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The Problem of the Tasmanian Aborigine

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On the evidence of a chalcedonic flake, W. H. Twelvetrees (1917) concluded that the Tasmanian aborigine had inhabited this island for, humanly speaking, a vast number of years. This flake was found by Mr. Richards while sluicing for tin at the old Doone Mine, north of Ringarooma River. The alluvial tin bed was overlain with drift from 10 to 20 feet deep, which had to be removed before the wash gravel was exposed. At the time of the discovery the sluicing nozzle was at the bottom of an excavation half a chain wide, 10 feet long, and 25 feet deep. Ten feet below the surface of the ground, and in consequence 15 feet above the bottom of the excavation where the hydraulic nozzle was being handled, a block of wash was detached from the cliff face. On the top of this block, slightly adherent to the gravel, Mr. Richards discovered the flake. It was shown to R. M. Johnston, who pronounced it as undoubtedly of human workmanship. I do not question its human origin, but in face of all the facts I cannot accept the view that it belonged to the alluvial gravel, which, according to Sir Edgeworth David's computation, dates back to the Riss glaciation, or about 100,000 years ago. The artifact as figured and exhibited bears a remarkable likeness, in respect of shape and retouch, to those we find to-day on the surface of the ground. It shows, as Sir Edgeworth David (1924) remarked, an 'extreme freshness,' that is there is a 'remarkable absence of weathering'; nor is it at all waterworn, although it was adherent to the alluvial wash, which was well waterworn. When picked up it broke into two pieces, one of which was thrown away. An examination of the plane of fracture revealed that there was a deposit of silica on the surface, and Twelvetrees stressed this as important evidence of its age as an artifact; for he inferred that the silica had been deposited in a fracture that had developed after the artifact was dropped. Such an inference is unfounded. because it is not uncommon to find recent artifacts in which there is a deposit of silica in a fracture, the aboriginal maker having made use of a pebble containing such a flaw. The hydraulic nozzle was used not only for disintegrating the alluvial wash, but also for getting rid of the overburden. Twenty-five feet below the surface of the ground the water was directed from the nozzle against the overburden, at this place 10 feet deep. When this was removed a face 15 feet high was left, the top of which was invisible from below. There seems to be no doubt that the stream of water washed the artifact from the surface, or from just below the surface, to the top of the alluvial, and it stuck there, not tightly, however, for it was only slightly adherent. When the water was turned off a subsequent examination revealed the flake, the peaty clay of the overburden providing an admirable adhesive. It is important to remember that no one could say exactly from what part of the face the detached mass came, and that no one saw the artifact on the block while it was in situ.

Dr. A. Lewis (1935) states that on the New Norfolk-road, near the 13th milestone, there is a mirnyong or midden that accumulated in the warm interglacial phase known in Tasmania as the Yolande-Margaret interglacial period, which he tentatively correlates with the Riss-Würm interglacial of the Northern Hemisphere. The date of this midden varies according to the authorities he quotes. have been formed as far back as 200,000 years ago, at the latest at least 100,000 years. His claim for such antiquity rests on three data: first, that the midden lies in a Yolande-Margaret terrace; secondly, that it is overlain by many feet of soil; and, thirdly, that the shells composing it belong to the open sea, and could not exist in the estuary in its present form. I will deal with these seriatim. That the terrace belongs to the Yolande-Margaret interglacial I do not dispute, but it has existed very much in its present form for many centuries past, and could have been used as a camping-ground 100 years ago just as well as 100,000 years. Since the white occupation of Tasmania, the ground has been cultivated, and the consequent shifting of the soil has caused shells on the roadside to be overlain by a few feet of earth; back from the road the shells are merely on the surface. Soil-creeping brought about by ploughing is a wellknown phenomenou. Moreover, all the shells are remarkably freshlooking. But it is on his last datum, that the mollusc shells found on the midden are such as could not exist except in the open sea, that almost the whole of his case depends. And here it falls to the ground. Not two chains away, on the banks of the river immediately below the midden, the very molluscs, Modiolus confusus, that he declares could not exist in the estuary in its present form, may be collected in countless thousands. The molluscs found on the midden, therefore, can, and do, exist in the estuary at the present day. From the zone of shells overlain by soil and from the surface of the midden I gathered a few worked flakes, in no way different from the flakes which may be picked up on the surface far and wide throughout Tasmania. This midden has every mark of recent origin, and is typical of the hundreds scattered throughout the island. The terrace faces the north, is composed of a sandy soil, and is protected from cold winds. A collector of aboriginal stone implements would inevitably look for a native camp at such a site. This midden does not, in my opinion, afford the slighest foundation for assuming that man has inhabited Tasmania for the long time, 100,000 years or more, that Dr. Lewis affirms.

During the last 30 or 40 years great interest has been aroused among physical anthropologists by the discovery of such primitive types as *Palaeanthropus* or Heidelberg man, *Pithecanthropus* or Java man, *Eoanthropus* or Piltdown man, and *Sinanthropus* or Peking man. They became extinct long before *Homo sapiens* was differentiated. Nor did Neanderthal man, who inhabited Europe during the Würm glaciation, belong to this species. The original home of *Homo sapiens* is not definitely known, but it is universally accepted that the species arose in either Africa or Central Asia.

The Aurignacians, whose culture had many affinities with the Tasmanian, were the first representatives of Homo sapiens to enter Europe. They crossed from Africa to Europe by a land bridge when the last or Würm glaciation was retreating. If we adopt M. C. Burkitt's (1933) computation of the date of the Würm glaciation based on the varve counting of de Geer, they entered less than 20,000 years ago. Elliott Smith, in his 'Human History,' dates it at 10,000 years ago. Of course there is nothing to prove that the Aurignacians invented the culture they possessed, but most authorities agree that their culture was not more than from twenty to forty thousand The Aurignacians, the Tasmanian aborigines, and all vears old. peoples living to-day belong to the species sapiens. As no evidence of this species exists in Europe before the Aurignacians, it is clear that its dispersion was, in the geological sense, relatively recent. This goes far to disprove the idea that Homo sapiens existed in Tasmania more than 100,000 years ago.

The Tasmanian aborigine had the dark skin, flat nose, and wide nostril which are adapted to hot climates, but are disadvantageous in cold regions. He had also closely twisted hair and full, fleshy lips. In other words, he was a Negroid. The Negroids of the world may be divided into two main groups, widely separated geographically: the Negroes or Africans, and the Melanesians of Oceania. The Negroes occupy the whole of Africa south of the Sahara, and on the west coast extend to Morocco; the Melanesians occupy New Guinea, the Bismarck Archipelago, the Solomon Islands, New Caledonia, and Fiji. The Melanesians show much the same general characteristics as the Africa negro, but in a form suggesting admixture with other races. All this points to an original home for the Negroids, but its actual geographical situation remains a puzzle. It may have been

somewhere in the tropical regions midway between Africa and Papua, but the fact that the distinctive negro characteristics are more obtrusive and constant in Africa tends to suggest that the Negroids originated in that continent. As these negroids migrated towards the east there would be some admixture with the peoples with whom they came into contact. This would weaken some of the original distinctive features. Anthropologists have frequently commented on the existence of individuals among the negroids of the Solomon Islands and elsewhere whom they could not distinguish from Australians. This probably indicates an intermingling with Australians. Similar interminglings must have occurred throughout the centuries during which the migration took place.

When we come to ask how the Tasmanians reached Tasmania we find considerable diversity of opinion. The oldest theory of all is that the Tasmanians entered from Australia by a land-bridge. But, as Dr. Lewis (1935) points out, such a land-bridge could have existed only during Malannan times—that is, well over 100,000 years ago. There is no evidence that *Homo sapiens* had yet evolved, and it is quite certain that no culture equivalent to that reached by the Tasmanian had come into existence. These facts make it impossible to accept the land-bridge theory.

Of recent years another theory has arisen of which Professor Wood Jones (1935a) is the chief exponent. The adherents to this theory affirm that Tasmania has been peopled direct from New Caledonia, an island lying between 20° 1' S. and 22° 26' S., and more than 1700 miles distant. Either the New Caledonians deliberately sailed away into the unknown in search of land, or a boat-load, containing at least one young woman, was blown away in a storm, and eventually, after suffering dreadful hardships, was washed ashore on the Tasmanian coast. There are many difficulties in the way of accepting this theory. In the first place, the Melanesians, unlike the Polynesians, were not sea rovers, and did not make long ocean voyages. Their distribution is confined to island chains. This in itself is enough to compel us to reject the idea that Tasmania was peopled by them as the result of a deliberate voyage far out into the distant unknown. They could reach New Caledonia by making use of a chain of islands, but no island chain exists, or has existed within human experience, between New Caledonia and Tasmania. With the exception of two small islands, Lord Howe Island and Norfolk Island, mere specks on the ocean's bosom, a vast unbroken expanse of sea rolls between the two. There remains the alternative that a boatload was cast ashore on Tasmania as the result of a storm or a series of storms, and that there were survivors. This is so wildly improbable and fantastic as to be regarded as impossible. Apart from the great time involved in drifting 1700 miles in a direct line. in an open boat, with a blazing sun overhead, and a shortage of food and water, there is another aspect. New Caledonia is situated

in a region where the south-east trades are constant throughout the year. This wind is so strong that, although Tasman was in a well-found ship, he could not make his way through Torres Strait against it. Cook nearly suffered shipwreck on the Great Barrier Reef because the great waves raised by this wind swept the 'Endeavour' towards it. Had he not found an opening in the nick of time there is nothing sarer than that the ship would have been dashed to pieces. The southeast trades blow from New Caledonia towards the coast of Queensland. To reach Tasmania, therefore, the New Caledonians must voyage against a constant wind and high sea.

In further proof that Tasmania was peopled by a few voyagers from New Caledonia the paucity of numbers of the Tasmanians is cited. It is assumed that if more than a canoe-load had reached the island, there would have been many more natives living there when the first white settlers arrived. Opinions differ as to the number. Backhouse estimated that there had never been more than 1000; Robinson put the number as between 6000 and 8000; Milligan said 2000. A comparison with the number of the aboriginal inhabitants of Victoria before white settlement is illuminating. - Wood-Jones (1935b) estimated that at the foundation of Victoria about 6000 aborigines lived there. The greatest estimate of their number is that of E. S. Parker, 7500; the smallest that of George Augustus Robinson, 5000. Robinson worked on the basis of the distribution of one aborigine to each 16 square miles of country. If Victoria, with its less rigorous climate, greater area, and great plains stocked with game, could maintain an aboriginal population of but 6000, Tasmania could not maintain nearly so many. If we adopt Robinson's basis of computation, the aboriginal population would be fewer than 2000. And this is the estimate one arrives at from the various accounts of numbers observed at different places. A small population, however, by no means necessarily implies that the first settlers were few. Density of population is strictly limited by the food supply. Tasmania had no edible fruits, berries, or nuts worth mentioning, no edible roots of much account, and no grain plants to offer the aborigines. The cold of the central plateau in winter drove the natives to the sea-coast. The wet forests of the west coast and the great extent of barren, rugged country precluded habitation then as it does now. We have only to note what little use we can make of more than half Tasmania to realize that it had little to offer a race of food-gatherers. The natives had to struggle hard for a meagre exist-Geographic control has always been a powerful agent in restricting population. At the advent of the white race the native population was stationary, for saturation point, so to speak, had been

If the aboriginal voyagers were able to surmount the difficulties of adverse winds, seas, and currents, it is obvious to all that such a voyage demands a boat much more substantial than that which the Casmanians possessed when discovered by white races. The upholders of this theory surmise that the descendants of the castaways forgot how to build substantial boats. There is no doubt that such degeneration does actually take place. Dr. Codrington (1891) states that in the Torres Islands (not to be confused with the islands of Torres Straits) the canoe-makers had died out, and the islanders acquiesced in the loss of what had proved of great use to them. The inhabitants of Mangareva are also credited with having lost the art of canoe-making. But it is difficult to believe that the Tasmanians forgot how to construct the substantial sea-going canoe, yet remembered perfectly how to construct that type of canoe which their ancestors had made thousands of years before (see Meston, 1936, p. 159).

The Tasmanian canoe was not suited for long ocean voyages. It is probable, therefore, that the Tasmanians came to Oceania by way of the chain of islands known as the East Indies. Even supposing, and there is no ground for such an assumption, that many of the islands now existing were joined to Asia and Australia when the migration took place, there was never a time in human history when there was continuous land between the two continents. The East Indies are divided by a sea passage known as Wallace's Line, which has existed for so long a period that the indigenous mammalia on the opposite sides of it are as widely divergent as in any two parts of the world. This line separates Borneo from Celebes, and Bali from Lombok. Whatever land-bridges man had, he must always have had to cross the 15 miles of sea between Bali and Lombok or the wider Macassar Strait between Borneo and Celebes.

Professor Huxley (1870) named as the nearest living representative of the Tasmanians 'the inhabitants of New Caledonia and those of the islands of Torres Straits and New Guinea.' Professor Wood Jones (1935a) makes use of Huxley's statement, but omits the reference to the islands of Torres Strait and New Guinea. Surely it is strange, if, having reached the islands of Torres Straits, the negroid migrants did not reach Australia, which lay in sight, although they proceeded east and south by way of the New Hebrides to New Caledonia. The most reasonable explanation is that these eastern negroids crossed to the mainland of Australia and settled there. They would in course of time, without any external drive, gradually move south-This is supported by the high percentage of skulls in the southern half of Australia which show Tasmanoid characteristics. Professor Wood Jones (1935a) explains them as a result of an intermingling of Tasmanians with Australians since the coming of the English. While it is true that Tasmanian aborigines did cross to Victoria after white settlement, they were so few in number and their opportunity for intercourse with the mainland native was so little, that such an explanation is totally inadequate. suffice to account for the number of skulls with marked Tasmanoid characteristics which have been found in Queensland.

The main objection that Professor Wood Jones has to the theory that the Tasmanians came by way of Australia is that they neither learned to domesticate the dingo nor to assimilate any of the main cultural features of the Australians. He assumes that the Tasmanians were driven out by the invading Australians, and in their flight reached Tasmania. But it is equally valid to consider that the Tasmanians formed the advance guard of the negroids, and voluntarily migrated across Bass Strait without coming into contact with the Australians, reaching Tasmania in a way similar to that whereby their negroid relatives reached the New Hebrides and New Caledonia. Once Australia was reached there would be a gradual move southwards along the coast until Bass Strait itself was reached.

The supporters of the land-bridge theory raise two objections to such a crossing. First, because, they say, the Tasmanians had no vessels capable of crossing Bass Strait; and, secondly, that it is difficult to imagine a primitive people setting out for a land which lay over the horizon, and of the existence of which they must have been entirely ignorant.

Let us examine these objections. That the Tasmanians did not possess seaworthy craft is quite erroneous. Primitive though their bark-bundle canoes were, they voyaged regularly to the islands which fringe our coasts, crossing not only sheltered waterways, but facing the great swell which perpetually rolls in from the Southern Ocean, or the steep ugly seas and racing tides which guard the islands at the western end of Bass Strait. Nor did they always wait for calm weather. They have been seen, for instance, to visit the Mattsuyker Islands, off our southern coast, in the midst of a storm.

An examination of the Admiralty Chart 1695A shows that the second objection is based on a geographical misconception. A string of islands, none of which is 25 miles distant from the next, stretches all the way from Wilson's Promontory to the mainland of Tasmania. In crossing Bass Strait by this route one is never out of sight of land, and land with a bold outline; so that the Tasmanian aborigines by using this route would not be setting out for a land which lay over the horizon beyond their ken.

From Deal Island, 35 miles north-west of Flinders Island, both Wilson's Promotory and Flinders Island are clearly seen, as well as the intermediate islands, which form, as it were, giant stepping-stones. On Hogan Island and on Deal Island there are abundant and permanent supplies of fresh water. There is no need to say that this is true of Flinders, Cape Barren, and Clarke Islands.

From all this it follows that the aberigines could voyage to Tasmania by way of the Hogans and Kent Group without crossing a sea-lane wider than 25 miles, and with permanent fresh water at no stage of the journey at a greater distance than 35 miles. Shell-fish, seals, and mutton-birds, and on the larger islands wallables,

wombats, and opossums, would provide them with a bountiful food supply. Such a voyage would offer little difficulty. Their ancestors had to cross much wider sea-lanes on their migration; and longer voyages in canoes quite as primitive are made elsewhere in the world. Sollas (1915), for example, tells us that in their primitive canoes or balsas the Seri Indians cross the Gulf of California, a distance of from 50 to 100 miles. And it must be remembered that the total distance from Wilson's Promotory to Flinders is less than 90 miles, with two excellent stopping-places.

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