ANTHROPOLOGY

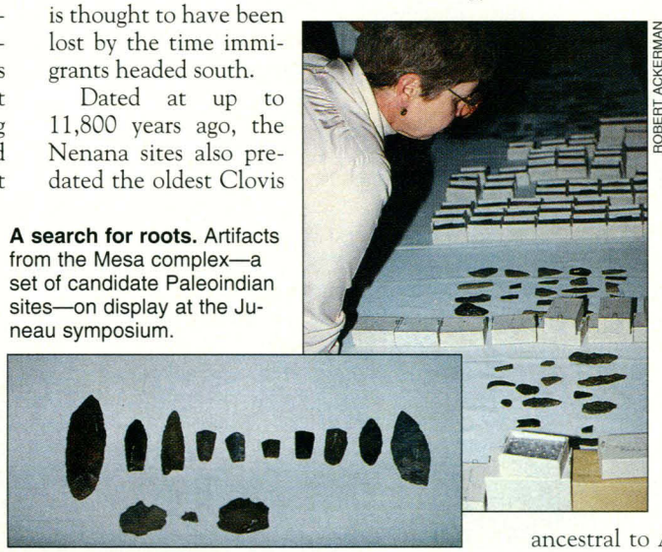
Alaska Sites Contend as Native Americans' First Stop

JUNEAU, ALASKA—The migration to the Americas from Europe has its famous points of entry: Hispaniola, Plymouth Rock, and Ellis Island. But the prehistoric migration from Asia that first peopled the two continents still doesn't have undisputed monuments at its early portals. Archaeologists agree that Alaska must have been the first stop for humans migrating over the Bering land bridge 11,000 years ago or more—and the region is dotted with sites of the right age. Yet until recently all the known sites seemed to be from cultures that apparently went no further south or eventually retreated to Siberia. "For a long time, no one could find anything in Alaska that was ancestral to the south," says Roy Carlson of Simon Fraser University in Vancouver. "Now they are finding so many things they don't know how to fit them together."

Two weeks ago, however, a pioneering effort to fit the pieces together brought Alaskan researchers and outside experts here for a symposium—"Human Populations and Environments in Late Pleistocene Beringia"— sponsored by the Alaska Anthropological Association. The gathering was meant to overcome the isolation of many Alaskan researchers, which may contribute to scientific confusion over the sites themselves. "We are at the end of the galactic arm up here," said Bureau of Land Management (BLM) archaeologist Michael Kunz, one of the organizers. For most of the participants, the symposium was their first opportunity to hear what their colleagues are doing and examine the artifacts directly. And while the gathering didn't identify a definitive ancestral culture, it did provide a boost for one of two groups of sites that are vying to be named the American gateway of Paleoindian culture.

Running behind in this contest is the Nenana complex, a group of hunting camps in central Alaska. In the late 1980s, excavations there by University of Alaska anthropologists Rogers Powers and Ted Goebel, along with John Hoffecker of Argonne National Laboratory, yielded tools—including points and scrapers that had been worked on both sides—that showed similarities to those of the earliest culture in the North American interior, the Clovis people. Even more intriguing was the fact that microblades, stone slivers that served as edges for wooden knives, were missing from these tool assemblages. Microblades are the hallmark of Siberian cultures and have turned up at many other sites in Alaska and the Yukon, collectively known as the Denali complex. But they have never been found at Paleoindian sites in North America, and the technology is thought to have been lost by the time immigrants headed south.

Dated at up to 11,800 years ago, the Nenana sites also predated the oldest Clovis site by a century or so. The artifacts and their ages were enough to convince Powers and his colleagues that they had found relics of the people who migrated deeper into North America and founded the Clovis culture (*Science*, 1 January 1993, p. 46). But a new contender appeared last year as Kunz and Richard Reanier of the University of Washington excavated the Mesa site, a lookout on the northern flanks of Alaska's Brooks Range. The site lacked microblades, and it yielded projectile points similar in shape and manufacturing technique to those found at the 10,000-year-old Agate Basin sites in Wyoming (*Science*, 4 February, p. 660).



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A search for roots. Artifacts from the Mesa complex—a set of candidate Paleoindian sites—on display at the Juneau symposium.

The timing of the two cultures also suggested that they could be related as ancestor and descendant: Charcoal samples from hearths at Mesa yielded radiocarbon dates as early as 11,700 years ago, more than 1000 years before the Agate Basin people. Although Mesa and Nenana could both be Paleoindian cultures, each representing a different migration, Kunz and Reanier argued that the evidence was much stronger for Mesa. In that case, says Kunz, the progenitors of the Clovis people must have been part of a different population movement across the Bering land bridge, whose remains have yet to be found.

At the Juneau meeting, Kunz's claims got a boost from Charles Holmes, an archaeologist for Alaska's Department of Natural Resources, who announced that he has found microblades at a site called Swan Point, generally considered to be part of the Nenana complex. That finding could mark the Nenana culture as Denali rather than Paleoindian, says Holmes. Responds Powers, "If those microblades really do go with the Nenana complex, we may have to change our tune." But he isn't conceding yet, arguing that the Swan Point site might be a relic of a culture unrelated to Nenana.

Even if the new findings cast doubt on the Nenana people as a founding Paleoindian culture, Mesa's status isn't secure either. David Meltzer of Southern Methodist University, an authority on early American migrations who took part in the symposium, agrees that the Mesa culture was Paleoindian, but he isn't sure it was ancestral to anything in the North American interior. Meltzer points out that only two charcoal samples from Mesa were dated at older than 11,000 years; all the other dates centered on 10,000 years ago. If the true age is closer to 10,000 years, the site might not be ancestral to Agate Basin; indeed, the Mesa people might actually be descendants of a culture that had settled farther south and then migrated back north. "One doesn't know if Mesa is the predecessor or the descendant," says Meltzer.

And if that's true, then anthropologists are right back where they were before: looking for the first settlement that is definitely ancestral to the earliest Paleoindian culture. A multitude of other early sites show that the Alaska of 10,000 years ago was a hive of different cultures; one or more are likely to be contenders. Confidently identifying a founding culture may take more than stone tools, however, notes Robert Ackerman, an anthropologist from Washington State University who works in southwest Alaska. "An entire culture is more than [a tool kit]." Ice fields or caves (*Science*, 25 February, p. 1088) could yield wood, bone, or hide relics that might be more telling, he thinks.

John Cook of the BLM warns that it may take some time to clinch any site as the "real" Plymouth Rock. Because the migrants probably traveled in bands of only 30 to 50, Cook says, "they just didn't leave much evidence." But there's too much at stake to stop the search, says Meltzer. "Since this is the place everybody presumably passed before heading south, Alaska is vital to informing us about the peopling of the Americas."

–Lisa Busch

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