

GÜNTER SENFT

4 The Coral Gardens are Losing Their Magic. The Social and Cultural Impact of Climate Change and Overpopulation for the Trobriand Islanders

Introduction¹

Just after I had finished my PhD in linguistics at the Max Planck Institute for Psycholinguistics in 1981, I was invited to join an interdisciplinary research team consisting of an anthropologist, a human ethologist and a physician with ethological and anthropological interests to carry out a research project on "Ritual Communication on the Trobriand Islands of Papua New Guinea (PNG)" at the Human Ethology Research Unit of the Max Planck Institute for Behavioral Physiology in Seewiesen.² The Trobriand Islanders have become famous, even outside of anthropology, because of the ethnographic masterpieces on their culture published by the anthropologist Bronislaw Malinowski, who did field research there from June 1915 till February 1916 and from November 1917 till September 1918 (Young 2004). When I first set foot on the Trobriand Islands in 1982, I had the quite romantic feeling that I was stepping right into the picture so vividly presented in Bronislaw Malinowski's books and articles. And having arrived in Tauwema village on Kaile'una Island, I thought I had entered more of a kind of a South-Seas cliché than actual reality. And I started to understand what Robert Louis Stevenson may have meant when he wrote:

The first experience can never be repeated. The first love, the first sunrise, the first South Sea Island are memories apart and touched by a virginity of sense (1896: 6).

My first two periods of field research on the Trobriand Islands lasted from July to December 1982 and, – after a 6 week break, from January to November 1983. During these two long-term field trips we experienced

life on a South Sea island – with its dry and rainy seasons. In the rainy season it really rained cats and dogs and the humidity was extreme. The dry season was often quite hot, but with the trade winds blowing, life was quite comfortable. Thus, there was a clear division between the dry season and the rainy season. However, this changed dramatically in the first decade of this century – a change that was already foreshadowed in the mid-1990s. This paper deals with the dramatic environmental, social and cultural changes on the Trobriand Islands which I experienced during 16 long- and short-term fieldtrips from 1982 to 2012.³

I first report on the climate change I experienced there over the years and provide a survey about the demographic changes on the Trobriand Islands – highlighting the situation in Tauwema, my village of residence on Kaile'una Island. I will then report on the social and cultural impact these dramatic changes have had on the Trobriand Islanders and their culture.

But before I do this I will briefly introduce the Trobriand Islanders and their language:

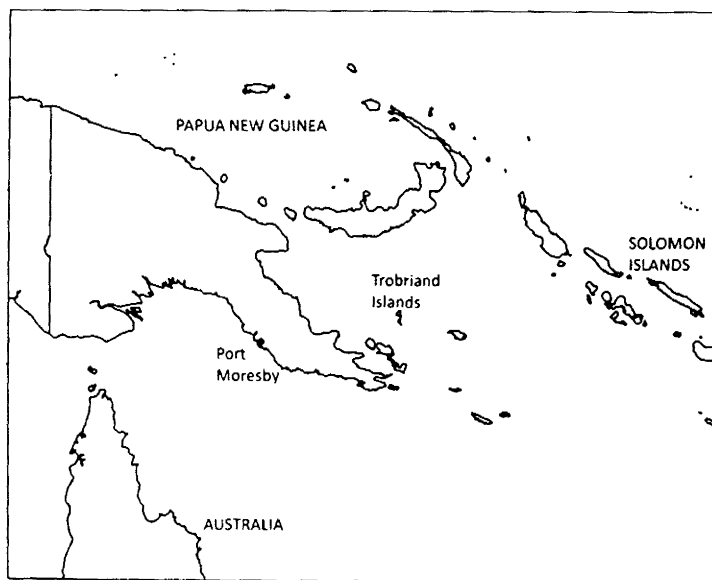


Figure 4.1: Papua New Guinea

The Trobriand Islands

The Trobriand Islanders belong to the ethnic group called "Northern Massim." They are gardeners, practicing slash and burn cultivation of the bush; their most important crop is yams (*Dioscorea esculenta*). Moreover, they are also famous for being excellent canoe builders, carvers, and navigators, especially in connection with the ritualized *Kula* trade, an exchange of shell valuables that covers a wide area of the Melanesian part of the Pacific (see Malinowski 1922; Leach and Leach 1983; Persson 1999). The society is matrilineal but virilocal.



Figure 4.2: The Trobriand Islands

Kilivila, the language of the Trobriand Islanders, is one of 40 Austronesian languages spoken in the Milne Bay Province of Papua New Guinea (see figure 4.1 and 4.2). It is an agglutinative language; the most frequent word order pattern is SVO, but its general, unmarked word order pattern is VOS (Senft 1986). The Austronesian languages spoken in Milne Bay Province are grouped into 12 language families; one of them is labeled Kilivila. The Kilivila language family encompasses the languages Budibud (or Nada, with about 200 speakers living on Budibud Island), Muyuw (or Murua, with about 4,000 speakers living on

Woodlark Island) and Kilivila (or Kiriwina, Boyowa, with about 28,000 speakers; but see below). Kilivila is spoken on the islands Kiriwina, Vakuta, Kitava, Kaile'una, Kuiuwa, Munuwata and Simsim. The languages Muyuw and Kilivila are split into mutually understandable local dialects. Typologically, Kilivila is classified as a Western Melanesian Oceanic language belonging to the Papuan-Tip-Cluster group (Senft 1986: 6).

Climate and demographic change experienced between 1982 and 2012

As mentioned above, from the mid-1990s on the dry season was more and more interrupted by rains that in the course of time became heavier and heavier. This was an additional challenge to me and my equipment, like for example my solar cells which provided the energy necessary to run my laptop, my video-camera and my tape-recorders. It was also a challenge for the sun which could no longer bleach coral stone walls any more, walls which were full of moss, lichen and other plants providing a nice biotope for many smaller and some bigger insects. But it was a disaster for the Trobriand Islanders' gardens because yam seedlings and taro plants started to rot away in a soil much too wet and in many places even swampy. This resulted in bad harvests that over the years became so bad that they have been endangering food security on the Trobriand Islands – islands that formerly had been famous for their surplus production of garden products, especially yams. Based on a study by Jane Nancy O'Sullivan which was published in 2008, Michelle MacCarthy pointed out that

[o]n Kiriwina, the proportion of yams used for gifts or communal meals (feasts) is estimated from survey data at 60-80 percent, with relatively little retained for personal use (...). When necessity demands it, however, it can also be treated as a commodity (...). On average about 5-10 percent of an annual harvest will be sold (2012: 137).

I will come back to this point below. However, I first want to mention that there has been yet another heavy blow to food security on the Trobriand Islands, namely overpopulation.

When I started my field research in 1982, Tauwema had 239 inhabitants. In 1989 my wife and I counted 277 inhabitants. Fifteen years later 550 people lived in Tauwema and in 2012 the village had more than 620 inhabitants. This means that there was an increase in the village population of 258 % within 30 years. This demographic observation is supported by data on the increase of population on all of the Trobriand Islands. In 2008 it was officially announced that 28,784 people live on 321 ha land.⁴ However, an unofficial estimate which is based on the 2010 PNG census mentions approximately 40,000 inhabitants on the Trobriand Islands.

This population explosion is not just a local, but a nationwide phenomenon: The first official PNG census from 1970 lists a population of 2.2 million people. The *Post Courier*, one of the national newspapers of PNG, came out on the 4th of April 2012 with the headline: "Population of PNG is more than 7 million." This means that there was an almost threefold increase in the national population within 40 years (see Kenneth 2012; see also Jarillo de la Torre 2013: 186).

But back to the Trobriand Islands and to reasons for the overpopulation there. First of all, there was a decline in infant mortality on the islands, despite the fact that ever since 1982 the medical care on the Trobriand Islands has been very basic (to say the least). The increase of the island population is also due to the abandonment of the traditional *post partum* sex taboo which prescribed sexual abstinence for mothers until their children could walk (Malinowski 1929: 197).

However, I assume that the most important reason for the present overpopulation is the fact that the Trobriand Islanders neither use traditional forms of family planning anymore, nor do they use modern contraceptives, mainly due to the fact that they are not regularly available everywhere. Traditional forms of family planning do not play any role whatsoever these days, because the local Trobriand missionaries, the "*misinari*" finally won their fight against the "*tomegwa*" – the magicians who knew the recipe for making a contraceptive from a mixture of herbs (for details see Senft 2011: 33-34).

The Trobriand Islanders' society was strictly hierarchically differentiated into four clans. Members of the two lower clans had no chance to exert political influence on societal life on the islands. However, in recent years local missionaries, priests or catechists (*misinari*) have gained more and more status. Most of these *misinari* are members of the two lower clans with little prestige. Magicians are the antagonists of the

misinari. Since 1989 the *misinari* have been pointing out that there are two ways for living one's life: either the traditional Trobriand life with its beliefs in magic and in the spirits of the dead, or the life with "Yesu Keriso" – with Jesus Christ – as a faithful member of (one of) his church(es). These ways were said to be mutually exclusive. This resulted in tensions in families, especially when the husband was a magician and the wife a catechist (or vice versa). The increasing influence of the *misinari* is responsible for the fact that magicians (be they men or women) have lost their political and societal influence. The respect for their magical abilities and their knowledge of the magic with which the Trobriand Islanders formerly believed to control nature, their environment and their society was lost. The magicians, having lost their influence and status in the Trobriand society, could not find apprentices anymore and their maternal relatives were no longer interested in inheriting their skills. Thus, their knowledge, including their biomedical knowledge was lost (see Senft 1997, 2010).

The social and cultural impact of these changes for the Trobriand Islanders

The Trobriand archipelago consists of islands. The Trobriand Islanders are gardeners. The land mass available for gardens is finite. The more people living on the Trobriand Islands the less land is available for gardening. It is obvious that these insights are trivial, but they have terribly severe consequences.

Ever since the turn of the century the bush has been cultivated much more often than before. The fallow period after the slash and burn cultivation to turn bushland into garden land which was then used for two or three years dropped dramatically from six years or more to three or, especially on Kiriwina, even to two years (see Risimeri 2000; O'Sullivan 2008, 2010; MacCarthy 2012; Jarillo de la Torre 2013). This resulted in an impoverishment of soil fertility with the consequence not only of poorer harvests, but also of deforestation. In the long run, this deforestation will result in a shortage of wood, one of the important, if not the most essential resource for the Trobriand Islanders. Wood and timber are not only used as building materials for houses, yams houses,

garden sheds, canoes, paddles, masts, tools, furniture and what have you, but also as firewood.

In addition, there has been an obvious rise of the sea level, and the stronger and heavier breakers at high tide have already washed away many sandy beaches like the one of Tauwema, leaving nothing more than the naked coral stone.

Now what about the social and cultural impact of all these dramatic changes for the Trobriand Islanders? Ever since Malinowski we know that

[t]aytu, the staple food, is to the natives *kaulo*, a vegetable food par excellence, and it comes into prominence at harvest and after. This is the sheet-anchor of prosperity, the symbol of plenty, *malia*, and the main source for native wealth (1935: 81).

Annette Weiner pointed out that

[t]he small *taytu* yam is both the basic subsistence food and the principal object of exchange. Yams in the latter category open the way to all other avenues of resource control. Kiriwina informants say, "If a man has yams, he can find anything else needed" (1976: 137).

This observation is impressively confirmed by MacCarthy (2012) and O'Sullivan (2008: 51 and 55), quoted above. And Jarillo de la Torre concisely summarizes the importance of yams as follows:

As is well known, yams in the Trobriand Islands are not only food. They are mostly items of wealth and power (Weiner 1988: 95-96) laden with symbolism (Mosko 2009), associated to magic (Malinowski 1935: 153-154) and instrumental in underlining the social hierarchies and the value of individuals, clans and villages (Malinowski 1929: 442-443) (2013: 159).

The actual fabric of the Trobriand Islanders' social construction of reality (Berger and Luckmann 1966) was YAMS. They played the most prominent role in food exchange rituals, for example, in mourning rituals (Senft 1985) or in communal meals initiated by chiefs or other men of rank as gifts for their fellow villagers as a payment for their support in, e.g. the construction of a new *kula* canoe (see Senft 2016). These yam exchanges had an important bonding function not only for kinspeople,

but also for fellow villagers who were members of other clans. Yams were the Trobriand valuta; even the paramount chief had to pay for everything he wanted like, e.g. a new yamshouse, a canoe, or a new village playground with yams.

With the present food security problems that led to a severe food shortage in 2008 which made Trobriand Islanders eat up many of their yams seedlings, which in turn resulted in an even worse food shortage problem in 2009, yams have lost their importance (see MacCarthy 2012: 141f.).

According to MacCarthy (2012), Jarillo de la Torre (2013: 17-23) and O'Sullivan (2008) the fact that yams on the Trobriand Islands have been losing their cultural impact in recent years has already had and continues to have severe consequences for the Trobriand Islanders' social construction of reality – at least on Kiriwina Island:

- Traditional ceremonies lose their importance.
- People steal yams, taro and other crops from the gardens, thus breaking a very severe taboo of old.
- People lose their interest in and their feelings of responsibility for their community.
- People rely more and more on their churches for things that the government and the chiefs of their villages cannot provide any more. They participate more in church activities, which unfortunately also keep them away from their gardens.
- The chiefs lose influence and power, having lost their yams valuta.
- People lose their interest in their gardens and in gardening because of a lack of available garden land and seeds as well as because of a lack of trust in the government and in the chiefs.
- There is a growing reliance on food, especially rice, that can be bought in the stores on the Trobriand Islands.
- The Trobriand Islanders are experiencing a dramatic and fatal loss of pride, self-respect and respect in their culture and tradition.

During my last field trip in 2012 I could not observe such food shortage problems and its consequences on Kaile'una Island, at least not in the villages Tauwema, Koma, Giwa and Kaduwaga. But according to Jarillo de la Torre (2013: 156) the death of a villager in Kaisiga was "followed

by only one-off distribution of food” instead of many mortuary rites with many ceremonial food distributions. For Jarillo de la Torre this is the result of food shortage problems in the two villages in the south of Kaile’una, Kaisiga and Bulakwa. I am sure that these food problems will sooner or later reach all the other islands of the Trobriand archipelago – with all the dramatic consequences for the Trobriand Islanders’ custom and culture mentioned above. The photographic evidence of the environmental and climate change which I presented in 2014 in a PowerPoint presentation on this topic (Senft 2014) confirms this pessimism. It seems that soon a full yams house will be a rather rare and quite amazing sight on the Trobriand Islands – and MacCarthy’s (2012:146) prediction that “the empty yam house” will be a common feature of the Trobriand landscape will come true...

In lieu of concluding remarks

for the times
they are a-changin’

The line it is drawn
The curse it is cast
The slow one now
Will later be fast
As the present now
Will later be past
The order is
Rapidly fadin’
(Bob Dylan)

Notes

- 1 This paper is dedicated to my old friend and dear colleague Jürg Wassmann.
- 2 The applicants for this research project which was funded by the German Research Society (DFG) were Irenäus Eibl-Eibesfeldt, Volker Heeschen and Wulf Schiefenhövel. The team that did field research on the Trobriand Islands over different periods of time consisted of the anthropologist Ingrid Bell-Krannhals, the ethologist Irenäus Eibl-Eibesfeldt, the medical anthropologist Wulf Schiefenhövel and me. In 1983 my wife joined our team and lived with me on the Trobriand Islands. Our village of residence was Tauwema on Kaile’una Island.

- 3 After my long-term field trips in 1982 and 1983 I continued to do field research (which was sponsored by another DFG grant) in 1989 and stayed with my family for 4 months in Tauwema. In 1991 I left the MPI in Seewiesen and joined Stephen Levinson's Cognitive Anthropology Research Group (now the Department of Language and Cognition) at the MPI for Psycholinguistics in Nijmegen and continued to do field research on the Trobriand Islands in 1992 (3 months), 1993 (2 months), 1994 (2 months), 1995 (2 months), 1996 (2 months), 1997 (2 months), 1998 (2 months), 2001 (2 months), 2003 (1 month), 2004 (2 months), 2006 (1 month), 2008 (2 months) and 2012 (2 months). Besides the DFG and the Max Planck Society who financed my research, I want to thank the National and Provincial Governments in Papua New Guinea, the Institute for PNG Studies – especially Don Niles, and the National Research Institute – especially James Robins, for their assistance with and permission for my research projects. I express my great gratitude to the people of the Trobriand Islands, and above all the inhabitants of Tauwema and my consultants for their hospitality, friendship, and patient cooperation over all these years. Without their help, none of my work on the Kilivila language and the Trobriand culture would have been possible.
- 4 These data were displayed on a sign in front of the island administration in Losuia on Kiriwina Island.

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