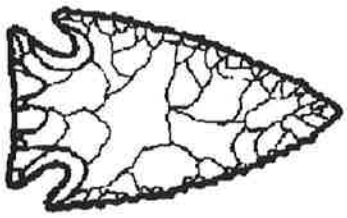
Alabama Archaeological Society

Stones & Bones

Volume 40, Issue 6 NADB DOC # - 4,061,963 **June 1998**

Editor:
McDonald Brooms
Associate Editors:
Catherine Crowell
Brad Solomon



Editorial Office:
40 Eldridge Hall
Troy State University
Troy, Al 36082
☎334-670-3638
Fax # 334-670-3706
Email:anthro@trojan.troyst.edu

What's Happening Around the State

The University of Alabama summer field school at Dust Cave runs June 8 through July 31st, 1998. The University provides financial support for the Dust Cave program through a National Science Foundation (NSF) grant. The field school has been selected by the NSF as a Research Experiences for Undergraduates site. The NSF award is based on scientific technical merit for undergraduate research programs. The grant provides $2,500 cash stipend, tuition, fees, lodging, food and reimbursement of some or all travel expenses for each student. The University of Alabama Summer Field School has conducted excavations at Dust Cave since 1989. Dust Cave, located in the Tennessee River Valley near Florence, Alabama, was occupied by prehistoric inhabitants around 10,000 years ago until a little over 5,000 years ago. Since then, sand and debris deposits filled the cave and preserved archaeological features. Emphasis in 1998 will continue in the excavation of small, stratigraphically discrete provenience units, flotation of large volume samples to recover small artifacts and floral and faunal specimens, and careful stratigraphic and chronological control through techniques of micromorphology and AMS dating. The on-site computers will assist in maintaining and quickly updating records as excavations continue. The slow, careful pace of excavations is ideal for beginning students to acquire basic skills and knowledge before moving to more complex procedures.

Dr. Boyce N. Driskell, Senior Archaeologist, University of Alabama Museums, office of Archaeological Services serves as director of the Dust Cave field school. A relationship between the Dust Cave project and Dr. Rod Riley of the IBM Corporation allows students to create web pages in the field. IBM Corporation will provide computer support and 15 laptops for student instruction. Thus, the project directs undergraduates in publishing their individual research papers. Last year's student projects can be found on the Internet at:

http://attlla.atg.ua.edu./dustcave/97/mainmenu.htm.

Ten students were chosen to participate in the 1998 summer field school. In addition to the archaeology students, two students sponsored by IBM as computer science interns. A list of the student participants follows:

Luana-lei Adams	Indiana University
Klinton Bagget	Univ. of Alabama
Stacy Clark	College of the Mainland
Michael Decker	Univ. of Tenn., Knoxville

Marie DeGomez	Boston University
Colleen Donley	Stanford University
Tracy Flemming	Morehouse College
Christina Hendrickson	Ohio State Univ.
Adrienne Lerner	Oglethrope Univ.

IBM Interns

Anthony Smith	Univ. of Tenn., Knoxville
Doug Tice	Mississippi State Univ.

Places for several adult volunteers are available on a weekly basis. The intensive field course includes six or seven hours a day of excavations with morning and evening lectures and seminars. The course of study requires students to participate in both the long term research program and to develop their own research projects during the field season. The student projects will be shared with field school members in evening presentations and with the public on the Dust Cave Student Project WEBPAGE.

Experts from across the United States will also direct lectures and workshops each week. The mentors scheduled this year include: Dr. Paul Parmalee, zooarchaeologist, the University of Tennessee; Dr. Sarah Neusius, zooarchaeologist, Indian University of Pennsylvania; Dr. Paul Goldberg. geologist/micromorphologist, Boston University; Dr. David Dye, southeastern archaeologist, the University of Memphis; Dr. Homes Hogue, physical anthropologist, Mississippi State University; Dr. Jay Johnson, lithic technologist, the University of Mississippi; and Dr. Stan Ahler, lithic analyst, Flagstaff, Arizona; Dr. Michael Collins, geoarchaeologist/lithic analyst, University of Texas, Austin; and Dr. Gayle Fritz, ethnobotanist, Washington University of St. Louis.

The Dust Cave research project and field school are jointly supported by the Tennessee Valley Authority (TVA), IBM Corporation, and the National Science Foundation (NSF).

Moundville Native American Festival

The Moundville Native American Festival will open Tuesday, September 22, and run through Indian Market Day, Saturday, September 26, 1998. The festival is held each year at the beautiful 320-acre archaeological sit at Moundville Archaeological Park in honor of Alabama's first inhabitants. Southeastern Indian tribes, including Choctaw, Creek, Cherokee, and Seminole, come from all around the region to demonstrate basketweaving, feather work, beadworking, flint knapping and other Native American crafts. Also for sale will be pottery, silver jewelry, musical instruments, and wooden implements and tools. The park will be open from 9:00 a.m. to 5:00 p.m. Special rates for groups of 10 or more are available. Admission charged. For information, call (205) 371-2572 or 371-2234.

Donations

Education Fund
Edward C. Mahan Fund
Stephen B. Wimberly Fund

A special thanks to:

Teresa L. Paglione
Auburn, AL 36830

Donations can be made to the grant programs any time during the year. Donations to the Stephen B. Wimberly Scholarship Fund provides the financial support necessary for the Student Scholarship Program while donations to the Edward C. Mahan Fund are used to fund research grants. Funds for the Public Education grants are provided by the Public Education Special Projects Fund.

Please send your donations to:

AAS
13075 Moundville Archaeological Park
Moundville, AL 35474

New Members

Del Hiestand
Alabaster, AL 35007

Kristen Zschomler
Tuscaloosa, AL 35404

First Mariners

Seafaring date pushed back

New dates from two sites on the Indonesian island of Flores prove that *Homo erectus* was able to navigate open waters between 800,000 and 900,000 years ago. Previously, modern humans who colonized Australia were credited with the earliest sea crossings, 40,000 to 60,000 years ago.

Michael J. Morwood of Australia's University of New England and his colleagues presented their conclusions, based on excavations at Tangi Talo and Mata Menge, in the journal of *Nature*. Tangi Talo yielded the remains of pygmy stegodon (a type of elephant), giant tortoise, and Komodo dragons, but no tools. Mata Menge, however, produced a small number of tools, including some made of nonlocal chert, as well as remains of large stegodon, crocodile, giant rat, freshwater molluscs, and plants.

Morwood dated the sites using a technique that analyzes individual zircon crystals from volcanic deposits. A sample from Tangi Talo, taken near a pygmy stegodon tusk and giant tortoise shell fragments, yielded a date of about 900,000 years ago. At Mata Menge, a sample from just beneath the artifact-bearing level, dated to about 880,000 years ago, while another, taken above in situ artifacts, gave a date of about 800,000. The sites' early dates and the identification of the stone tools seem secure, according to Carl Swisher of the Berkeley Geochronology Lab.

Tools this early in Southeast Asia can only have been made by *Homo erectus*. Unlike Java, which was periodically connected to mainland Asia and accessible to early humans on foot, Flores could be reached only by crossing an 11.4-mile-wide strait, even at times of the lowest sea level. The Mata Menge artifacts prove that *H. erectus* was able to make the crossing.
The new dates also support the suggestion made by Dutch paleontologist Paul Sondaar more than a decade ago that the extinction of pygmy stegodon on Flores ca. 900,000 years ago was the result of human predation.

Taken from Archaeology, *May/June 1998.*

20,000 Olives Under the Sea

About 6,000 years ago, the inhabitants of a narrow swath of land now submerged off Israel's northern coast moved east when melting ice caps gradually raised sea levels. For millennia their abandoned possessions lay preserved beneath sand and sea, until severe winter storms and sand quarrying removed the sediments that hid them. Called in to investigate the exposed site, marine archaeologists Ehud Galili and Jacob Sharvit of the Isreal Antiquities Authority in Atlit found, among other objects, the oldest olive oil production site in the world.

Galili and Sharvit found four large holes dug into the seafloor. The holes, two to three feet wide and one and a half feet deep, were filled with thousands of olive pits, both crushed whole. Also found at the site were grinding tools, woven reed baskets, and stone basins that may have been used for crushing olives. The objects, carbon dating shows, are about 6,500 years old.

Limestone pebbles lined the bottom of one hole. Straw and reed fragments, which may once have been woven straining mats, were intermixed

with layers of olive pulp, crushed pits, and clay that covered the pebbles. The arrangement, says Galili, suggests that oil collected at the bottom of the pit after the olives were pressed from above.

The Neolithic people who harvested the olives apparently led settled lives, growing wheat and tending pigs and goats. But an analysis of the site's olives suggests that they had not yet mastered the art of olive tree cultivation, since the olive pits closely resemble those of wild ones today. They may, however, have been among the first to learn to extract oil from this bitter fruit, which cannot be eaten raw.

"About six miles to the south there is an 8,000-year-old submerged Neolithic village called Atlit-Yam, where we didn't find a single olive stone," says Galili. "This means that between 8,000 and 7,000 years ago, people in this region invented the usage of olives, and the extracton of olive oil came slightly after. So this is an important contribution to our understanding of olive domestication in the Near East."

Taken from Discover, *May 1998.*

Celtic Surgeon

When archaeologists excavated a nearly 2,000-year-old tomb near Colchester, England, in 1996, the burial goods they found - an amphora, various vessels, and the remnants of a wooden board game - were typical of elite Iron Age tombs. But resting on top of the board game was something really surprising : a remarkably sophisticated set of surgical instruments. The medical kit suggests that an ancient British healer practiced a wide variety of surgical techniques, including perhaps operations on tonsils, hemorrhoids, and even cataracts.

The kit dates from the early years of the Roman occupation of Britain and resembles some Roman medical instruments. However, Ralph Jackson, a curator and an expert on such Roman instruments at the British Museum, examined the kit and says the surgeon was probably native Briton. Besides being buried in a Celtic tomb, most of the instruments are made of iron, as were most native tools of that time. Roman medical implements were usually bronze.

But the design of the 13 instruments themselves - an assortment of scalpels, blunt and sharp hooks, forceps, needles, probes, and a small saw - shows Roman influences. This suggests, says Jackson, that the healer had some contact with Roman doctors. And Roman medical texts give clues as to the instruments' uses. "With a scalpel and a sharp hook, you could operate for tonsillectomy as Celsus, a first century writer, describes," says Jackson. Hemorrhoids and varicose veins could also be removed with similar equipment.

Even cataracts could be treated with the kit. "The Romans thought that cataracts formed when some bad humor came down from the skull into a space that was usually empty. So they took a needle and passed it in from the side of the eye, straight into the eyeball, and wiggled it around until they smashed up what was really the cataractous lens," explains Jackson. "Although you've taken away the lens, you at least allow light to come through, and this brings back some degree of vision." The healer's skills probably weren't limited to operating on the orifices, either. A small saw was probably used for bone surgery, perhaps to trim away bone surrounding embedded arrowheads.

The healer's burial among the retinue of a chief suggests that he was probably the chief's personal physician. Whatever his role, he left a most important legacy. "These instruments are unique," says Jackson, "because they are one of the earliest sets of surgical instruments found anywhere in the Roman world.

Taken from Discover *March 1998.*

Publications Available

Available Issues of *Journal of Alabama Archaeology*

Vol. 20-31, each issue *(two issues per volume)*.....$3.50pp

Vol. 32 & up, each issue *(two issues per volume)*.....$6.00pp

Stanfield -Worley Bluff Shelter Excavations (Journal of Alabama Archaeology)

Vol. VIII Nos. 1 & 2 - Reprint.....$7.50pp

Special Publication 2 - *The Archaeological Sequence at Durant Bend, Dallas County Alabama*.....$6.00pp

Special Publication 3 - *Archaeological Investigations at Horseshoe Bend*.....$8.00pp

Handbook of Alabama Archaeology Part I, Point Types.....$15.00pp

Lively, Long; Josselyn - *Pebble Tool Paper*.....$3.00pp

Exploring Prehistoric Alabama through Archaeology (Juvenile).....$9.00pp

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 tour name and address are CLEARLY entered, and that appropiate boxes are checked.

Send checks to: THE ALABAMA ARCHAEOLOGICAL SOCIETY

___ NEW MEMBERSHIP ___PAYMENT OF ANNUAL DUES

___REPORTING OF NEW ADDRESS

Name_____

Address_____

City_____ State_____

Zip_____

Residents of Foreign Countries, including Canada and 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).....$240.00

___ Joint Life (husband & wife).....$300.00

___ Annual (Individual).....$12.00

___ Annual, Family (husband & wife, and children under age 18).....$15.00

___ Associate (Students under age 18)..$9.00

___ Sustaining (Individual).....$20.00

___ Sustaining (husband & wife).....$25.00

___Annual (Institutional).....$17.00

___ *Steven B. Wimberely Scholarship Fund.$_

___ *Edward C. Mahan Research Fund.....$__

___*Public Education Special Projects Fund..$__

*Contributions are tax deductible

Checks should be payable to: **Alabama Archaeological Society**

Send checks for memberships and publications to:

Alabama Archaeological Society
Archaeological Services
13075 Moundville Archaeological Park
Moundville, AL 35474

Alabama State Artifact
"The Rattlesnake Disk"

Moundville, Alabama

Alabama Archaeological Society
40 Eldridge Hall
Troy State University
Troy, Alabama 36082-0001

STONES & BONES
NEWSLETTER

Non-Profit Organization
U.S. Postage
PAID
Permit No. 99
Troy, AL 36082