

Evolution of Pacific Cultures

Lecture #3
Required Reading:
Abbott: 1-6
Balick & Cox: 100-112

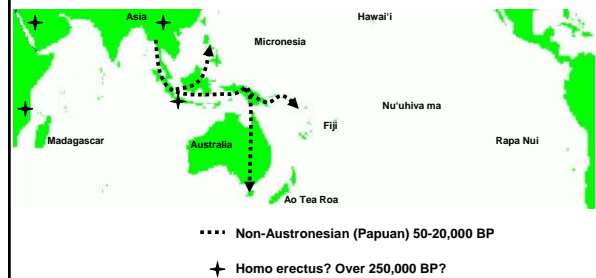
COLONIZATION OF THE PACIFIC

- Pacific island cultures have developed through a long series of migrations generally from the west to the east of the Pacific.
- Evidences of relationships between the current cultures can be found in their common languages, tool kits and food plants.

COLONIZATION OF THE PACIFIC

- The populating of the more isolated Eastern Pacific islands, including Tahiti ma, Hawai'i, Ao Tea Roa and Rapa Nui represents one of the greatest achievements of human history.
- Plants played key roles in the success of these events and in the independent evolution of the various Polynesian societies.

MIGRATIONS IN THE INDOPACIFIC



EARLY PAPUAN TOOL KITS

Bow and arrow

Stone and wood tools

Simple canoes or rafts

No domesticated plants (crops)

Dogs?

PAPUAN DOMESTICATIONS

Taro (*Colocasia esculenta*)

Yams (*Dioscorea* spp.)

Turmeric (*Curcuma longa*)

Ti (*Cordyline fruticosa*)

Sugar cane (*Saccharum officinale*)

Bananas (*Musa acuminata* X*balbisaniana*)

Sago (*Metroxylon* spp.)

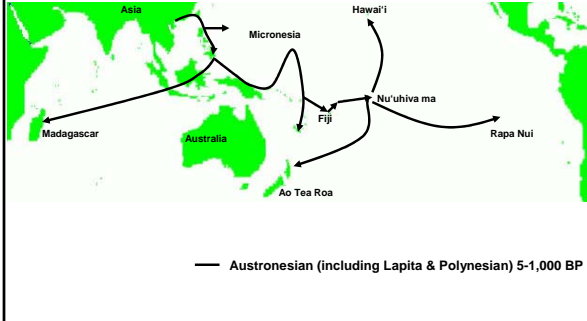
Tahitian Chestnuts (*Inocarpus fagifer*)

Betel nut (*Areca catechu*)

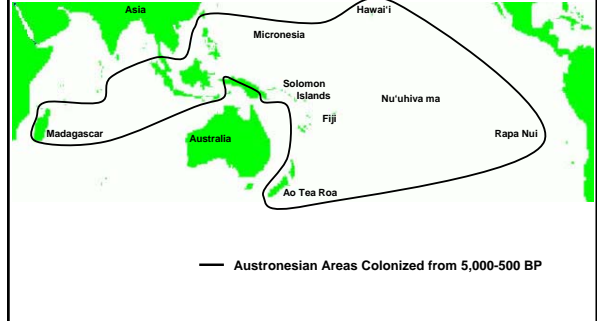
Hibiscus (*Hibiscus rosa sinensis*)

No Grains! No typical legumes!

MIGRATIONS IN THE INDOPACIFIC



MIGRATIONS IN THE INDOPACIFIC



EARLY AUSTRONESIAN TOOL KITS

Bow and arrow, fishing gear
Stone and wood tools
Complex canoes and navigation
Pottery
Rice, Paper mulberry (wauke), +
Dogs, chickens, rats, +?
No metal

AUSTRONESIAN CROPS

Austronesian domestication probable:

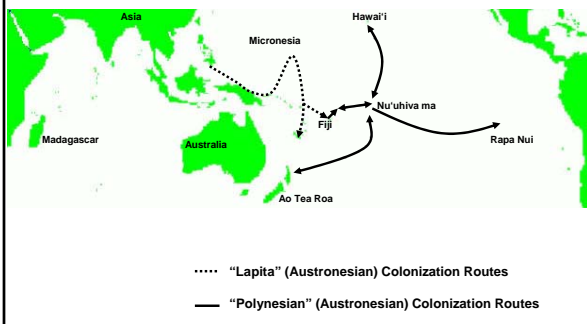
Breadfruit (*Artocarpus altilis*)
Giant Taro (*Cyrtosperma spp.*)
Kava (*Piper methysticum*)

Coconut (*Cocos nucifera*)?

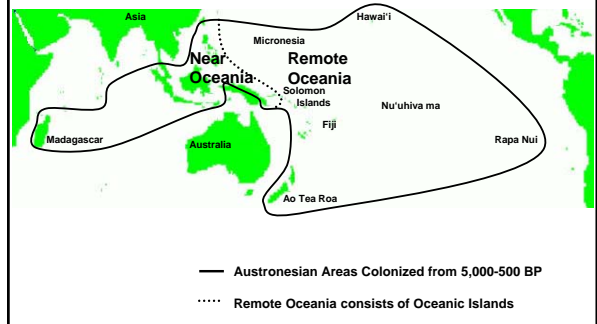
Borrowed from Papuans probable:

Taro (*Colocasia esculenta*)
Most other Papuan domesticated crops

“LAPITA” MIGRATIONS



NEAR & REMOTE OCEANIA



NEAR OCEANIA ROUTES

Line of sight navigation

Over the horizon navigation

- Birds
- Drift material
- Clouds

Small, high speed canoes in groups

REMOTE OCEANIA ROUTES

Almost all over the horizon

- Birds (migratory sea birds returning to off shore islands)
- Flightless birds (potential turkey feasts)
- Unsettled lands (no Papuan people)

REMOTE OCEANIA SETTLEMENT

Over the horizon navigation

Great distances

Who would go so far?

Who went?

One-way trips or back and forth?

REMOTE OCEANIA SETTLEMENT

Moving crops

- How are plants moved?
 - Seeds
 - Rhizomes
 - Suckers
- Limitations of movement
 - Moisture
 - Heat
 - Time

REMOTE OCEANIA SETTLEMENT

Finding new foods: what is already there?

- Few large animals
- Few edible land plants
 - Indigenous vs. endemic plants
 - Characteristics of insular plants
- Few edible marine plants (at first!)

What are the characteristics of a potential new crop?

CROPS THAT WERE LEFT BEHIND

Austronesian speakers who became Polynesians left these important crops:

- Sago Palms (*Metroxylon* spp.)
- Betel nuts (*Areca catechu*)
- Betel leaf (*Piper betel*)
- Ngali (*Canarium* spp.)

CROPS THAT WERE LEFT BEHIND

Ngali

Canarium salomonense



CROPS THAT WERE LEFT BEHIND

Sago

Metroxylon spp.



STUDY GUIDE QUESTIONS

STUDY GUIDE QUESTIONS

Near and Remote Oceania refer to:

Crops probably domesticated by Papuans before the arrival of Austronesian include:

Crops probably domesticated by Austronesian language speakers include:

Routes into Near Oceania seem to follow paths utilizing:

Routes into Remote Oceania seem to follow paths utilizing:

Natural plant and animal resources for foods in Remote Oceania at the time of first colonization were:

Useful plants were moved across the Pacific as: