

Lake Mungo, Australia

The spread of Homo sapiens sapiens

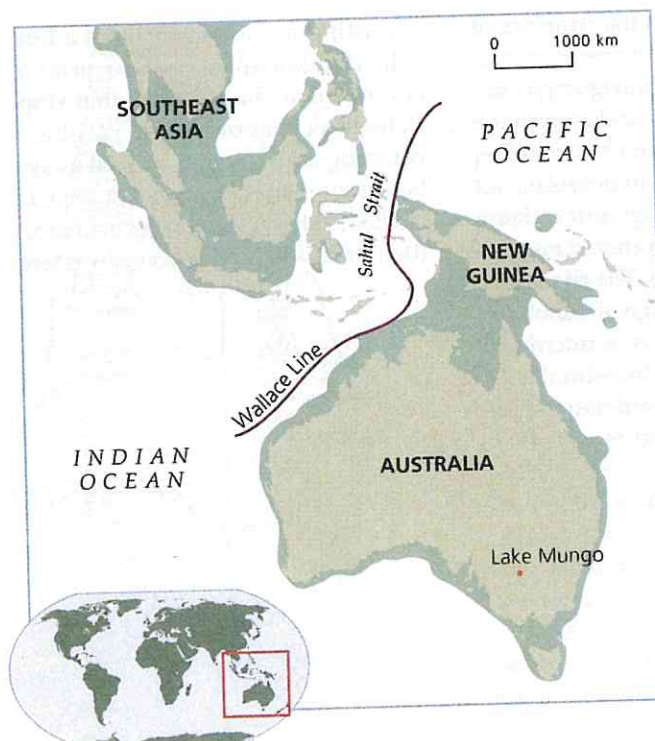
Although it may seem strange to find Australia in the middle of this discussion of the Upper Paleolithic, there are several important things to be learned from a consideration of the evidence from the Land Down Under. Australia was colonized by *Homo sapiens sapiens* around 40,000 years ago. Rafts or boats of some kind were likely used. These first emigrants somehow crossed a body of water at least 100 km (65 mi) wide, far beyond the sight of land, to reach the island continent. There are archaeological sites at least 20,000 years old in all corners of the continent; the oldest, on the Upper Swan River, dates to around 38,000 years ago.

At this time, during one of the coldest periods of the Pleistocene, sea level was as much as 150 m (400 ft) lower than it is today. The continental shelves were exposed, and land bridges

connected several areas formerly separated by the sea. Australia was connected to New Guinea and Tasmania, constituting a larger continent called Sahul (Figure 4.53). The Sahul Strait, a body of water that today is several thousand meters (more than a mile) deep, lay between Australia and Asia. At that time, Southeast Asia was a bridge of land connecting the mainland and Indonesia and Borneo. The first inhabitants crossed this deep, wide body of water to reach Australia.

The absence of a land bridge between Australia and mainland Asia is evidenced by the fact that the animal species in the two areas are so very different. Asian placental mammals and Australian marsupial mammals have not been in contact in the past several million years. This difference was originally noted by British naturalist

Figure 4.53 Australia and Southeast Asia during the colder periods of the Pleistocene. At that time, sea level was as much as 150 m lower than it is today, and much of the continental shelf was exposed as dry land. The outlines of the continents changed considerably, and many of today's islands became part of the mainland. Australia and New Guinea joined together but were never part of Southeast Asia. One of the deepest bodies of water in the world, the Sahul Strait, would have always been sea. Thus, the early inhabitants of Australia would have crossed a large body of water to reach the continent. The Wallace Line (red line) marks the divide between Asian and Australian animal species.



Alfred Russel Wallace, a contemporary of Darwin's, and the term *Wallace Line* is used to designate the divide between the two distinct groups of animal species.

Some of the oldest sites in Australia lie along the margins of dry lakebeds in the southeastern part of the country, an area known as Lake Mungo. Sites at Lake Mungo contain hearths and shells dating to around 32,000 years ago. This area would have contained a series of lakes with fertile shorelines in the period of initial occupation, when rainfall was higher than it is today. The sites were discovered in 1968 by a geologist who found human bones buried in a sand dune that was at least 20,000 years old. The bones appeared to have been buried at a time when the dune was active on the shore of a former lake.

Further examination of the area around the bones on the dune revealed a series of stone artifacts and several patches of charcoal, which must have been the locations of hearths. Most of the hearths contained fish and mammal bones. Bird bones, eggshells, and shells from freshwater mollusks were also found in a few fireplaces. Other sites around the fossil lakeshore have revealed concentrations of shellfish, burned areas with charcoal and fired clay lumps, probably used as cooking stones. The material culture of these early inhabitants included both bone tools and stone tools, with a large number of heavy core and pebble artifacts.

Several burials have been found, one of which, the remains of a woman 20–25 years old, is the oldest example of cremation yet known in the world. Other remains include another female and a male. Red ochre was used in some of the graves to cover a portion of the remains. All these individuals are *Homo sapiens sapiens* and document the presence of fully modern humans in the eastern part of Eurasia, several thousand years before their appearance in Europe.

These early inhabitants rapidly occupied all of Australia, as indicated by the spread of radiocarbon dates across the continent. Some of the oldest rock

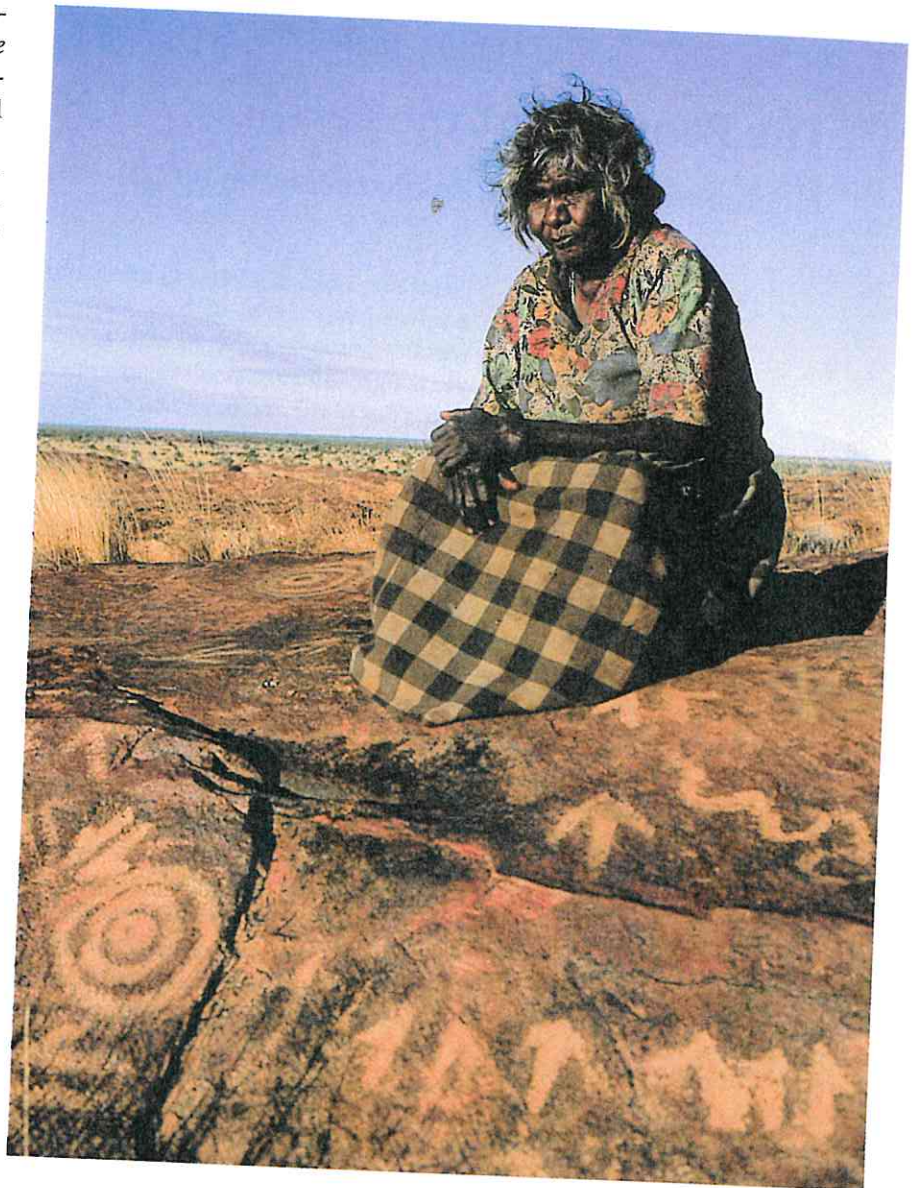


Figure 4.54 Australian Aborigine art begins to appear about the same time as Upper Paleolithic art in Europe. This photo shows petroglyphs (carvings on stone).

art and wall paintings in the world are known from Australia (Figure 4.54). What is almost equally remarkable, however, is how little change took place here over thousands of years. Foraging was apparently a very successful and stable activity in prehistoric Australia. Hunter-gatherers arrived here almost 40,000 years ago, and they were still present when Captain Cook “discovered” the continent 200 years ago.