DR. DELLINGER STUDIES

Indian Hall Of Fame

University of Arkansas Professor Uncovered 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 Wisconsin 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. Indians from other areas, from 40 to 50 miles away, who knew many of the leaders, would come to the mound with offerings and the Indians considered burial there a great honor."

The mound was first dug into in December, 1935, by Quin 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 wide, was oval in shape and huge trees grew on it, indicating that it was centuries old.

Cooper and McKenzie dug a trench in the middle of the mound and started 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 35 feet high, 20 feet wide and 20 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 artifacts included a stack of copper plates or bracelets, numerous conch shells, containing engraved figures and designs, pieces of beadwork 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 curo 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 inlaid with bird’s-eye pearl. The fact that such a soft wood was used, and so much attention devoted to enhancing its beauty indicates clearly the axes were used only 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 artifacts believed to be of Indian origin.

The finest collection of cax heads, made of flint, he has ever seen came from the mound. Dr. Dellinger says.

The mace was the 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 as in the perch-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, scene 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 head-dresses, 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 bracelets and other copper artifacts found in the mound appear to have been the work of Indian artisans.

(Continued on page 11.)
Pictographs on Rocks, Made By Prehistoric Men. Among Wonders of Ozark County

Demonstrating facts recently discovered by archaeologists in Kentucky, the fact that there are "pictographs" or "petroglyphs" on the rocks in the world, the claims of many, and, if they are original, that they are records of the prehistoric men of the world, is the subject of the present article. The fact that this type of writing exists in the world, the claims of many, and the records of the prehistoric men of the world, is the subject of the present article.

North Arkansas Has Prehistoric Tracks

Special to the Gazette 1-26-30

Evening Shade, Ala., Jan. 21—The article in the Arkansas Gazette concerning the man-like tracks in early Kentucky contains the fact that at least two localities in north Arkansas have such tracks been found. Near Ruddle Mill, in Independence county, are found footprints on a rock resembling those of a large human foot. The impressions of the apparent figure 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 animal-like substance. It is believed that the imprints might have been made while it was in a soft and plastic state. The rock was destroyed or covered up in blasting for the Batehouse-Creasey highway.

Doxen Skeletons Unearthed in Newton County Cave.

Special to the Gazette 1-26-30

Jasper, Ind., Jan. 24—Dr. Ross, University of Kentucky, archaeologist, said today that he has unearthed an unknown number of human skeletons, probably those of Indians, while digging in a shallow cave near Marble Falls, Newton County. The presence of some marking, and petrels, first arrow and other objects, showed him to be a skeleton that was those of Indians buried a century or more ago. The case 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 ash and thin rock soil.

The following are the facts:

1. The site of the treasure chest is a cave in the vicinity of the caves. The fact that the Indian was buried with him, that the man was killed in the war and that the mound was covered with a mound of earth are known facts. The mound was destroyed or covered up in blasting for the Batehouse-Creasey highway.

2. The whole side of the accidental, was blasted away by treasure seekers many years ago. Three weeks ago, North of Evening Shade. No treasure was found, as was reported.

"But how do you know," the archaeologist asked, "what the man has been found and secreted so long?"

Mingled with the carvings as well as the bones, evidently painted with some substance, were other objects which it is now known. It is as plain now as when the first settler came a picture of prehistoric life, and ordinary pigment could have existed in the walls of weathering rock. The interesting specimen of the art of an unknown people, which had been lost but had been for the forefathers of a railway construction engineer. He succeeded in having the side of the road changed to allow the bluff to be destroyed.

For article on "Customs of the Cadzo Indians," see in Parks—National section.

PICTORI GRAPHs IN THE OZARKS

Arkansas Gazette Magazine 1-11-38

Section 3 of this magazine is a section of rock carvings, which once covered with particularly interesting pictographs, was entirely destroyed 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 with a very few names: crudely cut heads of people or animals; symbols resembling those drawn to represent the sun by ancient sun worshipers; 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 hollowed and quartered. Perhaps the square will form the line which makes the bottom of the band.

The most famous pictographs in Europe are said to be those of the Basque country in northern Spain. It is certain that many of the figures are similar to those here in the hills of Arkansas and Spain. Much has been said about the Basque pictures are said to be dated to the Stone Age. It does not seem possible that the figures have been covered in the hills all the time that, although geologists say that the Basques were the first to rise from the bed of the great inland sea which once covered North America. A few of the figures are the same as those lining above and below the animals' heads in the rock carvings of Spain is that they portray "magic" lines, drawn by prehistoric hunters who believed that the lines would bring an abundance of the game pictured. Others think that the lines are a symbol of food. It is a common belief, however, among the people of northern Arkansas, that the Indians cut the pictures in the rocks. Many specimens that were
Archaeologist Arrives To Begin Survey. Gazette. 2-22-59
Arkansas is a rich archeological field of historic interest. Dr. E. C. Delligier, director of the Department of the University of Arkansas, Fayetteville, who is an archeologist, has come to the state to begin a survey of the archeological sites in the state. The survey will be conducted by Dr. E. C. Delligier, director of the Department of the University of Arkansas, Fayetteville, and will be assisted by a team of archeologists and graduate students. The survey will be conducted during the summer months when the weather is suitable for fieldwork.

Archaeological Survey Plans Completed 2-22-59
The survey of 115,000 WPA work is nearing completion. The survey will be conducted by Dr. E. C. Delligier, director of the Department of the University of Arkansas, Fayetteville, and will be assisted by a team of archeologists and graduate students. The survey will be conducted during the summer months when the weather is suitable for fieldwork.

Survey To Be Started At Buckville 3-1-59
The survey of 115,000 WPA work is nearing completion. The survey will be conducted by Dr. E. C. Delligier, director of the Department of the University of Arkansas, Fayetteville, and will be assisted by a team of archeologists and graduate students. The survey will be conducted during the summer months when the weather is suitable for fieldwork.

Archaeological Society May Be Formed 3-12-59
The organizers of the Society are planning to form an archaeological society in the state. The society will be formed by Dr. E. C. Delligier, director of the Department of the University of Arkansas, Fayetteville, and will be assisted by a team of archeologists and graduate students. The society will be formed during the summer months when the weather is suitable for fieldwork.

Here Today (Little Rock)
Archaeological Conference Fayetteville, 5-5-59
The organizers of the conference are planning to hold an archaeological conference in the state. The conference will be held by Dr. E. C. Delligier, director of the Department of the University of Arkansas, Fayetteville, and will be assisted by a team of archeologists and graduate students. The conference will be held during the summer months when the weather is suitable for fieldwork.

Pottery Sequence of Drainage Area To Be Classified 5-5-59
The organizers of the project are planning to classify the pottery sequence of the drainage area in the state. The project will be conducted by Dr. E. C. Delligier, director of the Department of the University of Arkansas, Fayetteville, and will be assisted by a team of archeologists and graduate students. The project will be conducted during the summer months when the weather is suitable for fieldwork.

Archeological Society Organized 2-27-59
The organizers of the Society are planning to organize an archaeological society in the state. The society will be organized by Dr. E. C. Delligier, director of the Department of the University of Arkansas, Fayetteville, and will be assisted by a team of archeologists and graduate students. The society will be organized during the summer months when the weather is suitable for fieldwork.

The People of the Past: A Survey of the Prehistoric and Archeological Remains in the State of Arkansas. The survey of 115,000 WPA work is nearing completion. The survey will be conducted by Dr. E. C. Delligier, director of the Department of the University of Arkansas, Fayetteville, and will be assisted by a team of archeologists and graduate students. The survey will be conducted during the summer months when the weather is suitable for fieldwork.
Arkansas Bluff Dwellers

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 Gilsnap

A huge, hairy creature, that cave man?

Not if he lived in Arkansas!

Take it from Dr. B. C. Dellingr, Uni-

versity 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

sleeping forehead, the jutting ample

jaw we attribute to primitive man, but

he was by no means the ungainly,

hairry being we so frequently see

picture.

He was, this bluff dweller, living in

his cave burials.

A culture which had progressed thou-

sands of years beyond that of the

earliest cave man. The bluff dweller’s

culture included domestication of

the dog.

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,

pipes, pottery, of bow and arrows.

Dog food was his entire diet.

From the relics and bones preserved

in the dry shelters of these early

Indians, Dr. Dellingr has been able to

reconstruct quite a clear picture of

these sturdy little people who roamed the

Ozark hills and valleys about the

time of Christ.

Evidence indicates that these semi-

nomad peoples trekked from this region

of the Southwest. They have left traces

of many customs which show the

John C. Rowan: A Flame of Flowers

Topography of the Ozarks is sculpt-

ured into deep valleys and steep

hillsides. The same geological forces

posed of deep limestone overlying a

soft shale. Due to weather action,

a number of shelters or caverns have

been formed, ranging in size from sev-

eral hundred yards in length and 100

feet in height to a few feet by 15

and 12 feet in depth. It was in these

shelters, located conveniently near water

supplies, that these late Indians, that

earliest Indians lived. It is here today

in ashes and dry dust that the archaeol-

ogist today sifts the objects used in

the everyday life of the bluff dwell-

er—bones, a basket, the blue stem corn,

basket cards of corn, and such, sun-

flower seed, baby cladades, terrapin

shells used for dishes, bird and leg

gins, bone and wooden awls and

flutes, crude potters, and even their

bone tools.

An early Indian bluff burial found on Eden’s bluff on White

river in Benton county

These Indians are of special interest to

the archaeologist because they were

the very first to establish homes in the

South. They’re the oldest culture. And

although their mode of living was like

that of all aborigines in many respects it

had several differences.

Their hunting, for example, was done

by means of a spear or dart and a

wooden board called an atlatl.

The dart used was made of a half foot

in length with a stone point at the tip.

To hurt it they used the atlatl for

additional force. When Europeans came
to America, they learned from the Indians

and among any Indian tribe except the

Aztecs. With it the bluff dwellers
darted birds or animals. The Indians

used stones to take birds and other

small game.

Roughly speaking the economic lives

of these people revolved around 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

shoulder blades of deer attached to

a stick, history 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 grew in small pieces

in what are known as makan dries.

The gourds were used for drinking and

storage vessels, for baby rattles and

for seed containers. If these early

Ozarkans did not have spinach they

had a good substitute in lamb’s quar-

ter, heart 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 hamp-

ners, baskets for winnowing and squishing,

baby cladades, their clothing.

Their large hammocks were filled with

grains, nuts, seed and dried fruit and

buried in the shelter. They even used

baskets for cooking since they had no

sense of the food was roasted over the

fire on spits, sometimes it was cooked

in a kettle and poured into it for a

former of the fire hearth.

The cooking of the bluff dwellers con-

sisted of wooden spoons of rattlesnake

head, a box of the fibres of Illinois hemp

and attached to this a felt loin cloth made

of a bundle of twisted blue stem grass.

Their clothing in the winter consisted of buck

skin mocassins with buckskin tongues and

a drawstring around the ankles, buck

skin leggings and shirts. In very severe

weather they were clad of feathers

down cloth and embroidered overshoes of

canary grass. They used awls of bone

and wooden needles and were very today

in mending their mocassins and other
garments.

Their housekeeping in the bluff dwell-

er was fairly simple. Whenever

rubish became too thick they spread

ashes and layers of leaves over the

floor. Their dishes were shells, mussed

and terrapin. They used spindles for

plaiting, plaiting, stone hammers

and double-bitted flint axes with high

handy hands. Their knives were bone.

But if their surroundings were not

always sanitary and their food supply

stable, sometimes uncertain, the bluff
dwellers possessed inordinate qualities

in their germ plasm for the development

of normal bacteria under adverse con-

ditions, and the race possessed a re-

markable flexibility of digestive appa-

ratus which permitted them to eat large

quantities of inferior and perhaps un-

clean food, and to utilize it from 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. Dellingr and Dr. E. O.

Wakefield of the Mayo Clinic in Roch-

ester, Minn. There is no evidence of

vitamin or endocrine deficiency dis-

cases. They did suffer from arthritis,

another study made by Dr. Dellingr,

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 35

years of age to be afflicted with this

disease. They also suffered from tooth-

ache, 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 fixed or knee-

chest position and indurate it in a bag

of feathered cloth. This was then

tied at the opening and usually about

the middle and ends with hard 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 blunt dwellers had placed 21 ears

of corn, a quart of sunflower seed, a

few acorns and chiquiupin. In another

instance a set of bird bones along with

many relics of the bluff dwellers’ cul-
ture have been brought to the univer-
sity museum and arranged for show

in the Department of Zoology, of which

he now in head.

During the first few years he was cu-
erator of the museum, Dr. Dellingr,
did his archaeology work during his

summer vacation unaided by either

funds or assistants. When his work

began to show results grants of mon-

ey were made on it by the Carnegie

Foundation and the Department of

Arkansas—Col. T. H. Barnet of the

Loom Oil Company; Harvey Cough and

the Arkansaw Power and Light Company. In recent years

the government has made generous grants for his work and for

his predecessors the ERA and CWA.

The purpose of archaeology is to

pick up a culture. No archaeologist

no longer is satisfied with mere

collection of collections, in learning

about the ancient man. The geo-

paleo anthropologist, the more clas-

sification of cultures, or in knowing

the succession

Such a study requires the guts of

everyone. When Dr. Dellingr

traveled to work on the Ozarks for

the dwellers, he knew little about the

primitive people he was to study. He

plotted a 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 sociology stu-
dents. When Congressmen Clyde Ellis

was a student a few years ago he

helped Dr. Dellingr 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

was an addition to the hand-made

knives of the bluff dwellers. This awl

is now on exhibition in the museum.

What happened to the bluff dwell-

er? That is one of the questions

that remains for study. Dr. Dellingr

has a theory that they may have migrated,

and their groups sometimes were

absorbed by some of the great

and powerful tribes of the plains. Al-

though the dwellers have been highly

worked, it is possible that

findings in the state-wide survey will

yield the information needed to com-

plete the bluff dwellers’ story.
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, postmarked Edgmond, with the name of G. W. Washburn in the upper left corner.

I had heard neither of the man nor his hometown. The curiosity that moved me to hasten open the packet and changed to joy as I took out, unwrapped and studied certain fossil specimens. The specimens were small, the largest one a piece of crinoid (sea lily) stem. There were all labeled, and as I read on I 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 Edgmond, Cleburne County. That life had left the skeletons told of had ever existed in this part of Arkansas was news. That there was a man back in the hills who had 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. Then went on to the linguistic quandary of which the museum was a common center of interest.

The last, a quiet, mannered, blue-eyed country gentleman came to the museum to see what had been collected and talked shop in terms of fossil names and the habits of these once-active forms of life.

It seems that Mr. Washburn, although he had no sheepskin, had knowledge a scholar might envy. He had been a student from New York 40 years before, had homesteaded near Edgmond and had spent his study of rocks and bones, using standard books for guides, but proving wrong by his study of specimen themselves.

Another time I had the pleasure of a visit from Mr. Washburn. The pleasure of the visit was when I met him at what is called the “Rock House,” not far from Edgmond. On the walls of this 99-roomed house wide cove are strange drawings, etchings and hieroglyphics. Mr. Washburn explained it all: 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 arrows or for some other purpose.

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

A collection of fossils of unusual size, and far beyond the bounds of the county, was in the possession of Mr. Washburn. Among these is a large piece of crinoid, several specimens of the same species of crinoid, and several specimens of Potamoceras, a large ammonite.

Mr. Washburn told me of the museum where he had made his study, and it was clear that he had found a museum that was very similar to the one where he had studied.

At the museum, I found that Mr. Washburn had made a large collection of fossils, some of which are now on display in the museum. He has also made a collection of Potamoceras, a large ammonite, and several specimens of crinoid, which are now on display in the museum. He has also made a collection of the same species of crinoid, and several specimens of Potamoceras, a large ammonite.

Mr. Washburn has also made a collection of Potamoceras, a large ammonite, and several specimens of crinoid, which are now on display in the museum. He has also made a collection of the same species of crinoid, and several specimens of Potamoceras, a large ammonite.
Indian Relics in Arkansas
Conway Merchant Has Acquired Valuable Collection of Indian Relics Through His Hobby of Exploring Indian Burial Grounds Scientifically.

By Robert Page

Every person who boys a piece of land—be it for raising in Texas, cotton growing in Arkansas or apartment planning in New York, is interested in the previous ownership of that land. Most Americans realize that the unmarked footprint was the first known claim of land ownership on this continent, but a large number of people have never dreamed 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 generation.

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 moments disappear from the ground and appear again, neatly labeled, in their own collections and museums, to do much worrying about the next generation.

William A. Sullivan, 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 Osco, there was a little hill that the children believed to be an Indian mound; this little hill, surrounded as it was by childlike 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 unprofitable and his interest in the subject purely theoretical. He swapped with a schoolmate for several pieces and let it go at that.

After his school days were over and he had returned to his business, a farmer came into his store one day and stopped awhile for a chat. "Pole up your crops, Mr. Sullivan," he said, "White river was an old Indian burying ground," said the farmer, making conversation. "Don't know anything about it myself; might be. There's 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 get gettin' on home."

That comment started it all.

One day shortly afterward, William Sullivan set out for a certain strip of pasture land on White river. And wasn't carrying a fishing rod with him; he loaded his car with several shovels, an iron protruding 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 hiking expedition he had discovered—seven Indian graves!

When Mrs. Sullivan saw the day's collection, which included a bone from a human femur, she cried. "It's had luck to open a grave. You'd better take those 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 those of their treasures anywhere, and that the pieces taken from them—mostly burial points—were to be treasured as historical memorials 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 22,900 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 Clinton 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. He 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 keen 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 a bit before he puts the dirt with a pen knife and brush.

Once, in company with another Indian relic hunter, he found a piece of pottery nearly 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, Cletus Blessing and Richard Bubley, were on the Arkansas river looking around a clearing, when their probe hit something. When the digging had been completed they found a glowing, 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 rare 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 these pipes being such that they show the regard the Indian himself had for these pieces.

One particularly beautiful ceramic emblem is a black marble-like slate "bird stone" which is carved in clear straight lines in the shape of a bird in repose. This simple carved and polished stone could take its place alongside of some of today's sculptures if it had been found lying exposed to the weather in a field in Conway county, where the Shattuck find and a few others lie.

One brown granite pipe, also found in Conway county, has been bored into the shape of a sitting frog. Another pipe, done in rough "modern" style of sculpture, has been carved to look like a fish; another pipe pictures a lizard or scorpion in relief and shows how care was taken in the treatment of the legs. Several strips of trade beads, found by Mr. Sullivan eight miles north 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 spirit 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 pieced up by a farmer in Bigelow and brought to Mr. Sullivan's store. There are several round "chunky" bales of sand stone which, it is explained, were used by the Indian children for playing games. There are also a number of "gorgetes" or ceremonial ornaments which were worn hanging around the necks of the ceremonial dancers.

The "arrowheads" in the collection number well over 10,000. Collectors dig around in the woods and fields, and it is said that a number of new classes, it seems. First come the tiny ones which are less than an inch long, and probably are used by the Indian counterpart of modern "occupational toys," and were used by the children to shoot at. 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 flint. He has larger arrowheads. Indian children found these points to obscure and shoot them through the air as part of their marksman ship.

There are many knives in this collection, the size and shape of which is according to the use to which it was put. The skinning knife, Mr. Sullivan explained, looks something like an arrowhead, except that it is smooth on one side and bottom, and is turtleshaped. It was used to cut the tough hide of animals to soften them into leather. All of the stone knives are without handles, some having the broad edges, others having serrated edges, most of them being single barbed. The longest in the collection is over eight inches long, has a rotary blade which makes a round hole rather than a cut in its victim. This type of tool is a real collector's item.

Fish spears generally are classified as running from two to four inches and over four inches, and these, like bird
points, were bound to lightweight handles when used. Two unusual ones in this collection are made of rhyolite and red jasper. Most of the fish spears are flint. Several blunt pointed arrows which were used to pluck 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 suggest that some heavy mineral originally in the rock, has eroded out of it since the ax was made.

It is impossibly to describe all the interesting 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 $50 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**

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. A. C. Dellinger, head of the Department of Sociology at 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. Mary Minor, 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 supervising officers do not have the approval of the institution, it was said.

Prof. Henry R. Roberts, who was first in charge of the survey, was succeeded by Preston Holder, and later by Rossie 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 Buxton, near Malvern, and another has been employed in the museum laboratory at the university.