

Ryutaro Ohtsuka, *Oriomo Papuans: Ecology of Sago-Eaters in Lowland Papua*. Tokyo: University of Tokyo Press, Columbia University Press, 1983. Pp. 180, maps, figures, tables, plates, appendixes, references, index. \$20.00.

The book *Oriomo Papuans* describes the subsistence system of the fairly isolated village of Wonie, Western Province, Papua New Guinea. Wonie is one of thirteen villages where Gidra is spoken, a language within the Eastern Trans-Fly Family that totals some 1800 speakers.

Relatively little research has been done in Western Province, where current events have stepped up the demand for information. Attention was drawn to the province in 1984 by the start of gold mining at Ok Tedi, with its potential for environmental damage down the Fly River into the Gulf of Papua, as well as by the flood of refugees from Irian Jaya into the border area.

The author, Ohtsuka, is a Japanese human ecologist who earlier studied hand-line fishermen in rural communities in Japan. The book is based mostly on seven months of fieldwork in 1971-1972, although it occasionally draws on his more recent fieldwork in 1980-1982. Some of the material has been previously published (e.g. Ohtsuka 1977).

Readers seeking a general ethnographic study of the Gidra will be disappointed, as this is a work focused on ecology in the narrowest sense: the temporal and spatial distribution of food-getting activities. Very little is said about the cultural context of these activities, even the most directly relevant aspects such as ethnoscience and technology. This sometimes limits the usefulness of the data presented. For instance the exact loss of weight in stored sago as it dries out for thirty days is reported (see p. 107), but the methods used by the villagers for storing sago are not described.

The use of language was minimized in collecting data, apparently as a deliberate strategy. Linguistic communication was admitted to 'be poor. Unfortunately this admission casts some doubt on the use of genealogical data for drawing demographic conclusions. But within the limits it sets for itself, the book is very useful.

Two sets of data that other researchers will want to reanalyze and use in comparative studies are the dietary studies and the activity surveys. Each of these was repeated in the wet season and dry season because the region shows marked seasonality.

The food consumption surveys were conducted for two periods of twelve days each in four sample households containing seventeen persons. The unit under study was not the individual but the household, food being weighed as it entered the house or left through interhousehold transfers rather than as it was eaten. Sago accounted for about 60 percent of energy intake and game for about 60 percent of protein. Bananas and taro were the other important foods.

All forty-one adult villagers in the main settlement were included in the activity surveys. Records were kept for two periods of thirteen days on time of departure from and return to the village, and on food-getting activities. A useful aspect of the data is its classification by locally recognized age categories (young, middle-aged and older males, younger and

older women). Children were excluded because they were found not to make a significant contribution to family subsistence, though we are left to wonder if they might be gathering small bits of wild plants and animal foods of significance for preventing deficiencies in their own diets, even if they are not contributing to producing staple foods.

Considered together, the food and activity data allow comparison between activities, showing, for example, that sago work is twice as productive as the type of horticulture practiced by Wonie villagers. The numbers involved are necessarily small, given the limited time available and the small size of the community. The small numbers sometimes leave the reader wondering what to make of reported findings--for example, that three of seven births during the fieldwork were stillbirths. In another case of small numbers, a computer-aided cluster analysis was done of a matrix showing cooperation between households in working parties for making sago and gathering coconuts. Since only forty-one working parties were involved, the clusters that emerged would probably have been equally clear without the computer exercises.

The book is attractively produced. Only occasional lapses of English occur, for example, "lighting wood" and "lightening wood" for "torch" (174), and "mounted" for "mound" (81).

This is a useful short account of subsistence in a region that has been too little studied in the past. The author suggests in his preface that perhaps Europeans are not as physiologically adapted as the Japanese to studying the swamps. We can look forward to further publications from the 1980-1982 research team, in which Ohtsuka brought four other Japanese researchers back into the swamps with him.

REFERENCE

- Ohtsuka, Ryutaro. 1977. "Time-space Use of the Papuans Depending on Sago and Game."
In H. Watanabe, ed., *Human Activity System: Its Spatiotemporal Structure*, pp.
231-260. Tokyo: University of Tokyo Press.

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