

DR. DELLINGER STUDIES

Indian Hall Of Fame

University of Arkansas Professor Uncovers New History in Spiral Mound Research
Made Possible by Col. T. H. Barton of El Dorado.

By Edgar B. Chesnutt.

12-12-37

Artifacts recovered from an unusual burial mound in the upper Arkansas river valley just across the state line in Oklahoma near the town of Spiro are disclosing some amazing new facts about Indian life in that area, reports Dr. S. C. Dellinger, curator of the University of Arkansas Museum and professor of zoology.

Dr. Dellinger is making a study of the mound and its artifacts, a study made possible through the personal interest and financial assistance of Col. T. H. Barton of El Dorado, who has placed in Dr. Dellinger's hands many artifacts taken from the mound, as well as providing him with funds for visiting other sections of the country to study items obtained by collectors.

Study of the mound's yields is expected to solve many problems of long standing in archeological circles, Dr. Dellinger says. One reason for Dr. Dellinger's optimism along these lines is the unusually large number and wide assortment of artifacts found, and the splendid condition in which they were.

"Evidently the mound housed a sort of Westminster Abbey, or Hall of Fame, of the Indians," Dr. Dellinger says. "Underneath the mound was a large cedar log structure where the outstanding members of the tribe were buried: priests, chieftains and others. The ceremonial articles they owned and other possessions were buried with them. When this so-called Hall of Fame was filled, it was covered over with dirt. Then, as other great Indians died, they were buried just outside the log structure. Probably Indians from other areas, from 40 to 50 miles away, who had died previously, were dug up and their bodies reburied at the more famous Indian cemetery, as is shown by the presence of only the skull and large bone of each individual and their arrangement. All indications point to the Spiro mound being much more important to the Indians than an average burial ground. It had class, distinction and other features that plainly indicate the Indians considered burial there a great honor."

The Spiro mound was first dug into in December, 1935, by Quinn Cooper and Kenneth McKenzie, who had heard strange tales that it contained many valuable curios and had leased it from a Negro. The mound, more than 180 feet long, was oval in shape and huge trees grew on it, indicating that it was centuries old.

Cooper and McKengie dug a trench in the middle of the mound and started



A view of the mound with scientific digging under way, showing how the excavating is done step by step.

to scoop out a ditch from one side to the other. About half-way down they discovered a winding tunnel, which led to a wall of cedar posts. Blasting through this, the youths found themselves in a large chamber, which Dr. Dellinger believes was the so-called Hall of Fame. It was 15 feet high, 20 feet wide and 30 feet long.

At one end of the chamber the youths found a huge urn filled with thousands of beautiful pearls, all drilled through the center, apparently for stringing. Other articles included a stack of copper shields or breastplates, numerous conch shells, containing engraved figures and designs, pieces of a head-dress covered with copper, a quantity of mica, cloth, stone pipes, etc.

Of particular interest was a shrouded figure at one end of the underground chamber. Lifting the shroud, the young curio hunters were startled at the sight of a well-preserved skeleton, the skull of which Dr. Dellinger later obtained for study.

The presence of the copper probably accounts for the splendid state of preservation of the artifacts, Dr. Dellinger points out. The high degree of preservation maintained in the mound is seen in the fact that among the artifacts recovered were copper axes with their original wooden handles intact. The ax handles are of persimmon wood, some of them inlaid with mother of pearl. The fact that such a soft wood was used, and so much attention devoted to

Left—Col. T. H. Barton of El Dorado, who made possible the study of the Spiro mound. Right—Dr. S. C. Dellinger of the University of Arkansas holding one of the huge conch shells, with engravings on it, taken from the mound.



enhancing their beauty indicates clearly the axes were used solely for ceremonial purposes, Dr. Dellinger says.

Many features of the mound reveal a definite Hopewell mound culture relationship in the South for the first time, he says. The Hopewell is the most famous Indian mound culture in the upper Mississippi. Associated with the Hopewell culture are the log house mound interiors, cremation of bodies, the burying of ceremonial pipes and other articles valued highly by the Indians.

The finest collection of mace heads, made of flint, he has ever seen came from the mound, Dr. Dellinger said. The mace was a symbol of authority and the fact that those taken from the Spiro mound had been used many years is seen in the fact that while of the hard flint rock, they were worn smooth and polished from handling.

Evidently the Indians who occupied the site around the mound and used the burial mound were there late before the coming of the white man, Dr. Dellinger believes. And the type of items buried with the Indians in the mound shows clearly that the occupants were outstanding dignitaries of the tribe.

There is every evidence that a large and flourishing tribe lived in the vicinity of the mound. Burials of less important individuals were found all around the central part of the mound, some in the porch-like protrusion to the mound.

While it will take many months to



figure out their significance, Dr. Dellinger is confident that startling data about the occupants of the vicinity of the mound will be found in the many designs found on the artifacts he already has examined and those he plans to view in other sections.

It is estimated that the shell beads taken from the mound will fill more than 10 bushel baskets. Associated with the burials were many gorgets portraying all kinds of scenes, with figures on them, some engraved and others in vivid relief. The workmanship required for such engraving reveals that the tribe using the mound was highly cultured, Dr. Dellinger points out.

Throughout the artifacts are indications of Mexican influence. There are pictures of plumed serpents, warriors with eagle feather headdresses, large pipes, one of which has the picture of a priest in full regalia, another with a woman carrying a baby on her back in a carrier.

Some of the pipes, Dr. Dellinger says, were made from a soft reddish stone that came from Pipestone, Minn., a fact showing that commerce was carried on with another part of the country. Copper breastplates and other copper artifacts found in the mound ap-

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parently were made from metal obtained from the Lake Superior region, another indication of commerce with distant tribes.

In a large pit beneath the floor of the burial hut inside the mound was found a large quantity of galena, a metal that became widely known about 14 or 15 years ago when it was used in the first crystal radio sets. Dr. Dellinger expects to make an extensive study of this phase of the mound to determine whether the Indians valued the mineral for its brightness or for some other feature.

Many quartz crystals were found, as were pendants, arrow points and other rock artifacts. Among the latter were many boatstones, a small charm worn by the Indians, who believed it would prevent drowning.

Portions of cremated bodies were recovered from the mound. Charred cloth and baskets were with them.

Many fragments of cane baskets, well preserved, were salvaged. From a study of these Dr. Dellinger will endeavor to determine the kind of vegetation that grew in the vicinity of the ground, and from the design of the weave, who the weavers were.

Long flint knives, some as long as 30 1-2 inches, were recovered, as were bone implements such as needles and marrow spoons.

The various features and contents of the mound, tie in with the characteristics of the Tennessee Cumberland and the Muskogean Indians, the Creeks and Choctaws, Dr. Dellinger says.

Equally as interesting as the hidden chapters of history that will unfold themselves as Dr. Dellinger delves into the increasingly large collection of artifacts will be the story he finally tells of how this rich archeological assortment was allowed to be so tragically trampled upon.

The mound, located in the Arkansas river bottoms, just a few miles across the line in Oklahoma, was on land owned by a Negro boy whose property was handled by a guardian. For many years it had been reported that a large Indian tribe once lived somewhere in the vicinity of Spiro, but each time a mound was excavated it proved to be nothing but a high pile of dirt. It was characteristic of the Indians to build numerous plain mounds in the vicinity of their burial mounds to keep the latter from being detected immediately.

Finally a Negro preacher became convinced that the large mound in La Flore county really contained Indian burials. He interested Cooper and Hicks in the idea of acquiring possession of the mound and excavating it.

Dr. Dellinger shudders at the thought of how crudely and carelessly the mound was dug up and scattered about. He sorrowfully relates how most of the cedar logs of which the buried ceremonial house was constructed were carelessly burned.

"At the best, archeological history is but fragmentary, but when articles are disturbed they are more difficult to handle than a picture puzzle," says Dr. Dellinger. "There are no peculiar shaped pieces to fit in that assures us that our restoration is correct."

Even after the amateur excavators unearthed their "find" of artifacts, they were unable to find any big market for them until an Arkansas woman, a curio and relic collector, suggested that they advertise in a magazine read by collectors. This brought immediate results, and was responsible for distribution of many of the artifacts in widely scattered sections.

"To the collectors, their purchases were only articles to place in a glass case," points out Dr. Dellinger. "To the archeologist, they were destroying, bit by bit, not only Indian history, but in a much larger sense, the general history of the human race."



Pieces of engraved shell from the mound.



A view of the Spiro mound before scientific excavations began.



Pieces of a cedar ceremonial head dress, with copper plate, from the Spiro mound.

Mounds in the Southern part of the United States are classified as pre-Columbian or post-Columbian, a designation referring to a period before or one after the visit of Columbus. The Spiro mound is of the pre-Columbian period, Dr. Dellinger says. He is unable to find any evidence of the influence of the white man. In post-Columbian period mounds such articles as glass beads, whiskey bottles, kettles and other trade articles have been found. There is no trace of any such influence in this mound.

Among the most interesting of all the artifacts are the huge conch shells recovered from the mound. The carvings on these indicate a very high degree of culture among the Indians, Dr. Dellinger says. One of the fragments created a sensation when first discovered. It was referred to as the "bishop plate," and at first it was believed to be conclusive proof that Christianity was known on the Western continent before the advent of Columbus. This belief was based on the interpretation of the seated figure carved on the shell as a Catholic bishop seated on a throne. There may be still further discussion along these lines elsewhere, but Dr. Dellinger is convinced that the engraving refers to something else entirely, exactly what will have to be decided later.

"Colonel Barton is making a real contribution toward archeological research through his interest and efforts in making the Spiro mound artifacts accessible to the University Museum," Dr. Dellinger said in discussing the work. "Many of the articles taken from the mound are widely scattered, and where it is not possible for us to obtain them, Colonel Barton is making it possible for us to inspect them, which is a great help."

Work of excavating the mound scientifically has been progressing under the supervision of the University of

Oklahoma. Dr. Dellinger has made several trips to it and expects to co-operate with Dr. Clements of the University of Oklahoma in preparing a complete record on the history and excavation of the mound.

North Arkansas Has Prehistoric Tracks

Special to the Gazette. 1-23-38
Evening Shade, Jan. 21.—The item in Thursday's Arkansas Gazette concerning the man-like tracks in early sandstone in Kentucky recalls the fact that in at least two localities in north Arkansas have such tracks been found. Near Ruddle Mill, in Independence county, are said to be footprints on a rock resembling those of a large human foot. The impressions of the separate toes are quite distinct. Old timers at Salado will tell you that on a flat stone near the mouth of a cave there were tracks which looked like those of human feet, also of what looked like those of a large bird. This rock had the appearance of some asphalt-like substance. It is believed that the impressions might have been made while it was in a softened state. The rock was destroyed or covered up in blasting for the Batesville-Rosie highway.

Dozen Skeletons Unearthed In Newton County Cave.

Special to the Gazette. 1-23-38
Jasper, Jan. 22.—Gene Rush, University of Arkansas archeologist, said today that he unearthed an undetermined number of human skeletons, probably a dozen, while digging in the floor of a shallow cave near Marble Falls, Newton county. The presence of stone mortars and pestles, flint arrows and other relics caused him to believe the skeletons to be those of Indians buried a century or more ago. The cave in which the discovery was made was being used by a farmer as a shelter for livestock. The skeletons were covered with two feet of ashes and a thin coat of soil.

Pictographs on Rocks, Made By Prehistoric Men, Among Wonders of Ozark Country

Democrat 2-6-38
Evening Shade—Tracks recently found on sandstone deposits in Kentucky recall the fact that there are "pictographs," or pictures and symbols, carved on stone at various places in northeast Arkansas. What they mean no one can say.

At Salado, between Batesville and Rosie, at Ruddell Mill, both in Independence county, and at Guion, Izard county, are especially interesting examples of pictographs.

All take practically the same forms, heads of animals, figures resembling symbols of the sun used by ancient worshippers of that body, and what appear to be spears and arrows. The pictographs are usually found on cliffs, although those at Salado are on rocks flat on the ground. Human faces appear occasionally in the drawings.

The whole surface of the rock or cliff is usually marked off into squares and rectangles, imperfectly drawn. Lines run above or below the pictures. Or the sides of the squares may form the shafts of the spears.

The fact that similar lines and squares appear in what are considered the oldest picture writings in the world, i. e., those found on walls of caves in the Basque country in northern Spain, and which are supposed to date back to the Stone Age, adds to the mystery of the pictographs in the Ozark hills. It does not seem possible that these have been here all that time. Geologists say, however, that the Ozarks were probably the first section to rise out of the great inland sea which once covered the Mississippi valley.

The fact that the human faces have a decided Oriental cast, and that the Indians were unable to tell the first white settlers anything about the origin of the pictures, makes it seem improbable that the Red Men had anything to do with the carvings.

It has been a popular belief that Spaniards, possibly DeSoto's men, carved the pictures as signs or maps to the location of their treasure caches. There is often a cave in the vicinity of the pictographs. The fact is that north Arkansas is underlaid with limestone. The action of water on the soluble parts of the rock has caused numerous caverns, and their being near the pictured rocks is merely a coincidence. It has never been explained, either, why the Spaniards should not have carved words in their own language instead of slightly tipsy-looking heads. Such a cave, together with the

whole side of the adjacent bluff, was blasted away by treasure seekers many years ago on Strawberry river, north of Evening Shade. No treasure was found, as far as was told.

"But how do you know," the natives will ask you, "what might have been found and secretly spirited away?"

Mingled with the carvings at Guion are pictures of heads of birds, evidently painted with some reddish substance. What it is no one knows. It is as plain now as when the first settlers came, and no ordinary pigment could have withstood the action of weathering that long. This interesting specimen of the art of an unknown people would have been lost had it not been for the foresight of a railway construction engineer. He succeeded in having the route of the road changed to go around the bluff.

3-29—Fifty Years Ago. 38
(Arkansas Gazette, March 29, 1888.)

It is expected that the Little Rock branch of the St. Louis, Arkansas and Texas railroad will be completed to this city within 10 days. The branch line is located for its entire length in the alluvial valley of the Arkansas river, and throughout this section there is evidence of the presence of a former race, whom archaeologists have given the name of "Mound Builders." At one of the stations on the branch line about 18 miles east of Little Rock there are the most extensive and important works of these people in the Southwest. These consists of two mounds 60 to 80 feet in height situated on the borders of a beautiful lake, and several smaller mounds. The mounds are surrounded by a kind of semi-circular levee about a mile in length. It is a theory of writers on pre-historic remains in the Mississippi that the Mound Builders were of the same race as the Toltecs of Mexico. Accordingly, the name of Toltec has been given to the station and town at this place.

Cache Rich in Indian Relics Found Near Arkadelphia.

Special to the Gazette. 4-3-38

Arkadelphia, April 2.—The farm of Lihu Freeman, three miles east of here has yielded more than 100 pieces of Indian pottery. Many skulls also have been dug up. Care was used in excavating the articles and only a few are broken.

Franklin Cook said a large Indian burying ground was found. One skeleton was found with a pot over the head. Another skeleton was found indicating a pot was placed in the hands of the dead Indian when he was buried. An effigy, resembling a turtle, was among the articles taken.

Indian relics have been taken from mounds and burying grounds in various directions from Arkadelphia in recent years.

For article on "Customs of the Caddo Indians", see in Parks - National section.

PICTOGRAPHS IN THE OZARKS

Arkansas Gazette Magazine
9-11-38 Section

Pictographs, or pictures and symbols carved on rocks and cliffs, are found in several sections of northeast Arkansas. The best known of these are along Salado creek, five miles from Batesville; at Ruddle Mill, between Cushman and Batesville, and at Guion, Izard county. A section of rock bluff, overhanging Strawberry river, near Evening Shade, which once was covered with particularly interesting pictographs, was entirely blasted away and destroyed by treasure seekers.

Most of the rock carvings are found on cliffs or bluffs, but those at Salado are flat on the ground. All take virtually the same forms; crudely cut heads of people or animals; symbols resembling those drawn to represent the sun by ancient sun worshippers; and figures which look like arrows and spears. The whole surface of the rock or cliff may be divided into geometrical figures. Squares and rectangles are halved and quartered. Perhaps the side of the square will form the line which makes the shaft of the spear.

The most famous pictographs in Europe are said to be those of the Basque country in northern Spain. The fact that many of the figures are similar to those here in the hills of Arkansas adds to the mystery of Spain. The Basque pictures are said to date back to the Stone Age. It does not seem possible that the carvings have been here in the hills all that time, although geologists say that the Ozarks probably were the first region to rise from the bed of the great inland sea which once covered North America.

A theory as to the lines running above and below the animals' heads in the rock carvings of Spain is that they were "magic" lines, drawn by prehistoric hunters who believed that the lines would bring an abundance of the game pictured. Others think that the lines represented water, as scarcity of water brought a scarcity of food.

It is a common belief, however, among the hill people of north Arkansas, that the Indians cut the pictures in the rocks. Many specimens that were

At the mouth of a cave near the Salado pictographs is a large rock covered with what looks like impressions of huge human feet. These have the appearance of being made while the rock, which looks like asphalt, was in a softened state.

Tells of the Many Attractions Of Caddo Gap.

3-16-38

To the Editor of the Gazette:

It is one of the outstanding facts that Ouachita reservations and parks contain some of the most interesting country in the United States. It contains some of the "beauty spots" of all the world. The writer has been visiting them for many years, and they exercise the same growing clutch that were theirs on his first trip many years ago. Now, since they have been so greatly improved with roads, camps, and everything that civilization, government, education and all other means could give them, they are beginning to assume an importance equal to that of the more Western reserves and parks.

One of the real beauty spots, and the most interesting place for many reasons is Caddo Gap, in Montgomery county. It was there that the Tula Indians made a desperate stand against De Soto, and evidences are plain that this was their capital, or chief hunting grounds. There is their graveyard and marvelous Indian relics are easy to pick up in the gap. The monument recently erected in Caddo Gap bears evidence to that memorial.

There have been discovered other relics and evidences far more interesting than those of the Indians. They are of an ancient race that preceded the Indians by thousands of years. A little woman erected a cluster of houses and called them "Shadow Haven," and went to work to make a collection of these ancient stones, and has gathered them together in a museum. Mrs. Cobb began making investigations in every way possible, garnering from every source information that would enable her to interpret the paintings, carvings and combinations. She read everything available. When you visit the museum you will be shown elephants and particularly the secret elephant with two feet, symbolic of "Gaheshe." There is the "thunder bird," the sacred cross, the columns, cemented together; the prophet high, the sacred serpent, that was the guardian of the righteous; an ancient Egyptian tablet, the "U" symbolic of an abess, and also of the genii, the thunder bird with two heads, faces made by cementing together seashells, the seven-headed serpent, representing the seven days of creation. There is the lotus flower, the first flower that bloomed on the earth.

There are multitudes of other carvings, writings, paintings and cemented images that are most interesting. Mrs. Cobb has given much study, investigation and painstaking thought to this collection, and tourists are encouraging her.

The people of Arkansas hardly realize the value of these things, else they would insist that they be preserved in museums built and maintained for that purpose.

J. I. Ayres.

Dallas, Tex.

valuable from an archeological standpoint have been destroyed by treasure hunters.

Various stories are told about possibilities that De Soto's men carved the pictures. Natives say that legends handed down from old settlers related that followers of the Spaniard came through Arkansas, bringing vast stores of gold and jewels which they had wrested from the Aztecs. Some of their number falling ill, or dying, they were obliged to secrete the loot in some cave or to bury it.

These stories fail to explain why the Spaniards did not cut words in their own language instead of Oriental symbols accompanied by slightly tipsy looking heads of people and animals.

It is not likely that early white settlers cut any of the figures. They are in too many widely scattered localities for that. The oldest natives will tell you that the carvings were just as much of a mystery when their fathers or grandfathers or even great-grandfathers came to this country as they are now. The Arkansas pioneer did not have the time, the imagination, nor the inclination to carve fantastic figures on the stones around him.

The longer one looks at the figures at Salado, the more combinations can be seen. No two people see the same things in them. Viewed from various angles, they present an altered appearance, as if the artist had the idea of perspective in mind.

Nearly always there is a cave near the pictographs. Popular fancy connects the cave and the carvings. The theory is that there is, or once was, treasure in the cave, and that the carvings are to preserve the location. The truth probably is that the cave's location is a coincidence.

In the case of the Salado pictographs the theory of the connection of the cave and the carvings was strengthened by the fact that at the mouth of the cave, which was some 300 yards from the "pictured rocks," a flat rock was found on which had on it impressions of what looked like tracks. One of the tracks looked like a gigantic human foot. Others resembled those of a large bird. Some natives insisted they could see hoof prints on the stone.

When the present highway was routed through Salado this interesting stone was destroyed or covered up by the blasts of the road builders. A party of gold hunters from "foreign parts" dug shafts in and around the cave, even putting rough timbers up inside it, but found no gold, as far as was known. But the natives will argue you, what might they not have taken out of the cave, unbeknownst to any except themselves?

There is still an air of mystery about the Salado cave and the rocks which were carved by unknown hands. Running up from the "remains" of the cave is a row of cedars, as regularly spaced as if set out by human hands. Some are very old, like those on ancient temple sites. The passage of the cave may be traced for some distance on top of the ground by a sunken "gully."

The pictures on the cliff at Guion are both carved and painted. The paint is some red substance which has survived the processes of weathering and erosion. They were preserved by the forethought of a railroad construction engineer, after orders had been given to cut a roadbed through the cliff. He demurred, and the pictures were saved. It is said that the prevailing motif of the Guion specimens are heads of birds. What they mean, no one can say. What the red stuff is, no one knows.

At Ruddle Mill, Independence county, are said to be more huge tracks. The tracks evidently are imprinted, not carved. It is thought by some that they must have been made in an asphalt-like substance when it was soft, something like the great asphalt pits in the West on a small scale.

Old-timers in the Evening Shade section will tell you that the "pictured

rocks," as they term them, that once were to be found on the side of a bluff on Strawberry river, bore images resembling heads of birds and animals. One imaginative person insisted that he could see the feathered serpent of the Aztecs among them. The images were said to be a chart to the location of a cave somewhere in the vicinity. A galaxy of stories exists as to treasure in the cave, and who put it there. You can take your choice of the stories if you inquire around.

Periodically persons used to turn up who professed to know the secret of the carved figures. One of these introduced himself as the grandson of an old Indian chief living in Oklahoma. The chieftain being about to die wished to have the treasure, of which he only knew the location, dug up and put to use in the world.

Accordingly, several residents of the Evening Shade section agreed to put up money and equipment for digging operations. The scion of the chief vanished for a time, to return with a squaw or two and various half wild and almost unclad progeny. These were quartered on the white partners while the treasure hunt went on.

After all the "pictured rocks," as they were called hereabouts, were blasted away, together with the whole face of the bluff, and a number of shafts dug in the ground nearby, with no sign of gold or jewels, the white men tired of the search. Some thought they had been duped. Others argued that the Indian must have had some faith in the treasure, or he would not have gone to so much trouble to seek it. The Indian took his train and went away, and was seen no more.

A strange angle to the story is that he predicted that a boulder would be found at the mouth of the cave and the rock would have the figure of an eagle on it. Such a boulder actually was found, but no cave. So the mystery of the "pictured rocks" remains unsolved.

Survey To Be Started At Buckville

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2-14-39

Special to the Gazette.

Fayetteville, Feb. 13.—Buckville, 20 miles west of Hot Springs, in Garland county and in the Ouachita National Forest, will be the scene of the first work to be done on a statewide WPA project to explore archeological sites and gather scientific specimens for the University of Arkansas museum, it was revealed by Dr. S. C. Dellinger, supervisor of the museum and head of the Zoology Department at the university, today.

Henry Roberts, associated with the National Geographic Society, the Peabody Museum of Harvard University, Carnegie Institute and the National Museum at Washington, will direct the project under Dr. Dellinger's supervision. Mr. Roberts is scheduled to arrive in Arkansas this week.

Filing and cataloging will be carried on largely at the university, which will receive specimens, photographs, maps and sketches for its museum.

An allocation of \$115,383 has been made for the survey, plans of which were revealed today by Floyd Sharp, state WPA administrator. The project will continue one year and 190 persons from WPA rolls will be employed, in addition to nonrelief supervisors, a geologist and a zoologist.

Pottery Sequence of Drainage Area to Be Classified.

Dr. Philip Phillips of Harvard University will arrive at the University of Arkansas tomorrow to begin a project for classifying the pottery sequence of this drainage area. The work will be sponsored jointly by Harvard and the University of Arkansas.

Plans for the survey were disclosed by Dr. Dellinger. He said that a calendar of dates will be worked out to determine which Indian tribes were here first. Shapes, decorations, clay types and tempering materials of the pottery will determine which group made it.

All specimens will be brought here for study and classification. One student assistant will work in the field with Dr. Phillips.

Archeologist Arrives To Begin Survey.

Gazette 2-18-39
Arkansas is a rich archeological field which has yielded many specimens to other states, Henry Roberts, veteran archeologist, said here yesterday on his arrival to take charge of an archeological survey to be conducted by the Works Progress Administration and the University of Arkansas.

Information and specimens obtained in the survey will be placed in the university museum. Dr. S. C. Dellinger, curator of the museum and professor of zoology, will assist Mr. Roberts.

The survey probably will be started Monday. Mr. Roberts conferred with Mrs. Dot Kennan, supervisor of Women's and Professional Division, state WPA, under which the survey will be conducted.

Archeological Survey Plans Completed

2-23-39

Special to the Gazette.

Fayetteville, Feb. 22.—Plans for the \$115,000 WPA project for a state-wide survey of Indian mounds, cemeteries, quarries and similar areas to gather historical and archeological material were announced by Dr. S. C. Dellinger, supervisor of the University of Arkansas museum, today. The university museum would receive the material obtained in the excavations. Work will begin immediately. The survey will include all 75 counties.

A total of 190 workers will be employed, most of them from WPA rolls. There also will be trained geologists, a zoologist, library cataloguers, artists, photographers and language experts who will translate the old Spanish and French writings. Later all material will be catalogued and made available to schools and researchers, and much of it will be published. It is planned to send a traveling loan collection over the state.

Archeological possibilities of Arkansas were stressed in a report by Dr. Henry Roberts of Denver, Col., who will direct the project.

Archeological Society May Be Formed

Gazette
3-12-39

Organization of a state archeological society, to study and preserve the many relics left by the many mound building Indians which once roamed the state will be discussed at a meeting at the Albert Pike hotel next Sunday, S. C. Dellinger, professor of zoology and curator of the museum at the University of Arkansas said yesterday.

"No state has suffered so severely from the ravages of the pot hunter and grave robber as Arkansas," he said. Mr. Dellinger said Dr. John R. Swanton of the Smithsonian Institution and other famous archaeologists will attend. He said the meeting will be open to all persons interested in the subject.

Archeological Conference Here Today

(Little Rock)

Organization of a society looking to the preservation of Arkansas's historical and archeological remains and saving specimens of Indian and other relics from the "pot hunters" will be discussed at a meeting of interested persons at the Albert Pike hotel at 11 this morning. The meeting was called by Dr. S. C. Dellinger of the Department of Zoology of the University of Arkansas, Fayetteville.

Dr. Dellinger holds the same theory as Dr. John R. Swanton, of the Smithsonian Institution, that Arkansas holds the key to many of the important archaeological problems of the Mississippi valley. They contend the mound builders and the development of agriculture in the valley had their beginning in Arkansas.

Prof. Henry B. Roberts, formerly with

the Peabody Museum, and Dr. Philip Phillips, of Harvard University, are among the leading archeologists who have been invited to attend the meeting. A dutch luncheon will be served at noon.

Archeological Society Organized

Gazette 3-27-39

The Arkansas Archeological Society was organized at an enthusiastic meeting of a group of public spirited Arkansas residents at the Albert Pike hotel yesterday to preserve the state's historical and archeological remains for posterity.

Dr. S. C. Dellinger of the Department of Zoology of the University of Arkansas, Fayetteville, was elected president, and his assistant, Mrs. W. A. Ramsey, was named vice president. Owen Lyons of Little Rock, was elected temporary treasurer. A Board of Directors composed of Fred W. Allsopp, Col. John R. Fordyce and Mrs. Bernie Babcock, all of Little Rock, and Dr. T. A. DeLaney of Russellville, and Harry J. Lemley, lawyer of Hope, was selected.

A committee was appointed to draft a constitution and by-laws, which will be presented at the next meeting of the society, date of which will be announced.

Speaker after speaker stressed necessity for a concerted effort to save the state's archeological remains and specimens of Indian culture and other relics from the "pot hunters" who were described as desecrating Arkansas's historic past. Only through scientific research and digging expeditions, they said, will archeologists ever be able to tell of Arkansas's prehistoric inhabitants. Several archeologists contend Arkansas holds the key to many important archeological problems of the South, they said.

Objectives Outlined.
Dr. Dellinger, who called the meeting, was the principal speaker. He gave a brief outline of the history of archeology in this region, placing the arrival of the forefathers of the Indians at about 20,000 years ago.

Dr. Dellinger said a portion of the immigrants who crossed the Bering Strait into North America probably went on to Central and South America, where they developed a degree of civilization. Those who remained behind became woodland dwellers, fishermen and hunters.

Arkansas with its favorable position, soil and climate soon developed a culture that surpassed most of her neighbors, Dr. Dellinger said. DeSoto, the explorer, found in Arkansas green fields of corn, beans, squash and pumpkins, Dr. Dellinger said.

"The people were children of nature, depending absolutely on the native products for their needs," Dr. Dellinger said. "The careful study of their remains should give us some idea of the effect of the environment on the life of the peoples in this stage of development. It should be a source of comfort to us to know they ranked high in the scale of Indian civilization; far superior to those on the coast of California where we have been told the very favorable environment should mold the best type of American citizens. The efforts of these people should not be lightly considered."

Much Data Destroyed.
Dr. Dellinger traced the decline of the Indian following the arrival of the white man, and the advent of archeologists. Their discovery of beautiful stone work and pottery in the South attracted the attention of collectors in large cities, and as a result, Dr. Dellinger said, many individuals came South and dug mounds in order to make private collections. This encouraged many local citizens to start digging, destroying "many chapters of our history," Dr. Dellinger said.

The most important sites along the large rivers in Arkansas were dug during the early part of this century by Clarence B. Moore of the Philadelphia Academy of Museum, Dr. Dellinger said. The early explorations were done while the science of archeology was in "swaddling clothes," he said, making much of the information gained meager compared to what the modern archeologist would have secured.

The first surveys on the Ouachita and Red rivers made by modern scientific standards were made by M. R. Harrington. His publication of beautiful plates of Arkansas pottery started another "pot hunters" boom in Arkansas, Dr. Dellinger said.

Private Citizens Aid.
Dr. Dellinger attributed the first effort to save Arkansas's pre-history to the Lemley brothers of Hope, and due to their pioneer activities much valuable historical data has been preserved. Since the University of Arkansas did not have sufficient funds to carry on the work, it has been done largely

through donations from such citizens as Harvey C. Couch, J. L. Longino and Col. T. H. Barton, and later by a grant from the Carnegie Foundation, Mr. Dellinger said.

But the work has been made much more difficult by unscrupulous dealers and diggers, Dr. Dellinger said, stating in the past 14 years he had not been able to find a single undisturbed mound.

"It is my opinion we should take some action against the desecration of these graves with their history," he said. "This is not only part of Arkansas's history but a part of the greater history of the human race. We will be remiss in our duty if we do not save this history for our people and also for those of other states."

Mr. Lemley Speaks.
Harry J. Lemley of Hope, one of the pioneers in the preservation of Arkansas's prehistory, described the position of Arkansas in archeological history of the South, and sketched the chronological differences in history of the various peoples who have inhabited the state.

Harvard Worker Reports.
Dr. Philip Phillips of Harvard University, who is making a survey of Arkansas's early cultural life jointly for Harvard and the University of Arkansas, discussed the early cultural life and how archeologists must depend on the Indian mounds and relics for this information.

WPA Project Under Way.
Prof. Henry B. Roberts, who is in charge of a WPA project sponsored jointly by the University of Arkansas and the WPA, told what it is hoped will be accomplished. The WPA has granted \$115,000 for this work. The work will be carried on through scientific research in the field and in the university's laboratory at Fayetteville and one to be established here. Approximately 95 persons will be employed.

Other speakers included Dr. George C. Branner, state geologist; Dr. P. B. Carrigan of Hope; Dr. F. Vinsonhaler, Little Rock; Mrs. Bernie Babcock, Little Rock; Mrs. Laura Davis Fitzhugh, Augusta; Mrs. Charles H. Miller, Mrs. John F. Weimann, Little Rock; Mrs. Rufus M. Garrett, El Dorado; Dot Kennan, head of the women's and professional division of the WPA; C. C. Campbell, Louisville, Ky., and Harold A. Bulger of Washington University, St. Louis.

Wide Support Offered.
Telegrams from nationally known archeologists, including Dr. John R. Swanton of the Smithsonian Institution, and many leading Arkansas citizens, including Colonel Barton, Harvey C. Couch and practically the entire Arkansas delegation in Congress were received pledging support to the movement.

Dr. Dellinger expressed confidence that through the WPA project and the support of members of the society Arkansas's prehistory soon will become known, and preserved.

H. A. ("Ted") Bailey, chairman of

the Organization Committee of the Arkansas Historical and Archeological Society, discussed the plans of the society to coordinate activities of all agencies in the state in an effort to attract more tourist dollars to Arkansas. He asked the society to endorse the plan of his organization, which was approved.

Leaders of the Arkansas Archeological Society, organized at a meeting at the Albert Pike hotel yesterday to preserve Arkansas's archeological history, are (left to right): Fred W. Allsopp, Mrs. Bernie Babcock, Dr. S. C. Dellinger of the University of Arkansas, and Mrs. W. A. Ramsey, assistant to Dr. Dellinger. Standing, left to right: Col. John R. Fordyce, Dr. T. A. DeLaney of Russellville, and Harry J. Lemley of Hope. Dr. Dellinger is president and Mrs. Ramsey vice president, with the other five composing the Board of Directors. At the right are, Dr. Philip Phillips (left) of Harvard University, who is making a survey of early cultural sites in Arkansas for Harvard and the University of Arkansas, and Prof. Henry B. Roberts, who is in charge of a \$115,000 WPA project sponsored jointly by the university and WPA, to make a scientific study of Arkansas's archeology.

FROM DIGGING UP RELICS TO STUDYING ARCHEOLOGY.

The organization of the Arkansas Archeological Society, coupled with a WPA grant of \$115,000 for a field and laboratory project of which the University of Arkansas will be co-sponsor, means that at long last priceless records of early human life in what is now Arkansas may be systematically recovered, interpreted and preserved for all time. Gazette

For the irreparable harm that has been done there is no remedy. Commercial "pot-hunters" have forever destroyed invaluable archeological remains by digging into burial mounds and village sites with no plan or purpose save to find "relics" which could be sold. The (probably mythical) burning of the Alexand-

rian Library by the Caliph Omar has come down in tradition as one of the supreme examples of vandalism. But however this great storehouse of ancient learning and literature may have been ravaged, much of its contents survived in copies of its manuscripts in other libraries and in private hands. There are no copies of pre-historic deposits of pottery and other human handiwork bound within the covers of a dwelling or burial place of ancient man. When such a site is ignorantly torn apart by spade and pickaxe, the information it might have yielded vanishes in largest part, if not completely, and can never be recovered. Nor can the greed of commercial diggers and dealers, and the acquisitiveness of unscientific collectors, be solely blamed for this archeological vandalism. Arkansas must charge itself with failure to protect these treasures and provide for their recovery and study by competent persons.

Great credit is due to Dr. S. C. Dellinger of the University of Arkansas, and to others, who by personal activities or financial support have for years carried on serious study of Arkansas archeology under the greatest handicaps. To them there must be particular gratification in the fact that finally it has been made possible to conduct this work on a more adequate scale.

Scientist Studies Old Indian Sites

5-5-39

Special to the Gazette.

Arkadelphia, May 4.—P. Phillips of the Peabody Museum of Harvard University, co-operating with the University of Arkansas, is excavating and studying the strata of soil at the site of the old salt wells a mile east of Arkadelphia. Col. John R. Fordyce, Arkansas's foremost Indian and DeSoto student, has been here several times observing Mr. Phillips' work.

Mr. Phillips is engaged in general reconnaissance of the Ouachita river valley obtaining samples of Indian pottery and other articles from as many sites as possible. He has in view 60 different sites or former villages extending from middle Arkansas down into Louisiana, a region formerly heavily peopled by the Caddo tribes. Mr. Phillips expected to be here only a few days, but found the site of the old salt well so interesting he has remained more than two weeks. He said that the site seems to have been occupied many years. This is indicated by the different strata or layers. Saline bayou extends past the site, which is on a kind of mound. It is believed that DeSoto and his followers obtained salt there. Indians were making salt here when the first white settlers arrived. Professor Phillips will send his several hundred bits of Indian pottery to a laboratory where the markings will be studied and the periods and tribes determined.

Arkansas Bluff Dwellers

Gazette 5-7-39

Research by Archaeologist at University of Arkansas Reveals Primitive Culture of the Earliest Indians Who Lived in the Ozarks as the State's First Known Residents.

By Marguerite Gilstrap.

A huge, hairy creature, that cave man?

Not if he lived in Arkansas!

Take it from Dr. S. C. Dellinger, University of Arkansas archaeologist and curator of the university museum, the bluff dweller who inhabited the Ozark region some 2,000 years ago was a stocky little man scarcely five feet two. To be sure, he had the long head, the sloping forehead, the jutting ape-like jaw we attribute to primitive man, but he was by no means the ungainly, hairy being we so frequently see pictured.

He was, this bluff dweller, living in a culture which had progressed thousands of years beyond that of the earliest cave man. The bluff dweller's culture included hunting with spears and atlatls, fishing with snares and traps, cultivating the soil, domestication of the dog, the weaving of baskets.

At the same time, his was the most primitive of all pre-historic cultures in the South of which we have any trace today. He knew nothing of tobacco, of pipes, of pottery, of bows and arrows.

Dead men do tell tales.

From the relics and bones preserved in the dry shelters of these early Indians, Dr. Dellinger has been able to reconstruct a fairly clear picture of these sturdy little people who roamed the Ozark hills and valleys about the time of Christ.

Evidence indicates that these seminomads trekked into this region from the Southwest. They have left traces of many customs which show the influence of the Aztecs.

Topography of the Ozarks is sculptured into deep valleys and steep hillsides. The surface of the hills is composed of deep limestone overlaying a soft shale. Due to weather action, a number of shelters or caverns have been formed, ranging in size from several hundred yards in length and 100 feet in depth to 12 or 20 feet by 10 or 12 feet in depth. It was in these shelters, located conveniently near water supplies and rich valleys, that our earliest Indians lived. It is here today in ashes and dry dust that the archaeologist finds many of the objects used in the everyday life of the bluff dweller—beds of leaves and blue stem grass, cached baskets of corn and nuts and sunflower seed, baby cradles, terrapin shells used for dishes, buckskin leggings, bone and wooden awls, reed flutes, crude pictographs, and even their burials.

These Indians are of special interest to the archaeologist because they were the very first to establish homes in the South. Theirs is the oldest culture. Although their mode of living was like that of all aborigines in many respects, it had salient differences.

Their hunting, for example, was done by means of a spear or dart and a

wooden board called an atlatl. The dart usually was four and a half feet in length with a stone point at the tip. To hurl it they used the atlatl for additional force. When Europeans came to America this weapon was not found among any Indian tribe except the Aztecs. With it the bluff dwellers killed deer, bear, elk and buffalo. They used snares to take birds and other small game.

Roughly speaking the economic lives of these people revolved themselves into a summer farming and fishing season and a winter hunting season. The men cleared the land. The women cultivated it, using mussel shell hoes, the



An early Indian bluff burial found on Eden's bluff on White river in Benton county

shoulder blades of deer attached to a stick, hickory digging sticks plunged into hot water and hardened in the fire. They were the first to raise sunflowers for the seeds, which make a highly concentrated food. In addition they planted dent corn, both the white and red grain varieties, popcorn, sugar corn, black beans, squash and gourds. The squash they dried in small pieces much as modern man dries apples. The gourds were used for drinking and storage vessels, for baby rattles and for seed containers. If these early Ozarkians did not have spinach they had a good substitute in lamb's quarter and other native herbs with a high iron content.

A basket-making people, the bluff dwellers had developed weaving into a high skill. They used many varieties

of grass and reeds to make their hampers, baskets for winnowing and sieving, baby cradles, their clothing.

Their large hampers were filled with grains, nuts, seed and dried fruit and buried in the shelter. They even used baskets for cooking since they had no knowledge of pottery. Although most of their food was roasted over the fire on spits, sometimes it was cooked in a basket by placing hot rocks over it—a forerunner of the fireless cooker.

The clothing of the bluff dweller consisted of woven sandals of rattlesnake head grass, a belt of the fibers of Indian hemp and attached to this belt a loin cloth made of a bunch of twisted blue stem grass. Their clothing in the winter consisted of buckskin moccasins with puckered toes and a drawstring around the ankles, buck-

skin leggings and shirts. In very severe weather they wore a cloak of feather-down cloth and overshoes of canary grass. They used awls of bone and wooden needles and were very thrifty in mending their moccasins and other garments.

Their housekeeping in the bluff dwellings was fairly simple. Whenever rubbish became too thick they spread ashes and layers of leaves over the floor. Their dishes were shells, mussel and terrapin. They used splints for picking out nuts and getting the marrow out of bones. They had very few utensils, flint scrapers, stone hammers and double-bitted flint axes with hickory handles. Their knives were of bone.

But if their surroundings were not always sanitary and their food supply sometimes uncertain, the bluff dwellers possessed indomitable qualities in their germ plasm for the development of normal skeletons under adverse conditions, and the race possessed a remarkable flexibility of digestive apparatus which permitted them to eat large quantities of inferior and perhaps unclean food, and to utilize from it the so-called essentials of a normal diet.

These are the conclusions drawn in a study of the diet of the bluff dwellers made by Dr. Dellinger and Dr. E. G. Wakefield of the Mayo Clinic in Rochester, Minn. There is no evidence of dietary or endocrine deficiency diseases. They did suffer from arthritis, another study made by Dr. Dellinger, Dr. Wakefield and Dr. John D. Camp of the Mayo Clinic shows. The heavy rainfall and constantly high humidity of winter and spring in the region caused practically every Indian over 30 years of age to be afflicted with this

disease. They also suffered from toothache, sinus trouble and mastoiditis.

The bluff dweller usually was buried at the back of the shelter behind fallen rocks. The common burial custom was to place the body in the flexed or knee-chest position and inclose it in a bag of featherdown cloth. This then was tied at the opening and usually about the middle and ends with bark and strong cords. The burial was placed in a pit lined with blue stem grass. As a rule, no food was placed with the body. In one baby burial, however, the bluff dwellers placed 11 ears of corn, a quart of sunflower seed, a few acorns and chinquapins. In another instance a quart of dried beans in the shells was buried with a dog. These, however, were the exceptions rather than the rule. The dogs, the small spaniel type, were accorded the same burial as members of the family.

Several hundred burials along with many relics of the bluff dwellers' culture have been brought to the university museum and arranged for studies made by Dr. Dellinger, Dr. M. R. Gilmore of the Department of Anthropology, University of Michigan, and Dr. Wakefield and Dr. Camp of the Mayo Clinic.

The history of research in Indian life at the University of Arkansas is largely the history of Dr. Dellinger, who came to the university in 1921 to teach in the Department of Zoology, of which he now is head.

During the first few years he was curator of the museum, Dr. Dellinger did his archaeology work during his summer vacations unaided by either funds or assistants. When his work began to show results grants of money to carry it on were given by the

Carnegie Foundation and interested Arkansians—Col. T. H. Barton of the Lion Oil Company; Harvey Couch and J. L. Longino of the Arkansas Power and Light Company. In recent years the government has made generous grants for labor through the WPA and its predecessors the ERA and CWA.

The purpose of archaeology is to make the past live again. The archaeologist no longer is satisfied with mere possession of collections, in learning the development of ceramic art, or of stone chipping, the mere classification of cultures, or in knowing the successive occupations of an aboriginal

Such a study requires the gathé site of all the evidence. When Dr. Dellinger started to work on the Ozark bluff dwellers, he knew little about the primitive people he was to study. He plotted his survey from United States Geological Survey maps along White river and its tributaries from its source to the Missouri line and then through north Arkansas.

His assistants for many years have been junior and senior zoology students. When Congressman Clyde Ellis was a student a few years ago he helped Dr. Dellinger work a site on his father's farm near Garfield and was rewarded by finding an unusual awl. Made of bone like many others, it had in addition a hand protector made of leather. This awl is now on exhibition in the museum.

What happened to the bluff dwellers? That is one of the questions which remains for study. Dr. Dellinger has a theory that they migrated North and were absorbed by some of the great and powerful tribes of the plains. Although the shelters have been rather thoroughly worked, it is possible that findings in the state-wide survey will yield the information needed to complete the bluff dwellers' story.

Story of the Past

Arkansan Who Has Studied Archaeology For Many Years as a Hobby Erects Unique Monument Near His Home in Cleburne County.

5-21-39

Gazette

By Bernie Babcock.

A few days after news stories of the opening of the Arkansas Museum of Natural History in Little Rock in 1927 had been published, there came to the museum office a small package, post-marked Edgemont, with the name of G. W. Washburn in the upper left corner.

I had heard neither of the man nor his home town. The curiosity that moved me to hastily open the package changed to joy as I took out, unwrapped and studied certain fossil specimens. They were small, the largest one a piece of crinoid (sea lily) stem. They were all labeled, and as I afterward found, correctly. A few lines with the gift expressed interest in the museum and bore two items of news; first, most of the specimens had been found in the locality of Edgemont, Cleburne county. That life such as these fossils told of had ever existed in this part of Arkansas was news. That there was a man back in the hills who knew fossils and appreciated their scientific value, was bigger news.

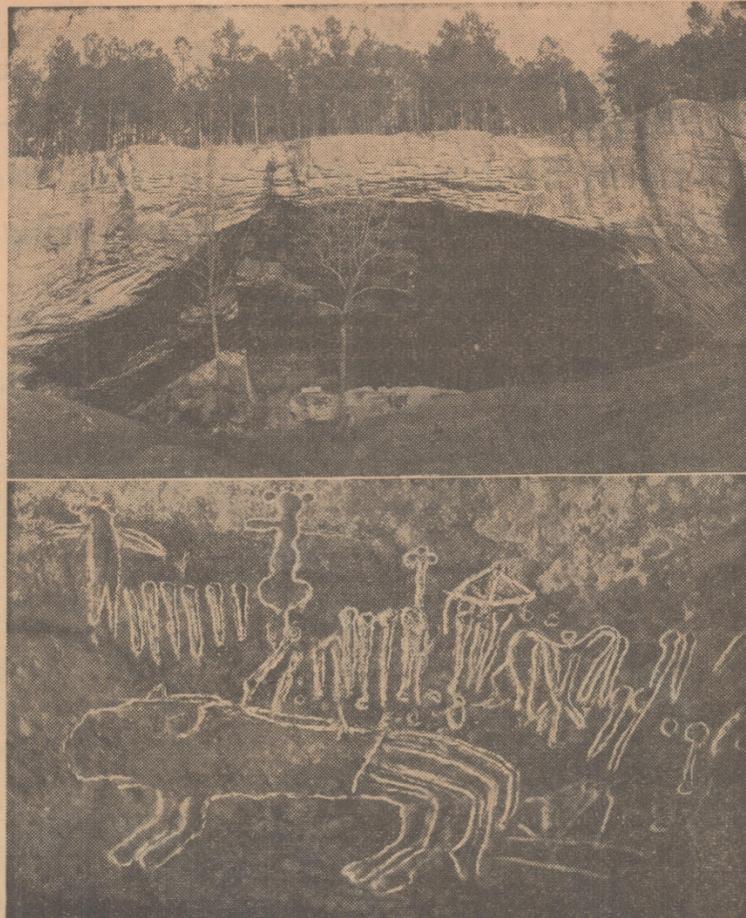
I lost no time thanking this unusual Mr. Washburn for his gift and hinting that more like gifts would be acceptable. This was the beginning of an acquaintance of which the museum was a common center of interest.

Months later, a quiet mannered, blue-eyed country gentleman came to the museum to see what had been collected and to talk shop in terms of fossil names and the habits of these one-time active life forms.

I found that Mr. Washburn, although he had no sheepskin, had knowledge a scholar might envy. He had come to Arkansas from New York 40 years before, had homesteaded near Edgemont and had spent years in the study of rocks and bones, using standard books for guides, but proving problems by his study of specimens themselves.

Another time I had the pleasure of a visit with this sage of the hill country was when I met him at what is called the "Rock House," not far from Edgemont. On the walls of this 90-foot wide cave are strange drawings, etchings and hieroglyphics. Mr. Washburn frankly admitted he did not know the interpretation of all these symbols, but there were many he could explain. Some were said to have no significance, since they were made by continuous use of the rock wall by Indians for sharpening arrowpoints and tomahawks.

On a day last summer Mr. Washburn did me the honor of another visit and brought to the museum (now in the basement of the city hall, but



An Indian rock house near Edgemont, Cleburne county, is shown above. The interior walls are covered with pictographs, some of which are shown in the lower picture.

dead) a collection of fossils of unusual value, and from far beyond the bounds of Arkansas. In this interview, Mr. Washburn told me of an automobile trip he had made to Idaho and points farther West, and the treasures he had brought home in his car.

While in Idaho he visited the place between Bliss and Hagerman, where in 1935 Smithsonian did some excavating. No digging is allowed on the land, but in a dump made by the excavators, Mr. Washburn found several large specimens of loose deposit which he secured. The place from which the valuable Smithsonian specimens were taken was, in ages past, a lake with a quicksand bottom. This was the age of the one-toed horse, the sabre-toothed tiger, the small camel and many extinct kinds of deer. As water became scarce in the changing country surrounding the lake, animals of many

kinds watered at its shallow places, where they sank in the quicksand. With changing years this quicksand turned into sandstone, embedding these animals. The topography of the map changed. Where was once the lake is now a 600-foot bank on the north side of Snake river. Some of the fossils Mr. Washburn rescued from the dump were classified by the Idaho State Museum. In this Idaho Museum is a horse restored from fossil bones such as Mr. Washburn found.

In Utah, Mr. Washburn met the curator of the University of Utah Museum, who was so kind as to classify a few of his treasured bones. Among these are three large, well preserved camel teeth, the left front shoulder of a primitive horse, upper and lower teeth of a primitive horse, and the hind leg and bone from the study of a restored horse. These and many

At the Buckville project, remains of two tribes have been discovered, one said to have been ancient, and the other more recent. A comprehensive study of the pottery, basket-work and other artifacts is being made.

Henry B. Roberts of Washington, nationally known archeologist, is in charge of the projects, assisted by Dr. S. C. Dellinger, professor of zoology and botany at the University of Arkansas.

Caddo Indian Culture Explored

6-25-39

By W. J. LEMKE.

Special to the Gazette.

Fayetteville, June 24.—How the Caddo Indians, who inhabited Arkansas before the coming of the white man, lived is being revealed by three archaeological explorations now being carried on by the University of Arkansas Museum

Archeological Work Making Good Progress.

6-11-39

Archeological surveys near Buckville and Friendship in Garland county on the Ouachita river, sponsored by the Works Progress Administration and the University of Arkansas, are revealing many important facts concerning Indian tribes who inhabited the territory, Floyd Sharp, state WPA administrator, said yesterday.

Purpose of the project, which is being conducted by the professional and service division, is to excavate Indian or Aborigine towns and camps for scientific data and historical records.

Excavation was started at Buckville in February, and a month later at Friendship. The Buckville site has revealed many different tribes made their home there, each tribe staying for awhile, then moving because of drouths, floods or hostile tribes.

Archeologists can determine these facts, as different artifacts and decorations are found in the various layers of ground built up over a period of years.

Complete Indian Village Uncovered at Buckville.

At Buckville the 43 workers on the project have uncovered a complete Indian village. The earth has been removed to the undisturbed subsoil, thus exposing the floors and post molds of the houses. All of the houses were rectangular, with the exception of a large circular building nearly 50 feet in diameter. This is believed to have been a council house. It contained a large fire altar.

Fireplaces were also found in the residence dwelling. Numerous garbage pits have been exposed from whose bones and shells the archeologists are able to tell what these Indians ate. Broken pottery also is plentiful and

furnishes clues to the identity of the inhabitants.

There are few graves around the Buckville village site. Graves are important to the archeologist because of the pottery, ornaments and other artifacts found in them. Most of the Buckville graves, like those elsewhere on the Ouachita, have been destroyed by vandals.

Project Started on Ouachita River at Malvern.

S. D. Dickinson of Prescott is in charge of the project at Malvern. This project is now being opened on the Ouachita river by Dr. Henry B. Roberts of Harvard university. Dickinson, former student of the University of Arkansas, received his bachelor's degree from the University of New Mexico and did post-graduate work at the University of Texas.

He is an expert in translating early Spanish and French and will check the findings with the descriptions given by early Spanish and French explorers. It is planned to develop the ethnological history of the sites, as well as the archaeological.

At Malvern an Indian village site has been uncovered that shows pre-Caddo culture, below the Caddo. It is similar to those found in Louisiana and Florida. The Malvern culture shows much

Scientists Hope to Trace Changes in Natural History.

In charge of the zoological work in connection with these explorations is Trut Holder, a University of Arkansas graduate from Little Rock. He was for four years taxidermist for the University museum and more recently has been junior biologist with the federal water fowl refuge at St. Charles.

Holder's work is expected to furnish a good picture of the ecological or natural history set-up at the present time. From this the scientists hope to work back through the bones and shells that are found in the Indian villages in order to learn if there are any differences in natural history of those regions at the present time and when the Indians were here.

Great Care Exercised In Indian Excavations.

Methods used in the Indian excavations are as follows: If the surface looks favorable, a site is located by digging a trench. If it is found to be a village, the workers go back to one edge outside the village and dig down to undisturbed soil. The site is then laid off in three-foot squares, a plane table map is made of it and numbered stakes are driven in the squares.

Next, more careful workers slice off the top of each square to a depth of not over six inches. Other workers still more skillful use whisky brooms and pointing trowels and carefully expose any object found. These are numbered and recorded in place by the supervisor. Adequate photos are taken of each site. In order to get a view of the village as a whole workmen erect a tower of poles, the size of an oil derrick. From this altitude the site is photographed as a whole. The view from the tower brings out dark spots, such as fire hearths, helps locate graves and other things that would not be evident from the ground.

Every object is numbered and indicated on graph paper, along with the depth and position in which it was found. All objects are then taken to the University Museum for study. It is planned to open a laboratory for mending and restoring pottery and other artifacts, photographing, cataloging and studying them.

Dr. Dellinger Hopes To Secure Valuable Information.

The project opened in April and will continue for 12 months. Professor Dellinger points out that this type of work can only be done through WPA help

because of the man power required. People have dug up much pottery along the water courses of Arkansas but haven't had the money to dig villages.

"The villages are important," said Professor Dellinger, "because we know so little about these people and their houses. The broken pottery tells us who lived there and the houses tell us how they lived. An accurate picture of the houses is furnished by such things as post molds, hardened clay floor, burned hearth, pieces of cane reeds that made the side walls, pieces of clay that were daubed against the cane, and portions of charred grass that was used for thatch on the outside."

earlier and different types of pottery and different methods of burial than those of the later Caddos.

Dr. Dellinger Supervises Work at Salt Springs.

Professor Dellinger is supervising the project at the salt springs near Arkadelphia. Test holes at the salt springs show three Indian cultures superimposed with the Marksville culture on the bottom, pre-Caddo next, then Caddo. Above this are evidences of early colonial salt-making by the whites, followed by evidences of Confederate salt mining during the Civil war. Above this is evidence of salt-making by men who leased the springs from the state after the war.

The Arkadelphia site is interesting because of the six levels of occupation. The dirt is being removed in squares. A couple of acres will be excavated to a depth of two or three feet and the earth sifted for stone objects, broken pottery and any evidence of the culture of people who made salt there.

Already large pieces of bowls or vats have been found which the Indians used to boil water for salt. Some of the bowls originally were three feet in diameter and agree closely with descriptions left by early explorers who visited these springs.

Indian Relics in Arkansas

Conway Merchant Has Acquired Valuable Collection of Indian Relics Through His Hobby of Exploring Indian Burial Grounds Scientifically.

GAZETTE

1-28-40

By Robert Page

Every person who buys a piece of land—be it for cattle raising in Texas, cotton growing in Arkansas or apartment planning in New York, is interested in previous ownership of that land. Most Americans realize that the moccasined footprint was the first known claim of land ownership on this continent, but a large number of people have not stopped to think that the Indian left a great deal more than just footprints and that, every day, amateur relic hunters are discovering instruments of ordinary living which were used by these inhabitants of a previous civilization.

The thrill of discovering Indian relics is one that probably will not be open to the non-professional archeologist of the next generation, since pieces lying close to the surface of the ground are rapidly disappearing. Modern Indian relic hunters, however, aren't worried about that; they are having too much fun making these interesting mementoes disappear from the ground and appear again, neatly labeled, in their own private collections and museums, to do much worrying about the next generation.



W. A. Sullivan, Conway collector of Indian relics, is shown at the right above examining a bit of bone which was used as a neck ornament at ceremonial dances. Below is a group of relics, including pottery, trade beads, a butterfly ax, pestles, and a plummet or "charm stone." A bird stone is shown near the center.

William A. Sullivan, young Conway merchant, considers himself a typical non-professional collector who prefers to find the majority of his Indian relics rather than buy or swap for them. His story goes something like this:

About five miles from the Sullivan home in Osceola, there was a little hill that the children believed to be an Indian mound; this little hill, surrounded as it was by childish stories of romance, aroused William Sullivan's interest in the general subject of Indians, and when he went to college he began to read about some of the Indian relics that had been found in this part of the country. His reading was unsystematic and his interest in the subject purely theoretical. He swapped with a school mate for several pieces and let it go at that.

After his school days were over and he had settled down in the grocery business, a farmer came into his store one day and stopped awhile for a chat.

"Folks used to say my pasture on White river was an old Indian burying ground," said the farmer, making conversation. "Don't know anything about it myself; might be. There're several hills around there and arrowheads have

been picked up there from time to time. Used to be lots of fish in White river, and Indians used to like fish, they tell me. Still do, I guess. Well, so long. I'd better be gettin' along home." And that comment started it all.

One day shortly afterward, William Sullivan set out for a certain strip of pasture land on White river. And he wasn't carrying a fishing rod with him; he loaded his car with several shovels, an iron probing rod and a friend for company, instead.

It was after dark when he returned home that evening, tired but triumphant, bearing a number of genuine antique arrowheads of various kinds and several pieces of broken pottery, all of which he had uncovered himself. It had been an exciting and lucrative day for an amateur archeologist, for on his first real relic hunting expedition he had discovered—seven Indian graves!

When Mrs. Sullivan saw the day's collection, which included a bone from a human forearm, she cried. "It's bad luck to open a grave. You'd better take these things all back!"

It was not at all the kind of reception Mr. Sullivan had expected from a

usually sympathetic and interested wife. They talked the matter over, however, and it was pointed out that no sacrilege had been committed, since the graves had been unmarked, that soil erosion soon would have robbed them of their treasures anyhow, and that the pieces taken from them—mostly burial points—were to be treasured as historical mementoes and would do a great deal more good where they could be seen than buried away from daylight. After considerable conversation, it was decided that the Indian relics might stay; but after this, there were to be no bones.

From then on the W. A. Sullivan collection of Arkansas Indian relics grew and grew and grew. And if the things he's found on top of the ground and dug from underneath it have ever brought him bad luck he doesn't know it. His collection now numbers well over 12,000 pieces, each one of which played a definite part in the life of some individual who roamed this uncharted country many years ago. The collection occupies the upper half of the Sullivan home on Clifton street, and while its owner makes no claim to having the largest number of state relics, he does believe that there's no one else who has a hobby that brings him any more fun.

"But I've lived in the South all of my life and never even seen an Indian, much less a relic," someone remarked. "How does a collector do it?"

And the answer was: "It's all in knowing 'how.'" Mr. Sullivan reads everything he can find on his subject and knows which tribes lived in each section of the state, knows something about the habits of each tribe, and has a pretty good idea where to look before he starts out.

He never "hunts blind," but keeps his ears open for tips on places where arrowheads have been found previously, keeps his eyes open for indications of previous tribal life, then goes carefully ahead. Many times he finds rare and beautiful pieces lying on top of the ground.

If you were to accompany this relic hunter on one of his expeditions, you'd notice that he takes a trench shovel and a long iron rod with a wooden

handle on one end along with him. The rod is about three-quarters of an inch in circumference and is used for probing. His pretty wife and young son, Billy George, both relic enthusiasts, (acquired from the head of the house) usually go along, too.

While Mrs. Sullivan and Billy George look over the surface (and frequently find valuable pieces, too) Mr. Sullivan uses the iron probe, thrusting it carefully into the preferably rain-soaked generally sandy ground. When he hits a foreign substance he probes around until he has determined the approximate size and shape of the object. If it seems likely to be interesting he begins to dig with his spade.

After the top of a buried relic is uncovered most of the digging is done by hand. When a piece of pottery which has been buried for years first is taken from the earth, it is soft and pliable and much care must be exercised to preserve the original shape. Mr. Sullivan's technique is to loosen the dirt from around it, then carefully to slip his hands underneath what looks like a big chunk of mud and lift it out all at once. He then sets it aside to harden before removing the dirt with a pen knife and brush.

Once, in company with another Indian relic hunter, he found a piece of pottery neatly fitted over the skull of an Indian. Frequently buried pottery is broken by tree roots that have grown through it. Often pottery is blackened at the base, indicating, according to Mr. Sullivan, that it has been used in the ashes of some long forgotten fire to heat food for some Indian brave or squaw. The pottery varies in size, intricacy of design scratched into the clay and in workmanship. Some of it shows real artistry in coloring, while other pieces indicate that they were made by some utilitarian in a hurry.

On one memorable day Mr. Sullivan, together with two interested friends, Clois Blessing and Richard Buhles, were on the Arkansas river looking around a clearing, when their probe hit something. When the digging had been completed they found a gleaming, black, symmetrical water jug, which was one of the prized pieces in the Sullivan collection until a collector

from Detroit came to town and persuaded Mr. Sullivan, after talking for one complete day, to part with it for a considerable sum.

Close to one end of his Indian room stands a glass "insurance case," as the family calls it, which contains the rarer and more valuable pieces, some of which are shown in the accompanying illustration. There are some unusually beautiful effigy pipes which were used in ceremonial rites, the workmanship on each of the pipes being such that they show the regard the Indian himself had for these pieces.

One particularly beautiful ceremonial emblem is a black marble-like slate "bird stone" which is carved in clean straight lines to suggest a bird in repose. This simple carved and polished stone could take its place alongside of good sculpture of any age. It was found lying exposed to the weather in a field in Conway county, where the Sioux, Cherokee and a few Osage tribes once lived.

One brown granite pipe, also found in Conway county, has a bowl carved into the shape of a sitting frog. Another pipe, done in rough "modern" style of some of today's sculpture, has been carved to look like a fish; another pipe pictures a lizard or scorpion in bas relief and shows less care of workmanship. Several strands of trade beads, found by Mr. Sullivan eight miles east of Conway also are inside the case.

A hematite plummet or tear-shaped "charm stone" as it is sometimes called, was interesting because it threw some light on the medical practices of the Indian of previous generations. The stone, Mr. Sullivan will explain, was hung in a tent where someone was sick; the medicine man then was called to charm the evil spirits out of the sick person into a "boat stone," which Mr. Sullivan will show you. After the charming was over the medicine man took the hollow "boat stone" out and threw it in the river and the sick person sometimes got well.

One of the smoothest and most valuable is a grey-banded slate butterfly or banner stone ax, which was plowed up by a farmer in Bigelow and brought to Mr. Sullivan's store. There are several round "chunkee" balls of sandstone which, it is explained, were used by the Indian children for playing games. There are also a number of "gorgets" or ceremonial ornaments which were worn hanging around the neck during the ceremonial dances.

The "arrowheads" in the collection number well over 10,000. Collectors divide "arrowheads" into several general classes, it seems. First come the tiny ones which are less than an inch long, called "bird points." These were the Indian counterpart of modern "occupational toys," and were used by the children to shoot at birds. Mr. Sullivan has some made from polished pink flint, others from white quartz, a few from red jasper; most of them, however, are made of grey flint like the larger arrowheads. Indian children bound these points to reeds or cane and shot them through the air to practice marksmanship.

There are many knives in this collection, the size and shape of each varying according to the use to which it was put. The skinning knife, Mr. Sullivan explained, looks very much like an arrowhead, except that it is smooth on one side and bottom, and is turtle-backed. It was used to scrape the skins of animals to soften them into leather. All of the stone knives are without handles, some having rotary or twisted blades, others having serrated edges, most of them being single barbed. The largest lance in the Sullivan collection is eight inches long, has a rotary blade which makes a round hole rather than a cut in its victim. This type of knife is a real collector's item.

Fish spears generally are classified as running from two and one-half to four or five inches, and they, like bird

points, were bound to light-weight handles when used. Two unusual ones in this collection are made of novaculite and red jasper. Most of the fish spears are flint. Several blunt pointed arrows which were used to stun the game, are included in the "insurance case."

There also are many types of axes included in Mr. Sullivan's treasures, several of which are pictured. Most of the axes are grooved so they could be slipped between a green split limb which, when dry, held the ax tight. The axes are, of course, heavy enough to do real damage to things that are struck with them. One large one, however, is feather-weight. Authorities on the subject are unable to explain the phenomenon of the "Cotton Rock Ax," as it is called, except to suppose that some heavy mineral originally in the rock, has eroded out of it since the ax was made.

It is impossible to describe all the interest-provoking pieces in the Sullivan collection. If you are interested, drop in and see them all for yourself. Maybe he'll tell you about a certain effigy pipe he parted with for \$35. "It's worth over \$60 now," he'll say, "but then I was broke and wanted to get married, so I sold it and bought a wedding suit."

Survey Work In Need Of Director

3-31-40

Inability to obtain expert supervision has caused withdrawal of two groups of Works Projects Administration workers engaged in an archeological survey of the state, WPA officials said yesterday. Supervisors in charge have found employment in other enterprises, it was said.

It was reported that a well-known Oklahoma archeologist may be retained to supervise the work. Dr. S. C. Dellinger, head of the Department of Zoology of the University of Arkansas, has conferred with WPA officials here concerning selection of a director.

Dr. Dellinger is listed as co-sponsor of the project with the university. Mrs. May Bevins, director of the arts and professional division of the state WPA, was in New Orleans, La., yesterday. Other WPA officials said they did not know the status of the survey.

The project for the survey was set up more than a year ago when it was found that many valuable Indian relics were being lost to "pot hunters" who were described as destroying evidence of Arkansas's historic past.

Approved Director Required.

The director of the survey must be approved by the Smithsonian Institution, Washington, so that relics removed from mounds can be properly accredited. Several secondary supervisors do not have the approval of the institution, it was said.

Prof. Henry B. Roberts, who was first in charge of the survey, was succeeded by Preston Holder, and later by Dorris Dickinson.

WPA officials said the selection of a supervisor of the project rested largely with university officials because of the technical nature of the position.

One unit of the project has been operating at Buckville, near Malvern, and another has been employed in the museum laboratory at the university.