Alabama Archaeological Society

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STONES & BONES NEWSLETTER

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1989 DUES

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THE FOLSOM TYPE SITE WAS NOT THE FIRST: OTHER PIONEER DISCOVERIES OF EARLY MAN

I first found this discovery written up in an unpublished research report by one of my former students, Meri Swid. If anyone knows of her present location, I would appreciate establishing contact with her again.

As early as 1895 a projectile was found in direct relationship with an extinct form of bison. This discovery was made by two professional archaeologists, H. T. Martin and T. R. Overton, working along Twelve Mile Creek, a short distance north of Smoky Hill River in Logan County, Kansas. The stratum that produced the bison bones, as well as the point, was in an exposure more than 20 feet below the top of the stream bank in a two-foot, blue-gray, silty sand layer. The investigators discovered the bone bed, and decided to undercut the bank to expose the partial remains of an extinct form of bison, a Bison occidentalis.

Beneath the right scapula of the B. occidentalis, if the sketch of the artifact was at all accurate, was found a point that was either a Folsom or a Midland point. Dr. E. H. Sellards, decades later, sought the point in the collections of the University of Kansas, but apparently it was lost. However, a crude drawing of the point was still available and the artifact tentatively was identified by Dr. Sellards.

The bison bones, which are also missing, were first identified as B. antiquus, then changed at a later date to be a B. occidentalis. If the point is correctly identified as either a Folsom or a Midland point, the initial identification as a B. antiquus would be more likely correct, since the vast majority of all bison found with Folsom or Midland points are B. antiquus.

It is indeed unfortunate that the investigators had not taken time to expose the section showing the point under the right scapula of the bison, and then stopped work and allowed other professional archaeologists

to view the projectile in situ. Had this procedure been followed, in all probability this site, not the Folsom Type Site, would have been the first accepted Paleo-Indian site in the New World. Of all the pre-Folsom type site finds, this excavation was the most convincing, especially since it was a 19th century discovery. Had the Paleo-Indian been widely accepted by this period, who knows what progress the field would have made having 35 more years to seek and discover new important Paleo-Indian excavations? Apparently the investigators, or the museum personnel, did not consider the find that important, since both the point and the bison bones have been lost or discarded, so additional research cannot be conducted at this time.

(Article by George A. Agogino in THE ARTIFACT 26:2, 1988)

ARCHAEOLOGISTS BECOME OBSOLETE?

The Columbus Museum announces "Lost and Found Traditions: A Symposium", to be held at the Museum May 19-20, 1989. The two-day symposium celebrates the richness and diversity of contemporary Native American cultures and focuses on the cultures indigenous to the Southeast. The symposium will be held in conjunction with the exhibit "Lost and Found Traditions: Native American Art 1965-1985", on display April 16-October 15. Speakers include Ralph T. Coe, art historian and exhibit curator; Dr. Charles Hudson, University of Georgia anthropologist and noted authority on Southeastern Indian cultures; Claude Medford, Jr., anthropologist and traditional Choctaw craftsman; and Arnold Richardson, educator and traditional Holiwa-Saponi craftsman. Native American foods will highlight the symposium.

For additional information, please contact Anne King at the Columbus, Georgia Museum; 404/322-0400.

ARCHAEOLOGISTS BECOME OBSOLETE?

Could some advanced civilization devise a tunnel that would open shortcuts through space between distant regions of the universe or through time into the past?

The traditional reaction of most scientists to such notions is to dismiss them as naive science fiction. But three theoretical astrophysicists have published a suggestion that the laws of physics might not prohibit such "wormhole" travel through space and time.

Dr. Kip S. Thorne and Dr. Ulvi Yurtsever of the California Institute of Technology and Dr. Michael S. Morris of the University of Wisconsin presented their startling conclusion in a recent paper in Physical Review Letters. This prestigious scientific journal is an official publication of the American Physical Society, and it accepts scientific papers for publication only after they have been rigorously reviewed by independent experts.

Dr. Thorne and his colleagues stopped short of predicting that anyone will ever travel through cosmic "wormholes". It has yet to be proved whether such travel is or is not theoretically possible, they contend. But such travel cannot now be ruled out, they said, although it will probably be possible to settle the issue one way or the other on theoretical grounds. Science would profit from a concerted effort to resolve the question, they said.

If travel into the past could be shown to be at least theoretically possible, the mere possibility would have profound philosophical and scientific consequences. Since a time traveller might theoretically be able to change events that occurred in the past, including his or her own birth, the rules of causality on which science is based would be thrown into confusion.

In summarizing the complex mathematical analyses presented in their report, the scientists concluded: "If the laws of physics permit an advanced civilization to create and maintain a wormhole in space for interstellar travel, then that wormhole can be converted into a time machine with which causality might be violatable. Whether wormholes can be created and maintained entails deep, ill-understood issues."

The possible existence of "wormholes" is a theoretical consequence of Einstein's General Theory of Relativity, which also provided the theoretical basis for black holes, regions in space where the density of matter approaches infinity and where both space and time are warped in bizarre ways.

(From an article by Malcolm W. Browne in "The New York Times", Nov. 22, 1988)

(Footnote: Our tongue-in-cheek title implies that it would no longer be necessary for archaeologists to dig things up, since you could just go back in time and see for yourself. Scary!

PRESERVING THE PAST

The November 14, 1988 issue of "Chemical & Engineering News" carried a 10-page article entitled "Preserving the Past", which will be of interest to many A.A.S. members. The article is devoted to the topics of "new chemicals and new techniques to restore structure and integrity to important historical, archaeological, and paleontological objects". Within the article, this box-enclosed note appeared:

TREATMENT OF DRY WOOD OFFERS A UNIQUE SET OF PROBLEMS: Dry wooden objects - whether archaeological finds from a tomb or cave, or art or decorative objects of historic value - offer conservators challenges that differ from those involved in treating waterlogged wood. The main reason for this is that dry wood is a much stronger material than waterlogged wood.

Dry wood has usually retained its structural integrity. Wet wood has deteriorated in structural composition. Conservators of dry wooden objects, such as Donald C. Williams of the Smithsonian Institution's

Conservation Analytical Laboratory, "have the luxury of expending energy in preventing damage whereas conservators dealing with waterlogged wood have to take an active response to damage that has already occurred."

For Williams the problem usually boils down to repairing or stabilizing interactive parts of compound wooden objects such as furniture, not in stabilizing the structure of the wood itself. Often this means treatment to recover the proper appearance of the piece. And often the treatment may be as simple as stripping and then refinishing the object with the proper coating.

Conservator Stephen P. Mellor of the new Smithsonian National Museum of African Art frequently works with wooden sculptures that have cracks or have parts that have broken off. He, too, performs cosmetic repairs, but ones that are reversible.

A wood sculpture that was to become part of the African art museum's permanent exhibit had a wide crack nearly the full length of the sculpture. It had been improperly repaired in the past. Mellor removed the fill, coated the inside of the crack with a substance that would make his fill removable, and filled the crack with a colored mixture of tiny phenolic spheres and silicon rubber. Not only was his fill reversible and cosmetically pleasing, but it had the added virtue of expanding and contracting with the wood itself.

Mellor, like most conservators working on dry wooden objects, follows Williams' dictum: "Do as little as possible and as much as necessary."

ALABAMA ACADEMY OF SCIENCE 1989 MEETING

The Alabama Academy of Science (ACS) will hold its annual meeting March 22-25, 1989, at Birmingham-Southern College, Birmingham, Alabama. ACS Section XI, Anthropology, is chaired by Ms. Janice Gilliland, College of Community Health Sciences, Box 6291, University of Alabama, Tuscaloosa, Alabama 35487. Phone 205/348-7947. Contact Ms. Gilliland for specifics about programs, schedules, or the possibility of presenting a paper.

CHAPTER NEWS

HUNTSVILLE CHAPTER

The Huntsville Chapter meets the fourth Tuesday of each month at 7 p.m. in the Auditorium of the public library on St. Clair Avenue. The public is welcome.

MUSCLE SHOALS CHAPTER

The Muscle Shoals Chapter held its November meeting on the 14th at the Indian Mound Museum in Florence. Fifteen members and guests

attended. Joe and Nancy Copeland presented an interesting slide narration on Anasazi sites in the Southwest. They have made a number of visits there over the past few summers.

The Chapter discussed hosting the Summer 1989 A.A.S. Meeting at nearby Smith Bottom Cave, and the members were unanimous in their support for this meeting.

TUSCALOOSA CHAPTER

The Tuscaloosa Chapter's November meeting was held at the city library. Guest speaker was Mr. Carey Oakley. Mr. Oakley spoke on the summer projects that The University of Alabama participated in throughout the state.

New Chapter officers were elected: President, David Yeager; First Vice President, Robby Hall; Second Vice President, Kenneth Yeager; Secretary/Treasurer, Bill Adkison.

Chapter meetings are held on the fourth Monday of each month.

BOOKLET

For a mere $1.50, a 26-page booklet entitled Your Fragile Legacy may be obtained from the:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

This all-color booklet was prepared by the U.S. Department of the Interior Bureau of Land Management and is designed to acquaint the reader with the scope of the nation's cultural resources, from prehistoric times up to the present century. It's predominantly on archaeology, very readable, and has numerous beautiful photographs.

The Government book store in downtown Birmingham has this booklet in stock.

EVIDENCE FROM THE SWARTKRANS CAVE FOR THE EARLIEST USE OF FIRE

During recent excavations of hominid-bearing breccias in the Swartkrans Cave (South Africa), altered bones were recovered from Member 3 (about 1 to 1.5 million years BP) which seemed to have been burnt. We examined the histology and chemistry of these specimens and found that they had been heated to a range of temperatures consistent with that occurring in campfires. The presence of these burnt bones, together with their distribution in the cave, is the earliest direct evidence for use of fire by hominids in the fossil record. Although abundant remains of Australopithecus robustus and Homo cf. erectus are found in the older Members 1 and 2 at Swartkrans, there is no evidence of fire, suggesting that the discovery of fire was made in the interval between Members 2 and 3 and before A. robustus became extinct.

(The preceding is from an article by C. K. Brain and A. Sillen in "Nature", December 1988)

CANAL BUILDERS OF PRE-INCA PERU

Making water run downhill would appear to be the easiest thing in the world. Yet when the soure of the water is a river 40 kilometers from the fields that need to be watered, it can be a difficult business. This is essentially the problem that faced the ancient engineers of the kingdom of Chimor, a society that dominated the northern coast of Peru from about A.D. 1000 until its conquest by the Incas. Chimor was a "hydraulic society": in the arid foothills the Chimu were completely dependent on irrigation to provide enough food to support their people. As a result, they became expert hydraulic engineers, capable of surveying canal routes with great accuracy and constructing canals with considerable efficiency.

As it happens, the Chimu needed every bit of technical expertise they could muster, because their environment was changing in a way that threatened the canals. In response to the plate-tectonic and spasmodic seismic movements of the South American coast, the rivers that run down from the Andes continually modify their beds as the support landscape is distorted. For the Chimu the net result was that the flow in existing canal systems was constantly decreasing as the supplying river entrenched and stranded canal inlets. The picture was further complicated by the destructive rains that result from El Nino disturbances of temperature and ocean currents. But the Chimu engineers were up to the task. For hundreds of years they modified their canals, innovating and adapting new design strategies to keep pace with the changing physical environment. Their achievements have recently been revealed by the first large-scale excavations of the canals in the region.

It is thought that once the canal route had been surveyed, numerous work gangs of from 10 to 20 men were assigned to excavating and clearing rock along the canal path. The tool kit of the work gangs included bronze implements and stone hammers. Hoes with stone blades were used for digging and wicker baskets served for carrying away soil. Major boulders in the canal path were progressively reduced in size by lighting fires around them and then dashing water on them to spall off flakes.

Once constructed by these methods, the canals carried water mainly from November through May, which is the rainy season in the highlands. Such a pattern of water availability was sufficient to support a considerable range of crops, including beans, corn, squashes and gourds of various types, spices and many different types of fruit trees, along with cotton. Generally, crops were grown in serpentine furrowed fields situated alongside the canal at a slightly lower elevation. Channels from the canals brought water to the growing surface; the channels were activated by temporary barriers that raised the water level to drop-structure weirs and thus diverted the flow to the field systems.

(From an article by Charles R. Ortloff in "Scientific American", Dec. 1988)

BOOK REVIEW

Mini-Histories, 5311 Indiana Avenue; Nashville, Tennessee 37209, has reprinted "A Further Contribution To The Study Of The Mortuary Customs Of The North American Indians" by Dr. H. C. Yarrow. This reprint comes from The First Annual Report of The Bureau of Ethnology, 1881. It contains 116 pages and is soft-bound. The cost is $10.00, including postage, handling and Tennessee sales tax.

This report covers interesting descriptions of Indian burials and burial customs. A good opportunity to obtain such information from this early, rare report.

COMPREHENSIVE INDEX TO ARCHAEOLOGY AND FEDERAL GOVERNMENT RESOURCES

The National Park Service has just published an issue of its "Cultural Resources Management Bulletin" devoted to the topic "Archaeology and the Federal Government". This 36-page publication includes brief descriptions of most major federal agency archaeological programs, articles on a number of other topics, and descriptions of a variety of federal archaeological projects. This is the first general description of federal archaeology. It is meant to address an audience of archaeologists, historians, historic preservationists, and cultural resource managers. Single copies are available from the address below. Multiple copies for course adoption are available at no cost when requests are on departmental letterhead and specify the course title, dates, and expected enrollment. Send requests to:

George S. Smith
Archaeological Assistance Division
National Park Service
P. O. Box 37127
Washington, D.C. 20013-7127.

(From the Bulletin of the Society for American Archaeology, November 1988)

PUBLICATIONS AVAILABLE

Available issues of *Journal of Alabama Archaeology* Vol. 20-29 each issue	($2.50 to Members)	$5.00 pp
Stanfield-Worley Bluff Shelter Excavations (Journal of Alabama Archaeology) Vol. VIII Nos. 1 & 2 - Reprint, each issue		$5.00 pp
Special Publication 1 — Fort Mitchell		$2.00 pp
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Special Publication 3 — *Archaeological Investigations at Horseshoe Bend*		$6.50 pp
Handbook of Alabama Archaeology Part 1, Point Types		$10.00 pp
Lively, Long, Josselyn - *Pebble Tool Paper*		$3.00 pp
Investigations in Russell Cave, published by the National Park Service		$7.50 pp
Exploring Prehistoric Alabama through Archaeology (Juvenile)		$7.00 pp

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6

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