

# MULTI-REGIONAL CONTACTS OF PREHISTORIC FAIS ISLANDERS IN MICRONESIA

Michiko Intoh

School of International Cultural Relations, Hokkaido Tokai University, Sapporo, Japan

## ABSTRACT

*Because of limited resources, permanent settlement of small Pacific coral atolls is virtually impossible unless the inhabitants have access to other resources zones, such as those provided by high islands. Recent archaeological research has shown that Fais Island was settled about 1900 years ago and that throughout their history the islanders maintained wide-ranging contacts. They acquired domesticated animals from the west, imported pottery from Yap and Palau, and green schist from Yap. Language, specialised fishing gear, the rodent fauna and some excavated tree gum suggest contacts with Melanesia and perhaps the Philippines.*

## INTRODUCTION

There are many coral islands extending between Yap and Chuuk (Truk) in the central Caroline Islands in Micronesia, most of which were inhabited by the time of European contact. The natural environment of atolls is generally poor and resources, except for marine resources, are limited (Alkire 1978). The inhabitants have traditionally maintained cultural contacts with nearby high islands in order to acquire various goods unobtainable on coral islands, and to obtain emergency foods in situations of natural disaster.

There has not been much archaeological research carried out in the central Carolines to provide information on the duration of human habitation of the coral islands and the nature of habitation strategies after colonization. This paper reports archaeological evidence for a 1900-year habitation history of Fais Island, one of the coral islands in the central Carolines. It also presents

evidence for the maintenance of active prehistoric contacts with nearby high islands.

## FAIS ISLAND AND ITS CULTURAL BACKGROUND

Fais island lies about 180 km east of Yap (Figure 1) and is one of the few raised coral islands in Micronesia. The inhabitants speak a language within the Nuclear Micronesian subgroup, which belongs in turn to the Oceanic subgroup of the Austronesian language family. Nuclear Micronesian languages have their closest relationships with the languages of Vanuatu and the Solomons in Melanesia according to Blust (1984). Within Nuclear Micronesian, the languages spoken between Tobi Island in the west and Truk in the east belong to the Trukic subgroup, which includes Fais.

However, the languages spoken in western Micronesia, such as Chamorro of the Mariana Islands and the languages of Palau (Belau) are classified as Western Austronesian. They are thus related to Indonesian and Philippine languages more closely than to Oceanic and Nuclear Micronesian (Bender 1971:429). It is unclear where the Yap language fits in this scheme, but the overall existence of two separate language subgroups in Micronesia has been considered to denote a complex colonization history for the region (see Intoh 1996). At least two major population movements into Micronesia have been considered, one from the west and another from the south. Fais seems to have been settled during the latter colonization movement according to linguistic data.

The archaeological evidence reported thus far from atolls in the Central Caroline Islands has shown that they were first settled around 1000 years ago (Fujimura and Alkire 1984). This is about 1000 years later than the initial settlements of the high islands nearby, such as Truk and Pohnpei, which were settled before 2000 years ago.

INTOH, MULTI-REGIONAL CONTACTS OF FAIS ISLANDERS

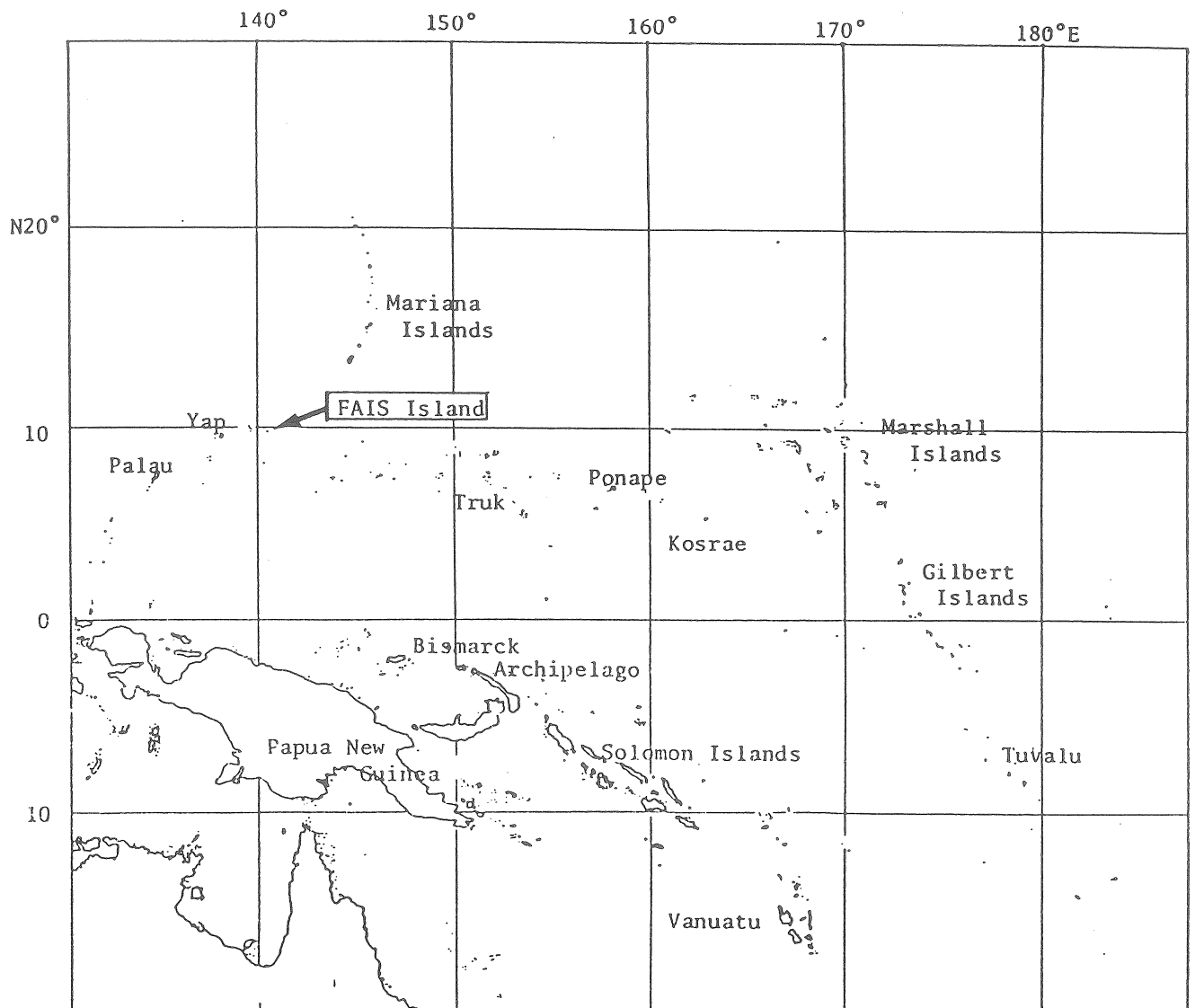


Figure 1: Map of Micronesia locating Fais Island.

Despite language differences there were close cultural contacts in ethnographic times between Yap and the central Caroline Islands. People living on the Carolinean coral islands maintained a traditional exchange network system with Yap, called *sawei*. This system had political, religious and economic functions (Alkire 1978; Lessa 1950). The items exchanged through *sawei* included mainly handicrafts from the atoll dwellers, while various kinds of food and useful resources unobtainable on coral

islands were brought back from Yap. These included pottery, bamboo and turmeric. Fais had a unique position in this network. When canoes from islands to the east reached Fais *en route* for Yap their crews gave some of their tribute to the Fais population. These canoes then transported a representative from Fais to Ulithi, the last stop in the *sawei* chain before reaching Yap. Fais was the only island not to provide its own canoes for *sawei* voyaging (Alkire 1978:123).

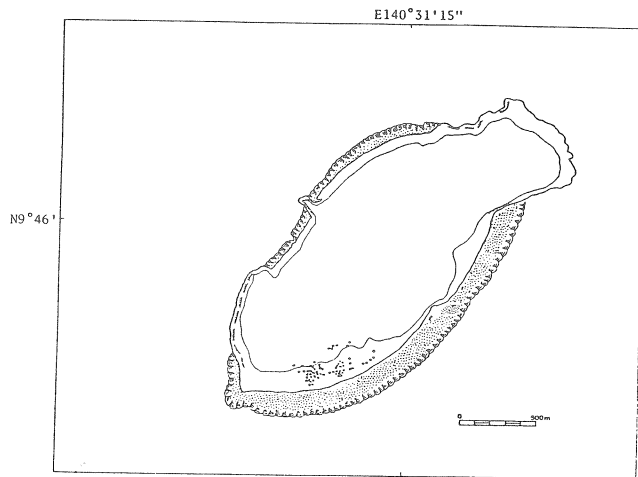


Figure 2: Map of Fais island, showing the fringing reef, coastal flats and raised coral plateau.

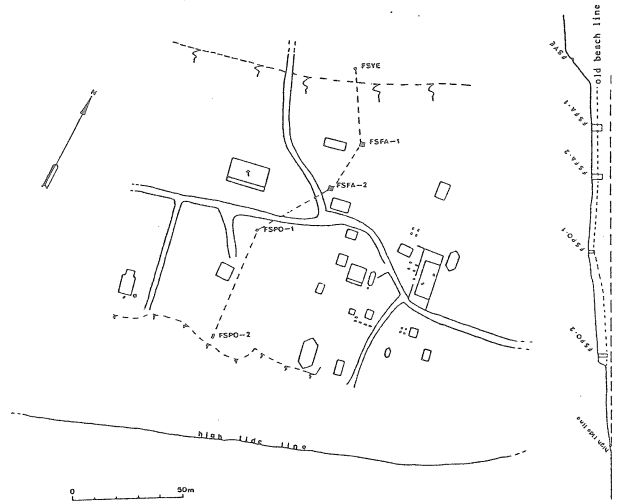


Figure 3: The distribution of the excavation units from the coastal flats to the raised coral plateau, Faliyow village.

#### EXCAVATION DATA

Fais is a relatively small island about 2.7 km long and 1.1 km wide, with a total land area of only 2.8 square km. Being a raised coral island it comprises a flat plateau about 20 m above sea level, where phosphate was mined during the German and Japanese periods. About two-thirds of the island is surrounded by a narrow fringing reef while the rest has steep cliffs (Figure 2).

Of the three traditional villages on the southern coastal flat, the eastern one called Faliyow was selected for archaeological research. A rectangular area of 40 by 200 m was surveyed. Five excavation units were set out ranging from the coastal flat to the inland slope. The sizes of the units varied from 1x1 to 2x2 m and the absolute heights varied from 3.6 to 10.2 m above sea level (Figure 3). The total excavated volume was 28 cubic meters. Except for several earth oven features, no structural remains were detected. It was, however, obvious that the excavated deposit was cultural and contained abundant remains. The clear-cut contrast between the pre- and post-human settlement periods on Fais can be shown by the drastic changes in charcoal content with depth (Figure 4).

The sharp increase of charcoal after AD 100 was observed in both coastal and inland excavation squares. It coincided with the sudden appearances of rat bones and other cultural materials such as potsherds. It is thus reasonable to think that the initial colonization of Fais island

was made a little before this time. Two radiocarbon dates obtained from charcoal samples indicate that the initial settlement occurred before 1900 BP; about 900 years earlier than any dates so far reported from nearby atolls.

Besides the early colonization date, the excavated materials demonstrate various important aspects of Fais prehistory:

- 1) The whole set of Austronesian domesticated animals - dog, pig and chicken - was brought to Fais in the earliest period and remained on the island throughout its occupation history.
- 2) Rats were also brought to Fais by the early settlers.
- 3) Pottery was constantly imported and used for cooking.
- 4) The majority of the fishhooks used were one-piece fishhooks made of turtle carapace. Only a few items of trolling gear were found.
- 5) Large numbers of sharks were caught and eaten.
- 6) Shell adzes were made from *Tridacna* and *Cassis*; no *Terebra* shell adzes were found.

Besides the above, a number of imported items were excavated. These demonstrate that the inhabitants of Fais kept wide external contacts throughout their prehistory. A small amount of green schist stone was excavated from various layers, including the earliest. As Fais is a coral island, any non-coralline stones must have come from elsewhere, probably a high island. Green schist is the major geological component of Yap and does not exist

INTOH, MULTI-REGIONAL CONTACTS OF FAIS ISLANDERS

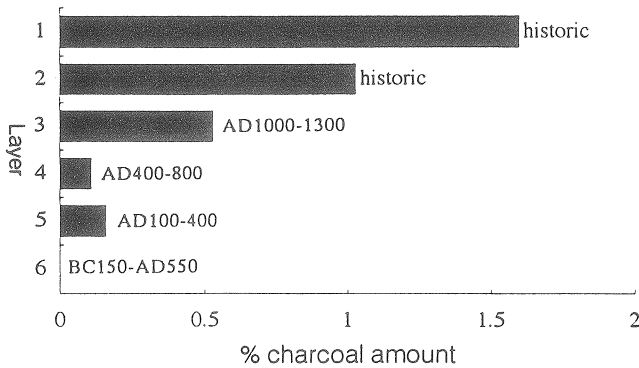


Figure 4: Percentages of charcoal in 5 gm soil samples from the FSFA-2 site.

elsewhere in Micronesia. It is unlikely that these stones were brought to Fais on driftwood from Yap since the ocean currents in the region generally flow east-west. The excavated green schist stones are thus considered to indicate early cultural contact between Fais and Yap. It is unlikely that these soft stones were brought in for stone tool making; a use for boiling is more likely. Some kinds of local medicine have traditionally been made with this method.

Over 800 potsherds were excavated; occurring in every excavation unit. These must have been imported to Fais since there is no clay there. All were classified into the three major types found in the Yapese pottery tradition (Intoh and Leach 1985), these being Calcareous Sand Tempered (CST), Plain, and Laminated. These occur in Yap in the same chronological order as listed here. A very similar chronological pattern for the appearances of these three types in Fais was also observed (Figure 5).

In addition, a total of 35 potsherds was selected from each of the three types for thin-section petrographic analysis by William Dickinson at the University of Arizona (Dickinson n.d.). The results confirm that the pottery classified as Laminated and CST was all made in Yap. However, the potsherds classified as Plain contained not only Yapese but also Palauan sherds. The majority of the sherds mineralogically identified as Palauan have similar physical features, including straight rim courses, square rims and black hard cores with thin oxidized buff-colored surface layers. These features are very distinct from the Yapese Plain sherds. A total of 32 Palauan sherds was identified, or about 4% of the whole assemblage (Intoh and Dickinson 1994).

The distribution pattern of Palauan sherds at the FSFA-2 site, which exhibits a reliable stratigraphy, indi-

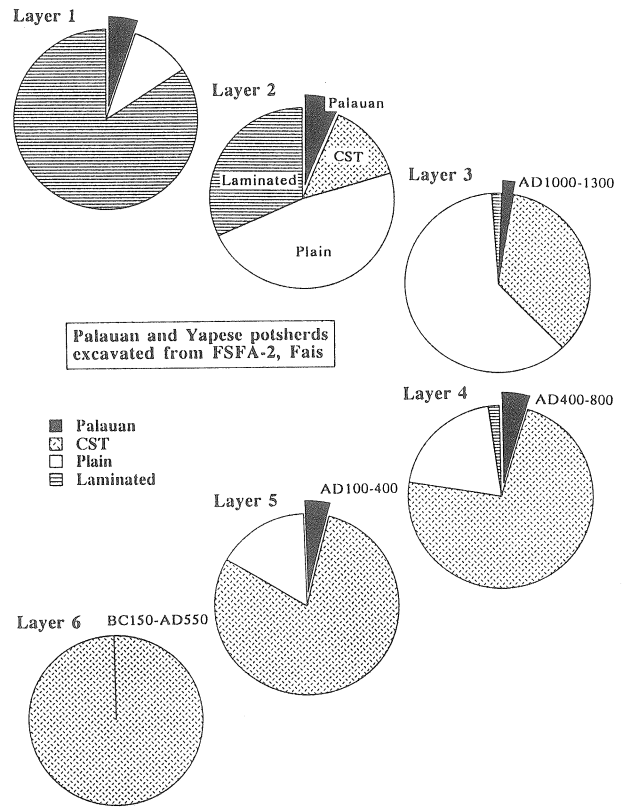


Figure 5: Pie-charts showing the relative proportions of Yap and Palauan potsherds excavated from the different levels in the FSFA-2 site.

cates that Fais has continuously imported small amounts of Palauan pottery from an early stage of its habitation history (Figure 5). There is also one other sherd which cannot at present be sourced. Its origin remains unknown.

The Fais fishhooks also give interesting information. Among the several bonito lure shanks excavated, there is one made of pearl shell which has a very distinct head shape, intended to take the line without needing notches or holes (Figure 6). Such lure shanks are very rare in Micronesia and the closest form reported is an ethnographic specimen from the Solomons (Beasley 1928: Plates CV, CVI; Bell *et al.* 1986:49). Some fishhooks with similar head types have also been reported archaeologically from Santa Cruz in the southeastern Solomons (McCoy and Cleghorn 1988: Figure 6). However, the Santa Cruz hooks are one-piece trolling hooks made of *Trochus* shell.

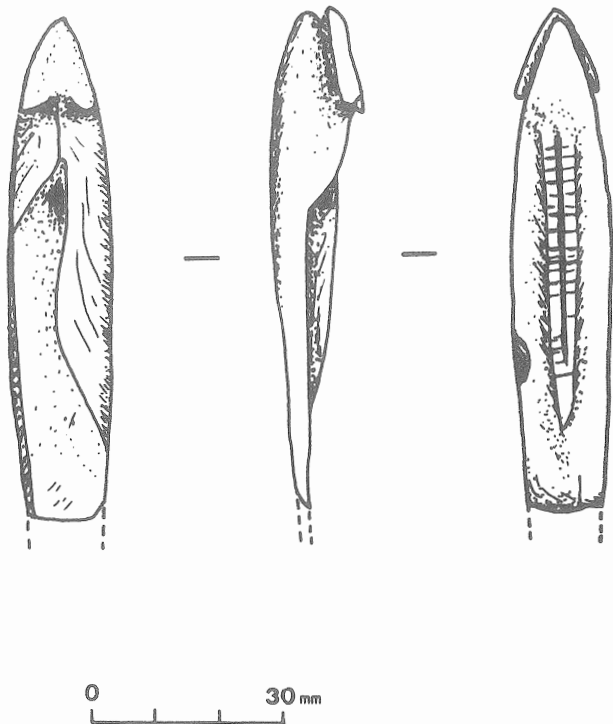


Figure 6: An excavated trolling lure made of pearl shell. The head style is very similar to those used in the Solomon Islands in Melanesia.

A Fais lure point made of bone is also peculiar in shape, having two barbs at the base for lashing to a shank. Such a form is also rare in Micronesia and again the closest type is found in ethnographic collections from the Solomons (Beasley 1928:xvi). The dates for these artefacts from the Fais excavations are around AD 400-800 and AD 1000-1500 respectively. These data match up well with the linguistic evidence which indicates a close relationship between the Nuclear Micronesian languages and those of the Solomons-Vanuatu region.

#### ANIMAL BONES

The Austronesian domesticated animals - pigs, dogs and chickens - were all kept on Fais throughout its habitation history. A number of bones of these animals were excavated in both early and late stratigraphic levels (Intoh, Steadman and Shigehara, in preparation). No other Micronesian islands have evidence for the possession of all three. Only dogs were present in Truk and Pohnpei, being

present since 2000 BP. Prehistoric pigs in Micronesia are so far known otherwise only from Palau, but are dated later - to about 1100 BP (Intoh 1986).

Considering the continual cultural relationships indicated by the excavated pottery, Yap is the most likely island from where the animals were brought. However, the archaeological record from Yap is slim at present and confirmation of this assumption must await more data. Indeed, an introduction of dogs from the Eastern Caroline islands cannot be entirely ruled out. However, this would leave pigs (absent in the Eastern Carolines) as a separate introduction and it seems a better working hypothesis that both species were brought in together.

Abundant rat bones were also excavated from every unit. Two species have been identified by Tim Flannery and Peter White (White and Flannery n.d.). The smaller form was recently introduced to Fais and can be identified as *Rattus exulans*, a species of rat found widely in Polynesia. Another larger species was found from the earliest deposits throughout the cultural sequence. This species is identified as *Rattus tanezumi*, the Asian version of *Rattus rattus*, a species not reported from Melanesia. This evidence strengthens the supposition that domesticated animals were introduced to Fais from the west rather than the south.

#### BOTANICAL REMAINS

A small piece of tree gum was excavated from the upper layer, dated to around AD 1000 to 1200. The ethnographic use of tree gum or resin has not been reported in Fais or any other Micronesian islands. This piece was identified as deriving from the Dipterocarpaceae family (Dodson pers. comm.). Most members of this family grow in the Indo-Malaysian region and are particularly abundant in Borneo and the Malay Peninsula. None grows in Micronesia but some Dipterocarp species can be found in the Philippines and in New Guinea. Considering the east-to-west wind and current patterns between Fais and the Philippines, the latter is the most plausible source for the tree gum. This supposition is strengthened by the historic records of Fais people drifting to the Philippines. Accidental contact with the Philippines may have led to the introduction of the tree gum.

#### THE EXTERNAL CONTACTS OF PREHISTORIC FAIS

It is now clear that Fais has been settled continuously for the last 1900 years. This is as long an occupation history as that reported from the high islands nearby. The earliest settlers brought in pottery, stones, domesticated and commensal animals, all of which indicate that the initial

INTOH, MULTI-REGIONAL CONTACTS OF FAIS ISLANDERS

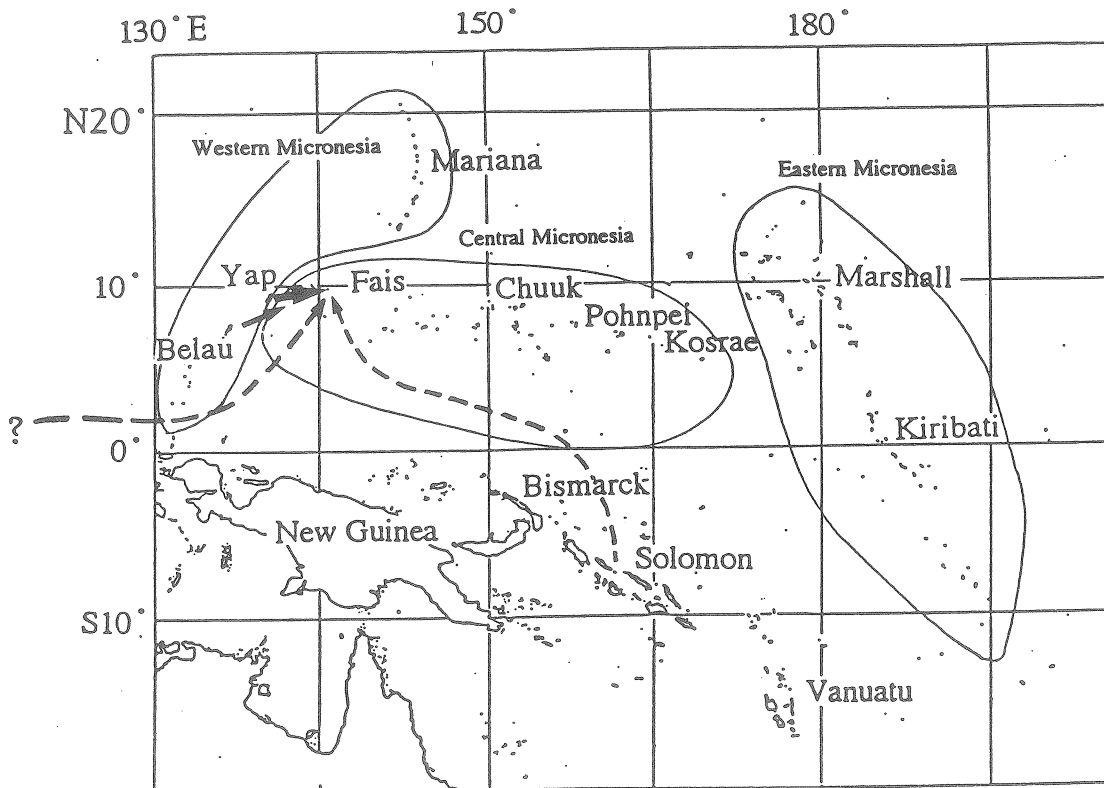


Figure 7: Map showing the range of external contacts of the prehistoric Fais Islanders.

settlement occurred from the west. The pottery and stone indicate a Yapese origin, while for the other items the exact sources remain unclear. Furthermore, the Fais-Yap links were continuous through time according to the pottery data, especially the similar chronological changes in pottery types in both islands through the past 2000 years. Fais also had cultural contacts with Palau according to the continuous small-scale importation of Palauan pottery, although some of this contact might have resulted from drift voyages. It is strange that there is no clear evidence indicating external contact with the eastern high islands such as Truk and Pohnpei.

Remoter contacts beyond Micronesia are demonstrated by the piece of Dipterocarp tree gum, possibly from the Philippines or New Guinea. Fishhooks also indicate contacts with the Solomons, based on the similar trolling lure shapes. The dates for these contacts were between AD 500 and 1400 at the outside. Even if these contacts were accidental, such archaeological evidence

indicating contact between Fais and the Solomons is of significance considering their close linguistic relationships.

This prehistoric evidence thus demonstrates connections spread over a larger area (Figure 7) than the ethnographic *sawei* links with Yap. Such multi-regional contacts could have been a conscious strategy of the early settlers, later replaced by a systematic trading system with one island (Yap). There is also the linguistic problem that the Yapese language cannot with certainty be classified as either Oceanic or Western Austronesian. Its dissimilarity with the Oceanic languages, including the language of Fais, suggests that Yap itself might have had a very complex prehistory of external contact.

ACKNOWLEDGMENTS

The Fais island field research and the laboratory research were financially supported by a 1991 Grant in Aid from the International Scientific Research Program

(Organizer: K. Komatsu) and a 1992 Grant in Aid from the General Science Research Division of the Japanese Ministry of Education. For the field research, I am particularly indebted to Don Rubinstein and to Andrew Kug-fas for their valuable advice and necessary arrangements. The hospitality and friendship provided by the people of Fais island were much appreciated. Many specialists provided substantial assistance in analyzing the excavated materials: John Dodson, Nobuo Shigehara, Dave Steadman, Peter White, Tim Flannery, William Dickinson, Yosuke Kawachi and Toshihiko Nakamura. Financial support to attend the 15th Congress of IPPA at Chiang Mai was provided by the Research System of Tokai University. I am grateful for the support.

#### REFERENCES

- Alkire, W. 1978. *Coral Islanders*. Illinois: AHM Publishing Co.
- Beasley, H.G. 1928. *Pacific Islands Records: Fish Hooks*. London: Seeley, Service and Co.
- Bender, B.W. 1971. Micronesian languages. In T.A. Sebeok (ed.), *Current Trends in Linguistics*, Volume 8, pp. 426-65. The Hague: Mouton.
- Bell, D., J. Specht and D. Hain 1988. Beyond the reef: compound fishhooks in the Solomon Islands. In A. Anderson (ed.), *Traditional Fishing in the Pacific*, pp.46-63. Honolulu: Bishop Museum, Pacific Anthropological Records 37.
- Blust, R. 1984. Malaita-Micronesian: an eastern Oceanic subgroup? *Journal of the Polynesian Society* 93(2):99-140.
- Dickinson, W. [n.d.] Origins of temper sands in prehistoric potsherds from Fais and other locales in the Caroline islands. Petrographic Report WRD-106 (unpublished).
- Fujimura, K. and W. R. Alkire. 1984. Archaeological test excavations on Faraulep, Woleai, and Lamotrek in the Caroline Islands of Micronesia. In Y.H. Sinoto (ed.), *Caroline Islands Archaeology*, pp. 65-149. Honolulu: Bishop Museum, Pacific Anthropological Records 35.
- Intoh, M. 1986. Pigs in Micronesia: introduction or re-introduction by the Europeans? *Man and Culture in Oceania* 2:1-26.
- 1996. Human dispersals into Micronesia. In T. Akazawa and E. Szathmary (eds), *Prehistoric Mongoloid Dispersals*, Oxford:
- Intoh, M. and W. Dickinson. 1994. A petrological study of prehistoric pottery from Fais Island in Micronesia. *Anthropological Science* 102(2):167.
- Intoh, M. and F. Leach. 1985. *Archaeological Investigations in the Yap Islands, Micronesia*. Oxford: BAR International Series 277.
- Intoh, M., D. Steadman and N. Shigehara (in preparation). Domesticated animals excavated from Fais Island in the Caroline Islands, Micronesia.
- Lessa, W. A. 1950. Ulithi and the outer native world. *American Anthropologist* 52:27-52.
- McCoy, P.C. and P.L. Cleghorn 1988. Archaeological excavations on Santa Cruz (Nendö), Southeast Solomon Islands:summary report. *Archaeology in Oceania* 23:104-15.
- White, P. and T. Flannery n.d. Murids from Fais island.