

1970

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Recommended Citation

Morrison, James D. (1970) "Eddy Bluff Shelter of Beaver Reservoir of Northwest Arkansas," *Journal of the Arkansas Academy of Science*: Vol. 24, Article 31.

Available at: <https://scholarworks.uark.edu/jaas/vol24/iss1/31>

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The Eddy Bluff Shelter of Beaver Reservoir of Northwest Arkansas

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INTRODUCTION

A bluff shelter on White River within the impoundment area of Beaver Reservoir near Springdale, Arkansas, was initially investigated by Paul S. Eddy, a University of Arkansas student interested in archeology. Several days of sifting through the material in the shelter provided an abundance of artifacts and animal bones which appeared to merit further investigation and description.

Although there has been extensive investigation of shelter assemblages with respect to artifacts and human occupation, little attention has been paid to animal remains. Such an investigation was undertaken and reported by Cleland (1965) on materials from several shelters in northwest Arkansas.

The Eddy Shelter is located on White River eight miles east of Springdale, Arkansas, and is one of many shelters in the Beaver Reservoir area. The shelter faces north and overlooks the lake from a point on a hillside fifty feet above the normal lake level. The mouth of the shelter is forty-six feet wide and its depth is thirty-nine feet (Figure 1). The ceiling rises to a maximum of seven feet. The origin of the shelter is believed to have been due to solution of a space in the lower part of the St. Joe limestone member of the Boone Formation. The floor of the shelter below the debris layer is on the



Figure 1. Mouth of the Eddy Shelter, showing St. Joe Limestone.

Chattanooga Shale of Mississippian age. The greatest depth of debris is twelve feet.

Excavation Procedures were adapted from *A Guide to Archaeological Field Methods*, by R. F. Heizer, and from the advice of James A. Scholtz, Assistant Director of the Museum, University of Arkansas. Local "pot hunters" had removed small amounts of material from the shelter before the initial excavations for this survey were undertaken. An effort was made to prevent further intrusion by means of a notice concerning the nature of the work being done. This effort met with partial success. The initial excavations were mostly in the nature of a salvage operation. Because the shelter debris provides close association of artifacts and animal remains, it was decided that an additional orderly investigation would be made, involving control of location and depths from which material came. One test pit was excavated, with layers removed at six inch intervals. This pit was four and one-half feet square at the top. The walls sloped inward to a three and one-half foot square at the bottom (Figure 2). The slope of the pit walls provided support as a safety procedure. The pit was dug with a conventional trowel, with light furnished by a Coleman lantern. All material in the pit, as well as the rest of the shelter, was sifted through screens of one-quarter inch mesh, except that dampness of the clayey material in the lower levels of the pit made sifting impossible. A close and thorough inspection of this material had to suffice as a method of searching for any cultural or faunal remains. Since the floor of the shelter had been lowered three feet before the pit was initiated, the uppermost part of the section, which contained most of the cultural and faunal material, was missing. This factor, combined with the fact that very little cultural material was obtained from the pit, eliminated the possibility of assembly of a meaningful cultural sequence.

Fallen rock from the ceiling of the shelter is intermingled throughout the deposits. Excavation of the pit indicates that there were intervals when rock fell from the ceiling in greater or lesser abundance. The concentration of rock in layers may represent times when larger

(1) Referred to in official records of the Arkansas Archeological Survey as 3WA146.



Figure 2. Excavated area of the Eddy Shelter, showing location of test pit in the left portion of the excavated area.

amounts of water were seeping through the limestone, or when winter freezing was more intense, and thus may reflect variations in climate. (Figures 3 and 4).

Approximately 4,000 bones and bone fragments have been recovered from Eddy Shelter. These are principally the bones of animals hunted for food by the inhabitants. Among these are deer, woodchuck, raccoon, opossum, squirrel, turkey, and terrapin.

Some human remains were collected, but none seemed to be in what could be called a "burial", in that no artifacts were found in direct association with these remains. The bones occur in several places in the shelter and at different depths. Among them are fragments of foot, leg, and arm bones, and several pieces of skull, including two pieces of jaw with teeth.

Eight domestic pig teeth and three pieces of pig skull were recovered at levels from one to six feet. These pig remains have been investigated by Quinn (1970).

Quinn has pointed out that *Sus*, the Old-World pig, is believed to have been introduced into North America by Spaniards circa 1540 and that pig remains in pre-Columbian bluff shelter assemblages have systematically been attributed to intrusion of "recent" material into the older assemblages. In the Eddy Shelter, Quinn used the apparent association of pig remains with late Archaic to early Woodland projectile points, and with a Carbon 14 date of 2900 years before present to indicate presence of *Sus* in North America before 1492. Additional data may or may not substantiate this concept.

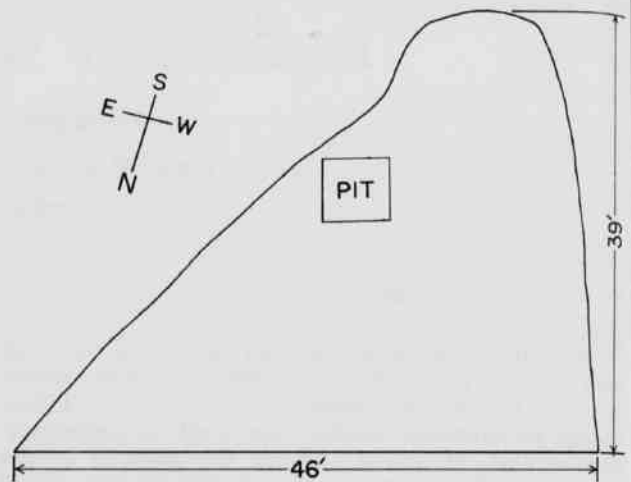


Figure 3. Floor plan of Eddy Shelter, showing location of pit.

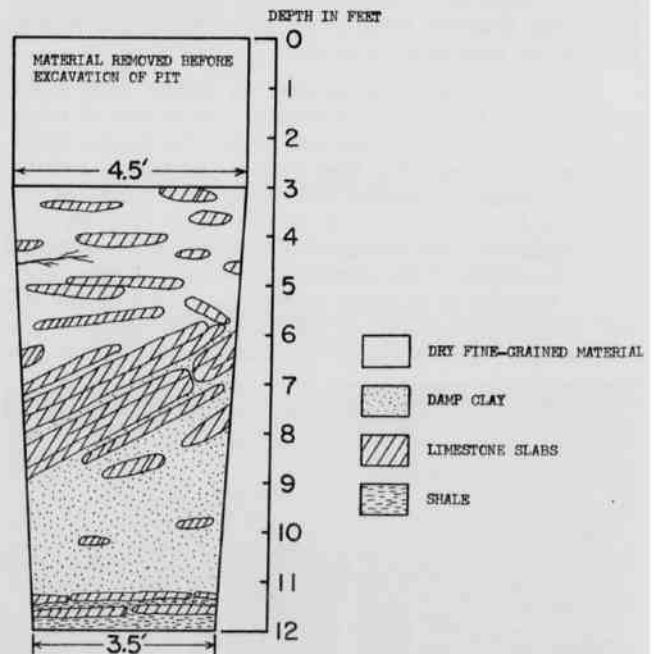


Figure 4. Profile of west wall of pit.

The bones from the shelter include remains of the following:

Class Mammalia

- Order Artiodactyla
 - Family Cervidae
 - Cervus canadensis** Elk
 - Odocoileus virginianus** White-tailed deer
 - Family Suina
 - Sus scrofa** Pig
 - Family Bovidae
 - Ovis avies** Sheep (recent)
- Order Carnivora
 - Family Felidae
 - Felis concolor** Cougar
 - Lynx rufus** Bobcat
 - Family Canidae
 - Canis rufus** Red wolf
 - Canis latrans** Coyote
 - Vulpes fulva** Red fox
 - Urocyon cinereoargenteus** Gray fox
 - Canis familiaris** Indian dog
 - Family Procyonidae
 - Procyon lotor** Raccoon
 - Family Mustelidae
 - Mustela frenata** Weasel
 - Spilogale putorius** Stripped skunk
- Order Marsupialia
 - Family Didephidae
 - Didelphis marsupialis** Opossum
- Order Insectivora
 - Family Soricidae
 - Sorex longirostris** Shrew
 - Family Tulpidae
 - Scalopus aquaticus** Eastern mole
- Order Lagomorpha
 - Family Leporidae
 - Sylvilagus floridanus** Eastern cottontail
- Order Rodentia
 - Family Sciuridae
 - Sciurus carolinensis** Gray squirrel
 - Marmota monax monax** Woodchuck
 - Tamias striatus** Chipmunk
 - Family Castoridae
 - Castor canadensis** Beaver
 - Family Cricetidae
 - Neotoma floridana** Pack rat
 - Ondatra zebethicus** Muskrat
 - Peromyscus boylii** Mouse
 - Peromyscus leucopus** Mouse

- Order Chiroptera
 - Family Vespertilioindae
 - Myotis lucifugus** Brown bat
 - Pipistrellus sublavus** Bat
- Order Primates
 - Family Hominidae
 - Homo sapiens** Man
- Class Aves
 - Order Columbiformes
 - Ectopistes migratorius** Passenger pigeon
 - Order Galliformes
 - Meleagris gallopau** Turkey
- Class Reptilia
 - Order Chelonia
 - Terrapene carolina** Wood turtle
- Class Pisces
 - Aplodinotus grunnius** Fresh water drum
 - Cyprinus carpio** Carp
- Class Gastropoda
 - Mesodon indianorum** Pulmonate snail
- Class Pelecypoda
 - Unio** Fresh water mussel

A very fine collection of artifacts was recovered from the Eddy shelter. A minimum of thirty-five projectile point styles have been recognized in the collection, as well as knives, scrapers, drill points, pottery fragments, and items of bone. The artifacts illustrated in plates one and two are but a small fraction of the total collection. Some of the point types not illustrated are Smith, Ellis, Marcos, Nodena, Johnson, and Williams.

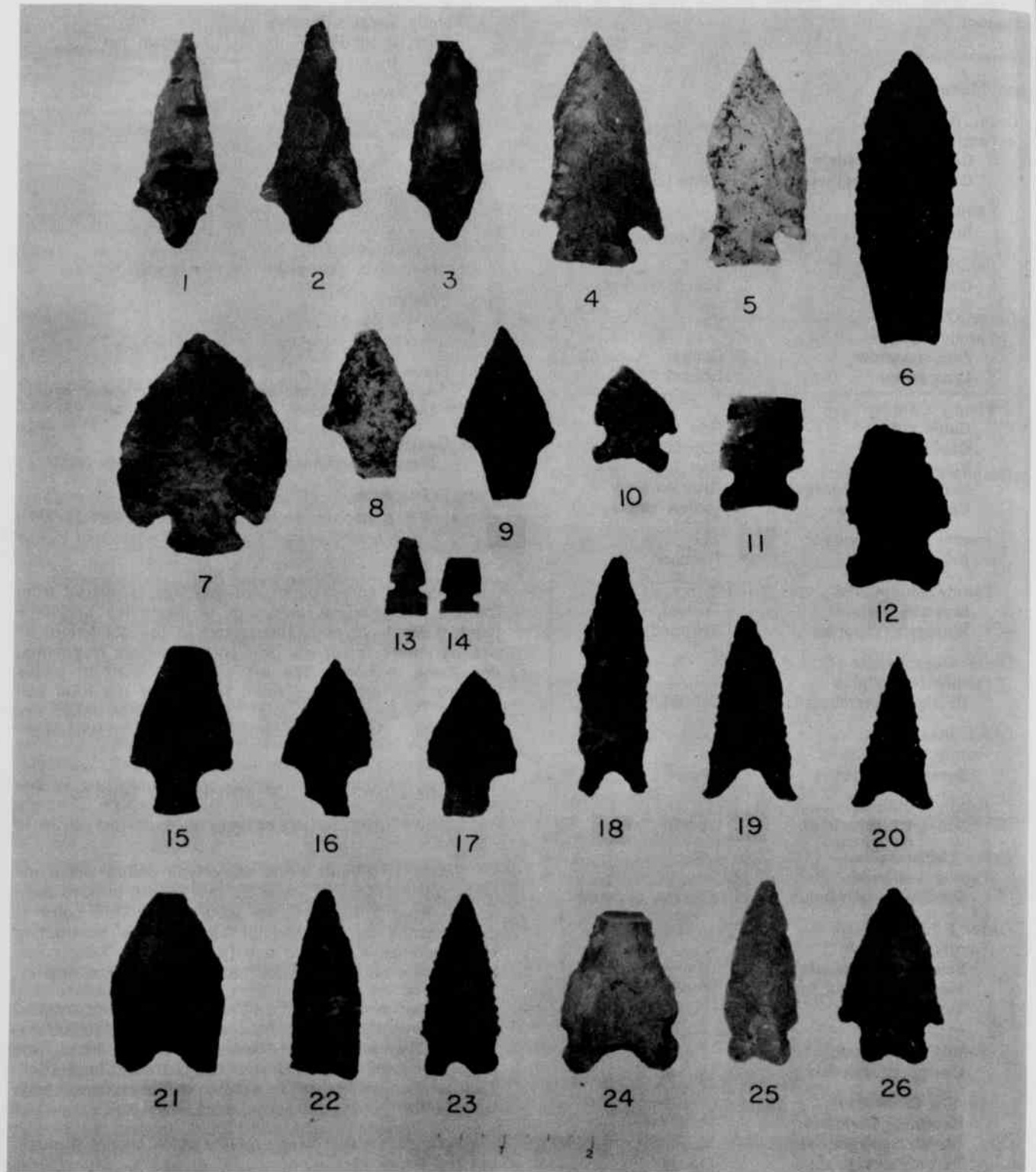
IDENTIFICATION OF PROJECTILE POINTS

PLATE ONE

Points 1, 2, and 3 are Gary type points which exhibits a wide range of variation and appear to have been in use from 2,000 B.C. to 1,000 A.D. This point is distinguished by a triangular blade and a contracting stem that has a rounded end (Bell, 1958). This is one of the most abundant types recovered from the shelter.

Points 4 and 5 are thin broad, deeply corner notched dart points with angularly recurved blade edges (Scholtz, 1967). They are named Afton points, and have a time range between 3,000 B.C. and the birth of Christ (Bell, 1958). Two points of this type were recovered from the shelter.

Point 6 is a fine Searcy point, which occurs throughout the Ozark area of northwest Arkansas. Characteristics of this point type are contracting stem, concave





base, and convex blade edges. Good workmanship is reflected in the delicate serrations of the blade, and the stem edges have been ground. The **Searcy** point was in use from 5,000 to 3,000 B.C. (Perino, 1968).

Point 7 has a broad ovate blade, a relatively small stem, and displays poor workmanship (Scholtz, 1967). The point compares with the CN4 Category of Scholtz, and has an estimated time range of 3-4,000 B.C. to 1,000 A.D.

Points 8 and 9 are **Langtry** points, which have an estimated age from an unknown time before Christ to around 1,000 A.D. This type point is one of the more abundant forms found in the Eddy Shelter assemblage. The point has a triangular blade and a long stem which terminates in a straight or concave base (Bell, 1958). Point 9 is a typical example of the **Langtry** point.

Points 10, 11, and 12 are varieties of the **Big Sandy** type point, which is distinguished by side notches and a slightly concave base. The blade is basically triangular in outline. The age range has been estimated from 5,000 B.C. to the time of Christ (Bell, 1960). The three points shown are the only examples recovered from the shelter.

Points 13 and 14 exhibit thin profile, slightly concave base, and side notches. These points resemble the **Cahokia** and **Reed** points, which express considerable variation. They were in use about 900 A.D., thus they are one of the most recent types recovered from the shelter.

Points 15, 16, and 17 are of a widespread type known as **Table Rock** points. They are characterized by broad corner notches and an outline that has been compared to a "fir tree" by Scholtz. An estimated date for the point type is around 1,500 B.C. (Perino, 1968). Point 16 is a typical **Table Rock** point, including grinding and smoothing of all edges in the hafting area.

Points 18, 19, and 20 resemble the **Dalton** point which has a suggested range of 8,000 to 3,000 B.C. The three points shown are variations of the **Dalton** type point and are the only specimens recovered. The **Dalton** point is characterized by a triangular blade, which is beveled and serrated. The base is deeply concave and some display grinding or smoothing of the edges (Bell, 1958). Point 19 is the most typical example of this type point.

Points 21, and 22 have characteristics which compare to point styles of Late Paleo to Early Archaic age (around 8,000 B.C.). This factor, combined with the position of the points in the lower levels of the shelter, suggest that they are the oldest types recovered from the shelter.

Points 23 and 24 resemble the **Rice** point, which is abundant in the Ozark area of Arkansas, Missouri, and

Oklahoma. The points are thick with triangular blades and slightly convex blade edges. Frequent resharpening causes the blade edges to become concave or recurved (Point 24). The corner notching and the concave base create a lobed effect. Other characteristics of the point are beveling and serrating of the blade and grinding in the hafting area. They were probably in use from 5,000 to 3,000 B.C. (Perino, 1968).

Points 25 and 26 are small to medium-sized dart points with slight shoulders, expanding stem, concave base, and well-rounded corner (Scholtz, 1967). These points are very similar to the **Uvalde** and **Frio** type points which were in use between 4,000 B.C. and 1,000 A.D.

ARTICLES OF STONE, BONE, AND POTTERY

PLATE TWO

Artifact 1 is the largest fragment of pottery recovered from the shelter. Many smaller pieces of pottery were collected but no pots could be reconstructed.

Artifact 2 is the shell of a land terrapin which has been smoothed on the inside and possibly used as a cup or dipper.

Artifact 3 is a "gorget" made of limestone which has been polished. It was worn around the neck for ornamentation or protection.

Artifacts 4 and 5 are fine awls or needles made from bone. They show much polishing from use.

Artifact 6 is the only complete fishhook recovered from the shelter. It is made from bone and illustrates good workmanship.

Artifacts 7 and 8 are parts of a necklace or bracelet which are made from teeth. Item 7 is made from a beaver tooth.

Artifacts 9 and 10 are blades fashioned from chert. Item 9 is thin suggesting use as a knife. Item 10 is thick, and was probably used as a scraper.

Artifacts 11, 12, and 13 are drill points displaying wide variation in style. Point 11 is probably a projectile point which has been reworked into a drill point.

ACKNOWLEDGEMENTS

Appreciation is due to Dr. James H. Quinn of the Department of Geology, University of Arkansas, and to James A. Scholtz, for their aid, interest, and advice. The permission of the landowner, Douglas Stone, for excavation is also appreciated, as well as the photography of James Edson.

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