

Tsuguyoshi Suzuki and Ryutaro Ohtsuka, eds., *Human Ecology of Health and Survival in Asia and the South Pacific*. Tokyo: University of Tokyo Press, 1987; distributed by Columbia University Press. Pp. 226. US\$24.50 paper.

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This volume contains the proceedings of the International Symposium on the Comparative Human Ecology of Health and Survival Strategy in Asia and the South Pacific held in Tokyo in March 1986. Suzuki states in the preface that one of the principal aims of the symposium was to establish the validity of human ecology as an academic discipline within Japan. Toward that end researchers from a number of disciplines were

brought together to share their work. The papers focus on various aspects of health, broadly defined, in several Asian countries, Indonesia, and Melanesia.

In the introduction, Suzuki recounts the history of human ecology in Japan from the founding of the department within the School of Health Sciences at the University of Tokyo in 1965. In this section he explains how human ecology came to be a population-focused study of health within the field of public health. He then takes up three key concepts within human ecology: the demarcation of human populations, the relationship of health and ecosystem, and population survival.

Population boundaries are emphasized by Suzuki, and by several other authors, but no clear definition of population is achieved, and the concept of population is used to variously describe residents of a single village, groups of villages, multiethnic settlements on large islands, nations, and groups of nations. Since population is singled out as a key concept by the editors, I would have expected more uniformity, or at least comments about the different uses of the term. The question of population boundaries is one that has perplexed physical anthropologists for many decades. Models of population structure have been developed to facilitate the study of demographic genetics (Jorde 1980; Relethford 1985; Mascie-Taylor, Lasker, and Boyce 1987) and these generally focus on the lack of isolation of groups. To suggest that population can be treated as a static entity is misleading, since even in the case of relatively remote island populations migration plays an important role. I would suggest that more work needs to be done on the concept of population by these human ecologists.

A second key notion is the health of a population with regard to the ecosystem. The human ecologists in this volume use the term "health" in the same way that the concept of fitness is used by anthropologists specializing in human adaptation, and they fall into some of the same traps (see Baker 1984; Lasker 1969; Mazess 1975). Health is viewed as influencing the survival of populations—therefore it operates through the agencies of fertility and mortality. However, some of the authors interpret health in the Western biomedical sense, and discuss various disease states under this heading, without reference to the ecological connotations of health. Again, nowhere do the editors comment on this duality of definition and it does not seem that all of the authors are aware of the different usages of the concept of health.

The final key concept within human ecology is that of population survival strategies. Suzuki argues that perceptions of the future shape decisions about such things as retaining a traditional life-style or adopting

modern ways. This is clearly an unusual view, and it comes about as the result of a very skewed set of data. These statements are based on observations of a limited series of circumstances, especially relating to migration--a survival strategy that has frequently been volitional in the recent history of man. In addition to migration, survival strategies also include diet, subsistence activity, and economic behavior. If you are beginning to get the feeling that human ecology is an extremely general discipline you are correct-- at least with regard to this collection.

The editors have divided the body of the text into two sections: (1) six chapters labeled survival of human populations and (2) seven chapters categorized as health and survival in transition. It is not clear why this division has been made, since most chapters in both sections deal with populations that are experiencing some degree of development. There is no attempt to link chapters together, and since each chapter has its own references section, the volume has the ambience of a journal. Since there is little continuity, a comprehensive review would have to examine each chapter. To avoid the tedium that such an approach would entail, I have chosen four selections to review, with an eye toward Oceanic populations. Three of the chapters deal with Melanesians, and the fourth is an interesting presentation on Indonesians in the Banda Arc.

Coeditor Ohtsuka reports on his research among Gidra-speaking villages on the Oriomo Plateau of Papua New Guinea. He has been working with the Gidra speakers since the early 1970s and has compiled a variety of demographic and nutritional measurements on thirteen villages. In this chapter, Ohtsuka is primarily concerned with demographic adaptive mechanisms used by the Gidra. He emphasizes inter-village heterogeneity in terms of both dietary and demographic strategies. Prior to World War II the inland villages were the best habitats due to the availability of game such as the wallaby and the low levels of malaria. After the war, the Gidra began to come into much greater contact with the outside world, with ensuing change of diet, decrease in infant mortality, and out-migration. Ohtsuka provides clear discussion of the results of these changes. While almost all of the findings presented here have been published previously, this is a useful synthesis and summary of his work on the Gidra.

Takeo Funabiki writes about production and consumption in Malekula, Vanuatu. This chapter provides a description of the interaction of life cycle changes with production and consumption among the tiny group of Mbotgote families (total population is eighty-one) who live in the inland forests of Malekula. There are interesting changes in both the subsistence activities and dietary habits throughout the lifetime of

Mbotgote man or woman. However, this chapter would greatly benefit by some theoretical grounding or reference to comparative works. As it is, this anecdote contributes interesting details about Mbotgote foodways, but the reader is left on his or her own to provide context.

Andrew Strathern has written about changes in health status as result of outside contact among residents of the Western Highlands Province (WHP) in Papua New Guinea. He begins by briefly summarizing his other publications on traditional and introduced medical practices in the area, stressing the disruption of both medicines and ritual practices. He then discusses the influences of development on diet and health. His position is very clear: development is bad. Presenting no dietary data at all, he concludes that development has produced nutritional stress on the population. He cautions against believing without cause that development brings improved nutrition, but he falls into the complementary trap of arguing against dietary change without having the facts necessary for such a judgment. In the section on health, incomplete hospital statistics lead him to further arguments about the negative side of development. He discusses the relative incidence of falciparum and vivax malaria, without having the appropriate data for the calculation of incidence statistics--in particular, there is no total population to provide a denominator, and there is no indication of how new cases were distinguished from previously diagnosed ones. To be sure, development has introduced health problems into the WHP, but the evidence presented here is anecdotal while giving the appearance of being quantitative. Diabetes is discussed twice, but there is no documentation that there is *any* diabetes present in the area. While the evidence for development with caution and education probably exists in the WHP, it has not been clearly presented in this chapter. a

Perhaps the best chapter in the volume is the carefully presented argument by R. F. Ellen about the long-term influence of environmental perturbations on an interisland trade network in the Banda Arc of Indonesia. He considers a wide variety of both man-made and natural environmental alterations such as seismic activity, seasonality, introduction of new organisms, pollution, deforestation, and others. Ellen demonstrates that for an assortment of reasons the central areas of the Banda network have continued to be important nexuses through centuries of environmental upheaval.

This collection of articles probably worked well as a symposium because there was time and opportunity for discussion of the extremely diverse approaches to human ecology. It fails as a book because that discussion has been stripped from the text and the editors do not provide

any commentary or transition from one isolated paper to the next, While the developments within human ecology in Japan continue to be interesting and innovative, this volume does not live up to expectations.

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