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KOSOVO
The Casualties of War

A New
Scientific
War
Over a
10,000-
Year-
Old
Puzzle

Who Were the First Americans?

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Reconstruction of Spirit Caveman who lived in Nevada 9,400 years ago

AS HE SAT DOWN to his last meal amid the cattails and sedges on the shore of the ancient lake, the frail man grimaced in agony. A fracture at his left temple was still healing; deep abscesses in his gums shot bolts of pain into his skull. Still, he was a survivor, at fortysomething long-lived for his people. But soon after he finished the boiled chub that he had netted from

a stream in what is now western Nevada, he felt his strength ebbing like a tide. He lay down. Within hours he was dead, felled by septicemia brought on by

the dental abscess. When his people found him, they gently wrapped his body in a rabbit-fur robe and secured his bulrush-lined leather moccasins, his prize possessions; he had patched them twice with antelope hide on the right heel and toe. Surely he would want them where he was going. His people dug a shallow grave in a rock shelter, lined it with reed mats and laid him within. Some 9,400 years later, anthropologists would

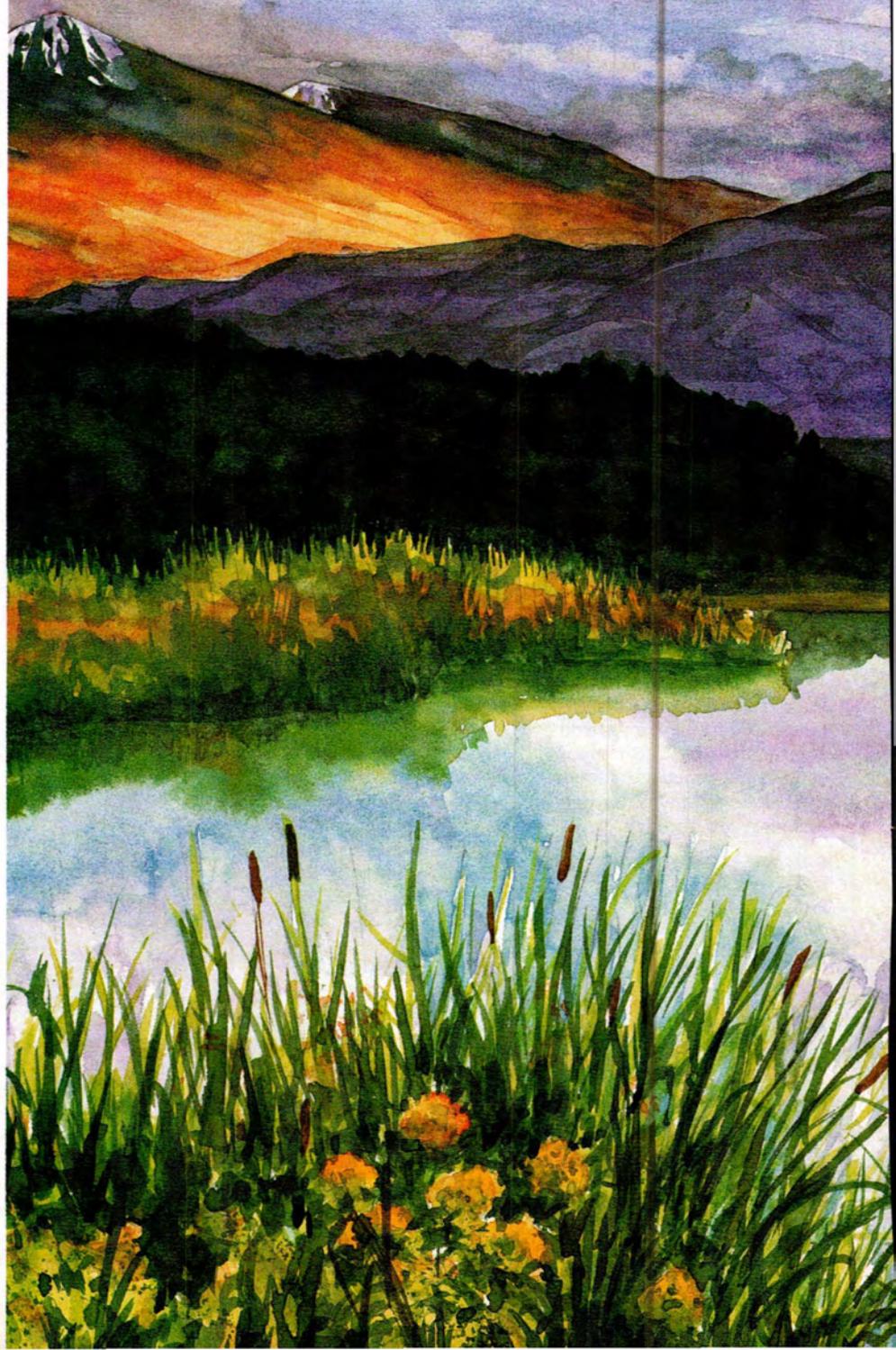


SPIRIT CAVEMAN
At 9,400 years old, he is the right age to be an ancestor of today's Native Americans. But he looks little like his supposed descendants.

BARRY—COURTESY NEVADA STATE MUSEUM, RECONSTRUCTION BY S. LONG

The Firs

New digs and old bones reveal an ancient European. Now a debate rages: who got



t Americans

land that was a mosaic of peoples—including Asians and here first? BY SHARON BEGLEY AND ANDREW MURR



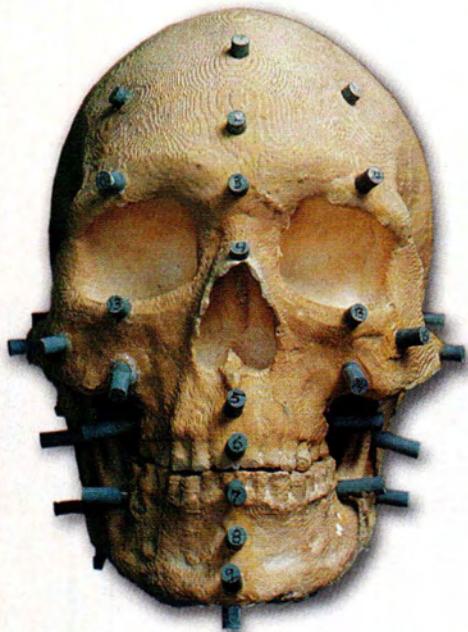
In what is now Nevada, Paleo-Americans had developed nets which they used to fish 9,400 years ago

ILLUSTRATION ©
ROB WOOD—WOOD
RONSAVILLE HARLIN, INC.

Putting Flesh on the Ancient Bones

Measuring distances between scores of points on the skull produces a "cranial profile" that lets scientists identify a skull as likely

belonging to a particular ethnic group. Placing skin and muscles on the bone shows what the ancient man looked like in life.

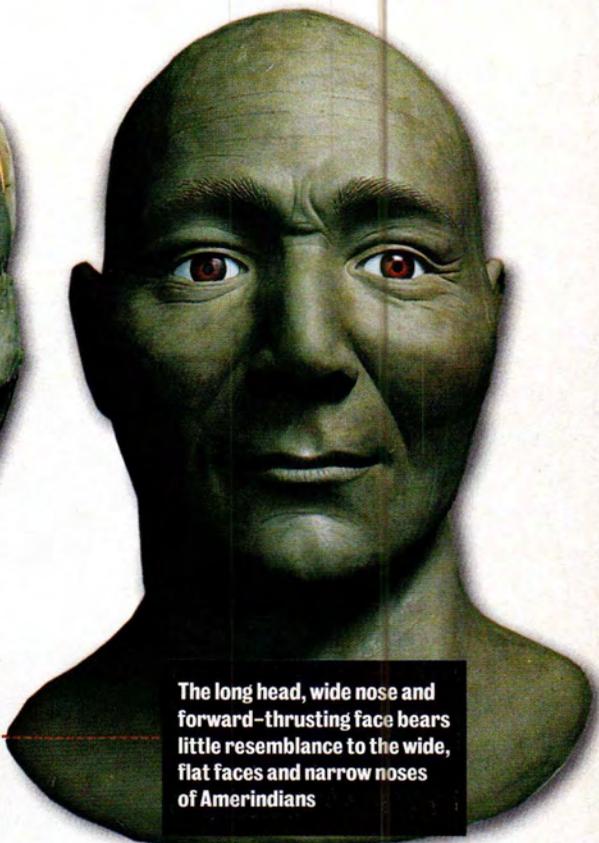


RECONSTRUCTION

In a cast of the skull, the artist inserts pegs that will hold 'skin' and 'muscle' the right distance from the bone



The artist then places strips over the pegs to act as spacers that will hold the skin in its correct configuration over the skull



The long head, wide nose and forward-thrusting face bears little resemblance to the wide, flat faces and narrow noses of Amerindians

discover him. They would name him Spirit Caveman.

He wasn't supposed to be there. Spirit Caveman is the wrong guy, in the wrong place, at the wrong time. According to the standard anthropology script, anyone living in America 9,000 years ago should resemble either today's Native Americans or, at the very least, the Asians who were their ancestors and thus, supposedly, the original Americans. But Spirit Caveman does not follow that script—and neither do more than a dozen other skeletons of Stone Age Americans. Together, the misfits have sparked a spirited debate: who were the First Americans?

The emerging answer suggests that they were not Asians of Mongoloid stock who crossed a land bridge into Alaska 11,500 years ago, as the textbooks say, but different ethnic groups, from places very different from what scientists thought even a few years ago. What's more, stone tools, hearths and remains of dwellings unearthed from

Peru to South Carolina suggest that Stone Age America was a pretty crowded place for a land that was supposed to be empty until those Asians followed herds of big game from Siberia into Alaska. A far different chronicle of the First Americans is therefore emerging from the clash of theories and discoveries that one anthropologist calls "skull wars." According to the evidence of stones and bones, long before Ellis Island opened its doors America was a veritable Rainbow Coalition of ethnic types, peopled by south-

ern Asians, East Asians—and even, perhaps, Ice Age Europeans, who may have hugged the ice sheets in their animal-skin kayaks to reach America millenniums before it was even a gleam in Leif Ericson's eye. "It's very clear to me," says anthropologist Dennis Stanford of the Smithsonian Institution, "that we are looking at multiple migrations through a very long time period—migrations of many different peoples of many different ethnic origins."

The standard story of the peopling of the



For years archeologists at the Topper site in South Carolina saw no reason to dig below the level containing Native American artifacts. Last spring they dug deeper and found a **stone blade** more than 12,000 years old.

Americas holds that wanderers from Northeast Asia fanned out across the Great Plains, into the Southwest and eventually the East to become the founding populations of today's Native Americans. Stone spear points found in Clovis, N.M., in the 1930s were dated at 11,000 years ago and hailed as evidence of the oldest human settlement in the New World. The story was so tidy that any skeletons that seemed to challenge this "Clovis model" were shoved back into the closet by the mandarins of American anthropology; any stone tools that seemed older than Clovis were dismissed as misdated. Clovis had American archeology in a stranglehold; James Adovasio of Mercyhurst College in Pennsylvania calls its defenders the "Clovis mafia."

The small band of hunter-gatherers made its summer camp on the riverbank, at the northern end of the region through which they followed the seasonal game. The location, 45 miles southeast of what is now Richmond, Va., was ideal: winds from the north kept the flying insects down. Some of the band would spend their days striking long, slender quartz flakes from stone cores; others made triangular and pentagonal spear points for the hunt. It was 15,050 years ago; the erstwhile "First Americans" would not make the trek across the Bering Strait for 3,500 more years.

Now there are too many skeletons in the closet to ignore. Pushed by a 1990 federal law that requires museums to return Native American remains to their tribes, scientists—called in to figure out who belongs to whom—have amassed a database of "cranio-metric profiles." Each of the 2,000 or so profiles consists of some 90 skull measurements, such as distance between the eyes, that indicate ancestry. For most skeletons, it has been pretty straightforward to tell a Hopi from a Crow. But some skulls stand out like pale-skinned, redheaded cousins at a family reunion of olive-skinned brunettes. The oldest American found so far, an 11,500-year-old skeleton from central Brazil, resembles

southern Asians and Australians, anthropologist Walter Neves of the University of São Paulo reported last year. One skull from Lime Creek, Neb., and two from Minnesota—all 7,840 to 8,900 years old—resemble South Asians or Europeans. Some of the other misfits:

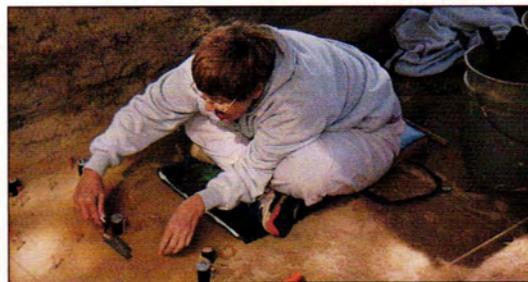
∞ Buhl Woman, found in 1989, died 10,600 years ago at the age of 19 or so. "She doesn't

fit into any modern group," says anthropologist Richard Jantz of the University of Tennessee, "but is most similar to today's Polynesians."

∞ Spirit Caveman bears less resemblance to American Indians than he does to any other ethnic group except African Bushmen. His face is not flattened or wide, his nose is not narrow—all traits of Amerindi-



According to the traditional theory, the First Americans came from Northeast Asia and made distinctive Clovis tools. But almost identical artifacts like this **Solutrean spear point** have been found in France and Spain, not Asia.

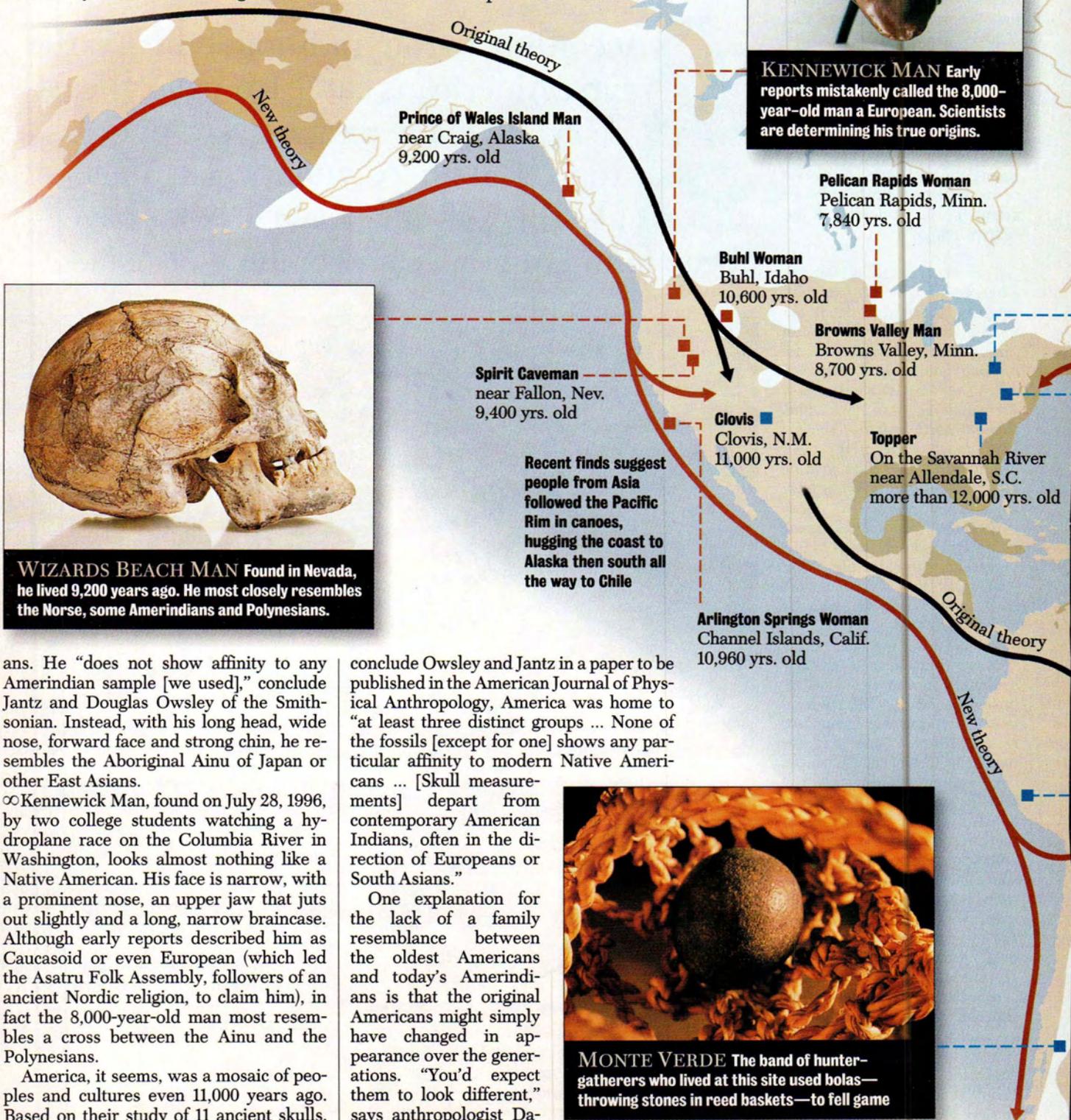


UNCOVERING THE PAST Archeologists excavate Monte Verde to verify its age (top); 11,000-year-old rock paintings in Monte Alegre Brazil may be the oldest in the Americas; looking for artifacts at Cactus Hill, Va., one of several ancient sites on the East Coast



One If by Land, Two If by Sea: Coming to America

The old theory is simple: the original Americans were East Asians of Mongoloid stock who trekked across the Bering Strait. But new finds suggest the migrants came both by land and by sea from several regions of Asia and even from Europe.



ans. He “does not show affinity to any Amerindian sample [we used],” conclude Jantz and Douglas Owsley of the Smithsonian. Instead, with his long head, wide nose, forward face and strong chin, he resembles the Aboriginal Ainu of Japan or other East Asians.

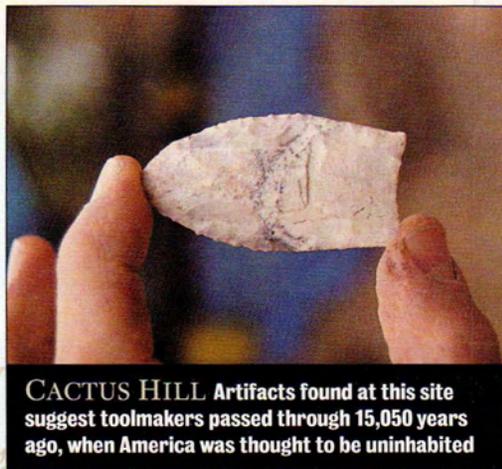
∞ Kennewick Man, found on July 28, 1996, by two college students watching a hydroplane race on the Columbia River in Washington, looks almost nothing like a Native American. His face is narrow, with a prominent nose, an upper jaw that juts out slightly and a long, narrow braincase. Although early reports described him as Caucasoid or even European (which led the Asatru Folk Assembly, followers of an ancient Nordic religion, to claim him), in fact the 8,000-year-old man most resembles a cross between the Ainu and the Polynesians.

America, it seems, was a mosaic of peoples and cultures even 11,000 years ago. Based on their study of 11 ancient skulls,

conclude Owsley and Jantz in a paper to be published in the *American Journal of Physical Anthropology*, America was home to “at least three distinct groups ... None of the fossils [except for one] shows any particular affinity to modern Native Americans ... [Skull measurements] depart from contemporary American Indians, often in the direction of Europeans or South Asians.”

One explanation for the lack of a family resemblance between the oldest Americans and today’s Amerindians is that the original Americans might simply have changed in appearance over the generations. “You’d expect them to look different,” says anthropologist Da-

- ➔ New migration theory
- ➔ Original theory
- Excavated sites
- Skeletal remains found
- Pleistocene ice sheets
- Land exposed by drop in sea level, c. 20,000 yrs. ago



CACTUS HILL Artifacts found at this site suggest toolmakers passed through 15,050 years ago, when America was thought to be uninhabited

ble.” That conclusion, even if proved, has no direct legal ramifications for Native Americans’ hard-won gains, such as the right to fish ancestral waters and the right to establish casinos. “But it may be just a step before legislation starts being rolled back,” Thomas warns. Some Americans resent the newfound wealth of some tribes, and “if the discoveries make today’s Native Americans just another Ellis Island group, it makes it hard for them to preserve their sovereignty.”

Already, Native Americans are protesting this line of research. The Shoshone-Bannock demanded custody of Buhl Woman and reburied her. The Northern Paiute are asking that Spirit Caveman be reburied, and the Umatilla of Washington want Kennewick Man. “We know that our people have been part of this land since the beginning of time,” said Armand Minthorn, a Umatilla religious leader, in a statement. “Scientists believe that because [Kennewick Man’s] head measurement does not match ours, he is not Native American. Our elders have told us that Indian people did not always look the way we do today.”

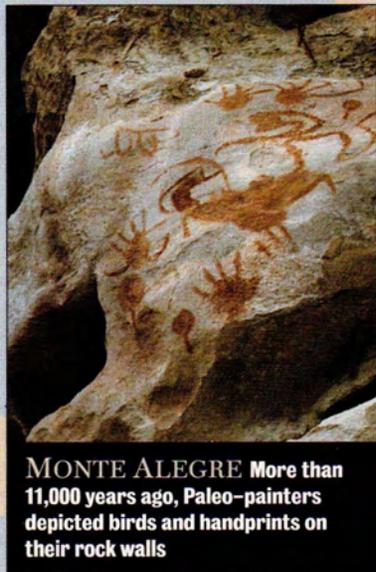
The determined band passed up the quartz in the nearby deposits, trekking beyond the Green River in what is now Wyoming and Utah, all the way to the northern Bighorn, 600 miles away. There they found the obsidian and quartz crystal they would fashion into stone points and flakes—and never use. Instead, they would bury their caches on a layer of compacted red ocher. Their neighbors had equally strong preferences, but for them the quest was not for exotic materials but for sources imbued with spiritual significance. Rejecting the local quartz, they climbed the peaks to chip out red jasper found at 9,000 feet and flake it into stone tools that they, too, would cache, unused. Stones that lay nearer their gods would make a fitting offering.

For years, no authority would accept any deviation from the party line that the First Americans were the Clovis people of 11,000 years ago. But in 1977, archeologist Tom Dillehay of the University of Kentucky began excavating a site deep in the Chilean hills called Monte Verde. There, some 30 hunter-gatherers lived beside a creek 35 miles inland of the Pacific until a rising peat bog pushed them out—and preserved the site like volcanic ash over Pompeii. The

A new theory has the First Americans traveling by boat along the frozen shoreline from Europe into North America

Meadowcroft Rockshelter
Avella, Pa.
up to 17,000 yrs. old

In the old theory, the First Americans crossed the Bering Strait by foot and then, over thousands of years, migrated into South America



MONTE ALEGRE More than 11,000 years ago, Paleo-painters depicted birds and handprints on their rock walls

Quebrada Jaguay
South coastal Peru
11,100 yrs. old

Lapa Vermelha Woman
Pedro Leopoldo, Brazil
11,500 yrs. old

vid Hurst Thomas of the American Museum of Natural History. “They’re separated by 9,000 years of evolution.” A more radical explanation is that the First Americans—perhaps from Polynesia, perhaps from Europe—left no descendants. Whoever got here first, in other words, were not the ancestors of today’s Pequot, Shoshone and other tribes. Instead, they were obliterated by later arrivals who made war or made love:

killing them or mating with them. Kennewick Man, for instance, had a stone spear point in his hip. Its shape suggests it came from what scientists call the Cascade culture, people who were just moving into the area. “It may be a sign of ethnic conflict,” says anthropologist James Chatters, who first inspected K Man.

The possibility that today’s Native Americans are not the descendants of the original Americans is not going down easily. “If you tell the Native Americans that they weren’t first,” says Thomas, “you’re asking for trou-

RESEARCH BY BRET BEGUN. SOURCES: NEWSWEEK REPORTING, CENTER FOR THE STUDY OF FIRST AMERICANS, DISCOVER MAGAZINE, THE CAMBRIDGE ENCYCLOPEDIA OF HUMAN EVOLUTION



band lived in low, tentlike structures lashed together with cord and covered with bark and mastodon hide to keep out the rain, says Dillehay. Outside were work areas, and fire pits lined with clay. A hut set apart from the others may have served as either a paleo-hospital or a Stone Age Studio 54: inside, Dillehay found five chewed quid made of boldo leaves, which contain both an analgesic and a mild hallucinogen. Boldo was clearly prized: the nearest supply lay more than 100 miles north, so either someone made a long trek or arranged trades with distant inlanders. Belying the image of the original Americans as full-time big-game hunters, the Monte Verdeans ate a varied diet: freshwater mussels and crawfish, wild potato, fruits and nuts, small game like birds that they brought down with stones and the occasional mastodon that they felled with fire-hardened lances. But the paradigm killer was this: Monte Verde was inhabited

ANCIENT EVENINGS The people of Stone Age Monte Verde, Chile, lived in huts covered by bark and mastodon skins 12,500 years ago—a full millennium before anyone was thought to have arrived in the New World. Archeologists now suspect that the migrants may have come from Asia by boat.

12,500 years ago—1,000 years before the original Americans supposedly flocked across the Bering Strait.

For years archeologists dismissed Dillehay's claim. At scientific conferences, he recalls, "others would be introduced as doctor this and doctor that. I was always 'the guy who is excavating Monte Verde.' Some people wouldn't even shake my hand." Even worse, the Clovis model had such a stranglehold that scientists "would dig until they hit the Clovis level and just stop." Few looked for older bones and tools. Four

or five possible pre-Clovis sites in South America were never reported because the scientists feared that doing so would wreck their reputations.

That changed two years ago, when archeology's pooh-bahs finally accepted that Monte Verde was indeed 12,500 years old. The floodgates opened. Sites once dismissed as misdated are being re-examined. At Meadowcroft Rockshelter in Avella, Pa., for instance, where for 26 years Adovasio has been excavating under an overhang that juts out from a rock face 43 feet above the ground, scientists are now reconsidering his claim that the charcoal, stone tools and woven material buried there are at least 14,000 and possibly 17,000 years old. At Saltville, in western Virginia, archeologists are studying what may be a Stone Age mastodon feast. Stone and bone tools (including an ivory-polisher), mastodon bones and fire-cracked rock along an ancient riverbank have been unearthed from a layer that may be 14,000 years old. Saltville has a distinguished pedigree: a friend sent Thomas Jefferson a mastodon tooth from the site in 1782.

Jefferson was curious enough about the prehistory of America that when he dispatched Lewis and Clark to survey the West, he asked them to look for signs of ancient settlements. He might have turned his curiosity closer to home. Archeologists led by Michael Johnson had stopped digging at Cactus Hill



Spirit Caveman was buried 9,400 years ago in Nevada, wrapped in a rabbit-fur robe and wearing his **moccasins**.

They were leather, lined with bulrushes and patched with antelope hide. The find is rewriting American prehistory.

in Virginia when they found Clovis material, dated at 10,920 years old, three feet down. But with the theory of the First Americans shifting beneath their feet, they dug deeper—and came upon stone blades and cores (the rock chunks from which flakes are struck) in a layer 15,050 years old. “This looks like a good candidate for a Clovis precursor to me,” says the Smithsonian’s Stanford. Like Johnson, archeologist Albert Goodyear of the University of South Carolina had never felt much need to dig below the Clovis layer in his Topper site on the Savannah River. But last spring he and colleagues found, beneath the Clovis layer, stone blades and flakes by the score in layers three feet down—a depth that, he estimates, corresponds to more than 12,000 years. “This is pretty substantial evidence,” says Goodyear, “that people were here long before we thought.”

And they may have come from somewhere no scientists in their right mind would have considered only a few years ago: a French Connection. There are striking similarities between the stone tools attributed to the Clovis culture, in the Americas, and the stone tools attributed to the so-called Solutrean culture of France and the Iberian Peninsula. Both made beveled, crosshatched bone rods, notes archeologist Bruce Bradley. Both made idiosyncratic spear points of mammoth ivory. Both made triangular stone scrapers. Yes, two separate peoples might have invented the same thing, as David Meltzer of Southern Methodist University points out: “These similarities may represent finding the same answer to the same problem” of killing and butchering game. But there’s a twist. “The oldest of these tools in America,” says Bradley, “are in the East and Southeast, not the Southwest”—where they should be if the Clovis people trickled in from Siberia and then fanned out across the continent. And since glaciers did not retreat from America’s midsection until 11,500 years ago, anyone inhabiting the Eastern Seaboard before then must have come from the East rather than the Bering Strait.

How? Crossing the open At-

Early Americans left a ‘postcard from the Pleistocene’ on the Channel Islands off southern California. Piles of shells and **woven cord** that was probably part of a fishing net suggest the inhabitants were ancient mariners.

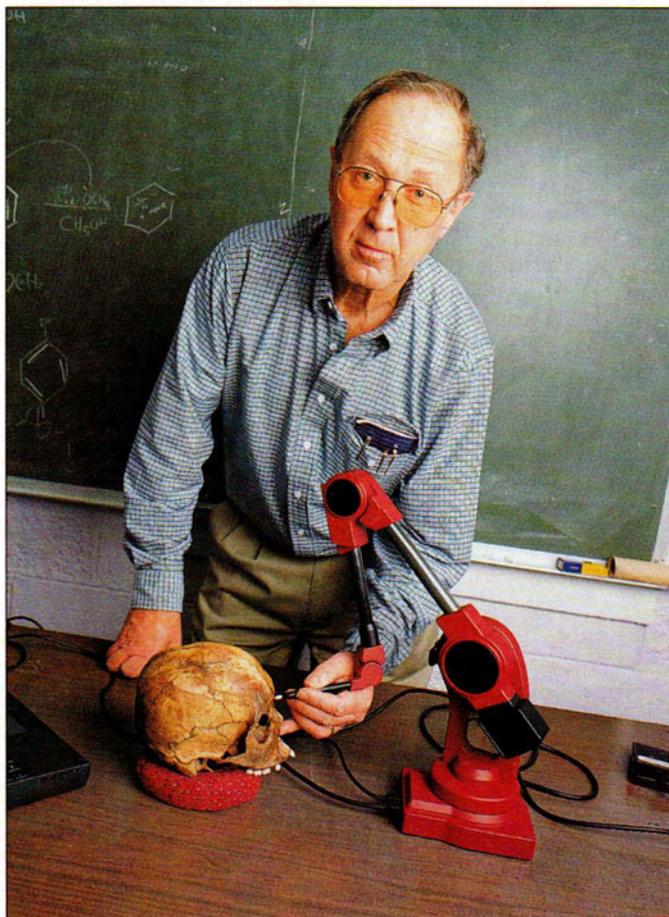


lantic would have posed a perhaps insurmountable challenge, even though people traveled in boats from southern Asia to Australia at least 40,000 years ago. “We don’t give early people enough credit,” says Stanford. “Yeah, they lived in caves—but they were pretty smart, too.” Smart enough, perhaps, to have navigated along the ice sheet and seasonal pack ice that spanned the ocean from England to Nova Scotia. “They could have made it if they

worked the glacier for seals and water birds,” says Johnson. “They would have seen migratory birds flying west; they would have known there was land in that direction.” Similarly, the Asians who reached America from the West may have been seafarers, too.

Deep in the craggy uplands 450 feet above the Amazon, the people of Caverna da Pedra Pintada look nothing like the stereotype of the First Americans as bison-fur-wearing big-game hunters. This band drew sustenance from the river and the forest, dining on turtles, frogs, snakes, fish and freshwater mussels, as well as Brazil nuts and palm nuts. And they did more. The cave floor is splattered with gobs of red and yellow iron-based paint, dripped 11,000 years ago. The Stone Age artists created exuberant scenes of snakes and other animals and even handprints—designs? signatures?—including children’s.

“We are rewriting the textbooks on the First Americans,” says Stanford. The new edition will show that “the peopling of the Americas was never as simple as simple-minded paradigms said.” Instead, it will tell of an America that beckoned to far-flung people long before the Mayflower or the Santa Maria or the Viking ships, of an unknown continent so alluring that men and women endowed with a technology no more sophisticated than sharp rocks braved Siberian tundra and Atlantic ice packs to get here. It is still the New World. But it is thousands of years older than we thought—home to settlers so diverse that it was, even millenniums ago, the world’s melting pot. ■



THE SKULL DETECTIVE Using precise digital instruments, Richard Jantz (above) and Douglas Owsley make up to 90 measurements to determine the ethnic ancestry of mystery skulls