayetteville. Thesis Title: The DeRossitt Site: Applications of Behavioral Archeology to a Museum Collection.
1973	B.A., Henderson State University, Arkadelphia, Arkansas.
1971	Association of Colleges and Universities for International Intercultural Studies, Graz, Austria, Summer.
1969-1971	Hendrix College, Conway, Arkansas.

GRADUATE ACADEMIC HONORS

1973-1976	Arkansas Archeological Survey Graduate Assistantship.

PROFESSIONAL EXPERIENCE

1985

Project Archeologist, Testing of Three sites in the Wedington Unit of the Ozark National Forest (Arkansas), Mid-Continental Research Associates (MCRA), Lowell, September 12- October 17, 1985.

Project Archeologist, Survey of 13 Acres and Testing of one site in the Boxley Area of the Buffalo National River (Arkansas) for the National Park Service, MCRA, Lowell, September 16-17, 1985.

Project Archeologist, Fourche Creek Mitigation (Arkansas) for the Soil Conservation Service (SCS), Mid-Continental Research Associates (MCRA), Lowell, April 18-May 15.

Field Director, Castor River Testing (Missouri) for Memphis Corps of Engineers (COE), MCRA, Lowell, March 7-13.

1984

Field Director, Tyronza Ditch Survey II (Arkansas) for SCS, MCRA, Lowell, Oct. 27-Nov 26.

Co-Field Director, Testing 3 Bluff Shelters on Upper Bear Creek (Arkansas) for Bureau of Land Management (BLM), MCRA, Lowell, Sept. 30-Oct.5.

1983-1984

Project Archeologist, Lower Lee Creek Survey (Arkansas and Oklahoma) for City of Fort Smith, Sponsored Research Program (SRP), Arkansas Archeological Survey (AAS), Fayetteville, Dec. 1983-Sept. 1984.

1983

Crew Member, Felsenthal Survey and Testing (Arkansas), SRP, AAS, Fayetteville, Nov. 30-Dec. 8.

Crew Chief, Tyronza Ditch Survey (Arkansas) for SCS, MCRA, Lowell, Oct. 11-Nov. 7.

1982-1983

Field Director, Falls Lake Recreation Areas and Bennehan-Cameron Plantation Historic District Survey of over 10,000 acres (North Carolina) for COE Wilmington District, Archeological Research Consultants (ARC), Chapel Hill, Apr. 1982-Mar. 1983.

Tasks involved designing the field methods, gathering equipment, developing all forms, supervising all fieldwork (6-12 cremembers), establishing the cataloguing system, designing the analysis handbook and raw material categories, and supervising all lab work. In addition, I was principal author of the Rolling View Archeological District Nomination (137 pages) and the Sandling Site Nomination (34 pages). Over 500 sites were found and evaluated during this project.

Field Director, Rolling View Mitigation involving 9,000 3m x 3m controlled surface collections and 192 1m x 1m test units (North Carolina) for COE Wilmington District, ARC, Chapel Hill, Dec. 1982-July 1983.

1983

Field Director, Flynt Site Shell Midden Testing for COE Wilmington District, ARC, Chapel Hill, May 2-18.

1981-1982

Research Assistant, Center for Archeological Research (CAR), Southeastern Field Office, Southwest Missouri State University (SMSU), Naylor, Missouri, Nov. 1981- Mar. 1982.
The position involved fieldwork and research/writing for projects in the Mark Twain National Forest, the Current and Eleven Point Ozark National Scenic Rivers, and the towns of Ellsinore and Popular Bluff.

1981

Lab Technician, Brougham Lake Site analysis (Arkansas) for COE Memphis District, Historic Preservation Associates (HPA), Fayetteville, Apr.-Oct. part time.

Field Director, Testing 4 Sites in the Missouri Bootheel for the COE Memphis District, HPA, Fayetteville, Feb.-Mar.

Summers 1976-1981

Field Archeologist, Chief Photographer, and Lab Technician, for the Selevac Archeological Project which involved the excavation of an Early Neolithic Village in Yugoslavia. National Science Foundation (NSF) Grant to Dr. Ruth E. Tringham, University of California at Berkeley (1978-1981) and Harvard University (1976-1978), June-Aug.

1980

Field Archeologist, Project Photographer, Flotation and Water screen Supervisor at the Brougham Lake Site (Arkansas) for the COE Memphis District, HPA, Fayetteville, Oct.-Dec.

Crewmember, Red River Revetment Survey (Arkansas) for the COE, AAS, Fayetteville, June, 7 days.

Field Supervisor, shoreline survey in Beaufort County (North Carolina) for 400th Anniversary Grant to the Archeology Branch, Division of Archives and History, Raleigh, April, 7 days.

1977-1980

Archeologist I, Archeology Branch, Division of Archives and History, Raleigh, North Carolina, Nov. 1977-March 1980.
Duties consisted of developing and directing the Public Education Program and the National Register Program for the Archeology Branch.

1977

Crewmember, Test Excavations at 3PO395, St. Francis Project (Arkansas) for the COE, AAS, Fayetteville, 5 days.

Lab Technician, Soil Testing and Agronomy Laboratory, University of Arkansas, Fayetteville, half time, 4 months.

1976

Lab Technician and Computer Key Punch Operator, Village Creek Project (Arkansas), AAS, Fayetteville, 3 months.

1975

Co-Field Director, Test excavations at 4 sites in Tennessee Eastman Project (Arkansas), AAS, Fayetteville, 3 weeks.

Field Supervisor, Annual Arkansas Archeological Society Dig at the McCormick Site (Arkansas), AAS, Fayetteville, 3 weeks.

1974

Field Supervisor, Annual Arkansas Archeological Society Dig at the Ferguson Site (Arkansas), AAS, Fayetteville, 3 weeks.

Field Director, survey of the Direct Impact Zone at the Tennessee Eastman Plant (Arkansas), AAS, Fayetteville, 4 days.

Crewmember, Hedges Site Testing (Arkansas), AAS, Fayetteville, 5 days.

Crewmember, Sloan Site Excavations (Arkansas), AAS, Fayetteville, 4 days.

Crewmember, investigations and test excavations at Swendson's Cave, Cadron Creek Historic Site, and Tillar Site, AAS, Fayetteville, week-end projects.

1973

Crewmember, excavation of the East Stockade at Cahokia Mounds State Park (Illinois), Illinois State Museum, 13 weeks.

Crewmember, test excavations at Snow Hill (Arkansas), AAS, Fayetteville, 5 days.

1972-1973

Lab Technician, processed artifacts from Southwestern Arkansas at the Arkansas Archeological Survey Station, Henderson State University (HSU), Arkadelphia.

1972

Crewmember, Survey of Hot Springs Sewer line and Pinnacle Mountain State Park (Arkansas), Arkansas Archeological Survey Station, HSU, Arkadelphia.

Crewmember, Cryer Site test excavations (Arkansas), Arkansas Archeological Survey Station, HSU, Arkadelphia, 3 days.

Crewmember, Ferguson Site Test excavations (Arkansas), AAS, 6-8 week-ends.

TECHNICAL REPORTS

Spears, Carol S. and Robert H. Lafferty III
1985 National Register Testing at Three Sites (3WA454, 3BE327 and 3BE332) in the Wedington Unit of the Ozark National Forest. Mid-Continental Research Associates Report in preparation for the Ozark National Forest, Russellville.

Spears, Carol S. and Robert H. Lafferty III
1985 Archeological Survey of 13 Acres and Testing in the Boxley Area of the Buffalo National River, Newton County, Arkansas. Mid-Continental Research Associates Report No. 85-9. Submitted to the Southwest Cultural Resources Center, National Park Service, Sante Fe.

Lafferty, Robert H.,III, Lawrence B. Santeford, Carol S. Spears, Michael C. Sierzchula and Kathleen M. Hess
1985 Cultural Resources Data Recovery in Basins 14, 15, 20 and 21 of the Fourche Creek Watershed, Randolph County, Arkansas. Mid-Continental Research Associates Report No. 85-5. Draft Submitted to the USDA-Soil Conservation Service, Little Rock.

Lafferty, Robert H., III, Carol S. Spears, and Michael C. Sierzchula
1985 National Register of Historic Places Testing at 6 Sites (23SO:459,465,471,496,497,and 500) in the Castor River Enlargement Project, Stoddard County, Missouri. Mid-Continental Research Associates Report No. 85-2. Report submitted to Memphis District, Corps of Engineers.

Hargrove, Thomas H., G. Ishmael Williams, Scott M. Madry, and Carol S. Spears
1985 Archeological Investigations of the Bennehan-Cameron Historical District and Areas of Proposed Recreational Development and Wildlife Subimpoundments, Falls Lake Project, and the Rolling View Mitigation Project, North Carolina.. Archeological Research Consultants, Chapel Hill. (Report in preparation for the Wilmington District, COE.)

Lafferty, Robert H., III, Carol S. Spears, Phyliss A.S. Morse, and Hope N. Gillespie, with a contribution by Barbara Burnett
1985 Cultural Resources Survey, Testing, and Predictive Model Development in the Tyronza Phase II Watershed Area, Mississippi and Poinsett Counties, Arkansas. Mid-Continental Research Associates Report No. 85-1. Submitted to the Soil Conservation Service, Little Rock.

Spears, Carol S. with contributions by George S. Sabo III
1984 An Archeological Survey of the Lower Lee Creek Water Supply Project in Crawford County, Arkansas, and Sequoyah County, Oklahoma with Addendum An Archeological Survey of the Proposed Powerline Relocation and Adjoining Acquisition Land for the Lower Lee Creek Water Supply Project, Crawford County, Arkansas and Sequoyah County, Oklahoma. Sponsored Research Program, Arkansas Archeological Survey for the City of Fort Smith. Report on file with the Office of State Archeologist, Fayetteville, Arkansas, and Norman, Oklahoma.

Spears, Carol S. and Thomas H. Hargrove
1983 Archeological Testing at the Richard Flynt Permit Site (31ONS305), Onslow County, North Carolina. Archeological Research Consultants. Report submitted to the Wilmington District, Corps of Engineers.

Spears, Carol S., Cynthia R. Price, and James E. Price
1982 An Archaeological, Historical, and Architectural Literature Review for a Portion of the Mark Twain National Forest and A Cultural Resources Survey of 640 acres in the Mark Twain National Forest, Carter County, Missouri, Conducted for Houston Oil and Minerals Exploration Company (HOMEX):1982. Center for Archeological Research Report 501, Springfield, Missouri.

Price, Cynthia R., James E. Price and Carol S. Spears
1982 An Archaeological, Historical, and Architectural Literature Review of a Western Portion of the Fristoe Unit, Mark Twain National Forest and An Archeological Survey of 46 Drill Holes, Shannon and Oregon Counties, Missouri, conducted for AMAX Exploration Inc.: 1981. Center for Archeological Research Reports 497 and 505, Springfield, Missouri.

Spears, Carol S. and James E.Price
1982 A Cultural Resources Survey of the Proposed Batson Mini Farms Subdivision Northwest of Poplar Bluff, Butler County, Missouri: 1982. Center for Archaeological Research Report 513, Springfield, Missouri.

Price, James E., Timothy K.Perttula, and Carol S. Spears
1982 A Cultural Resources Survey of Areas to be Disturbed by Installation of Wastewater Collection and Treatment Facilities for the Town of Ellsinore, Carter County, Missouri: 1982. Center for Archeological Research Report 475, Springfield, Missouri.

Klinger, Timothy C., Carol S. Spears, Ross A Dinwiddie, Michael C. Sierzchula, Cynthia R. Price, and James E. Price
1981 Cultural Resources Survey and Testing in the Bootheel Region of Missouri: A Cultural Resources survey along the Castor River and Phase II Testing at 23SD502 in Stoddard County: Phase II Testing of 23DU207, 23DU234, and 23DU243 along Ditch 19 in Dunklin County: and Cultural Resources

Survey Along Lower Ditch 1 and Ditches 293, 281-9, and 290, Pemiscot and New Madrid Counties, Missouri. Historic Preservation Report 81-3. Submitted to the Memphis District, Corps of Engineers.

Spears, Carol S.
1977 Behavioral Chains and Flow Models: An Approach to the Study of Cobble Utilization in the Village Creek Basin. In Village Creek: An Explicit Regional Approach to the Study of Cultural Resources, (assembled by Timothy C. Klinger) Arkansas Archeological Survey. Report submitted to the Soil Conservation Service, Little Rock.

Spears, Carol S. and Cheryl P. Claassen
1974 Tennessee Eastman Archeological Project: Phase I Preliminary Field Survey of the Direct Impact Zone. The Environmental Impact Assessment Report, Arkansas Eastman Company.

Spears, Carol S.
1974 Archeological Inventory of the White River Channelization Project: Batesville to Arkansas Post Canal. Arkansas Archeological Survey, Fayetteville. Report submitted to the Memphis District, Corps of Engineers.

PUBLICATIONS and PAPERS

Spears, Carol S.
1985 Chapter 12: A Summary of the Procurement, Use, Reuse, and Discard of Nonsiliceous Stone from the Site of Selevac. In Selevac: Socioeconomic transformation in the Neolithic of Southeast Europe edited by Ruth E. Tringham, University of California Berkeley Press (in press).

1980 The Archeology of North Carolina: An Introduction to our Local History and Ways You Can Help Save It. Tar Heel Junior Historian 19(3):21-25.

1980 Collecting Data to Relate the Archeological Context to the Systemic Context: Approaches to the Study of Non-siliceous Stone Utilization. Paper presented in "Artifact Analysis and Behavioral Inference Symposium" chaired by Ruth E. Tringham and Judith R. Rasson at the 1980 Society of American Archeology Meeting, Philadelphia.

1977-1979 Current Research of the Archeology Branch, Division of Archives and History, Raleigh, to: American Antiquity, Society for Historical Archeology, Annual Report of the Eastern States Archaeological Federation, and the Southeastern Archeological Conference Newsletter.

Spears, Carol S. and Nancy Allen
1979 Capitol Square Archaeology. Tar Heel Junior Historian 8(3):28-30.

Scheitlin, Thomas E. and Carol S. Spears
1978 Computer Usage in Archeology: Developing Predictive Models. Carolina Comments 26(6):145-150.

Spears, Carol S.
1978 Archeologist Managing Prehistoric Sites: An Example in Gates County. Tar Heel Junior Historian 17(3):35-39.

1978 Dugout Canoe Found in North Carolina. Popular Archeology 7(4): 3-4.

1978 Paddling Past. Tar Heel Junior Historian 17(2):34-36.

1976 Behavioral Archeology. Ozark Society Bulletin 10(2):7.

1976 Behavioral Archeology and Clean-up Float Trips. Arkansas Archeological Society Field Notes 134:7-8.

1975 Hammers, Nuts, and Jolts, Cobbles, Cobbles, Cobbles: Experiments in Cobble Technologies in Search of Correlates. In The Arkansas Eastman Archeological Report (assembled by Charles M. Baker). Arkansas Archeological Survey Research Reports 6.

Claassen, Cheryl P. and Carol S. Spears
1975 An Assessment of Ambulatory Site Surveying, Shovel Testing, and Augering .In The Arkansas Eastman Archeological Report (assembled by Charles M. Baker). Arkansas Archeological Survey Research Reports 6.

Spears, Carol S. Nancy Meyer, and Hester A. Davis
1975 Watershed Summary of Archeological and Historic Resources in the White River Basins: Arkansas and Missouri. Arkansas Archeological Survey Research Report 5.

PRESENTATIONS AND TEACHING

Co-Chairperson of The National Register Workshop for the North Carolina Archeological Council, Raleigh, 1978.

Taught an Introduction to Archeology to 4th and 5th graders in the Enrichment Program at Effie Green School, Raleigh, 2-3 hours for 3 weeks. Feb.-Mar. 1978.

Chairperson for session entitled "Archaeology and the National Register", Southeastern Regional SHPO Conference, Raleigh, Sept. 13, 1978.

Featured Speaker at the Fifteenth Annual Meeting of the North Carolina Museums Council, Raleigh, November 14, 1978.

Taught an Introduction to Archeology to the Gifted and Talented 4-6 graders at the Hunter Magnet School, Raleigh, 3 hours for 6 weeks, Nov.-Dec. 1977.

Lectures presented to : Peace College Anthropology classes, Duke University course in Cultural Resource Management, Raleigh Civitans, Pamlico County Historical Society, and Archeology Branch Public Lecture Series, and several public schools (North Carolina), 1977-1979.

Media experience: press releases, interview for TV News, TV Talk Shows, Radio Interviews, Radio Talk Shows, coordinating Multi-media coverage for the Archeology Branch, Division of Archives and History, Raleigh, North Carolina, 1977-1979.

Anthropology Colloquium, University of Arkansas, Fayetteville, 1976.

DISPLAY DESIGN/COORDINATOR

"The Archeology of North Carolina Indians", North Carolina State Fair, Oct. 12-20, 1979.

"Computers and Coastal Archeology", Marine Resources Center, Kure Beach, North Carolina, spring and summer, 1979.

"Capitol Excavation", Old Capitol Building, Raleigh, North Carolina, summer, 1978.

"Dugout Canoe Recovery", Wake County Courthouse, Raleigh, North Carolina, fall and winter, 1978.

"The Future of the Past", 75th Anniversary of Archaeology and Historic Presevation Section, North Carolina Museum of History, Raleigh, spring and summer, 1978.

"Is There a Future for the Past?" Arkansas Archeological Survey Exhibit, first shown at the University of Arkansas Union Nov 5-11, 1974.

PHOTOGRAPHY EXPERIENCE

1980 Photographs published in "The Early Agricultural Site of Selevac, Yugoslavia" by Ruth E. Tringham, Dusan Krstic, Timothy Kaiser, and Barbara Voytec. Archaeology 33(2):29-32.

1980+ Photography Show on The Selevac Project, Yugoslavia, Show opened the Annual HLEB I VINO Conference of Eastern European Archeologist, Department of Anthropology Lab, University of California, Berkeley.

1976-1981 Chief Photographer, Selevac Archeological Project, Yugoslavia.

1973- Stringer Sports Photographer for the Arkansas Democrat,
1977 Little Rock.

1977 Head Photographer, Public Relations Department, Henderson State University, Arkadelphia, Jan-Feb. .

PERSONAL INFORMATION

Born: March 11, 1951, Ft. Eustis, Virginia
Health: Excellent
Hobbies: Outdoor and Sports Enthusiast, Travel, and Country Life

MEMBERSHIPS

Society for American Archeology
Arkansas Archeological Society

REFERENCES

Submitted upon request.

AVAILABILITY DATE

Full Time: December 1985

Part Time: November 1985

CURRICULUM VITA

Robert Hervey Lafferty III

as of
March 1985

CURRENT POSITION

Archeologist and Co-Owner
Mid-Continental Research Associates (MCRA)
RR 2, Box 270
Lowell, Arkansas 72745
Phone: (501) 756-5247

PERSONAL INFORMATION

Born: 28 August 1946
Charlotte, N.C.

Health: Excellent

Married: Wife -Kathleen M. Hess
Das:-Emily D. Lafferty-Hess
-Sophia N. Lafferty-Hess

Social Security Number:
414-74-3769

EDUCATION

1977 Ph.D., Anthropology. Southern Illinois University, Carbondale (SIU). Dissertation Title:The Evolution of the Mississippian Settlement Pattern and Exploitative Technology in the Black Bottom of Southern Illinois

1973 M.A., Anthropology. SIU. Thesis Title: An Analysis of Prehistoric Southeastern Fortifications.

1969 2Lt., Corps of Engineers, U. S. Army Engineer Officer Candidate Course, USAES, Fort Belvoir, VA

1967 B.A., Anthropology. Miami University, Oxford, OH

1964 Diploma, Oak Ridge High School, Oak Ridge, TN

CONTRACTS, FELLOWSHIPS, AND EMPLOYMENT

1983- Archeologist & Co-owner, MCRA

1984 Principal Investigator,(PI) Seneca Flood Control Project (Little Rock District, Corps of Engineers)

PI, Bureau of Land Management testing of 4 archeoligical sites, Searcy Co. Ar. (BLM, Southeast Region, Jackson, MS).

PI, Tyronza Phase II Watershed, Survey and Testing (SCS, Little Rock, AR).

1983-4 PI, Tyronza Watershed Phase I Survey and Test-USDA-Soil Conservation Service, Little Rock.

1981- Adjunct Assistant Professor, Dept. of Anth., Univ. of AR, Fayetteville.

1979-83 Assistant Archeologist, Arkansas Archeological Survey (AAS), Univ. of AR, Fayetteville. Project archeologist on 11 AAS project 1980-83, which involved planning, executing and writing these up.

82-83 Co-Principal Investigator (C-PI), Sparta Mine Survey and Testing (Shell Oil Company).

1976-79 Research Archeologist, Office of Archeological Research (OAR), University of Alabama, Univ.

77-79 Adjunct Assistant Professor, Dept. of Anth., Univ. of AL.

78-79 C-PI, Bay Springs Phase II Testing (Nashville Corps of Engineers and Interagency Archeological Service, Atlanta).

PI, Cedar Creek Above Pool Survey (Tennessee Valley Authority - TVA).

76-79 PI, Phipps Bend Archeological Evcavations-TVA.

76-79 Archeological Personal Services Contractor-TVA. PI on 15 small project, 1976-79 listed under Technical Reports below.

1974-76 Research Assistant, Dept. of Anth., SIU.

1971-73,68 Teaching Assistant, Dept. of Anth., SIU

1970-71 Operations Staff Officer (20th Engineer Brigade, 92nd Eng. Battalion) and Supply Officer (92nd Eng. Bn., 41st Port Construction Co., & 94th Quarry Detachment), U. S. Army, Republic of Vietnam.

1969-70 Personnel Officer, U. S. Army Engineer School, Fort Belvoir, VA (School Archeologist).

1967 Undergraduate Fellowship, Miami University

1964-67 Laboratory Assistant and Student Supervisor, Dept. of Anth., Miami University.

COURSES TAUGHT

History of American Archeology
New World Archeology
European Archeology
Southeastern Archeology
Introduction to Anthropology

MEMBERSHIPS

Society of Professional Archeologists
Sigma Xi Scientific Research Society
Society for American Archeology
Southeastern Archeological Conference
Arkansas Archeological Society
Missouri Archeological Society

PUBLICATIONS

Muller, Jon, Robert Lafferty, Jim Rudolph and Crawford Blakeman
1975 Kincaid Environs Archeology. Southeastern Archeological Conference Bulletin No. 18:158-170.

Robert H. Lafferty III
1978 The Evolution of the Mississippian Settlement Pattern and Exploitative Technology in the Black Bottom of Southern Illinois. University Microfilms, Ann Arbor, Michigan. 334 pp.

1978 The Early Woodland Chronological and Cultural Affinities at Phipps Bend on the Holston River, Northeast Tennessee. Journal of Alabama Archeology, Vol. XXIV(2):132-150.

1979 "Prehistoric Pottery" (a fifteen minute television segment showing how coiled pottery was made and flash fired) in In Tune with the Times which is a fifteen part elementry school series on prehistory broadcast by the Alabama Public Television Network.

Jeffrey L. Otinger and Robert H. Lafferty III
1980 The Depositional Implications of Archaic Stru-

ctures at the Brinkley Midden, Tishomingo Co., Mississippi. Southeastern Archeological Conference BulletinNo.22:100-104.

Robert H. Lafferty III and Carlos Solis
1981 The Bay Springs Lake Archeological Testing Project. OAR, Report of Investigations, No. 15. University, Alabama. 248 pp.

Robert H. Lafferty III
1981 The Phipps Bend Archeological Project. TVA Publications in Anthropology No. 26, Chattanooga, TN, and OAR, Research Series No. 4, University, AL. 585 pp.

Robert H. Lafferty III, J. L. Otinger, S. C. Scholtz, W. F. Limp, B. Watkins and R. D. Jones
1981 Settlement Predictions in Sparta. AAS, Research Series No. 14, Fayetteville, AR 299 pp.

Robert H. Lafferty III
1982 Review of Galena and Aboriginal Trade in Eastern North America by John A. Walthall. Arkansas Archeological Society Fieldnotes, No. 185:11.

J. L. Otinger, C. M. Hoffman and Robert H.Lafferty III
1982 The F. L. Brinkley Midden (22Ts729): Archeological Investigations in the Yellow Creek Watershed, Tishomingo County, Mississippi. OAR, Report of Investigations No. 36, University, Alabama. 230 pp.

1983 The Chronological and Cultural Affinities at Phipps Bend on the Holston River. Southeastern Archeological Conference Bulletin No. 20 & 21. pp 56-61.

In Press:

An Application of Heavy Equipment to Site Location Survey. Midcontinental Journal of Archeology.

REVIEWS OF PUBLICATIONS

Roper, Donna C.
1983 Review of Settlement Predictions in Sparta by Lafferty, Otinger, Scholts, Limp, Watkins and Jones. In Southeastern Archaeology 2(2):160

TECHNICAL REPORTS

Jon Muller with assistance from Ann Waters, Lawrence Santeford, Robert Lafferty and E. Everett-Dickenson

1975 Report on the Project to Augment Archeological Field Studies in Southern Illinois to Include a Search for Earthquake Effects. SIU Project No. 02-C1-45. Submitted to U. S. Geological Survey, Denver, Colorado, USDI PO 47603. 17 pp.

Robert H. Lafferty III

1976 An Archeological Survey of the Page Steam Plant Site, Bell County, Kentucky. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, TVA Contract No. TV45346A. 10 pp.

1977 A Phase I Archeological Survey of the Rorex Creek Pumped Storage Site, Jackson County, AL. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, TVA Contract No. TV45346A. 17 pp.

An Archeological Reconnaissance of the Leake-Sebastopol Transmission Line and Substation, Leake County, Mississippi. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, TVA Contract No. TV45346A. 10 pp.

An Archeological Survey of the Churchill-Sevier Transmission Line, Hawkins County, Tennessee. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, TVA Contract No. TV45346A. 2pp.

Robert H. Lafferty III and Eugene Futato

1978 A Revised Research Design for Mitigating the Impact of the Cedar Creek and Upper Bear Resevoirs on Archeological Resources. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN. 34pp.

Robert H. Lafferty III

1978 An Archeological Survey of the Proposed Colbert Steam Plant Borrow Area Adjacent to the Pickwick Resevoir, Alabama. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, Contract No. TV45346A. 8pp.

An Archeological Survey of the Woodall Mountain Microwave Repeater Station Site, Tishomingo County, Mississippi. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, TVA Contract TV45346A. 1pp.

An Archeological Survey of the Amoco Easement on Wheeler Lake, Morgan County, Alabama. OAR,

Univ. of AL. Submitted to TVA, Chattanooga, TN, Contract No. TV45346A. 5pp.

An Archeological Survey of the Huntsville-Madison County Marina and Port Authority, Madison County, Alabama. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, Contract TV453-46A. 14pp.

Robert H. Lafferty III, H. N. Gillespie and G. G. Cole
1978 A Preliminary Archeological Survey of Four Recreation Areas on Cedar Creek Reservoir, Franklin County, Alabama. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, Contract TV453-46A. 25pp.

Robert H. Lafferty III
1979 An Archeological Reconnaissance of the Phipps Bend-Sullivan Transmission Line. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, Contract No. TV45346A. 5pp.

An Archeological Survey of the Union-Cordova Transmission Line in Northeast Mississippi and Southwest Tennessee. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, Contract No. TV45346A. 6pp.

An Archeological Survey of the Bull Run-John Sevier Section of the Bull Run-Sullivan 500 KV Transmission Line, Hawkins County, Tennessee. OAR, Univ of AL. Submitted to TVA, Chattanooga, TN, Contract No. TV45346A. 5pp.

Lawrence S. Alexander and Robert H. Lafferty III
1979 Phase 1 Testing of 1Ma175 Areas to be Impacted by the Huntsville-Madison County Port Facility, Madison County, Alabama. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, Contract No. TV45346A. 37pp.

Robert H. Lafferty III and Carlos Solis
1979 The Cedar Creek Above Pool Survey. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, Contract No. TV50267A. 273 pp.

An Archeological Survey of the Central Portion of the Mallard-Fox Creek Industrial Area, Madison County, Alabama. OAR, Univ. of AL. Submitted to TVA, Chattanooga, TN, Contract No. TV45346A. 17pp.

Robert H. Lafferty III
1980 Hampton Phase II Assessment: Research Design.

Ms. on file, AAS, Fayetteville.

An Archeological Survey of the Proposed Wastewater Facilities and Collection Lines for the City of Wabbaseka, Jefferson County, Arkansas. AAS, Fayetteville, Project No. 417. Submitted to the City of Wabbaseka, AR. 4pp.

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PAPERS PRESENTED

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1981 Lithic Reduction Analysis and Three Poverty Point Period Activity Areas at Site 3IN218, Independence County, Arkansas. 38th Southeastern Archeological Conference, Ashville, NC, 14 Nov.

1982 Lithic Reduction and Exploitation in the Coastal Plain Uplands of the Felsenthal Region of Arkansas. 39th Southeastern Archeological Conference Memphis, TN, 29 Oct.

PARTICIPATION IN MAJOR ARCHEOLOGICAL FIELD PROJECTS

INSTITUTION DATE	PROJECT LOCATION	POSITION
TN Archeological Society 1962 Sep-Nov.	Cox Site Excavation East Tennessee	Crew Mem.
Miami University,Oxford, OH / 1965 Jun-Aug.	Dzibilchaltun Mapping Project/Yucatan, Mexico	Crew Mem.
Frank H. McClung Museum Univ. of TN/ 1966 Jun.	Old Stone Fort Excavation Central Tennessee	Crew Mem.
1966 Jul-Aug.	Tims Ford Excavations Central Tennessee	Crew Mem.

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	1967 Jun-Aug. 1968 Jun-Jul.	Tellico Excavations East Tennessee	Crew Mem.
	1971 Sep.	Watts Bar Excavations East Tennessee	Crew Mem.
Dept. Of Anth.,SIU	1972 Jan-Mar.	Black Bottom Survey South Illinois	Crew Mem.
	1973 Jun-Aug.	Cedar Creek Excavations South Illinois	Crew Mem.
	1974 Jun-Aug. 1975 Jun-Aug.	SIU Field School Black Bottom, S. Ill.	Field Asst.
OAR, Univ. of AL.	1976 Jun-Nov.	Phipps Bend Excavations East Tennessee	PI & Field Director-FD
	1977 Jun-Aug.	Cedar Creek Excavations Northwest Alabama	Co-FD
	1978 Jun-Jul.	Brinkley Excavations Northeast Mississippi	Co-FD
	Aug-Sep.	Bay Spring Testing Northeast Mississippi	Co-PI & FD
	Oct-Dec.	Cedar Creek Above Pool Survey/ NW Alabama	PI & FD
AAS, Univ. of AR.	1980 Jan-Feb	Sparta Mine Survey Calhoun Co., Arkansas	Project Archeologist (PA) & FD
	Sep.	Adams Field Survey Little Rock, Arkansas	PA & FD
	Oct.	Independence SES Testing Independence Co., AR	PA & FD
	Dec.	Carroll-Boone Survey Carroll Co., Arkansas	PA & FD
	1981 Jun.	Keo-Dell Final Survey Northeast Arkansas	PA & FD
	Oct.	Testing Site 3LN139 Lonoke Co., Arkansas	PA & FD
	Nov. 2 weeks	Excavations 3CN117 Conway Co., Arkansas	Substitute FD
	1982 Mar.	Testing 3BE306 & 3BE311	FD & PA

	Benton Co., Arkansas	
Apr-May	Sparta Survey & Testing of 27 sites/Calhoun Co.	Co-PI, PA, & FD
Mid-Continental Research	Associates, Lowell, Arkansas	
1983 Oct-Nov.	Tyronza Survey and Test. Mississippi Co., AR	PI & FD
Nov.	Shell Lake Site Testing Wright Co., Missouri	FD
1984 Oct.	BLM Testing of 4 sites, Searcy Co., AR	PI & FD
Oct-Nov.	Tyronza Survey & Test. Mississippi Co., AR	PI & FD

Table 1. Summary of All Archeological Field Experience in Months

Date	Position	Survey	Test	Excav.	Total
1962					
	Crew Member	3.0	0	10.0	13.0
1973					
	Field Asst.	2.3		3.0	5.3
1976					
	Field Director	10.5	5.5	8.6	23.0
Present					
Total Months		15.8	5.5	21.6	42.9

Table 1 includes all of the archeological projects that I have participated in since 1962. These include many short projects not listed as "Major Archeological Field Projects". All of those since leaving graduate school in 1976 are listed under "Technical Reports" above. I have accumulated over 28.3 months in field leadership positions since recieving my M.A. This does not include Ca. 24 month of training and practical experience in leadership and field living which I gained in the Boy Scouts of America (Eagle) and the U. S. Army (1 Lt.). Nor does it include 10 stress filled months of engineering experience gained in the late Republic of Vietnam (Bronze Star Medal). This training and experience has made it possible for me to always accomplish my field objectives within the budgeted time with a crew who would gladly work

for me again. Table 2 outlines some of the important site types of the more than 1000 sites with which I have had experience

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Table 2. Results of Field Work (numbers of archeological sites).

Site Type	Discovered	Tested	Found Signif.	Excavations Part.	Excavations Observ.
Prehistoric: Upland	242	21	13	10	8
Lowland	213	39	24	13	10
Mounds	7	2	2	6	10
Mound Groups	2	2	2	3	14
Bluff Shelters	5	9	6	2	4
Fortifications	2	0	0	3	5
Mayan Structures	200	0	0	0	15
Historic	164	13	1	1	12
Total Sites	835	86	48	38	78

The field work I have participated in has resulted in the discovery and recording of more than 805 archeological sites (Table 2). These range from very subtle deposites (eg. single artifacts and alluvially buried sites) to rather large, important and obtrusive sites (eg. mound groups, Mayan temples, and roads). I have tested 86 sites and argued that 48 of these were significant in terms of the criteria for significance of the National Register of Historic Places. To the best of my knowledge these determinations of eligibility have all been concurred with by the appropriate state and federal officials, though several are still in process. I have participated in the nomination of three cultural properties to the National Register of Historic Places and these have all been accepted. I have participated in major (i.e., longer than two weeks with more than 10 crew members) excavations at 38 sites and observed similar sized or larger excavations in progress at another 78 sites. This experience has acquainted me with a wide range of archeological and proceedural problems and solutions. I have discovered, mapped, excavated or interpreted a wide range of cultural features (including fortifications, mounds, prehistoric houses, pits, hearths, pit houses, prehistoric quarries, roads, burials, pot holes, stills, railroad beds etc.) and natural features in archeological contexts (such as driplines, old swamps, tree throws, burned tree roots, gopher runs etc.) which range in time from before 10,000 B.C. to A.D. 1940.

The projects I have directed since 1976 have resulted in eight monographs, thirty shorter reports and more than twenty papers delivered at professional and academic meetings. These projects have met all Cultural Resources Management objectives and kept the larger project on the critical path

while also making contributions to archeological knowledge where appropriate. Signigicant contributions include the development of practical predictive models of site location, scientific tests of settlement and cultural evolutionary theory, chronology construction in east Tennessee, north Alabama, Northeast Mississippi and east Arkansas, generative descriptions of artifacts and the development of more efficient field technologies

REFERENCES

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