

Ancient man in Kow Swamp

According to recent finds
man in Australia may go
back as far as 30,000 years

by Lennard Bickel

Australia has traditionally been considered something of a backwater in the stream of human development. True, the continent displays plant and animal remains of great antiquity, some of them perhaps 200 million years old. But as far as physical anthropologists are concerned Australia's prize specimen has been the Talgai skull, discovered in 1920 and dated at a mere 12,000 years of age.

Recent discoveries, though, promise to push back the date of the arrival of man's ancestors in Australia to at least 16,000 years ago. Researchers at Sydney University suspect the date may actually go back as far as 30,000 years once analysis of the discoveries is completed.

The new findings were uncovered accidentally, and their significance was very nearly overlooked. Back in 1962, the operator of a mechanical trench-digger working on an irrigation canal on the edge of Kow Swamp in northern Victoria came across a number of bone fragments in the canal. He turned the fragments over to police, and that was the last anyone heard of them for the next five years.

In the late summer of 1967, Alan Thorne, a lecturer in anatomy at Sydney University, came across the fragments in the course of survey of the human skeletal collection held by the National Museum of Victoria. The bones were lying in a cardboard shirt-box to the rear of a storage cupboard, unmarked except for a label bearing the name of the local police department.

Excited by the apparently primitive features of the cranial fragments contained in the box, Thorne along with the museum's curator of anthropology,



Photos: University of Sydney

Kow Swamp man's jaws, compared to those of the Heidelberg man.



The receding skull: Too primitive to be a direct aborigine ancestor.

made a check of police reports all the way back to 1955. They finally decided upon six or seven sites as possible sources of the bones. Luckily, they chose the Kow Swamp site as the object of their first trial expedition early in 1968, and discovered some 60 new bone fragments. Again by luck, one of the new fragments fitted together with a fragment from the cardboard box, thus confirming Kow Swamp as the correct site.

By now investigation at Kow Swamp has unearthed parts of at least eight skeletons, some almost complete, although others were broken by earth-moving equipment. All the skeletons recovered so far are adults, two of them females. There is no evidence yet to

suggest the mode of death, and no tools have been found to reveal their possessors' level of culture.

Some level of culture, however, is suggested by the fact that the bodies seem to have been buried carefully, face upwards with the limbs extended. The impression of a ritual burial is strengthened by the presence of small pieces of white quartz encircling some of the skeletons. What ritual significance the quartz may have had is a mystery, but Thorne and his colleagues point out that this kind of stone must have been prized highly, because the nearest natural occurrence of the quartz is about 60 miles away from the Kow Swamp site.

The area in which the skeletons are



Thorne: Important find in a box.



Skull of Kow Swamp man as it was unearthed in its ritual burial grounds.



Panning for archaeological gold.

buried is part of a defunct stream system dated at about 16,000 years of age. Preliminary chemical analyses of the skeletons indicate that they may be older than 16,000 years. The latest findings in the grave sites include charcoal, which should provide a reliable dating.

Even though the standard dating procedures have not yet been completed, researchers are confident that the Kow Swamp skeletons do not represent the direct ancestors of the present-day Australian aborigines. Anthropologists previously had believed that the original settlers of Australia were comparatively modern and not vastly different from the aborigines whom Captain Cook discovered at Botany Bay in 1770.

The Kow Swamp specimens, though,

display primitive morphological characteristics, including massive jaws, receding skulls and strong, thick, continuous eyebrow ridges. "Kow Swamp man," says Thorne, "has features so primitive that they could not have evolved directly into modern aborigines. There would have to be at least two or three genetic minglings for these changes to have taken place."

In particular, Thorne notes, the forehead and facial features of Kow Swamp man bear a distinctive resemblance to Java man, which has been dated at approximately half a million years of age. At this point the investigators are not ready to claim that Kow Swamp man was necessarily a *Homo erectus* of the Java type, however. Nor do they wish to claim that the Kow Swamp fossils must bear a close ancestral relationship to other Australian fossils, like the Talgai skull. The younger fossils, theoretically, might well be descendants of Kow Swamp man, but more evidence needs to be collected to test the possibility of such a descent line.

Another exceptional feature of the Kow Swamp cranial remains, the unusual thickness of the skull in certain places, may not be merely a primitive characteristic. Dr. Lucille St. Hoyme, a physical anthropologist at the Smithsonian Institution, suspects the thickness may indicate a pathological condition, possibly one caused by a virus. "If the thickening was due to a virus," Dr. St. Hoyme speculates, "then we could make an estimate of the original Kow Swamp population, because viruses require a certain size of population in order to remain in circulation."

The Australian researchers have not yet had time to turn their attention to

such possibilities. Some of the skeletal remains, in fact, are still unassembled and are liable to remain unassembled for another year, so demanding is the pace of discovery. Thorne and his colleagues now have collected over 700 fragments and are extending and deepening the site.

"So far we have only looked at part of the site," Thorne says. "There is a lot more of the two miles of dunes over hard clay that have to be carefully explored. It is our hope it will give us more remains that will help us build up the picture of their burial methods, mortality rates, and perhaps how they lived and the kind of culture they had evolved."

Further investigation may reveal whether Kow Swamp man was the creator of the carvings recently discovered in a cave deep below the desert country of the Nullabor Plain. Scratched on the cave walls some 1,000 feet back from the entrance, the carvings have been tentatively dated at about 20,000 years. Anthropologists would also like to know whether Kow Swamp man was a member of the same race of men who devised the peculiar microliths known to the Australian aborigines as "bondi" points. Such microliths have also been found in Bengal and in recent Australian expeditions to Celebes.

Whatever else remains to be learned from the skeletal discoveries, their antiquity alone is enough to guarantee their importance. "Kow Swamp," says Dr. D. J. Mulvaney, an archaeologist at the Australian National University, "is a major discovery of world significance and will throw light on the movement of ancient peoples through this part of the world." □