## *INTRODUCTION*

# POPULATION CHANGE, SOCIAL REPRODUCTION AND LOCAL UNDERSTANDINGS OF FERTILITY IN MELANESIA

*Stanley J. Ulijaszek*

Three intersecting themes – population, fertility and reproduction – form the basis of this volume. What prompted this collection of essays was the relative lack of recent literature concerning these issues in Melanesia. The majority of the articles published here were papers given in the Fertility and Reproduction Study Group Seminar Series 'Fertility and Reproduction in Melanesia', at the Institute of Social and Cultural Anthropology, University of Oxford. The title of the seminar series acknowledged the historical contribution of W.H.R. Rivers (1922a) to population studies in this region, and to update what is known of population size and process since that time. Given that much has changed in the 82 years since Rivers' publication, a primary focus for both the seminar series and the volume, was, and is, historical demography: the decline and subsequent population resurgence in Melanesia.

While population processes reveal the relative biological success or failure of a society, an examination of ideas of reproduction from the perspectives of local communities leads to quite different understandings of this term. The question of exactly what is being reproduced, and how, is the second theme of the volume: how is the social reproduced, and how is the cultural uncoupled from the biological in various societies in this region. The third issue, that of local understandings of fertility, is an evaluation by various authors of the now-extensive literature concerning human life cycles and how they are structured culturally. Thus the volume is at one and the same time an evaluation of past population processes, a 'bringing up-to-date' of population processes across the twentieth century, and a survey of local understandings of fertility and reproduction in broader social and biological contexts.

Thus the volume goes beyond Rivers' concerns about population decline in Melanesia, to examine population, fertility and reproduction in the New Guinea Highlands, a region uncontacted by Europeans at the time of Rivers' volume. It also examines the relationship between cultural and biological processes that structure the reproduction of populations and societies, and it is able to examine local understandings in a way that was not possible in the early twentieth century. Ideas of what the region constitutes, and why, have also been changing, making the naming of the region for the purposes of the volume problematic. There are various ways of constructing the broader region considered here: 'Melanesia', 'Near Oceania', 'Austronesia', 'New Guinea and the Solomon Islands' among them.

I would like to discuss the idea of 'Melanesia' as a region, before going on to describe the contributions of the various authors to this volume. Tim Bayliss-Smith (chapter 1) identifies the key features of 'Melanesia' as a geographical construct of nineteenth-century geography, which came after European acknowledgement in the late eighteenth century that 'Polynesia' was a region with a common language and therefore, also, with a common culture. In 1833 the navigator Dumont d'Urville distinguished between Polynesia (the many islands), Melanesia (the black islands), and Micronesia (the small islands). Melanesians were characterised by their blackness, linguistic diversity, and their little-developed political institutions. D'Urville's Melanesia originally included Australia, as well as New Guinea, Fiji, Vanuatu and New Caledonia. As Australia became increasingly settled by the British, it was reclassified as a separate entity to the other black islands. Thus the colonial process, and nineteenth-century understandings of population and geography underpinned the naming of the region 'Melanesia'. In this volume, I fall to a pragmatic retention of the term 'Melanesia' as the overarching regional descriptor, notwithstanding the problems associated with such regionally-delimiting nomenclature.[1]

The notion of Melanesia as a geographical region is preserved here in an historical sense that allows the changing demography of the societies within this region, as discussed in Rivers (1922a), and by Roberts (1927), Hogbin (1930, 1939) and others, to be considered within the framework of early colonial encounters. There is no intent to use the term in any social evolutionist sense at any place in the pages and chapters that follow. In this volume, various authors use a number of overlapping regional classifications, according to their analytic utility as historical, geographical, political and culture-area delimiters: 'Melanesia', 'Polynesia', 'Austronesia', 'New Guinea', 'Papua New Guinea', 'Islands Melanesia', 'Islands region', 'Highlands region', 'New Guinea Highlands', and 'South Coast New Guinea' among them. The term 'Melanesia' is used as an umbrella which I hope allows area comparisons of various kinds – historical, colonial, regional, cultural – to be made by authors where useful. That said, some authors do not rely on such analytical devices, favouring instead to speak to specialised interests central to, or involving demography, fertility and reproduction, but which address more general anthropological problems (Brady 1989).

The first theme of this book is addressed in the first three chapters of this volume, while the issue of subsequent population increase is also described and discussed in the same first three chapters and the one that follows them. The demise of the people of geographical Melanesia was summarised very succinctly by Durrad (1922) writing in W.H.R. Rivers' (1922a) edited volume *Essays on the Depopulation of Melanesia*:

> anyone who has spent a few years in Melanesia will have noticed, between the time of his arrival and that of his departure, a distinct difference in the number of people among whom he has lived. The longer his stay extends, the more marked becomes the fall in population.

Various explanations are given by Rivers (1922b) for the population demise reported for many parts of this geographical region. These include death by way of epidemics, low birth rate because of physical dislocation caused by the European plantation labour trade, sexually transmitted diseases (STDs) and the so-called 'psychological factor' (the loss of morale and of the will to live among local people after European colonization) that Rivers (1922b) believed to be the principal reason for population decline. Fertility decline was viewed by him to have been of lower importance in population decline than increased mortality, with the introduction of infectious disease. However, the introduction of one category of infectious disease, STDs, was seen as detrimental to fertility.

Durrad (1922) and Roberts (1927) believed that Melanesian populations were already in decline with the earliest European traders to New Guinea, and what they were observing in the early twentieth century was but an acceleration of the process. While we may never be certain of this, we can at least update the population history of various communities in this region and re-examine the classic accounts of population decline and its' causes, as given by Rivers (1922b), Roberts (1927) and Hogbin (1930, 1939).

In the first of the three chapters in which the historical demography of the region are considered, Bayliss-Smith contextualizes what is to follow by giving a comprehensive account of population processes in the Pacific region generally, after the 'fatal impacts' of colonial encounters (Moorehead 1966) in the nineteenth and early twentieth centuries. He goes on to reconstruct demographic processes in the Solomon Islands to examine Rivers' (1922b) explanations for the processes of depopulation there. Using Rivers' data set from Simbo, western Solomon Islands, he constructs a chronology for demographic change in this region, across the period 1790 to 1910. The absence of clear evidence of epidemics of introduced disease, and of other factors commonly cited for the depopulation of Melanesia, had lead Rivers to conclude that 'the psychological factor' was central to high mortality and fertility decline there. Bayliss-Smith is able to adduce enough new information in this chapter to suggest that Rivers was incorrect, by strongly implicating the European introduction of infectious diseases, both epidemic and endemic (in the case of STDs), as the prime factor in the population decline on Simbo.

According to Bayliss-Smith, depopulation of Simbo probably began before 1850, and was not reversed until the mid-twentieth century, largely because of health interventions which have reduced mortality rates, a trend observed elsewhere in the region, including the Purari, in South Coast New Guinea (SCNG) (Ulijaszek, Chapter 4). Bayliss-Smith contrasts the Simbo case with that of depopulation on the Polynesian atoll of Ontong Java, located 270 km north of Santa Isabel in the Solomon Islands, where population reached its lowest size in 1939. Earlier, Hogbin (1930) attributed population decline on Ontong Java to an enhanced death rate, due to a combination of psychosomatic and pathological causes, the impacts of infectious disease being heightened by the people's 'state of mind which acquiesces in extinction' (Hogbin 1930).

Bayliss-Smith reinterprets the Ontong Java demographic data to suggest that the introduction of infectious disease, malaria in particular, is largely adequate to explain the population decline. As with Simbo, the decline in the Ontong Java population persisted until the middle of the twentieth century. Reasons given by Bayliss-Smith for the subsequent population recovery include the relative isolation of the atoll (which had been a trading nexus) during the Second World War, the decline in epidemics of infections in the post-war period, and malaria control in the 1960s. In 1986 the resident population began to approach its nineteenth-century size, with about 20 percent of the population living in urban conditions either in the capital of the Solomon Islands, Honiara, or elsewhere (Bayliss-Smith 1986). This pattern of high urbanism in association with population resurgence is also demonstrated in this volume for the Purari (Ulijaszek, chapter 4) and Perelik villagers of the Manus Islands (Ataka and Ohtsuka, chapter 5).

In the second of the historical demography articles, Chris Gosden considers the idea of the ‘fatal impact’ of European colonisation (Moorehead 1966), implicit in the writings of Rivers (1922b), Roberts (1927) and Hogbin (1939), in respect of colonialism, health and fertility change in western New Britain between 1884 and 1940. The population of this region declined dramatically in the 1880s and 1890s, soon after European settlement there. While confirming the fatal impact view of population decline, Gosden argues that the biological threat of new diseases (including high mortality and depopulation) elicited responses of unprecedented nature among local communities, leading him to reject the view that they largely remained passive in relation to colonisation. Among the responses to high mortality and demographic change was physical reorganisation, with the formation of new villages, and the introduction and use of new crops and technologies. To some extent, similar types of response to European colonisation also took place among the Purari (Maher 1961) (Ulijaszek, chapter 4).

The population shocks associated with colonialism are also considered by Stanley Ulijaszek, in his chapter on population decline and subsequent resurgence among the Purari of SCNG. He argues that the dramatic reduction in population size in the early twentieth century can be attributed largely to the introduction of infectious diseases by Europeans, and to low crude birth rate associated with the recruitment of adult males for plantation labour. As with the Simbo and Ontong Java populations (Bayliss-Smith, chapter 1), demographic decline persisted into the middle of the twentieth century. Subsequent population increase is likely to have been due to the introduction and increased availability of biomedicine, leading to reduced infectious disease, as well as to improved nutrition. Ulijaszek argues that improved nutrition has lead to greater fecundity of women, while both improved nutrition and reduced infectious disease have lead to improved survivorship of young children. Among the Purari, high total fertility rates (TFR) have been maintained post-independence, despite economic change and modernization. Analysis of data collected by Ulijaszek in 1995 and 1997 indicate that greater cash income is positively associated with both TFR and earlier age at which women start to bear children, indicating a tendency for economically successful males to take younger brides. Thus, material well-being translates into a larger number of offspring, rather than increased investment in a smaller number of offspring. Although this runs counter to conventional demographic transition theory, this pattern is found elsewhere in New Guinea, among a Mountain Ok group undergoing rapid economic change (Taufa et al. 1990). With population increase has come increased migration of the Purari population to urban centres, especially Port Moresby. However, although the urban Purari population is likely to have exceeded 30 percent of the total Purari population in 1996, urban connectedness, through urban relatives, or urban migration at some time of life, seems to have no influence on TFR, despite the expectation that exposure to outside ideas concerning appropriate family size might be a force for reducing fertility rates.

In the fourth of the historical demography chapters, Ataka and Ohtsuka consider population processes in a local population in the Manus Islands, in and from Perelik village, Baluan Island. They descibe population growth, rural to urban migration, and fertility rates of both rural and urban groups, between 1955 and 1995. In general, the Manus population has been more acculturated, and from an earlier time, than elsewhere in Island New Guinea. As in west New Britain (Gosden, chapter 2), Ontong Java (Bayliss-Smith, chapter 1), and among the Purari (Ulijaszek, chapter 3), Komblo of the New Guinea Highlands (O'Hanlon, chapter 8), and Simbo (Bayliss-Smith, chapter 1), Perelik population growth has been considerable in the second half of the twentieth century. This is attributed by Ataka and Ohtsuka to the control of infectious disease, especially malaria, in combination with high TFR, at least until the mid-1970s. As with Ontong Java in the early twentieth century (Bayliss-Smith, chapter 1), the prevalence of STDs on Manus was low in the years following the

Second World War, and does not appear to have been a factor influencing fertility.

The growth of the urban Perelik population has been exceptional; toward the end of the twentieth century, over 40 percent of all Perelik people lived in urban centres, a much higher value than for either the Ontong Java (about 20 percent) or Purari (just over 30 percent) populations. The increased ratio of urban to rural Perelik after about 1985 is attributed by Ataka and Ohtsuka to the maintenance of a high TFR in the urban population, at a time when the TFR in Perelik village showed considerable decline, against a background of strong infectious disease control in both locations. This runs counter to expectations, but is explained by Ataka and Ohtsuka in the following way. Population pressure associated with a shortage of land in Perelik village might have contributed to greater uptake of family planning in the rural sector, as well as contributing to rural to urban migration. There may have been less concern to limit family size in the urban sector, where Perelik male heads of household were mostly public servants, teachers and office workers, whose earnings may have been adequate to rear many children.

Ataka and Ohtsuka also note the emergence of social and economic problems associated with Perelik population processes. In recent years, new job opportunities in urban areas have been few and the relative educational advantage of Perelik people in finding work is diminishing. The number of urban Perelik migrants without purpose has increased in recent years, creating a pool of urban dwellers without jobs. According to Ataka and Ohtsuka, the capability of the wantok system to absorb such migrants is limited, leading the authors to anticipate significant back-migration to Perelik from urban centres in coming years. This would increase the population density of Perelik village and exacerbate land shortage there. This is an issue that many populations in Melanesia may face in the future.

The next three chapters consider the second theme of the book, which is the different ways in which biological and social reproduction are uncoupled in Melanesian societies. In the first of these, Monica Minnegal and Peter Dwyer compare ideas of reproduction among two closely related Papua New Guinean societies, Kubo and Bedamuni, who live in neighbouring areas of the Strickland-Bosavi region. Dwyer (1996) proposed the idea that with increased intensification and decreased egalitarianism, understandings of ‘culture’ and ‘nature’ become progressively decoupled. In their chapter, Minnegal and Dwyer confirm this idea in relation to reproduction, by demonstrating that the more densely populated and socially complex Bedamuni prioritize social reproduction and pattern their biological outcomes to satisfy social desires to a greater extent, than do the more egalitarian Kubo. The authors conclude by urging caution concerning evolutionary ecological and sociobiological explanations of demographic processes, suggesting that they can only be partial if they do not accommodate the understanding that people often view social and biological reproduction as being disconnected arenas, living in ways such that the latter is incidental to the former.

The second of this cluster of three chapters, by Melissa Demian, is concerned with adoption among Suau people of Milne Bay Province, Papua New Guinea. While adoption can be understood in terms of natural relationships that are co-opted by cultural imperatives, Demian points out that the question of exactly what is reproduced by an adoption strategy is usually unasked by anthropologists. She shows that Suau adoption is an outcome of the desire to be part of social relationships, both past and present. A sibling set in Suau which is characterised by an absence of either boys or girls, is considered ‘empty’ by them because it does not permit the anticipation of adult relationships which depend on both same-sex and cross-sex axes of support and nurture. For Suau, it is not enough to reproduce persons: the right sorts of persons must be reproduced, so that the right sorts of relationships are reproduced. As gifts between adults in the removal of ‘emptiness’, Suau adoptees are important objectifications of relationships which are reproduced over time.

In the next chapter, Sean Kingston shows how death and birth are linked spiritually for Lak people in south-east New Ireland. Their understanding of the human life cycle, involving conception at birth and deconception at death has much in common with many Austronesian societies (Mosko 1983, 1989). Kingston argues that conception and birth are the reverse of ‘de-conception’, the disarticulation after death of the social relations that the person embodied. In Lak, birth and its rites are construed cognitively, spoken of as a ‘remembering and bringing into mind’ that contrasts with the ‘forgetting and absenting from mind’ of death. The ‘conception’ of babies at their birth only takes place via a disarticulation of the totalizing figure of the most powerful spirits that take away the final remains of the dead person, mirroring the forgetting of the dead as a coherent nexus of social relations and attention. Kingston goes on to argue that although the child is a rearticulation of someone whose social form has previously been disarticulated after death, they can only become a more determinate form through processes of attention. As children become adults and proceed through their life-course they continue to form themselves and others through the action of reciprocal attention. Without thinking of each other, people would have no form, and would therefore be unknown.

The final three chapters are concerned with local understandings of fertility and reproduction in New Guinea. In the first of these, Michael O'Hanlon shows how the Wahgi of the Western Highlands Province of Papua New Guinea view patterns of fertility and reproduction as part of a much broader universe of signs they turn to, to authenticate moral probity. Rival narratives, which purport to explain misfortunes as an enchained series whose origins lie back in relations with clanspeople, and with 'source' people like maternal kin, are manifold. Wahgi cosmology drives them to make sense of individual births and deaths as an interconnected series, reflecting hidden intra-clan treachery or breaches of proper relations across time.

In chapter 9, Pascale Bonnemère considers the diversity of themes concerning fertility, sexuality and masculinity in the New Guinea Highlands. She focuses on two major sets of rituals: bachelor cults and male initiations, showing that although they appear to be fairly contrasted in their organization and content, they can be viewed as variations on a single universal theme concerning female reproductive capacities. By comparing Ankave Anga male initiations and the Enga bachelor cult, Bonnemère shows that spiritual marriage does not seem to be limited to the bachelor cults found in the Highlands but appears to be a more general symbolic reference that may also occur in highland fringe societies, such as the Anga. Bonnemère's analysis points to an opposition between male initiations in which the symbolism of human growth is largely predominant and in which the novices' mothers (present in person or as surrogates) are essential figures of the ritual process, and spirit cults, in which fertility is ensured by the symbolic re-enactment of a coitus scene and in which the principal figure is a spiritual being, a virtual wife. Bonnemère argues that whether or not ritual forms in New Guinea aim to assure general fertility, the model referred to by ritual symbolism is most often that of human reproduction. According to her, the differences encountered across New Guinea societies are merely variations on this theme.

In the final chapter in which local understandings of fertility are considered, Pierre Lemonnier presents an interesting anomaly. Whereas many New Guinea societies are known for their fertility rituals, or for the place occupied by fertility in some of their outstanding institutions and therefore in people's everyday life, the Anga of Eastern Highlands, Gulf and Morobe provinces of PNG lack, and have lacked, any such collective practice. Lemonnier shows that they have limited their interest in the circulation of a life-force to very specific domains: the making of adult men and warriors during male initiations and, for some of them, the unspoken recycling of life-giving substance within clans or lineages. As for the fertility of women, the theme is strikingly absent among Anga. It is possible that this situation may not be unique in New Guinea, but Lemonnier shows that it contrasts strongly with the situation among both neighbouring Highlander groups and SCNG societies.

This volume spans the physical realities of population decline and subsequent resurgence, the ways in which the biological is uncoupled from the social in the context of reproduction, and some local understandings of reproduction in Melanesia. It cannot, and indeed does not, aim to be comprehensive in its treatment of any one of these areas. However, in undertaking such a broad-ranging survey, authors in this volume offer a range of biological and cultural generalities, and show some quite specific ways in which the cultural (Thomas 1989) and biological (Alpers and Attenborough 1992) diversities that Melanesia is known for, are clearly evident in population, reproduction and fertility.

## Acknowledgements

I thank Tim Bayliss-Smith for discussion of the various terminologies possible as an umbrella term for the region, and to Peter Dwyer and Monica Minnegal for comments on an ealier draft of this manuscript.

## Note

1. The idea of ‘Melanesia’ as a culture area has been contrasted with that of ‘Polynesia’ on the basis of local social and political organisation (Sahlins, 1963). However, this has been criticised on the basis of linguistic, archaeological and anthropological heterogeneity (Hau’ofa 1975; Pawley 1981; Guiart 1981; Thomas 1989). The issue of regionally-delimiting nomenclature has bothered me as editor, particularly in respect of the title to the volume, which has to accommodate the variety of classifications in current usage. The term ‘Near Oceania’, as the area incorporating New Guinea and the Solomon Islands, as a geographical region of great ethnographic diversity, but not associated with the nineteenth-century views of

race and language which were used in the creation of the idea of Melanesia, has been put forward by Green (1989). However, ambiguity remains, because the definition of Near Oceania is dependent on a provisional and extremely incomplete map of archaeological finds, while placing some populations, including those of the Santa Cruz Islands and the present-day nations of Vanuatu and New Caledonia, in 'Far Oceania' when they have greater similarity to populations considered to be part of Near Oceania (Bayliss-Smith, personal communication). In the case of the Santa Cruz Islands, the presence of Papuan languages suggests inclusion in Near Oceania, but the absence of Pleistocene settlement suggests inclusion in Far Oceania (Bayliss-Smith, personal communication).

## References

Alpers, M. and R. Attenborough (eds). 1992. *The Small Cosmos. Human Biology of Papua New Guinea*. Oxford: Oxford University Press.

Bayliss-Smith, T.P. 1986. *Ontong Java Atoll: Population, Economy and Society, 1970–1986*, Occasional Paper 9, South Pacific Smallholder Project, University of New England: Armidale.

Brady, I. 1989. 'Comments on Paper by N. Thomas: the Force of Ethnology. Origins and Significance of the Melanesia/Polynesia division', *Current Anthropology* 30: 34–35.

Durrad, W.J. 1922. 'The Depopulation of Melanesia'. In *Essays on the Depopulation of Melanesia*, ed. W.H.R. Rivers, 3–24. Cambridge: Cambridge University Press.

Dwyer, P.D. 1996. 'The Invention of Nature'. In *Redefining Nature: Ecology, Culture and Domestication*, eds R. Ellen and K. Fukui, 157–186. Oxford: Berg.

Green, R.C. 1989. 'Comments on Paper by N. Thomas: the Force of Ethnology. Origins and Significance of the Melanesia/Polynesia Division', *Current Anthropology* 30: 35–36.

Guiart, J. 1981. 'A Polynesian Myth and the Invention of Melanesia', *Journal of the Polynesian Society* 90: 139–144.

Hau'ofa, E. 1975. 'Anthropology and the Pacific Islanders', *Oceania* 45: 283–289.

Hogbin, H.I.P. 1930. 'The Problem of Depopulation in Melanesia as Applied to Ongtong Java (Solomon Islands)', *Journal of the Polynesian Society* 39: 43–66.

______. 1939. *Experiments in Civilization: the Effects of European Culture on a Native Community of the Solomon Islands*. London: George Routledge.

Maher, R.F. 1961. *New Men of Papua*. Madison: University of Wisconsin Press.

Moorehead, A. 1966. *The Fatal Impact: an Account of the Invasion of the South Pacific, 1767–1840*. London: Hamilton.

Mosko, M. 1983. ‘Conception, De-conception and Social Structure in Bush Mekeo Culture’, *Mankind* 14: 23–32.

______. 1989. ‘The Developmental Cycle among Public Groups’, *Man* 24: 470–484.

Pawley, A. 1981. Melanesian Diversity and Polynesian Homogeniety. A Unified Explanation for Language. In *Studies in Pacific Languages and Cultures*, eds J. Hollyman and A. Pawley. Auckland: Linguistic Society of New Zealand.

Rivers, W.H.R., ed. 1922a. *Essays on the Depopulation of Melanesia*. Cambridge: Cambridge University Press.

______. 1922b. ‘The Psychological Factor’. In *Essays on the Depopulation of Melanesia*, ed. W.H.R. Rivers, 84–113. Cambridge: Cambridge University Press.

Roberts, S.H. 1927. P*opulation Problems in the Pacific*. London: Routledge.

Sahlins, M. 1963. ‘Poor Man, Rich Man, Big-man, Chief: Political Types in Melanesia and Polynesia’, *Comparative Studies in Society and History* 5: 285–303.

Taufa, T., V. Mea and J. Lourie, 1990. ‘A Preliminary Report on Fertility and Socio-economic Changes in Two Papua New Guinea Communities’. In *Fertility and Resources*, eds J. Landers and V. Reynolds, 35–46. Cambridge: Cambridge University Press.

Thomas, N. 1989. ‘The Force of Ethnology. Origins and Significance of the Melanesia/Polynesia Division’, *Current Anthropology* 30: 27–34.