

## Introduction: The peopling of the Pacific

### Chronology\*

[maps 1 and 2]

c.200 000 BP	Emergence of <i>homo sapiens</i> in Africa
c.80 000 to 60 000 BP	Beginnings of human diaspora out of Africa
c.50–55 000 BP	Humans begin to arrive in Sahul (landmass which included Australia and New Guinea), with arrivals on the northern coast of Australia between what is now Darwin and the Kimberley Coast
c.40–45 000 BP	Humans arrive in what is now New Guinea
c.35 000 BP	Humans begin to arrive in the Bismarck Archipelago off New Guinea
c.30 000 BP	Arrival of humans in what is now Tasmania
c.15 000 BP	Beginnings of human settlement in the Americas
c.7000–4500 BP	Austronesian seafarers begin to move south down through southeast Asia
c.4000–3500 BP	Austronesians arrive in the westernmost islands of Micronesia such as Guam, Yap and Palau
c.3500 BP	Austronesians arrive in the Solomon Islands chain, develop Lapita culture
c.3300–3000 BP (1300–1000 BCE)	Lapita sea-farers voyage to Vanuatu, New Caledonia, Fiji and Tonga (where early Polynesian culture takes shape)
c.2600 BP (c.600 BCE)	Polynesians reach the Society Islands (Tahiti)
c.2100 BP (c.100 BCE)	Polynesians reach the Marquesas
c.2000–1500 BP (c.0–500 CE)	Austronesians arrive in Madagascar

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c.1500 BP (c.500 CE)	Polynesians reach the Hawai'ian Islands and Easter Island (Rapa Nui)
c.700 BP (c.1300 CE)	Polynesians arrive in New Zealand
* prehistory dates are approximate and still disputed estimates	

Peopling the vast Pacific Ocean was the work of millennia as human ingenuity wrestled with the problems of crossing its watery expanse and subduing the available land in ways that enabled it to support human life. It was an ocean greater in size than all land above sea level combined. Dotted across it were some 25 000 islands (mostly in the southwestern area known as Oceania) which was more than all the other islands in the world combined.<sup>1</sup> Yet in the face of such a formidable task most of the habitable land in the Pacific was occupied by human societies well before the different threads of the world's cartography were drawn together in one tapestry in the late eighteenth century. In the Pacific this outward tide of human dispersion had within it three major currents – these diverse origins helping to shape the diversity of the Pacific's human stock.

The first of these human currents was the movement down through Eurasia into what today are the Indonesian islands and thence to what became Australia. This probably occurred around 50–55 000 years ago, during the Ice Age when the sea was some 150 metres lower than today on account of the volume of sea water trapped in the ice. This made the sea passage more feasible but it was, nonetheless, a major step for wandering humankind involving the first major sea crossing across the unknown.<sup>2</sup> Though the distances across the sea were less than today, they were still considerable for those experimenting with the use of sea-going craft, especially since such crossings involved overcoming the great psychological hurdle of not having the destination in sight. Such a perilous voyage into the unknown was the product of societies which had learned to work together using the most precious of human inventions, language, to arrive at new ways of doing things with techniques based on co-operation.<sup>3</sup> Once arrived on Australian shores small groups gradually made their way around the huge expanse of this new-found land occupying most of it by around 30 000 years ago – though the difficulties of adapting existing methods of hunter-gathering to the harsh ter-

<sup>1</sup> Thomas, 'The Pacific Basin: an introduction', p. 1

<sup>2</sup> White and Lampert, 'Creation and discovery', p. 11; Hiatt and Jones, 'Aboriginal conceptions', p. 1

<sup>3</sup> Davidson, 'Scales and balance', p. 122; McNeill and McNeill, *The human web*, p. 12

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rain of the arid central core of the continent meant that settlement there came later, possibly by about 10 000 years ago.<sup>4</sup>

Since Australia and New Guinea were part of the same land mass (known as Sahul) until the seas rose and formed the Torres Strait some 12 000 years ago, this movement outwards from the eastern Indonesian islands also led to the peopling of New Guinea. The first such arrivals in New Guinea probably date from around 40 000 years ago.<sup>5</sup> Further movement east to the islands in the Bismarck Archipelago (notably New Britain and New Ireland) involved hazardous sea crossings which probably accounts for the fact that the earliest human occupation of these islands came quite some time later, probably around 35 000 years ago.<sup>6</sup> Having mastered the technology of longer and more demanding sea crossings, some of these early Argonauts of the Pacific went further reaching the southern end of the Solomons chain by some four millennia later. It had been a tremendous achievement as existing sea-going technologies, probably developed for fishing off the coast of the great Eurasian land mass, were adapted to allow for transport of a sufficient critical mass of men and women, together with the equipment and food needed to sustain them. We will never know with certainty what drove these early navigators to take such courageous voyages into the unknown but such extreme measures suggest very strong 'push' factors either to escape enemies or because the populations were growing beyond the level which available food supplies could support. Overall, levels of population must have been rising, for it was in New Guinea and its offshore islands that many of the basic techniques of Pacific tropical agriculture were developed with the growing of root vegetables and tree crops such as the banana. More efficient fishing was also made possible by the development of devices such as Trochus-shell fishhooks.<sup>7</sup>

While the first of the major human incursions into the Pacific derived from the southeast extremity of Eurasia, the second came from its far north-east, probably at a time when there was a land bridge from Siberia to the Americas. Since 1937 this has been given the name Beringia and stretched between the Chukotski Peninsula in Siberia and Alaska with a width of some one thousand miles (1600 km) when at its peak. It was a product of the lowering of the waters brought about by the Ice Age and impinged on human history in the period from around 25 000 to 10 000 years ago, when the seas

4 White and Lampert, 'Creation and discovery', p. 16

5 Tryon, 'Linguistic evidence', p. 50    6 Kirch, *Road of the winds*, p. 74

7 Kirch, 'Pacific. The first arrivals', p. 119

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again began to rise. As with the migration from the Indonesian islands to Australia there appear to have been multiple routes of migration. Along with the Beringa bridge, the most ready means of reaching the Americas, the great diaspora of humanity possibly included passage by a maritime and land route from Japan to Alaska and the northwest of North America based on the Kurile Islands, Kamchatka in Siberia and the Aleutians.<sup>8</sup> Once arrived, some of the new immigrants appear to have made their way down the coast of the Americas – for much of the land mass was covered by glaciers – to people these two continents. The first firm evidence we have for human settlement in the Americas dates from around 15 000 years ago.<sup>9</sup> Those who stayed on the coasts of Alaska and the northwest built up a way of life based largely around exploitation of marine life which was so plentiful that it was possible to support relatively dense populations which, elsewhere around the globe, were usually the preserve of agricultural communities. This brought with it a degree of social differentiation and hierarchy which, again, was more characteristic of agricultural than hunter-gatherer societies.<sup>10</sup>

These two currents of migration brought with them, then, the extension of human settlement to Australia together with New Guinea and its adjacent islands and, momentarily, the inclusion of the Americas in human history. The next great migrations into the more remote Pacific were so technologically demanding and so dangerous that they occurred in stages over several millennia. The origins of this appear to go back to a series of migrations south from Taiwan between around 5000 and 2500 BCE which moved down to island Southeast Asia, beginning with voyages to the northern Philippines. These people were known as the Austronesians and their stock was eventually to stretch from Madagascar to Easter Island, some half the globe.<sup>11</sup> Their ability to make such demanding seafaring journeys was linked with their pioneering use of outriggers as a way of providing stability on a sea too rough for a dugout canoe. Once dispersed over the Philippines and Indonesia these peripatetic people moved in different directions, making their Austronesian language group the most widespread across the globe until another adventurous, sea-faring people – the Western Europeans – developed new forms of sea-going technology many centuries later.<sup>12</sup> One branch of the Austronesian diaspora made its way to the westernmost islands of Micronesia, such as

8 Inglis, *Historical dictionary ... of the northwest coast of America*, p. 38

9 Fernández-Armesto, *Pathfinders*, p. 14

10 Swadesh, 'Motivation in Nootka warfare', p. 76

11 McEvedy, *The Penguin historical atlas of the Pacific*, p. 10

12 Finney, 'The Pacific Ocean: An introduction', p. 421

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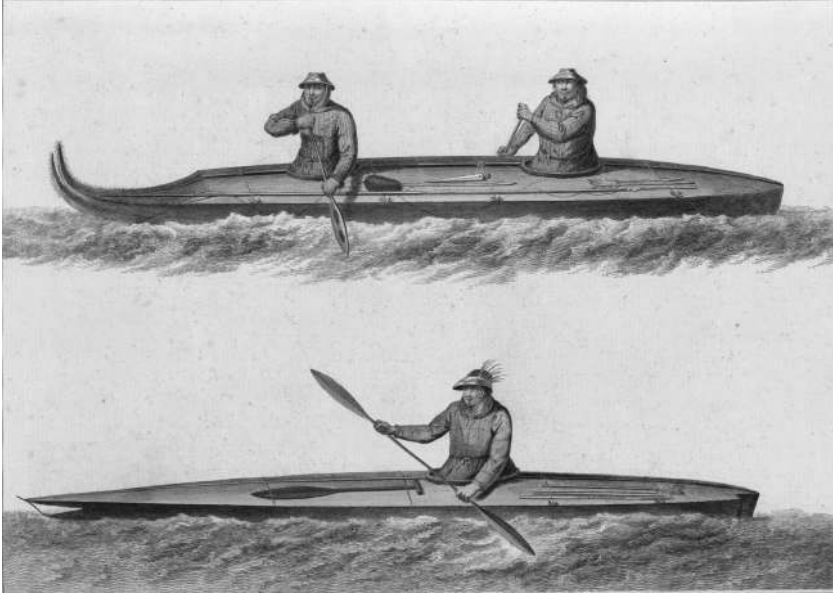


Figure 0.1 'Kayaks of Unalaska', engraving by W. Angus after John Webber in James Cook and James King, *Voyage to the Pacific Ocean ...*, London, 1784, 3 vols, II, p. 371, plate 50. Courtesy, National Library of Australia

Guam, Yap and Palau, by between about 2000 and 1500 BCE bringing with them the Austronesians' distinctive maritime culture.<sup>13</sup> The eastern parts of the ethnically diverse Micronesian islands were settled subsequently from New Guinea and Vanuatu, while the Marshall Islands were probably settled by other Austronesians from Fiji and Kiribati (formerly the Gilberts).<sup>14</sup> Another group of Austronesians from Indonesia went west rather than east and settled the then uninhabited island of Madagascar in the half millennium before 500 CE.<sup>15</sup>

Much earlier, a third branch of Austronesian peoples moved into New Guinea and its adjacent islands, with their eastward thrust culminating in the Solomon Islands chain which they reached by around 1500 BCE.<sup>16</sup> In the Philippines and Indonesia the Austronesian peoples with their agricultural

<sup>13</sup> Kirch, 'Pacific. The first arrivals', p. 119    <sup>14</sup> Freeman, *The Pacific*, p. 62

<sup>15</sup> Finney, 'The Pacific Ocean: An introduction', p. 421

<sup>16</sup> Finney, 'The Pacific Ocean: An introduction', p. 419

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techniques developed from China had become dominant, but in New Guinea they encountered peoples who already had developed agriculture and hence had levels of population high enough to resist the new arrivals. Over much of the main island of New Guinea, then, they made little impression but in the island chain off New Guinea down from the Bismarck Archipelago to the Solomons they began to develop their own culture. One of the most striking markers of this was their style of pottery, known as Lapita, with its distinctive dentate stamp. (The name comes from the site in New Caledonia where the type specimen of this pottery was first unearthed.) Between about 1300 and 1000 BCE their mastery of sea-going technology enabled these Lapita people to make the next great leap in the scattering of humanity around the globe into the southwestern archipelagos of Remote Oceania: Vanuatu, New Caledonia, Fiji and Tonga.<sup>17</sup> It was on these island groups, the western edge of what became known as Polynesia, that the new immigrants began to develop a culture which was distinct from that of the earlier Lapita peoples. These pioneers of the Pacific, like those who followed them, sailed out against the wind, for the direction of the trade wind was from east to west. Having the wind as an aid to returning home was more important than an easy passage into the unknown. Such tacking into the wind would only have been possible for vessels rigged with manoeuvrable sails<sup>18</sup> – Pacific exploration was the fruit of advances in maritime technology.

This culture and the similarity in languages gave meaning to the term Polynesia (many islands) to describe the farflung diaspora of this people across the Pacific. The related terms, Melanesia (from the Greek for 'black' and 'islands') and Micronesia (small islands), by contrast, are geographical rather than cultural terms which encompass a wide range of cultures. Though their use has been subject to criticism as a European construct (first propounded by the French explorer Jules Dumont d'Urville in 1823), their usage is now deeply entrenched in Pacific studies and no widely recognised substitutes to delineate the different areas and peoples of the Pacific have yet been coined.<sup>19</sup>

Once the sea-going colonists departed from New Guinea they left behind them the scourge of malaria, so population levels would have risen, prompting the development of more effective agricultural techniques. It would also have created pressure for further migrations, but migration east into the

<sup>17</sup> Kirch, 'Pacific. The first arrivals', p. 119

<sup>18</sup> Fernández-Armesto, *Pathfinders*, p. 44

<sup>19</sup> Kirch, *On the road*, p. 5

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Figure 0.2 'Boats of the Friendly Isles' engraving by W. Watts after William Hodges in James Cook, *Voyage towards the South Pole and round the world...*, London, 1777, 2 vols, II, facing p. 18, plate 42. Courtesy, National Library of Australia

Pacific meant covering vast distances. So difficult and dangerous was such a passage that there was a long lull before the next venturing forth into the vast ocean. It was not until around 600 BCE that the Polynesians reached the Society Islands (Tahiti) and the Marquesas were not populated until about 100 BCE<sup>20</sup> – though other estimates place these migrations early in the first millennium CE.<sup>21</sup> It was there, in Eastern Polynesia, that the distinctive features of Polynesian culture were further developed. It had required long centuries for such a leap as population pressure built up and as the techniques of sailing and navigation were honed by painful trial and error. The outrigger canoe had been developed into a double-hulled sailing canoe with a central platform capable of carrying forty to sixty people on a voyage lasting a month or more. These vessels could be as large as 30 metres, but more commonly were around 12 to 20 metres. They were little worlds unto themselves with their own hearth fires and storage for all that was required to begin new colonies.<sup>22</sup>

The formidable obstacles of the far Pacific meant another long interval before the next great migrations outwards from the Polynesian heartland

20 Kirch, *On the road*, p. 241    21 Freeman, *The Pacific*, pp. 59–60

22 Kirch, 'Pacific. The first arrivals', p. 120; Finney, 'Polynesian voyaging', p. 169

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around the Marquesas and the Society Islands to the great Polynesian triangle: north to the Hawai'ian Islands (perhaps around 500 CE), east to Easter Island (Rapa Nui)<sup>23</sup> around much the same time and south to New Zealand which, on the latest estimates, was probably not settled until around 1300.<sup>24</sup> These great odysseys took immense daring and were the fruits of an intimate knowledge of the sea and its moods and the ways in which human skill could turn the watery expanse of the Pacific to productive ends. Possibly the long lull in moving from central to eastern Polynesia was linked with the need to develop both more sophisticated sails and sailing techniques, such as tacking, to enable exploration over vast distances.<sup>25</sup> Ensuring survival on arrival also meant further developing the techniques of a portable agriculture which could be brought by the new immigrants.<sup>26</sup> Along with the human stock for the new settlement the boats, then, transported such staples as root, tuber and tree crops, including taro, yams, coconuts and bananas, and, in many cases, pigs, dogs and chickens (with rats probably as stowaways). Further migration was, therefore, very much a planned exercise with each of these fragile Noah's arks carrying the essentials to begin a new human society. The possibility of such landfalls being the result of accidental drift has been eliminated by computer simulations of ocean currents.<sup>27</sup>

The culture that produced such epic voyages reflected a folk memory of people who had long been accustomed to head into the unknown in the confidence that there were likely to be more islands.<sup>28</sup> Often such confidence must have been misplaced and the craft and its crew and passengers were never heard from again. There were, however, enough successes to keep alive that adventurous spirit and to sustain a view of the world which associated the great ocean with the possibility of new and fertile islands for settlement. Those setting out had at least the consolation of knowing that they were sailing against the prevailing winds, which were from the east, so that the passage back was likely to be easier than the passage out.

The impulse to keep looking was stronger in Eastern than in Western Polynesia since the ecology of the former gave less sustenance to human beings than the latter. In Eastern Polynesia the islands were smaller and more

23 Though these dates are not definitive: other estimates for a settlement date for Hawai'i are no later than 800 CE but possibly as early as 300 (and, maybe, also for Easter Island, Kirch, *On the road*, pp. 233, 241)

24 Freeman, *The Pacific*, pp. 61–2    25 Finney, 'Polynesian voyaging', p. 169

26 Finney, 'The Pacific Ocean: An introduction', p. 419

27 Irwin, *The prehistoric exploration and colonisation of the Pacific*, p. 7

28 Spate, *The Pacific since Magellan*. III, p. 29



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isolated and there was less variety of plants and animals.<sup>29</sup> In the southern region the climate imposed limits on the growth of some basic staples – one notable example being the kumara (sweet potato) that would not grow in most of the south island of New Zealand. The Polynesian sea-farers, then, seem to have kept looking for other islands, though after the discovery of the biggest of all islands of Polynesian settlement – the islands of New Zealand – the Pacific had yielded up almost all its habitable land – the divergence of humanity was virtually complete. A few scraps remained, however: about 500 years ago there was a Polynesian settlement on Norfolk Island of people either from the north island of New Zealand or islands to its north – this, however, petered out after several generations. More durable was the settlement from New Zealand of the Chatham Islands around much the same time.

Possibly, Polynesian explorers looking for islands reached the west coast of South America. This would explain how it was that the sweet potato got from South America to the Pacific, reaching the Cook Islands probably around 1000<sup>30</sup> and it is consistent with some Eastern Polynesian traditions.<sup>31</sup> The reverse is also possible: that South American voyagers brought the sweet potato to the Pacific,<sup>32</sup> though evidence for the transference of chickens with Polynesian genetic markers to South America<sup>33</sup> again supports the easterly direction of the passage to South America. Voyaging in either direction also helps to explain why the coconut from Southeast Asia reached South America, since sea drift would not have preserved viable specimens of either coconuts or sweet potatoes. The South American origins of the sweet potato may possibly be indicated by the linguistic similarity between the Peruvian Quechua name for that plant – *kumar* – and the generic Polynesian form of *kumala*.<sup>34</sup> The fact that the variety used in Eastern Polynesia is relatively genetically pure, in contrast to the great number of varieties in South America, suggests that such visits over the vast Pacific were few. This plant became a staple of Eastern Polynesia but it did not travel to Western Polynesia or Melanesia in this period.<sup>35</sup> It was eventually to reach New Guinea in the sixteenth and seventeenth centuries via Indonesia where it was probably introduced by

29 Spriggs, 'Recent prehistory', p. 64    30 Howe, *Vaka moana*, p. 80

31 Gleizal, *Encyclopédie de la Polynésie*, IV, p. 27

32 Finney, 'Voyaging', p. 348    33 Storey et al., 'Radiocarbon and DNA evidence'

34 Clark, 'Language', p. 268 (though this is disputed by McCoy, 'Easter Island', p. 143 in the same volume)

35 Spriggs, 'Recent prehistory', p. 64

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European agency.<sup>36</sup> It was to transform Melanesia, allowing a great increase in population density, particularly in the highlands, but the indirect method by which it arrived – long after it was well established in eastern Polynesia – underlines the isolation of major parts of the Pacific from each other.

By the time of the Polynesian arrival in New Zealand around 1300, the Pacific as a whole had been brought within the net of the great scattering of humanity. It had involved some highly innovative and death-defying voyages: across the straits between Australia and Indonesia in simple craft not hitherto used for such purposes, further demanding sea voyages across the straits to New Guinea and its surrounding islands as well as to the Micronesian islands, long treks across icy wastes and possibly some sea travel from Eurasia to the Americas and, finally, the epic journeys to the remoter reaches of the Pacific by the Polynesians using boats and sailing techniques that had been honed over the centuries. The Polynesians, indeed, brought to its apogee the great divergence of humanity across the globe – a vast saga that had begun many millennia before in Africa. Yet, as the limited contact with South America indicates, the ocean was still too vast for such scattering to lead to sufficient contact to link different parts of the Pacific in a sustainable human web. This was less true in parts of the globe which had greater concentrations of populations, because the growth of agriculture supported populations over extensive areas which, in turn, provided the basis for the rise of empires.<sup>37</sup> But even such empires could function without contact with other human communities beyond their part of what was still a very wide world – the sophisticated but isolated Aztec and Inca empires of South America being examples.

By their nature the island populations of the Pacific had limited contact with each other, thus inhibiting the growth of larger entities such as empires. There were, however, two examples of something like sea-borne empires, though the analogy with land-based empires and the degree of control they exercised is imperfect, so perhaps the term ‘thalassocracy’ (with its etymological links with ‘sea’) is better.<sup>38</sup> The first of these was the original heartland of Polynesian society in the western Pacific in the archipelagos around Tonga. Though the evidence is scanty, it would seem that the Tongan islands produced a form of monarchical rule which was stable enough and had sufficient power and resources to bring the Tongan archipelago (what Cook termed the Friendly Islands) together with the neighbouring ones of Fiji and

<sup>36</sup> Finney, ‘The other one-third’, p. 291

<sup>37</sup> Curtin, *The world and the West*, pp. x–xii

<sup>38</sup> D’Arcy, ‘The people of the sea’, p. 76