

# Anthropology Department

## Laboratory for Ancient Materials Analysis serves as a window to the past

The Laboratory for Ancient Materials Analysis (LAMA) has been part of the anthropology scene at CSUSB since 2001.

Established by Frannie Berdan (anthropology) and David Maynard (chemistry), the lab conducts chemical analyses of organic and inorganic materials received from archaeological excavations and museums, and also engages in experimental archaeological work.

Over the years the lab has received samples from local, national, and international sources for chemical analyses – the basic goal is to identify the materials from which various artifacts were fashioned.

So, for instance, the lab was asked by the National Museum of Anthropology in Mexico City to identify the adhesives used in a treasured seventh century Mayan funerary mask (Lord Pakal of Palenque), to identify resins used in producing figurines excavated in caches in the Templo Mayor excavations (Mexico City), to identify the adhesives bonding feathers to their paper backing on a 16th century feather disk, and to identify the materials attached to a unique jadeite mosaic figurine recently unearthed in



Jeff Sahagún (left), student and now alumnus, at work in the Laboratory for Ancient Materials Analysis. An orchid (above) is sliced with an obsidian knife in preparation for making glue using an Aztec recipe.

the middle of the Temple of the Moon at Teotihuacan, Mexico.

In the case of Lord Pakal's death mask, we discovered that the adhesives binding the precious jadeite stones to their wooden backing were made from copal, a tree resin. There was also an ancient repair on that arti-

fact, which used beeswax. In fact, we have seen beeswax on other repairs, and it looks like beeswax may have been a popular choice for repairs (being cheap, available, and easy to work).

The Templo Mayor figures were mostly made of copal, although we  
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## Handwriting to be all over museum

The Anthropology Museum is preparing for the winter opening of its newest exhibit: "Handwriting."

This exhibit will explore writing, beginning with its earliest origins in several places around the globe and culminating with the myriad scripts of today's world. As currently planned, the exhibit will incorporate a variety of interdisciplinary issues, in addition to the explicitly anthropological ones.

Twenty-three stations will treat (among many other topics) the origins of writing, the development of English

handwriting, handwriting, calligraphy, writing technology and its impact on systems of writing, historic and modern shorthands, the use of forensic techniques of examining handwriting to recognize forgeries and the like, and the question of graphology and its attempts to link handwriting characteristics to personality.

With a topic like this one, a real challenge is presenting visually compelling examples, rather than merely a monochrome series of flat pieces of paper.

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CALIFORNIA STATE UNIVERSITY  
SAN BERNARDINO



The College of Social and Behavioral Sciences, home to the Department of Anthropology. The Anthropology Museum is located on the building's third floor.

Photo:  
Robert  
Whitehead/  
CSUSB

## Department adds two new courses and teaching resources to serve students

Our department is dedicated to providing undergraduates with a solid foundation in biological anthropology.

With this in mind we recently added two new courses, Biological Anthropology Lab (ANTH 200) and Human Osteology and Functional Anatomy (ANTH 322).

However, it soon became apparent that we needed to substantially expand our teaching resources. This is an ongoing process, and each year we add fossil casts, human and primate osteological specimens, and lab

equipment.

We have an extensive collection of fossil hominin cranial and postcranial casts that span the Miocene to the Late-Pleistocene. Recently acquired hominin casts include crania from Dmanisi, Atapuerca, and Qafzeh, as well as assorted Neandertal postcrania.

Our extant primate collection now includes assorted casts of primate crania and postcrania, fully articulated museum-quality skeletons of a juvenile howler monkey and a squirrel

monkey, plus high-quality casts of fully articulated chimpanzee and a mandrill baboon skeletons.

In terms of human osteology, we have casts of age standards for the pubis and the dentition for forensic anthropology, many newly acquired real human crania and cranial fragments plus a substantial number of intact, fragmented, and pathological bones from all parts of the postcranial skeleton that are used by the advanced osteology students.

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## Alumni News

**Amanda Anderson**, B.A. 2006, is attending graduate school at Macquarie University in Sydney, Australia.

**Tina F. Edwards (Forthun)**, B.A. 1996, received an M.D. in 2004. She is currently in general practice in San Diego in the U.S. Navy.

Tina reports that, while there are those who might not understand what purpose an anthropology degree would do a physician, much less a military physician, she probably uses her anthropology education to greater effect than her medical one.

She uses her anthropology training to see each patient in context: cultural, social and physical.

**Stephen Gray**, B.A. 2004, is working for the Tulalip Tribes, about 30 miles north of Seattle, as a presenting officer.

As part of their effort to comply with the federal guidelines set forth in the Indian Child Welfare Act, the tribes' Social Services Department has hired Stephen to ensure that their actions are consistent with those guidelines.

His work focuses both on the community and the courtroom and calls on the perspectives and knowledge that he gained from both his anthropology major and his criminal justice minor.

**Sheryl Heims**, B.A. 2006, has accepted a position at Applied Earthworks, where she works in the archaeological laboratory.

**Susana Jimenez**, B.A. 2006, received an award from our department for outstanding academic achievement at the college's awards night in June 2006.

**Jack Lape**, B.A. 1996, is now living in Gilbert, Ariz., just outside of Phoenix. Jack has started a Farmers Insurance Agency there.

Jack married a Thai he met at National University 3 years ago.

They now have a 1-year-old son and recently found out that another is due in January 2007.

**LaShawn Lee**, B.A. 2002, has taken a position at Statistical Research, Inc, as a crew chief of an archaeological team and as a quality assurance technician.

**Paul Perry**, B.A. 1996, is director of Education & Public Programs of the Anchorage Museum of History and Art.

**Jeffrey Sahagún**, B.A. 2006, received an award from our department for outstanding academic achievement at the college's awards night in June 2006.

**Yvonne Santana**, B.A. 2005, is currently employed by the city of Rancho Cucamonga as a planning aide.

**Linda Stockham**, B.A. 1975 and M.A. special major 1987, tells us that The Honiara Amateur Musical Society, Honiara, Guadalcanal, Solomon Islands produced her play Divorce Sale in September 2005.

Furthermore, Linda's one-act play Golden Elliott has been adapted to a film by Eric Edwards and Alex Perez of Everchanging Productions and will be shown at the Palm Springs Film Festival in January 2007, with intended entries in the Los Angeles Film Festival, the San Diego Latino Film Festival and The Sundance Film Festival.

Also, Linda's short work Forgotten Souls, produced last year in San Diego, was part of a one-act festival in Tampa, Fla., in August 2006, and will be produced by The Bullitt County Arts Council (Kentucky) in November 2006.

**Jacque Swartout**, B.A. 2003, recently completed her M.A. in anthropology at CSU Fullerton.

The research for the degree took Jacque to a village in Henen province in China. Jacque also recently presented a paper on her research at a conference at the East West Center at the University of Hawaii Moana.

**Rusty Thornton**, B.A. 2002, has been appointed program coordinator for the Leonard University Transportation Center at CSUSB.

Prior to joining CSUSB, Rusty worked for Cal Trans for 24 years, most recently serving as associate transportation planner with District 8 in San Bernardino.

## Two new classes emphasize cultural roots

Two new courses to look for in spring 2007 are "Filipino Cultural Expressions" (ANTH 391) and "World Dance Traditions" (DAN 310).

These courses are in response to the Filipino American student organization's request for a hands-on course that would enable them to learn more about their own cultural roots, while giving something back to the community by raising the public's awareness of the contributions of Filipino Americans to society.

ANTH 391 and DAN 310 are being offered by the departments of anthropology and theater arts as companion courses so that students can learn new cultural dance techniques and participate in all the intricacies of putting on a full-scale performance that is replete with history.

"Filipino Cultural Expressions" looks at how various Filipino experiences are expressed through rituals, tales, ballads, epics, songs, and dances, while "World Dance Traditions" enacts these cultural meanings through practical performance.

The material to be covered in both courses includes service learning components that combine theory and practice.

Both courses are open to all students interested in gaining a greater level of cultural competency in the area of Filipino American studies.

The courses will be team taught by Diwata Pedralvez (dance instructor) and Kathy Nadeau (anthropology department).



## Student News

### ALPACA highlights of 2005-2006

#### Best advice for the 2006-2007 club members: 'Have all the fun you can have!'

It was a busy year for ALPACA during 2005-2006 as all officers were graduating seniors and most of the loyal members attending events were busy juniors securing internships and scholarships for their upcoming senior year.

Despite the craziness, however, there was fun to be had by all.

Monthly ethnic dining nights out took place and we always tried to please the whole crowd.

We went for traditional Yucatan Mexican food at Casa Maya in Mentone, treasures from the Far East at Sayaka in Colton, spicy delights at the Thai House in Redlands, interesting and to some very unfamiliar treats at Inland Kabob in the University Village near the campus, and my personal favorite, the Tibetan/Nepalese place in Pasadena after the Primate Ecology and Evolution class took a trip to the Los Angeles Zoo.

Fun was had by all, and a group of regulars attended most events.

Also last year, an ALPACA T-shirt design contest was held.

After only one entry, by Bill Duncan, we decided to go with the design of an old T-shirt in honor of the university's 40th anniversary, save



Students and faculty relax at ALPACA's Halloween potluck lunch. Get-togethers such as the Halloween lunch, exploring ethnic restaurants and camping trips help keep the fun in anthropology.

for the addition of a Margaret Mead quote displayed below the piece of California rock art adorning the back of the shirt.

The quote reads: "Always remember you are absolutely unique, just like everyone else."

The shirts are still available for purchase at \$11 each.

Our annual spring camping trip, coordinated by Tonia Boughamer, almost went off without a hitch.

Although it was Memorial Day weekend, it did not feel like summer in Sequoia National Forest.

High winds and cold temperatures drove us off the shores of Lake Isabella, our original destination, and into the forest above where temperatures dropped even further.

Luckily, we had just enough wood to keep us warm, and telling stories and

jokes around the campfire became the memories that went home with us.

We spent Sunday wandering around the Trail of One Hundred Giants feeling rather small and taking in the beauty, and later that day getting Treasurer Ted Goff's truck (not a four-wheel drive we found out) stuck in the sand.

Despite having to set up camp to take it down and search for another camp to set up again, it was a great trip.

My advice to this year's ALPACANs is to have all the fun you can have, because that is what anthropology is all about!

**Laura Chatterton**  
ALPACA Co-President, 2005-2006

## Student News

### Incoming ALPACANs look forward to new year



Members of ALPACA on an outing to Olvera Street in Los Angeles. The ALPACANs of 2006-2007 have big plans for the upcoming year, including obtaining official status as a campus organization and developing a new Web site: <http://mysite.verizon.net/alpaca.csusb>.

#### ALPACA more visible and accessible

The ALPACANs of 2006-2007 have big plans for the upcoming year. We are pursuing official status as an on-campus organization and senior student William Duncan has been very busy writing a club constitution as well as creating the club's new Web site: <http://mysite.verizon.net/alpaca.csusb>.

In order to be more accessible to our fellow students, we now hold two meetings per month on campus.

One meeting is held on the MWF schedule and the second on the TTH schedule. Hopefully this will enable students on campus only certain days of the week to attend at least one monthly meeting.

Membership is free and open to all interested students, whether you are an anthropology major, minor, or are

still undeclared.

We are using a variety of creative tactics to promote the club and department (raffles, promotional pencils advertising the club and left in classrooms).

One of our efforts involved providing Halloween candy in all anthropology classrooms with the department Web site printed on labels.

ALPACA's officers this year include Gary Jones as president, Terri Terry as vice president, Lorrie Gassmeyer as treasurer and Nathaniel Lussier as secretary. We also encourage our fellow ALPACANs to become chairpersons of committees.

Celia Marshall has performed admirably as chairperson of the Halloween potluck committee, Leanne

Clauson and Allison Kruegger have agreed to chair our raffle efforts, Consuelo Sanchez chairs our brown bag lunches and Elizabeth Scott-Jones chairs our fundraising efforts.

We are planning a number of field trips this year. Indeed, we have already taken a Metrolink ride to Olvera Street in Los Angeles to observe the Dia de los Muertos celebrations and we are planning a return trip to LA to witness Chinese New Year in Chinatown.

We are also lining up guest speakers for brown bag lunch meetings, including Dr. Frannie Berdan who discussed the Dia de los Muertos festival prior to our October trip. In addition to meetings and field trips, we are continuing our tradition of evening social events at least once a month.

Part of our function is to act as a clearinghouse of information for regional anthropological events that might be of interest to our fellow students, and to facilitate attendance for those interested.

Several students, for example, recently attended the Rock Art Symposium in San Diego and the Society for California Archaeology meeting in Ventura.

ALPACA 2006-2007 hopes to be a valuable asset to its members by providing a welcoming atmosphere where we can exchange ideas, offer opportunities to hook into anthropological resources regionally and, most importantly, have a really good time.

**Gary Jones**  
ALPACA President 2006-2007



## Student News



Left: Anthropology student award winners and faculty at the College Awards' night, June 2006. Back row, l to r: Susana P. Jimenez, Jeffrey D. Sahagún, Dr. Pete Robertshaw; front row: Laura Chatterton, Dr. Frannie Berdan, Eric N. Chaffin. Top: Anthropology major Bill Duncan receives a College of Social and Behavioral Sciences' scholarship from Dean John Conley.

## Anthropology students earn scholarships and top honors in 2005-2006

**Eric Chaffin** was recognized for outstanding service to our department at the college's awards night in June 2006.

**Laura Chatterton** is currently working as a GIS intern for the city of Redlands Municipal Utilities Department.

Laura was also recognized for outstanding service to our department at the college's awards night in June 2006.

**Bill Duncan** was awarded a prestigious College of Social and Behavioral Sciences' scholarship in June 2006.

Bill followed in the footsteps of graduating senior Jeff Sahagún, who received a scholarship the previous year.

Bill was also selected as a McNair Scholar and as a Sally Casanova Pre-Doctoral Scholar for the 2006-2007 academic year.

The CSU-wide Casanova scholarship program provides students with funds to attend professional meetings in their disciplines, to visit doctoral granting institutions, and to participate in a summer research internship program at a doctoral granting institution.

**Keiko Matsumoto** was awarded a highly competitive scholarship by

the Asian Faculty, Staff, and Student Association.

**Consuelo Sanchez** was awarded a McNair Scholarship for 2006-2007.

The McNair Program prepares qualified students to pursue graduate studies by providing them with opportunities to engage in research and work with a faculty mentor.

Students interested in applying for a McNair Scholarship for 2007-2008 should visit the Graduate Studies Office to obtain more information.

**Rusty Thornton**, B.A. anthropology track A 2002, is working on his M.A. in visual anthropology and performance studies here at CSUSB.

## Faculty News



**Russell Barber**

Students in my courses may have noticed that my syllabi, handouts and longer written pieces are looking quite a lot better these days.

In preparation for an exhibit guide and a full-length catalogue to be published in conjunction with the next two exhibits in The Anthropology Museum, I have been voraciously reading the literature on typography, letterforms, book design, and graphic arts, and my students have become the guinea pigs on which I practice.

Nothing is safe these days, even menus for home meals on Friday nights and memos to my colleagues – they all provide me with practice.

While typography is an exciting new direction for me, the new exhibit opening at the museum this winter demands that much of my out-of-classroom activity be focused on planning that exhibit and turning the plans into reality.

The several collections donated during the last year also provide an ongoing source of tasks to be completed.

Despite all this museum activity, I have found time for a few other projects. I completed a major revision of *Analogical Archaeology*, a book-length manuscript that I have written and have been using as a text in ANTH 319 (Experimental Archaeology and Ethnoarchaeology); I expect that I will be sending that manuscript off to publishers after one more trial run in that course.

I also have become inspired by a book by Alan Bartram that I was reading recently. It analyzes the lettering

styles on British gravestones from the seventeenth to twentieth centuries through the art historic approach, and I realized that a similar analysis could be done in New England and that a more sophisticated approach based on social science theory could be incorporated.

And, what better way to combine my new-found interest and training in letterforms with my longstanding interest and training in deathways and cemetery studies?

This is a new project, but I have begun pulling my ideas together and hope to find the time soon to write a grant application for funds to support this project.

Beyond the academic, Sharon and I are enjoying fall in the mountains of Running Springs. We have been saddened, however, by the death of my mother at the beginning of the quarter and mourning will be another of our many activities in the coming year.

**Anne Bennett**



In the spring 2006 quarter, I taught a new course, "Women In Middle East Society," that is being further developed during the 2006-2007 year through the support of a CSUSB Collaboration Through Team Teaching grant.

With the support of this grant a new course, "Muslim Women in Society and Media" (ANTH 590/COMM 587/WSTD 390, co-taught with Dr. Ahlam Muhtaseb from the Department of Communication Studies) will be offered in spring 2007. A long-term goal of this project includes developing a curriculum plan for the course that would allow a single professor to teach both aspects (society and media) of the course in the future which would allow for a permanent cross-listing in both anthropology and communication studies.

Beginning in mid-2006, with support

from the anthropology department, I hired two native speakers of Arabic (CSUSB students) as research/translation assistants who are working with me on fine-tuning transcriptions of my original audiotaped field research data.

This is part of a project I am working on regarding the use of reported speech in Druze reincarnation stories (the Druze are an Islamic sect residing predominantly in Syria and Lebanon).

I presented a paper at the inaugural CSUSB Ethnic Studies Roundtable (May 23, 2006) on "The Representation of Arabs and Arab-Americans in Cinema."

Last, but not least, I took leave in fall 2006 quarter to welcome the arrival of my son, Charles Josef.

**Frannie Berdan**



I received an external grant from the Foundation for the Advancement of Mesoamerican Studies, Inc. (FAM-SI) for continuing my research into ancient Aztec adhesives (there seems to be no end to this project!). Check out the article on the Laboratory for Ancient Materials Analysis (LAMA) in this newsletter for more details.

I also received a mini-grant from the university which I used last spring to work on a project examining the material dimensions of Aztec ritual activity.

The Aztecs used a great deal of "stuff" in their almost-constant rituals, and I am exploring the extent of economic investment in their complex ceremonial life.

In addition, I also published an article on "The Role of Provincial Elites in the Aztec Empire" in an edited book, *Intermediate Elites in Pre-Columbian States and Empire*, and I have the lead article ("Continuity and Change in Aztec Culture: From Imperial Lords to

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## Faculty News

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Royal Subjects”) in the volume *Globalization and Change in Fifteen Cultures*.

I have also completed an article for the *Oxford Encyclopedia of Women in World History*.

I have been invited to participate on a panel of experts for the British Web site Mexicolore, devoted to furthering Aztec studies, especially among school children.

My work on the Aztecs was featured this fall (2006) in a TV interview (“In the Public Interest”) where I explained the ins and outs of Aztec hieroglyphic writing.

In October I appeared as an interviewed expert in the nationally aired TV program, “Engineering an Empire: Aztecs” on the History Channel.

### Jennifer Miller-Thayer

My current research is focused on cross-border health care access. I look at who is crossing the border either from the United States to Mexico, or from Mexico into the United States, to access health care.

My research questions focus on who is crossing the border, what types of medical care they are accessing when they do, who is providing the health care, and the economic, socio-cultural and political factors that influence these choices.

I also examine the individual and institutional levels that are involved in this practice. For example, the patients, health providers in both countries, insurance companies, Food and Drug Administration, American Medical Association, drug manufacturers and the media.

I worked with several populations including the snowbirds, health care professionals on both sides of the border, community members in both countries and insurance providers during my field research.

I hope to have my dissertation draft completed by the end of this

school year so that I can complete my doctoral degree shortly thereafter. I presented some of my research at the American Anthropology Association meetings in November 2006 in San Jose.

(Jennifer Miller-Thayer is a part-time lecturer in the anthropology department who teaches several anthropology courses every year.)

### Kathy Nadeau

In winter quarter 2006 I presented a paper, “Filipino Contract Workers Caught in the Gulf Crisis,” at CSUSB’s Asian Faculty, Staff, and Student Association’s Asian Round Table event, an exciting annual event that is open to all.

I revised my paper for presentation at the Society for Applied Anthropology meeting held in Vancouver in April 2006. My paper highlighted the inequitable conditions under which many migrants labor in the Middle East.

I am now revising this paper to include a discussion of its linkages with the war in Iraq for publication in the journal *Migrant Letters*.

Early last year, a Filipino playwright, Francis Tanglao-Aguas, invited me to write a companion essay “ASWANGS/viscera sucker of Philippine folklore and mythology” to accompany his play, “When the Purple Settles,” which will soon be published in the Philippines.

A longer version of my essay, “Gender and Vampires: Aswangs in Southeast Asia,” appeared in *Quilted Sightings: A Women and Gender Studies Reader*, published by Miriam College’s Women and Gender Institute, Quezon City, Philippines in 2006.

### Wes Niewoehner

My teaching philosophy is based on two simple goals: First, I want the students that go through my classes to feel that they were challenged intel-

lectually (but not that they were intellectually challenged).

Second, I want them to be confident that they will be more than just adequately prepared in osteology and evolutionary anatomy and theory if they decide to go on to graduate school.

My research is broadly concerned with integrating behavioral inferences derived from skeletal biology and functional anatomy with evidence from the archaeological record to better understand the Late Pleistocene transition from premodern to modern humans.

I use two complimentary research methods: (1) Three-dimensional geometric morphometrics of joint shapes, and (2) computer simulations of hand functional anatomy.

The morphometric approach is used to quantify differences in Neandertal, Upper Paleolithic and recent human hand joint shapes.

I argue in my most recent publication, *Neandertal Hands in Their Proper Perspective*, that some of the shape differences that I have quantified are the product of functional adaptations to upper-limb related behavioral shifts in tool manufacture and use documented in the archaeological record of the European Middle-to-Upper Paleolithic transition.

One of the most interesting results documented in this publication is that Early Upper Paleolithic hands are distinct from Late Upper Paleolithic hands in some respects of their functional anatomy, yet they are similar to Neandertals in other aspects.

Understanding the behavioral implications of this discovery has become the focus of my current research.



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## Faculty News

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### Jim Pierson

The 2005-2006 academic year was my first as a participant in the Faculty Early Retirement Program (FERP). I’m officially retired but still get to teach one third of the time.

I taught only in the winter (two courses) and spring quarters (one course) and got used to telling people that I was FERPing without feeling the need to excuse myself. I had the opportunity to evaluate several manuscripts for journals and just completed a book review for the Anthropology Newsletter.

For the most part, I continued to work on very long-term research and writing projects dealing with my fieldwork in Australia and the ethnographic contents of selected mystery novels. (The latter, of course, requires me to read lots of mystery novels.)

One of the highlights of the past year was the trip Grace and I took to Scotland in July.

We stayed most of the time in Oban, on the west coast, and visited some of the Inner Hebrides as well as several beautiful coastal villages. There are lots of potential ethnographic and linguistic projects throughout these areas.

Oban has a population of about 8,500 people; shops close early but they include two nice bookstores in which I was able to do some valuable and expensive research.

A major whisky distillery, pubs, and lots of fish and chips shops are among the other important features of the area.

We also spent time in Dunblane, Stirling, Edinburgh and St. Andrews, all of which are filled with historic and archaeological sites. I ate haggis



several times and suffered no short or long term effects; there were, however, some short term effects (all quite pleasant) when we tried the local custom of adding whisky to our morning porridge.

I also took a few trips within the U.S. during the past year. I spent a bit of time last fall in New Braunfels, Texas, in the area of the state settled by Germans.

We went to the 45 year reunion of my high school graduating class in Bayfield, Colo., this past August.

I also attended the American Popular Culture conference in Atlanta in April and presented a paper on mystery novels set in Scotland. (I’m hoping that this makes the Scotland trip deductible for income tax purposes.)

We played the roles of tourists in the Atlanta area for several days and got to see a museum exhibit of the African American quilts from Gee’s Bend, Ala., that are on a current set of U.S. postage stamps.

I have appreciated the messages from former students since my retirement and hope to keep in touch with all of you.

### Peter Robertshaw

Some of my research garnered quite a lot of attention in the last year.

Together with David Taylor, a geography professor at Trinity College in Dublin, Ireland, and Julius Lejju, who teaches at a university in Uganda, I published a paper in early 2006 in the *Journal of Archaeological Science* on the topic of “Africa’s earliest bananas?”

This paper reported our discovery of phytoliths, which are microscopic silica bodies, in this case identifiable as having come from bananas, in a sediment core we collected in Uganda.

Since the sediments containing the banana remains were more than 5,000 years old, our discovery represents by



far the oldest bananas in Africa.

I followed up our serious academic publication with a more popular article in the magazine *Archaeology*.

This was spotted by the archaeology correspondent for The Times newspaper of London, so our work made it into the international press.

Afterwards I received several letters from interested readers, but, alas, nobody sent me a check to pay for more fieldwork.

Other than the bananas, my research has plodded along in a more mundane fashion. I, along with several colleagues, had a paper on chemical analyses of glass beads from Madagascar published in the *Journal of African Archaeology*.

Almost all of these beads, which date to the last 1,000 years, were brought to Madagascar across the Indian Ocean from India.

At the moment I am writing another paper on beads, this time from a medieval Islamic site in Morocco. Unfortunately I haven’t yet managed to find an excuse to visit either the Moroccan or the Madagascan sites.

## French fry

Continued from back cover potatoes outside Paris; by conspicuously guarding the field during the day but leaving it unattended at night, he encouraged Parisians to steal potatoes, which they did with great energy, ultimately achieving Parmentier’s goal of popularizing this tuber.

Second, deep frying. Though the history of this technique is complicated, the bottom line is that only two regions of the world used deep frying prior to the last couple of centuries: West Africa and the American Southwest.

West Africans began deep frying in palm oil at least by the third century A.D., an uninterrupted tradition that

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## LAMA

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also analyzed some objects fashioned from rubber. Beeswax was used on the feather disk, and we suspect that the sample may have been taken from a repaired area of the artifact. We are requesting another sample to be sure (as an aside, these samples are about the size of 2-3 grains of salt).

Interestingly, we have found quite a bit of charcoal used to form the basis for decorative areas around the mouth and eyes of the Teotihuacan funerary figure. Among some native California groups, charcoal was used to increase the hardness of some adhesives, and we may be seeing something similar here. These are indeed all new discoveries!

The laboratory is currently analyzing tiny samples from feather mosaics housed in museums in Madrid and Mexico City, and equally minuscule samples from two classic Mayan funerary masks.

Some of the laboratory's work focuses on recreating ancient technologies, especially the production

of Mesoamerican adhesives according to ancient recipes. Students (now former students) Jeff Sahagún, Becky Jacobsson, and Jeremy Coltman continue to work on these sticky projects in the laboratory.

In reconstituting these adhesives from orchids, copal, pine resin and beeswax, we are discovering new things about their properties that would have led the ancient artisans to choose one glue over another, and which would have placed limits on the way artisans may have used these materials.

For instance, some glues are stronger than others. We discovered that an orchid root was stronger even than pine or copal resins, and that when pine and copal resins were mixed together, they were stronger than either pine resin or copal alone.

We continue to measure different glues (and their combinations) relative strengths. Other adhesive properties that we evaluate are transparency, color, resilience, and workability.

We also have been calculating the amount of adhesive material the artisans would have used in their

workshops (for example, figuring out the number of plants needed to make a shield). Our preliminary experiments with different orchid species suggest that an average of about 80 plants would have been required to fix feathers on a typical-sized Aztec shield.

These results, however, are very preliminary and only suggestive, and we continue to reproduce these experiments.

This project has caught the interest of the media, and has been featured in articles in the Washington Post (Dec. 29, 2003) and other major newspapers nationwide. A further article on this research appeared in *National Geographic Magazine* in July 2004 (Geografica), titled "The Aztec's Home Brew Glue: Scholar reveals ancient artisans' sticky solution."

A rather colorful presentation on LAMA's activities has been assembled by Jeff Sahagún and Frannie Berdan, and can be seen in the display case by the elevators on the third floor of the Social and Behavioral Sciences Building.

mistranslation of Apicius's ancient cookbook [circa A.D. 10], whose "fritters" more likely were simmered in stock than deep fried in oil.)

The African slave trade began in earnest in 1440, and African slaves were well established in European households by 1500, often serving as cooks and other domestic servants.

As is to be expected, historical records are mute on the subject, but it seems perfectly reasonable that the technique of deep frying entered European consciousness and kitchens from African slaves.

The alternative explanation is that the European re-invention of deep frying coincidentally occurred at precisely the time when Europeans were having their first sustained contact

with West Africans, a conceivable – though unlikely – possibility.

The advent of industrial processes for extracting other vegetable oils in the late 18th and early 19th centuries would only have made deep frying easier and more acceptable to the European palate.

So, a Peruvian tuber was carried from its homeland to Spain, from whence it spread to France and other parts of Europe.

At about the same time, the technique of deep frying was carried from West Africa to Europe by slaves.

Finally, the two were wedded in Revolutionary France, and the french fry – a true hybrid worthy of the name "fusion food" – was born of the union.

## French fry

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continues through today.

In the American Southwest, cottonseed oil was extracted from the seeds of cotton introduced to the Hohokam from further south about 200 B.C.

This apparently was used for deep frying in prehistoric times, but the practice had died out by the time Spanish conquerors reached the region in the 1602.

We are left then with only a single ancient source for deep frying as a technique: West Africa.

Clear examples of deep frying in European cuisine are somewhere between rare and absent before about 1500. (This statement is made more complicated by the apparent

## Alumni: We'd love to hear from you!

Please send us your news – job changes, personal milestones, events, travels, etc – for inclusion in the next newsletter.

Simply email Dr. Robertshaw (proberts@csusb.edu) or Patricia Massei (pmassei@csusb.edu) to let us know what is happening in your life.

## Museum

Continued from page 1

To address this challenge, the exhibit will incorporate a Blackfoot winter count painted on a bison hide expressly for this exhibit, a recreation of Ogham writing carved onto a rough-hewn post, a touch panel comparing paper to papyrus to parchment, a recreated Chinese scholar's writing table, and a scale diorama of a scene from eleventh-century Cairo illustrating the political use of script.

In addition, the large curved wall will be used in an innovative and hopefully exciting way ... you will simply have to visit the exhibit to see how.

"Handwriting" will be the first exhibit at the Anthropology Museum that has an accompanying publication: an exhibit guide designed to enhance the visitor's experience while at the exhibit and to reinforce the message of the exhibit later.

All of this is being accomplished, of course, with the assistance of Sharon Yellowfly and student volunteers.

In the meantime, a variety of other tasks are being carried out at the museum. Several collections were acquired as donations in the summer and fall of 2005; all the paper work associated with their donation has been completed, they have been appraised, and museum cataloguing is ongoing.

One of these collections, the Stuart Ellins Collection of Contemporary Native American Art, will be the subject of the exhibit to follow "Handwriting," an exhibit that we plan to accompany with a book-length, glossy

## Anthropology Department seeks your support

The members of the Anthropology Department express their gratitude to those who have made donations in cash or kind to the department during the last year. We appreciate and use every penny.

Among our generous donors was the Archaeological Survey Foundation, which again provided funds for scholarships for our students to participate in the archaeological field school.

We expect to give out more scholarships to our students in the future and not just for the archaeological field school.

Thanks to generous donations by a couple of members of our own faculty, we have established an anthropology student scholarship fund. In addition, we will be awarding a scholarship this year for the first time in honor of the memory of the mother of one of our alumni, Jeff Sahagún.

We hope that some of you will consider adding your donations to

the general anthropology scholarship fund or designating a larger gift in your name or in someone else's honor.

Apart from scholarships, we also need funds to support the exhibitions and activities of the Anthropology Museum.

If you would like to make a donation to the department, either contact Dr. Pete Robertshaw by e-mail at proberts@csusb.edu or by phone at (909) 537-5551, or simply send us a check, letting us know if you have a preference for where we put your donation to use.

Or you can donate on-line by clicking on the "Give to CSUSB" button on the university's home page ([www.csusb.edu](http://www.csusb.edu)), but please make sure to specify your gift is for Anthropology.

For additional information on how to establish a named scholarship fund in the college, please contact Director of Development Stephanie White at (909) 537-7363.

catalogue for sale to the public.

The production of this catalogue is a major undertaking, and planning, fundraising, writing and photography of the collection for illustrations all are underway.

Rusty Thornton (B.A., 2001) and Sharon Yellowfly (B.A., 1997) are assisting with the photography and fundraising respectively.

The museum currently is working out the details concerning another collection whose owner has expressed an interest in donating, this one focusing on Nepal.

As the holdings of the museum grow, so will our need to expand our currently-small storage space.

We are investigating possibilities on campus and are pleased that we have the support of the college's dean and associate dean in our search.

On any campus, and on ours in particular, unused space with suitable

climate control and security is at a premium.

Interested in participating in any of these activities? The museum always welcomes volunteers to assist in mounting of new exhibits, as well as for other tasks.

With the opening of "Handwriting," we especially will need student volunteers who spend time on campus as docents to walk and talk groups through this new exhibit.

Most museum tasks, however, are open to volunteers with any connection to the anthropology department, including students, certificate earners, alumni, former staff – if you are reading this newsletter, you probably have that connection.

We always appreciate having volunteers with training or experience, but we're like the U.S. Army: We provide on-the-job training that looks great on a vita.



## Gustatory Corner: The french fry as fusion food

By Russell Barber



Whether in music, clothing styles, or food, it has become fashionable in the last few years to refer to fusion, a blending of distinct styles and components into a new

and often-trendy combination that acknowledges its parents but asserts its own personal identity.

Cookbooks and restaurants that feature Thai-Caribbean, Japanese-Mediterranean, or Szechuan-Ethiopian cuisines attest to the currency of fusion food; the fact that Tex-Mex cooking (a combination of Mexican and German culinary traditions) and Thai cuisine (a blend of Chinese, Indian, and indigenous Southeast Asian cuisines) today are thought of as traditional demonstrates that food fusion has been going on for some time.

In this hybrid company, the french fry seems an unlikely candidate as a fusion food, but little could be further

from the truth.

French fries, of course, are sliced potatoes deep-fried in fat, forming a golden outer crust and a soft inner core. The earliest reference I have been able to find to french fries is from France in the 1790s, and in the 1810s Napoleon's Belgian chef (according to one of a few competing stories) invented pommes soufflées, a french fry whose outer crust puffs up to form a little pillow. French fries have a short history.

To invent french fries, you need to bring together an ingredient (potatoes) and a technique (deep frying). Potatoes are a South American product, and deep frying is West African; their marriage took place in Europe, involving three continents in the fusion that produced french fries.

First, potatoes. The potato was domesticated in Peru by at least 4000 B.C. Potatoes first are reported in Europe in Basque Spain around 1550, apparently carried there by the troops of Jiminez De Quesada, recently

returned from Colombia, where he had written in 1537 of the amazing new tuber that he mistaken called "truffles."

Potatoes spread to other parts of Europe in the following century, but they remained unpopular, partly because of their bitter taste and partly because they were ill-adapted to the climates where they were tried. Selective breeding gradually changed these failings, and potatoes quietly grew more acceptable to Europeans as food.

The Seven Years' War (1756-1763) provided a spur to their acceptance, when European peasants realized that grain (which had to be harvested when ripe and stored in a granary) was an easy target for foraging troops, while potatoes (which could be left in the ground until needed) were too much effort for foragers to bother with. In 1787 A.A. Parmentier, a French economic botanist, conducted a well-publicized project to grow

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