

# **CARVER BRIDGE**

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HISTORIC PRESERVATION ASSOCIATES REPORTS 86-2

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Cultural resources survey of a proposed  
campground facility at Carver Bridge,  
Buffalo National River, Newton County, Arkansas

by

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## ABSTRACT

The investigations described in this report focus on a background and literature search and archeological survey of a proposed canoe launch and campground facility at Carver Bridge, located in the Buffalo National River, Newton County, Arkansas. Shovel testing documented that a previously recorded prehistoric site (3NW16 which should now be enlarged to encompass the previously recorded 3NW41), is within the project area and will be effected as the proposed facilities are currently designed. Further work is recommended to assess whether potentially significant data are present at 3NW16.

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## INTRODUCTION AND BACKGROUND

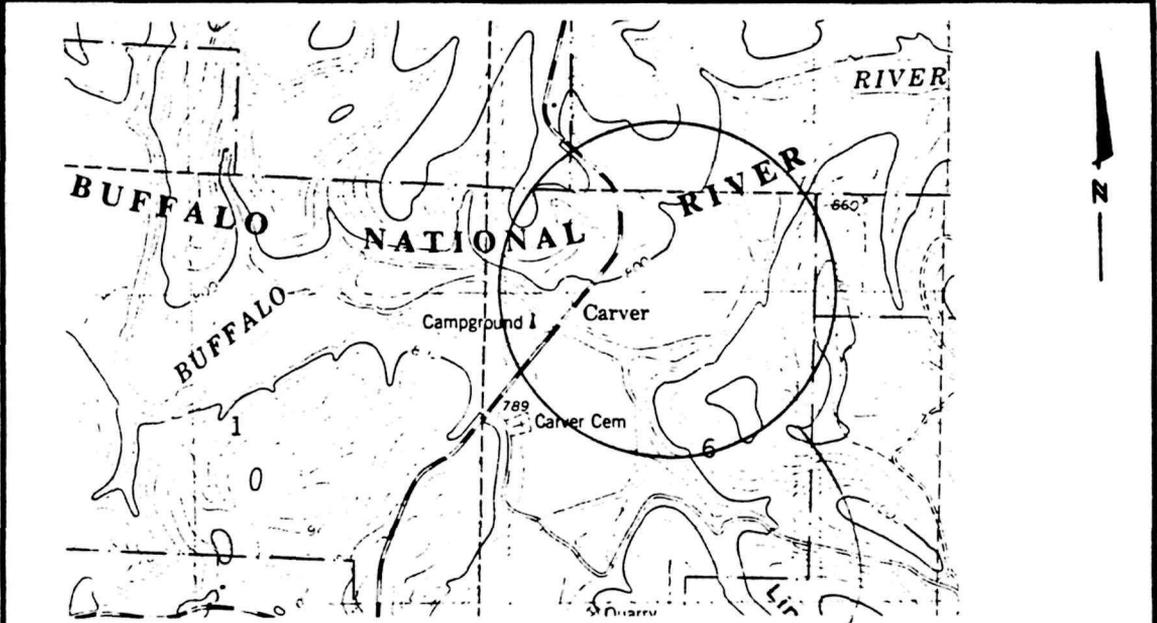
On 30 October 1985 the Southwest Region of the National Park Service (NPS) asked Historic Preservation Associates (HPA) to submit a telephone bid for cultural resources services in the Buffalo National River, Arkansas. The HPA quote was provided on 30 October 1985 and Contract No. PX029-6-0094 was issued the same day and received by HPA on 3 November 1985.

The purpose of this report is to document the results and recommendations of our work as required by the Scope of Work. These services involved a cultural resources survey of a proposed canoe launch and campground facility near Carver Bridge in Newton County, Arkansas (Figure 1). The structure and content of this report adhere to the guidelines contained in McGimsey and Davis (1977) as well as to those contained in the Arkansas State Plan (Davis 1982). Copies of all records generated as a result of these investigations and all artifacts collected will be curated by the NPS at the Southwest Cultural Resources Center in Santa Fe, New Mexico.

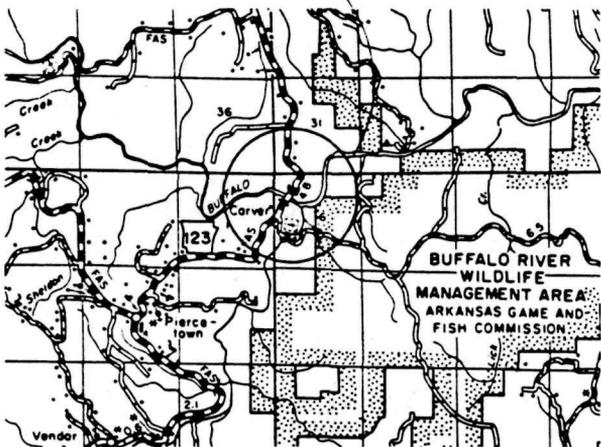
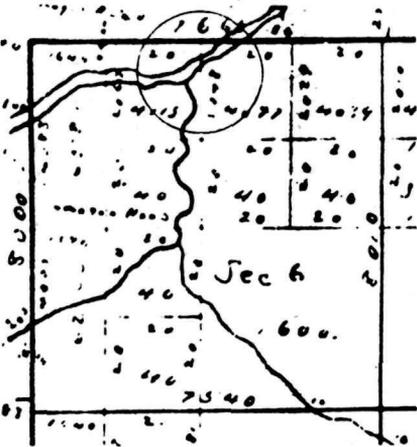
A search of the records curated in the Registrar's Office of the Arkansas Archeological Survey indicated that 2 sites were previously on record in or immediately adjacent to the project area. 3NW16 was recorded as a prehistoric site of unknown cultural affiliation located north of the Buffalo River and east of Highway 123 directly within project area. The site was recorded in 1962 by a member of the Arkansas Archeological Society on the first terrace above the Buffalo River in what was then pasture land. Lithics were said to be scattered thickly over the area (Newton n.d.). A weekly report filed on 12 May 1975 by Dr. Daniel Wolfman, Arkansas Archeological Survey Station Archeologist at Russellville concludes that the site is within the right-of-way for the new Highway 123 bridge to be constructed across the Buffalo River. Wolfman also found heavy lithic debris on 3NW16 at the time of his visit.

The second prehistoric site (3NW41) is located downstream from the Carver Bridge at Highway 123. It is described as a possible Archaic Period workshop located on a low second terrace overlooking the Buffalo River. The site was recorded by a member of the Arkansas Archeological Society in 1967. 3NW41 was also located in pasture but the recorder observed numerous pieces of worked flint along the eroded edge of the terrace (Newton n.d.). The exact dimensions of the site could not be determined by him so the Registrar of the Arkansas Archeological Survey maps 3NW41 as a triangle indicating that it may be located anywhere within 40 acres of the plot and therefore possibly within the project area.

Two other prehistoric sites have been recorded in the general vicinity including 3NW17 and 3NW257. 3NW17 is situated on a terrace south of the Buffalo River and east of Highway 123. Although the area was visited by Wolfman in 1975 in conjunction with the Highway 123 bridge survey during which a surface collection of lithic artifacts was conducted, 3NW17 remains of unknown cultural affiliation. Recorded by an amateur in 1969, 3NW257 is the largest of the nearby prehistoric sites. Possible Archaic Period activities have been recorded at this site which is situated northeast of 3NW41 and south of the Buffalo



**GENERAL PROJECT LOCATION**



<b>GENERAL PROJECT LOCATION</b>		
SCALE: various	Contract No. PX029-6-0094	DRAWN BY
DATE: Jan 1986		REVISED
General project vicinity		
Base maps Mt. Judea 7.5' USGS quad; 1847 GLO map; General Highway map Newton County, 1973		Figure 1

River. Wolfman (1979:37) has tabulated 110 open sites on Buffalo River terraces in Newton County and 202 for the entire Buffalo National River area. No cultural resources with historic components are on record for the area with the Arkansas Archeological Survey or with the State Historic Preservation Officer. No cultural improvements were reported by General Land Office when it conducted its survey of the area in 1847 (Figure 1). The 1933 and 1940 editions of the Mt. Judea 15' USGS quadrangle maps, however, both indicate a structure situated just east of Highway 123 in what was then the community of Carver, Arkansas and in what is now directly within the project area. The dirt farm roads which run the length of the project area and encircle Area B in Figure 2 are also clearly shown on both quad maps.

## PROJECT DESCRIPTION

The cultural resources survey of approximately 12 acres was conducted on 7 November 1985 by Ms. Kathleen A. Hinkle of HPA. Before traveling to the project area, Ms. Hinkle met with Mr. Bill Cunningham, Chief of Maintenance for the Buffalo Wildlife Management Area in Harrison. Mr. Cunningham provided Ms. Hinkle with a copy of the blue-line map of the project area on which he had marked the proposed route of an access road, a parking area and a primitive camping area. Mr. Cunningham indicated that he had placed wooden stakes at ca 50 ft intervals along the centerline of the proposed road.

The blue-line map provided by Mr. Cunningham differs from the map contained in the Scope of Work. The Scope of Work map depicts an area along the river bank (Area "A") as the proposed location of the canoe launch which corresponds with the proposed location of the canoe launch on the blue-line map provided by Mr. Cunningham. A dotted line on the Scope of Work map represents the route of the access road, but its exact location differs from Mr. Cunningham's map and from the staked centerline. The Scope of Work map also shows areas B and C which represent the proposed location of the primary primitive campground and an alternative campground site. These locations both correspond with the large area A in the blue-line map provided by Mr. Cunningham. Area B on the blue-line map provided by Mr. Cunningham is not depicted on the Scope of Work map. Both areas A and B of the blue-line map were described by Mr. Cunningham as locations for future development and therefore required no field review at that time. These discrepancies were discussed with archeologist James E. Bradford of the NPS Southwest Region office who advised that the field instructions of Mr. Cunningham should control the scope of the field investigations.

The proposed work consists of construction of up to a 1400 ft long access road incorporating an existing route in addition to some cuts across fencelines. A parking area will be created adjacent to the access road and involves the leveling off of a high spot (once a garden) and pouring gravel over the area. The camping area is considered to be primitive and will have only a gravel surface. A proposed pit toilet will require a 4 ft deep excavation. A boat ramp will be constructed at the edge of the river and will involve cutting existing vegetation down to the water's edge.

The project area is situated near the community of Carver and is less than  $\frac{1}{4}$  mile north the Carver Cemetery on State Highway 123. This portion of the Buffalo National River is surrounded by a series of hollows. Stillhouse and Hancock hollows are located north of the project area, while Elm Spring, Deal and Lime Kiln hollows are located to the west and south. The mouth of Big Creek is just east of the proposed boat launch area and is a primary reason for selection of this site for improvement. The river abuts a sheer bluff face directly across from the proposed campground and represents the farthest east that the river can migrate. The project area is situated on the north side of the Buffalo River at least 6 m above a ca 600 m long and 10 m to 30 m wide gravel bar. A relatively steep slope covered with green briar, small trees and other brush rises from the gravel bar to the first terrace. A series of erosional gullies cut this slope where the ground cover is primarily leaf litter.

The terrace itself measures roughly 60 m north-south x 610 m east-west and is flat and very open and quite visible from Highway 123. The entire terrace surface is covered with grass with the exception of mixed hardwoods bordering the slope edge along the river bank and along existing barbed wire fencelines. At some locations on the terrace, grass is from 2 ft - 3 ft high, while in others it is only several inches tall. To the north and east of the terrace the terrain is wooded and rises sharply. The terrain across the highway and to the west of the project is also characterized by a steady and steep rise in elevation from the river edge upward to the top of a large ridgetop bounded on either side by Stillhouse and Hancock hollows.

There is no published soil survey for Newton County, however, the Arkansas Natural Area Plan (1974) contains general information on area soils which are characterized by Ozark Highlands Limestones. These soils have developed primarily on the limestones of the Springfield and Salem plateaus. Soils are mainly silt loams that are deep in the valleys but thinner on the steeper hillslopes. Land in these areas is used for general farming, orchards and vineyards (Arkansas Department of Planning 1974:22). The Carver Bridge project area was apparently farmed or otherwise improved in the past as evidenced by old farm roads and the remains of fencelines.

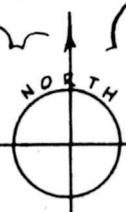
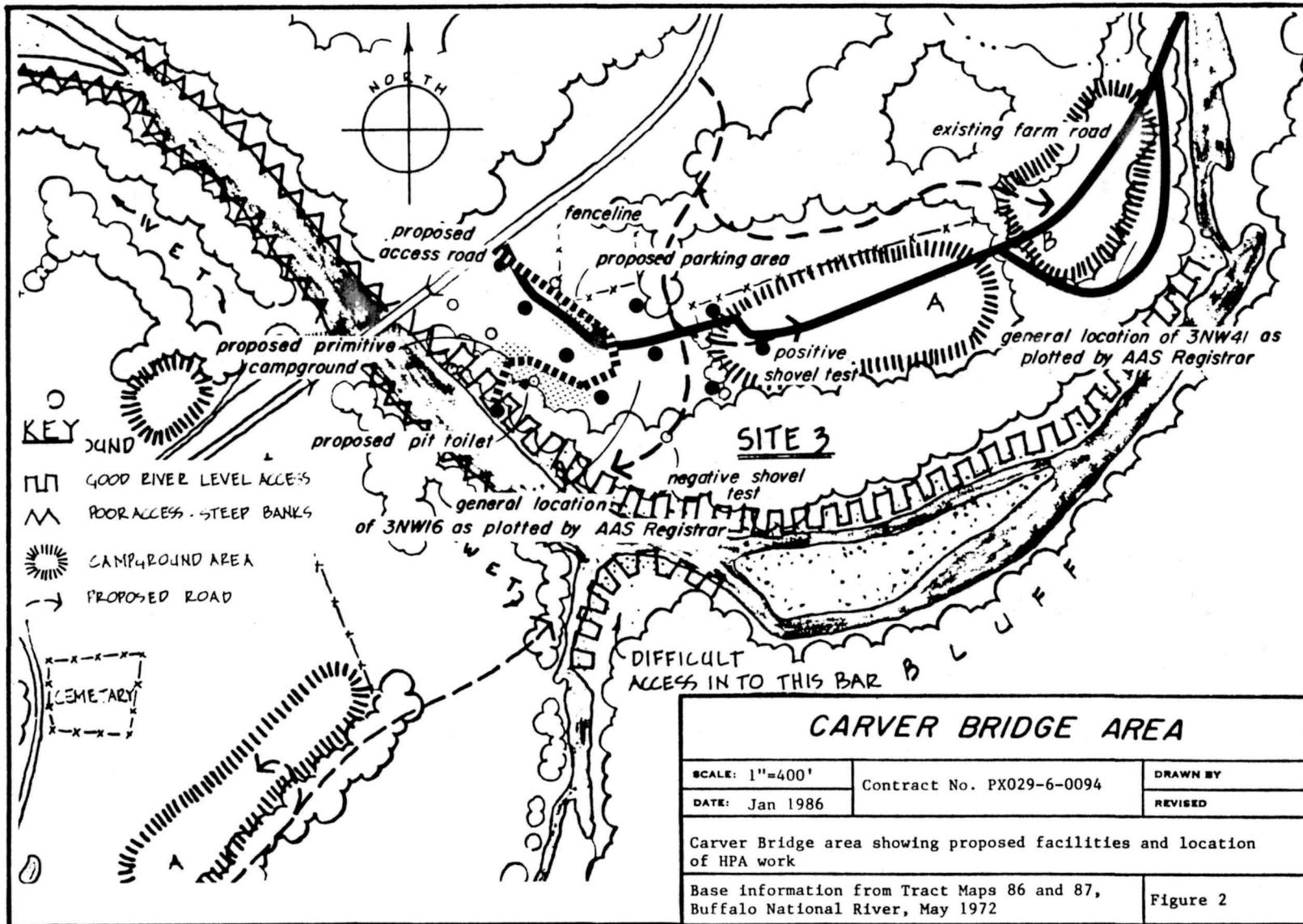
## FIELDWORK

The fieldwork began with pedestrian survey along an existing dirt farm road which parallels the staked centerline of the proposed access road and extends through areas A and B as depicted on the blue line map (Figure 2). A scattering of lithics was observed along the entire length of the road, and a general surface collection of these artifacts was made (Table 1). The distribution of artifacts along this road clearly represents material from both 3NW16 and 3NW41.

Because the remainder of the project area is in pasture, a series of shovel test transects was established. The purpose of the shovel testing was to locate and determine the extent of the two previously recorded sites (3NW16 and 3NW41) in relation to the project area.

Table 1  
Artifacts recovered from 3NW16 at Carver Bridge

Artifact Type	Surface		Transect 1		Transect 2		Transect 3		Transect 3		Transect 3		Transect 3		Transect 4		Transect 4		Transect 4		Transect 5		Transect 5		Total	Total
	Ct.	Wt.	S.t. 1 Ct.	Wt.	S.t. 3 Ct.	Wt.	S.t. 1 Ct.	Wt.	S.t. 2 Ct.	Wt.	S.t. 3 Ct.	Wt.	S.t. 5 Ct.	Wt.	S.t. 1 Ct.	Wt.	S.t. 2 Ct.	Wt.	S.t. 3 Ct.	Wt.	S.t. 1 Ct.	Wt.	S.t. 2 Ct.	Wt.	Ct.	Wt.
Cores	1	151.4																							1	151.4
Primary Decort. Flakes			1	0.4	1	1.1												1	2.9						3	4.4
Secondary Decort. Flakes					2	0.8				2	6.6				2	1.8			1	4.9					7	14.1
Interior Flakes	1	2.2			1	4.3	6	8.6	3	15.4	4	5.0	1	0.1	3	1.2	1	1.0	4	9.8	1	0.7	1	2.9	26	51.2
Shatter	2	30.8						1	0.1															3	30.9	
Biface Fragments																			1	10.4			1	32.8	2	43.2
Dart Point Fragments	2	9.2																						2	9.2	
<b>Total</b>	<b>6</b>	<b>193.6</b>	<b>1</b>	<b>0.4</b>	<b>4</b>	<b>6.2</b>	<b>6</b>	<b>8.6</b>	<b>4</b>	<b>15.5</b>	<b>6</b>	<b>11.6</b>	<b>1</b>	<b>0.1</b>	<b>5</b>	<b>3.0</b>	<b>3</b>	<b>8.8</b>	<b>5</b>	<b>20.2</b>	<b>1</b>	<b>0.7</b>	<b>2</b>	<b>35.7</b>	<b>44</b>	<b>304.4</b>



existing farm road

proposed access road

fenceline

proposed parking area

proposed primitive campground

positive shovel test

general location of 3NW41 as plotted by AAS Registrar

**KEY**

○ SAND

▭ GOOD RIVER LEVEL ACCESS

∧ POOR ACCESS - STEEP BANKS

☀️ CAMPGROUND AREA

→ PROPOSED ROAD

proposed pit toilet

**SITE 3**

negative shovel test

general location of 3NW16 as plotted by AAS Registrar

DIFFICULT ACCESS INTO THIS BAR

CEMETARY

Five shovel test transects were excavated running north of and perpendicular to the Buffalo River at 50 m intervals, with 50 m between each test (Figure 2). Distances between transects and between each shovel test were paced. The orientation of each transect from magnetic north was calculated with a Brunton compass. The depth of each shovel test was recorded along with soil texture, Munsell color and presence or absence of artifacts and other evidence of past cultural activity (Table 2).

Table 2  
Description of Shovel Test Transects at Carver Bridge

Transect Number	Shovel Test #	Depth	Soil Texture	Soil Color	Artifacts Present
1	1	0-5 cm	scc	10YR4/4	x
		5-30 cm	scc	7.5YR5/6	
	2	0-15 cm	scc	10YR3/4	
		15-30 cm	scc	7.5YR4/6	
2	1	0-40 cm	scc	10YR4/4	
	2	0-25 cm	scc	10YR4/6	
	3	0-35 cm	scc	10YR4/6	x
	4	0-25 cm	scc	10YR4/4	
3	1	0-30 cm	scc	7.5YR4/4	x
	2	0-33 cm	scc	7.5YR4/4	x
	3	0-30 cm	scc	7.5YR4/6	x
	4	0-5 cm	scc	10YR4/3	
		5-35 cm	scc	7.5YR4/6	
5	0-32 cm	scc	7.5YR4/6	x	
4	1	0-40 cm	scc	7.5YR4/6	x
	2	0-34 cm	scc	7.5YR4/6	x
	3	0-30 cm	scc	10YR4/3	x
5	1	0-37 cm	scc	7.5YR4/6	x
	2	0-40 cm	scc	7.5YR4/6	x
	3	0-37 cm	scc	10YR4/4	

scc = sandy cherty clay

## RESULTS

Evidence of both 3NW16 and 3NW41 was discovered during our field investigations although only surface data was documented from 3NW41. Eleven (65%) of 17 excavated shovel tests contained artifacts (tables 1 and 2). The soil in the area is consistently a sandy cherty clay that becomes more clayey below 40 cm. The high amount of naturally occurring chert in the soil made identification of culturally altered stone difficult and also hampered excavation of shovel tests.

The five shovel test transects extended approximately 200 m east-northeast of Highway 123 into the Scope of Work Area A which is the area that encompasses 3NW16 (Figure 2). The area directly east of Highway 123 and the Carver Bridge appears to have been impacted by construction of the bridge. There is evidence that gravel fill has been brought in and a utility pole has been installed as reported by Wolfman's weekly report of 12 May 1975.

The easternmost transect (number 5 in Figure 2) contained two of three positive shovel tests. Because the remainder of areas A and B are in a similar topographic setting, it is likely that 3NW16 continues along the entire terrace and encompasses the subsequently recorded 3NW41. The Registrar's plot for 3NW41 corresponds with Area B on Mr. Cunningham's blue-line map.

Three shovel tests were excavated to the north of the proposed access road and Area A only one of which was culturally sterile. The terrain just north of these tests begins to rise, becomes quite steep and appears to be the northern limit of 3NW16. Three shovel tests were excavated in the vicinity of the river's edge. Two were negative and one was positive. This area is south of the proposed primitive camp ground and is covered with thick greenbriar and small mixed hardwoods. The land surface drops off sharply and is marked by deep erosional gullies which extend down to the Buffalo River. Modern trash has been dumped into some of the gullies.

Estimated boundaries for 3NW16 are topographically set in each direction. The loop in the Buffalo River identifies the southern and eastern site limits. Rapid changes in elevation and river course just west of the Highway 123 corridor limit the extent of usable land surface in that direction. While it appears that at least part of 3NW16 was affected by the construction of the bridge by the Arkansas Highway Department, it is unlikely that the site ever extended much further to the west than the existing road right-of-way. The northern and northwestern boundaries are similarly restricted by steep elevation changes. The northeastern boundary, within which 3NW41 was originally recorded, is likewise limited by steep terrain and river course. All of these natural restrictions represent boundaries within which maximum site limits can be calculated. With these features as a guide, we estimate maximum site area of 3NW16 as ca 600 m northeast-southwest x 300 m northwest-southeast for an area of ca 18 ha (44.5 acres). The core of 3NW16 is limited to the relatively flat natural terrace covering an area of ca 540 m northeast-southwest x 160 m northwest-southeast for an area of ca 21.3 ha (8.6 acres).

Vertical extent of 3NW16 is more difficult to calculate. Although artifacts were discovered in shovel tests that were excavated as deep as 40 cm (number 2 in transect 5, Table 2) it is unclear whether the context of the single flake and biface fragment was that deep. Based on all of the information collected to date, the vertical limits of 3NW16 appear to be restricted to the upper 10 cm to 15 cm. No artifacts have yet been discovered from the site which would aid in identifying its period(s) of use. Neither of the two surface collected dart point fragments are of large enough to assign to an established style. No

prehistoric pottery, grinding basins or other larger artifacts have been discovered on the Carver Bridge terrace which lends some support to the

original assignment of 3NW41 as an Archaic Period workshop (perhaps associated with the nearby gravel bar). With the exception of various fencelines and the identification of a possible garden spot, no evidence of the structure identified on the Mt. Judea 1933 and 1940 15' quadrangles was discovered.

## DISCUSSION AND RECOMMENDATIONS

The fieldwork carried out by HPA has documented that the proposed access road, campground and parking facility as planned will impact 3NW16 whose boundaries should now be modified to encompass the subsequently recorded 3NW41. It is our conclusion that further testing and assessment (on both the prehistoric and possible historic components including archival research) is necessary before any of the improvements take place to determine whether National Register quality data might be affected.

## REFERENCES CITED

- Arkansas Department of Planning  
1974 Arkansas Natural Area Plan. State of Arkansas, Department of Planning, Little Rock.
- Davis, Hester A. (editor)  
1982 A state plan for the conservation of archeological resources in Arkansas. Arkansas Archeological Survey Research Series 21. Fayetteville.
- McGimsey, Charles R., III and Hester A. Davis (editors)  
1977 The management of archeological resources, the Airlie House Report. Special publication of the Society for American Archeology.
- Newton, John P.  
n.d. A preliminary archeological survey of the upper Buffalo River basin. Unpublished manuscript on file with the Arkansas Archeological Survey.
- Wolfman, Daniel  
1979 Archeological Assessment of the Buffalo National River. Arkansas Archeological Survey Research Report 18. Fayetteville.

## PROJECT PARTICIPANTS

KATHLEEN A. HINKLE directed the fieldwork and authored various portions of the report. Ms. Hinkle received a B.A. in anthropology from Ball State University in 1980 and an M.A. degree in anthropology from the University of Arkansas in 1984.

TIMOTHY C. KLINGER served as Principal Investigator. Mr. Klinger received an M.A. degree in anthropology from the University of Arkansas in 1977 and a J.D. from the University of Arkansas School of Law in 1982. Mr. Klinger is a member of the Society of Professional Archeologists and is an Attorney at Law licensed by the State of Arkansas.

## SCOPE OF WORK

### ARCHEOLOGICAL TEST EXCAVATIONS AT CARVER BRIDGE BUFFALO NATIONAL RIVER NEWTON COUNTY, ARKANSAS

#### 1. INTRODUCTION

The National Park Service, acting through the Southwest Regional Office, is proposing to have archeological testing conducted at a proposed canoe launch and campground facility near Carver Bridge in Newton County, Arkansas. This action is necessary in order to determine if cultural resources exist within or near the proposed facilities and if conflicts occur between the proposed developments and the protection of any cultural resources that may occur in the area.

The field work will consist of a systematic pattern of shovel tests and trenches designed to determine if cultural resources occur within the proposed facility areas and, if so, to determine the nature and extent of the prehistoric site and to make recommendations on how best to avoid such cultural resources and what type and how much additional archeological investigation would be necessary to mitigate any negative impacts on these resources as a result of the proposed action.

The field work will be followed by the preparation of a final report that describes the work undertaken, discusses the data retrieved, and makes recommendations on site avoidance and any subsequent studies which may be necessary.

The work defined herein is to be performed in accordance with this Scope-of-Work under the authorities of the Antiquities Act of 1906, the Historic Sites Act of 1935, the National Historic Preservation Act of 1966 (as amended in 1980), P.L. 94-422, and in conformance with approved policies and standards of the National Park Service.

#### 2. BACKGROUND

As part of a continuing program to provide adequate and safe facilities for public use at Buffalo National River, the National Park Service has proposed to construct a canoe launch site with access road and associated campground facilities near Carver Bridge. The access road will incorporate an existing

road and be improved by applying fill to raise the roadbed. The canoe launch area will require some bank cutting near the river's edge. The camping area is designated a "primitive" campground and, as such, will not entail any major construction or earth modification. Pit toilet installation will be the only ground disturbing activity for the campground.

However, all of the facilities are planned in the vicinity of archeological site 37W16 northeast of Carver Bridge on State Highway 123.

#### 3. SCOPE OF WORK

Due to the possible negative impacts of the proposed facility construction, limited archeological investigations are necessary. The purpose of these investigations are: 1) to survey the proposed facility areas for evidence of cultural resources, 2) to delineate the horizontal and vertical boundaries of any archeological sites encountered and, where possible, to acquire adequate data to determine the nature of the site(s), its depositional context and age, and any obvious disturbances or alterations to the general site area, and 3) offer recommendations on site avoidance or additional investigations as may be necessary.

The field investigations will consist primarily of shovel tests, probes and other sub-surface exploratory techniques as necessary, in a systematic manner across the proposed facility areas. These include approximately 12 acres of land divided between two proposed campground localities, a canoe launch area adjacent to the river, and up to 1,400 feet of access road from Route 123 to the campground areas. The Chief of Maintenance or his representative from the staff of Buffalo National River will be on site to define the various development areas to the field archeologists. All field methodologies and data recording will be conducted according to accepted professional standards and guidelines.

The report will provide the necessary information, background, description and conclusions as required above and will be written according to current professional standards.

A draft copy of the report will be submitted to the National Park Service, Division of Anthropology, Southwest Cultural Resources Center for review and comment. If necessary, a final report will be submitted by the deadline date which incorporates any comments and suggestions made in the review draft.

#### 4. SCHEDULE

The work described above is expected to begin on or around November 7, 1985 with the final report delivered by January 31, 1986.

#### 5. COLLECTIONS

All materials recovered and all documentation generated by this project remain the property of the National Park Service. All such materials will be submitted to NPS with the final report and will be curated at the Southwest Cultural Resources Center in Santa Fe, New Mexico.

