

AUSTRALIAN ARCHAEOLOGY

Cemetery Reveals Complex Aboriginal Society

In April the dead came out of the ground around the feet of Colin Pardoe and Harvey Johnston. Pardoe, an archaeologist from the South Australian Museum, and Johnston, a researcher for the New South Wales National Parks Service, were walking along a beach dune at Lake Victoria in New South Wales, searching for signs of aboriginal cemeteries, when the skeletons started sliding out of the sand beneath them. "A dozen here, a half dozen there," says Pardoe. "And for every one exposed, we were finding up to five others above or below it."

The two researchers soon realized they were standing atop a huge necropolis, stretching 3 kilometers along the dune and containing as many as 10,000 human skeletons. And archaeologists say this discovery—probably the world's largest assemblage of skeletons from a hunter-gatherer society—is prompting a radical revision of theories about life in pre-European Australia.

Until now, most prehistorians pictured Australia's aborigines as small scattered bands eking a living out of the harsh, arid landscape. But "it's clear we have very seriously underestimated the pre-European population of this continent," says Alan Thorne of the Australian National University in Canberra, an expert on Australian prehistory. The Lake Victoria site, says Thorne, along with several smaller cemeteries found on the banks of the nearby Murray and Darling rivers, indicates that "these were not just isolated tribes existing in desperate circumstances, but substantial communities living in a very rich landscape."

The bones that provoked this reevaluation began eroding out of the dune when Lake Victoria was drained to allow maintenance work on an outlet channel early this year. The Barkindji aboriginal community at Dareton, on the Murray 60 kilometers to the east, asked Pardoe to help them excavate and reclaim the skeletons, which they view as those of their ancestors. That prompted Pardoe and Johnston's April dune walk, accompanied by archaeologist Dan Witter of the parks service and Barkindji elders Roland and Dawn Smith, who supervised the search.

The bones excavated during this search show skull and skeletal similarities that per-

sist from the bottom of the dune to the top. Those similarities are enough to convince Pardoe and his colleagues that the locality was occupied by a single population; geologic dating of the sediments beneath the bones shows that the occupation lasted at least 7000 years.

It wasn't simply a long occupation, however; it was a large one. Pardoe says the main evidence for the enduring presence of a large, organized, sedentary aboriginal community



Entombed in a dune. Trees cover this sand dune bordering an Australian lake, and the dune may cover 10,000 aboriginal skeletons.

comes partly from the manner of the burials. A human body is heavy, and nomadic aborigines elsewhere in Australia's arid interior left their dead exposed to the elements. Relatives returned later to decorate the bones with ochre before disjuncting them and bundling them for burial, often taking the bundles to sacred sites some distance away. Yet at Lake Victoria, most skeletons are intact and the bones are unadorned—signs that people died near the cemetery and were buried while flesh still covered their bones. The vast number of the Lake Victoria dead is also consistent with the notion of a large settled community.

The surrounding flood plain offers further support for the idea of a settled group. The nearby soils are almost devoid of useful stone, but caches of chert—a siliceous rock that flakes easily to a sharp edge—have been found near the dunes, apparently imported from several miles away, near the banks of the Murray. Johnston and Witter believe these imports reflect an organized tool-making industry. In addition, discarded chert blades and scrapers can easily be found within a

day's walk of the lake side, but no further—implying the hunters and gatherers weren't traveling far afield and that local food resources were being intensively exploited.

These resources were not, however, exploited to the point of destruction. The simple fact that a large population lived there over thousands of years suggests natural resources were sustained and used—not used up. Elsewhere in the world, this type of adaptation usually involved agriculture, says Witter. And in Australia, he continues, popular history has disparaged aborigines for failing to make this agricultural transition and cited this failure as the reason for their present nomadic lifestyles and small population.

But the evidence from Lake Victoria indicates the aboriginal populations did adapt and expand, and they were able to do so because people found a different but equally valid way to utilize their surroundings. The Lake Victoria community had access to permanent water sources, and they could draw on a diverse ladder of plant and animal foods, including reptiles, fish, crustaceans, mollusks, water birds, and a plenitude of game—32 mammal species inhabited the grasslands before Europeans arrived. Amid such plenty, asks Pardoe, why grow crops? Adds Witter: "They achieved a highly flexible, sustainable existence without locking themselves into the technological restraints [such as specialized tools] that accompanied agriculture." (Nor are they the only hunter-gatherer society to do so.

Over the past several years, anthropologists have discovered signs that populations in several parts of the world had also developed complex, nonagricultural societies.)

This emerging view of aboriginal life doesn't rest on Lake Victoria alone. Other, smaller, aboriginal cemeteries have been found along the Murray during the past 25 years, and Pardoe says the discoveries had stirred doubts in the minds of researchers about the stereotype of small bands ranging across the landscape. With the Lake Victoria find, he says, the stereotype collapses. "For communities of more than 100 individuals, the logistical problems of moving increase exponentially," he notes. "There are divisions of labor, groups with defined goals, and problems with defense. Even if you do move, you don't scatter. At Lake Victoria, they probably didn't move more than 500 meters to a few kilometers at a time, within a territory only about 20 kilometers square."

—Graeme O'Neill

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