Alabama Archaeological Society

Associate Editors
Bart Henson
Dorothy Luke

STONES & BONES NEWSLETTER

Editor
Amos J. Wright
2602 Green Mountain Rd.
Huntsville, Alabama 35803

MEMBER OF THE EASTERN STATES ARCHEOLOGICAL FEDERATION

Volume 28 Number 9

NEW DATES ON NORTHERN YUKON ARTIFACTS: HOLOCENE NOT UPPER PLEISTOCENE

The study of the time and circumstances of the human colonization of the New World has preoccupied archaeologists for more than a century. The earliest universally acknowledged North American sites are those that were occupied by people who made distinctive fluted stone projectile points approximately 11,500 years ago and who are usually given the name Clovis, after a locality in New Mexico. Although many sites and study areas have been presented as providing evidence for pre-Clovis human occupation in both North and South America, the validity of this evidence is not accepted by all investigators. Re-examination of one such body of evidence shows that four artifacts from the Old Crow locality in the northern Yukon Territory, Canada, which were previously thought to be of late Pleistocene age, were in fact from the late Holocene. These artifacts were originally obtained from localities scattered along the Old Crow River, which meanders across the intermontane Old Crow Basin.

In 1966, a caribou tibia that had been fashioned into a fleshing tool was found in one of these Holocene terrace deposits. This artifact is similar in form and material to tools made in late prehistoric and historic time for removing the flesh from skins used for clothing, shelter, and other purposes. In addition to this flesher, mammoth limb bones were found that had been fractured and flaked, presumably by humans, in a manner reminiscent of the production of stone tools. The man-made flesher and the flaked mammoth bone were immediately radiocarbon dated to determine whether they were of the same age. Carbon extracted from the inorganic, or apatite fraction of the flesher and two of the fractured mammoth bones gave radiocarbon ages of 27,000 years before present (BP), 25,750 BP, and 29,100 BP, respectively.

These dates, and in particular the one on the flesher, helped launch intensive multi-disciplinary research in Old Crow Basin that continues to this day, and the flesher date is often cited as a cornerstone of arguments that favor pre-Clovis human occupation of the New World. Various arguments have also been advanced against these interpretations. To test the original assumptions and conclusions about the Old Crow material, we took a new series of radiocarbon dates. The dates obtained for the flesher, the billet, and the two antler wedges show that these are Holocene, not Pleistocene, artifacts. In particular, the age (1350 ± 150 BP) obtained for the flesher is almost 26,000 years younger than that originally measured.

The date obtained here for the flesher is typical of the ages of all other known artifacts of this general type in this region. Thus, it is not an unusual artifact, nor does it represent a general tool type that existed relatively unchanged for nearly 30,000 years.

To conclude, a new radiocarbon analysis of supposed upper Pleistocene artifacts from the Old Crow area in the Northern Yukon shows that these materials can be subdivided into two age groups. The radiocarbon dates for the proposed mammoth bone flakes and cores are all of Pleistocene age, in accord with earlier determinations and with geological expectation. These results provide no new information to help determine whether these specimens are man-made tools or the results of natural phenomena. However, the four Old Crow artifacts that have counterparts in recent time are all of late Holocene age. In particular, the original age obtained for the Old Crow flesher was seriously in error, probably due to massive contamination of the bone apatite by groundwater carbonates. These four artifacts can no longer be regarded as evidence for a Pleistocene human occupation of northwestern North America.

(From an article by D. E. Nelson et al in "Science", May 9, 1986)

The Editors

CHAPTER NEWS

Birmingham Chapter

The following is the tentative program of the Birmingham Archaeological Society for 1986-87.

September 11 - Wallace (Wally) E. Fuller (Birmingham), "Living History at Ft. Toulouse".

October 9 - Houston Wright (Huntsville), "Paleo Man of Alabama".

November 13 - Dr. S. M. Mahan and wife Linda (Montevallo), "Travels to Maya Land".

December 11 - Tom and Evelyn Hutto (Birmingham), "The Echota Tribe" of Alabama.

January 8 - Carey B. Oakley (Moundville), "Archaeological Research in Huntsville Area".

February 12 - Douglas Jones (Tuscaloosa), "DeSoto's Path through Alabama".

March 12 - Larry Oaks (Montgomery), Historical Archaeology, "Ante-bellum Homes of Alabama".

April 9 - John Hall (Tuscaloosa), "Recent Excavations of Town of Cahaba".

May 14 - Birmingham Chapter "Artifact Exhibits".

Note: All meetings are free to the public; annual dues are $5 per person or family. Meetings will be held the second Thursday of each month at the Red Mountain Museum Auditorium, 7:00 p.m. Eloise Clark's coffee and homemade cookies will be served, along with "show and tell" of artifacts, etc., with our regular meeting beginning at 7:30.

For further information call Annette Otts - President, at 674-0920 or 323-8800.

Annette Otts

Huntsville Chapter

John Williams of the Huntsville Chapter presented the August program, a discussion on the current excavations along the Tennessee River on Redstone Arsenal. John used photographs to illustrate the progress of the project to date. Chapter members have participated in this excavation and are looking forward to another dig, also on the Arsenal, which is scheduled to begin in early September.

The Huntsville Chapter meets the third Tuesday of each month in the conference room of the United Way office on Traylor Island at 7:00 p.m. The next meeting will be September 16; A. J. Wright will speak on the Alabama DeSoto Commission.

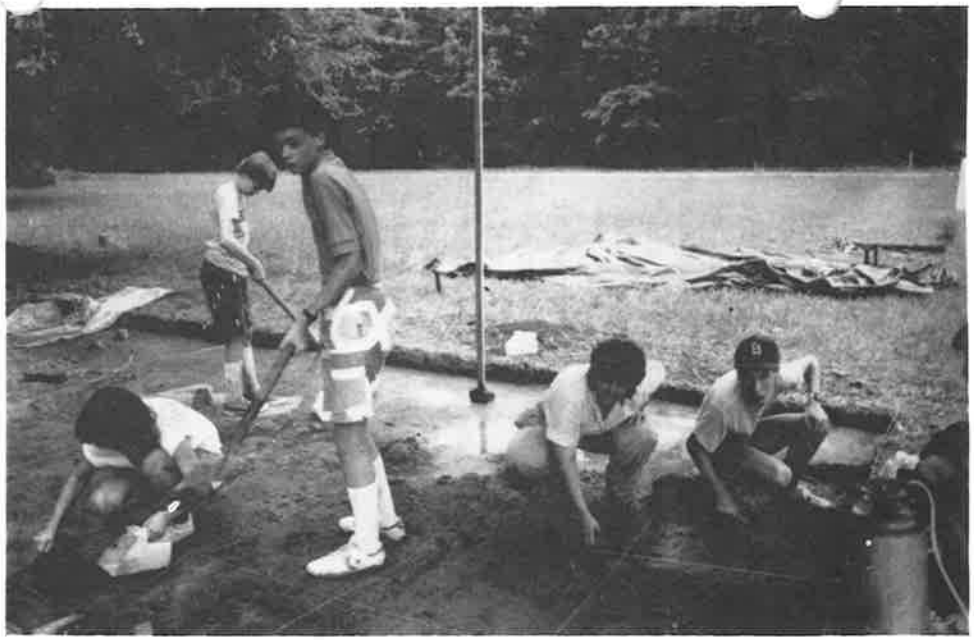
Members of the Huntsville Chapter recently visited Etowah Indian Mounds near Cartersville, Georgia. The Etowah Mounds complex includes a small museum, which offers a brief slide show on the site, occupied about 1350 AD by people who built the temple mounds and practiced rituals of the Southern Cult. Particularly interesting were two carved marble statues about two feet high discovered at the base of a temple mound. They are believed to be actual portraits of the male and female with whom they were buried.

A self-guided tour takes the visitor across the remnants of a defensive moat, on to the plaza, past several burial and ceremonial mounds, to the Etowah River and a restored fish weir. All present agreed that the view from the top of the temple mound was superb, as it overlooked the plaza, two smaller mounds and the river.

For more information on Huntsville Chapter programs and other activities, call Program Chairman Houston Wright at 881-2485.

Dorothy Luke

Top Left: General camp view at Ft. Toulouse. Top Right: Ned Jenkins, Park Manager, working a dugout canoe. Bottom Left: Northwest bastion of the 1717 fort. Bottom Right: Profile of moat of 1717 fort. Photos: A. J. Wright.



Top Left: Excavation at Old Cahaba, Kenneth Land observing. Top Right: Linda Derry, fourth from left, and assistants. Site of Saint Luke's Episcopal Church at Old Cahaba. Bottom Left: Tony Lattal and assistants excavating bottles. Bottom Right: Tony Lattal uncovering old bottles. Photos: O. D. Hartley.

ARCHAEOLOGICAL WORK AT CAHABA

During the summer of 1986 the Alabama Historical Commission is conducting an archaeological project at Cahaba. Cahaba, onetime capital of Alabama, is now a dead city located at the confluence of the Alabama and Cahaba Rivers. The objective of this work is to find what is in an area of the old city that is to be developed as a state park.

Historic archaeologist Linda Derry, who has previously worked at Williamsburg, Virginia, is executive director of the Cahaba project.

Some of the finds of the Cahaba dig include sites of buildings that stood when Cahaba was a city, historic period artifacts and a prehistoric site. Thus the dig is providing information on both the history and the prehistory of the site.

O. D. Hartley
Huntsville

AHC FUNDS SURVEYS

Three $10,000 contracts for archaeological investigations were awarded by the Alabama Historical Commission. Jacksonville State University, with Dr. Harry Holstein as principal investigator, is completing a survey of a six-county area in the Piedmont - Alabama's east-central hill country. Cailup Curren, under the sponsorship of the Alabama Tombigbee Planning Commission, is conducting a survey of Choctaw and Washington counties in southwest Alabama. The basin of the Lower Cahaba River has never been surveyed, and very little is known of the cultural chronology or subsistence patterns of the aboriginal peoples who lived there. Carey Oakley, of the University of Alabama, is attempting to add to the knowledge of the area.

(From "The Preservation Report", Publication of the Alabama Historical Commission; Vol. XIII, No. 7, July/August 1986.)

The Editors

INCA STONEMASONRY

It was only in the 100 years or so before the Spanish conquest of 1532 that Inca culture reached its height. During that century Inca society was transformed from a minor agricultural state in central Peru into a mighty empire stretching from Chile to Ecuador. One aspect of the cultural flowering was an ambitious program of new construction initiated by Pachakuti, the ninth Inca (or emperor), in 1438. Pachakuti ordered his stonemasons to rebuild Cuzco, the capital of the emerging empire. The rebuilding did not come to a stop at the death of the ninth Inca. His successors extended the new construction far beyond the boundaries of Cuzco. Throughout Peru temples, palaces, warehouses and waterworks were thrown up, breaking new ground or replacing older structures.

Pachakuti's construction agenda was not only ambitious but also technically innovative. Although most earlier Inca structures were probably built of adobe or mud-bonded stones, the new work was done entirely without mortar. Stone blocks weighing as much as 100,000 kilograms (about 220,000 pounds) were fitted so closely to their neighbors that even now a knife blade cannot be inserted into many of the joints.

For hundreds of years visitors to Peru have been intrigued by the size of the blocks in the Inca stonework and the precision with which each block is inserted among its neighbors. The fact that the Incas had no iron tools makes the stonework even more impressive.

How were these great stone structures built? To make the question more manageable I divided it into four parts: the quarrying of the stone, the cutting and dressing of individual blocks, the fitting of the blocks and transportation. To investigate the quarrying I visited several Inca quarry sites.

Intriguingly, the cutting marks on those blocks and on others in the Inca quarries are very similar to marks found on the pyramidion of the unfinished obelisk from Aswan in Egypt. (The pyramidion is the small triangular form at the top of an obelisk.) Both the pyramidion from Aswan and the stones at Kachiqhata (quarry) have cuplike depressions on their surface. It is known that the Egyptians shaped their stones by pounding away at the workpiece with balls of dolerite (an igneous rock). It seems reasonable to think the Incas did the same.

After a careful search of the ground in the quarry at Kachiqhata I found some rounded stones of quartzite, a metamorphosed sandstone that does not occur naturally among the stones of the quarry but is present along the banks of the nearby Urubamba. An examination of the quartzite stones revealed pit marks on the smaller end of the stones, which indicates they were employed for pounding. I conclude that the Inca quarrymen at Kachiqhata picked up rounded river cobbles on the banks of the Urubamba and used them as hammers for imparting a rough shape to the blocks before the process of dressing was completed at Ollantaytambo.

At Kachiqhata, then, stones were selected from the rockfalls rather than quarried in the technical sense and were only roughly dressed before being transported. At Rumiqolqa, on the other hand, there was true quarrying: the rock was broken off the face.

(To be continued next month.)

EDWARD C, MAHAN RESEARCH FUND DONATIONS

Anonymous Donor

Kathryn S. Conn - Guntersville

John and Mary Ann Stimecz - Guntersville

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
Special Publication 2 — *The Archaeological Sequence at Durant Bend, Dallas County Alabama*	$4.50 pp
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

CHECKS SHOULD BE MADE PAYABLE TO: **ALABAMA ARCHAEOLOGICAL SOCIETY**
SEND CHECKS TO: **MR. EUGENE FUTATO, Office of Archaeological Research**
1 Mound State Monument, Moundville, Alabama 35474

MEMBERSHIP

The coupon below may be used EITHER to APPLY FOR MEMBERSHIP in the Society, or for the PAYMENT OF ANNUAL DUES. Please be sure that your name and address are CLEARLY entered, and that appropriate boxes are checked.

TO: **THE ALABAMA ARCHAEOLOGICAL SOCIETY, for**

☐ NEW MEMBERSHIP ☐ PAYMENT OF ANNUAL DUES ☐ REPORTING OF NEW ADDRESS

Name _____

Address _____

City _____ State _____ Zip _____

MAIL TO:
MRS. BETTYE T. HENSON
SECRETARY AND TREASURER
7608 Teal Drive, S.W.
Huntsville, Alabama 35802

(Residents of Foreign Countries, including Canada & Mexico $2.00 additional for Regular, Associate or Institutional Membership, $20.00 additional for Individual Life and $25.00 additional for Joint Life Membership)

☐ Life (Individual)	$180.00	☐ Sustaining (Individual)	$15.00
☐ Joint Life (husband & wife)	$250.00	☐ Sustaining (husband & wife)	$20.00
☐ Annual (Individual)	$9.00	☐ Annual (Institutional)	$13.00
☐ Annual, Family (husband, wife and children under age 18)	$12.00	☐ *Steven B. Wimberley Scholarship Fund	$____
☐ Associate (Students under age 18)	$7.00	☐ *Edward C. Mahan Research Fund	$____

*** Contributions are Tax Deductible**

Alabama Archaeological Society
Mr. Amos J. Wright
2602 Green Mountain Road SE
Huntsville, Alabama 35803

STONES & BONES NEWSLETTER

Non Profit Org.
U. S. POSTAGE
PAID
PERMIT NO. 197
HUNTSVILLE, ALA.