NOTICE OF GENERAL MEETING

The 4th General Meeting of the Society for 1986 will be held in

THE CONSERVATION CENTRE, 120 WAKEFIELD STREET, ADELAIDE

on

MONDAY 23rd JUNE 1986 AT 8.00 PM.

AGENDA

1. Apologies:
2. Minutes of the previous General Meeting:
   Minutes of the previous General Meeting, held in the Conservation Centre on Monday 26th May 1986, to be confirmed. A copy of these minutes is attached.
3. Papers and Journals:
   Papers and journals received since the last general meeting, from other societies and organizations will be tabled at this meeting.
4. Business:
5. Speaker:
   Mr Philip Clarke, Assistant, Department of Australian Ethnology, S.A. Museum, will address the Society. The title of his address will be:—
   "Aboriginal Use of South Australian Plants."
   Slides will be used to illustrate the address.
6. Supper will be served.

R. Allison
Hon. Sec.
120 Wakefield Street
ADELAIDE SA 5000
The cradle of civilisation is heading our way

Primitive tools used for tilling the New Guinea soil — and their Australian counterparts — may upset entrenched European beliefs about the birthplace of thinking man. DENIS REINHARDT talks to the man whose discoveries provide the key to such an upset.

AN ARCHEOLOGICAL expedition next month to remote coastline in Papua New Guinea may solve one of the great mysteries of the emergence of modern man. Evidence painstakingly gathered over the last five years by Port Moresby university associate professor Les Groube and his students — if further substantiated — will overturn a century of archaeological theory developed in Europe.

Groube’s evidence suggests that modern agricultural man emerged in south-east Asia or even on the then enormous Australian continent encompassing the continental shelf, New Guinea and Tasmania, known in academic texts as Sahuland. And it may move the hunt for critical clues to man’s pre-history to Australian sites. Stone implements gathered on...
tilled limestone seashore terraces on the Huon Peninsula, north-east of Lae, dovetail historically with discoveries about early Australian Aboriginal settlement made in recent years at Lake Mungo in south-western NSW.

What makes the Huon Peninsula discoveries of world significance is that they are found in rock formations stretching back for the past 200,000 years — the different levels of which can be dated with some accuracy.

Groube's next expedition will search for the ancient seashore caves in which the first modern man, Homo sapiens, would have made his home. This expedition stands a chance of locating his bones and reconstructing his life.

To date the most significant discovery is a heavy, waisted axe in strata associated with the coastline of 45,000 years ago.

The axe, still encased in geological deposits from which it was slowly washed out, was spotted by one of Groube's students, Jo Mangi. No doubt inspired by the find Mangi is now a teaching fellow in archeology at the University of Papua New Guinea.

Thermal luminescence dating of the volcanic ashes which trapped the axe has established that it could not have been dropped more recently than 30,000 years ago. This is a remarkable match with the Lake Mungo, NSW, human remains associated with small flake stone tools and food remains dating from the same millennium.

Elsewhere in Papua New Guinea evidence of ancient human activity has been established. At Wape in the central highlands large stone tools have been recovered from well-dated horizons, some of them 25,000 years old. In nearby swamps there is evidence of human interference dating from 30,000 years ago even though the climate was much colder then.

As Groube notes: "That man had penetrated the interior of New Guinea up to 2000 metres above the present sea-level as early as this is clear evidence of the great antiquity of settlement in New Guinea."

But the significance of the axe's minimum age of 38,000 years as the last proof of the antiquity of man in the extended Australian continent is not in the date alone, but in the remarkable stepping stone in coming up with a reading of that critical, transitory phase.

"The sheer size and weight of these axes has raised a host of problems which only further intensive research will solve," says Groube.

"The most obvious issue is the function of these tools. What was man doing in New Guinea with stone tools of this size at this early date?"

The axe is unique in the Huon collection. "Waisted" axes bear that name because they narrow towards the centre of the tool for the attachment of a handle.

In the case of this axe the opposed notches, which are nearer to the top than most examples, are joined as a continuous groove around the axe.

Wear-marks, obvious even to the naked eye, show that this groove must have been for a cane or vine binding.

This is similar to recent examples from the indigenous populations of Bougainville and Australia.

"This is the earliest hafted stone axe in the world," Groube says. "It is witness that the early colonists were far more technically accomplished than hitherto suspected."

Evidence of hafting on the Groube axe is generally obliterated on others so far recovered from streams in the Huon formations, because of subsequent water wear and damage.

The waisting varies from small notches to deeply indented opposed hollows.

Groube, who went to the University of Papua New Guinea from the Australian National University in 1979, notes the tendency towards largeness is not unique to the Huon finds.

"It is evident from a remarkable surface collection of waisted axes from distant Kangaroo Island off the South Australian coast," he says. "The average length of this undated collection is about 19cm, one being a massive 27 cm in length. Others from sites near Mackay in Queensland are only a bit smaller."

"Although the Australian examples are undated they show many similarities with the Huon remains. Other links with Australia come from the Huon; a rare unifacial tool also found in the streams matches a rare form found in the mysterious Karian assemblages from southern Australia."

"The similarities are the clearest technological proof of the unity of Sahuland. The smaller tools from the two regions, made from such a diversity of stone types show few similarities."

"Such repeat patterns in the form of tools are highly prized by archeologists. They are evidence of a common cultural tradition or shared ancestry, the very stuff of history."

There is also a tenuous link with prehistoric Asia through the appearance of similar, though smaller waisted axes in Japan, Taiwan and South China.

The most pressing and controversial question is the function of modern man's first major implements.

Groube cites an example of waisted
axes on the island of Botel Tobago, off southern Taiwan, which in the 1930s were seen in use, hafted as hoes. Then there is the belief of Japanese and Chinese archeologists that the Asian waisted axes are gardening and weeding tools, a function which matches their rough manufacture and relatively soft stone usage.

If the Sahuland (Huon and Australian) examples had a similar function to their Asian counterparts then, “even a hint that man was working the soil of Papua New Guinea as early as 38,000 years ago would cause an international furor.”

Groube is convinced the Huon axes were used for primitive agriculture. His argument is advanced cautiously into the uncertain along the following lines:

“The opening up of the dense coastal rainforests must have been an immense problem for the earliest settlers in New Guinea which the massiveness of the Huon tools may reflect.

“Why these early colonists were attempting to trim back the forest edges, however, is unclear, whether to facilitate hunting or as an early trend towards utilising the forest plant resources is unknown.”

But in contemporary Papua New Guinea, Groube points to isolated clans in the remote west of the country who cultivate bananas in the middle of rainforests, simply by axing back enough vegetation cover for sunlight to reach a banana clump.

“The possibility undreamt of a few years ago, that the manipulation of rainforest resources, a form of casual ‘gardening’, might have a Pleistocene antiquity must be seriously considered, altering our views of the emergence of systematic gardening,” he says.

“The evidence of botanists that many important garden plants are of New Guinea origin, e.g. sugar cane, pandanus, breadfruit, probably one of the bananas, perhaps coconuts, possibly the swamp taro and many tree crops, strengthen these hints.

“The remarkable evidence from the Wahgi swamp (near Mount Hagen in the New Guinea highlands) of water control for some sort of agriculture from as early as 9000 years ago should have its origins in warmer coastal areas during the Pleistocene (ice ages). Perhaps the Huon axes are witness of this experimentation.”

If Homo sapiens were in Sahuland 38,000 years ago using tools capable of at least some form of primitive agriculture, equally fundamental questions are posed about how they got there and where they came from.

It was once fashionable to argue that man arrived in New Guinea and Australia by a series of waves before the end of the Pleistocene period (or great ice age) via a land bridge or rafts. It was even suggested that “more advanced” people had carried Australian Aborigines to the region.

But speculation of a land link is disproven by the absence of Asian (placental) animals in Sahuland and conversely the lack of marsupials in mainland Asia.

Therefore New Guinea and Austral-
for this study of sea-level movements.

It was a geomorphologist's fascination with the Huon cliffs which led Groube to take an expedition there.

In 1965 fellow New Zealander John Chappell, now a professor in the department of Bio-Geography and Geomorphology at the Australian National University, found some intriguing aerial photographs of the Huon coastline west of the old German colonial outpost, Finschhafen.

These historic photographs remain to this day the clearest picture of a unique geological feature.

The Huon Peninsula, bounded by offshore volcanoes, is at the collision point between three of the Earth's plates. The result is that the north of the New Guinea mainland is being thrust upward, in geological terms at the speedy rate of 4mm a year or about 4m every 1000 years.

Each stage in this continuous uplift, traceable back over 200,000 years, is recorded in the present landscape by a series of fossil coral reefs, now stranded far above the sea. And with each volcanic epoch came a layer of ash, encasing the landscape and importantly, evidence of human occupation. This ash, which fruitfully preserved the Groube axe, can be reliably dated.

Groube hopes that these levels may contain sea caves in which coastal dwelling early man sought refuge or perhaps in which human remains may be entombed.

"I think we may find the earliest Homo sapiens in the world," he said.

Denis Reinhardt acknowledges his extensive use of associate professor Les Groube's research.

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