

TCAS BENCHMARK



SEPTEMBER, 2007

VOLUME 21, ISSUE 9

MESSAGE FROM THE PRESIDENT



Last month I ended this column with the statement "I hope you are all having a wonderful summer". But just this morning, as I was driving to work and seeing some school buses on the road, my thoughts were...just where did the summer go? My summer officially starts with the TAS Field School; and after a great week at Menard in June, the summer was off to a good start. I remember the evenings at FS talking with other TCAS members about our big plans for more archeology at the Upper Sprague site this summer. The monsoons that repeatedly flooded many parts of Texas created havoc all along the Leon River. As the continuing rain repeatedly flooded out our work and progress there, I guess it washed away an important part of my summer too. Hopefully, we can get back to work there soon.

Speaking of making plans and incorporating some archeology; please be aware that next month is Texas Archeology Awareness Month. Every October many Historical and Archeological organizations across the state host some sort of event promoting archeology awareness in our communities. This is a great time to spend some time educating and encouraging the general public as to what Archeology is all about. It can fun and educational for TCAS members too, when they volunteer to help at one or more of the fairs. As always, we have been asked to help out with some of the more local events. Please take a look at this months Calendar of Activities and pick a weekend or two that you could help out.

Lastly, the TAS Annual Meeting is late is approaching soon. If you haven't ever attended Annual Meeting before make plans to go, you'll really enjoy it. This year the meeting will be held at the Menger Hotel in San Antonio on October 26th - 28th. Make your reservations at the historic (1859) Menger Hotel soon, as the rooms are going fast.

Jay Hornsby

THANK YOU

TO GEN FRIEX AND RITA WARD FOR THIS
MONTH'S REFRESHMENTS

SIGN UP TO PROVIDE REFRESHMENTS FOR FUTURE
MEETINGS

Calendar of Activities

SEPTEMBER

- 13 TCAS Meeting 7:30 UNT-HSC
- 22 STAA-HCAA Joint Meeting
Riverside Nature Center Kerrville
- 28-30 2007 Arkansas Archeological Society
Annual Meeting
Ozark Folk Center Mountain View, Arkansas

OCTOBER

TEXAS ARCHEOLOGY MONTH

- 1-30 Visit www.thc.state.tx.us/archeology/aapdfs/tam2007.pdf for more events
- 6 Plano Archeology Fair
Bob Woodruff Park ~ see page 4
- 11 TCAS Meeting 7:30 UNT-HSC
- 13 Rio Grande Delta International Archeology
Fair
Palo Alto Battlefield
- 13 Farmers Branch Archeology Fair
Farmers Branch Historical Park ~see page 4
- 14-19 Pecos Experience: The Art and Archeology of
the Lower Pecos
SHUMLA Campus Comstock
- 20 The Old Collin County Prison Excavation 3p
Landon Winery 101 N. Kentucky St
Mckinney

- 26 Artifact Identification 3p
Springtown Legends Museum 839 N. Main
- 26- TAS Annual Meeting ~ Menger Hotel,
San Antonio

NOVEMBER

- 9-10 Center for Big Bend Studies 12th Annual
Conference Alpine

TCAS BENCHMARK

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SEPTEMBER PROGRAM

STEVEN ORTIZ

"Texans in the Holy Land: Recent Archaeological Excavations
at Tel Gezer, Israel"



Dr. Steven M. Ortiz is the recently appointed Associate Professor of Archaeology and Biblical Backgrounds and Director of the Charles C. Tandy Archaeology Museum at Southwestern Baptist Theological Seminary. He was formerly the director of the Center for Archaeological Research at New Orleans Baptist Theological Seminary. When Katrina hit the city, faculty and students were scattered. Dr. Ortiz and his family relocated to Texas where events led to his new faculty appointment

Dr. Ortiz is a graduate of the University of Arizona . He has over 20 years of field experience where he has served as a senior staff member at Tel Miqne-Ekron, Tel Zeitah, Gezer, Jerusalem (Ketef Hinnom), Lachish, Tell el-Hamma, and Tel Dor.

Dr. Ortiz has one book in press; *Excavations 1994-1996, Fields IVNE/NW and VSE/SW: The Iron Age II, Late Philistine Temple Complex* and he is working on a book for the British Archaeological Report Series, *The 11/10th Century BCE Aijalon Valley Region Ceramic Corpus: New Evidence From Tel Miqne-Ekron Stratum IV.*

Ortiz currently serves as a member of the board of Directors for the Near Eastern Archaeology Society and the Southwest Commission on Religious Studies, and is the President for the American Schools of Oriental Research Southwest Region.

Dr. Ortiz is currently the principal investigator and co-director, along with Sam Wolff of the Israel Antiquities Authority, of Tel Gezer. This is a new long-term research project to investigate the Iron Age city of the ancient site.



NAME THAT POINT

**This point was named for a site in Young
County where it was first found.**

Can you name it?

Average size:	3cm-4.5cm
Morphology:	Triangular, basal and side notched
Description:	Straight edges often serrated
	Notched base
Distribution:	North, Central, and East Texas
Age:	Late Prehistoric (1000AD–1500AD)

BACKGROUND ON TEL GEZER

An Overview of the History of this Important Israeli site

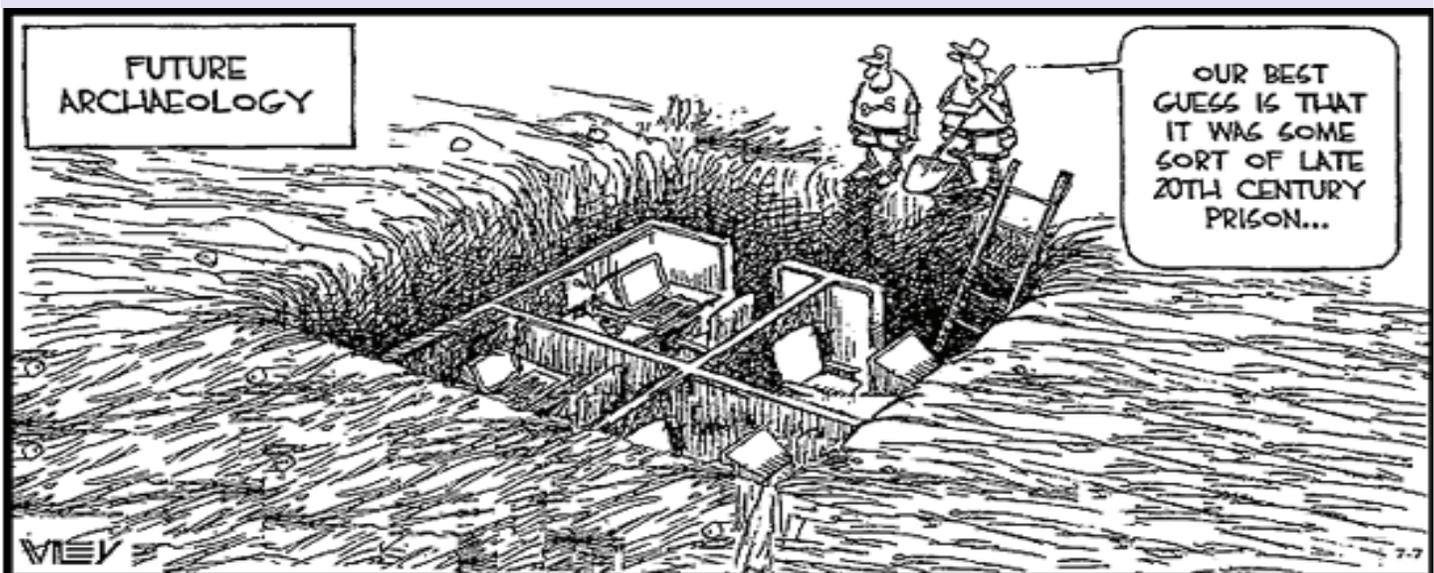
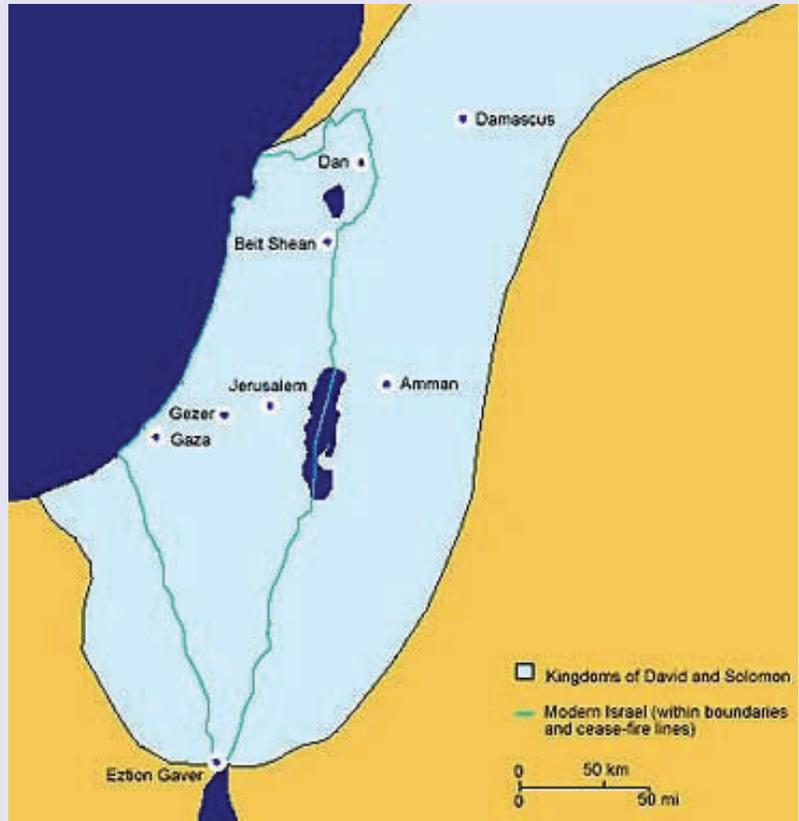
The tel (mound) of the Biblical city of Gezer is located on the western slopes of the Judean Hills, mid-way between Jerusalem and Tel Aviv. Built on a hill overlooking the fertile Ayalon Valley, the importance of this city was its strategic location at the intersection of the road from Egypt, along the coastal plain northward, and the road leading to the Judean Hills and Jerusalem. The ancient name of Gezer is preserved in the Arabic name of the tel: Tel el-Jazari. Verification of the site comes from Hebrew inscriptions found engraved on rocks, several hundred meters from the tel. These inscriptions from the 1st century BCE read "boundary of Gezer."

The tel covers an area of over 30 acres. Part of this area was excavated between 1902-1909, when archeology was still in its infancy, and caused considerable damage to the site. Since the 1960s, new excavations have been conducted in several areas of the tel. The rich finds discovered in these excavations attest to the importance of the city in antiquity and constitute a unique contribution to the study of past material cultures of the Land of Israel.

Inhabitants of the first settlement established at Tel Gezer, toward the end of the 4th century BCE, lived in large caves cut into the rock. At the beginning of the Early Bronze Age (beginning of the 3rd millennium BCE), there existed an unfortified settlement covering the entire area of the tel. Following its destruction in the middle of the 3rd millennium BCE, the tel was abandoned for several hundred years.

Then, in the Middle Bronze Age (first half of the 2nd century BCE), Gezer became one of the foremost cities in the Land of Israel. The entire tel was surrounded by a massive wall constructed of large blocks of stone 4 m. wide, with strong towers erected at intervals along it

Tel Gezer was first excavated by R.A.S. Macalister in 1902. New excavations were conducted from 1964 to 1973, in 1984 and in 1990.



Local Archeology Month Events

2007 Annual Plano Archeological Fair

October 6, 2007
9:00 am to 4:00 pm

Location:
Bob Woodruff Park
Plano, Texas
Volunteers needed



Hands on excavation
Sandbox for small children
Flintknapping demonstration

Storytellers
Grind corn with mano and metate
Archeology Land activities

Contact Information:

Excavation units are limited -- for reservations
Contact **Michelle Wurtz** 972-423-5480 (M-F 9-4)

Sponsored by:

Geo-Marine, Inc.
The Plano Conservancy
for Historic Preservation, Inc.
City of Plano, Parks and Recreation Department



Farmers Branch Archaeology Fair

October 13, 2007
12:00 p.m. to 5:00 p.m.
Admission \$2 Per Person
Farmers Branch Historical Park
2540 Farmers Branch Lane

Tandy Archaeological Museum

If you haven't visited this museum, you're missing a fine exhibit

The items in the permanent collection of the Tandy Archaeological Museum, located on the campus of the Southwestern Baptist Theological Seminary, date from about 1,500 B.C. to the Seventh Century A.D. The collection consists of ancient Middle Eastern artifacts uncovered during archaeological digs at Biblical sites in the Holy Land.

Tandy Archaeological Museum
2001 West Seminary Drive
Fort Worth, TX 76115

THE POWER OF WATER

To those of us who raised an eyebrow last month when Larry Banks made claims about the powers of anoxic water, here's an article that supports his claims

The Wendover site was discovered in 1982 when a backhoe operator discovered human bones in the black peat he was digging from the bottom of a pond. The developers, after being advised by the county medical examiner that the bones were very old and not the product of a recent mass murder, realized that the materials might be of archaeological significance, so they contacted the anthropology department of Florida State University.

Members of the faculty visited the site and recovered bones of several individuals from the spoil banks. Their first thoughts were that, because of the exceptional state of preservation, the bones were only a few hundred years old. Normally, bone deteriorates in an unprotected grave in about 500 to 600 years due to the high acid level of Florida soil and water.

Radiocarbon dating was done on two samples. The first piece showed an age of 7,330 years, plus or minus 100 years, and the second showed an age of 7,210 years, plus or minus 100 years. Radiocarbon dating over the three seasons of excavation indicated ages ranging from 6,990 years to 8,120 years, plus or minus 70 years.



A most significant find came only weeks into the project when one of the project directors found a lump of slippery, dark brown material inside a skull. There was cautious speculation that it might be preserved brain tissue, but common sense said that would not be possible—that any tissue would have dissipated into the black peat thousands of years ago. Laboratory tests proved however, that cautious speculation had become reality. The material was, indeed, human brain tissue. This first find was from a woman who died at approximately 45 years of age. Over the three six-month field seasons 91 skulls were found to contain brain tissue. Some contained complete brains. Although they were shrunken to a third their normal size, the brain hemispheres and convolutions were clearly intact.

Many artifacts made from wood, bone or antler were found over the three seasons. Several were scribed in geometric patterns. A small bone from a bird was intricately patterned with fine, precise lines which were probably made with a shark's tooth as a tool. The hollow bone may have been used as a whistle.

Several manatee rib "hammers" were uncovered, some with parts of their wooden handles still intact. A dog tooth, held in place with pine pitch as a form of glue, was imbedded in the end of one hammer. The tooth provided a harder surface than the manatee rib. An unexpected find was an atlatl "hook" made from deer antler. The atlatl is a wooden launching device which increases the velocity and the distance a spear can be thrown. The rear end of the spear is nested in the "hook."



Why was the wood, bone, human brain tissue and other materials so well preserved? The answer lies in the way the bodies were buried and the nature of the water in the pond. The bodies were evidently buried soon after death—probably within twenty-four hours—before the process of decay had started. With peat covering the bodies, an anaerobic atmosphere was created. That is, oxygen necessary for the growth of bacteria and fungi that cause decomposition, was shut out. Water in the sinkhole is brackish and nearly devoid of oxygen, and it is this anoxic water that has served as a natural preservative for thousands of years.

The State of Florida allocated nearly a million dollars for excavation and preservation, but now, a wealth of information lies cataloged and boxed at Florida State University because the state cannot provide additional funds for research. Additional research could tell much about the native Americans who lived near a small pond 4,000 years before Christ was born and 2,000 years before the pyramids were built or ceramics came into existence.

Adapted from an article by Joseph L. Richardson for the North Brevard Business Directory

“QUID” IS NO LONGER BRITISH MONEY

Ancient Human DNA Extracted From Yucca Leaves Spat Out

Science Daily — In a groundbreaking study, two Harvard scientists have for the first time extracted human DNA from ancient artifacts. The work potentially opens up a new universe of sources for ancient genetic material, which is used to map human migrations in prehistoric times.

Before this, archaeologists could only get ancient DNA from relics of the human body itself, including prehistoric teeth, bones, fossilized feces, or — rarely — preserved flesh. Such sources of DNA are hard to find, poorly preserved, or unavailable because of cultural and legal barriers.

By contrast, the genetic material used in the Harvard study came from two types of artifacts — 800 to 2,400 years old — that are found by the hundreds at archaeological sites in the American Southwest.

“Quids” — small fibrous bundles of stripped yucca leaves — are the spit-out remnants of a kind of ancient chewing gum. Cells from long-dried saliva yield usable DNA. And “aprons” were thong-like woven garments worn by women. They are stained with traces of apparent menstrual blood, a source of DNA

The Harvard study, featured in the summer 2007 issue of the *Journal of Field Archaeology*, “opens up the possibility of utilizing a much larger variety of human-handled artifacts” for DNA evidence, said project co-director Steven LeBlanc, director of collections at Harvard’s Peabody Museum of Archaeology and Ethnology.

Among the likely future sources of ancient DNA, he said, are “sandals, textiles, and cane cigarettes,” a reedlike smoke favored by early humans. LeBlanc’s co-director in the project was Thomas Benjamin, a professor of pathology at Harvard Medical School.

LeBlanc and others sampled 48 quids from four Southwestern archaeological sites — some of them on Harvard museum shelves for nearly 100 years — and 18 aprons found in Canyon de Chelly, a National Park Service site in Arizona still occupied by the Navajo Nation

Aprons, and especially quids, are very common in archaeological collections, and are recovered from rock shelters or caves in the Southwest, Utah, Texas, California, and central Mexico. The DNA is preserved by the extreme dryness of such sites.

The Harvard study brings other good news for historians of ancient times. LeBlanc said the DNA captured from quids and aprons shows — in a preliminary way — that early farming populations in the Southwest descended from farmers in what is now central Mexico. That helps answer an old question among those who study the ancient Southwest: Was the idea of farming imported, or was it adopted by indigenous populations?

More broadly, archaeologists interested in migration patterns anywhere now have a new source for the DNA that can be used to track the movement of ancient people — though LeBlanc cautioned that the methods have to be retested and refined.



Prehistoric quid (wads of crumpled, masticated, shredded leaves) from dry caves in the American Southwest. (Credit: Steven LeBlanc)

The origins of the earliest North American farmers are still officially a puzzle, and center on a now-lost tribe known as the Western Basketmakers. More than 2,000 years ago, these indigenous Americans started growing corn in what is now southeastern Utah and northern Arizona.

In what is now a boon to archaeologists who look at DNA, early farmers rested in the shade of rock formations, and spit out quids of chewed yucca leaves.

“The team was as surprised as everyone else that we could learn something about a possible migration over 2,000 years ago from ancient spit,” said LeBlanc. “Every artifact that we recover from such ancient sites now needs to be thought of in a new light, and handled in new ways, to ensure we preserve this DNA for future studies.”

To make sure the DNA was from ancient farmers and not from modern handlers, samples were taken from the cores of the quids and not from their surfaces.

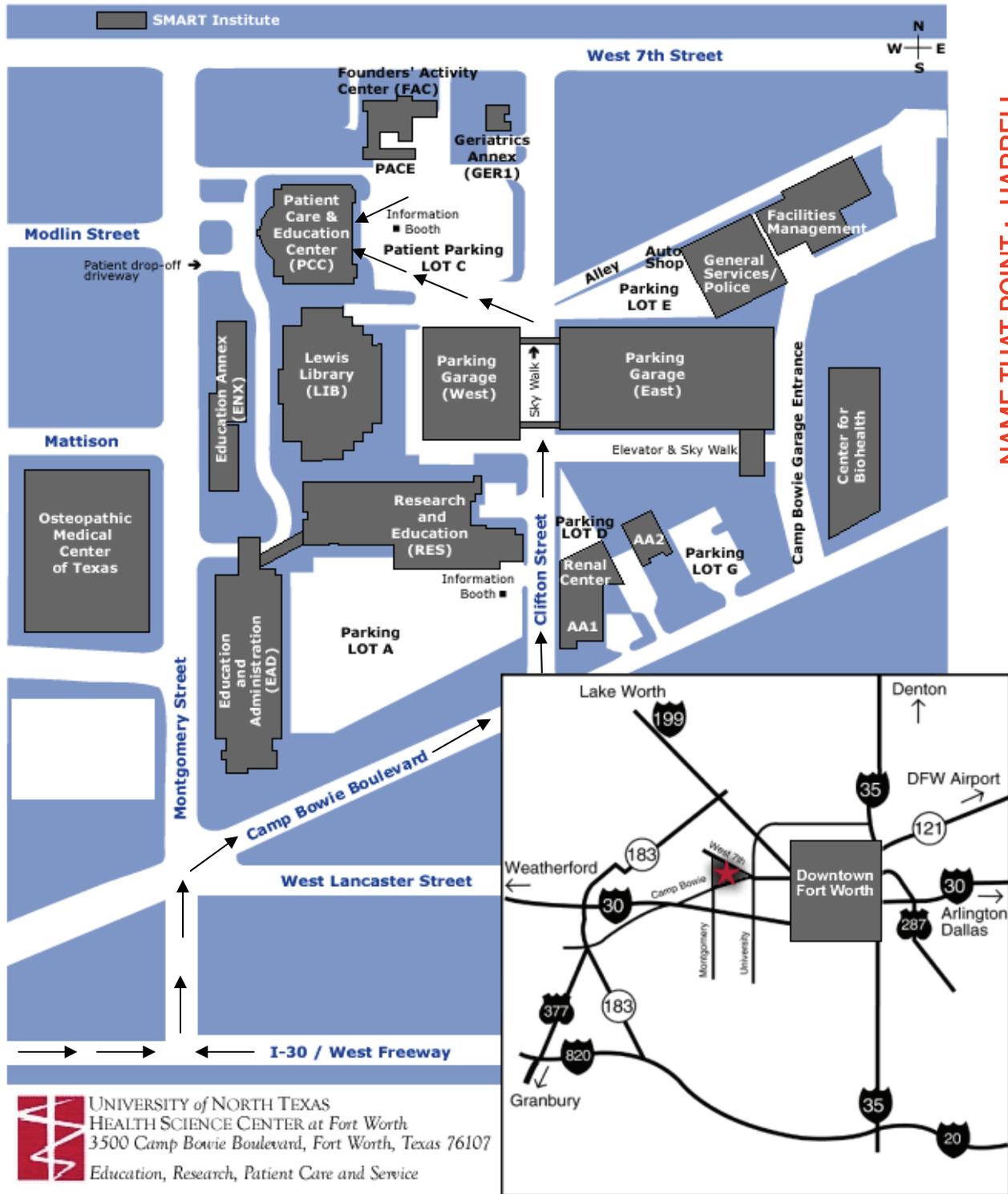
Peabody Museum experts say future studies of ancient DNA from quids, aprons, and other appropriate artifacts are needed to test and refine Harvard’s preliminary findings.

Some of the artifacts used in the DNA analysis were from collections at the Brooklyn Museum of Art, the Southwest Museum, and Northern Arizona University.

The study was supported by the Provost’s Fund for Interfaculty Collaboration at Harvard University and by the Peabody Museum of Archaeology and Ethnology.

TCAS BENCHMARK

TCAS meets at 7:30PM, the 2nd Thursday of each month at the University of North Texas Health Science Center (UNTHSC), 3500 Camp Bowie Blvd., in Fort Worth. The location is centrally located in Tarrant County near the intersection of Camp Bowie and Montgomery Street about two miles west of downtown. Take Clifton Street off of Camp Bowie (one block east of the Montgomery intersection) to Parking Lot "C" on your left (west). Park in the patient spaces (after 5PM) and go past the information booth into the underground parking garage. Turn left down the corridor at the double doors in the center. Proceed down the hallway until you come to room 110.



TARRANT COUNTY ARCHEOLOGICAL SOCIETY

Membership / Renewal Form

Name(s) _____

Type of Membership:

Renewal ___ New Member ___

Address _____

___ Individual ___ \$20.00

City/State/Zip _____

___ Family ___ \$25.00

Home Phone _____

___ Student (H.S., active univ. degree candidate through age 25)

Employer _____

___ \$10.00

___ Contributing ___ \$30.00+

Email _____

___ Lifetime ___ \$250.00

CODE OF ETHICS (Signature required)

I pledge that I will not intentionally violate the terms and conditions of any federal, state, or local antiquities statutes concerning cultural resources, or engage in the practice of buying or selling artifacts for commercial purposes, or engage in the willful destruction or distortion of archeological data, or disregard proper archeological field techniques. I understand that failure to follow these guidelines will provide ground for expulsion from the Society.

Signature(s) _____ Date _____

TARRANT COUNTY ARCHEOLOGICAL SOCIETY

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