AUSTRALIAN ARCHAEOLOGY

Aboriginal Groups Warm to Studies of Early Australians

LAKE MUNGO, NEW SOUTH WALES—It was nearly 30 years ago that a burnt human mandible plucked from the eroding sands of Lake Mungo brought Australia into the front ranks of research on human prehistory. The discovery of a bone from a 26,000-year-old female skull, called Mungo Lady, was followed by the unearthing of Mungo 3: an awe-inspiring, complete male skeleton, daubed in ochre and with arms folded across his chest, that provides clear evidence of a ritual burial 30,000 years ago. Over the next decade, the alkaline soils of Mungo and its sister lakes, collectively known as the Willandra lakes, yielded the richest record yet of ancient human occupation in Australia, including 135 skeletons, fireplaces, and artifacts.

That period of discovery, however, was brought to a halt by a rising Aboriginal rights movement that spawned numerous state and federal heritage laws to empower native peoples. The movement struck particularly hard at archaeology, canceling digs and forcing the return of scientifically valuable material. It also coincided with a sharp downturn in support for academic archaeology (see sidebar).

But now the climate may be warming again. Although relationships between archaeologists and Australia's indigenous population can still be frosty, there has been a slow thawing that could revive science and help answer questions that intrigue researchers around the world. "Australian archaeology is dead. Long live archaeology," says physical anthropologist Alan Thorne, a visiting fellow at the Research School of Pacific and Asian Studies at Australian National University (ANU) in Canberra.

Thorne should know: He was a key player in the field's death and resurrection. Thorne brought the conflict to a boil in 1983 after an abortive attempt to take part of a rich ice age collection of skeletons from Kow Swamp in Victoria to an international human origins conference. Eight years later, in a powerful ceremony, he handed over the Mungo Lady skeleton to the traditional owners of Lake Mungo—three Aboriginal tribes. "We went through a terrible period where Aboriginal people were opposed to much of archaeology," says Thorne. "But throughout there's been a thread of contact."

Now that thread has grown into something more substantial. Thorne and ANU collaborators Rainer Grün, Malcolm McCulloch, and Nigel Spooner from the school's earth sciences program have just submitted a manuscript with older dates for Mungo 3, which survived the turbulent times locked away in Thorne's office. His team originally dated the skeleton at 30,000 years, at the very limits of carbon dating. Although Thorne declines to provide details of the new results before they are published, he claims that "the [new] dates will push Australian occupation even further back into antiquity" and provoke new thinking about ice age travel and settlement in Australia.

The work proceeded after the researchers won permission from the skeleton's Aboriginal owners to use the more sophisticated—but also more controversial—electron spin resonance dating technique on a tiny chip of tooth enamel and to test some of the well-preserved bone for DNA residues and levels of uranium. According to Thorne, that reflects the new balance of power in the debate: "The key to the positive things happening in Australia now is that the country answered the question of who owns the past. Australian Aborigines do," says Thorne. "Now that they have control, they're proving to be extremely generous. And their desire for joint research is very exciting."

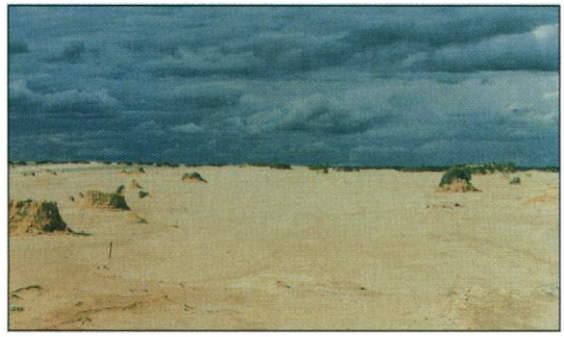
Archaeologist Judith Field of the University of Sydney has benefited from that interest in work done over the past 7 years at Cuddie Springs in western New South Wales (NSW). Blood-stained stone tools found at the site provide the first clear evidence in Australia that humans living 30,000 or more years ago butchered giant extinct animals like diprotodon, a rhinoceros-sized marsupial, or megalania, a 7-meter lizard. But success, she believes, hinges on being in synch with the community. "One-third of my time is spent maintaining relationships with the local Aboriginal community," she says. "In the end you get the cooperation of the land council because they trust you."

GEORGIA BRITTON

Digging in. Judith Field has kept her research alive by working closely with Aboriginal land councils.

Unanswered questions. The work of Field and others could shed light on the larger issue of the peopling of the world. Australia not only offers a 60,000-year record of human occupation and adaptation to changing climates, but its settlement also holds clues to the level of culture needed for humans to reach and inhabit such an island continent. Discoveries in the 1960s and 1970s showed astonishing diversity in ice age populations in Australia, with extremely robust, 10,000-year-old skeletons at Kow Swamp standing in clear contrast to older, more gracile Mungo Lady and Mungo 3. Thorne and others argue that this diversity reflects different ancestry and bolsters the theory of regional human evolution, while some scientists say it reflects adaptation to Australia's varied habitats or gender differences.

Another open question is whether the history of Aboriginal life conforms to its popular image of an unchanging hunter-gatherer society. Archaeologists have found a dramatic change around 3000 years ago in the hunter-gatherer culture, including a rise in the actual number of sites and the level of activity within a site as well as more regionalized and distinctive artwork, smaller and more diverse tools, and greater consumption of grass seeds. All this occurs against the background of a harsher and drier environment. Harry Lourandos, an anthropologist at the University of Queensland, believes this is tantalizing evidence of a shift toward a more settled life. But plenty of questions remain. Says physical anthropologist Colin Pardoe of the South Australian Museum, who has studied Murray River cemeteries from that era, "the story of the Holocene is yet to be told."



E. FINKEL

Born again. The sands of Lake Mungo are once again yielding clues to ancient human habitation.

The collision with Aboriginal rights brought much of this work to a halt, and it continues to hamper efforts by researchers to explore beyond what ANU archaeologist Rhys Jones calls "the corners of the room" of early human colonization in Australia. Instead, many archaeologists have been forced to do what Mike Smith of the National Museum of Australia in Canberra calls "carpetbag" science: short-term

University Funding Feels Big Chill

The growing spirit of cooperation between archaeologists and Aboriginal groups is a welcome sign (see main text). But Australian archaeology faces an equally dire threat: today's tight fiscal climate.

Although cuts and shrinkages are pervasive across Australia's universities, archaeology has suffered some stunning losses. Just last year, the Australian National University (ANU) in Canberra closed its prestigious Division of Archaeology and Natural History, formed in the late 1960s and considered to be the founding institution of modern Australian archaeology. "It's like losing Cambridge," says archaeologist Mike Smith, who left ANU last year to work at the National Museum of Australia in Canberra.

The closure stranded some of Australia's best known archaeologists. Alan Thorne took early retirement but continues his research as a visiting fellow. Rhys Jones's position shrank to half-time, and Smith fled to his current job. Archaeology departments also have been subject to mergers—with history at Victoria's La Trobe University and with geology at New South Wales's (NSW's) University of New England.

The paucity of research funding has also curtailed important work. Colin Pardoe of the South Australian Museum has been forced to end his long-running project exploring Aboriginal cemeteries along the Murray River. Only 1 year remains in a provenancing project that assigns museum-held skeletons to tribal groups for reburial. For Richard Fullagar, of the Australian Museum in Sydney, the loss of a grant has ended his identification of ancient plant residues on stone tools, although he remains active (see p. 1351).

Many still-active academics have moved offshore in search of friendlier climes. In the 1997 round of Australian Research Council large grants, for example, only one project on Australian prehistory was funded: an excavation at Cuddie Springs in western NSW by Judith Field of the University of Sydney. The majority of grants for anthropology and archaeology were for research in Asia, South America, or the Middle East. A decade ago, says Jones, most grants were for Australian-based projects.

PENNY TAYLOR

End of the line. Mark Grist maps Murray River cemetery; the 20-year project has ended for lack of funding.

An increase in the number of students studying archaeology at the University of New England or at Flinders University in South Australia may be a sign of renewed interest in the field. But researchers say such trends are a mixed blessing. "They'll have problems if what they want to do is research-driven rather than of benefit to the local community," says University of New England physical anthropologist Peter Brown about the fate of the new graduates. Explains Flinders archaeologist Vincent Megaw: "Most of the students we train will be working with communities on land rights claims, finding evidence in support of those claims. ... It's the only way [archaeologists] can earn a crust."

Despite the gloom, some archaeologists are hopeful that the picture will eventually improve for those who do basic research. "There's heaps of interesting archaeology going on," says Smith. "It's not a job, it's a vocation. They'd have to put a stake through our hearts to stop us."

–E.F.

projects of limited scope that can avoid being trapped by shifting political sands.

In addition, the highly charged atmosphere—in some ways akin to the U.S. civil rights movement of the 1960s—has kept some areas off limits to any research. In a dispute a few years back with regional officials, a team led by Tim Murray of Victoria's La Trobe University lost the chance to complete a decade of work at a number of Tasmanian sites that collectively offered a record of nearly 35,000 years—even though the material involved artifacts and animal bones rather than human remains.

One frequent source of conflict, says Greg Lawson, an Aboriginal lands officer for resource assessment and planning in the NSW Department for Land and Water Conservation, stems from the government's failure to recognize that not every Aborigine has an equal right to speak for particular lands, sacred sites, or relics. The disintegration of the traditional social structure has left many communities without the undisputed authority of a tribal elder. The blowup zones are concentrated in southeastern Australia, where the effects of European settlement—including the forcible removal of children from their families—have been devastating to Aboriginal tribal structure.

That tension can be a constant threat to ongoing research. Each year Field must renegotiate the terms of her fieldwork with a number of Aboriginal authorities, one of which is hostile to the work. She also must cope with ever-changing government policies. Just this year, for example, two agencies decided they no longer wished to support archaeology and ended programs that had allowed her to train and employ eight Aborigines.

Building bridges. The loss of that training program weakens Field's links to the community, as well as the community's ties to archaeology. And strong connections are vital for researchers. For example, Lawson, a 35-year-old member of the Barkindji tribe who was raised in a white family as part of the "stolen generation" of Aborigines, served as a liaison in discussions between Thorne and community elders that led to the redating of Mungo 3. "My job is to get traditional communities and government agencies working together, and to write policies that reflect that [cooperation]," he says. Lawson believes archaeology plays an important role in educating the wider community. "If people don't know about [Aboriginal prehistory], they don't respect it."

For archaeologist Mark Grist, a descendant of the Aboriginal tribes of northwestern Victoria and now curator of southeastern Australia at the Museum of Victoria, archaeology is a natural progression of stories told to him by his grandmother. Now involved in a study of skeletal remains in western Victoria, Grist says there are no firm rules for working on Aboriginal remains. "If the community wants to rebury material, that's their right," he says. "My job is to make sure conflicts don't happen."

Grist believes there are many points of common ground between archaeologists and Aborigines: "A lot of [Aboriginal] people have a good understanding of archaeology and have been working with archaeologists for decades." And he remains optimistic. "Archaeology is barely 30 years old in Australia, starting with John Mulvaney in the late 1960s," he says. "I truly believe we've only seen the tip of the iceberg."

–Elizabeth Finkel

Elizabeth Finkel writes from Melbourne.