Dating Coso Style Sheep Petroglyphs

CRM as Sex Education

Surface Test Pits and Archaeological Survey

Blood Alley - Revisited
Society for California Archaeology Newsletter

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From the President

The Fall has been a very busy period for the Society and, with the Annual Meeting quickly approaching, we’re expecting even more activity as we prepare for this important event. The northern and southern California data sharing meetings were very successful and well attended, providing interesting research papers on local and regional topics. The events were organized by Vice-Presidents Terry Jones (southern) and Rick Fitzgerald (northern), who have put much effort into redesigning the format of future data sharing meetings, as outlined in their article “Rethinking the Data-Sharing Meetings,” which appears in the September 2003 Newsletter.

Planning for the 2004 Annual Meeting, “Looking Ahead for a Better View of the Past,” continues under the direction of Local Arrangements and Program Chairperson Mike Letch and staff at Statistical Research Inc. Mike is in the process of solidifying the program, workshops, and social events. Please see Mike’s column in this Newsletter for more details regarding events and the call for papers.

President-Elect Amy Gilreath has been very busy with a number of Society events and activities. She attended the 18th California Indian Conference and Conference held on October 10-12, 2003 at Cabrillo College in Watsonville to re-present Larry Myers with the SCA’s California Indian Heritage Preservation Award. Amy also attended the Native American Heritage Commission’s November 2003 meeting to present the Commissioners with a copy of the Society’s updated Sourcebook, which was recently revised by Native American Program Chairperson Janet Eidsness. Amy has also been instrumental in developing a new procedure for the Annual Proceedings, the goal of which is to achieve more timely compilation and distribution. Please see Amy’s column in this Newsletter for more details.

The Election ballots will be sent out shortly, providing members the opportunity to select the next President, Northern Vice-President, and Secretary. This year’s candidates include Shelly Davis-King and Robert Bryson for President, Janine Lloyd for Secretary, and Laura Leach-Palm and Karin Anderson for Northern Vice-President. Thanks to the candidates for their support and commitment to the SCA, and to Bill Hildebrandt for serving as Election Committee chairperson.

Progress continues to be made on the retooling of the SCA website, and it is expected that the new site will be on-line by early January 2004. Past President Dana McGowan and Southern Vice President Terry Jones have taken a lead role in coordinating this effort with Greg White, who is spearheading the conversion on behalf of the SCA Business Office.

In November, I had the honor to accept, from Dr. Knox Mellon, State Historic Preservation Officer, the prestigious Governor’s Historic Preservation Award given to the Society for its role in Brian Fagan’s book Before California. The award commendation reads, “This award is for Before California a book written by Brian Fagan, former U.C. Santa Barbara professor, and published by Alta Mira Press. Before California was funded by many parties, including the Office of Historic Preservation, the Society for California Archaeology, the U.S. Forest Service, and the Bureau of Land Management. It seeks to make the scientific field of California archaeology

(continued page 19)
Committee Reports

Proceedings Getting Overhauled

Responding to membership requests, the Board is implementing a new procedure for the Annual Proceedings. The goal of the new procedure is to achieve more timely completion and distribution of the Proceedings. It is the Board’s specific goal to return to the days of old, and have one year’s Proceedings distributed at the Annual Meeting the following year.

The meetings have grown over the years, which is a good thing, a very good thing. But, as a consequence, the work load for getting a wrap on the Proceedings has grown: more presenters to cajole, more papers to edit, more manuscripts received in different formats, more lay-out time, and so on. There is also a compelling fiscal reason for the change. The handling, packaging, and postage have just become too costly to justify distributing it any other way.

To meet this goal, we need members to modify their behavior in two ways: 1. Get your name on the “I Intend to Submit” list that will be compiled during the meetings; and 2. Get your manuscript in by July 1. More details are provided below. To meet this goal, we also need to involve our Business Office as the collation and printing hub, and add to the ranks of the style-guide editors.

Starting this March in Riverside, all presenters who wish to have their paper in the Proceedings are asked to attend a “Proceedings Submitters” meeting, where a style guide and schedule will be distributed. If you intend to submit your paper, you will need to attend that meeting. It is currently penciled in for Saturday morning, but consult the 2004 program, when available. If you have a schedule conflict, you have two fall-back alternatives: get your name and contact information on the sign-up list before the close of the meetings (there will be a well-marked table in the registration area), or make your intent explicit to your symposium chair, who will transfer your name to the sign-up list. Each symposium organizer is being asked to notify each participant of this change, so that each and every presenter has plenty of advance warning and early opportunity to obtain the style guide and schedule.

THERE WILL NOT BE A FOLLOW-UP CALL FOR PAPERS. As has always been policy, individual papers are published as received, without formal peer review. The editing is simply aimed at correcting obvious errors and bringing the papers into conformance to one style.

When? The deadline for submission is re-affirmed as July 1.

Where to submit? Now that we have a fully functioning Business Office, you will be asked to send your submittal there: SCA Business Office, CSU Chico, Chico, CA 95929-401. Phone: 530-896-5733; email: SCAOffice@csuchico.edu. Melinda Pacheco, who staffs our Business Office, will collate the submissions.

Who will be editing? For the past three years, Donna Day, Sharon Waechter, and Katy Coulter have valiantly shouldered the burden of compiling, editing, and getting the Annual Proceedings to press. They have found it rewarding, but are looking forward to sharing the work and responsibility. Please consider stepping up and volunteering to help with this task. It’s even okay to volunteer a friend.

If you are presenting in Riverside, expect more specific information from your symposium organizer, and in the 2004 Program. In the meantime, please feel free to direct any questions to Amy Gilreath as President Elect (amy@garnerwestern.com; 530-756-3941). She says she’ll be glad to call your friends and lobby them for their involvement.
Southern California
Data-Sharing a
Smoking Success

Terry Jones

The Southern Data-Sharing meeting was held November 8th at the San Diego Archaeological Center (SDAC) in Escondido under sunny, smoke-free skies. The fires that destroyed so much acreage in the southland were brought under control only four-five days before the event and they were still very much on the minds of most attendees. Many conversations between papers and an impromptu discussion panel during lunch were focused on the disaster and its impacts on cultural resources and the local archaeological and Indian communities. Despite this preoccupation, the meeting was well attended, well-organized, and highly successful. This was due wholly to the efforts of Center Director Cindy Stankowski, Advisory Council Chair Jim Royle, Center VP Michael Baksh, Center President Tim Gross, Center Trustee Dennis Gallegos, and the staff and volunteers who started making plans for the event six months in advance. Their energy led to a positive, informative data sharing despite the physical and temporal proximity of the natural disaster. Over 100 people signed the meeting registration sheet, and a total of 25 papers was presented in three sessions. Participation was so high that for the first time ever at a Data-Sharing there was a need for concurrent sessions.

Following opening comments by SCA President-elect Amy Gilreath, six papers in the morning session targeted the prehistory of San Diego and Orange counties. These included a healthy mix of synthetic and data-oriented presentations. Dennis Gallegos, Tracey Stropes, and Monica Guerrero from Gallegos and Associates discussed findings from CRM projects.

SCA representatives at the IV Binational Symposium “Balances and Perspectives, Anthropology and History of Baja California” held in Tecate, Baja California, included Matthew Des Lauriers, Eric Ritter, Don Laylander, Elena Nilsson, and Ken Wilson.
in San Diego County, focusing in particular on lithics (Stropes) and ceramics (Guerro). Pat Masters from Scripps Institute gave a fascinating presentation on shifting baselines and intertidal environments along the San Diego coast. The shifting baselines concept refers to growing appreciation among marine scientists for temporal variation in the physical and biological composition of coastal environments. Masters’ paper focused on the evolution of intertidal and nearshore habitats in San Diego County as reflected by radiocarbon-dated shellfish assemblages. As appropriate for a Data-Sharing event, she concluded her paper with a request for information on other dated molluscan assemblages from the region particularly any with dates on *Ticela* or *Donax*. Chris Shaver from EDAW then presented information on what appears to be the largest stone ball yet recovered from San Diego County. The specimen (#13658) has a maximum diameter of 10.9 cm and was unusual in exhibiting a single flat facet, 5.9 cm in diameter. Sandy Kennedy-Zachman rounded out the morning with a succinct summary of curation guidelines recently developed by the Pacific Coast Archaeological Society.

A large number of the offerings during the concurrent afternoon sessions also focused on San Diego and Orange counties. Two of these considered historic topics: a discussion of a structure of unknown origin by Gini Austerman and Nicole Hofmeister (CSU Fullerton) and a summary of the San Diego County Gravestone project by Seth Mallios (San Diego State University). Don Laylander from ASM Affiliates gave
an outstanding presentation on changing molluscan assemblages through time in San Diego County that echoed some Patricia Masters’ findings from the morning. Using data from SDI-603, -10,965, and -15,678, Laylander documented decline through time in *Mytilus* and a late upsurge in *Donax*, and discussed the likelihood that the pattern represented environmental flux (habitat loss), economic intensification, or cultural choice. Two other papers considered recent findings from San Diego and Orange County prehistoric sites: David Ferraro (Viejo California Associates) discussed an important Encinitas Tradition component from the Talega Site, while Lynn Gamble and students from San Diego State discussed materials recovered from the Bancroft Ranch Site. In the latter case, findings came in the form of new discoveries from a previously curated collection. Margaret Hangan (BLM) and Steve Conkling (LSA Associates) discussed different aspects of Section 106 compliance programs; Margaret described a cooperative program between the BLM and the US Border Patrol for protecting cultural resources along the Mexico/US border, while Steve discussed the relative value of phased resource identification and evaluation programs. Jackson Underwood (EDAW, San Diego) described the results of data recovery and monitoring along the north Baja pipeline construction in the interior desert between Blythe and the Mexican border. John Hildebrand (Scripps Institution) gave a detailed analysis of lower Colorado buffware recovered from this same project. A paper by Richard Caputo also focused on a desert setting — in this case, Anza Borrego State Park — where linear mortarlke features have recently been documented. One final paper that considered a desert topic was a detailed study of effective hydration temperatures and Coso obsidian hydration dating by Sandy Rogers of CSU Bakersfield. Using a case study from the El Paso Mountains in Kern County, he concluded that imprecise EHT calculations can lead to spurious dating estimates, and that EHTs need to be calculated with climatic data collected from the immediate site proximity.

Several papers in the afternoon were focused on the Channel Islands. Mark Raab and Erin King from CSU Northridge presented findings from last summer’s excavations at the Eel Point Site on San Clemente Island which included evidence for early use of watercraft and complex house floor and pit features. Victoria Stosel (CSU Los Angeles) presented data on midden meat and protein yields from index units on San Nicolas Island. John Dietler from UCLA discussed occupational specialization among the Chumash of Santa Cruz Island based on detailed analysis of chert microblades recovered from CA-SCRI-306.

The final four papers of the day dealt with issues of prehistory on the mainland outside of San Diego County. Kathleen Bergin from SWCA Environmental Consultants described the results of extensive excavations at CA-LAN-254, the Dayton Canyon Site in the western San Fernando Valley. Radiocarbon results show that the site was occupied during the Intermediate Period, ca. 3400 B.C. to cal. A.D. 350. Occupation was marked by an extensive series of 164 burnt rock and mortuary features. Artifacts included contracting-stemmed and other projectile points, bowl mortars, cylindrical pestles, handstones, milling slabs, and informal cobble and flake tools. ‘The assemblage was generally equated with Rogers’ Hunting Culture and Warren’s Campbell Tradition, and site inhabitants were classified as foragers well adapted to their environment. Gavin Archer from the Keith Companies then gave an overview of current research at the Tomato Springs site (CA-ORA-244) which has also been subjected to an extensive series of investigations over the last several decades. Lorrie Willey (EDAW) described preliminary findings from the Hellman Ranch project in Seal Beach, a somewhat contentious development that yielded, among other things, 20 human interments from six sites. Radiocarbon results suggest site use between ca. 3000-1000 B.C. and A.D. 1-1400. Andrea Murray (CSU Fullerton) presented the final paper of the afternoon in which she recounted accomplishments of the Orange County Curation Project.

Papers were immediately followed by a carne asada barbeque, beer, and live music provided by the Texas Toothpicks. A good time was most certainly had by all.

**Northern California Data-Sharing Meetings**

*Rick Fitzgerald*

This year the Northern Data-Sharing Meeting was held at a truly northern location, Humboldt State University in Arcata. The meeting was held on Saturday, October 4, in the beautiful old Founders Hall. Our hosts were Dr. René Vellanoweth of the HSU Anthropology Department and Jamie Roscoe, Principal Investigator for the Cultural Resources Facility at the Center for Indian Community Development. The goals were to hear about current fieldwork and discuss the status of North Coast ranges archaeology, and the meeting was successful on both counts. Presented below are a summary of the papers presented and the discussions that ensued.

Janine Loyd, Ted Jones, and Tom Origer of Oregi and Associates presented a paper on investigations at CA-HUM-323. Their focus was on the chronological placement of the site using cross dating with projectile points, and relative and absolute dating using obsidian hydration band measurements. This paper led to a general discussion on the chronological ordering of all point types of the North Coast Ranges and in particular the Helena and Trinity Series projectile points. The
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The consensus was that Helena Series, although they overlap with the Borax Stem points, are probably not as old and that the Trinity Series belong in the Mendocino Pattern (circa 3500-1500 B.P.) and not in the later Gunther Pattern.

This paper was followed by an excellent presentation by Shannon Tushingham. Shannon presented an overview of her 2003 U.C. Davis Field School investigations at *Tuncultun* (CA-DNO-26), a prehistoric and contact period village site located near the Smith River in Del Norte County. Excavations at the site during the summer confirmed the presence of several semi-subterranean structures, provided evidence of coastal contact. This work is part of Shannon’s Ph.D. dissertation research, which is focused on the importance of the Pacific salmon fishery in the regional settlement of prehistoric Northwestern California. This will be the first dissertation completed at U.C. Davis for the region since Valerie Levulett’s in 1985 on the King Range of southern Humboldt County.

Janet Eidsness of Heritage Resources Management, of Willow Creek, provided reflections and comments upon her 20 years of CRM work and experiences with Indian communities and tribes of Northwest California. Among many topics, Janet described the recent efforts of the Wiyot Tribe to purchase Gunther Island in order to re-establish cultural activities and improve the island’s habitat. Janet also introduced the revised and updated 4th edition of the Sourcebook on Cultural Resource Management, Archaeology and Cultural Heritage Values for Native American Communities of California which will be an indispensable desktop reference useful for Native Americans and CRM professionals alike.

Greg White of California State University, Chico, presented a paper based on his recently completed dissertation. Greg compared the long-term culture chronologies from Sonoma, Lake, and Colusa counties and two patterns of culture change: (1) metastable change (e.g., Warm Springs and Colusa) consisting of long periods of stability or gradual change punctuated by intervals of rapid change, and (2) gradual change (e.g., Clear Lake) marked by long-term trends only. According to Greg the metastable model is the basic model for Northern California culture change, however, this overall pattern of technological, subsistence, and stylistic change is actually more consistent with trans-regional population movement i.e. migration.

The mention of migration and its recognizable signatures in the archaeological record of Northern California touched off the most-lively discussion of the meeting. The merits of the “culture history” approach versus “evolution ecology” theory were mulled over by several members of the audience. At its conclusion the general consensus was that there should be a renewed emphasis on developing culture history and also more effort directed to integrating it into economic models of California prehistory.

Following lunch, Jamie Roscoe presented an overview of the cultural resources inventory of the Headwaters Forest Reserve. Much of Jamie’s presentation on the 8,000 acre, survey was focused on the late 19th century lumber town of Falk, which at one time was one of largest and most vibrant towns in Northwestern California. Using old photos, maps, and first-hand accounts; Jamie reviewed the life and death of this National Register eligible mill town. As Jamie’s paper illustrated, the story of Falk was...
the quintessential example of the boom-bust timber industry of the “Redwood Empire.”

Mike Kennedy of the University of California, Davis, presented a multi-author paper titled “Shellfish Foraging Strategies from Bodega Bay, California.” Mike’s presentation focused on the Duncans Landing site (CA-SON-348/H) and the emergence of intensified maritime adaptations among hunter-gatherers of the Northern California coast. The authors measured d18O and d13C from the terminal margins of Mytilus californianus shells and were able to determine shellfish harvest season by comparing these values to contemporaneous 14C-dated shells. Mike’s preliminary conclusion was that the exploitation of shellfish has been a predominately seasonal strategy around Bodega Bay for the last 8500 years.

Bill Hildebrandt of Far Western Anthropological Research Group presented the final paper. Bill presented an overview of the settlement chronology of prehistoric Northwest California, and how it compares to other parts of California. Drawing upon his Ph.D. research and the work conducted for the region’s two largest projects (Pilot Ridge and Shasta I-5), Bill discussed many of the strides made in the last two decades in our understanding of Northern California archaeology. When asked what are the three most compelling issues in northwest California prehistory Bill responded with: 1) retooling some of the conclusions drawn from the Pilot Ridge Project data, 2) addressing the issue of the presence or absence of Early Archaic cultures on the coast, and 3) that students need to be pro-active in research and should not be afraid to publish their results.

Once the formal presentations were over, everyone trooped over to Jamie and Kimberly Roscoe’s beautiful house. There, the day’s topics were rehashed over dozens of barbecued oysters, pounds of fresh smoked salmon, copious side dishes, and several cases of local micro-brewed beer. The feasting and festivities were temporarily diminished by another season ending loss for the San Francisco Giants (eerily, this was exactly the outcome at last year’s party). Nevertheless, under a canopy of redwoods and blinking moonlight the party and conversation lasted until well after midnight.

**Legislative Liaison Report**

**Stephen Bryne**
sbryne@garciaandassociates.com

**Federal Legislation:**
108th Congress 2003-2004

*Native American Sacred Lands Act (H.R. 2419)*

**Sponsor: Rahall (D-WV)**

Summary: Introduced on June 11, 2003, the Native American Sacred Lands Act would require managers of Federal land to (1) accommodate meaningful access and use by Indian religious practitioners; (2) prevent significant damage to Indian sacred sites; and (3) consult with Indian tribes and Native Hawaiian organizations before taking significant actions concerning such lands. This legislation would also prohibit undertakings likely to cause significant damage to Indian sacred lands.

Status: Referred to the House Committee on Resources on June 11, 2003.

*Justice Enhancement and Domestic Security Act (S. 22)*

**Sponsor: Daschle (D-SD)**

Summary: Section 7301 of the Justice Enhancement and Domestic Security Act calls for enhanced penalties for cultural heritage crimes, including Archaeological Resources Protection Act (ARPA) violations, embezzlement and theft from Indian Tribal organizations, and illegal trafficking in Native American human remains and cultural items. Maximum prison time for violations of ARPA would increase to 10 years in prison, unless the cost of the artifact and any repair needed for the object did not exceed $500, then the maximum prison sentence would be one year. The maximum jail terms for trafficking in Native American human and cultural remains would be increased to 10 years.

Status: Referred to the Senate Committee on the Judiciary on January 7, 2003.

*Enhanced Protection of our Cultural Heritage Act (S. 1271)*

**Sponsors: Leahy (D-VT), Inouye (D-HI), and Bingaman (D-NM)**

Summary: This bill is essentially the portion of S 22 (see above) dealing with revised penalties for violations of ARPA and NAGPRA, only introduced as its own measure.

Status: Referred to the Senate Committee on Energy and Natural Resources on June 17, 2003.

*Iraq Cultural Heritage Protection Act (H.R. 2009)*

**Sponsors: English (R-PA) and Leach (R-IA)**

Summary: This legislation would provide for the recovery, restitution, and protection of the cultural heritage of Iraq. Although the U.S. maintains a prohibition against the importation of antiquities and historical objects from Iraq, it is possible that items looted from Iraq before, during, and after the U.S. invasion would be imported into the U.S. under false pretenses, HR 2009 seeks to solve this problem by maintaining the prohibition against the import of Iraqi antiquities removed from that nation after 1990. In addition, the legislation would make several important changes to procedures that the U.S. uses to help other nations stem the looting of their cultural heritage, and would harmonize the definition of “archaeological
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material of Iraq” with the definition found in ARPA.

Status: Referred to the House Committee on Ways and Means on May 7, 2003.

Emergency Protection for Iraqi Cultural Heritage Act (S. 1291)

Sponsors: Grassley (R-IA)

Summary: This bill would authorize the President to impose emergency import restrictions on archaeological or ethnological materials of Iraq until normalization of relations between the United States and the Government of Iraq has been established.

Status: Referred to the Senate Committee on Finance on June 19, 2003.

Indian Contracting and Federal Land Management Demonstration Project Act (S. 288)

Sponsor: Campbell (R-CO)

Summary: This bill would encourage contracting by Indians and Indian tribes for the management of Federal land. Under this bill, tribes or tribal organizations could contract with the Department of Interior to “carry out activities relating to Federal land management, including (A) archaeological, anthropological and cultural surveys and analyses; and (B) activities related to the identification, maintenance, or protection of lands considered to have religious, ceremonial or cultural significance to the Indian tribe or tribal organization.”

Status: Referred to Committee on Indian Affairs on February 4, 2003.

Cold War Theme Study (S. 452/H.R. 114)

Sponsor: Reid (D-NV)

Summary: These two bills direct the Secretary of the Interior to conduct a study to identify sites and resources and to recommend alternatives for commemorating and interpreting the Cold War.

Status: S. 452 was placed on the Legislative Calendar on August 26, 2003. On February 12, 2003, H.R. 114 was referred to the House Subcommittee on National Parks, Recreation and Public Lands and Executive Comment was requested from the Interior Department.

Historic Courthouse Grants (H.R. 1589)

Sponsor: Capito (R-WV)

Summary: This legislation would provide grants for the preservation of historic courthouses that are at least 35 years old.

Status: Executive Comment on this bill was requested from the Interior Department on April 10, 2003.

Cesar Estrada Chavez Study Act (S. 164/H.R. 1034)

Sponsor: McCain (R-AZ)

Summary: The Senate passed legislation on April 7 to authorize the Secretary of the Interior to conduct a special resource study of sites associated with the life of Cesar Estrada Chavez and the farm labor movement. A similar bill was introduced in the House of Representatives by Representative Hilda Solis (CA-32).

Status: S.164 was referred to the Subcommittee on National Parks, Recreation and Public Lands. Comment was requested from Interior on H.R. 1034.

National Heritage Areas Policy Act (H.R. 1427)

Sponsor: Hefley (R-CO)

Summary: This legislation would establish criteria and mechanisms for the designation of National Heritage Areas. The legislation states, “To establish the criteria and mechanisms for the designation of certain areas in the United States containing nationally important natural, historic, and cultural resources and recreational and educational opportunities that are geographically assembled and thematically related as areas that provide unique frameworks for understanding the great and diverse character of the United States and the development of communities and their surroundings as national heritage areas.”

Status: This bill was referred to the Senate Committee on Energy and Natural Resources on June 20, 2003.

California Missions (H.R. 1446/S.1306)

Sponsors: Sam Farr (CA-17) and Barbara Boxer (D-CA)

Summary: These twin bills would “support the efforts of the California Missions Foundation to restore and repair the Spanish colonial and mission-era missions in the State of California” and “preserve the artworks and artifacts of these missions.” This legislation calls for $10 million in Interior Department matching grants over five years for money raised from the state and private donors. The California Missions Foundation, which has undertaken a $30 million private fund-raising campaign, hopes that the state will quickly match the federal $10 million through voter-approved Proposition 40, a March 2002 measure that set aside $267 million for historic preservation projects. So far, the foundation has raised $3 million of its $30 million goal, and has started a number of repair projects.

Status: On October 20, the U.S. House of Representatives approved this bill. It was placed on the Senate Legislative Calendar on October 22, 2003.

California Legislation: 2003-2004 Session

Traditional Tribal Cultural Sites (S.B. 18)

Author: John Burton (D-3rd)

Summary: This bill would create a procedure in the California Environmental Quality Act for
reviewing proposed projects that may adversely affect traditional tribal cultural sites and provides for the participation of Native Americans in that process. The bill also establishes criminal penalties for disclosure of traditional tribal cultural sites, revises the duties and composition of the Native American Heritage Commission, increases participation by Native Americans in the local land use planning process, and allows Native American tribes to hold conservation easements.

Status: This bill was passed out of the State Senate in June but then failed to pass during two votes on the Assembly floor. On September 13, the Assembly did vote to consider the bill a third time. Since then, the legislative session ended. This bill is sure to come up during the next legislative session.

California Missions Funding (S.B. 987)

Authors: Bruce McPherson (D-15ª) and Dede Alpert (D-39ª)

Summary: This bill would appropriate an unspecified amount of Proposition 40 bond funds to the Department of Parks and Recreation (DPR) for allocation as a grant to the California Missions Foundation and would require that these moneys be used to support the efforts of the foundation to restore and repair the California missions.

Status: This bill was signed by Governor Davis on September 24, 2003 and was chaptered by the Secretary of State as Chapter 517, Statutes of 2003.

California Cultural and Historical Endowment (A.B. 1149)

Author: Marco Fierebaugh (D-50ª)

Summary: This bill would allocate funding from the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Fund (Proposition 40, enacted March 2002) to the California State Library (CSL) for purposes of funding the California Cultural and Historical Endowment Act.

Status: Although this bill did not move out of the Senate Appropriations Committee, the intent of it was carried out in the budget passed by the Legislature and signed by the Governor in August. This intent was that over $128 million from Proposition 40 bond funds be appropriated to the California Cultural and Historical Endowment.

State Park System: State Reserves (A.B. 1476)

Author: Edward Chavez (D-57ª)

Summary: This bill would designate, as state reserves, “areas containing outstanding cultural resources of statewide significance.” The bill would describe these areas as places that contain historic or prehistoric structures, villages, or settlements, archaeological features, ruins, artifacts, inscriptions made by humans, burial grounds, landscapes, hunting or gathering sites, or similar evidence of past human lives or cultures. The bill would require, within state cultural reserves, the highest level of resource protection be sought, and that management actions be consistent with the preservation of cultural resources and federal and state laws.

Status: Governor Davis signed this bill on September 24 and it was chaptered on September 25.

References Cited or Consulted


San Francisco Chronicle [San Francisco, California] 2003 House OKs funds to fix missions. 21 October.

http://www.loginfo.ca.gov
http://thomas.loc.gov

Contacting Your Representatives

California State Assembly www.assembly.ca.gov
California State Senate www.senate.ca.gov
U.S. Senate www.senate.gov
Governor Arnold Schwarzenegger www.ca.gov
President George W. Bush www.whitehouse.gov
For President

- **Bob Bryson**, Park Archaeologist, National Park Service, Mojave National Preserve, Barstow, CA.

*Education*: M.S. 1982, Ph.D. 1989 University of Oregon, R.P.A.

*Professional Background*: Prior to joining the National Park Service staff I spent several years doing paleoenvironmental research at the Center for Climatic Research, University of Wisconsin. Before that, I worked for several CRM contractors here in California and Oregon. I am also a former President of the Association of Oregon Archaeologists and a former Mayor of the City of Coburg, Oregon.

*Position Statement*: On the whole the Society is in very sound shape, with useful committees that seem to represent the will of our diverse membership, well run Annual Meetings, and a new direction for the Data Sharing gatherings promising to offer more interesting forums to discuss issues related to our work and research. The current leadership of the SCA is dedicated to the task of expanding our membership to maintain the organization’s vitality and financial stability. These are all trends that need to be continued and stimulated by the addition of fresh ideas and perspectives. I am committed to doing just that.

Unfortunately our state does not possess the same degree of stability that the SCA presently enjoys and this does not bode well for cultural resources. With the California budget in chaos it is not surprising that the Office of Historic Preservation is in a similar state and attempts to cure these economic woes may further damage the OHP’s ability to perform the tasks it was mandated to carry out. I feel that the SCA should step forward now to convince the new administration that irreplaceable cultural resources should not be simply set aside due to budget shortfalls. I have the experience and energy to try to affect such an outcome in addition to maintaining the course the SCA is already on.

- **Shelly Davis-King**, Principal and Senior Archaeologist, Davis-King & Associates, Standard, CA.


*Professional Affiliations*: Society for California Archaeology (Co-Program Chair, Past Finance Committee Chair, Native American Programs Committee; Standards and Ethics Committee; Committee for Advanced Annual Meeting Planning), Register of Professional Archaeologists, Society for Historical Archaeology (Government Affairs Committee), California Council For the Preservation of History, National Trust for Historic Preservation, Society for Industrial Archeology, Archaeological Conservancy.
Candidate Position Statements

**Position Statement:** In 1967, while cranking out the SCA Newsletter on a UCSB mimeograph machine, a founder of our organization said to me, “get involved, Shelly, and stay involved if you care about the sites.” In those days archaeology was about the race to preserve major sites facing the bulldozer. Pay for salvage work came with a plate of spaghetti if we were lucky. As our organization has grown over some 35 years, it is still about staying involved and caring about the sites. The methods, techniques, issues, and mercifully, the pay (!) have improved, but some of the underlying issues of concern remain the same: How do we get effective training into the curriculum? How do we deal with the few unethical in our midst who refuse to care for the resources? How well do we integrate ethnic and other groups into the identification and treatment of resources? How well do we pass valuable data on to the public and how well do we preserve and interpret them for future generations? I believe effective preservation of cultural resources must become a higher priority than it is. We need to address “mitigation measures” and hold think-tanks for sharing of effective treatment measures. We must stay abreast of legislation that threatens to undermine historic preservation and we must promote legislation that enhances historic preservation for all citizens. We must address training, curation, certification, and professional ethics while promoting site stewardship and avocational involvement. While solutions can not be accomplished in a single term, these are the policy areas that interest me most should I be elected your president.

For Northern Vice-President

- **Karin Anderson,** Cultural Resources Program Manager, Redwood National and State Parks

*Education and Experience:* I have been involved in California archaeology and cultural resources management for the past 13 years. I started my career with the US Forest Service as an archeological technician, worked for many years in the private sector as a contract archeologist and environmental planner, then for California State Parks as an associate state archeologist, and am currently the cultural resources program manager at Redwood National and State Parks in Humboldt County—the best job I’ve ever had.

*Position Statement:* This year’s data share at Humboldt State University revisited research and theoretical perspectives on the archeology of north coast California. And whether you agreed or disagreed with the presenters at hand, by the end of the afternoon people were talking local archaeology. Instead of the day to day of our everyday jobs, I was reminded of why I got into archaeology in the first place. This is exactly why I am running for the Northern California VP. The SCA is, and has been, the venue for California archeologists to maintain connections with fellow archeologists, Native Americans, and cultural resources managers. For many years I have stayed in touch with my colleagues through the SCA Newsletter, annual meeting, and data shares. This year, I would like to take the opportunity to give back some of my time and resources to the SCA. And now that I finally feel more settled, I feel that its time to take a more active role in the SCA community, and run for Northern California VP. I hope that you will afford me this opportunity. Thank you.

- **Laura Leach-Palm,** Far Western Anthropological Research Group, Inc.

*Education:* I am in my sixth year working with Far Western Anthropological Research Group, Inc., in Davis. My work background is diverse: M.A. in Archaeology from Boston University (1986), M.A. in Anthropology from Stanford (1990), CRM experience in various states on the east and west coasts, and the Southwest.

*Position Statement:* With Far Western I work as a Field Director in Central and Northern California, spending lots of my time on cultural resources inventories for Caltrans Districts 5 and 10. Serving as Northern Vice-President I would follow up on the advice of Terry Jones and Rick Fitzgerald (SCA Newsletter 37[3]) and promote informal regionally-focused data-sharing meetings that facilitate conversation and connections, and encourage Native American and student participation. I am interested in developing venues where members can put their own ideas and interests into action.
Candidate Position Statements

For Treasurer

• Janine Loyd, Tom Origer & Associates

Education: BA Sonoma State University.

Professional Background: Twelve years with Tom Origer & Associates, and thirteen years with the Anthropolological Studies Center, Sonoma State University. Ending a two-year term as Secretary/Treasurer of the International Association for Obsidian Studies.

Position Statement: "The members of the Society deserve timely and concise information about the issues that come before the Executive Board. I recognize that the Secretary of the SCA is the conduit that converts hours of meeting time to an accurate and manageable report. I have the experience to fulfill this obligation, and I will be happy to serve as Secretary.

On Student Participation at the SCA Annual Meetings

Mark Q. Sutton
Dept. of Sociology and Anthropology
CSU Bakersfield

Over the years, my CSUB colleagues and I have received a number compliments about bringing our students to the annual meetings, having them present papers on their work, organizing symposia and posters, and generally having them around to learn and network. We hear comments such as “you guys do a great job,” “good work,” “it’s great to see students here,” and the like. These are nice compliments and we appreciate them. We work hard to involve our students by encouraging them to attend the meetings, shepherding them through the process of giving their papers, and making sure they have the opportunity to meet people. And of course, we CSUB professors also attend.

Out of the Pits:
Guest Editorials on Problems and Prospects in Professional Archaeology—in California and Beyond
Each time I hear one of these comments, I wonder whether we are really that good, or whether, in reality, other schools are that bad. I wonder where the other academic programs and their students are. I wonder why the other CSUs and UCs don’t have their students at the meetings. Then I wonder if my “impression” has any basis in fact.

A hurried examination of the last three SCA programs revealed that last year (2003), about 25% of the symposia were organized by faculty, 15% of the papers were presented by faculty, and 10% of the papers were given by students. In 2002, the numbers were 40%, 17%, and 21%, respectively and for 2001, they were 25%, 14%, and 17% respectively. These numbers are not as bad as I had originally thought, but the student paper numbers are somewhat inflated, since about a third of them were from CSUB. Also, in thinking back, I can remember seeing academic faculty attending the meetings that I did not see in the program.

So, what’s the problem? Is academia, particularly students, underrepresented at the meetings? If so, there could be several reasons for this. First, I guess it is possible that CSUB is the only program active in California archaeology and no other universities or colleges have any students doing things worthy of paper presentations. However, given that there are nine UCs, 23 CSUs, a number of private universities, and 107 community colleges, I doubt it (although one must keep in mind that not all schools have California programs, some do not have graduate programs, and others have small numbers of students). Second, it may be that we at CSUB are just nuts and set an impossible standard. The nuts part may have merit, but I do not think that the standard of getting students involved in the meetings is too high. Third, it could be that most professors are swamped with work and just cannot find the time to get involved at the level necessary. I suspect the latter is the real issue.

Another part of the problem may be the timing of the SCA meetings. The SAAs are held at about the same time, as are the national physical anthropology meetings, the ethnobiology meetings, and SWAA. Many people feel they must make a choice of which meeting to attend, and SCA often gets the short straw (if you can afford to go to one meeting, you may chose Montreal over Sacramento). Perhaps the SCA should examine whether changing its meeting dates could help.

Most faculty have a large teaching load and their time is limited. In many cases, those same faculty are doing some CRM work, further limiting their time (although increasing the potential to have students work on projects). However, everyone is working hard and has limited time, which weakens that argument.

Dealing with students is very time consuming. Each of them will give their first paper at some point and many need a great deal of support to see them through it. Their second paper is easier and eventually they can be largely on their own. If they do not learn to do this at the university, where will they learn it? It is important that future professionals be “raised” in a “culture” of attending meetings, presenting their findings, sharing their data, getting new ideas, publishing, and then helping the next generation. This is not an easy task for faculty, but it is important that we do it.

At CSU Bakersfield, we have developed a system to involve students from start to finish. We teach our field class in the spring, preferably on a “small” project that we can reasonably expect to complete. In the fall, we teach the lab class, where students (most of whom were in the previous field class) work on cataloguing and analyzing the materials excavated by the field class. Part of the expectation of the lab students is that they will produce an SCA paper for presentation the next spring. Most do not complete such a paper in the fall and need the winter quarter to finish, just in time for the SCA meetings. It is a labor-intensive system for faculty and students, but it does work. There are, no doubt, other models that would also work.

On a related point, some meetings have special “student sessions,” designed, I think, both to encourage student participation and to lessen the anxiety of presentation. I understand that there is such a plan being considered for the upcoming 2004 SCA meetings. I don’t like it. If students have something real to contribute, let them do it with the rest of us. I do not think we should segregate students or devalue their contribution by making them “sit at the kids’ table.” If their paper is not a real contribution, they should not present it at a professional meeting. Anyway, having special student sessions would not lessen the load on faculty working with the student.

Over the years, I have heard some faculty complain that “the meetings have become nothing more than a CRM convention,” said, I think, as some sort of rationalization not to attend. If indeed the SCA has become such an event, it is because of the lack of participation by faculty (and so their students). All of us have to go through the university setting to get our degrees. We get out of it what our professors give us; in attitude, in responsibility, and in participation.

“Out of the Pits” contributions are welcome.

Please contact the editor for more information.
News and Announcements

Announcements

Threat to Important Federal Preservation Statute

As part of “reevaluating” of all things environmental and preservationist, the Bush Administration wants to change Section 4(f) of the Transportation Act—very important to historic preservation in FHWA projects and administered by CalTrans here—to make the Secretary of Transportation the final authority in matters of historic preservation for Federally funded or permitted transportation projects. This would, no doubt, wreak havoc on the system and cause untold loss of valuable properties until the inevitable just-so-bad-we-can’t-stand-it example swings the pendulum the other way.

Go to http://www.nationaltrust.org/issues/transportation/4f_overview.html for a summary of what this is all about from the National Trust for Historic Preservation. And check out the Washington Post version at http://sfgate.com/cgi-bin/article.cgi?f=/c/a/2003/12/04/MNGIF3EROU1.DTL.

Letters to your Representatives and Senators can help forestall this detrimental change. You can e-mail, but politicians always say a real paper letter carries more weight. It’s important to ask that they keep in touch with you about the specific issue and tell you what their position is—this lets them know constituents are actually watching. I urge you to get active contacting your reps and senators to put a halt to this disaster.

New NPS Associate Director of Cultural Resources

Dr. Janet Matthews has been appointed Associate Director, Cultural Resources, Washington, D.C. Dr. Matthews was selected for this prestigious position based on her many strong and very solid years of experience in historic preservation. She comes to the NPS from the State of Florida where she currently serves as Director, Division of Historical Resources for the Florida Department of State and as State Historic Preservation Officer. She will begin her new assignment on January 5, 2004.

“I am excited to announce that Dr. Matthews has agreed to join the National Park Service management team as the Associate Director, Cultural Resources,” said NPS Director Fran Mainella. “Jan brings to the job an enviable record of leading one of the nation’s flagship programs where she has been responsible for directing historic preservation, archeology, artifact collection and curation, the nation’s largest general-revenue funded grants program, NAGPRA issues, and museum management. Her long record of dedication in the cultural resources field makes her an excellent choice for this responsibility.”

Dr. Matthews has more than 25 years of experience in researching, authoring, publishing and interpreting American history in both the private and public sectors. She has held her current position with the State of Florida since 1999 and is a National Trust for Historic Preservation Emeritus member of the Board of Advisors, having served three successive terms. In 2002, Janet was appointed by Secretary of the Department of the Interior, Gale Norton, as a member of the National Park Service Advisory Board, with responsibility for advising the NPS and Department of the Interior on matters such as administration of historic sites, buildings and designation of National Historic Landmarks.

“This is a marvelous opportunity,” said Dr. Matthews. “The National Park Service is the premiere agency for cultural resource stewardship. I am honored to be selected to join forces with the many career professionals who do such exceptional work to inspire and benefit the nation as a whole through an understanding of the wonderfully diverse cultural heritage that binds us. Together we can accomplish great things.”

As a member of Florida’s Acquisition and Restoration Council, Dr. Matthews participated in the review and ranking of $300 million in public acquisitions annually through Florida Forever, the nation’s largest land acquisition program. She has a strong background in developing and enhancing preservation programs.

During the past several months, Dr. de Teel Patterson (Pat) Tiller has been serving as the Acting Associate Director for Cultural Resources. Pat has served ably not only at the Washington Office but in the field as well, working closely with parks and programs on a number of highly visible and challenging issues including Save America’s Treasures, Preserve America, and destruction in several eastern seaboard parks caused by Hurricane Isabel. With the selection of Dr. Matthews, Pat will return to his position as Deputy Associate Director, Cultural Resources in an enhanced role with reporting of sections through him to the Associate Director.

Dr. Matthews is a native of Ohio, where she earned a Bachelor’s degree from Kent State University and a Master’s degree from The Ohio State University. Dr. Matthews earned a Master’s and a Doctorate from the Florida State University where her dissertation focused on the African-American heritage of Southwest Florida from 1841 to 1927, from the antebellum period through the Seminole conflicts, freedom of slaves in Union-held ports such as Key West, and the establishment of the first high school for African Americans in Southwest Florida. Dr. Matthews has served as an adjunct instructor at Florida State University since 2001, where she teaches “Historic Sites and Preservation” to post-graduate and undergraduate students.
News and Announcements

Slides Slipping Out of the Picture

Eastman Kodak Company has confirmed plans to discontinue the manufacture and sales of slide projection products and accessories in June, 2004. This early disclosure is being made to key user groups in order to allow time for adoption of a replacement technology or purchase of backup slide projector products.

The Kodak products included in this event are CAROUSEL, EKTAGRAPHIC, EKTA LITE and EKTAPRO slide projectors and all Kodak Slide Projector accessories. The current plan is to cease manufacturing in June 2004. Kodak anticipates that small quantities of new Carousel, Ektographic, Ektalite and Ektapro slide projectors will be available through the end of 2004. In addition, the Kodak distributor, Comm-Tec, in Germany plans to sell Ektapro projectors and accessories beyond 2004. Kodak will offer service and support for slide projectors until 2011.

Calib 4.4 Available On-Line

Paula Reimer  
Center for Accelerator Mass Spectrometry  
Lawrence Livermore National Laboratory  
Livermore, CA 94550

CALIB 4.4, the updated radiocarbon age calibration program, is now available on-line. The program and datasets can be downloaded from http://depts.washington.edu/qil/dloadcalib/. The new version incorporates the option to use the Southern Hemisphere calibration dataset, adds a decadal extension of IntCal98 to the single year dataset, and corrects a rare problem in CALIB 4.3 with missed probability ranges due to flat regions of the probability distribution.

The program has a graphical user interface with a help system. The Macintosh version of CALIB 4.4 is not yet available, but an on-line version with most of the same features can be executed at http://www.calib.org. Users will note that the intercept method (Method A) is no longer available. For details see the CALIB 4.4 manual at http://radiocarbon.pa.qub.ac.uk/calib/manual.

Are You a “History Detective?”

The new national PBS series “History Detectives” is beginning its second season and seeks stories suggestions from around the country. Ideal stories focus on physical objects—buildings, homes, artifacts, industrial relics—that have a connection to important American history and have a question, curiosity or mystery surrounding them. In the show, our hosts then investigate the items while discussing the relevant event or historical period. If you have or know someone who has some such item or can suggest other avenues for inquiry, please contact Ross Tuttle at ross@liontv.org.

Ross Tuttle, Lion TV  
307 Seventh Ave., Ste 1607  
New York, NY 10001  
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Meetings and Exhibits

USF/Mission Dolores Exhibit

Mission Dolores and the University of San Francisco announce a special event and exhibit: “Materials of Faith: The Vanishing Art of Liturgical Textiles.” This exhibit, curated by Shannon Halverson of the University of San Francisco, will feature important liturgical textiles from the collection of Mission Dolores. Highlighted will be textiles which are no longer utilized due to changing liturgical practices and tastes. This special exhibit features articles from three centuries and will include both extraordinary examples of silk weaving and lace making and also items of aesthetic lapses of taste.

The exhibit will open with a reception. Br. Guire Cleary, SSF, curator of Mission Dolores, will give a talk on “Dignity and Grandeur: Liturgical Textiles.” Part of this talk will focus on liturgical textiles as women’s outsider art and offering. Light refreshments will be served.

Opening: Thursday, December 4, 2003  
Time: 5:00 P.M.  
Place: Rare Book Room of USF Gleeson Library

The exhibit will be on display until January 30, 2004. Mission Dolores wishes to thank the California Missions Foundation whose generous grant made possible the conservation of these historic textiles by the De Young Museum Conservation Laboratory.

California Mission Studies Association Annual Conference

The 2004 CMSA conference will be held at Mission San Luis Obispo on February 13-15, 2004. The planning committee, headed by Bill Fairbanks of Cuesta College, is putting together what promises to be one of the best conferences yet. The registration form is available at http://www.ca-missions.org/confreg.html. The conference web site (http://www.ca-missions.org/conf.html) has hotel information as well. Please register and make your lodging arrangements early!
**2004 Annual Meeting**

**Update on the 2004 SCA Annual Meeting, Riverside, March 17–20, 2004**

Michael K. Lerch, Local Arrangements and Program Chair
Statistical Research, Inc., Redlands, California
(909) 335-1896, mlerch@sricrm.com

The 38th Annual Meeting of the Society for California Archaeology will be held at the Riverside Convention Center, located just a few blocks from the junction of the 60 and 91 freeways, and 20 miles east of Ontario International Airport (ONT). Conference accommodations will be available at the Riverside Marriott and at the Mission Inn.

**Program**

The theme for the 2004 Annual Meeting is “Looking Ahead for a Better View of the Past.” The program is developing quite well, with 15 organized symposia and more than 120 individual papers lined up so far. In addition to these we expect many more contributed papers to be submitted by the December 23rd deadline (see below). Several workshops are also being planned, as well as the usual compliment of meetings, training, and gatherings for site stewards, avocational societies, and SCA board members.

The 2004 meetings will begin on Thursday morning with a Plenary Session on DNA Contributions to Archaeology, with papers on Ancient Mitochondrial DNA Analysis, Y Chromosome Analysis, DNA Studies with Living Southern California Indians, and Historical Archaeology and Donner Party mtDNA.

Thursday afternoon will see symposia on Archaeological Science and Material Culture in Historical Archaeology. Friday will have symposia on California Ethnography and Ethnohistory, along with Cultural Landscape in the Lower Colorado Desert, Archaeology of Fortifications and Families at El Presidio de San Francisco, and Holocene Adaptations at Goleta Slough in the morning; with 50 years of China Lake NAWS Archaeology, Newport Coast Archaeology, and Archaeology and Public Interpretation in California in the afternoon. Planned symposia for Saturday morning focus on current research in the Santa Rosa/San Jacinto Mountains National Monument and Papers in Honor of Jay von Werlhof, which will continue through the afternoon. We will also have several general sessions of contributed papers on northern and southern California archaeology.

An all-day session on Saturday commemorating the 20th anniversary of major contributions to California archaeology by Michael Moratto and Joseph and Kerry Chartkoff will focus on the Current Status of California Archaeology. It will feature thematic papers on Paleoenviroment, Paleoindians, Linguistics, Trade and Exchange, and Rock Art; along with current synthetic reviews of nine regions of the state, followed by comments from Moratto and Joseph Chartkoff. This session will be open to the public and will conclude with a reception where SCA members and the public may visit with the original authors and current speakers.

**Events**

Early arrivals can renew acquaintances and catch up on news at a Wednesday night welcome reception. In response to feedback from the 2000 meetings about inadequate bar space in the hotel, we have arranged to have our own hospitality room in the Convention Center. The SCA Café, Bar, and Grill will offer a convenient place to congregate between papers, with refreshments and snacks for sale.
throughout the day. Thursday evening, the Silent Auction and party with dinner and live music will be held in nearby Redlands at the offices and courtyard of Statistical Research, located in a restored 1890 brick warehouse in the Santa Fe Depot National Register District. The awards banquet Friday night will feature keynote speaker Dr. John Rick, who will present a program on his research at Chavín de Huántar, Peru.

Planned field trips include treks to the the Santa Rosa/San Jacinto Mountains National Monument, Panamint Valley Geoglyphs, and to Little Petroglyph Canyon on the China Lake Naval Air Weapons Station, as well as other, closer, destinations to be announced.

Second Call for Papers

Proposals for contributed papers and posters are requested for the 2004 SCA Annual Meeting. The form for proposals and abstracts was printed in the September Newsletter. Abstracts of 100 or fewer words may be submitted using a hard copy of the form or electronically as email attachments in Word, WordPerfect, or text (.txt or .rtf) formats. The maximum length for papers is 15 minutes. Please direct all submissions to Mike Lerch, Program Chair, in care of Statistical Research, Inc., P. O. Box 390, Redlands, CA 92373.

The deadline for abstracts for contributed papers and posters is December 23, 2003. With the exception of slide and overhead projectors, presenters must supply their own audiovisual equipment. Screening rooms will be available at the meetings to check your slides or overheads.

Student Paper Competition

Students are encouraged to submit entries for the Student Paper Award. The papers will be judged by a panel of SCA board members, and the winner will receive $250 in cash, a banquet ticket, and an SCA certificate. We are soliciting sponsorship to expand the awards to other notable student papers as well. The deadline for student paper entries is February 1, 2004. Papers should be submitted to the SCA Business Office, along with a cover letter from your advisor indicating that you are enrolled in a degree program with a focus on California anthropology.

Meeting and Hotel Registration

Preregistration packets will be mailed to all SCA members in January, and will be due by February 20, 2004. We have reserved a large block of rooms at the Riverside Marriott, directly opposite the Convention Center, with single and double occupancy rooms at $95. We also have a smaller number of rooms set aside at the historic Mission Inn, located a block away, with rooms for $115. Watch for the meeting announcement in the mail and plan to attend the 2004 Annual Meeting in Riverside!

From the President (continued from page 3)

more accessible to the general public and to build support for preserving prehistoric archaeological sites”. Brian was unable to attend the event due to prior commitments, but joining me in accepting the award were Ken Wilson, representing the Bureau of Land Management, and Greg Greenway, representing the U.S. Forest Service. Sincere thanks are extended to Brian Fagan for penning the book, to Alta Mira Press for publishing it, and to Russ Kaldenberg for nominating the Society for the award. Also receiving a Governor’s Historic Preservation Award was China Lake Naval Air Station for its decades of commitment to managing cultural resources. Society member Carolyn Shepard, who heads up the Environmental Project Office at China Lake, and who has been so instrumental in the success of its cultural resources management program, accepted the award. Other Society members who attended the award ceremony were President Elect Amy Gilreath and State Historic Resources Commissioners Bill Hildebrant and Mary Manieri.

Also in November, I had the pleasure to represent the Society at the IV Binational Symposium “Balances and Perspectives, Anthropology and History of Baja California” held in Tecate, Baja California. This two-day event, co-sponsored by the Society and the Bureau of Land Management, brought together researchers from both Baja and Alta California to share results of recent research. Three seminars were held, focused on archaeology, the contact period, and Native groups. Society members who presented papers included Eric Ritter, Don Laylander, and Matthew Des Lauriers (see page 5). Also attending was Society Past President Ken Wilson, representing the Bureau of Land Management. The program also included a Native Cultural Night, where local Tecate Kumeyaay provided colorful recollections of their culture and history, all expertly interpreted by ethnographer Mike Wilken. The Binational Symposium is truly a wonderful event, bridging the political boundaries of Baja and Alta California, to provide a seamless border for regional cultural research.

In closing, I would like to extend my best wishes to all members for a peaceful and joyful New Year. Don’t forget to mark your calendars for attending the Annual Meetings, March 17-20, 2004 in Riverside.

— Elena Nilsson
News and Announcements

Archaeological Conservancy Receives Site in Amador County

Julia G. Costello

In a commendable example of cooperation and innovation, a prehistoric site in Amador County (CA-AMA-360/H) has been deeded to the Archaeological Conservancy, with local Miwok serving as site monitors. Its protection is insured at negligible cost to the developer, who may receive any tax benefits created by this donation.

Cultural resource studies, under CEQA (the California Environmental Quality Act), were conducted in 1991 as part of developing the Ponderosa Hills subdivision on Highway 88 in Amador County. A prehistoric site, reoccupied by a cabin in the 1930s, was discovered and recorded by Lyle Napton and Elizabeth Greathouse. Subsequently, Debra Grimes of the Calaveras Band of Miwuk Indians began consultation with the developer, Bob Reeder. The site was reexamined in 2002 by Julia Costello and Shelly Tiley to establish mitigation measures for project approval by the County Planning Department.

Most of the artifacts recorded in 1991 had been observed in or on the edge of a recently excavated backhoe trench. By 2002, vegetation once again obscured the ground surface. Noted in 1991 were one granite mano, three tan chert interior flakes, three dark metachert interior flakes, and three obsidian interior flakes. The trench itself was quite small, measuring only an estimated five feet long by 24 inches wide, with unknown depth. Artifacts observed outside the trench included a second granite mano, a quartzite single platform core, and a metate. The density of artifacts observed, particularly within the trench, is quite impressive, and may indicate a buried deposit. No soil development was noted anywhere on the surface of the site, but its presence on a small bench at the base of a steeper slope may have created an environment for slope wash, which may be burying cultural soils.

The site’s exact boundaries remain unknown in the absence of subsurface testing, but there is a rather constrained area in which site deposits might be found. On the steeper hillside above the site, historic disturbance is quite obvious, and the site is bounded at the lower end by Grass Valley Creek, which has been subjected to hydraulic mining, and is therefore cut back and steepened. The small rise upon which the site is situated, however, appears to retain its depositional integrity.

In order to be certain of preserving the site without subsurface testing, the most prudent course was to protect the entire small landform upon which it is situated. Boundaries established to amply include its largest possible extent also preserved the locational integrity of the site. The small rise perches above the creek, an important resource, and it would be easy for the casual visitor to envision the use of this area in the remote past.

The developer Bob Reeder was interested in Grimes and Costello’s proposal for deeding the site to a conservation group in lieu of test excavations; Steve Branco of the Planning Department also agreed. Local conservation groups were approached and although there was some interest in receiving an archaeological easement, none were willing to assume the liability responsibilities of full ownership. While an easement would be acceptable, experience has demonstrated that outright ownership is the ultimate insurance of site preservation. At this point Gene Hurych, Western Regional Director of the Archaeological Conservancy was contacted and expressed enthusiastic interest in the project. Subsequent negotiations resulted in transfer of title on July 28, 2003.

Although gaining in popularity as a method to protect historic sites, this is the first successful donation of land in either Amador or Calaveras Counties to a private, non-profit entity, in this case the Archaeological Conservancy. Local monitoring of the site will be undertaken through an agreement between the Conservancy and the Calaveras Band of Miwuk Indians in West Point. The site will be fenced and posted with signs indicating its protected status. Located adjacent to one of the development roads, its visibility and notoriety will allow it to be monitored by neighborhood residents.

The success of this project depended on willing negotiations between the developer, archaeologists, Native Americans, Planning Department, and Archaeological Conservancy. We hope this “win-win” project will provide a model solution for other sites in our area: the developer saved the expenses of archaeological testing and possible mitigation studies, the Conservancy assumes responsibilities of ownership, and preservation is insured through the watchful eye of the local Native Americans.

From left to right, archaeologist Julia Costello, Developer Bob Reeder, Native American Debra Grimes, and Archaeological Conservancy Western Regional Director Gene Hurych.
This series offers an annotated bibliography of recent published and some unpublished literature pertinent to current debates and methods in Californian archaeology. Prehistoric and historical archaeology will appear in alternate issues. If you have any news or ideas about how this section can better fit the needs of its audience feel free to email the author: Denise_I._Thomas@dot.ca.gov. Please limit contributions to those that can be easily accessed by all members of the SCA and have appeared within the last five years.

Hyder, W.D. and D. Caloss

Rock art styles defined by Heizer and Baumhoff (1962) are still applied to establish and interpret prehistoric social and possible religious cultural systems in Great Basin petroglyph and pictograph analyses. Hyder and Caloss contend that the traditional curvilinear-rectilinear-representational style definitions are antiquated and should be re-evaluated. The authors propose six possible style classifications and style variants based on their research of rock art sites located on the Volcanic Tablelands north of Bishop, California.

Heizer and Baumhoff’s initial style attributes include grooving, precision, composition, erosion and patination, distribution at a site, distribution in a region, and dominant elements. In addition to evaluating rock art using these stylistic aspects, Hyder and Caloss incorporate archaeological context and audience perspective in their proposed classification system (i.e. artist choices such as medium, tools, content, and tradition).

The Tablelands Classic Style generally applies to rock art forms that tend to be common to the Tablelands. The style includes abstract lines, boundary or ground lines that encompass or extend over a panel, circular and rectilinear elements, bird tracks, bear tracks, human footprints, snake-like elements, and rakes; designs lack symmetry. Based on the superimposition of grinding slicks over Classic figures, they are recognized as an earlier cultural expression. Characteristics of Tablelands Variant A include crafted, dense, large panels with an abundance of human figures, sheep, and other quadrupeds represented. Unlike Variant A, Tablelands Variant B show few anthropomorphic or zoomorphic elements. The Tablelands Vulgars Style is an indiscriminate variety that consists of lower quality, shallow, indistinct elements that are commonly found adjacent to occupational sites. Lastly, Hyder and Caloss define the Owens Valley Paiute Domestic Style and the Western Shoshone Style, primarily based on ethnographic sources of function and meaning ascribed to the rock art elements. In conclusion, the authors advise that the methodology for defining styles for this study considers a restricted geographic region with a limited number of sites and further, that regional extension of proposed style classifications should be used with discretion.

Trubitt, M.D.

Trubitt presents on overview of current archaeological perspectives relating to the production and exchange of marine shell ornaments with particular attention to production and consumption systems of shell ornament prestige items.

The first section of the article is devoted to the discussion of marine ornaments as prestige goods and their role in prehistoric economies. The difference between prestige and utilitarian goods is founded in the differential value and treatment attributed to these resources. As Trubitt points out, prestige goods are often made of non-local materials, are curated rather than consumed, and used in a variety of social, economic, and political exchanges. Additionally, prestige items are usually exchanged over longer distances and between complex elite networks. The author presents contemporary theoretical models involving prestige goods economies.

In the second segment, Trubitt presents an overview of archaeological research of shell ornament production systems and leads discussions relating to 1) material, tools, and techniques of shell ornament manufacturing, 2) research on the organization of production, 3) producer and consumer identity, and 4) mechanisms of distribution and circulation of shell. Ethnographic analogues are offered as a means to interpret archaeological expressions of shell ornament remains.

Lastly, Trubitt recommends three fields of future research. To understand the shell prestige goods production and exchange systems, future study should be directed toward identifying production locations and discard sites by investigating unworked raw material, manufacturing debris, broken or unfinished ornaments, and manufacturing tools. Additionally, future study of marine shell imagery and iconography is needed to interpret prehistoric use and
symbolism integrated in prestige goods exchange systems. Finally, Trubitt recognizes the need to further identify the crafters and consumers of shell ornaments and other prestige items. She recommends more effort in analyzing divisions of labor and other social dimensions of shell production and utilization such as gender, age, kin relations, and ethnicity.

Nicholls, A., E. Matisoo-Smith, M.S. Allen

Researchers from Pacific Palaeocological Research Laboratories and University of Auckland, New Zealand conducted a pilot study to determine whether mitochondrial DNA (mtDNA) analysis could be used to determine precise taxonomic identifications on archaeofaunal fish remains. The identification of fish bone from archaeological contexts are generally based on morphological analysis of a relatively restricted number of skeletal elements. Difficulties tend to arise when trying to classify the specimen beyond the familial level. The authors suggest that these gross determinations can often mask subtle changes in subsistence patterns or fishing technologies.

Using the family Serranidae (groupers and rock cods) as a case study, Nicholls et al. describe the molecular technique used to analyze two archaeofaunal collections recovered from two ecologically different prehistoric sites; a rockshelter on an offshore islet with a 700-year sequence of human occupation and a mainland site with a 1000-year sequence.

Modern comparative samples were collected to act as a baseline during analysis. Of the 29 archaeological bone samples processed, 21 produced decipherable DNA sequencing. Nineteen of these 21 specimens were successfully identified to the level of two genera and four species within a single family. The identifications were made by comparing the archaeological mtDNA with the modern 16s sequence which allowed a preliminary species identification based on nucleotide similarities, with particular attention to insertions and/or deletions in the genetic sequence. All archaeofaunal and equivalent modern sequences were then aligned using the Sequencher™ version 3.1.1 software package. Although the study is preliminary, the results appear to indicate that mitochondrial DNA can be used with a relatively high degree of success to establish fine-grained taxonomic identification of complicated archaeofaunal assemblages.
From the Inside Looking Out

Russell L. Kaldenberg, Archaeologist
Past President Society for California Archaeology

I worked for the Bureau of Land Management and the United States Forest Service for 27 years as an archaeologist, historic preservation specialist, and for seven years as a line manager. Both of these agencies are staffed by wonderful people committed to saving the past for the future. Their lands are set aside for multiple use. Both agencies are akin to large planning departments, setting aside x acres for recreation, x acres for energy development, timber harvest, resource conservation and woven throughout this effort is a quest for the preservation of archaeological, cultural, and paleontological resources. Both agencies are terribly underfunded. Last I heard the Forest Service received about $1.00 per acre for resource management and the Bureau received about 25 cents. Obviously it is not enough if the figures were ten times that. Cultural resources receives its share, which in BLM California in FY 2001 was a nickel an acre for the management of the historic resources found on its 12 million acres. That figure is entirely accurate.

Less than a year ago I had the opportunity to change jobs. It meant a change of agencies and departments. I became the archaeologist, paleontologist, historic preservation specialist (prehistoric archaeology, historic archaeology, historic buildings and non-culturally related fossils) for China Lake Naval Weapons Center in China Lake, California. What a difference a year makes!

China Lake was created on November 8, 2003. The United States Congress withdrew and fee simple purchased 1.1 million acres of lands in the southern Great Basin and Northcentral Mojave Desert for the purpose of military defense and research. The Base contains 1.1 million acres, less than 5% of which is disturbed according to Planner John O’Gara. The Base is divided into the North Range and the South or Echo Range. It is loaded with archaeological and paleontological resources. It has special Native American values. It has special historic resources. Approximately 10% of the Base has been inventoried. About 4,000 sites have been recorded.

The Base is best known archaeologically for the Coso Rock Art National Historical Landmark (NHL), 6,000 acres of archaeology containing tens of thousands of rock art panels and millions of rock art elements. The NHL was studied extensively by Amy Gilreath and Bill Hildebrandt of Farwestern Anthropological Group (FARWG) from Davis. They studied the resource and redrew the old NHL boundary to include over 5,000 additional acres of resources. The FARWG also extensively studied the Coso Geothermal area and the Sugarloaf Obsidian source. Recently they have concentrated upon examining the pinyon zone where they have found extensive archaeological resources, late prehistoric petroglyphs, historic woodcutter’s camps and other mining related sites. Mary Manieri of PAR in Sacramento has studied the early historic military Fort and the Coso Historic Village site. Through Epsilon Systems, under the management of Greg Halsey, the Base is studying the archaeology of archaeology at Lake China where Mark Bagavol is reconstructing the work Emma Lou Davis did on early use sites in the 1960s.

William Cleowlow, Jr. and his company Ancient Enterprises are redefining the prehistoric resource at Pothunter Springs which they studied over 20 years ago. Yes, archaeologists are able to restudy these areas because they still exist and have not been impacted by casual use.

John Cook at ASM is studying the Late Pleistocene/early Holocene use at ancient Lake Searles adjacent to the BLM ACEC for Christmas Canyon, where resources were impacted OHV activities during the past few years. The resources on the Base are impacted by age, by the weather, and by some casual use but not by permitted activities.

EDAW under Jamie Cleland in San Diego and Richard Deis from Sacramento have studied thousands of acres on the South Base and have recorded the preserved remains of the Twenty Mule Team Borax route which ran from Harmony Borax Works Death Valley to the railhead at Mojave. The entire route is still there and the stage stations (service stations as they were called) can still be located.

The Base welcomes tours to Little Petroglyph Canyon, one of the best preserved petroglyph sites in the United States. Escorts are required and the base provides the training, the necessary monitoring, and review. Special
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access is given on a case by case basis to folks who want to see or study other rock art sites.

The seven local federally recognized tribes and the two non-federally recognized tribes have had access to the Coso geothermal area through a Memorandum of Agreement since 1979. Working with the tribes is partially my job. Becky Jensen is the primary contact person. She is the geothermal specialist for the Environmental Planning Department. Presently the Base is working with the tribes on a number of agreements including Data Management where they will be afforded access to cultural resource data.

This year a Friends of China Lake Archaeology was created. About 25 people meet every other Friday to transform the old Ice House into the China Lake Curation Facility and Archaeological Laboratory. In less than a year the combined effort of these people have nearly finished the facility. Most items were donated and most of the time was generated by the good will of both military and civilian employees of the Base.

Is this different from what I experienced with the BLM and Forest Service? Indeed it is different. Why? One of the major reasons is that most of the resources of the Base are behind a patrolled fence. What is not behind a fence is still controlled by numerous levels of security. Anyone coming on the base must have a badge obtained after a security check. Several levels of law enforcement control Base access as well as patrol the range. Cultural resources are not hammered like they are on public lands. Nothing is perfect though because sites are subject to visits by human beings during their jobs, after hours and of curiosity. It seems that many people simply like to look at historic properties even if it is not within the purview of their job. That is one reason to establish a volunteer program, to channel that energy within the boundaries of a base just as BLM is working to harness the energy of volunteers on public lands through the award winning Site Stewardship program and the Forest Service through Passport in Time. So fences, patrols, processes for access, and the dedication of Base staff are key to preserving our heritage resources and keeping them in relatively good condition. I enjoy being on the inside of a fence and looking out for a change, knowing that I should be able to leave a legacy of extant sites for future researchers, rock art interest groups, Native Americans and folks who just plain enjoy America’s heritage.

And to end on a really positive note, China Lake Naval Weapons Center, under the direction of Carolyn Shepherd just won the Governor’s Award for Historic Preservation. China Lake is the first military instillation to be so honored. As Steve Mikessall, Deputy State Historic Preservation Officer stated “This award is really for Carolyn Shepherd’ program direction, unfortunately awards can only be given to institutions, but we all recognize that Carolyn is being awarded this honor for her 28 years of outstanding heritage preservation stewardship at China Lake.”

A Different Approach

Charlene Gross and Brian Ludwig
EDAW, Inc.

Archaeological survey methodologies can vary considerably depending on the region a survey is being conducted, and the associated topography, climate and vegetation. In the western states, in general, field inventory consists almost exclusively of pedestrian surveys conducted utilizing regularly spaced transects. Surface artifacts and features, when encountered, are mapped but typically no materials are collected except for diagnostics. While the authors appreciate the simplicity of this method and finding artifacts sitting on the surface where they may have lain for thousands of years, experience tells us such easily won data doesn’t necessarily tell the whole story. Each of the authors has spent many years working in the eastern states, as well as out west, and this has given us a different perspective on survey and inventory techniques.

Although it may involve stating the obvious, there is a need to discuss the reasons why inventory methods differ so dramatically between the east and the west. At its most basic level, survey technique in the east is defined by two main factors: year-round precipitation and deciduous leaf fall. Rain, and the accompanying erosional and taphonomic factors, tends to transport soils and sediments at a rate rarely seen on a large scale in the west except on and near certain landforms where intense erosion and deposition can occur on a seasonal basis. Consequently, archaeological materials originally deposited on a ground surface subject to even slight erosion or deposition can be buried within a very short period of time in eastern settings, often within days or weeks.

Vegetation density, growth rate and decomposition due to heavy yearly rain fall and high humidity constitutes the second critical element that results in the burial of artifacts or features. Deciduous leaf fall results in the deposition of a significant amount of organic material on the ground surface and, subsequently, soil accumulation. Although a similar organic deposition may be present in western grassland environments, range fires could, and do, occur on a regular basis, reducing organic soil build-up to a minimum.

The factors of heavy rain fall and dense vegetation conspire to force eastern archaeologists to employ far different survey methods than those employed by their colleagues in California and throughout much of the western United States. Inventory methodology in the east bears some similarity to that employed in the west in that regularly-spaced transects constitute the foundation of most surveys. This, however, is where the similarities end. As opposed to the relatively simple pedestrian survey most of us are familiar with, the eastern field archaeologist excavates a series of simple shovel test pits (STPs) at regularly spaced intervals within a project area, typically on a 50 foot (or approximately
STP surveys typically utilize a 50-foot grid of shovel tests on level and low-slope ground surfaces. A total of 16 STPs are dug per contiguous acre.

Equipment necessary for the STP survey differs little from a pedestrian inventory with the exception of a shovel, portable screen, and a small tarp to allow for quick backfilling.

The STP survey is intended to document presence and absence of cultural materials and their general stratigraphic context. Each STP is approximately one foot in diameter or about the width of a round shovel blade.
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15 meter) grid. Round-nose shovels and portable quarter-inch mesh screens are the basic requirements on an eastern survey as opposed to the GPS units and topographic maps necessary in the west.

STPs are not typically dug with the strict stratigraphic controls used in excavation units, and their depths vary according to conditions encountered. Each STP is typically about 1 foot in diameter, roughly conforming to the width of the shovel blade. The purpose of their excavation is strictly to determine the presence or absence of cultural materials within a study area. Maintenance of relatively vertical side walls allows excavators easily to go to depths of 3–4 feet. Even though vertical control is not strictly maintained, the survey crew is usually able to identify and note specific artifact-bearing strata as finds are made. STPs are generally excavated to a depth of 10 centimeters below the lowest cultural level. If desired, smaller-interval “radials” may be excavated off of positive STPs. This allows a tighter focus on site or feature boundaries.

As with most western pedestrian inventories, the average eastern survey tends to employ predictive modeling in determining the placement and intensity of STP transects. Blindly excavating hundreds or thousands of pits within a project area regardless of the terrain is far from the most efficient or technically valid approach. A consideration of general topography and landform features such as ground slope and proximity to perennial water sources is important in planning the scope of a survey, especially where prehistoric resources are concerned. Rocky, steep areas or swamps clearly have low potential to contain evidence of early Native American occupation, although the possibility of evidence for activities such as mining and quarrying in such areas cannot be summarily ignored. Although comparable simple predictive modeling is certainly utilized in the west, the stakes are much higher in the eastern United States. A pedestrian survey of several hundred acres may require a few days and a relatively nominal consideration in terms of project budgets. The excavation of regularly spaced STPs over those same acres could take weeks.

While the utilization of a systematic STP survey in many western contexts is clearly not necessary given the propensity of prehistoric and historic materials to remain visible in surface contexts, some incorporation of the STP technique is appropriate. While neither author is in favor of rampant shovel testing, we have seen occasions in the west where it would clearly be applicable but is not utilized either for perceived economic reasons, or simply because it hasn’t occurred to project managers who may only have western survey experience. There are several inventory scenarios in which initial project planning could incorporate some level of systematic STP excavation:

Watercourse terraces. Many terraces and benches can be seen on USGS quad maps or during project area reconnaissance prior to proposal preparation. Such landforms represent more likely prehistoric habitation or activity sites. Low ground slope areas in the vicinity of other perennial water sources are, of course, also more likely to contain evidence of early Native American activities and would be prime areas for consideration of STP surveys. However, prehistoric site locations do not necessarily conform to a simplistic rule involving only ground slope and proximity to water. The incorporation of STP surveys also needs to consider regional settlement patterns that may not conform to the “typical” site setting. In addition, control areas, those statistically less likely to contain archaeological materials, should be tested when practical to ensure the validity of the testing program.

Forests with heavy duff layers. Again, shovel testing should only be applied to the more level, and likely, areas near water or as regional settlement patterns dictate. Frequently, field archaeologists are relied upon to stop at irregular intervals and scrape clear areas through heavy coniferous duff in order to reveal small patches of mineral soils. However, un-burned forest duff is frequently too thick to allow for adequate clearing and typically the cleared areas are far too small to allow for anything other than the most fortuitous documentation of archaeological constituents.

Spring time surveys. If it can be reasonably surmised during project planning that a survey area will be covered with dense grasses or planted in crops providing little or no visibility, the incorporation of an STP program could be advantageous. There is little point in conducting a pedestrian survey in a densely planted field or in heavy grasses with no real expectation of seeing the ground surface or documenting archaeological materials. A systematic STP survey would contribute greatly to recording cultural resources in such areas. In addition, it would minimize instances of explaining to a client the inadequacy of a visual pedestrian survey and why educated statements regarding the presence or absence of cultural resources within a project area couldn’t be made.

While STP surveys clearly have certain advantages over visual pedestrian techniques in many instances, their application in some contexts may not be possible. Extensive field inventories are regularly conducted on Forest Service and BLM properties. Typically, at the survey level of cultural resource study, subsurface investigations are neither planned for and in fact, are expressly forbidden by agency standards. Visual survey is the rule and the collection of artifactual materials is often restricted solely to temporally and culturally diagnostic artifacts.

Although the standards of federal agencies preclude STP survey in most cases, this is not the case in many instances in California. For example, where the impetus for the survey itself can be found in CEQA legislation, there are many opportunities to incorporate systematic subsurface survey techniques into project proposals. Unless requested by a
client, there are no CEQA provisions that preclude survey-level subsurface investigations.

Although including STP survey in a proposal that might otherwise incorporate only visual survey may result in a somewhat increased cost estimate, that increase may be negligible given the nature of a particular project area. This is especially the case in instances where there is limited visibility in high-potential areas. In such situations, dispensing with the time and effort to visually survey acreage offsets some of the additional cost of STP excavations. Understandably, in the highly competitive cultural resources field, there is an impression (and the very real possibility) that even minor cost increases may result in lost contracts. However, the archaeologists, particularly those in the cultural resource management field, need to educate the client, be they a public agency or private concern, on the benefits that a systematic STP program has to offer. While constituting a small increase in up-front financial outlay, this combined survey technique has great potential to reduce the possibility that significant cultural resources could be encountered and impacted during project construction, resulting in potentially lengthy and costly delays.

Change comes slowly and often grudgingly in many fields and cultural resources management is no different when it comes to approaches seen as tried and true. In advancing the cause of subsurface testing in the survey phase of cultural resource studies, the benefits can far outweigh the potential effects on project scopes and budgets. In fact, implementing a simple and logistically well-defined STP program can not only improve the research quality of surveys, but also provide clients with a better product more capable of mitigating the effects of public and private undertakings in California and throughout the western United States.

CA-SCL-178, the Metcalf Site, is one of the more important Early Holocene sites in central California (Moratto 1984, Jones 1991, Erlanson 1994). The basis of its importance is twofold: first is its perceived time depth which challenged long held views on the antiquity of central California and San Francisco Bay Area prehistory. Second, it demonstrated the potential for deeply buried sites that were all but invisible due to a variety of landscape evolutionary processes that often buried sites under meters of sediment. Since its excavation in the late 1970s and early 1980s, the significance of the assemblage associated with the earliest component of the site (Component I) has grown because of its purported affiliation to the “Milling Stone Horizon” of southern California (Fitzgerald and Jones 1999). This contention, although widely acknowledged as plausible, has never been fully accepted because of the lack of discrete strata and chronological control that could accurately date the sparse assemblage found in Component I.

This article describes recent efforts to provide a secure chronological anchor for the Early Holocene component of CA-SCL-178, from the only feature found in Component I (Feature 9) and in so doing provide interpretation of what this Early Holocene deposit means to central California prehistory.
Background

The Metcalf Site was first tested by Dietz (1977) who evaluated 12 sites within the proposed corridor for the construction of a new alignment of Highway 101 in the southern Santa Clara Valley. This California Department of Transportation (Caltrans) undertaking was built as an alternative to the old route which was known as “Blood Alley” due to its high frequency of fatal accidents. Of the 12 sites tested, 5 (CA-SCL-54, -163, -178, -237, and -241) were deemed eligible for the National Register of Historic Places and warranted mitigation. The mitigation effort (led by Stickel from 1979 to 1981) involved excavation of 256.4 m³ of site deposits in one of the largest archaeological mitigation projects ever conducted by Caltrans (Stickel 1981). Nearly 66% (169 m³) was excavated at SCL-178. After an initial draft was completed by Stickel (1981), the final report for the project was produced by Hildebrandt (1983), documenting one of the most complete archaeological investigations ever conducted in Santa Clara Valley.

Site Location and Description

The site is located on the eastern rim of Santa Clara Valley at the base of the Diablo Range about 35 km, south of the historic shoreline of San Francisco Bay and 32 km, from Monterey Bay. This location is some 300 meters east of Coyote Creek, where the wide plain of the Santa Clara Valley constricts to less than .5 km (Hildebrandt 1983). The site is situated along the margins of an extinct freshwater marsh system designated Laguna Seca by the early Spanish explorers. The deposit itself is situated within a relatively small alluvial fan just below the mouth of Metcalf Canyon, hence the site’s name. The canyon is drained by Metcalf Creek, a seasonal stream that formerly joined the much larger Coyote Creek just below the site (Hildebrandt 1983). Although its exact dimensions were never fully determined, the size of the site was estimated to be nearly 70,000 m², with a maximum depth of 9.5 meters.

The high point of the site was 82 meters above sea level. Unlike other sites along the new Route 101 corridor which were all on higher ground, the Metcalf site was only about one meter above the floodplain of Coyote Creek. The extreme depth of the site is largely due its location near Coyote Creek, which over a period of several thousand years had contributed significant quantities of sedimentary deposits to the alluvial fan. These deposits were subject to erosion and reworking, colluvial slides from adjacent hill slopes, and the creation and backfilling of channels derived from Metcalf Creek (Haltenhoff 1983). These continuous episodes of erosion and fill resulted in highly fragmented strata that lack lateral continuity, making it very difficult to accurately define the archaeological materials into cohesive components. Interpretation of the site was further complicated by the sampling method which was limited to randomly placed of 1x1 and 1x2 meter units. These “telephone booth” units, which eventually became more like mine shafts (see Figure 1), served to exacerbate the problem of component definition, whereas broad exposures (e.g., step excavations or trenches) might have better revealed the structure of the site. Despite these problems it was evident from the excavation and the artifact assemblage that different components did exist and that lower components had to be of great age.

Component I

The presence of an Early Holocene component at SCL-178 was confirmed by four of the seven radiocarbon dates returned for the site. The dates ranged from 8500 to 9960 radiocarbon years B.P. (Berger 1983). Of these, three from one unit were in correct stratigraphic order, with radiocarbon ages from top to bottom of 8500 +/-300, 9200 +/-1000, and 9600 +/-500 B.P., respectively. These dates are now calibrated to range from 9475 to 11,050 years B.P. (Stuiver et al. 2003). The fourth date came from much deeper in the deposit, and yet was younger (9190 +/-600 B.P.) than one of the dates retrieved from higher in the soil profile, underlining the inherent complexity of the alluvial fan.

These radiocarbon dates, however, were all derived from small pieces of charcoal collected from various depths that lacked direct associations with any of the artifacts ascribed to Component I. This problem of the dates and the “unclear geological relationships across the units” led Hildebrandt to conclude that the earliest materials from the site spanned from about 4500 to 10,000 B.P. (1983:8-50). This large time frame was necessitated due to the lack of any clear stratigraphic breaks and temporally diagnostic artifacts that may have served to clarify the age of Component I despite the fact that over 63 m³ of deposit was excavated (Hildebrandt 1983).

Overall the assemblage of materials from Component I was small, with handstones (n=8), cores (n=6), and “utilized flakes” (n=16) making up the bulk of the tools recovered. The balance of the assemblage was made up of a chopper, a notched and grooved stone, and a bone awl fragment. Despite generally poor bone preservation, 20 different taxa were identified, dominated by cattailbrush rabbits, jackrabbits, mule deer, and bony fish. Shellfish were also included: mussels, clam, and a single Olivaella shell bead. Although sparse this assemblage profile, suggested to Hildebrandt that...

Contrary to the expectations of the model, the Paleo-Indian adaptation of big game hunting was not evident in the earliest deposits of the site. Rather, the site appears to have been occupied regularly but to a limited degree through the Lower Archaic by people emphasizing the use of vegetable foods (not including acorns). Tools associated with other activities were rare. However, due to the high frequency of debitage relative to finished tools, it appears that flaked stone manufacture was also of some importance (1983:8-142-3).
These deliberations were among the first to recognize an Early Holocene presence in northern central California similar to the type that Roberta Greenwood had reported at Diablo Canyon a decade earlier (Greenwood 1972). In other words, Component I seemed to suggest that an early gathering culture that relied on the processing of vegetal foods and to lesser degree on shellfish, was in place in Santa Clara Valley at the very beginning of the Holocene. Regarding the shellfish, Erdlandson states that “SCI-178 may contain some of the earliest evidence for the use of marine shellfish and aquatic resources along the California coast” (1994:245).

**Feature 9**

Feature 9 was encountered in level 45 (450 cm below the modern surface) as “a subtle change in the soil color, from dark to light” (Fitzgerald 1983:8-125). In the succeeding 4 levels this change became a “burned earth feature” which contained large concentrations of charcoal flecks, vitrified soils, ash, and small fragments of shattered rock, and few fire cracked rocks (Fitzgerald 1983:8-120). It also contained 59 pieces of debitage, 1 core, 2 handstones and dozens of highly fragmented bits of shell along with hundreds of burned and unburned bones. The shell in all levels of this feature was very fragile and must have originally been in clumps or clusters (Fitzgerald 1983). Unfortunately, despite all the material available for radiocarbon dating no samples were ever submitted from the feature and as Erdlandson (1994:244) has pointed out, the best opportunity to date Component I was regrettably, missed.

Subsequent to excavation the site was virtually destroyed or buried under fill. Several soil samples were taken from Feature 9, but these were disposed of many years ago as the collection was moved from facility to facility. Fortunately, all the wet-screened faunal and flaked stone materials from the feature were retained and are housed at the Anthropology Department of San Francisco State University. From these materials

13 pieces (2.18 grams) of bone identified as cottontail rabbit recovered from the three main levels of feature (levels 47, 48, and 49) were submitted to Beta Analytic for a single Accelerator Mass Spectrometry date (Figure 2). These burned rabbit bones returned a conventional radiocarbon age of 8370+/-50 B.P., with a 2-sigma calibrated age of 9500 to 9270 years B.P. The intercept of the radiocarbon age with the calibration curve is 9430 B.P. This date, which is in general agreement with the four other charcoal dates taken from the site, confirms the Early Holocene age of Component I at SCL-178. Discounting the problematic charcoal dates from SCR-177, the Scotts Valley site (Cartier 1989, 1993), the date from Feature 9 is one of the earliest signs of human activity in the San Francisco Bay Area. The only other site in the general Bay Area of greater age is CCO-696 located in a small valley in Contra Costa County where Meyer and Rosenthal (1997) found an inverted milling slab 390 cm below the surface. Directly beneath the slab a discrete concentration of charcoal yielded a date of 9870 calibrated years B.P. (Meyer and Rosenthal 1997). It is notable that both of the deeply buried features from SCL-178 and CCO-696 contained milling equipment, and that the dominant tool type found in Component I was handstones (n=8).

Nevertheless, the vertebrate remains recovered from Feature 9 reflect exploitation of a wide range of terrestrial mammals, large and small, and a few birds (Table 1). This mirrors the vertebrate collection recovered from Component I as reported by Hildebrandt (1983) (Table 2), except no fish or reptile/amphibian bone was found in the feature. Thus, the small sample of bone from the feature (Number of Identified Specimens or NISP = 271, total weight 49.86 grams) lacks the

**Table 1: Summary of Faunal From Feature 9 CA-SCL-178.
*Probably Anas strepera.*

<table>
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<th>Common name</th>
<th>No.</th>
<th>Wt.g</th>
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<tr>
<td>Artiodactyl</td>
<td>deer/sheep/goat</td>
<td>1</td>
<td>0.26</td>
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<tr>
<td>Aves</td>
<td>unident. bird</td>
<td>6</td>
<td>0.40</td>
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<tr>
<td>Canis sp.</td>
<td>dog/coyote</td>
<td>1</td>
<td>0.45</td>
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<tr>
<td>Mammal</td>
<td>unident. mammal</td>
<td>143</td>
<td>5.61</td>
</tr>
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<td>unident. lg. mammal</td>
<td>5</td>
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<td>unident. med. mammal</td>
<td>1</td>
<td>0.10</td>
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<tr>
<td>Mammal, small</td>
<td>unident. small mam</td>
<td>35</td>
<td>1.83</td>
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<td>Procyn lotor</td>
<td>raccoon</td>
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<td>Calif. ground squire</td>
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<td>Sylvilagus auduborii</td>
<td>cottontail rabbit</td>
<td>11</td>
<td>1.66</td>
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<tr>
<td>Tavidea taxus</td>
<td>badger</td>
<td>1</td>
<td>0.15</td>
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<td>unident. small mam</td>
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<td>unident. rodent</td>
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<td>Calif. ground squire</td>
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<td>Sylvilagus auduborii</td>
<td>cottontail rabbit</td>
<td>5</td>
<td>0.49</td>
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<td><strong>TOTAL</strong></td>
<td></td>
<td>13</td>
<td>1.37</td>
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</table>

**GRAND TOTALS**

271 19.06
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diversity of Component I as a whole. While 20 taxa were found in the Component I collection, only 7 were identified in the feature, exclusive of unidentified mammal, rodents, and bird. In terms of density (number of specimens per cubic meter of excavated matrix), however, the feature exceeds the faunal content of the rest of Component I.

Summary

The wide diversity of faunal remains found in Component I, which includes large and small mammals, seems to counter the argument that the earliest inhabitants of SCL-178 were predominantly occupied with gathering and processing vegetal foods such as characterized by the Milling Stone Horizon. These somewhat contradictory data sets (the dominance of milling tools as well as the total absence of projectile points versus the wide diversity of large and small terrestrial mammals), make it difficult to determine the primary economic pursuit during the Early Holocene at SCL-178. It is possible that Component I does not represent an “either/or” strategy (gathering vs. hunting) but rather was inclusive of both strategies. Due to the complex stratigraphy and the overall scarcity of the artifact assemblage it is likely that true nature of the subsistence practices of the earliest inhabitants of SCL-178 will never be known. What is certain is that Component I is securely dated to circa 9400 B.P., confirming the Early Holocene occupation of the site and bringing it line with other sites older than 9000 years, many of which are located on the coast or near ancient estuaries of south central California. These sites include CA-SLO-2 (Greenwood 1972), SLO-177 (Parker 2002), SLO-832 (Jones et al. 2002), SLO-1764 (Lebow et al. 2001), SLO-1797 (Fitzgerald 2000), and SLO-1920/H (Stevens et al. 2003). It is also apparent as evidenced by CCO-696 and SLO-1920/H (located in the Salinas River Valley in Paso Robles) that the interior valleys of central California also invited Early Holocene groups. However, as pointed out in a recent study (Rosenthal et al. 2003), although interior valleys represent those portions of the landscape most attractive for human settlement, they are also those most susceptible to erosion and deposition, making their discovery a worthy but most difficult challenge.

Acknowledgements

The authors would like to thank Jeff Fentress of the Anthropology Department of San Francisco State University for his assistance in accessing the collections from CA-SCL-178 and Kim Carpenter of Far Western Anthropological Research Group for doing the preliminary identification of the faunal from Feature 9.

References

Berger, Ranier
1983 Chronological Analyses. In Archaeological research of the Southern Santa Clara Valley project: Based on a data recovery program from sites CA-SCL-54, CA-SCL-163, CA-SCL-178, CA-SCL-237 and CA-SCL-241 located in the Route 101 corridor, Santa Clara County, California. MS on file, California Department of Transportation, District 4, Oakland.

Cartier, Robert

1993 The Scotts Valley Site (CA-SCr-177) Santa Cruz Archaeological Society.

Dietz, Stephen

Erlanson, Jon M.

Fitzgerald, Richard
1983 Feature Analysis Results. In Archaeological research of the Southern Santa Clara Valley project: Based on a data recovery program from sites CA-SCL-54, CA-SCL-163, CA-SCL-178, CA-SCL-237 and CA-SCL-241 located in the Route 101 corridor, Santa Clara County, California. Ms. on file, California Department of Transportation, District 4, Oakland.


Fitzgerald, Richard T. and Terry L. Jones

Greenwood, Roberta S.

Table 2: Comparison of Component I and Feature 9 Faunal Density and Diversity.

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<tr>
<th>Provenience</th>
<th>NISP</th>
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<th>Vol. (m2)</th>
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<th>Diversity</th>
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<td>63</td>
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Haltenhoff, Rick
1983 Geomorphological Results. In Archaeological research of the Southern Santa Clara Valley project: Based on a data recovery program from sites CA-SCL-54, CA-SCL-163, CA-SCL-178, CA-SCL-237 and CA-SCL-241 located in the Route 101 corridor, Santa Clara County, California. MS on file, California Department of Transportation, District 4, Oakland.

Hildebrandt, William R.
1983 Archaeological research of the Southern Santa Clara Valley project: Based on a data recovery program from sites CA-SCL-54, CA-SCL-163, CA-SCL-178, CA-SCL-237 and CA-SCL-241 located in the Route 101 corridor, Santa Clara County, California. MS on file California Department of Transportation, District 4, Oakland.

Jones, Terry L.

Jones, Debbie A., C Young and W. R. Hildebrandt
2001 Phase II Archeological Test Excavation at CA-SLO-832, and CA-SLO-1420, for the James Way/Price Street Road Improvement Project, San Luis Obispo County California. Far Western Anthropological Research Group, Davis California. MS on file at the Central Coastal Information Center of the California Historical Resources Information System, Santa Barbara.


Meyer, Jack and Jeff Rosenthal

Moratto Michael,

Parker, John
2003 9,000 Year Old Dates from Cambria. The Artifact San Luis Obispo County Archaeological Society Newsletter 37:9

Rosenthal, Jeff, J. Meyer, W. Hildebrandt and J. King
2003 A Geoarchaeological Study and Sensitivity Model for the Hollister, San Juan and southern Santa Clara Valleys, Santa Clara and San Benito Counties, CA. MS on file California Department of Transportation, District 5, San Luis Obispo.

Stevens, Nathan, R. Fitzgerald, N. Farrell, M. Giambastiani, J. Farquar and D. Tinsely

Stickle, Gary E.
1981 Archaeological Research of the Santa Clara Valley Project. MS on file California Department of Transportation, District 4, Oakland.

Stuiver et al.

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CRM as Sex Education for Archaeologists: Preparing the Next Generation of Archaeologists for the Real World

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Anthropological Studies Center, Sonoma State University

This commentary follows, and includes portions of, a paper I presented at the recent SCA conference in Sacramento. That paper was the result of my reactions to statements made by well-known archaeologists invited to speak at a remarkable Stanford symposium last year. Several, though certainly not all, of the archaeologists denigrated CRM as something not worth teaching, as they felt it to be an immoral occupation that compromises archaeology for money.

The argument for teaching CRM in academia has, at this point, been hashed out at length (e.g. Bergman and Doershuk 2003; Fagan 1993; Pyburn 2000; Schulténien and Altschul 2000). Melinda Zeder’s work clearly indicates that CRM is a significant employment sector for archaeology graduates (Zeder 1997:48). Looking at the latest SCA proceedings publication, at least one third of the papers are from CRM agency officials, firms, or the results of CRM contract work. In short, those who feel that CRM should not be taught in academia are holdouts; the rest of the community is headed in a different direction, with or without them.

However, the charge of unethical behavior, of trading good archaeology for hard cash, is valid and should be recognized as an ongoing issue. I’d like to offer a response to this charge, in the hopes that those academics still opposed to teaching CRM can see the necessity for including such training in their curriculum, and the reality that academia must bear much of the burden.
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Many on both sides of the argument, to teach or not to teach CRM, take an all-or-nothing approach: either it is the duty of history and anthropology programs to teach CRM, or CRM should be mentioned only in passing, if at all, as CRM is inherently unethical and in direct conflict with conducting uncompromised research. I have heard similar debates before; on one hand, a group arguing for a no-nonsense education of the complexity and danger of the real-world, and on the other, a group arguing for the complete avoidance of such education on moral grounds. These debates took place when I was in grade school, and the subject then was sex education. Teaching CRM in the academy is the sex education of the archaeological profession.

Before I make my argument for CRM as sex ed, let me start by stating that all of our university programs should not be strictly vocational schools for CRM, as has been a common concern in the academic community (Schuldenrrien and Altschul 2000:62). CRM and academia should work cooperatively, but they serve different functions, and both are absolutely necessary for the continuation of archaeology. I believe the role of academia is to create critical thinking members of society. However, I see no reason why critical thinking skills can’t be taught within the context of CRM education; if we cannot turn around and use our university-taught abilities to question and analyze what we encounter on a day to day basis, outside of the classroom, then the exercise was a failure.

I believe what we are looking at is the ongoing development of an “applied” field of archaeology vs. what the “harder” sciences might call “basic”, or in the old days, “pure” archaeology (Kline 1995:196). I argue that every field of study undergoes this split whenever the private sector pays for the field’s expertise on a project-driven basis. The split between physics and engineering in the late 1800s had much the same result—accusations of physicists sneaking in engineering jobs on the sly to pay for research; of, literally, the moral purity of academic study of physics when compared to engineering; of engineers discussing whether to align themselves with the trade unions or to mirror the university models of organization, and how to obtain the same level of respect as the academic scientists (Kline 1995:198-204). All of these arguments still occur today within research and development university programs and private-sector corporations nationwide—each camp is jealous of the others strengths and unforgiving of the other’s weaknesses. The battles of the applied sciences for respect, and the basic sciences for funding, is ongoing, and, I believe, irresolvable within archaeology. Most of the time I can’t shake the feeling that our funding for both CRM and academic archaeology hangs by the weakest of threads, and if the hard sciences can’t get it to work after nearly a century and a half, that to me suggests pitting our applied archaeology against our basic archaeology is non productive.

I would therefore suggest that there can be several constructive outcomes from pursuing the sex education analogy. The first is a discursive outcome; given the division between the CRM and the academic communities, some form of dialogue needs to occur that isn’t about who’s getting the funding or who’s getting the respect. Second is a preventative outcome; I believe that archaeology benefits by its practitioners recognizing their professional community as family, and both the academic and the private sectors need to accept their responsibility as “parents” and educators and teach their intellectual offspring about the ethical pitfalls and physical mechanics of real-world archaeology. The third is a reproductive outcome; students will simply become better archaeologists if their mentors set an example as to how professional archaeologists conduct their careers, how they maintain healthy and reciprocal relationships with other professionals, how to bring forth the next generation of archaeologists, and how the academy and CRM can interact in productive and positive ways that not only benefit both parties, but that are necessary for the long-term success and continuation of archaeology as a field.

We need to take responsibility for our students as we would our own family. They look to us to guide them to jobs and satisfying careers, and we must instill in them ethics and an intellectual grounding for making appropriate and informed professional decisions, regardless of their place of employment. Hoping that graduates will somehow learn the profession of CRM on the job, as one of the Stanford speakers suggested, is like hoping your child learns about sex from the kids hanging out in front of the 7-11. The information will be incomplete at best and wrong at worst. Many graduates enter a job place where they are the only archaeologist on staff. Who is going to teach them cultural resource legislation and archaeological ethics? The project engineer? The client? The staff accountant? Even assuming these individuals have the best of intentions, none have the background for it. Working for a university doesn’t avoid these problems; as Zeder points out, even the academy takes money for CRM projects (Zeder 1997:194).
There are those that prey on new graduates, who would ask them to do something unethical to save their jobs or to appease a client, at the expense of the archaeological record, a sacred site, or a historic building. There is no sense in hoping that somehow our students will be different, and that they are too good to be caught up in something like that. Students will go to where the jobs are, and wishing otherwise won’t make it so. The only defense against the possibility of our students getting taken advantage of, or making poor personal decisions, is 1) giving them a solid understanding of the legal framework that allows resources to be at least taken into account when a project is being planned, and 2) a belief in and commitment to, professional ethics. CRM and ethics preparation will give students the courage to do what is right; it will guide their work and their decisions, and keep them out of embarrassing or career-threatening trouble with the law, their communities, their clients, and their peers. Such training is the “personal protection” for the archaeologist; they should get it at the undergraduate and graduate level.

For nearly three decades the Anthropological Studies Center at Sonoma State University, founded by Dave Fredrickson, has used small projects to train new graduate students on the ins-and-outs of CRM, often at a financial loss and with a significant contribution of free time on the part of the student. Several years back my predecessor, Christian Gerike, strengthened our small projects program by making it financially self-supporting, while at the same time fully compensating the students running the projects. By the time I took over the program a few years ago, it was not only breaking even, it was accumulating a small amount of money.

We have channeled the entirety of that money back into student training. Over time, we have formalized the internship to a semester-long training program covering ethics, budgeting, contracting, client relations, graphics and report writing, and CRM legislation. The interns are highly encouraged to work together and involve their colleagues in their research. The students are also highly encouraged to discuss the projects within the context of their theses, their coursework, and their own careers, possibly with an agency or even a competing firm. We talk regularly with the professors within the graduate program about what they are teaching, and try to reinforce and expand on the student’s coursework through the internship. The students are guaranteed a project, get one-on-one guidance throughout the semester, and have what is typically their first professional report at completion. The operation cost of the internship is about $3,500 a semester for 6-8 hours a week commitment for one instructor. This program could be adopted by other interested parties through a cooperative agreement, as part of a company’s or agencies recruitment strategies and as part of a university’s efforts to better prepare their students for future employment.

It was with great pleasure that I read Russell L. Kaldenberg’s paper in the recent proceedings (Kaldenberg 2003). Kaldenberg describes the Bureau of Land Management’s Student Career Experience, which sends staff members with bachelor degrees to college for their Master’s in exchange for a promise of employment. I have seen the thesis defenses of some of the students from this program and have been impressed. Similar programs with the BLM or other land management agencies should be on any campus that proposes to have ongoing California archaeological research in their anthropology departments.

I believe these kinds of internships and programs can facilitate the training that the CRM community wants from its universities; at the same time, it allows the universities to have a hand in the decisions about what and how students are taught without becoming a vocational school, as well as become better equipped to manage CRM contracts through their own departments should they choose. Such internships should be collaborative efforts, co-taught and co-designed, by a cooperative relationship between CRM firms and/or government agencies and Academia. We are at a point that we do not have to reinvent the wheel—successful programs for training exist and could be applied elsewhere if there was university support. Acting as parents and role models, members of the CRM community and the universities could educate their future colleagues together into the joys and dangers of the professional world.

References


Zeder, Melinda A. 1997 The American Archaeologist: A Profile. Alta Mira Press, Walnut Creek, California.
Dating “Classic” Coso Style Sheep Petroglyphs in the Coso Range and El Paso Mountains: Implications for Regional Prehistory

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University of California, Davis, California

Campbell Grant and his associates (1968) have documented the extraordinary array of petroglyphs found in the Coso Range. This unusual locality figures prominently in discussions relating to the function, dating and significance of rock art in the Great Basin (Bettinger and Baumhoff 1982; Heizer and Baumhoff 1962). Based on subject matter (atlatl and bows and arrows) and seriation of styles of realistically portrayed bighorn sheep, it is suggested that many of these images date from ca. 500 B.C. to A.D. 1000. It has been further suggested that during this period the petroglyphs changed from more to less abstract renderings developing ultimately into the elaborate, larger than life size, boat-shaped bodied bighorn rendered with full, front-facing, bifurcating horns that is a distinctive hallmark of this locality. Sheep rendered in such a distinctive fashion are suggested to date to the Transitional (200 B.C. – A.D. 300) and Late (A.D. 300 – 1000) periods in Grant’s chronological sequence (Grant et al. 1968:24, Table 1 and illustrations on pages 54j, 57, 61, 64 bottom, 65 bottom, 66 middle, 68 middle, 69 upper, 74 middle, 75 bottom, 83 bottom, and 98 bottom).

Such a chronological position for the Coso rock art expression has not been uniformly accepted. Recent publications by Whitley and Pearson favor a late period intensification of this rock art tradition. They see a continuum in rock art production through the historic era and favor a continuous ethnic thread for the Numic population long into prehistory (Pearson 2002:83; Whitley 1994, 1998).

Gilreath (1999) recently used obsidian hydration rim readings associated with 43 single-period Coso Range sites to evaluate the various dating schemes for the Coso petroglyphs. Her research points to the Haiwee period (A.D. 600 – 1300) in the local Owens Valley chronological sequence as the time span when the greatest number of rock
art sites were produced. Rock art elements present at these Haiwee period sites are chiefly representational motifs (65%). Earlier sites are dominated by abstract designs. Gilreath’s study identified a rather abrupt decline and termination for the petroglyph drawings dating to ca. AD 1300 (with 94% of the 505 obsidian hydration rim readings in her study falling into earlier time spans). Her work also indicates that Coso rock art is predominantly a pre-Marana period (AD 1300-1850) expression (greater than 3.7 microns of lowland Coso hydration), with a distinctive Haiwee-period emphasis (AD 600 - 1300, 3.7-4.9 microns).

Recent investigations at the Terese Site (Rogers and Rogers 2003), CA-Ker-6188, in the northwestern El Paso Mountains have identified petroglyph panels, specifically boulders, bearing elements of the Coso Representational style and typical “Classic” Coso style sheep images. The Terese site is located 30 miles south of the Coso Range and is believed to be the southernmost expression of this style.

Methods

To test the chronology proposed by Gilreath and earlier developed by Grant and his associates, a single shovel test unit (STU) was excavated at the base of a basalt boulder petroglyph containing elements typical of “Classic” Coso style sheep. The boulder is covered by various petroglyph elements and contained a single large representational element typical of the Transitional or Late Coso style sheep petroglyphs with characteristic (large) boat-shaped, navicular-body, flat back, full front facing horns, with ears and hooves often added (Figure 1). The Terese site image was deeply engraved on one face of a 3-sided boulder. The boulder contained a variety of elements including another more abstract and simplified Coso style sheep, several more abstract zoomorphs, and other more abstract elements and curvilinear meanders.

Based on Gilreath’s association of single period sites with petroglyph localities containing such images and Grant’s seriation of weaponry and development sequence, we would posit that this rock art image was most likely manufactured during the early Haiwee (AD 600-1000) or perhaps late Newberry (AD 1-600) periods.

Lowland Coso obsidian hydration rims have been studied extensively and provide a yardstick to measure the antiquity of the El Paso Mountains glyph (Bagsall 1990; Bagnall and Hall 2002; Pearson 1995). Since Gilreath had located what is presumed to be contextually associated surficial flaked stone materials in the Coso Range; it was posited that similar materials might be uncovered at the El Paso Mountains site. Upon close inspection of the glyph and after several shovel scrapes, suitable material was indeed uncovered in order to provide several obsidian hydration rim readings (3). A few other flaked and pecked stone artifacts were also identified. Coso obsidian is the near exclusive obsidian used by aboriginal peoples prehistorically in this area of the western Mojave Desert and southwestern Great Basin. An extensive data base of lowland Coso hydration rims has been rigorously analysed and correlated with associated radiocarbon determinations and temporally diagnostic projectile point styles. Source and temperature specific hydration rates allow us to correlate the local chronological periods with particular ranges of Coso hydration rim readings (Bagsall 1990; Bagnall and Hall 2002; Pearson 1995). This patterning allows us to predict the hydration rims on the associated obsidian flaked stone materials.

Synthesizing data from Haiwee period sites containing lowland Coso hydration readings and comparing data with the Gilreath study allows us to predict the suite of rim readings for the period from ca. AD 600 to 1300. It is anticipated that if the obsidian flakes were deposited at generally the same time as the petroglyph was manufactured then readings between 3.7 and 4.9 microns would be derived (Haiwee period). Hydration rims from 4.9 to 6.2 microns would fall within the late Newberry period and date from ca. AD 1 to 1000. No hydration rims smaller than 3.7 microns would be expected.

Results

The three obsidian artifacts recovered from the base of the petroglyph were chemically characterized to source and analysed for their hydration rims. As anticipated all 3 pieces of obsidian debitage were identified as emanating from the West Sugarloaf subfield within the Coso Volcanic Field source (Skinner 2003). The three obsidian flakes provided hydration rims of 4.3, 5.0 and 10.9 microns. Other obsidian hydration results from the Therese site itself provided hydration rims of 5.8 and 6.0 for Locus A and 4.0 for Locus C. Since all rim readings save for the largest outlier seem to point to a single chronological period the readings were grouped together for statistical purposes.

Following the analytical methods pioneered for the Coso Volcanic Field by Gilreath and Hildebrandt (1997:61-66), obvious outlying hydration values were subjectively identified and omitted from cluster sample statistics. The metrics for the suite of rim readings for the Therese site include mean, standard deviation, number of rim readings and coefficient of variation. The latter measure is calculated by dividing the standard deviation by the mean and has been found useful in comparing multiple samples with varying means. The coefficient of variation (CV) provides a useful metric to evaluate a sample’s relative homogeneity. Single period deposits have been defined as having a CV of 0.25 or less.

To interpret the hydration values, the Coso hydration rate provided by Bagnall (1990) can be applied. That rate was initially developed by pairing hydration rims with
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radiocarbon determinations from the Lubkin Creek site located near Lone Pine in the southern Owens Valley, California. It has become generally recognized that the hydration rate for obsidian is influenced by the environment in which the rims age. A hotter climatic regimen causes the rims to develop faster and a cooler climate slows the hydration values growth. Such a pattern has fostered the incorporation of a correction factor and creation of Effective Hydration Temperatures (EHT) accounting for changes in local environmental conditions. Climatic data from the Haiwee Reservoir weather station located at an elevation of 4,000 feet provides a mean annual temperature of 15.6 degrees centigrade. Applying the wet adiabatic temperature adjustment of 1.8 degrees centigrade per 1000 feet elevation, the Therese site with an elevation of 3,200 feet would be inferred to have a mean annual temperature of 17.0 degrees centigrade. Given that the documented mean annual temperature of Lone Pine is quite similar to that of the Terese site it would be anticipated that temperature factors would affect rim development in a largely similar fashion.

The reliability of Coso obsidian hydration data as a chronological index has been repeatedly reaffirmed by correlation of temporally sensitive projectile point forms and hydration readings, and by radiocarbon determinations and hydration cluster values. Nevertheless, it is widely recognized that hydration rims are not amenable to great precision and are regarded as a more general measure of age and not to be interpreted as providing a single age date. In the interest of accuracy, hydration rims are not normally reported with calendar-specific dates. Since the Terese site has a similar temperature regimen to that of Lone Pine and given our reticence to portray the hydration rim suites with a greater accuracy level than is generally accepted; we will apply the original uncorrected Coso hydration rate and concentrate on the average rim readings associated with particular temporal period placements.

Gilreath (1999) suggests certain rim values for lowland Coso hydration readings regularly associated with the various periods recognized in the prehistory of the Coso Volcanic Fields (Table 1). Single period sites containing petroglyphs in Gilreath’s study include 10 localities and their metrics are included here for comparison with the Terese site and the “Classic” Coso style sheep petroglyph (Table 2). Examining the sample of readings from the Terese site indicates that the site dates to a single period since it has a CV less than 0.25 indicative of a rather tight cluster of rim readings (see discussion above). The Coso style sheep petroglyph and the Terese site itself would appear to date to a time span overlapping Late Newberry and Early Haiwee periods (ca. AD 1 to AD 1000) and is similar to a number of the single period sites identified in Gilreath’s inventory (Table 2).

Table 1: Chronological Periods and Coso Lowland Hydration Rims after Gilreath (1999:12).

<table>
<thead>
<tr>
<th>Single Period</th>
<th>Age (years before present)</th>
<th>Hydration Range (microns)</th>
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<tbody>
<tr>
<td>Marana</td>
<td>&lt;650</td>
<td>&lt;3.7</td>
</tr>
<tr>
<td>Haiwee</td>
<td>650-1275</td>
<td>3.7 to 4.9</td>
</tr>
<tr>
<td>Newberry</td>
<td>1275-3500</td>
<td>4.9 to 7.6</td>
</tr>
<tr>
<td>Little Lake</td>
<td>3500-5500</td>
<td>7.6 to 9.2</td>
</tr>
<tr>
<td>Early</td>
<td>&gt;5500</td>
<td>&gt;9.2</td>
</tr>
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</table>

Table 2: Summary Coso Hydration Data from Coso Landmark Single Period Petroglyph Sites and the Terese Site, El Paso Mountains. sd = standard deviation; C.V. = coefficient of variation; DH = diffuse hydration. / - Values marked by forward slashes are multiple rims for the same artifact; ( ) = Values in parentheses are excluded from cluster sample calculations. Data from Gilreath (1999 Tables 2 and 3).

<table>
<thead>
<tr>
<th>Site</th>
<th>Readings</th>
<th>N</th>
<th>Mean</th>
<th>sd</th>
<th>C.V.</th>
<th>Period</th>
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<td>14-5375</td>
<td>(1.3)/3.5/3.6, 4.7, 4.9, 4.9, 4.9, 5.0, 5.1, 5.7, (6.4/7.5)</td>
<td>10</td>
<td>4.79</td>
<td>0.85</td>
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<td>Haiwee</td>
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<td>14-5339</td>
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<td>12.68</td>
<td>0.76</td>
<td>0.06</td>
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<td>INY-5129</td>
<td>(3.8)/6.1, 6.6, 6.6, 6.8, 7.4, 7.8, 8.0/(21.9), 8.2, 8.8, 8.8/(17)</td>
<td>10</td>
<td>7.51</td>
<td>0.96</td>
<td>0.13</td>
<td>Newberry</td>
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<td>INY-5142</td>
<td>7.9, 7.9/(20.1), 8.0, 8.4, 8.6, 8.8/(22.4), 8.8, 8.8, 9.8, 9.8</td>
<td>10</td>
<td>8.68</td>
<td>0.69</td>
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<td>8.6, 8.8, 9.2, 10.0, 10.2, 11.0, 11.4, 12.3, (DH)</td>
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<td>10.08</td>
<td>1.27</td>
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<tr>
<td>INY-5190</td>
<td>2.6, 4.3, 4.3, 4.5, 4.6, 5.1, 5.4, 5.7, 6.1, 7.0</td>
<td>10</td>
<td>4.96</td>
<td>1.20</td>
<td>0.24</td>
<td>Haiwee/Newberry</td>
</tr>
<tr>
<td>INY-5191</td>
<td>3.9, 4.1, 4.4, 4.6, 4.7, 4.7, 5.1, 5.5, 5.7</td>
<td>9</td>
<td>4.74</td>
<td>0.60</td>
<td>0.13</td>
<td>Haiwee</td>
</tr>
<tr>
<td>KER-6188</td>
<td>4.0, 4.3, 5.0, 5.8, 6.0, (10.9)</td>
<td>5</td>
<td>5.02</td>
<td>0.70</td>
<td>0.14</td>
<td>Haiwee/Newberry</td>
</tr>
</tbody>
</table>
Conclusions

Obsidian hydration readings from the Terese site for a Coso style sheep petroglyph support both Gilreath’s and Grant’s chronological scheme. It is in fact becoming increasingly apparent that an abrupt discontinuity exists in the archaeological record of eastern California. A terminal date of ca. AD 1300 for Coso representational rock art is now the most substantiated (Coombs and Greenwood 1982; Garfinkel and Pringle 2003; Gilreath 1999; Hildebrandt and McGuire 2002:245). The cessation of rock art production is thought to be correlated with a distinctive discontinuity between the creators of this rich artistic tradition and the aboriginal people occupying the area during the historic era (cf. Steward 1986). Such a shift is thought to be associated with a change from large game hunting to one more targeted to the gathering of vegetal foods and the hunting of smaller animals. That shift is also suggested to have fueled the rapid replacement of pre-Numic peoples and the expansion of Numic groups throughout the Great Basin (Bettinger and Baumhoff 1982).

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References Cited

Basgall, M. E.

Basgall, M. E. and M. C. Hall

Bettinger, R. L. and M. A. Baumhoff

Coombs, G. B. and R. S. Greenwood
1982 A Cultural Resources Overview and Inventory Plan for the Naval Weapons Centers, China Lake. Report on file, Naval Weapons Center, China Lake, California.

Garfinkel, A. and J. K. Pringle

Gilreath, A. J.

Grant, C., J. W. Baird, and J. K. Pringle

Heizer, R. F. and M. A. Baumhoff

Hildebrandt, W. R. and K. R. McGuire

Pearson, J. L.


Rogers, A. and F. Rogers

Skinner, C.
2003 Obsidian Hydration and XRF Studies from the Terese Site, CA-Ker-6188, El Paso Mountains, Kern County, California. Report on file with the Northwest Obsidian Studies Laboratory, Corvallis, Oregon.

Steward, J.

Whitley, D. S.

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