Pacific Islands Archaeology/Prehistory

The Pleistocene

- 2.588 million (±5,000) to 11,700 years ago
- Holocene: ~11,700-present

<table>
<thead>
<tr>
<th>Period</th>
<th>Epoch</th>
<th>Age (mya)</th>
<th>Start, million years ago</th>
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</thead>
<tbody>
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<td>Quaternary</td>
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<td>Pleistocene</td>
<td>0.011793 (53/mya)</td>
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<td>Upper (latest Tertiary)</td>
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<td>Middle (early Tertiary)</td>
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<td>Eocene</td>
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<td>Oligocene</td>
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</tbody>
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Indo-Pacific Region

Indo-Malaysian Archipelago
Oceania/Island SE Asia

Dumont d' Urville 1832

• Polynesia ("many islands")
• Melanesia ("dark islands")
• Micronesia ("small islands")

Near/Remote Oceania

Late Pleistocene Sites in Near Oceania
Sunda/Sahul

Early Holocene (after 8,000 B.C.)

- Hunters and gatherers
- Obsidian exchange
- Domestications of tree, root, and tuber crops
- Early agriculture 7,000 B.C. at Kuk in Highlands of New Guinea

Near/Remote Oceania

Lapita Diaspora into Remote Oceania
Lapita Economy

- Oceanic horticulturalists
- Brought root, tuber, tree crops, pigs, dog, chickens via canoes

Austronesian Expansion and Lapita

Oceanic Branch of Austronesian

Initial Austronesian Dispersa: W. Micronesia and Bismarck Arch.
Bismarck Archipelago
Lapita Cultural Complex

Tridacna shell adzes

Early Lapita Sites

- Swidden Gardens
- Reef foraging
- Inshore fishery
- Limited inter-island exchange

Subgrouping

Proto-Austronesian
- Indonesia
- Philippines
- Taiwan
- Madagascar

Proto-Oceanic
- New Guinea
- Solomon Islands
- Loyalty Islands
- New Caledonia

Proto-Eastern Oceanic
- Micronesia
- Rotuma

Proto-Central Pacific
- Proto-Fijian
- Proto-Polynesian

Triple I: Intrusion, Integration, Innovation

Colonization Beyond Solomons ca. 1300 BC

(Clark 1979: 255)
Colonization of Central/Eastern Micronesia

Settlement of the Polynesian Triangle: Easter Island, Hawaii and New Zealand

East Polynesia and the Long Pause Debate

1300 - 1600 year standstill in ancestral Polynesia?

Settlement of East Polynesia no later than 1600-1400 BP (Marquesas earliest)
Settlement of Society Islands, Cooks, Hawaii and Easter Island relatively rapid between 1400 and 1000 BP
Settlement of New Zealand between 1000 and 800 BP

Hunt (2006)
Double-Hulled Sailing Canoe

Did Polynesians Reach South America?
- Sweet potato by 1000 BP to Polynesia
- Bottle gourd 1000 BP to Polynesia

Polynesia

Development of Complex Societies
- Polynesian Chiefdoms
Human Impact on Island Ecosystems

- substantial open-ocean distances/isolation
- difficulty of dispersal to islands
- high species-level endemicity
- lower diversity in higher-level (generic and family) taxa
- lowered competition
- survival of archaic forms
- vulnerability to disturbance from outside

Remote Oceania

- Near Oceania: marsupials, rats, snakes, frogs, lizards
- Only a few species make it to Fiji and Samoa in east
- Pre-human vertebrate in Remote Oceania dominated by birds

Lapita Impacts on Island Ecosystems

- Clearing of forests
- Introduction of plant crops, chickens, pig, dogs
- Large number of extinctions (e.g., birds) in first century of settlement
- Significant impact avifauna and marine resources
- Introduction of Polynesian rat

Consequences of Human Colonization
Discussion
