Ogling the Artifacts at Santa Fe

Participants in the Clovis and Beyond Conference inspect a few of the Clovis and pre-Clovis artifact assemblages in the biggest-ever exhibit of its kind, organized by Mark Mullins. With this issue, the Mammoth Trumpet begins its coverage of the conference.
CHARTING A NEW ERA

Clovis & Beyond Draws Over 1,400

SANTA FE, N.M.—Scientists at the Clovis and Beyond Conference here signaled a new era of innovation and inquiry in the search for answers to the mysteries of human colonization of North and South America. The first of its kind since 1989, the late-October conference drew into one room many of the principal scientists who are engaged in research on earliest clues to a human presence in the Western Hemisphere. More than 1,400 people attended, including several human biologists, hundreds of avocational archaeologists, dozens of students, and a number of journalists.

Many of North America’s most widely respected authorities on the earliest Americans described their latest research for the Santa Fe audience.

Conference buzz words, heard in many formal presentations and casual conversa-
tions, included “multiple hypotheses,” “paradigm shift” and “multilinear theory.” Participants discussed a variety of possibilities for the initial peopling of the Americas. It was evident from the presentations and posters that scientists are actively considering the Beringia land bridge, a Pacific Coast route, an ice-free corridor between continental ice sheets—perhaps more than 30,000 years ago—and boats that might have taken people across oceans or along ice floes.

More than 1,400 persons in Santa Fe’s Sweeney Center heard about the latest research on the peopling of the Americas at the Clovis and Beyond Conference, such as is being described here by Texan archaeologist Michael Collins. In future issues, the Mammoth Trumpet will report details of many of these presentations. One of Dr. Collins’ projects is described beginning on page 8.

Though participants and audience alike seemed open to new ideas and theories, Santa Fe’s Sweeney Convention Center was not free of controversy as the scientists argued deeply held opinions. At times the frustrations caused by decades of scientific disapproval and condemnation of archaeological sites believed to be more than 11,500 radiocarbon years old spilled out as conference presenters directed harsh words toward long-standing critics, most of whom were in the audience. But the acrimony seemed as a brief storm that passed, leaving the hope that all is well in science, and that

17 Linguistic Clues Link Ne-Dene with Siberian Language

19 Central Oregon’s Great Basin Region Has Potential for Paleoindian Sites

Ritch birchbark provides Merriw Rutten with one indication of a Siberian origin.

Archaeologist Dennis Jenkins confirms long-standing belief in a scientifically fruitful area.
North America's leading archaeologists are, indeed, moving ahead toward new understandings. As a result of the research and interpretations presented here, textbook editors are likely to have to provide broader, more-inclusive interpretations to replace the long-dominant theory that Ice Age hunters armed with mammoth-killing spears walked across a land bridge from Asia to populate the Americas at the end of the last Ice Age. Though those in attendance were not polled, reactions to some of the scientists' presentations made it evident that the conference audience generally believed that people have been in the Americas for considerably longer than that. The term 'pre-Clovis,' meaning cultures that existed before the people who left behind well-known Clovis artifacts that date back no earlier than about 11,500 radiocarbon years, was heard as much as the term 'Clovis.' And it was evident that many participants took the conference title to mean beyond Clovis in antiquity as well as beyond the Clovis-first paradigm that has held sway in American archaeology for decades. Archaeologists who have argued that there were people in the Americas before 11,500 years ago spoke of having peer reviewers reject their research papers and requests for research funding. They expressed the opinion that evidence presented at the conference should change the prevailing attitudes of their colleagues.

Though it was the scientists and the spectacular displays of ancient stone artifacts that were the highlights at Santa Fe, the single most-dominant presence was the unspoken specter of those elusive first Americans, the enigmatic subjects of presentations and creators of displayed artifacts. Details from the scientists talks, slides and posters gave these people of five hundred or maybe a thousand generations ago considerable sophistication. It became clear that the people who out-smarted mountains of ice, gigantic predators and prey animals, a changing global climate, and perhaps both of Earth's greater oceans were not soiled Flintstones. As they were described, bit by bit from a variety of perspectives and disciplines, they began to seem as complex and varied as any people now alive. They surely were skilled artisans, whether or not proof of their skills was preserved for archeologists to find. These savvy travelers may have reached the Western Hemisphere from a number of directions, and they may have made the Americas a genetic melting pot many millennia before the erection of the Statue of Liberty.

Research on Clovis and non-Clovis traditions across North America was the initial focus of the conference after its public policy forum (article on page 111). Robson Bonnichsen, Director of the Center for the Study of the First Americans and conference co-organizer, presented a paper co-authored by Dennis Stanford and Margaret "Fog" Judry of the Smithsonian Institution detailing the newly understood complexity of the archaeology of the Clovis era west of the Mississippi River. A challenging question, "Are We Sure It's Clovis?" was examined by archeologist Ken Tankersley with cou-
thors David Anderson, Christopher Ellis and Bradley Lepper; George Frison de-
scribed "The Goshen Cultural Complex: A Paleoindian Cultural Group Overlap-
ing Clovis;" and Albert Goodyear exam-
ined "Evidence of Pre-Clovis Sites in
Eastern North America." (These and
many other Clovis and Beyond presenta-
tions will be reported in future issues of
the Mammoth Trumpet.)
Daniel C. Fisher of the University of
Michigan described his fascinating re-
search on North America's elephants and
the human interactions with them, and
Steven R. Holen of the Nebraska State
Museum reviewed the bone technology
that makes him confident humans were
living on the Great Plains before the last
glacial maximum. Geochronologist
Michael Waters of Texas A & M Univer-
sity analyzed the potential for developing
convincing evidence of pre-Clovis sites in
the Southwest. University of Alberta ar-
chaeologist Ruth Grubin reviewed "Cur-
cent Archaeological Evidence for a Late
Pleistocene Settlement of South
America." Northeast Asian connections
with the Americas were explored in turn
by Utah archaeologist David B. Madsen
("North Asian-North American Connec-
tions") and Ted Goebel, University of
Nevada-Las Vegas archaeologist ("Ice-
Age Beringia and Human Colonization of
the Americas"). Physical anthropologists Richard
Jantz of the University of Tennessee, Jo-

Just published—
a milestone contribution to American paleoarchaeology

The Fenn Cache:
Clovis Weapons and Tools
by George Frison and Bruce Bradley

The Fenn cache is a remarkable collection of 56 projectile
points, tools, and preforms manufactured in America
when the primary food source was mammoth.

text by two of
America's foremost paleoarchaeologists covers
Clovis origins and archaeology, mammoth
hunting, flintknapping, and much more. This
beautiful new book may be purchased for $45.00
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flenn@ttrail.com

Published by One Horse
Land and Cattle Company
of Santa Fe, New Mexico
that the Clovis tradition to Europe was the topic of the conference’s crowded closing banquet at the Santa Fe Hilton. Although the idea that there is some European background for American Indians or their predecessors has often been dismissed as ridiculous, it

The back-to-back presentations by veteran researchers Alan L. Bryan (left) and C. Vance Haynes opened the conference’s archaeology session with valuable and contrasting looks at the search for the First Americans.

not simply racist or anti-Indian. Dennis Stanford of the Smithsonian Institution made it seem perfectly plausible as he described decades of research on stone-tool technology.

In a presentation co-authored by flintknapper and lithic authority Bruce Brad- key, Dr. Stanford summarized: “Our hypothesis is that Clovis and pre-Clovis of the East Coast of North America probably—from our point of view and not proven, this is ongoing research—came from the Iberian Peninsula.”

“In other words they are from Iberia, not Siberia,” he said, although he later clarified that the hypothesis refers to technology and not necessarily a particular population of people. Stanford, a co-organizer of the conference, outlined his lengthy search in the Alps and northeastern Asia for technological antecedents of America’s Clovis culture, identified by beautiful and uniquely crafted stone points. Decades of failures to find links between Clovis artifacts and Asian artifact assemblages, he explained, ultimately encouraged Stanford and Bradley to seek another hypothesis. Distinctive features of stone-tool technology led them to consider the Solトルan culture. Their biggest problem, Stanford admitted, is the interval of time that separates Solトルan from Clovis. (A report on Stanford’s presentation will appear in the next issue.)

Though press coverage of the Santa Fe conference widely reported the concept of the European culture spreading into North America as “Clovis,” the idea is not new. In his presentation on the Clovis culture, Dr. Tankersley told the conference that back in 1941, New Mexico archeologist Frank C. Hibben found two bifacially flaked, willow-leaf-shaped points in the lowest level of the Sandia Cave site, near Albuquerque. Hibben thought that the Sandia artifacts more closely resembled the flaking technology of the Solトルan than they did Clovis. Paleoindian points had been recovered in a level of the site above the two enigmatic artifacts. “Hibben’s suggestion of a diffusion of Solトルan technology in North America is alive and well in 1999,” Tankersley, a conference co-organizer, told the Santa Fe audience.

The most lively session was comprised of nine brief presentations focusing on the theme: “The Future of Research: Where Do We Go From Here?” Speakers were geoarcheologist Tom Stafford; archaeologists David Meltzer, Pegi Jodry, Tom Dillehay, James Adovasio, Michael Collins and Alan Bryan; physical anthropologist Richard Jantz; and geneticist Theodore Schurr.

A fascinating expression of the past and future of paleoarcheology in the Americas came from the back-to-back 10-minute presentations by Alan L. Bryan and C. Vance Haynes, which opened the conference’s archaeology session. Dr. Haynes, geoarcheologist emeritus at the University of Arizona, is the longtime
champion of those who favor a late-entry hypothesis for the initial peopling of the Americas, while Dr. Bryan, archaeologist emeritus at the University of Alberta, has long been a champion of those who prefer an early-entry hypothesis. Though their presentations were anything but a debate, the Santa Fe audience could pick out their long-standing differences as well as considerable common ground regarding methods and research strategies.

"If Monte Verde is a valid 12,500 radiocarbon-year-old site," said Haynes shortly after the conclusion of Bryan's presentation, "this fact does not mean that sites previously rejected for lack of compelling evidence have any more validity now than they did under earlier scrutiny. Nor does it mean that equivocal pre-Clovis sites are now less so."

"We should conclude from the evidence at Monte Verde and many other early sites in South America," Bryan had said in his presentation, "that the Clovis-first model has been disproved and that there must be earlier sites in North America."

Haynes took the opportunity to scold early-entry colleagues for some of the terminologies that have been heard frequently in the long-standing debate over whether Clovis-culture people were the first Americans. "I'm curious as to who came up with the concept of a 'Clovis Barrier,'" Haynes said after his initial mention of Monte Verde. "Was it the media, looking to exacerbate controversy, or was it a colleague?" he asked rhetorically. "I suspect a little of both."

He made it evident that he was thinking of a physical barrier, because he continued: "But what archaeologist worth his or her salt would refrain from excavat-

NEW FROM UNIVERSITY MUSEUM PUBLICATIONS

CLOVIS REVISITED

New Perspectives on Paleindian Adaptations from Blackwater Draw, New Mexico

by Anthony T. Boldurian and John L. Cotter

Explore the early days of Paleoindian archaeology in this engaging retrospective of Edgar B. Howard's Southwest Early Man Project, 1929-1937. Includes a detailed analysis of the Clovis artifacts discovered among the bones of mammoths and extinct bison in New Mexico and a fresh view into the lifeways of early humans in the Americas, accentuated by a series of unique insights on their origins and adaptations.

March '99. xxi + 146 pp., 58 figs., 14 tables, biblio., index. Paper $25.00 Cloth $40.00. Please add $3.50 shipping/handling.
ing below a Clovis level because of a preconception that there would be no archaeology there. The concept is cert-

tainly unscientific. Most archaeologists I know always look below the earliest occupation layers with the hope of find-

ing even earlier evidence.” He decreed the use by colleagues of the term “Clovis Mafia” to refer to defenders of the late-

entry theory.

Bryan outlined what he considers a Clovis barrier when he complained about conduct of late-entry colleagues. “When-

ever a pre-Clovis site is challenged, it is automatically classified as controversial, which is interpreted as being question-
able and doubtful and therefore can be ignored.” He continued: “Usually the challenge is presented in the form of al-
ternative hypotheses, which are rarely tested. Frequently the alternative un-
tested hypotheses are accepted instead of the published evidence. By this process, all pre-Clovis claims have been put down. Despite the rising amount of contradic-
tory evidence, variations of the Clovis-

first model have held sway for more than 60 years.

“A major reason why the Clovis-first model has been accepted even by schol-

ars who say they are open to the possibil-

ity of pre-Clovis is because several

A poster detailing Clovis in the Midwest is examined by Carole Mandryk, Harvard University paleoecologist.

claimed early sites were disproved by further work,” Bryan continued. He cited the Tule Springs site in Nevada, consid-
ered a 25,000-year-old site until careful work (by Haynes and Richard Shutler) produced evidence that the dated organic material was not charcoal. Thus, the site’s artifacts could not be dated. “Many ar-

chaeologists at that time decided that all similar claims were spurious,” said Bryan, who went on to note that worked holes from Tule Springs had been di-
rectly dated to 13,000 years B.P. He cited Hilbers’s Sandia Cave site as another ex-

ample of a site where pre-Clovis evidence was disproved. “Yet two willow-leaf-

shaped points . . . from the pre-Clovis stratum have never been explained. . . . They’ve just been ignored.”

Haynes agreed, saying that those points, the ones also referred to by Tank-

ersley, are the oldest artifacts in the site.

Bryan cited Yukon’s Old Crow as an-

other site that late-entry mentality caused to be ignored when a Caribou-bone tool thought to date well back into the Heti-
tocene was discovered to be only about 1,300 years old. “The presence of mam-
moth-bone flakes and cores dated up to 40,000 years B.P. at Old Crow have been ignored or explained away as naturally flaked in the Old Crow River. Similar

Sweeney Center poster and display

rooms were
crowded with

scientists, students

and interested

amateurs—
especially during

breaks in the

presentations
downstairs.
mammoth bone flakes and cores... from Buehler Cave not far away, but far from fluvial action, have been ignored or explained away as coming from disturbed contexts." He noted that dates are widely accepted on flaked mammoth artifacts from Paleolithic sites in Eurasia and from pre-Clovis age sites in Nebraska.

Why, Bryan asked rhetorically, has the Clovis-first model been so popular with archaeologists and the public? "One major reason is because highly diagnostic fluted points—beautifully flaked fluted points—are very obvious and easy to identify as being early." He went on to suggest that another reason is the "speaking vision of advanced human beings acting as great hunters that rapidly conquered large regions of the world with an advanced technology."

Haynes questioned his colleagues' use of the term "paradigm." He suggested that "model" might be a better word. "A single paradigm," he told the conference, "is nothing more than ruling theory. Some archaeologists have responded as if two or more different models or paradigms cannot exist at the same time. I've even heard it said that we need a new paradigm because the Clovis-first model has been around too long. Should a paradigm be invalid because it's been around for a long time? Instead of treating paradigms as if they were fashion designs to be abandoned for new fads, they should be treated as working hypotheses to be continuously tested via new data. One paradigm should not displace another if both are reasonable hypotheses."

Haynes urged colleagues not to relax scientific standards. "In the future, the scientific investigations of all potential pre-Clovis sites must include on-site evaluation of evidence as it is recovered," he said. "The standards today should be no less than they were with Folsom in 1927. It is apparent, as always, that available evidence and interpretation of data becomes more or less subjective depend- ing on the bias of the interpreter. The best recourse, he said, is to rely on multiple working hypotheses. Bryan might have added that each of the hypotheses should be tested.

Bryan called for reexamination of all previous assumptions based on the evidence from Monte Verde and from many other sites in the Americas where he said there is a great diversity of early non-Clovis evidence. "We need to realize that we should not be looking for any specific kind of artifact or any particular kind of association."

He continued: "Instead, we should be looking in geologically ancient Pleistocene deposits for definite human evidence, which certainly will not be as obvious as finding fluted points."

Haynes concluded by contrasting scientists with lawyers. In law, he noted, "winning the argument is what it takes to win the case, not presenting multiple working hypotheses. However, unlike jus- tice, in science it should be truth that we seek, not winning the argument."

"Don Alan Hall

Sweeney Convention Center in downtown Santa Fe was the venue for the Clovis and Beyond Conference, first of its kind since the World Summit Conference in 1989.
A Texas archaeologist is looking toward Europe to possibly explain the origins of a vast amount of Clovis-age artifacts being recovered from a site in central Texas—a site that may hold new insights into the peopling of the Americas.

So far, the Gault site has produced Clovis-style projectile points, point preforms, blades and cores, burins, and small engraved stones. These artifacts bear a "striking similarity" to cultural material recovered from upper Paleolithic sites in Western Europe, says Michael B. Collins, a research associate with the Texas Archaeological Research Laboratory at the University of Texas in Austin. A sampling of Gault site artifacts was displayed in Santa Fe during the Clovis and Beyond Conference, gathering considerable interest from conference-goers.

Collins stopped short of directly linking Clovis culture (generally dating to between 10,000 and 11,500 radiocarbon years ago) and the older European Solreuxen culture. "However, I have been struck by the similarities between those cultures, particularly the Solreuxen artifacts and Clovis artifacts," he believes it would be a terrible mistake to automatically rule out some form of influence or contact between the European and Clovis cultures.

Collins also is one of four principal investigators of the Gault site, an extensive campsite and lithic workshop around a series of springs at the head of a stream. His colleagues are Harry Shaffer and Michael Waters, both of Texas A & M University at College Station, and Tom Hester of the University of Texas at Austin. The site is on a terrace of a spring-fed tributary of Salado Creek in Bell County, about seven miles from Florence, or approximately 35 miles north of Austin. University of Texas archaeology Professor J. E. Peacor first investigated the site in 1929. Excavation since then has revealed dense archaeological remains over an area approximately 700 meters long, 200 meters wide, and more than 2 meters deep. Artifact collectors have extensively dug the site over the past seven decades.

The site is a campsite and stone-tool quarry made possible by a surrounding source of reliable water, toolmaking chert and protective bluffs. It has revealed an almost continuous occupation since Clovis times. Collins and his colleagues have been excavating there sporadically since 1991, a year after four small and elaborately engraved limestone rocks were recovered in association with Clovis-age points. The team has concentrated efforts at the site during the last year.

Research at the Gault site is planned for the next two years, Collins said, thanks to recent approval of a $55,000 grant from the Texas Higher Education Coordinating Board Advanced Research Program. "It is a welcome encouragement for us," said Collins, who explained that most of the excavation has been done on a financial shoestring.

Though renewed financial support is encouraging Collins, he remains disappointed in two aspects of the site: a lack of suitable material for radiocarbon dating, and poor preservation of bone. Although Clovis-age artifacts identified typologically and stratigraphically provide relative dating for the site, the team has found almost no charcoal or other materials suitable for radiocarbon analysis and absolute dating. They have recovered limited fragments of bones that include horse and bison, and Collins is hoping that a mammoth mandible with teeth, also recovered from the site, can be dated. Despite the site's lack of absolute dates, Collins said the team has almost 100 radiocarbon dates from the Wilson-Leonard site's Clovis-age horizon approximately 15 miles away. That site contains comparative materials.

"The material we are finding at the Gault site is typologically
similar to that found at the Wilson-Leonard site, providing a
dual-site comparison of artifacts," Collins said. And he is en-
couraged because the team is coming down on one meter of
Clovis-age deposits that has two distinct components, or cul-
tural layers, to study. This Clovis-age material is just below an
early-Archaic level and a buried soil he believes may hold
enough organic material to produce a reliable radiocarbon date.

Although confident of finding more Clovis-age material
through further excavation and research, Collins said he is
pleased with what has already been unearthed and with its
possible connection to the Upper Paleolithic cultures of West-
ern Europe. Collins said he became intensely involved in the
Gault site in 1991, shortly after a collector found small engraved
stones there. "We couldn't just take the word of a collector," he
said, "so we conducted our own dig there." The effort produced
more engraved stones, a Clovis point, Clovis blades and Clovis
blade core, and one Flairview (or Goshen) point, Collins said. In
1998, after the property had changed hands, the new owners
said they found some mammoth bones, so Collins and his crew
secured permission to dig there for three more years, begin-
ning with a field school in the summer of 1999.

Artifacts from the Gault site near Florence, Texas,
as displayed in Santa Fe.

The results of his excavations have persuaded Collins to ques-
tion the "Clovis First" model for peopling of the Americas, a
model rigorously criticized during the Santa Fe conference.
Unable, however, to find clear antecedents for the Clovis cul-
ture in northeast Asia, some archaeologists, including Collins,
are now comparing Clovis artifacts with those of late-Pleis-
tocene people in Western Europe and finding surprising simi-
larities.

"I have made a list of 18 similarities between Clovis and
Solwegean and other west European finds," Collins said. "These
are technological similarities, general patterns, and similarities
in engraved stones." He wrote in the October 1998 issue of the
journal TARL Research Notes:

All of the Upper Paleolithic cultures of western Europe share
the traits of prismatic blades and burins made of flint along
with various tools made of bone and antler. The well-known
cave paintings of France and Spain are also the work of Upper
Paleolithic people. Of more specific interest are blades, blade
cores and beveled-base bone and antler points found in
Aurignacian sites; large, thin bifaces and spear points of
Solwegean affiliation; and ... small, flat engraved stones called
plquets. Some of these traits are shared with Clovis assem-
blages found widely across North America, some are re-
stricted to only part of the Clovis range, and two are known
almost exclusively from the Gault site.

Clovis flintknappers from throughout North America made
their distinctive points from equally distinctive preforms,
Collins said. One distinctive preform feature, of which there are
a number of outstanding examples from the Gault site, are
flakes the flintknappers had removed across the face of the
artifact from one edge to the other—"overshot" or "outside pasé"
flakes.

"The Gault site has yielded the largest assemblages of such
Clovis artifacts in Texas and one of the largest in North
America," Collins wrote in the TARL Research Notes. He went
on to note that scholars have been curious why Clovis knappers
made so many blades like European upper-Paleolithic knap-

Gault site Clovis points on display at the Clovis and
Beyond Conference.
New Interdisciplinary Journal To Be Published in Siberia

The Institute of Archaeology and Ethnography of the Siberian Branch, Russian Academy of Sciences (Novosibirsk) has announced the publication of a new quarterly peer-reviewed journal. The interdisciplinary journal *Archaeology, Ethnology & Anthropology of Eurasia* will be published in identical Russian and English versions.

Editor Anatoly Derevianko says the main purpose of the new periodical is the presentation and analysis of materials relating to the archaeology, ethnology and anthropology of Eurasia including North and Central Asia. "The editorial board would also be interested in materials that extend the understanding of Eurasia to the Pacific Rim and, where appropriate, to the Americas," he said. Detailed information on the new journal is available on the World Wide Web at http://www.archaeology.nsc.ru.

"More than 50 engraved stones have been recovered at the Gault site"

Limited use-wear studies on some of the Clovis blades strongly suggest that they were being used as tools to process plants, Collins said, which provides evidence that has previously been elusive in many Clovis sites. More use-wear studies are planned. Collins's plans also call for continued exploration of a connection between the Clovis culture and those of Western Europe's Upper Paleolithic.

"Clovis certainly doesn't seem to have any antecedent sites in eastern Asia," Collins said. "There are no clear predecessors to it. Maybe it's time we back off and reassess the big picture in light of recent information. There may have been a maritime-adapted people in Europe at a very early date, and they may have been coming here quite routinely, just as the Vikings did."

Collins also conceded he has taken his time at getting around to looking at alternative theories for the peopling of the Americas. "I guess I'm just more willing to think outside the box than I once was," he recalled being skeptical when French archaeologist Abbé H. Breuil, who was working at La Mouthe Cave in the Dordogne in the southwest of France many years ago, noted that there is a depiction of a boat with a sail on the cave's wall. "I thought it was the craziest thing I ever heard," he said. "I just don't think we can automatically rule out other possibilities anymore."

--George Winter
SANTA FE, N.M. — Tempering dramatic breakthroughs in the search for a scientific explanation of human colonization of the Americas are troublesome administrative, legal, and cultural barriers that were explicitly examined at the Clovis and Beyond Conference here in late October. Participants emphasized the necessity to coordinate science and public policy matters.

"Stewardship of First Americans resources is enormously important to the future of public archaeology," explained Robson Bonnichsen, conference co-organizer, as he introduced the overall perspective of the conference. "Public policy will play an enormous role in defining the future dialog between our communities for better or worse." The public policy panel, with seven differing and sometimes conflicting perspectives, addressed the question "Where Do We Go From Here?"

Lawyer and discussant Jo Ann Harris concluded the public policy panel session, which opened the conference, by pledging to look for success stories. "We're going to try to identify stories where Native Americans, archaeologists, scientists, land owners — all people — have worked together with specific instances of success." The goal, she continued, is to identify success stories around the country, then organize a series of regional workshops where government land managers, scientists, land owners, and Native Americans can learn from the successes.

Much of the concern voiced relates to NAGPRA, National Graves Protection and Repatriation Act, and how it is to be interpreted and administered. Dr. Bonnichsen, archaeologist and Director of the Center for the Study of the First Americans at Oregon State University, noted that nine years have gone by since the law was passed. "We still lack basic definitions for dealing with unaffiliated and unidentified human remains, which is the legal category that covers ancient human skeletal remains important to First American studies. The law is mute," he said, "on how Congress intended for such ancient remains to be handled, if at all."

He explained that two fundamental concerns have created conflict. The first is the definition of Native American. He noted that the National Park Service in an opinion letter has taken the position that any human remains from the United States that are older than the time of European contact are by definition Native American and subject to NAGPRA. He said, however, that some
legal scholars do not interpret the law in the same way. They propose that time and place alone is not an adequate criterion for making racial determination. Bonnichsen outlined the argument that early American remains that are morphologically different from modern-day Native Americans might not necessarily be ancestors of today's Native Americans and that their remains are thus not covered by NAGPRA.

The second concern he outlined is that ancient human remains are determined to be of Native American origin, what criteria are to be used to determine cultural affiliation with modern tribal groups. Bonnichsen noted that the law lists 10 criteria that can be used in such determinations, but decision-makers have yet to agree on common standards for using these criteria in making NAGPRA determinations. He reported that the ambiguity created by these definitional issues has created dissension among communities with a stake in First American studies.

At the public policy session, Keith Kintigh, Arizona State University archaeologist who is president of the Society for American Archaeology, the principal organization of North America's academic archaeologists, voiced support for the government's interpretation of NAGPRA. Speaking on behalf of the SAA, he said that he interprets the term Native American to include all first Americans regardless of how many migrations there were, where they came from, when they came, and whether some groups died out. "I think this is what the law says and I'm certain that's what Congress intended." However, he argued that disposition of ancient human remains should depend on the determination of whether the remains have or lack cultural affiliation. "Because the earliest Americans will likely fail to meet the legal standard of cultural affiliation," said Kintigh, "they should be classified as culturally unidentified. As such, they are now subject to repatriation." Kintigh warned that under administrative proposals, which are under review and discussion, they would be. "Thus we must focus our public policy attention and the public's attention on the disposition of culturally unidentified human remains and the potential of these remains to contribute enormous amounts of information about the past." He added: "We need to reach a conclusion to the major repatriation issue that is acceptable to tribes and to museums and to the scientific community."

Lois J. Schiffer, Assistant Attorney General in the Environment and Natural Resources of the Justice Department, describes some public policy successes as fellow panelists listen.

Bradley T. Lepper of the Ohio Historical Society presented his perspective as an academic archaeologist. "The concerns of modern Native Americans should be taken into consideration," he said, "but our current understanding of biological and cultural evolution calls into question the validity of any claim or relationship of direct descent between any particular modern person or group and human remains older than four or five hundred years. And claims based on spiritual grounds should not be subject to legislation in a nonsectarian society."

Dr. Lepper, an archaeologist with special expertise in the earliest sites in the Midwest, noted that most archaeologists do support the rights of Native Americans, including the right to reclaim skeletons and religious artifacts reliably associated with modern tribes. But he cautioned that the way "culturally unidentified" human remains are to be dealt with under the Act is an impending policy question of critical importance.

Lawyer Alan Schneider, an advocate for all scientists' rights, carried the archaeologist's perspective further, accusing administrative agencies of deciding policy rather than applying the law. Agencies claim, he said, that "all they are doing is merely applying the law and that they are restricted by the law. I disagree with that position. I believe that in many cases they are making the policy themselves, for example, when they take the position that NAGPRA restricts or, in fact prohibits, study of new discoveries. That's not written in the statute, that's their interpretation."

Schneider went on to say that when agency administrators take the position that all remains that predate documented European arrival in America are Native American, "that is not written in the law. That is their policy."

Schneider told the audience he finds it disturbing that administrators would look for an implied interpretation of the term "Native American" when the statute has an expressed definition, which is "relating to peoples, tribes and cultures that are indigenous today."

**Totally Different Perspectives**

Other panelists brought totally different concerns and viewpoints to the table. For example, Jan Warnick of Fortales, N.M., spoke from the perspective of private landowners and amateur archaeologists. He warned that important archaeological sites, perhaps mammoth-kill or human-burial sites, are possibly being lost to science because ranchers and farmers fear they might lose their land if such a discovery became public.

"They don't want anyone on their land to find sites," Warnick told the conference. "They'd just as soon you stayed away. This is not really justified, but they're scared that if anybody finds something on their land, the government may come in and confiscate their land. So they'd just as soon people stay away."

He emphasized that such fears were new and that private landowners formerly were delighted to have "college people" come to study bones or artifacts on their property. He cited personal knowledge of several recent examples in eastern New Mexico in which potential archaeological or paleontological sites were purposely destroyed by property owners.

The forum's perspective presented by a high official of the
U.S. Justice Department focused on success stories involving public land and did not directly address the private-land issue raised by those New Mexico farmers and ranchers. Lois J. Schiffer, Assistant Attorney General in the Environment and Natural Resources of the Justice Department, explained that the public policy being discussed at the forum was the result of long-standing efforts to give the public more of a voice in policy matters that before the 1970s had been mostly decided behind closed doors by government and industry. Then, environmentalists and other interests got a place at the table where polices were being formulated. It is good, she said, that policy making takes into account diverse views.

More Voices at the Table

"The same expansion of the table has occurred in the area of public management of cultural resources," said Schiffer. The Antiquities Act in 1906 and the Archaeological Resources Protection Act in the late 1970s protected cultural resources on Federal lands and regulated how they would be available for study and preservation, she explained. "With the enactment of a series of later laws, the American Indian Religious Freedom Act in 1978, NAGPRA in 1990, amendments to the National Historic Preservation Act in 1992, and President Clinton’s issuance of an executive order on sacred sites in 1996, other purposes and goals were added and a new seat was given to Native American interests at the table. The real issue, she said, is to be sure that those interests are listened to. "The expanded table, to be sure, creates tensions. But it also creates opportunities. Opportunities to hear from communities and interests and opportunities for them to listen to each other—even to walk for a time in the shoes of another in order to better understand their concerns."

She cited three cases in which diverse communities came together to create solutions to contentious differences: Devil’s Tower National Monument, where Indians and rock climbers agreed on a plan that protected a sacred site and allowed climbing; consultations with county governments concerning management policies on public lands in the West; and a partnership between the Simpson Timber Company and the Yurok Tribe to protect the Klamath River in California.

Francis P. McManamon, whose position as chief archaeologist of the National Park Service in effect makes him the top archaeologist in the federal government, spoke more specifically of Federal policy toward archaeology. He noted that archaeologists, historians and historic preservationists have labored to strengthen federal regulations of public and private activities. "Growth of environmental impact reviews and public planning of projects have stimulated an explosion of archaeological investigations and professional growth that has transformed what, when, and how archaeology is done today in the United States. Overwhelmingly," McManamon continued, "these laws, regulations and programs have benefited the scientific research and the educational goals of archaeologists, physical anthropologists, museums, and others who hold and promote the values associated with research and education."

‘Ready to Scream about . . . Regulations’

He acknowledged that regulation has meant limitation and constraints on some aspects of research done under these legal authorities and that methods and techniques used in research projects, as well as the execution and results, have been open to public scrutiny. "Some of us, and I include myself, may find ourselves ready to scream about the injustice or wrongheadedness of government regulations. I would counsel you to take several deep breaths and a historical perspective before throwing out the baby with the bath water about government regulation."

"Archaeology is hardly unique in having constraints placed upon its practitioners and the scientific research they want to conduct. Research in many disciplines is subject to legal, regulatory and policy restraints," said McManamon, and he cited medical research as an example. "NAGPRA imposes some constraints on archaeological and anthropological research," he said, and those constraints are part of the balance established.
Under the portal of Santa Fe's Palace of the Governors, one of the oldest public buildings in the United States, American Indian artisans sell their creations.

by the law "to address grievances that many Native Americans have raised, quite legitimately, about the treatment of burial and human remains that are, they believe, associated with their ancestors."

Joe Watkins, an archaeologist with the Federal Bureau of Indian Affairs and a Native American, detailed Indian concerns at the panel, although he stressed that he does not represent "the American Indian viewpoint." He began by noting that a number of scholars have said that American Indians have been held to be inferior to "civilized" Euro-Americans to justify violation of treaty rights and civil rights. NAGPRA, he said, was widely considered human rights legislation aimed at providing equal treatment to all human remains under the law.

Watkins said that he continues to hear the following concerns about archaeology among American Indians: "The lack of Native voice within the discipline; the patronizing attitude of many scientists toward American Indians; the lack of respect for the Indian viewpoint; and the absence of true equality between parties."

"Tail-to-tail Like Two Wild Cats"

"Perhaps, unfortunately," he said, "this conference is an example of those concerns. As has been pointed out to me by most American Indians who are aware of this conference, I am the only American Indian speaker here—and I am suspect because I'm also an archaeologist." Watkins continued: "We, the ar-
In the Next Issue
Coverage of Clovis and Beyond presentations will continue in the next Mammoth Trumpet with, among other things, the story of how Dennis Stanford and Bruce Bradley came to believe that there really may be a link between Clovis and the Southern culture of Europe. We’ll also feature a report on innovative research by Walt Ream and Orin Shanks on finding and identifying protein and ancient DNA on stone tools, and other interesting information from the presenters at Santa Fe. Actually in the next and future issues, we’ll do our best to review all the interesting details from Clovis and Beyond.

COMING CONFERENCES
April 5-9 65th Annual Meeting of the Society for American Archaeology, Philadelphia.
April 12-15 69th Annual Meeting of the American Association of Physical Anthropologists, San Antonio.
Contact: Sarah Williams-Blangero, Dept. of Genetics, Southwest Foundation for Biomedical Research, San Antonio. 210-258-9414; sarah@darwin.sbr.org

Send conference notices to Mammoth Trumpet. 620 Northwest Wilhem Drive, Corvallis, OR 97330

-don Alan Hall & George Winner

distrust, cynicism—and here’s the real problem—a belief that it is not the law that is being implemented here but that it is politics.”Attributing decisions to politics, she said, is the worst that people can think.

Because the conference schedule allowed no time for ques-
tions or audience interaction with the panel, Harris invited all interested people to continue the discussion in an upstarts meeting room at the Sweeney Center. About 20 conference goers did so as the archaeology presentations began, and they started by following Harris’s suggestion to search for success stories involving cooperation. One mentioned was a coopera-
tive agreement between archaeologists and the Cobble Tribe of Washington State, in which the tribe generally decides how an investigation will proceed when human remains are found in exchange for archaeologists accepting study restrictions in-
cluding time limits.

However, the bulk of upstarts discussion swirled around the reluctance of some private landowners to allow access to their land for archaeological survey or excavation. Many landown-
ers, participants said, rightly or wrongly fear they may lose land value, if not use of parts of the land itself, once cultural re-
sources emerge. Therefore they prefer not to open their land to archaeological access. While some people said the taking of land is an unfounded horror story that gets amplified and spread around erroneously to the detriment of archaeological inquiry, others said that cultural-resource law can be compli-
cated and might force landowners to accept restrictions on use of their property in some cases.

Participants reached no unanimous agreement on issues, but they did agree that more public education through methods such as Internet “chat groups” and putting conference papers on the Internet would be positive steps. Allowing for that sort of public comment and review, people suggested, might result in less vandalism of archaeological sites, less resistance to ar-
chaeological inquiry, and more understanding among fac-
tions.
Conference Surprises Frison and Haynes With ‘Century’ Awards

SANTA FE, N.M. — Two widely known and respected participants of the Clovis and Beyond Conference were honored with special awards. Immediately before George C. Frison’s presentation to the Goshen cultural complex, C. Vance Haynes made an unscheduled return to the conference podium to present the veteran Wyoming archaeologist with a plaque proclaiming him Paleoarchaeologist of the Century.

“No single archaeologist has furthered our understanding of the Paleolindian cultures more,” Dr. Haynes told the audience before presenting Dr. Frison with the large plaque featuring a replica of a Clovis point mounted on leather above a recognition plate of hand-engraved silver. “He pioneered the way we look at Paleolithic flaked-stone weaponry,” said Haynes, adding that Frison’s pioneering work also involved large animals, bone beds, hunting strategies, seasonality, meat storage, and even the supernatural. “He demonstrated the lethal nature of Clovis weaponry,” Haynes continued. “His research is driven by an inner passion to seek the truth about Paleolindian hunters and the prehistoric environmental conditions of the Great Plains of North America.”

Surprised by the honor, Frison, professor emeritus at the University of Wyoming, briefly recalled those who had been his teachers, especially the late H. Marie Worthington of the Denver Museum of Natural History. “We ought to have an empty chair here for her,” he said.

At the conference’s concluding banquet the following evening Haynes was surprised to be the recipient of an almost-identical award as Geoarchaeologist of the Century. In presenting the award, archaeologist Ken Tankersley cited a long list of Haynes’ previous honors and said Haynes, Regents Professor at the University of Arizona, “was instrumental in raising our discipline to a higher level.” Like Frison, Haynes seemed speechless. “I was dumbfounded that this was happening,” he said later. “This was a total surprise.”

He went on to thank Rob Bonnichsen, Forrest Fenn, Dennis Stanford, and Ken Tankersley for organizing and producing the best Paleoamerican conference he has ever attended. To have so many Clovis and pre-Clovis collections at one place for examination by all is a tremendous feat and a genuine contribution to knowledge.” He thanked Mark Mullins for his part in organizing the exhibits of artifacts. The conference was originally the idea of Fenn, Santa Fe avocational archaeologist and publisher. Fenn designed and created the two plaques.
Evidence for the Place of Origin of some of the
earest Americans comes from a variety of disciplines
including archaeology, physical anthropology, genetics,
and linguistics. Linguistics, like genetics, has its own scientific
basis. Because of that, any linguistic discovery that may shed
light on early human migration into North America demands
our close attention.

Could something as simple as similar words for birch bark in
two cultures on two different continents, separated by thou-
sands of miles, offer a clue to
the origin of the Na-Dene?
Such word similarity is what first drew Merritt Ruhlen’s
attention to the Ket lan-
guage. The only currently
existing member of the
Yeniseian family of lan-
guages, Ket is spoken by
about 550 people (out of a
total population of 1,100)
who live along the Yenisei
River in central Siberia.
The other five languages
in the Yeniseian language fam-
ily became extinct in the
19th century.

The four-branch Na-Dene
language family is made up
of the three single lan-
guages—Haida, Tlingit, and
Eyak—which are spoken
along the coastline of west-
central Canada and southern
Alaska, and the Athabaskan
group of languages. These
Athabaskan languages are
found in interior Alaska and
western Canada as well as
certain parts of the Cali-
fornia coast of Oregon and
in the American
Southwest (Navajo, Apache).

Dr. Ruhlen told the Mammoth Trumpet that until quite
recently both the Yeniseian and Na-Dene language families
were believed to be families with no known relatives. Ruhlen
now thinks he can show that all the world’s language families
the Yeniseian and Na-Dene families are most closely related to
each other. If correct, this relationship would locate the starting
point of one of the three migrations to North America from Asia
postulated by linguist Joseph H. Greenberg in 1987. Ruhlen’s
evidence indicates that Na-Dene and Yeniseian must have once
formed a single population in Eurasia. Part of the population
migrated to the New World, giving rise to the Na-Dene lan-
guages, while another part of the population remained in Asia
and gave rise to the Yeniseian languages.

Though many linguists maintain that Old World and New
World language stocks are not related, Dr. Greenberg has
postulated three migration waves that began at least 11,000
years ago with the Amerind, followed 6,000 to 8,000 years ago
by the Na-Dene, and 3,000 years ago by the Eskimo-Aleut.

In an article recently published in the Proceedings of the
National Academy of Sciences, Ruhlen presents 36 sets of words
in Yeniseian and Na-Dene that appear to have a shared origin
and seem to be descended from the same ancestral root. These
shared words are part of basic vocabulary—pronouns, body
parts, and natural phenomena—such as the words for elbow,
foot, head, breast, shoulder, guts, lake, river, house, birch bark,
river, canoe, boat, snow (falling), snow (on ground).

Evidence connecting lan-
guages consists of words
that are similar in sound and
meaning, Ruhlen explains.
For example, Italian acqua
and Spanish agua, both
meaning water, are simi-
lar in sound and meaning
because both derive from
the same word, aqua, in an
earlier language, Latin. Ev-
dence such as this shows that
Spanish and Italian are mem-
bers of the same linguistic
family, the Romance family
of languages that descended
from Latin.

As so often occurs in sci-
ence, Ruhlen happened by chance upon the link be-
tween Ket and Na-Dene
while he was doing re-
search on another problem.
In this case the origins of the
Basque language. He was
looking at the six language
families that are related to
Basque, and in the pro-
cess he stumbled upon a link
between Na-Dene with Yeniseian
(Ket). The word for birch bark
is so similar in both families that it caught his attention and
caused him to take a closer look at the relationship between
the two families.

Both Na-Dene (Athabaskan) and Yeniseian (Ket) have one
word for birch bark. This is significant, says Ruhlen, because
most languages combine two words to express birch bark, as
does English. Furthermore, Yeniseian uses a completely differ-
ent word for birch tree. One can infer from this that for Na-Dene
and Yeniseian language speakers birch bark was a very impor-
tant part of their culture.

After his article was published, Ruhlen said he received a
letter from a linguist who specializes in Yeniseian. This linguist
told him that the Ket make many items out of birch bark
including tepees, boats, dishes and other household items. An
Eagle Scout then told Ruhlen that birch bark is virtually water-
proof—even if it is wet on the outside you can just wipe it off and
set it on fire. It's the only wood that can be lit even when wet, thus making birch bark an extremely important item in a cold and wet climate.

Ruhlen also finds it compelling that the Na-Dene and Yeniseian families share at least two words that mean boat, and that both were maritime peoples. He can't say whether the first Americans arrived by boat because the linguistic evidence for Amerind doesn't settle this question one way or the other. On the other hand, he thinks that the Na-Dene group probably did arrive by boat, landing first on the Queen Charlotte Islands, where the most divergent member of the family is found (Haida). This population then expanded to the mainland where first Tlingit developed, then Eyak, finally the widely dispersed Athabaskan family that lives in much of Alaska, Western Canada, and parts of the American Southwest. The particular way in which these languages are distributed implies that the Na-Dene group arrived by boat and spread out from the Queen Charlotte Islands, says Ruhlen.

Ruhlen teaches at Stanford University part time and spends the rest of his time doing his own research on languages of American Indians. He also designs and typesets Joseph Greenberg's books, the most recent of which—*Indo-European and Its Closest Relatives*—focuses on the Eurasian family, which includes Eskimo-Aboriginal.

Of the Clovis-first theory, Ruhlen said, "It is sometimes claimed that Amerind is somehow tied together with the Clovis first theory of archaeology and that pre-Clovis dates would invalidate Amerind. In my view, and that of Greenberg, the Clovis-first theory and the Amerind hypothesis are totally independent of one another. Language is notoriously unreliable at giving absolute dates for early language families such as Amerind. This is where archaeology excels and it is on the basis of the archaeological evidence alone that we date Amerind to roughly 11,000 [radiocarbon years B.P.]. We find the few earlier archaeological dates either unconvincing (Pedra Furada, 44,000 B.P.) or so close to the Clovis time frame (Monte Verde, 12,500 B.P.) that it would have little linguistic import. After all, 1,000 years is just the difference between Old English and Modern English. The abundant evidence found throughout North and South America after Clovis time—i.e., comparison with the few, often disputed earlier dates—is what leads us to identify Amerind with this explosion of humans in the New World."

—Carol Anne Leth

### SUGGESTED READINGS

**On the Gault Site**


**On Northern Great Basin**


**On New Linguistic Evidence**


Central Oregon’s Great Basin Region
Has Potential for Pleistocene Sites

One early autumn morning around 10,000 years ago, inside an oblong wickup of woven mats of hazelbrush and sedges wrapped on a frame of lodgepole pine branches and held tight to the ground with anchor stones, a family begins its day. They are gathered around a small fire as they share a breakfast of dried meat, chokecherries and hazelnuts. Their snug shelter is near the shore of a cold, sky-blue lake set in the eroded caldera of an ancient volcano not far east of the Oregon Cascade Range. After their meal, they depart, continuing their seasonal round of hunting and gathering.

Though this portrayal is conjectural, analysis of cultural materials recovered between 1990 and 1992 at the Paulina Lake site in central Oregon’s Newberry Crater has left little doubt of the existence of a seasonal camp. Dennis L. Jenkins, staff archaeologist for the Oregon State Museum of Anthropology at the University of Oregon, says many researchers now regard that wickup at Paulina Lake as the oldest known dwelling in North America.

Although the Paulina Lake site is at least a thousand years younger than sites that chronicle the Clovis tradition, it is one of the recent discoveries that are focusing renewed interest on the Fort Rock region of south-central Oregon, where sites dating back to Clovis age tease researchers with the potential of even older possibilities, says Dr. Jenkins. He calls some of the earliest dates associated with sites in the Fort Rock Basin area “tenuous,” but is excited about the prospects of finding early sites in the Fort Rock Basin and believes he has a good chance of finding them in well-documented contexts.

Jenkins’s continuing research in the Fort Rock Basin follows in the footsteps of earlier University of Oregon investigators whose discoveries have set the stage for continuing research throughout the desert West. Perhaps the best known of these discoveries resulted from the pioneer research done in 1938 by Luther Cressman, who recovered woven sagebrush bark sandals from Fort Rock Cave. Dr. Cressman’s excavations yielded the remains of nearly 100 twisted sagebrush bark sandals. Almost 10,000 years old, these sandals were made of heavy fibers woven to form a flat sole with toe flap at the front and a cord at the heel wrapped around the wearer’s ankle. Many of these perishable finds are now displayed at the Museum of Natural History in Eugene.

Fort Rock Cave, named for the isolated landmark that gives the basin its name, now belongs to the Archaeological Conservancy, a New Mexico-based organization dedicated to preserving archaeological sites for possible future research. The sagebrush sandals, like many of the Fort Rock Basin discoveries, were found under a layer of volcanic ash from the eruption of Mount Mazama, which exploded approximately 6,800 radiocarbon years ago to form Crater Lake. The explosion and ash deposits firmly capped and protected cultural materials at sites of the Fort Rock region and perhaps shielded even older materials yet to be discovered. University of Oregon researchers have continued to recover archaeological materials at such the Mazama ash layer. Jenkins’s team, for example, found the Paulina Lake house approximatively 50 centimeters below that powdery cover.

Other significant Fort Rock Basin excavations include those of the late Stephen Bedwell, who in 1970 uncovered material from Conley Caves, a series of six small caves and rockshelters holding cultural material acceptably dated from 8,000 to 11,000 years ago. The earliest levels of these sites also produced dates suggestive of the terminal Pleistocene, when pluvial lakes defined the area’s
landscape. Dr. Bedwell, using an artifact assemblage that included a wide assortment of stone and bone tools, defined what became known as the "Western Pluvial Lakes Tradition," a theoretical construct proposing that the subsistence patterns of the area's early residents focused on lakes and marshes that existed in the region at the beginning of the Holocene.

Rapidly fluctuating conditions have frequently reshaped the landscape of the Northern Great Basin. The region's most consistent quality is perhaps its continuing shifts between wet and dry conditions, Jenkins said. Erosion has caused some very early artifacts to be exposed on the surface and caused others to become deeply buried.

While some collectors have reported finding isolated Clovis-style fluted points in the Fort Rock Basin, Jenkins says that there are no Clovis or Clovis-era sites currently documented in the basin. Bedwell, Jenkins says, believed that he had found a fluted point in his lowest levels of excavation at Fort Rock Cave, but later examination showed that the specimen was simply another stemmed point variant common to the region. However, Clovis people had been in the general vicinity. Clovis occupation is well established at the Diets site a mere 40 miles to the east.

Bedwell's 1970s research at Connely

University of Oregon archaeologists continue to analyze northern Great Basin sites. Early Holocene marshes in places like Christmas Valley, pictured before distant Table Rock, would have provided people an abundance of wildfowl and other food through the winter.

Caves, a few miles south of Fort Rock at the north end of Paulina Marsh, illustrates the potential for continued early finds, according to Jenkins. There Bedwell recovered Western Stemmed points, Leaded points, and Windust points. Dates associated with these discoveries ranged from 9,000 to 13,000 calibrated years B.P. Other lithics included cobble tools, scrapers, choppers, gravers, oases, bone awls and other bone tools. If the chronology is accurate, Jenkins added, Connely Caves could have been occupied in pre-Clovis times. There is little doubt, he added, that the site is a good place to explore further for evidence of early human occupation.

Jenkins also said Cougar Mountain Cave, which is in a small volcanic dome a dozen miles east of Fort Rock and was excavated to bedrock by a collector in 1958, produced lithic artifacts similar to those found at Connely Caves. Many of these artifacts, and others at the lowest level of Fort Rock Cave, were associated with bison bones and are similar to those from Connely Caves. Reports of the Cougar Mountain Cave assemblage, Jenkins says, indicate a culture that functioned in a fashion very similar to the one that occupied Connely Caves.

Though Fort Rock Basin sites provide excellent potential for the discovery of older dates than have yet been found, Jenkins also is planning research in other regions of Oregon's Northern Great Basin to the east and south of the Fort Rock area. Proposals are varied. They include that archaeologists should be looking for more caves and rockshelters where perishable data—from seeds to basketry—are most likely to have been preserved. Research plans for the University of Oregon Archaeological Field School Northen Great Basin Prehistory Project call for annual excavations to help answer questions about what people were doing on the landscape and when they were doing it. Already, data from the earliest Holocene period, 13,000-7,000 yr B.P., suggest at least three types of sites: temporary foraging camps, summer base camps, and winter residential bases in locations like Connely Caves and Cougar Mountain that were near marsh and lake-side locations.

Although he is cautious about predicting that archaeologists definitely will find evidence of pre-Clovis people in the Northern Great Basin, Jenkins remains optimistic about the potential of the area to further illuminate issues related to the early peopling of the Americas. Clearly, Clovis was distributed across the Great Basin by the time of the known occupations of Fort Rock Cave, Connely Caves and the Paulina Lake site. "Was there something earlier? I don't see why not," says Jenkins. "There is currently spotty evidence of Clovis out there but if we are looking for something earlier we are going to have to look real hard. I believe momentum is just now beginning for broad new excavations that could lead to some exciting discoveries."  

—George Winter