MAMMOTH TRUMPET

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Center for the Study of the First Americans
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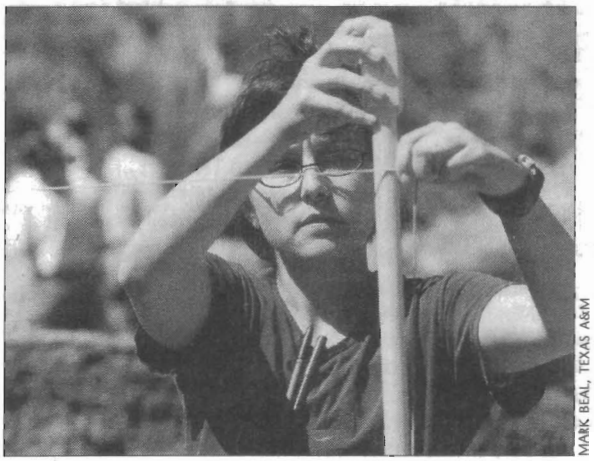
All about Gault

The famous Gault site in east-central Texas is a made-to-order classroom for training future scientists. After all, it was a Clovis quarry, workshop, and campsite, and it was occupied by Clovis people longer than any other site known in North America. The research done by a team of TAMU graduate students, each concentrating on a specific detail of the archaeology, will be published in a volume that promises to be as detailed and comprehensive as any study of Clovis context and lithic technology. Debitage—around 60,000 flakes chipped off by Clovis knappers—expedient tools, and spatial patterning of lithic evidence are the responsibility of doctoral candidate Charlotte Pevny, here measuring an excavation unit in 2000. The story of Char and her dedicated colleagues begins on page 17.



MARK BEAL, TEXAS A&M

The Center for the Study of the First Americans fosters research and public interest in the Peopling of the Americas. The **Center,** an integral part of the Department of Anthropology at **Texas A&M University,** promotes interdisciplinary scholarly dialogue among physical, geological, biological and social scientists. The **Mammoth Trumpet,** news magazine of the **Center,** seeks to involve you in the peopling of the Americas by reporting on developments in all pertinent areas of knowledge.

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KENNEWICK MAN STILL IN LEGAL LIMBO

Robson Bonnichsen, Director of the **Center for the Study of the First Americans,** and the other scientists who took the federal government to court to defend their right to study the remains of Kennewick Man won their landmark case, but have not yet been able to begin their examination of these 9,000-year-old bones. In August 2002, U.S. Magistrate Judge Jelderks issued his ruling striking down the Department of the Interior's decision to give these remains to a coalition of Native American tribes for reburial (**MT 18-1**). The government and the claimant tribes appealed Jelderks's decision, but a panel of judges in the U. S. Court of Appeals for the Ninth Circuit affirmed the scientists' right to study the skeleton, ruling that "no cognizable link exists between Kennewick Man and modern tribes of the Columbia Plateau Indians" (**MT 19-1**). The tribal coalition petitioned the Ninth Circuit Court to rehear the case, but the court denied the petition unanimously (**MT 19-2**). At this point, the tribes and the government declined to appeal the decision to the U. S.

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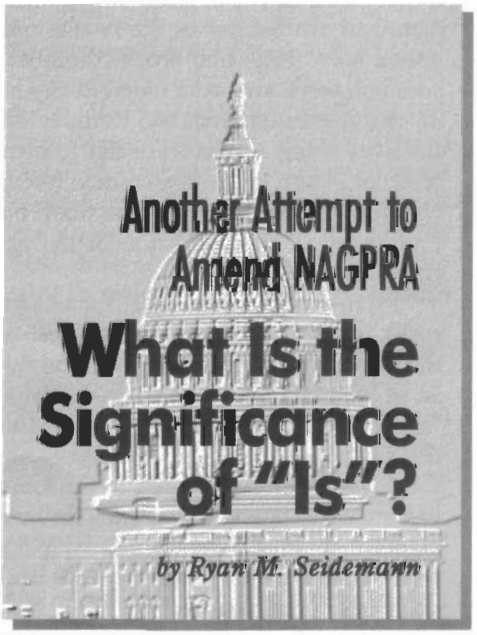

DISCRETELY TUCKED AWAY in Senate bill 2843, Senator Benjamin Nighthorse Campbell has proposed a seemingly minor amendment to a definition in the Native American Graves Protection and Repatriation Act (NAGPRA). Section 14 of S.2843 proposes to add the words "or was" after the word "is" in Section 2(9) of NAGPRA. If the bill is passed, the implications of this proposed change will be profound.

Before going any further, it is necessary to understand what "is" is. Section 2(9) of NAGPRA is the definition of "Native American." Under NAGPRA, "'Native American' means of, or relating to, a tribe, people, or culture that is indigenous to the United States." The importance of "is" in this definition was highlighted in the Kennewick Man case. It was upon the present tense of this definition (i.e., "is") that Judge Jelderks decided that Kennewick Man must be related to a currently existing culture to maintain a valid NAGPRA claim. Thus the significance of the word "is" is substan-

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Yana River, Siberia

Implications for the Peopling of the Americas

Part III
The Controversy

SCIENCE IS BY NATURE an argumentative process; few things are taken at face value in our quest for the truth, but what actually approximates the truth is often the subject of considerable wrangling and controversy. This is no less true for archaeology than for "hard" sciences like chemistry and physics.

Consider, for example, the recent finds at the Yana River in Beringian Siberia, some 300 km north of the Arctic Circle. In 1993, a Russian geologist scouting the frigid upper reaches of the Yana River came across the find of a lifetime: an ivory dart foreshaft with beveled ends, crafted from the horn of an extinct woolly rhinoceros. This remarkable find spurred a multidisciplinary team of archaeologists, geologists, and other scientists to explore the area for further treasures. What they found was a huge archaeological site, containing massive amounts of faunal material in association with lithic and bone artifacts, that stretched for 1½ km on both sides of the river. The Yana Rhino Horn site (RHS) was soon dated to at least 30,000 years old, placing humans in the Arctic twice as early as previously thought—a fact that questions existing prehistoric settlement models for the region.

The team, led by archaeologist Vladimir Pitulko, spent the 2001 and 2002 seasons studying Yana RHS before publishing its preliminary findings in the 2 January 2004 issue of *Science*. In addition to their emphasis on the great age of the site, Pitulko and his coauthors suggested, based on technological factors, that the Yana people might be ancestral to the Paleoindians of North America. These conclusions touched off a flurry of controversy that seems likely to continue until other Yana-like sites can be found and studied sufficiently to settle the issue.

The basics of the Yana discovery were discussed in the first part of this article, "The Siberian Connection" (**MT 19-2**). The second part of the article, "The Implications" (**MT 19-3**), covered the various archaeological, geographical, and social implications of the find. This final segment deals with the controversies sparked by the conclusions of Pitulko's team. Although the find is clearly ancient, not everyone agrees on its meaning or import; the interpretation of the site, and its implications, vary considerably among the interested parties. In this article, we'll present the various points of view contributing to the debate.

Digging up bones

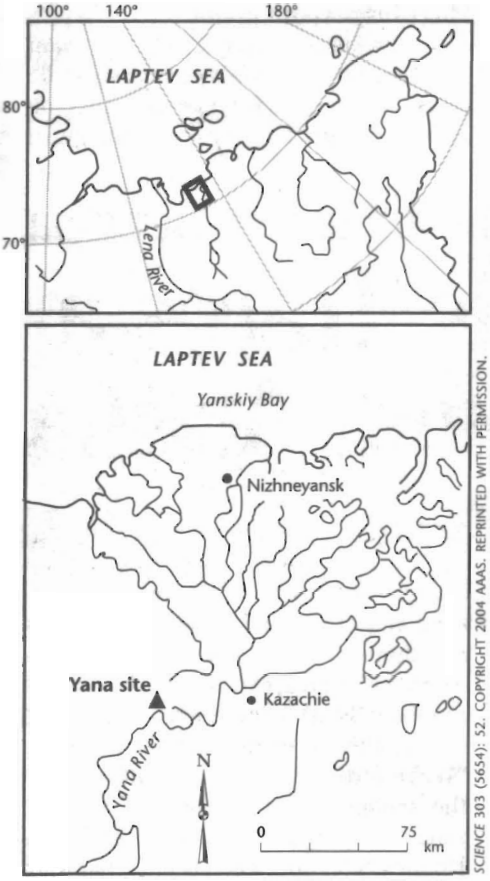
One thing no one finds fault with is the science; Pitulko's field methods, the data, and the basic conclusions drawn seem solid. The find is well documented, both graphically and textually, and the radiocarbon dates are plentiful and correspond nicely with one another. But what about cold-site processes, which are known to affect artifact distribution in sites like these?

Yaroslav Kuzmin, of Vladivostok's Pacific Institute of Geography, doesn't think this is a significant worry. "Cryoturbation could move artifacts and faunal material," he concedes, "but the direct dating of mammoth and woolly rhinoceros bones at the site overrides this factor." He does caution that the mammoth and rhino dates should be considered maximal, owing to potential use of subfossil bones by ancient people. This raises the prospect that people were raiding 30,000-year-old bone concentrations for tools much later on, but several factors argue against this possibility. Many of the bones display evidence of butchering, which would have occurred when they were fresh. Moreover, many bones are broken into small fragments, despite no indication of having been rolled by running water; in the natural state most bones are found intact or only slightly fractured. Also, one dated bone contained a small stone flake, evidently part of a stone tool. Finally, the radiocarbon ages derived from the bones themselves match the dates from other materials in the cultural layers, such as charcoal.

Some observers point out that nearly all the material from Yana has come from secondary contexts. Many artifacts had eroded out of the beach and gravel bars, some had eroded from exposures, and some were found in situ in blocks of sediment that had slumped off the riverbanks. Artifacts are also known to occur in situ in the site context itself, but none of the material described by Pitulko et al. derives from formal archaeological excavations.

"From what I've seen so far Yana looks really promising," muses Ted Goebel of the University of Nevada, Reno, a specialist in Siberian and Paleoindian cultures, "and it could well be that they've found the site that we've been looking for up there. But they really need to do some excavating to prove their point." He concludes that "what we've seen so far looks really good, but this should be the next stage of work at this site."

Dr. Goebel recognizes the difficulty in performing excavations in an area plagued by permafrost, where the surface soils may stay frozen until afternoon even in high summer. "There are so many frozen-ground processes that could impact such a site, making it very hard to dig," he points out. "There are some sites I've seen where all the artifacts occur inside ice wedges. This is one of the reasons I think the site needs some more work. Pitulko understands the necessity for this, but it's a really hard thing to do, and it may be impossible to formally excavate the site with the technology we have now."



Location of the Yana River RHS.

Stirring the pot of controversy

Two hypotheses, one virtually proven and the other of tenuous veracity, dominate the Yana debates. For most researchers, the significance of Yana RHS is the fact that it proves humans were in the Siberian Arctic before the Last Glacial Maximum (LGM), approximately 30,000 years ago, much earlier than expected. Granted, this was probably just a seasonal base camp for people who hurried back south when winter came; no permanent occupation of the area was likely, even during a glacial interstade.

Less likely is the suggestion, based on some aspects of the material technology, that the Yana people were directly ancestral to North America's Clovis people c. 11,000–12,000 RCYBP. Although this scenario is a favorite of the media, a number of factors militate against it. One is the sheer chronological gap dividing the two cultures. It's true that an early entry into the New World would be necessary to explain Monte Verde, Cactus Hill, recent Mexican finds, and potentially older sites like Meadowcroft Rockshelter, but most archaeologists believe that 16,000 years is simply too great a time gap, absent firm evidence of intermediate cultures.

Much has been made by Pitulko's team and others of the similarities be-

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MAMMOTH TRUMPET

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Many years may pass between the time an important discovery is made and the acceptance of research results by the scientific community. To facilitate communication among all parties interested in staying abreast of breaking news in First Americans studies, the **Mammoth Trumpet,** a science news magazine, provides a forum for reporting and discussing new and potentially controversial information important to understanding the peopling of the Americas. We encourage submission of articles to the Managing Editor and letters to the Editor. Views published in the **Mammoth Trumpet** are the views of contributors, and do not reflect the views of the editor or **Center** personnel.

–Robson Bonnichsen, Director

Early Americans in Eastern Beringia

Pre-Clovis Traces at Swan Point, Alaska

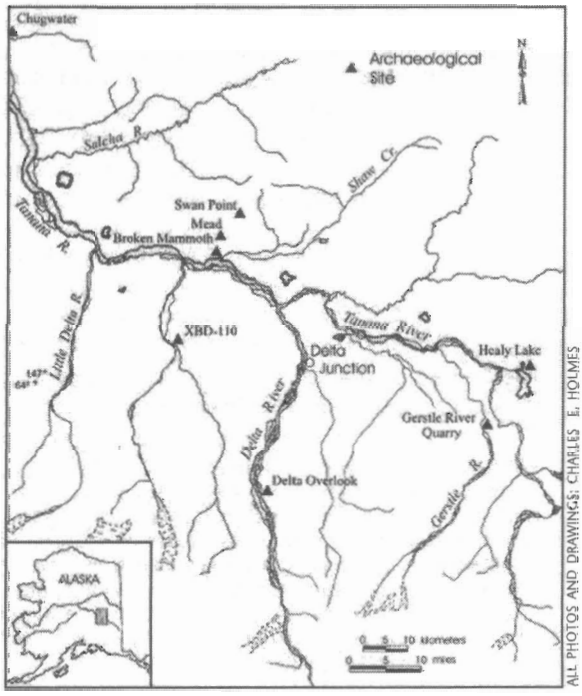
IN THE PAST DECADE OR SO, archaeologists have experienced a renaissance of thought regarding the First Americans. New findings have brought into question our assumptions about not just their cultural identity, but also the timing and means of their entry into the New World. Most researchers still subscribe to the Beringian theory, which holds that Northeast Asians crossed the Bering Land Bridge into Alaska 12,000–13,000 years ago, then followed an ice-free corridor south into the continental interior, where they gave rise to the Clovis culture—the earliest widely recognized cultural manifestation in North America. For a time, this model seemed so certain that it was for all practical purposes enshrined as a paradigm. But new discoveries, particularly at a site in eastern Alaska, have shaken it right down to its roots.

Swan Point is one of a number of early sites scattered throughout Alaska's Tanana River Valley, between the Alaska Range and the Tanana-Yukon Uplands. The evidence unearthed there plainly demonstrates that humans were in North America by at least 14,000 years ago, and were part of a pan-Beringian culture that extended from Siberia to eastern Alaska. It's difficult to overstate the significance of Swan Point, given that the site offers the earliest reliably dated cultural remains on the continent. Not only does it predate Clovis by a comfortable margin, it predates by a good thousand years the opening of the ice-free corridor so important to the Beringian theory. According to Charles Holmes, an Alaskan archaeologist with extensive experience at Swan Point, "archaeological evidence from the early Tanana Valley sites is at the heart of the debate about Clovis origins. They're also involved in the arguments for and against various 'peopling of the New World' theories."

The Shaw Creek sites

Swan Point and two sister sites, Broken Mammoth and Mead, are clustered in an area northwest of the Tanana River conjunction with Shaw Creek. These sites are very similar not just in age, but also in stratigraphy, since they all exhibit profiles of frost-shattered felsic gneiss overlain by undisturbed eolian sands and glacial loess. Their stratigraphic integrity is excellent; with the exception of root action in the upper 30 cm (about 12 in), no serious disturbances were observed, suggesting that the older cultural deposits remain intact. Paleosols (buried soils) within the deposits indicate extended periods of stability.

The carbonate-rich deposits at the Shaw Creek sites are up to 2 m (about 6½ ft) deep, offering an excellent environment for bone preservation. All three sites have produced butchered bird and mammal remains in stratigraphic association with stone tools dating as far back as 14,000 years ago, making these bones the oldest human-modified remains known in Alaska. Indeed, Swan Point is considered the site with the earliest firm evidence of human occupation in North America—though there's reason to believe the ancestors of the Tanana Valley people arrived in eastern Siberia somewhat earlier than the radiocarbon evidence indicates.



Location of Swan Point and associated sites in the Tanana River Valley.

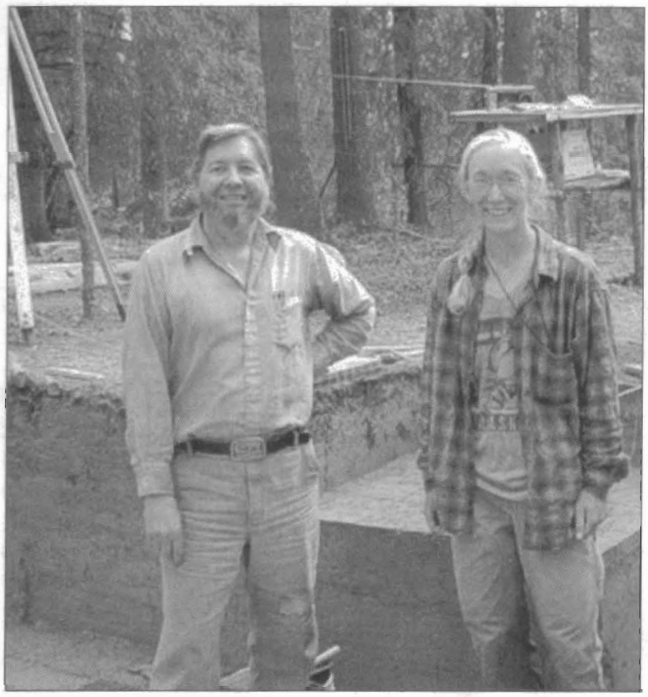
ALL PHOTOS AND DRAWINGS: CHARLES E. HOLMES

Microblades and Mammoth Ivory

Since its discovery in 1990, the Swan Point site has been the subject of sporadic fieldwork by Dr. Holmes and his colleagues, the last field session occurring in 2003. The site lies on a small bedrock hill in the Shaw Creek Valley, in a marshy region dotted with small ponds and ancient vegetated sand dunes. Its deposits are thinner than those observed elsewhere in the area, extending to just over 1 m (about 3¼ ft) below the surface. Fortunately, there's no permafrost involved. "We're fortunate at Swan Point because the sediments are well-drained silt and sand overlying fractured bedrock," says Holmes, who until his retirement in May 2004 served as Supervisory Archaeologist and Principal Investigator with the Alaska Department of Natural Resources Office of History and Archaeology. He notes that "the site is only seasonally frozen, and thaws by early June." This leaves an excavation window of three months before it freezes again in September.

Of the three known sites in the immediate Shaw Creek area, Swan Point not only has the best-preserved stratigraphy, it also has the most extensive archaeological record, for the site was occupied repeatedly from more than 14,000 years ago until the late prehistoric period. The stratigraphy remains largely undisturbed. The uppermost 25–30 cm (about 10–12 in) of the site has been affected by forest growth, but the underlying deposits show little evidence of mixing and con-

tain several intact paleosols with datable material. To date, the 17 acceptable radiocarbon ages have yielded dates of 1220 ± 70 to 12,360 ± 60 RCYBP from four primary cultural zones. Cultural Zone 1b, about 30 cm below the surface, dates from about 4260 ± 40 RCYBP. Cultural Zone 3, which begins about 50 cm (about 20 in) down, yielded a variety of dates from 10,100 ± 90 to 10,230 ± 80 RCYBP, while Cultural Zone 4 dates from 11,360 ± 70 to an amazing 12,360 ± 60 RCYBP—well before the accepted span of dates for Clovis of 11,200–11,500 RCYBP.



Holmes and visitor Naomi Rintoul at Swan Point in 2003.

The occupants of Swan Point exploited a variety of mammals and birds for food. Cultural Zone 3 has produced the remains of elk, goose, and ptarmigan; artifacts from Cultural Zone 4 were found in association with mammoth ivory. The ivory date corresponds with charcoal from the same zone, proving that it wasn't simply scavenged from old deposits by later cultures. This is unequivocal evidence that humans and mammoths coexisted in the area, evidence that is also found at nearby Broken Mammoth.

Cultural chronologies for eastern Beringia are complex and variable, but are generally structured around two broad phases: 1) the Nenana complex, an early period lasting until about 11,000 CALYBP and marked by blade cores and small Chindadn-type projectile points, while utterly lacking microblades; and 2) the Denali complex, dating from about 11,000–6900 CALYBP, which was characterized by a burin and microblade tool industry. Microblades, tiny blades produced in bulk from small wedge-shaped cores, were mounted in grooves in bone, antler, or wood tools to form composite implements. They've long been used as a Denali cultural marker.

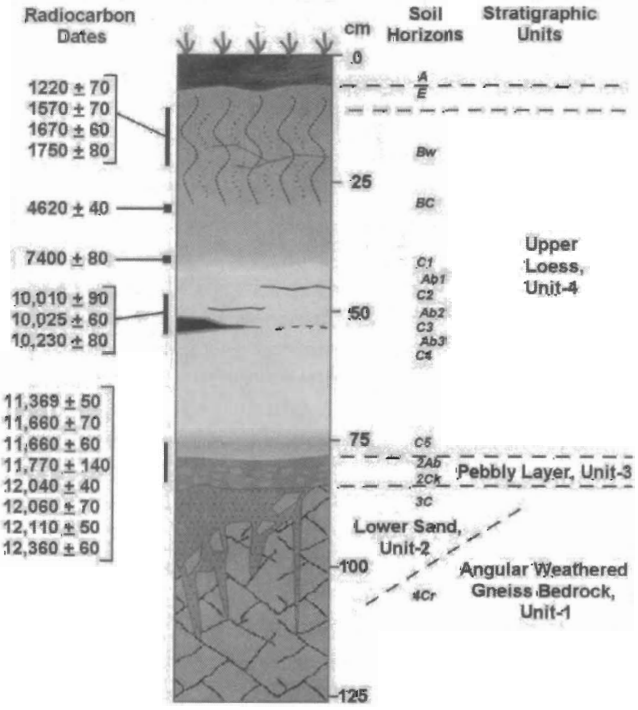
Other chronological markers that don't fit the paradigm have been generally reinterpreted out of existence or simply rejected. One example is the Chindadn sequence at Healy Lake, a site located about 65 km (40 miles) to the west-southwest. The Healy Lake deposits include microblade technology in association with the distinctive biface types customarily used to define Nenana—a fact that refuses to conform to the classic paradigm.

Microblades also occur throughout the Swan Point cultural sequence, even for periods when they're absent from other sites. Cultural Zone 3 includes artifacts typical of the Nenana complex—bifacial points or knives similar to Chindadn and Nenana styles—although there's little evidence of microblade/burin technology. But Cultural Zone 4, which is significantly older and produced the mammoth ivory, displays a well-developed microblade and burin industry. These are the oldest firmly dated microblades ever found on the American side of Beringia. In fact, artifacts from Cultural Zone 4 at Swan Point more closely resemble artifacts from the Dyuktai culture, a widespread Siberian tradition of about the same age, than they do anything from elsewhere in North America.

Reinterpreting the chronology of eastern Beringia

In combination with related work at Broken Mammoth and Mead, research at Swan Point tends to undercut the basic assumptions of the commonly accepted chronologies for eastern Alaska. "For the most part, recent chronologies have placed the Nenana complex at the beginning of the cultural sequence in Alaska," Holmes points out. "To do this meant archaeologists had to limit the age of the Denali complex, with its defining microblade technology, to younger than Nenana, which was defined by the absence of microblade technology."

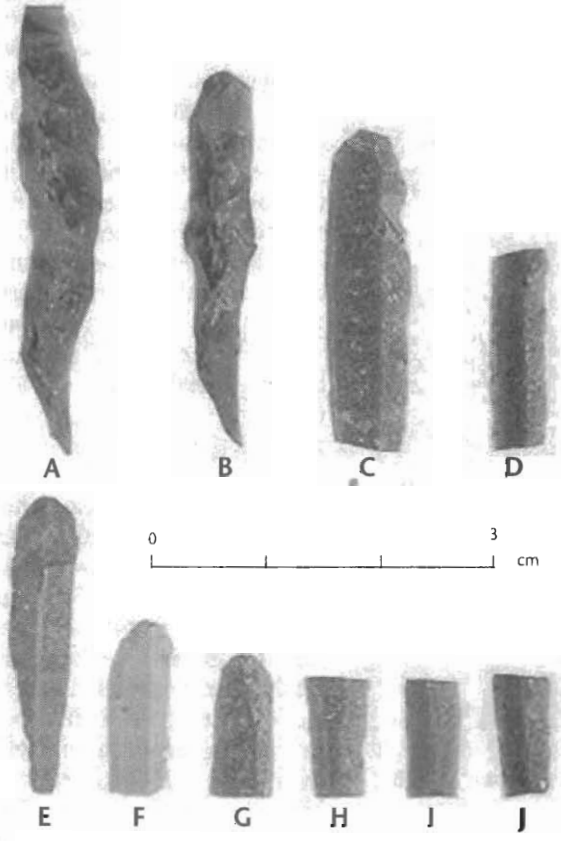
But that's no longer tenable, given the revelations of Swan Point. Particularly damning is the fact that the microblades and burins from Cultural Zone 4 clearly predate the accepted range for Nenana. In fact, Holmes states confidently that the Swan Point microblade/burin industry "questions the Nenana complex as a valid concept." Furthermore, he doesn't hesitate to assert that the toolkit from Cul-



The stratigraphy observed at Swan Point.

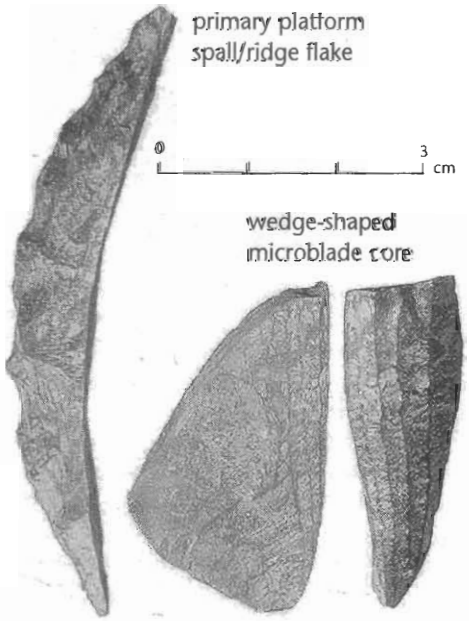
tural Zone 4 is based on technologies derived from Siberian cultures; that, in fact, the earliest cultures in the Tanana Valley were directly linked to the Dyuktai culture of Siberia, at least until about 13,000 years ago.

"The Tanana Valley in central Alaska was clearly at the eastern extent of a vast, mostly ice-free landmass that extended from Siberia at the end of the Pleistocene," Holmes declares. "My interpretation of the early Swan Point archaeological evidence is that at this early period, the human demographic of Alaska was a derivative of Siberian peoples." Holmes proposes that the occupations predating about 11,000 RCYBP (13,000 CALYBP), including Nenana and the pre-Nenana microblade tradition at Swan Point and Healy Lake, be subsumed under a more inclusive Beringian Period, since these cultures sprang from a time when the land connection and a significant cultural connection between Alaska and Siberia still existed. In Holmes's estimation "this term should leave no room to confuse the early Alaskan archaeological cultures with anything that may or may not be happening with cultural developments south of the ice."



Swan Point ridge spalls (A–B) and microblades (C–J).

The subsequent Transitional Period (13,000–9500 CALYBP) marks a period of widespread climatic change, as the continents became cut off by rising seas. During this phase, as Holmes notes in a recent article for *Arctic Anthropology*, "Lithic technology, while grounded in Siberian traditions, became an Alaskan prodigy." Various regional industries were involved, including the American Paleoarctic and Denali.



A typical microblade core and associated platform spall/ridge flake from Swan Point.

A Clovis connection?

In an era that's seen a plethora of purported pre-Clovis sites, Swan Point is probably the best supported of the lot. The stratigraphy is mostly clear and undisturbed, the radiocarbon dates are numerous and convincing, and both artifacts and ecofacts paint the picture of a well-defined, very early culture complete with microblades and burins—a culture nearly identical, as far as we can tell, with the contemporary Siberian Dyuktai culture. There's no denying that people were living in Tanana Valley well before the Clovis culture flourished in the North American heartland, and there's little doubt that they were Siberian in origin.

Holmes sees no connection between the Tanana Valley peoples and Clovis, and he believes that researchers should completely reevaluate their assumptions that such a link must exist. He finds the argument that Clovis has direct Old World origins very weak; the tool forms sometimes used to make the link, such as gravers and scrapers, are too generalized to be meaningful, the diagnostic tool types too different. He suggests that Paleoindians and their descendants likely derived from early cultures that already existed in what is now the contiguous United States, and that they were probably unable to venture into Alaska until the ice-free corridor opened up—whereupon they found an indigenous population already there. "It appears that we should view Clovis as homegrown and look for its roots closest to the highest concentration of earliest dated sites," Holmes suggests.

How early is early?

So far, Swan Point has yielded materials dated to as early as 14,000 years ago (about 12,100 RCYBP). However, Holmes believes there ought to be older sites out there, given the widespread use of two types of obsidian used throughout the Tanana Valley, Group A obsidian from the Wrangell Mountains of eastern Alaska, and Batza Téna (Group B) obsidian from northwest Alaska. Widely separated groups throughout the state used this material. Holmes argues that extensive social interactions across the region were necessary for the raw material to become widely known and distributed by 14,000 years ago, implying a long occupation of the region before then.

Where those ancient sites might be located, however, remains a mystery. Ancient lake shores and terraces are good candidates for site locations, but some of the most likely areas

lie beneath ancient dunes fields now covered by boreal forest. According to Holmes, focusing the search will require constructing paleoenvironmental models that incorporate elements of climate, vegetation, landscape, habitat, animal behavior, natural resources, and human settlement. Actually uncovering these sites will no doubt require plenty of plain old-fashioned backbreaking labor.

"Well, if it was simple we would already have the answer," Holmes muses. "Nobody said it would be easy."

–Floyd Largent, Jr.

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Yana River, Siberia

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tween Yana and Clovis artifacts, particularly the ivory and bone dart foreshafts that both cultures shared. But other aspects of the Yana and Clovis toolkits bear no such similarities, and most researchers dismiss a direct connection between the two cultures. David Meltzer of Southern Methodist University believes the similarities arise from independent discovery, a belief echoed by many of his colleagues. Says Yaroslav Kuzmin, "Similarity of artifacts does not mean that the Yana people were ancestors to the Clovis, due to the fact that very similar types of artifacts can emerge in different places at the same time."

Goebel agrees. "I don't think you can make that connection," he asserts. "There's really nothing, as far as the lithic artifacts are concerned, that you can point to as an obvious antecedent to Clovis technology. That's a lot of time depth, to try to ID a direct ancestral link based on technology or tool form."

A land bridge too far?

The time gap between Yana RHS and Clovis doesn't rule out the possibility that the Yana people might have crossed the Bering Land Bridge. They had the opportunity and technology, and quite probably the will. Nevertheless, many scholars agree with the University of Michigan's C. Loring Brace that Yana RHS, at 1,300 miles from the land bridge, is "too far from the Americas to be considered in the debate about North American settlement."

Not so peremptory is archaeologist John Hoffecker of the University of Colorado's Institute of Arctic and Alpine Research (INSTAAR), who specializes in human adaptation to cold environments. He opines, "I don't think that the distance from the Bering Strait is an important consideration. The point is that the Yana RHS locality indicates that people were living—at least on a seasonal basis—in environments that were similar to those on the other side of the strait. The people who occupied Yana River presumably could have occupied sites in Alaska during the same period. The two critical questions are: (1) was there year-round settlement in Beringia at this time? and (2) was there access to mid-latitude North America during this time?"

Goebel is equally dismissive of the distance argument. "In fact, Yana River is one of the closest Paleolithic sites to the Bering Straits," he points out. "It's close enough to be relevant. To say that 1,300 miles would be too far away would mean all Siberian archaeology is irrelevant to the peopling of the Americas."

What of "Clovis-first"?

Although the Clovis-first theory continues to dominate discussions on peopling of the Americas, Goebel and others still entertain the possibility of a pre-LGM entry into the New World; if this were true, then Clovis migrations would have swamped smaller populations of peoples who had arrived earlier. Indeed, given the plethora of recent well-dated evidence ranging from Kennewick Man to 13,000-year-old Mexican skulls, it seems reasonable to entertain the possibility that the New World was initially colonized by a mosaic of peoples from locations throughout the Old World, in migrations carried out over a long period of time and by a variety of means and routes—rather than exclusively by northeast Asians who crossed over the Bering Land Bridge starting 12,000 years ago.

What now?

If nothing else, Yana RHS provides the first well-documented evidence that humans were in Beringia 30,000 years ago. This fact alone wields plenty of archaeological clout; anything further is supposition, although it's fun to play the what-if game. Could Yana people have traveled across the land bridge into North America? All evidence says they could have. They were hardy folk well adapted culturally to the cold, and they knew how and where to find plenty of game. Would it have been easy to make the crossing? Of course not. The million-dollar question is, *Did they do it?* At this point, no one can say.

A very early entry would neatly wrap up all the controversy surrounding purported North American pre-Clovis sites, as well as the better-dated, better-documented sites like Monte Verde and the recent finds of early skeletons in Mexico. But most interested scholars are hedging their bets on the issue of whether that's what happened. "It *could have* happened," says Ted Goebel, "but Yana doesn't strengthen the case for Monte Verde or Meadowcroft. Just because it fits the Beringian model doesn't mean that these sites are automatically acceptable. Those sites have to stand and withstand scrutiny on their own. People shouldn't think, 'All right, we have all the answers now, there's nothing left to debate.'"

"Yana doesn't necessarily strengthen the Beringian theory," he concludes, "but at least it gives us a place on the map that lets us point to and say, 'People were there before the Last Glacial Maximum.'"

–Floyd Largent, Jr.

Report from Mexico City

Early Humans in the Americas

by John R. Johnson

SPEAKERS at the second international symposium "El Hombre Temprano en América" (Early Humans in the Americas) treated guests to a wealth of knowledge about the earliest peoples in our hemisphere. The symposium, held 6–10 September 2004 at the National Museum of Anthropology in Mexico City, was sponsored by the National Council for Culture and the Arts and the Department of Physical Anthropology, National Institute of Anthropology and History (INAH). A total of 33 presentations were given in the museum's main auditorium, with headphones available for immediate translations into Spanish and English. Following each paper, a question-and-answer session encouraged lively exchanges between participants. Topics ranged from the evolution and spread of anatomically modern humans around the world to the latest refinements in dating techniques, craniometrical interpretation, and DNA analysis of ancient and contemporary American Indian populations. On September 9, a bus trip to Teotihuacán was provided to conference participants courtesy of our INAH hosts.

Day 1: From Africa to the Americas

Before focusing on the Americas, the symposium began with an address by Donald Johanson, who provided an overview of paleoanthropological studies in Africa. Johanson currently is living in Mexico while writing a new book. The earliest date for anatomically modern humans has been pushed back to 150,000 yr B.P. with a discovery at Idaltu, Ethiopia, by a team led by Tim White of UC–Berkeley. Bone tools and engraved ocher have now been found at several sites in Africa dating back to 70,000 yr B.P. These items of material culture were carried out of Africa with the spread of *Homo sapiens* throughout the world. Johanson's talk provided important context for discussions of DNA phylogeny that followed in subsequent symposium presentations.

Sessions highlighted work in Baja California, the Yucatán Peninsula, and South America. Harumi Fajita (INAH) discussed the site of Covacha Babisuri on Isla Espiritu Santo in the Gulf of California near La Paz. She suggested that shells in a lower stratum of the rockshelter, dated to as early as 38,000 yr B.P., may be derived from human transport to the site from an ancient shoreline. The earliest unequivocal date for the overlying midden is about 9000 yr B.P. Arturo González (Museum del Desierto) and Carmen Rojas Sandoval (INAH) caused considerable excitement with their announcement of three ancient human skeletons discovered during diving explorations of submerged limestone caves in the vicinity of Tulum, Quintana Roo, on the Yucatán Peninsula. These individuals had been buried deep within the caves prior to inundation caused by the rise of sea level at the close of the Pleistocene. Although a radiocarbon date of 11,670 ± 60 RCYBP was obtained on the oldest skeleton, absence of preserved collagen makes it unlikely that this date accurately reflects the true age of the burial.

ALL PHOTOS: JOHN R. JOHNSON

Bust of Tepexpan Man presented to conference speakers.

Fabio Parenti (Italy) discussed his work with Niéde Guidon at early Brazilian sites, citing AMS dates of 50,000–20,000 RCYBP for levels at Pedra Furada where stone items believed to be artifacts were recovered. Previous efforts at dating these same deposits by means of thermoluminescence had yielded much earlier dates (100,000–50,000 CALYBP), which are no longer accepted by the investigators. An evening lecture by Laura Miotti (National University of La Plata, Argentina) surveyed most of the early sites in South America, emphasizing the evidence for aquatic adaptations as wetland environments increased at the end of the Pleistocene.

Day 2: Craniometrics and Genetic Studies

The day began with lectures on the physical characteristics of the earliest skeletons recovered from Mexico, especially based upon craniometrical data. Alejandro Tarazas described the three skeletons from the underwater caves in Quintana Roo; other presentations focused on an early skeleton, Texcoco Man, discovered in 2000 by chance in the Valley of Mexico while digging a well. This burial had intruded into a soil dating approximately 10,500 yr B.P., and bones of extinct megafauna were present in its vicinity. The cranium was doliocephalic, like all other skulls from Mexico dating to ages greater than 9,000 yr B.P., contrasting with later populations.

Afternoon sessions consisted of four presentations based on mitochondrial DNA and Y-chromosome studies of North American and Mesoamerican populations. Andrés Reséndez (UC–Davis) provided the historical context for studies of population genetics in Mexico. Ripan Malhi (Trace Genetics, Inc.) described population diversity in North America. Malhi and his co-authors argued that extant evidence favors a single founding population followed by significant genetic drift that led to regional diversification. He noted that mtDNA studies of all early skeletal material tested to date demonstrate that ancient peoples belonged to known haplogroups identified in Native American populations. Genetic evidence

points to southern Siberia as the apparent source area for the founding populations of the Americas. Brian Kemp and Angelica González-Olivas (both of UC–Davis) reported on mtDNA and Y-chromosome comparative studies of indigenous populations in central and northern Mexico. Significant differences among populations speaking various Uto-Aztecan languages demonstrate that language spread in prehistory did not necessarily alter the gene pools of local populations.

Day 3: Genetics, and Ocean Passages and Island Settlement in the Clovis Period

The importance of mtDNA studies in understanding the peopling of the Americas was emphasized by Phillip Endicott (Oxford), who put the Americas in world context by demonstrating how mtDNA patterns reflect the rapid dispersal out of Africa of anatomically modern humans followed by regional differentiation. Reporting on collaborative research with his Mexican colleagues (conference hosts José Concepción Jiménez, Sylvia González, and José Antonio Pompa), Endicott revealed that ancient DNA from Pericú skeletons from the tip of Baja California belongs to haplogroups found among other American Indians. Some researchers have argued that the Pericú represent a remnant population of a late-Pleistocene coastal expansion, trapped from further migration by the cul-de-sac of Baja California; other researchers have proposed that craniometric resemblances between the Pericú and native Australians may be evidence of an ancient trans-Pacific migration. Based on initial mtDNA evidence, Endicott concludes instead that the Pericú derive from the same ancestral population as other Native Americans.

◀ **Symposium participants (*l–r*) Stuart Fiedel, Phillip Endicott, Ruth Gruhn, and Alan Bryan at Teotihuacan.**

▼ **Conference hosts José Concepción Jiménez (INAH) and Sylvia González (John Moores University, Liverpool) at the Temple of Quetzalcoatl, Teotihuacan. José Antonio Pompa (INAH), the third co-organizer, is just visible behind González.**

Before concluding, Endicott outlined an alternative strategy for tackling the problem of how many migrations were responsible for peopling the Americas. Continuing phylogenetic studies of *Helicobacter pylori*, a pathogen that causes peptic ulcers in humans, suggest that either multiple migrations or a large number of individuals carried this organism into the Western Hemisphere from at least two regions in Asia.

Álvaro Montenegro Neto and colleagues at the University of Victoria, British Columbia evaluated possible trans-oceanic voyages to the Americas based on knowledge of currents and various types of watercraft. These researchers used computer simulations to evaluate the likelihood of landfall from various points of departure in the western Pacific and eastern Atlantic. The presentation was followed by Stuart Fiedel, who maintained that the "Clovis First" model was still the best theory to explain Native American origins. Fiedel made interesting observations regarding the widespread distribution of Clovis points in North America, which contrasts markedly with their extremely rare occurrence in Mexico and replacement by the early "Fishtail" points in South America, which likely were derived from Clovis. He argued that there are problems with demonstrating cultural context for material dated earlier than 11,500 RCYBP. Fiedel's paper led to some of the more animated exchanges with people in the audience who were clearly advocates for a pre-Clovis population expansion.

The final presentation of the afternoon, by John R. Johnson (Santa Barbara Museum of Natural History) based on collaboration with geologists Thomas Stafford, Jr. of Boulder, Colorado, and Thomas Rockwell (San Diego State University), pertained to the stratigraphic context of the Arlington Springs site on Santa Rosa Island off the California coast. Recent dates, derived from charcoal in precisely located geological samples obtained during fieldwork in 2001, bracket the first evidence for human presence on the island to a period between 11,200 and 11,500 RCYBP. Periods of sediment aggradation, soil development, and incision on the island correlate well with known sea level changes, thus providing independent support for the chronological placement of human entry onto the island.

Day 3 Evening: Early Human Diversity in the Americas

Presentations began with an overview by Sylvia González (Liverpool John Moores University) of her work with David Huddart on the environmental context of human dispersals during the late Pleistocene in Mexico. She presented results of the most recent dating and DNA analyses, conducted in collaboration with her colleagues in Mexico and Britain, of early skeletal material from central Mexico. An enormous volcanic eruption about 10,500 yr B.P. created a prominent ash deposit in the Basin of Mexico that provides an independent means of dating certain heavily mineralized human skeletal materials, in particu-

lar Chimalhuacan Man and Metro Man, which were found embedded in this layer. The oldest dated human skeletal material thus found in Mexico, Peñon Woman, dates to 10,755 ± 75 RCYBP. González completed her survey with a brief discussion of the Valsequillo site in Puebla (**MT 19-3**, "Megafauna of Mexico"), where remains of megafauna have been reported in association with lithic artifacts.

Federico Solórzano (Centro INAH Guadalajara) discussed bone fossils collected from 1937 to 1996 from the margins of Lake Chapala in Jalisco. The resulting assemblage includes some 40 fragments of human bone. Noteworthy among these is a brow ridge fragment of a frontal bone that more closely resembles *Homo erectus* than anatomically modern humans. Solórzano's paper caught the interest of an Associated Press reporter, who wrote a news article entitled "Debate over Human Origins in the Americas."

The last presentation of the day was by Miguel Hernández and his colleagues from Argentina. Their statistical analysis of craniometric measurements revealed three distinct clusters in the Americas: (1) a predominant "Amerindian" type, (2) a distinctive Tierra del Fuego–Patagonia category, and (3) a "Paleoamerican" cluster.

Day 5: Advances and Problems in Dating Ancient Bone

Day 4 (September 9) was occupied with the bus trip to Teotihuacán. On September 10, Thomas Higham (Oxford Radiocarbon Accelerator Unit) presented results from late-Pleistocene sites in Europe, Canada, and Mexico that demonstrate how techniques of ultrafiltration improve the quality of collagenous protein and result in greater dating accuracy. Alistair Pike of Oxford's Research Lab for Archaeology reported on his laser ablation technique that can be used to date fossils as old as 5 million years by analyzing Uranium isotope decay series profiles within ancient bone. Only about one in four bones is suitable for such dating because it depends on appropriate conditions in the burial environment. Pike has successfully applied this technique to ancient samples from Europe, Africa, and Mexico.

Erv Taylor (University of California–Riverside) provided a historical retrospective on radiocarbon dating in the Americas. Like Higham, Taylor emphasized problems in dating ancient bone with examples of several well-known archaeological finds. Understanding geological context is essential, and one must also consider reservoir effects when ancient peoples relied upon marine resources for subsistence. For example, assuming Kennewick Man subsisted on salmon requires adjusting the date of his remains to 7880 ± 150 RCYBP to compensate for reservoir effects. Taylor cautioned that the 12,500 RCYBP date for Monte Verde may be misleading because of a possible major regional C-14 reservoir offset for the South Pacific Coast.

Francisco Mena (Museo Chileno de Arte Precolombino) reported on his collaboration with Thomas Stafford, Jr. in dating early human skeletal material excavated from Baño Nuevo Cave in central Chile. Collagen preservation was quite good, allowing for a series of dates on five individuals falling between 8850 and 8950 RCYBP. The human burials overlay a deposit containing extinct Pleistocene fauna. The oldest evidence of human cultural presence appears to be a hearth-like feature dating approximately 11,000 RCYBP.

The final presentation of the day was Gary Haynes's address, "First-Contact Megafaunal Extinctions in the Americas." Haynes (University of Nevada, Reno) examined in detail the timing of extinctions, distributions of megafauna, population estimates, Paleoindian hunting patterns, analogies to human-caused extinctions elsewhere in the world, and taphonomic studies of kill sites. He concluded that extant evidence does not counter the hypothesis that Paleoindian hunting contributed to megafauna extinctions during the terminal Pleistocene.

In the closing ceremony, conference speakers were presented with a bust of Tepexpan Man, based on a well-known early-Holocene skeleton found in the Valley of Mexico, by representatives from the present-day Tepexpan community.

Publication of the symposium proceedings is being undertaken by the conference's organizing committee. Based on the quality of this year's presentations, the third symposium on "El Hombre Temprano en América," planned for 2006, should be an event to anticipate. We can expect that the "Clovis First" vs. Pre-Clovis question will continue to be the focus of lively debate.

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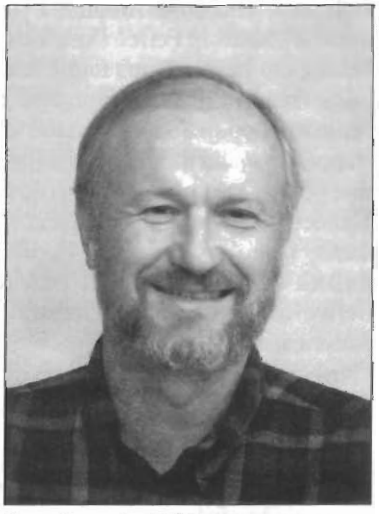
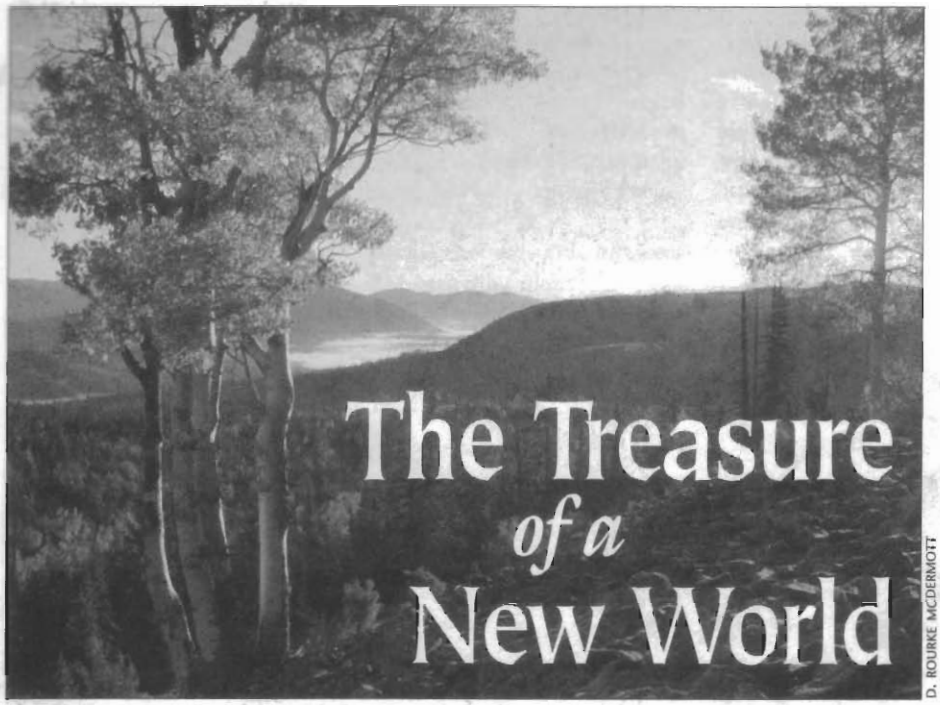
About the author John Johnson has served as Curator of Anthropology at the Santa Barbara Museum of Natural History since 1986. He received his doctorate from the University of California, Santa Barbara, in 1988, where he currently teaches an upper division course on California Indians. Johnson's research and publications primarily pertain to California Indian ethnohistory and prehistory, and he is currently collaborating with physical anthropologists conducting mitochondrial DNA studies on American Indians. He is a past president of the Society for California Archaeology and received the society's Mark Harrington Award for Conservation Archaeology in 2001. Over the last decade, Johnson has coordinated an interdisciplinary team conducting archaeological, geological, and paleoenvironmental studies at Arlington Springs, a Paleoindian site on Santa Rosa Island.





The Treasure of a New World

D. ROURKE MCDERMOTT

The first of a two-part story
by Alan Kirkland

THERE WAS A TIME WHEN THE MOUNTAINS WERE ALL FRESH, and the world had just shrugged its shoulders, shaking off the chains of the great sheets of ice that had held it in a grip of cold, of stasis. Now there were new places opened up to the small groups of human inhabitants of a large continent to the west, and some of those places were strange and mysterious. Most mysterious of all were the mountains that had once belched fire, then were gripped by the ice and snow, and now were covered with a verdant blanket of thick trees. These mountains were not just new and good places to hunt; they were also the source of a wonderful material for tools. Black and slick, with an edge quality so sharp that it would cut and leave no ragged edge. Obsidian, volcanic glass, a prize to be sought after eagerly, and once found, hoarded and used by the finest craftsmen, traded by the canniest merchants. Treasure of the mountains.

At this time, human groups were of necessity small, efficient, and highly mobile, wandering over the vast open spaces of the plains carpeted by seas of grass. They hunted the great herd animals, bison and elk. Once, they had sought the great woolly mammoths while the lands were gripped by the cold and ice, but those had vanished long since, to be remembered only in tales spun by the fireside by the shamans and the old men who remembered having hunted them in their youth. Now the great prizes were the bison, whose great quantities of meat and thick hides represented times of plenty. Also the elk, which wandered in multitudes among the mountain ridges and valleys of what would one day be recognized as New Mexico. The families and extended families had wandered in great lazy swings from the north, and finally found themselves in the mountains that sprawled across the northern part of the great southern desert. Tricky places, these, because in certain spots there were still rumblings that could be heard far down in the earth, and some of the springs welled up with water that was not cold, but warm, sometimes even hot. Certain groups of these hunting people drifted down from the open prairies into the mountain country, and there they stopped, rested, took stock of what they saw. For this was a good country, with much fresh water, many trees, and teeming game. It also contained hidden treasures, for this was also the country of the black rock, the one that could be made into the finest tools and spear points. So the People drifted into this country, and finding it good to live in, stayed.

Although it was warm on the open plain, it was still cold in the higher elevations of the mountains, even though these were not so high as the Great Mountains that ran the length of the Sea of Grass, like a great wall. The group of the People that came into the southern end of this mountain country had decided to stay, but were still seeking some part of it to claim as their own, the place wherein they could wander and find the herds of game that sustained them. Some of the more daring and intrepid of the hunters wandered off on solitary explorations, to seek ways into the hills and higher ridgelines, ever looking for the ideal place to report back to the rest of the People.

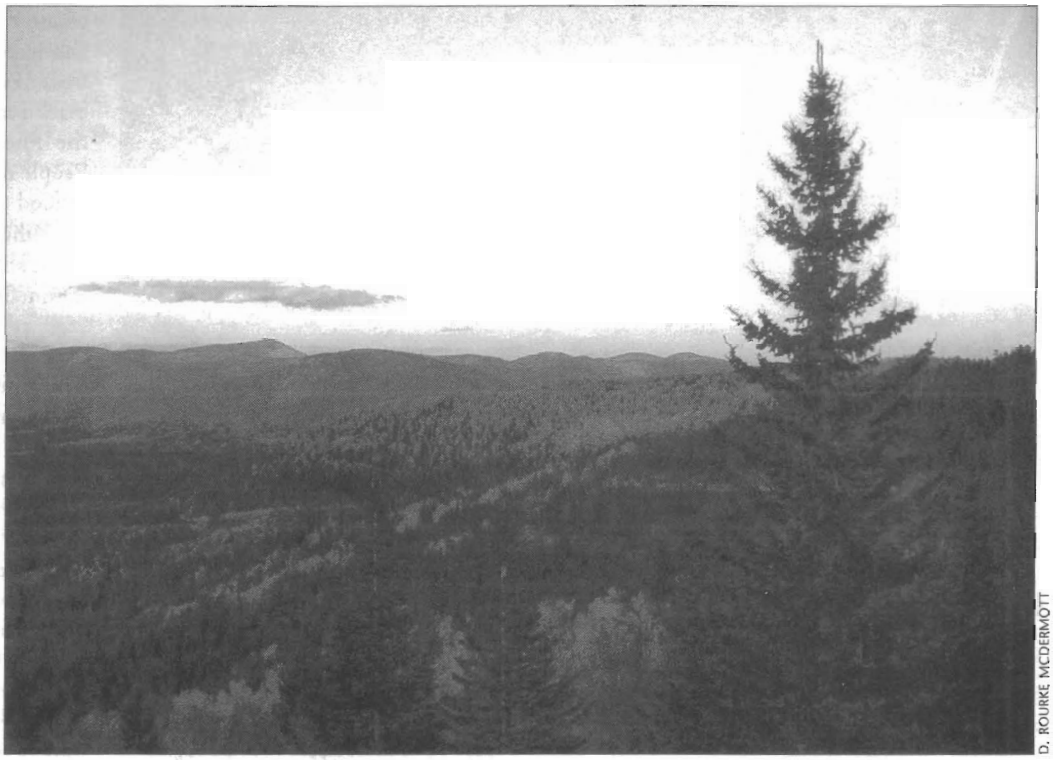
A particular pair of men, one an excellent hunter who never seemed to fail to find game animals, and one who was not so good at hunting but was an accomplished maker of tools, wandered together along the sides of the mountains, looking for a creek or stream that would provide a valley that could be followed into the heart of the high country. Days and days they wandered along, fed by the unerring spear of the hunter. Ever the craftsman looked at the rock, the stone boulders and cobbles that littered the sides of the ridges. He was seeking something other than game; he was seeking a prize for making tools. Together they searched, and one day the hunter, in pursuit of an elk that ran away with his prize spear imbedded in its side, followed it to a valley that had a gurgling creek flowing in it, a valley that climbed ever higher into the strange rounded ridges.

Higher and higher he climbed, following unerringly the occasional spots of blood that betrayed the wounded elk he had pierced. Not only did the elk represent many meals for several days, his prize spear was imbedded in it, the one that had the magik of a special point, perfectly made from the mysterious black rock that was sharper than any other. He did not want to lose that spear, so he persisted in trailing the dying animal.

The walls of the mountain rose higher and higher as he made his way deeper into the valley, and finally he noticed that he was no longer just moving between two ridges, but was entering an encircling arm of several of

them. He continued forward, fired not only by the thought of the elk but also of the unknown country that lay on the other side.

Reaching a point, he noticed that the valley began to slope downwards into a much more lush and green drainage. The water rushed and grumbled among many grayish, black-speckled rocks, some of them mighty in size. There were trees, great trees, many times bigger around than his own lithe waist, whole forests of them. And in many places he could see the unmistakable pathways of elk and deer trails, spotted here and there with the scat of animals that had never been hunted. How he knew that they had not been hunted he could not say, but he felt it nonetheless. The grade became much less steep, and his forward progress less inhibited by large boulders than fallen trees, some of them covered with ferns and water-grasses.



D. ROURKE MCDERMOTT

Suddenly he came out of the tree line, and then he saw.

Forgotten was the elk, forgotten was his special spear, and driven from his mind was the thought of the loss of meals. The vista that spread itself like a banquet before him was spectacular beyond belief, and he was the first of his People ever to have seen such a thing. For many long moments he just stood there, staring out over the lush valley that was protected by the humped domes of the encircling mountains. Then he gathered his wits about him, and began to retrace his way through the creek valley. His companion must see this, for the mere telling would not do the slightest bit of justice to the mind-numbing sight of the mighty trees, the verdant valley, and the herds of elk peacefully grazing in it. This was a tale that could not wait. It must be told now, this day, and then after a time of rest he must bring his companion to see. Something in his mind told him, "This is the place."

THE FIRE CRACKLED AND SNAPPED, fed with sap-rich branches snapped from a huge downed log. Shadows played on the face of the hunter as he told his story to the craftsman, who had meanwhile speared many fish from another stream down on the plain below the domed mountains. While these broiled in the coals, the hunter spoke:

"It was midday. There were many clouds in the blanket of the sky, and the breeze was ever so slightly cool. Even so high up as I was, chasing that elk, there was no need for a shirt. The sun was warm on my shoulders, and I was glad of it. All I could think of was to chase the elk I had wounded with my special spear, the one the old man had made for me so long ago, the one with the special magik. I ran, and climbed, and then ran more. Into this creek valley I ran, and then slowed to cast about for sign. I found the spots of blood bright against the green of the grass, and I took up the trail again.

"The creek valley was lush and green, with much good timber. There was only the occasional call of birds to break the silence, accented by the water sounds, while still I sought the elk, for I knew it would be much good meat. Also I sought to see what there was to this valley, to the high mountains that ridged themselves like fingers, to the domes that looked like the heads of sleeping men. I made my way

About Magik

Today, most people have sort of a garden-variety understanding of what they think magic is. To them, it is personalities like David Copperfield performing in casinos in Las Vegas, doing amazing things with illusion and sophisticated special effects. To me, this is chicanery and not at all what I am talking about in this story. Hence, the spelling of 'magic' shouldn't convey this meaning, nor should it be taken to mean the neo-pagan stuff that is floating about.

To me, *magik* is the power or energy that nonindustrial peoples feel permeates the world we live in. This is a deep theme in most Native American stories and in the culture of many so-called primitive peoples. The assumption is that the world, as in the living planet we inhabit, is alive, and an entity in and of itself, and can understand and communicate with human beings who attempt to listen to it. Often the synonym for it is *Power* or *Mystery*, and it carries a meaning akin to that of *god* or *spirit*. Much like the *mana* of Polynesia, it is something that can be sought for, and instilled within various personal objects, such as weapons or specialized tools, particularly those of artisans or craftsmen. 'Magik' is a spelling I decided upon when trying to get this idea across to some of my colleagues; when I was at a loss as to what word to use to convey what I thought was a more Euro-cultural basis for it, I hit upon this. I rejected 'magick,' since that has been used far too often by various charlatans to describe occult powers, which are personal and bent to one's will for personal gain.

–Alan Kirkland

along the ridge-face, following it as I searched for a way across, into the valley choked with many fallen trees that were big, huge, mightier than ever I had seen before. The mountains were like a barrier, a wall to my progress in finding the elk and my spear. All I could think was that I must get through, somehow I must get through. There must be a break, an opening in this valley where flows this strong-running water.

"Ever higher I climbed, until it seemed that the grade of ascent would not end. But it did, at last. The encircling mountains swallowed me up as I followed the swift-flowing creek through the ever-deepening notch. It seemed to me I was following a pathway, a break in the rock, that yawned like a secret mouth that kept whispering, 'This way.' And then I saw it, as I stumbled out of the valley and came out of the trees, which were like a curtain thicker than a bison's hide. All around me the strange and mist-shrouded humped mountains encircled this great grass-filled plain, like a mother's arms around her child. It was filled with many herds of elk, and deer, and there were many great trees that had never before seen one of the People. I tell you, this is a thing that you must see!"

His excitement was evident, plain upon his face. The light in his eyes outshone that of the fire. To his companion he seemed a man possessed of the spirits, one who has seen things no man had seen before. The craftsman thoughtfully and respectfully replied, "We will go there when it is once more the period of light."

The two men awoke to a glorious sunrise, the air fairly shimmering with the breath of potential success. Then the face of the hunter fell. "I have lost the spear," he said. "All I have now is my knife."

The craftsman nodded, and thoughtfully turned over in his mind what this might mean. It could not be a good omen for the great hunter to have lost the special spear, but at the same time it might have been a necessary sacrifice to appease the gods for his having found the special country.

"We must go," said the hunter, "for the day waits for none." Nodding his assent, still wrapped in the cloak of his own thoughts, the craftsman stood with cracking knees to join his friend. Together they started off on their journey to find the valley again that the hunter had followed to the amazing place-of-many-elk-and-trees.

They found the valley again, and the strong creek gurgling through the lush ferns and grasses. Walking along its bank, the hunter pointed out the huge boulders, the many head-sized gray-with-black-speckles rocks that lay strewn about everywhere. At all these things the craftsman nodded thoughtfully, for he was now sure in his own mind that this indeed was a special place, and not just for the reasons the hunter thought so. Everywhere there was the scat of elk and deer, and they also saw many other smaller creatures that all looked like animals that were good to eat. The hunter smiled, for the moment forgetting the pain of the loss of his favorite weapon. He eagerly led the pair forward, wanting very much to reach the top of the grade in the valley, so that they might descend into the amazing place that he had seen the day before.

Clearing the tree-line, the pair gazed upon the vista that had evoked such awe and wonder from the hunter the day before, saw the wandering groups of elk lazily grazing unconcerned on the sweet grass of the great meadow they saw spread before them like an enormous bowl rimmed about with humped mountains shrouded in mist. Surely this is a place of the gods, thought the craftsman.

"See? Did I not tell you?" cried the hunter in hushed tones, not wanting to disturb the silence.

"Indeed you did, and you did not exaggerate," said the craftsman. "I wish to do some looking around myself," he said. "Go, go. We will meet here, at this creek, at the setting of the great light."

The hunter turned to go, intent now upon the errand foremost in his mind, finding the dead elk that would have his special spear stuck within it. They went their separate ways, each to pursue his own quest, little realizing that what each had in his private thoughts would eventually turn to the mutual benefit of both.

The craftsman walked steadily through the ever-widening valley, all the while listening to the gurgling song of the swift-running little creek. His eyes darted this way and that, always looking, always noticing. He was looking for the signs of rock, the way-posts of stone, the proof that he was right in his suspicion that here was not only a very good place to live, but also a good place to find the things of his own unique work. He scanned the ring of humped mountains, searching for a particular thing, a singular sign that would indicate to him the place where lay the black rock that made edges like no other.

As he moved slowly through the trees and came out onto the level plain of grass, he saw the little hill like an old man's bald crown ahead of him. Though it had trees all over the top of it, he could see that it would be an excellent place to observe the entire valley from. He headed for it, quickening his pace.

The hunter also worked his way through the trees, looking for the tiny spots of red, dried by now, that would indicate to him the presence of his prey, the elk that had carried off his favorite spear. Almost silently

This story is a work of fiction. Although it is not an account of a provable incident, yet it is entirely believable that such an incident could have happened. The first human groups that came to the North American continent were makers and users of finely crafted stone tools and weapons, subsisting almost entirely in an economy that depended principally upon hunting. Not surprisingly, some individuals were good at hunting game animals and making sure there was plenty to eat. Other individuals were talented in other ways, particularly in manufacturing stone spear points that were essential to the success of the hunters. The symbiotic relationship between the archetypal characters in this story, the knapper and the hunter, is repeated in every known primitive society, where goods are exchanged for services in agreed proportions.

The setting, on the North American continent just after the Altithermal, is in the modern-day state of New Mexico. The actual geography described by our characters is inspired by the Valles Calderas, a natural volcanic formation in the Jemez Mountains. Today it is a National Preserve, held in trust for the people of the United States. Then it was surely the wondrous place that awed the two men, as it still is today. The archaeology of the preserve bears witness that in prehistoric times men made tools from the abundant obsidian nodules found on the Cerro Del Medio and Rabbit Mountain. Herds of elk still graze in the Valles Grandes under the watchful eye of the Cerro La Jara, the small dome-shaped hill called Old-One-Who-Watches in the story. The creek valley that the men followed is based on the geography of the La Jara Creek, which flows through a natural notch in the encircling mountains. The Valles Calderas National Preserve was and continues to be a most wondrous place, a perfect place where people can feel the deep spirit of the land sink into their bones and be awed by the ancientness of the mountains that today still protect it.

–Alan Kirkland

he moved along a trail clearly discernible to him, a trail that before this moment had never known the foot of a hunter. How he knew this he could not have said, but he did. He was the first, the only one to have found this place, where the elk were a multitude unaware of the danger that the hunter represented to them. They had known predators before, to be sure, but not like this new one. The human being could not match them for speed or strength, but in cunning he was far superior to them, indeed to any predators they had ever known. Wolves, bears, coyotes, all these were amateurs compared with the single-minded determination of the being that observed them now.

Suddenly the hunter picked up a small handful of aspen leaves that had on them a small splat of dull red. He looked up, eyes now aglow with the thrill of having his efforts rewarded. He moved off at a swift yet careful pace, moving through the trees and fallen logs along the clearly defined trail.

In a few hours he was standing over the partially chewed corpse of the elk. A few feet away he found his spear. It was broken, snapped in twain by the elk's desperate attempt to rid itself of the painful thing in its side.

Sadly the hunter looked at his once-fine weapon, the one that had been his favorite and most lucky. Although the shaft could be replaced, the beautiful perfectly leaf-shaped point was broken, ruined beyond the ability of any person he knew to repair. It was destroyed, and with it his luck, his magik, his unfailing ability always to take down whatever prey he had chosen. Sorrow filled his heart, and tears filled his eyes as he accepted the inevitable will of the gods.

Picking up the pieces of his weapon, he slowly moved away from the dead elk, which he left as an offering to the gods who had taken away his spear. What he would do, the hunter could not say, but he would think of something. *End of Part 1*

About the author Alan Kirkland, a professional archaeologist for over 20 years, has done extensive work in North America and abroad. He did undergraduate work at the University of Alabama, and later pursued a master's degree there as well. One of his main interests during that time was the reciprocal behaviors of hunting and tool-making. Kirkland also has a master's degree in Classics from the University of Nebraska, and does work in Egyptology, specializing in the Old Kingdom. His many interests and foci include field method and theory, high-altitude hunter-gatherer adaptations, and man's entry into the Americas as a complete cultural complex.

WILLIAM "PECOS BILL" BARFUSS

Kirkland currently works as an archaeologist on the seasonal team for the Valles Caldera National Preserve in New Mexico, doing intensive survey and site documentation in the 2004 season. He also works as a volunteer archaeological photographer for various state and private concerns, endeavoring to fill a gap in the documentation of historic architecture in the Jemez mountains. He does extensive research in the early lithic technologies through site study and replication, and has worked many sites throughout the western United States pursuing this interest. Archaeological theory has always been his focus, and he seeks to enrich our understanding of the adaptive behavior of hunting peoples who face new challenges when entering new territories.

What Is the Significance of "Is"?

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tial: It ensures that human remains cannot be claimed under NAGPRA unless they are related to modern Native Americans. This limit is consistent with Congress's original intent for enacting the legislation, to protect the human rights of existing Native Americans through respect for the remains of their deceased relatives (**MT 18-3,** "Congressional Intent: What is the Purpose of NAGPRA?"). The proposed addition of the words "or was" is another attempt to expand NAGPRA beyond its human rights purposes in a way that could interfere with the future of scientific study. This eventuality was expressly avoided by the Congress that enacted NAGPRA.

The addition of these two words to NAGPRA would define any group, regardless of their cultural or biological affiliation to any modern Native American group, as Native American as long as they were "indigenous" to the United States. Under this proposed definition, if it were discovered that the initial inhabitants of the New World were Ainu peoples from Japan, the remains of these culturally and biologically distinct peoples would be considered Native American, along with the distinct Indian peoples that later migrated to the New World. Thus, the proposal would subject the remains of non-Indians to repatriation claims by unaffiliated modern Native American groups. Such a scenario would lead to obviously absurd results that are inconsistent with the original intent of Congress when it passed NAGPRA.

Despite the creation of a seemingly counterintuitive reality for repatriation claims under this new definition, simply being able to make a claim for repatriation under NAGPRA is not tantamount to actually being allowed to repatriate items. Any such claim would still have to pass muster under the ownership priority provisions of Section 3(a) of NAGPRA. Unfortunately, not all these provisions would remain unaffected by the proposed changes in S.2843. Briefly, Section 3(a) looks to the following groups to determine ownership of Native American cultural items:

(1) lineal descendants of the Native American remains;

(2) in the absence of lineal descendants, the items may be repatriated by:

  (a) the group on whose tribal land the items are discovered;

  (b) the group with the closest cultural affiliation;

  (c) if cultural affiliation cannot be determined, then to the tribe legally recognized as having aboriginally occupied the federal land where the remains were discovered (or another group by a preponderance of the evidence).

The major problem is that, if S.2843 passes, the expansion of the term "Native American" correlatively expands the category of materials considered to be Native American cultural items under NAGPRA. Section 3(a)(1) would not be expanded because it allows for claims by lineal descendants. "Lineal descendant" is not defined in NAGPRA, leading to the reasonable inference that lineal descendants must refer to actual, documentable descendants. This inference is consistent with Congress's intent to have NAGPRA allow for repatriation of close relatives' remains.

Section 3(a)(2)(A) could be substantially affected by the proposed change. The change would allow for the repatriation of items regardless of their cultural or genetic affiliation, simply by virtue of their location on tribal lands. Section 3(a)(2)(B) looks to closest cultural affiliation and is invoked when items are found on federal (as opposed to tribal) lands. There is no indication that items found in such contexts, if the bill passes, would be subject to any different regulations than those applied in the Kennewick Man case. Thus, no substantial change is anticipated here. Finally, Section 3(a)(2)(C) kicks in if cultural affiliation cannot be determined and if a court has recognized the land on which the items were discovered as having been aboriginally occupied by a tribe. Here again, the expanded definition of "Native American" could allow for repatriation claims by nonculturally affiliated groups whose Native American ancestors once occupied the same land as those of a pre-Native American group.

If S.2843 passes, Judge Jelderks's comment in the Kennewick Man case that "courts do not assume that Congress intends to create odd or absurd results" will be turned on its head. In future cases brought under NAGPRA, courts might have to consider that Congress intended for NAGPRA to allow modern groups to make claims to culturally and/or genetically unaffiliated items, an "odd or absurd" result indeed.

Ultimately, the significance of "is" is that it maintains the delicate balance between Native American and scientific interests that Congress created with NAGPRA. "Is" does this by ensuring that the human rights of modern Native Americans are protected by allowing them to make claims to items to which they, as a currently existing group, can demonstrate a filial relation. "Is" also protects the scientific study of our shared history as Americans by allowing research to continue. The addition of "or was" to the definition of "Native American" under NAGPRA would eviscerate this balance by thwarting Congress's intention to protect both human rights and science together in one law.

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Kennewick Man Still in Legal Limbo

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Supreme Court. In reporting this development, Danny Westneat of the *Seattle Times* wrote that "an epic struggle between science and religion" had come to an end. Rob Roy Smith, an attorney representing the Colville Tribes, knew better. He told the *Tri-City Herald*, "We are not going to go away easily. Just because these remains are not 'Native American' does not mean that they are not Indian and not of significant cultural importance."

Susan Shown Harjo, writing for *Indian Country Today*, declared that the scientists and reporters who celebrated "their victory of 'science over religion'" were "dancing on the graves of missing Native Americans." She opined that the scientists, who were "clicking their heels and sharpening their knives and scrapers, poised to exercise their duty of white privilege," needed to be restrained from conducting excessively destructive testing on the bones of Kennewick Man. Furthermore, Congress should "clarify the repatriation laws so that even judges and scientists can understand them." Harjo's passionate if intemperate rhetoric colorfully summarizes the two-pronged strategy some Native Americans have adopted to circumvent the court decisions or at least to minimize their effects.

Delaying tactics to keep scientists from studying Kennewick Man

On July 23, Paula Barran and Alan Schneider, the attorneys for the scientists (or plaintiffs), asked the court to reduce the participants in the case to the scientists and the government defendants. Since the Ninth Circuit Court had held that "NAGPRA has no application to the Kennewick Man remains," Barran and Schneider argued that tribal claimants and other nongovernment participants in the case no longer had a role in the proceedings. The only issues remaining to be resolved were "the plaintiffs' petition for attorney fees" and issues related to the negotiations between the scientists and the U.S. Army Corps of Engineers regarding the scientists' study plan. The request was made to streamline the process and to reduce the costs when documents are filed in the case.

The claimant tribes, now referred to as the "defendant-intervenors," objected to their potential exclusion from the ongoing negotiations, and on August 2 they submitted their objections to the court. Their attorneys argued that the "Tribes have a continuing legal interest . . . that precludes dismissal and requires the tribes' continued participation in this case as intervenors." They claimed to have standing under the American Indian Religious Freedom Act (AIRFA), the Archaeological Resources Protection Act (ARPA), the National Historic Preservation Act (NHPA), and the Administrative Procedures Act (APA). Their claimed interests included protecting the remains from "invasive and destructive studies" and protecting the "burial site from further excavations." The Tribes expressed their belief in the "sanctity of the spirit of the deceased" and argued that destructive testing violated this tenet of their religion. They claimed that the ARPA permit granted to James Chatters for the original investigation of the site required him not to disturb any "Indian grave or burial ground" without the permission of "the governing body of Indians." Finally, they asserted that the additional studies requested by the plaintiff scientists might eventually prove that Kennewick Man is "Native American," and so bring these ancient remains under NAGPRA after all. This last point is a puzzling argument for the Tribes to advance. The acknowledgment that additional studies might show that Kennewick Man is a "Native American," for the purposes of NAGPRA, is a tacit argument for undertaking those studies, while the acceptance that Kennewick Man's remains have not been demonstrated to be "Native American" calls into question the basis for the Tribes' claim that they have any right to limit those studies.

Barran and Schneider responded by pointing out that the Tribes originally were "allowed to intervene only for a single limited purpose that has now expired" and that they were now improperly seeking to "convert that limited intervention into one that is unlimited in scope and duration." They claimed the Tribes had not suffered any demonstrable injury; so, in legal terms, they

could not have standing. Any concerns the Tribes might have for the so-called "burial site" were unwarranted because the scientists had not indicated that they intended to conduct studies there. Furthermore, the Army Corps's injunction to Chatters not to disturb any "Indian grave" was irrelevant since "there is no evidence that Kennewick Man was Indian." They noted that whatever consultation rights ARPA might grant the Tribes, "consultation does not carry with it a right to intervene as a party in the conduct of this legislation." Finally, Barran and Schneider stated that the plaintiffs have two court orders "authorizing them to study the skeleton. . . . These orders are final, and the Tribes have no right to relitigate them or interfere with their enforcement."

Magistrate Judge Jelderks issued his ruling on August 17. He wrote that the scientists' motion to dismiss the various intervenors was unnecessary. The Ninth Circuit's decision already precluded further involvement in the case by the Tribes or the other intervenors, so the scientists' motion was "moot." "Following the Ninth Circuit's conclusion that NAGPRA does not apply, there is no basis for concluding that the tribal claimants have a legally cognizable interest which entitles them to participate as parties in any further proceedings in this court." That seemed fairly clear and definitive, but Rob Roy Smith told a reporter from *The Oregonian* that "the court hasn't heard the last from us." Less than a month later, Smith, on behalf of the Colville, Nez Perce, Umatilla, and Yakama tribes, submitted a new motion for intervention.

The Tribes sought "to intervene on the two limited issues" mentioned in their opposition to dismissal: the scope of the studies of the remains and "the appropriate remedy, if any, concerning the Court's finding that the Army Corps of Engineers violated [the NHPA] . . . by reburying the discovery site." In their memorandum in support of this new motion for intervention, Thomas Schlosser and Rob Roy Smith stated as their goal the "'reinterment of [the] human remains' with the Tribes once the permitted studies are concluded." They asserted the "burial site" and the human remains were "items of great religious and cultural importance to the Tribes" and that the remains should be given to the Tribes at the conclusion of the permissible studies "pursuant to ARPA and its regulations." They claimed the "record in this case conclusively establishes the Tribes' spiritual, cultural, and property interest[s] in the remains" and argued that the proposed "handling, erosion, destructive sampling, and invasive examination" proposed by the scientists might cause "irreparable injury" to those interests.

In support of those assertions, Armand Minthorn, a member of the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Chair of the Cultural Resources Commission of the CTUIR, and "a traditional religious leader" of the Umatilla, offered a declaration in support of the Tribes' motion for intervention. Minthorn asserted that "Indian ancestral remains are sacred" and Kennewick Man is an Indian ancestor. "We know this to be the case from our oral traditions and our beliefs." Minthorn made no attempt to refute, or even address, the court's conclusion that the oral traditions offered in support of this claim were not "adequate to show the required significant relationship." Minthorn argued that the possibility that some scientist might learn something from these bones that might lead to a measure of "academic fame" must be balanced against "respect for the dead and respect for the Tribes' religious beliefs."

Barran and Schneider characterized the Tribes' motion to intervene as "an improper attack on the court's 17 August 2004 ruling that the Tribes have no right to participate further in this litigation, and is largely repetitive of arguments already considered and rejected by the court." They repeated their argument that the Tribes have no standing and denounced this new motion as "frivolous" and a form of harassment. For this reason, they asked the court to require that the Tribes pay the expenses they incurred in responding to the duplicative litigation.

Schlosser and Smith decried this maneuver as "retaliatory scare tactics." They reiterated their assertion that "the weight of the evidence" established the Tribes' "relationship with these remains." But, as with Minthorn's statement, Schlosser and Smith made no attempt to show why the court was wrong in finding that the record contained "no evidence—let alone substantial evidence"—"that Kennewick Man and modern tribes share significant genetic or cultural features." They claimed "the Tribes' interests are real and legally protectable under ARPA and NHPA" and cited a previous court decision holding that "tribal members have standing to assert particular individualized interests in the 'preservation of historical, archaeological, and cultural artifacts' that are threatened with destruction." Their use of this decision in support of their claim is ironic in that the Tribes have expressed their intent to rebury the remains of Kennewick Man, which ultimately will lead to the degradation and destruction of the bones. It is the scientists who wish to preserve the skeleton so it can be studied, but Schlosser and Smith uncharitably characterized this as "scientific exploitation of early Americans."

Lobbying Congress to revise NAGPRA

On July 14, the Senate Committee on Indian Affairs met to review the implementation of AIRFA. During this hearing, Paul Bender, a law professor at Arizona State University, and Walter Echo-Hawk, attorney for the Native American Rights Fund, offered testimony regarding what Echo-Hawk referred to as "important follow-up laws," including NAGPRA.

Bender asserted that the Ninth Circuit Court's decision was "plainly incorrect as a matter of statutory interpretation" and frustrated "NAGPRA's important human rights objective." Specifically, Bender argued that "NAGPRA was intended by Congress to apply to indigenous materials even when no relationship with a present-day Indian tribe has been established." He offered "corrective amendments that would reverse the Ninth Circuit's serious mistake." He recommended that the words "that is" be removed from NAGPRA's definition of "Native American," or alternatively, that the phrase "or was" be inserted following the words "that is," to make it clear that a relationship to contemporary American Indian tribes was not required for prehistoric remains to qualify as "Native American" under the terms of NAGPRA. He also suggested alternative measures that would achieve the same purpose and offered his assistance to the Committee's staff "in considering these and other proposals" to insure that "NAGPRA be able to continue its vital human-rights objectives."

Echo-Hawk agreed with Bender that the Ninth Circuit Court failed to give due consideration to the human rights issues NAGPRA was supposed to address and that its decision in the Kennewick Man case was an example of "judicial law-making." Echo-Hawk endorsed Bender's recommendations for amending NAGPRA and made the further suggestion that the responsibility for implementing NAGPRA be taken away from the National Park

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TAMU students work at the Gault site excavation next to the Lindsey Pit. The site has since been filled in and restored to grazing land for the Lindsey brothers' cattle.

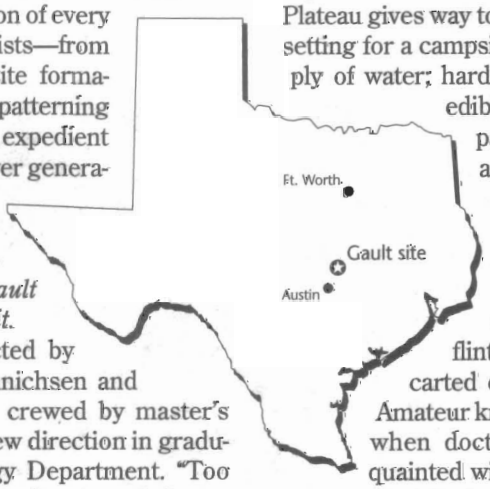
Assault on Gault

TAMU Anthropology Department is researching the Clovis culture at the famous Gault site

The first of a two-part story

FOUR PROFESSORS AND A TEAM of zealous graduate students plan to publish their intensive research into the Clovis horizons at the Gault site in east-central Texas. The publication will be a rigorous investigation of every conceivable topic of interest to scientists—from micromorphology, stratigraphy, and site formation processes to lithic materials, spatial patterning of artifacts, and Clovis bifacial tools and expedient tools. Even the debitage accumulated over generations of Clovis knappers, which accounts for the bulk of nearly 100,000 artifacts collected by TAMU investigators since 1998, earns a chapter in *The Gault Clovis Site: Excavations at the Lindsey Pit.*

This is an ambitious project, directed by professors Mike Waters and Rob Bonnichsen and Professor Emeritus Harry Shafer and crewed by master's and doctoral students, and it marks a new direction in graduate studies at the TAMU Anthropology Department. "Too much information is tied up and lost in theses and dissertations," says Dr. Waters. Now students are encouraged to write publishable papers of stand-alone studies. Excerpts can become book chapters or journal articles, which guarantees that hard-won information will be disseminated and put to use. This is the model used by the Earth Sciences departments in most universities. The Gault site monograph is the pilot program at TAMU, and according to Waters, the model will shape every future thesis and dissertation.



Homage richly deserved and long overdue

The history of the Gault site is a sad record of abuse and pillaging that dates back to 1929, when archaeologist James E. Pearce learned of the Gault family farm and investigated its twin attractions, an immense outcropping of high-quality Edwards chert and an enormous midden containing material and artifacts cast off by untold generations of hunter-gatherers, who were drawn to the site by the chert and by the sumptuous surroundings. The Gault site sits astride an ecotone, where the Edwards Plateau gives way to lush grasslands. It's hard to imagine a finer setting for a campsite. Buttermilk Creek was a year-round supply of water; hardwood trees provided shade, firewood, and edible nuts; lush Black Prairie grass gave occupants building material and attracted game animals aplenty.

For thousands of years this little Eden had been a haven for historic and prehistoric natives. Unfortunately, when word of it spread, it attracted a horde of pot hunters, avocational archaeologists, and amateur flintknappers. Stories abound of Edwards chert carted off from the site by the pickup-truck load. Amateur knappers had been camping at Gault for years when doctoral candidate Bill Dickens became acquainted with the site. He remembers one fellow who lived on the site in a house trailer for seven months; another stayed for a week or weekend at a time over nine months. Both men spent their time spalling chert and making points for sale. In the process, they and freebooters like them not only destroyed nearly all usable chert, they littered the site with their debris. "That doesn't make my job any easier," Dickens laments.

Tentative chapters,

The Gault Clovis Site: Excavations at the Lindsey Pit

Edited by Mike Waters, Harry Shafer, and Rob Bonnichsen

1	Introduction and background information	Waters, Shafer, and Bonnichsen
2	Stratigraphy and dating of the site	Waters and Dawn Alexander
3	Site formation processes (refit and orientation data)	Alexander
4	Site micromorphology	Heidi Luchsinger
5	Lithic raw material at the Gault site	Bill Dickens
6	Clovis bifacial technology	Dickens
7	Clovis blade technology	Dickens
8	Clovis endscrapers	Jim Wiederhold
9	Use-wear analysis of blades	Scott Minchak
10	Use-wear analysis of bifaces	Ashley Smallwood
11	Debitage	Charlotte Pevny
12	Clovis expedient tools	Pevny
13	Spatial patterning at the site	Pevny
14	Archaic artifacts	Dickens and Pevny
15	Faunal analysis	Jason Wiersema and Eric Bartelink
16	Summary and conclusions	Waters, Shafer, Bonnichsen, and David Carlson

(An accomplished knapper himself, his chapters in *The Gault Clovis Site* focus on lithic raw material and Clovis biface and blade technology.)

Activity at the site fell off in the late 1980s, when the midden petered out. Then in 1990 a new flurry of interest was precipitated when an amateur collector named David Olmstead dug deeper and found Clovis artifacts. Tests by Michael Collins and Thomas Hester of the Texas Archeological Research Laboratory (TARL) of the University of Texas at Austin verified Clovis provenance; nonetheless, the landowner continued to admit anyone willing to pay for the privilege of digging. Waters recalls, "When I first saw the site [about 1996] it was a pay dig, where you paid 25 dollars a day and you could go in there and dig all day and keep whatever you found."

The precious Clovis layers—there are two, a layer of pond clay (3a) overlain by overbank deposits from Buttermilk Creek (3b)—were saved from oblivion when the land was bought by Ricky and Howard Lindsey. The brothers are amateur archaeologists, but not plunderers. Aware that they owned a site of incalculable scientific value, they closed it to the public and granted Drs. Collins and Hester rights for a 3-year excavation project. Waters and Shafer were invited to join as co–principal investigators, and TAMU archaeologists conducted two field schools at the site of the Lindsey Pit.

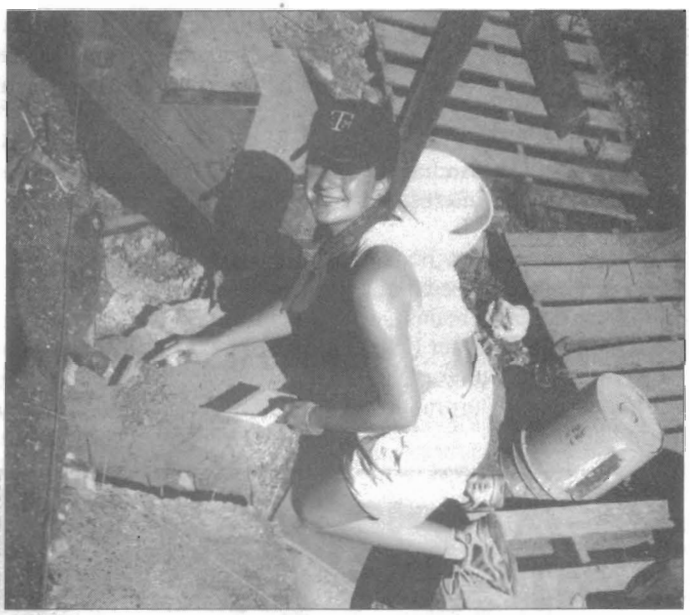
Shafer, a longtime Texas archaeologist, and Waters shared responsibility for directing the TAMU field school in spring 2000; David Carlson conducted additional research in 2001. Waters considers TAMU teams especially fortunate because their area, 43 excavation units each 1 by 1 m (about 10¾ sq ft), lay in one of the richest parts of the site with the greatest concentration of artifacts and with the clearest separation between the Clovis components. It became obvious from the profusion of artifacts that this was no typical Clovis campsite, visited a time or two by wandering hunters or toolmakers in search of flint. "What we have here, at Gault," says Waters, "is two stratigraphically separated Clovis occupations—something unheard of and unprecedented in Paleoindian archaeology." Shafer, equally emphatic about the importance of Gault, calls it "the most intensively occupied Clovis site currently known in North America."

Making sense of stone tools

It's not surprising, considering the sheer number of tools recovered, that the bulk of the research and most of the pages of *The Gault Clovis Site* are dedicated to intense scrutiny of Clovis bifaces and blades. Ashley Smallwood is doing use-wear analysis on more than 60 bifaces, including 4 Clovis points. Most of the bifaces are in early stages of manufacture, "kind of crude pieces," she describes them. "Some have internal flaws, or maybe there was a manufacturing flaw—maybe one of those overshots [*outre passé* flakes that extend across the entire face, a Clovis hallmark] didn't go just the way the Paleoamerican wanted it to—so they were left in this very early stage." The majority of the early-stage bifaces are thicker pieces that may have been used secondhand as choppers or adzes for everyday activities in camp.

MARK BEAL, TEXAS A&M

Char Pevny, the team specialist on debitage and expedient tools, confers with Mike Waters.


ASHLEY SMALLWOOD

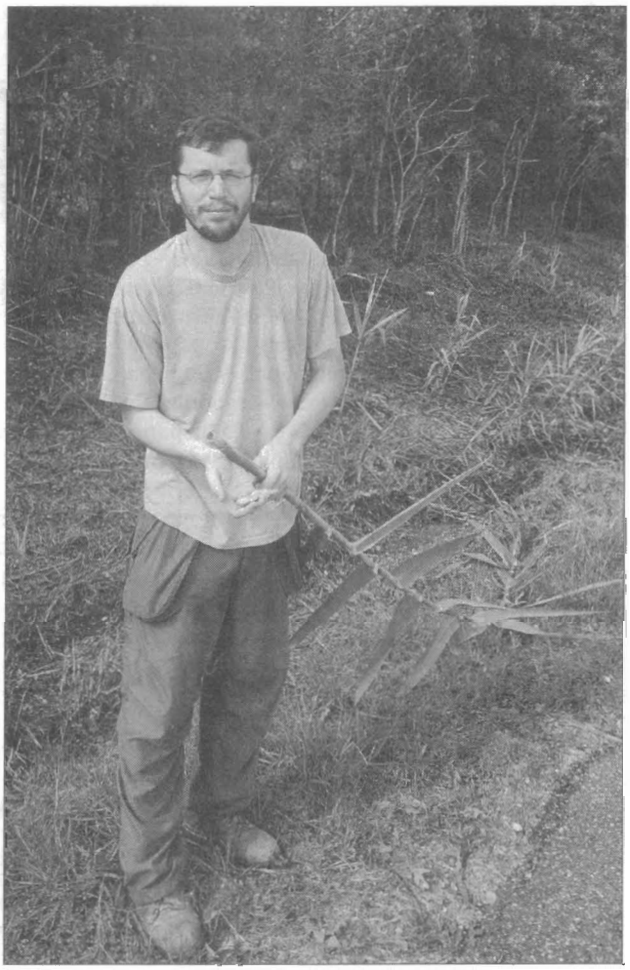
Ashley Smallwood at the Gault site, summer 2001.

The use-wear analysis Smallwood is doing is expanding our understanding of the lifestyle of Clovis people. The stereotypical image of the mighty Clovis hunter who dined exclusively on mammoth steaks and chops has been sundered, for the picture that is emerging is that Clovis, like every other known primitive society, was a hunter-gatherer culture. The tools they made could have been used for such mundane purposes as cutting grass, working wood, and skinning game. A major goal of Smallwood's research is to determine the diverse uses of bifaces by examining crosscutting linear indicators—scratches that result from human cutting, chopping, or sawing motions—and polish and rounding in different places on a tool, perhaps where we wouldn't expect to find such wear. She even hopes to discover the life-use history of many tools.

Smallwood, who participated in digging at Gault in 2001 as an undergrad, is now in the doctoral program at TAMU; at 24, she is the youngest of her peers. Paradoxically, she suspects that her work on the Gault collection may not be giving her a picture representative of Clovis-wide technology, since Gault knappers, with an unlimited supply of high-quality chert at hand, had little incentive to be frugal with toolstone. "A lot of this stuff could just have been brushed aside if there was a flaw," she notes. For her dissertation she is considering comparing Gault tools with an assemblage from another Clovis site that lacked abundant high-quality toolstone and where knappers consequently may have been compelled to salvage damaged pieces and to work with flawed lithic material.

Scott Minchak, in the master's program at TAMU, is studying Clovis blades. Some of the tools he's analyzing are prismatic blades; others are bladelike tools, products of early stages in blade production. Regardless of the type, nearly all are made of native Edwards chert, either from blanks quarried from the local outcropping or from cobbles collected in Buttermilk Creek. (One specimen being analyzed may be quartzite.) He has organized blades into three categories. Those he calls primary blades have a significant amount of cortex (the rind that appears on weathered chert); secondary blades might have cortex on one face; interior blades have little or no cortex.

Use-wear analysis is the name of Minchak's game. Having done intense study of wear patterns on Gault blades under a stereomicroscope, much of his research is now devoted to experiments that replicate the polish and scratches found on Gault tools. Using blades crafted by Bill Dickens, the team's knap-to-order expert, to cut meat, grass, wood, and bone, he studies the surfaces under a 'scope to see if he can find a match with tools from Gault. Since tools come from both Clovis layers at Gault, he is also looking for generalized characteristics, whether tools from one layer had a longer use life than those from the other, for example, or whether tools from one layer were used to cut more hard or soft material than those from the other.


SCOTT MINCHAK

What happens to the edge of a chert blade when you cut cane with it? Scott Minchak uses the practical method to find out.

Not all marks are the result of tool use. Since the sediments at Gault had lain largely undisturbed until the TAMU team dug them, many of the scars found on debitage and tools may have been caused by Paleoamerican foot traffic. How do you gauge the effect of trampling? You can do what Minchak did (an experiment suggested by colleague Char Pevny), strew flint tools on the ground and ask your friends to walk on them, then go back for another bout at the 'scope. Resourcefulness is a quality shared by all the members of the TAMU team. *End of Part 1*

–JMC

Kennewick Man Still in Legal Limbo

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Service (NPS) and "moved to a neutral agency with the Executive Branch." The justification for this move was that the archaeologists employed by the NPS were biased against the interests of Native Americans.

While NAGPRA certainly was conceived to address human rights concerns related to the ability of federally recognized tribes to reclaim, from federally funded institutions, human remains and certain artifacts related to those tribes, neither Bender nor Echo-Hawk was explicit about just how scientific efforts to study a 9,000-year-old human skeleton with "no cognizable link" to any modern Indian tribe constituted a "human rights" issue.

On 19 July, the Confederated Tribes of the Umatilla Indian Reservation issued a press release stating that the courts had "failed NAGPRA, and the tribes as well." The statement expressed the tribe's intent to work "to strengthen the law" so that discoveries such as Kennewick Man "will be protected." They also expressed their commitment "to try to protect the Ancient One as best we can from repetitive destructive testing."

The Native American Technical Corrections Act of 2004

On September 23, Senator Ben Nighthorse Campbell introduced a bill "to make technical corrections to laws relating to Native Americans," including NAGPRA. In the last two lines of a 41-page bill, Campbell proposed inserting "or was" after "is" in "Section 2(a) of Public Law 101-601 (U.S.C. 3001 (9))." This "technical correction" is precisely what Bender and Echo-Hawk had called for in their appeal to the Senate's Indian Affairs Committee. But Senator Campbell was proposing making this sweeping change with no hearings or discussions with other stakeholders. Moreover, the wording of his bill appeared to be intentionally confusing because the law's common name, "NAGPRA," was not mentioned. Adding insult to injury, a Senate staff member, quoted in a story on Indianz.com, suggested the bill was "non-controversial." The subsequent response to Campbell's proposal suggests this unnamed member of the Senate staff was either hopelessly deluded or deliberately disingenuous.

An editorial in the *Rocky Mountain News* of October 13 concluded, "Society has a legitimate interest in furthering scientific research on the prehistory of America, and such research harms no one now alive or alive within living memory. Campbell's attempt to revise current law is a misguided attack on such research, and it should be defeated." On October 15, the *Arizona Republic* declared that the Ninth Circuit Court's ruling "gives knowledge a chance." NAGPRA was intended to honor the spiritual beliefs of American Indian tribes, but it "honors no one if such beliefs are generalized and extended so far into prehistory that information about the origins of the human race goes unexamined." [For more about Senator Campbell's amendment to NAGPRA, see Ryan Seidemann's article in this issue, "What Is the Significance of 'Is'?"]

What next?

Magistrate Judge Jelderks has not yet ruled on the Tribes' latest motion to intervene, but given his previous rulings, the Tribes cannot have high hopes that he will decide in their favor. They are, however, succeeding in their effort to delay the implementation of the court-ordered scientific study of the remains of Kennewick Man. The Senate has not yet voted on S. 2843, Campbell's "Native American Technical Corrections Act of 2004." If the bill is passed, it is not clear whether or not it can retroactively apply to Kennewick Man. Whether it does or does not, however, the shifting legal landscape undoubtedly will result in more motions and more delays. Kennewick Man may be doomed to reside in legal limbo for years to come. Does such a fate serve anyone's interest?

For the most current information on the Kennewick Man court case, see the Friends of America's Past Web site **www.friendsofpast.org**

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The opinions expressed in this article are those of the author and do not necessarily reflect those of the Ohio Historical Society, with whom he is employed as a Curator of Archaeology.