

The Coral Gardens are losing their Magic: The social impact of climate change and overpopulation for the Trobriand Islanders



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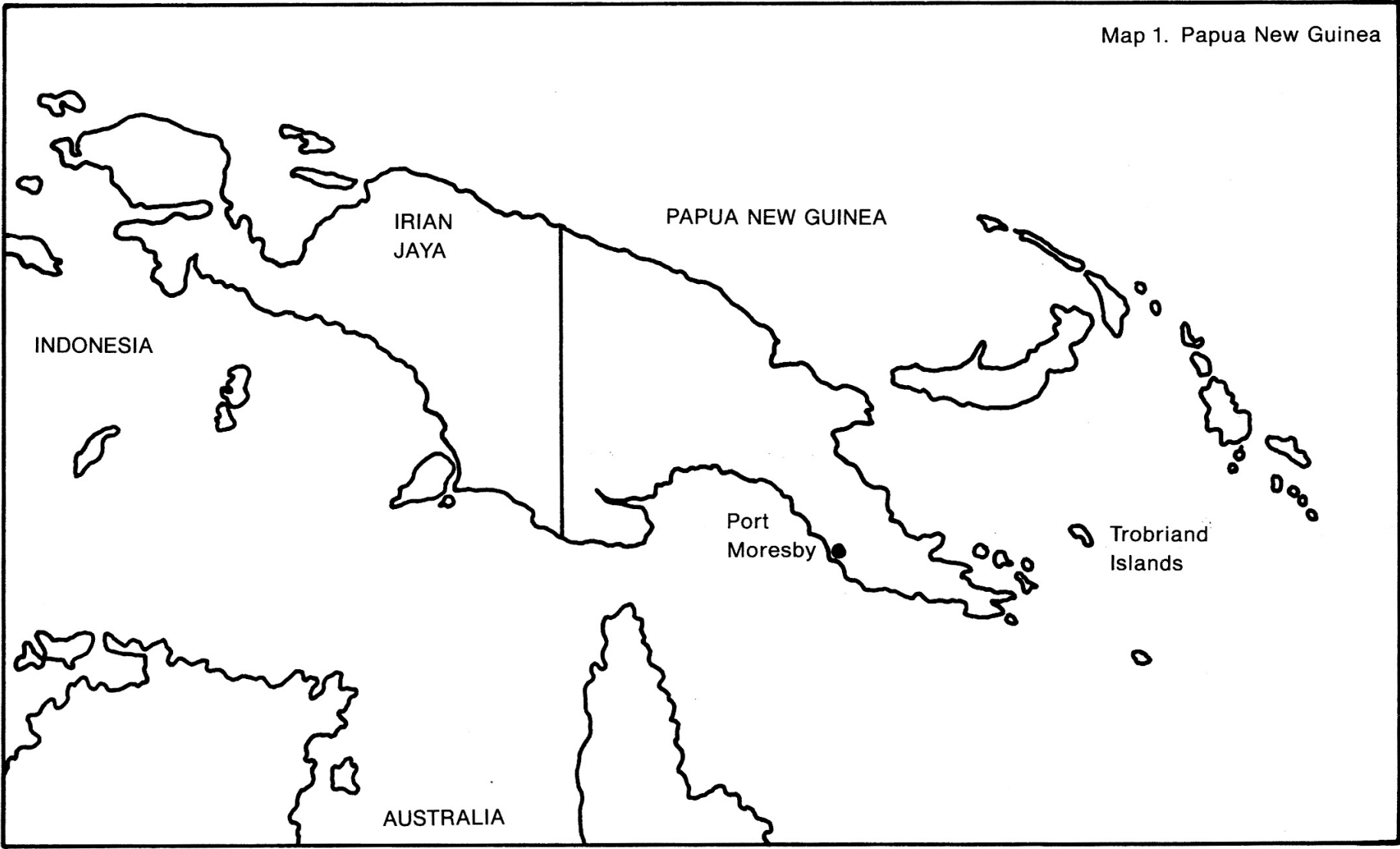
This talk deals with dramatic environmental and social changes on the Trobriand Islands in Papua New Guinea (PNG)

–

which I experienced during 16 long- and short-term fieldtrips from 1982 to 2012.

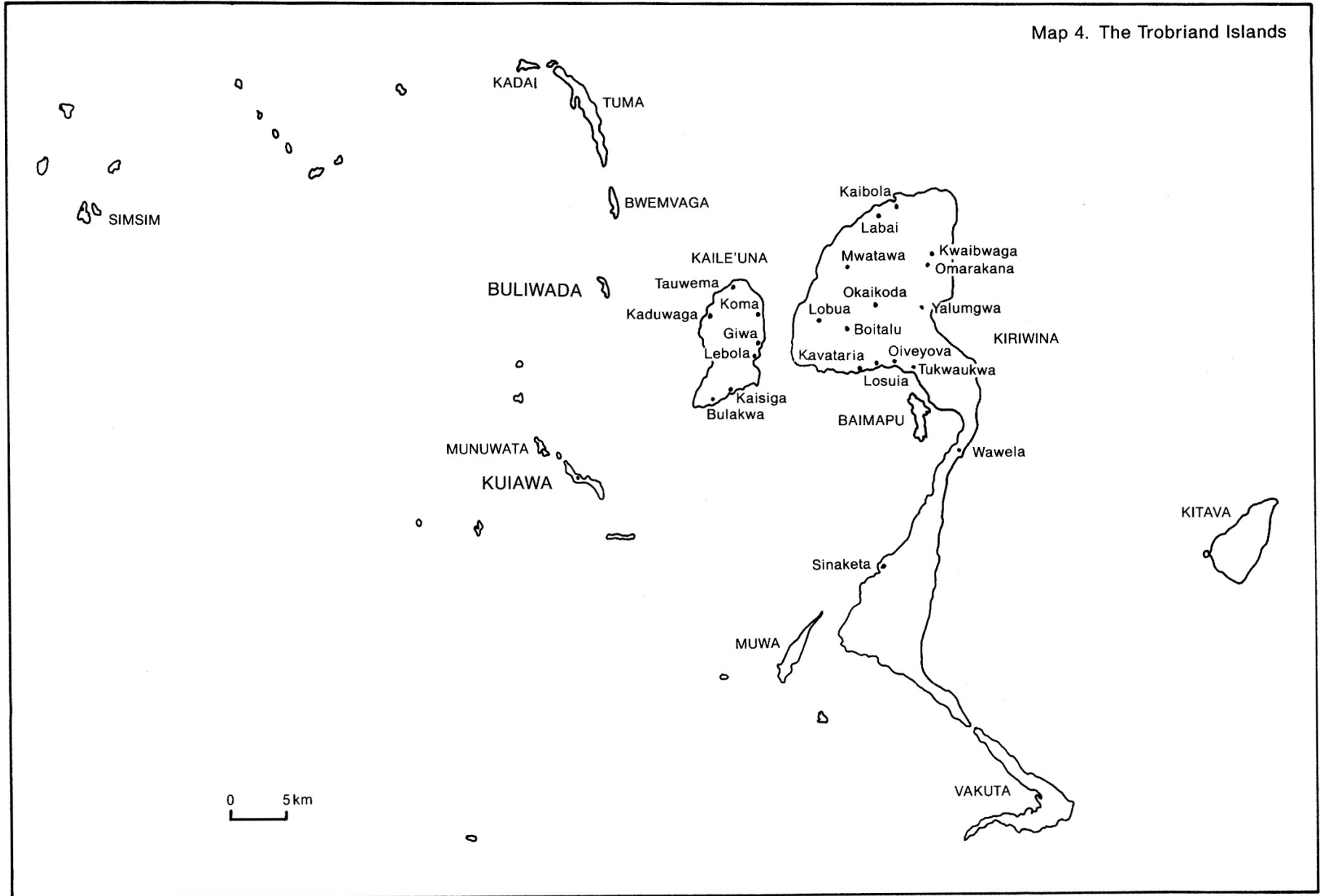
- I first report about the climate change I experienced there over the years,
- then I provide a survey about the demographic changes on the Trobriands – highlighting the situation in Tauwema, my village of residence on Kaile'una Island, and
- finally I report on the social impact these dramatic changes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

Map 1. Papua New Guinea



Thanks to Barbara Senft for drawing this and the next map.

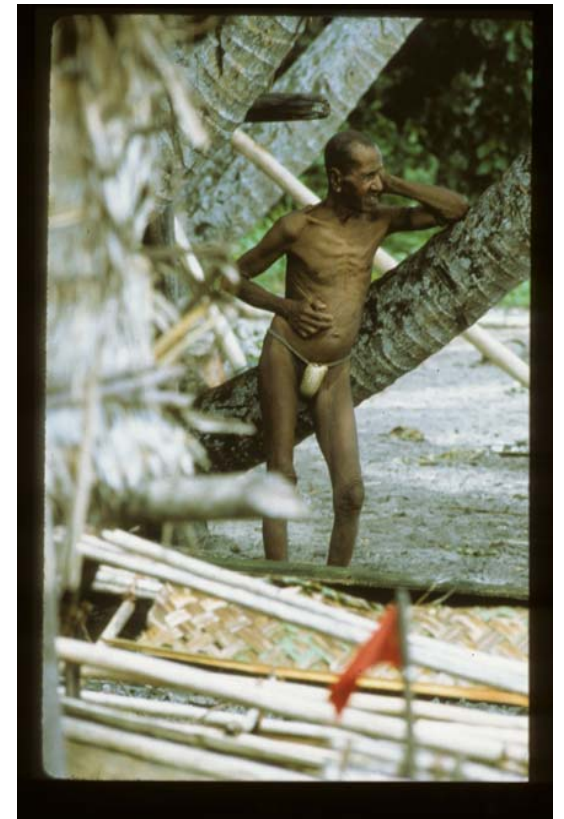
The Trobriand Islands, Milne Bay Province, Papua New Guinea.



Trobriand Islanders and their language:

North-Massim; gardeners, slash and burn cultivation; excellent carvers, canoe builders and navigators; matrilineal, but virilocal;

Language: Kilivila: Austronesian, West-Melanesian Oceanic
Papuan Tip Cluster



Tauwema



When I first set foot on the Trobs in 1982 I had the quite romantic feeling that I was stepping right into the picture so vividly presented in Malinowski's ethnographic masterpieces.

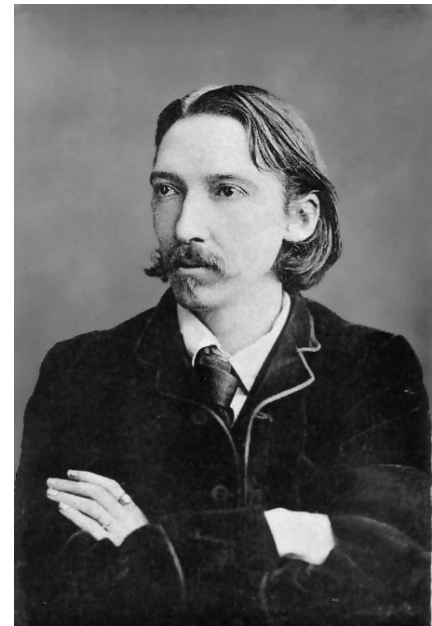
And having arrived in Tauwema village on Kaile'una Island I thought I had entered more of a kind of South-Seas cliché than actual reality.



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.

(Stevenson 1896: 6)



Field trips:

1982 (5 months)

1983 (10 months)

1989 (4 months)

3 (19 months)

2001 (2 months)

2003 (1 month)

2004 (2 months)

2006 (1 month)

2008 (2 months)

5

(10 months)

1992 (3 months)

1993 (2 months)

1994 (2 months)

1995 (2 months)

1996 (2 months)

1997 (2 months)

1998 (2 months)

7 (15 months)

2012 (2 months)

1

My first two field trips to the Trobs:

Juli – December 1982

6 weeks break

January – November 1983

During these two long-term field trips we experienced life on a South Sea island – with its dry and rainy season.

In the rainy season it really rained cats and dogs and the humidity was paramount.

The dry season was often quite hot, but with the trade winds blowing, life was quite convenient.

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 already foreshadowed in the mid 1990s...):



Heavy rains in June 2012

This was a challenge to my equipment –
like, e.g., my solar cells,



or to the sun which could no longer bleach coral stone walls any more and which are now full of moss, lichen and other plants,



but it was a DISASTER
for the Trobriand gardens:

because yams and taro plants,
especially seedlings
rot away
in a soil much too wet
and now often even swampy.

Harvests like this one in 1982 are now

just sweet memories of the past...



However, there is yet another heavy blow on
FOOD SECURITY
on the Trobriands, a security already
ENDANGERED
because of another reason ...

namely: OVERPOPULATION



Population explosion in Tauwema:

1982: 239 inhabitants

1989: 277 inhabitants

2004: 550 inhabitants

2012: \approx 620 inhabitants

= 258 %



Tauwema 1982



Tauwema 1998

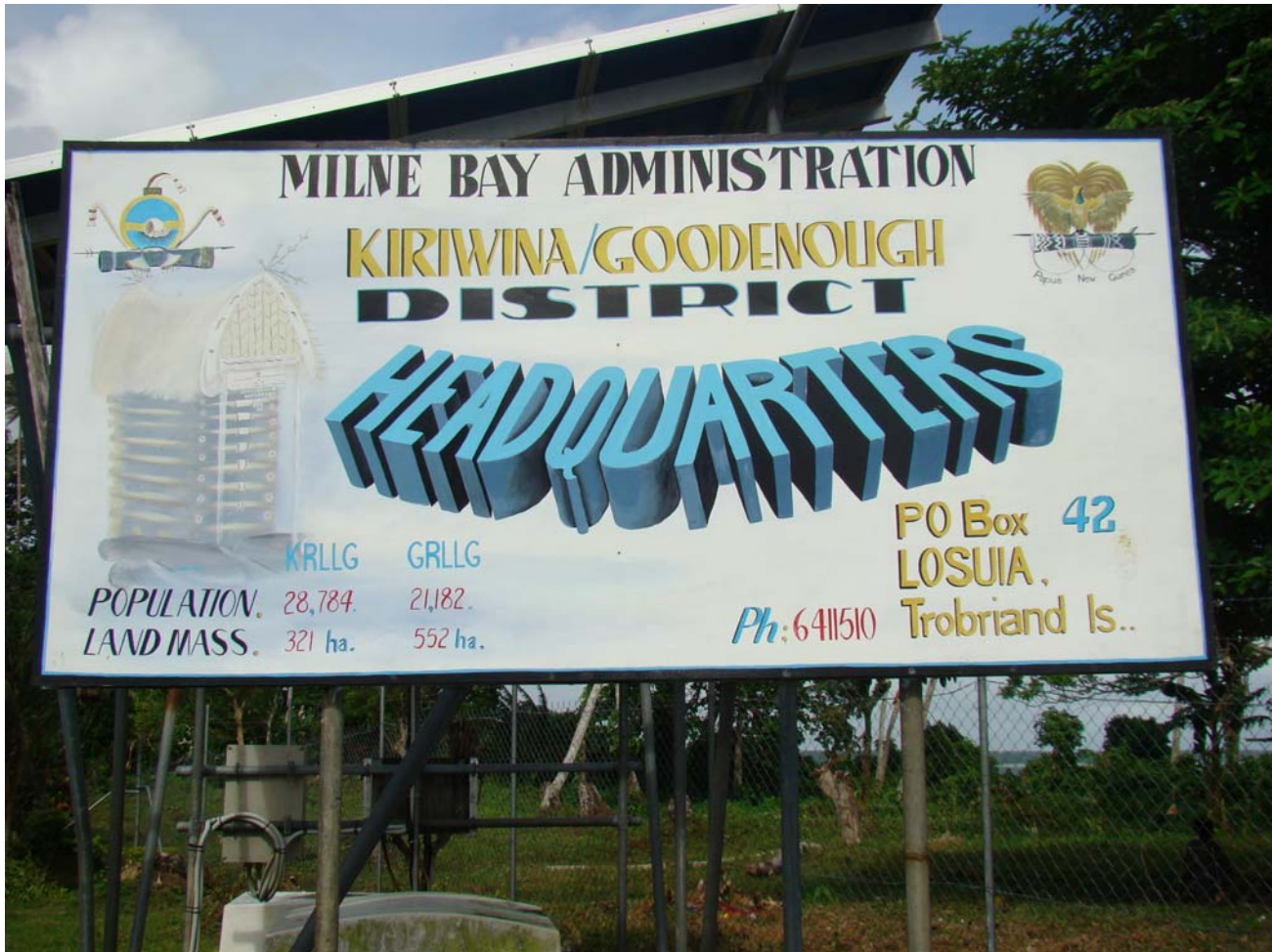
Data for all Trobriand Islands:

2008 officially announced:

28,784 people on 321 ha land

unofficial estimate based on the 2010 census:

≈ 40,000 people



(Jarillo de la Torre 2013: 18)

This population explosion is not just a local,
but a nationwide phenomenon:

1st official PNG census:
1970:
2,2 million people

4. 04. 2012:
PNG Post Courier
headline:



“Population of PNG is more than 7 million“

≈ threefold increase in 40 years!

(see Kenneth 2012; Jarillo de la Torre 2013: 186)

But back to the Trobriands

and to reasons for the overpopulation there:

- decline in infant mortality,
- abandonment of sexual abstinence for mothers until their children can walk and
- no traditional forms of family planning used anymore –

due to the fact that the local Trobriand missionaries finally won their fight against the “*tomegwa*” – the magicians who knew the recipe for making a contraception from a mixture of herbs (for details see Senft 2011: 33f.).

The magicians – losing their influence and status in the Trobriand society – did not find apprentices anymore and their maternal relatives were no longer interested in inheriting their skills. Thus, their knowledge got lost.

The impact of the climate change and overpopulation:

Trivial insights with severe consequences:

- The Trobriand archipelago consists of islands.
- The Trobrianders are gardeners.
- The land mass available for gardens is finite.
- The more people living on the Trobs the less land is available for gardening.

Consequence: The bush is cultivated more often than before:

the fallow period in the slash-and-burn cultivation dropped from 6+ years to 3 or even 2 years

with the results of:

- impoverished soil fertility
=> poorer harvests

and ...

(see also: Jarillo de la Torre 2013; MacCarthy 2012; O'Sullivan 2008, 2010; Risimeri 2000)

- DEFORESTATION



Gardens

<= in the 1980s

and in the recent past =>



Gardens



<= in the 1980s

and in the recent past =>



Gardens



<= in the 1980s

and in the recent past =>



The deforestation will result in shortage of wood –
an essential resource for the Trobrianders!

... as firewood



and building material
for houses, canoes, etc..



Another obvious change is the RISE OF SEA-LEVEL

(note how far towards the village canoes have to be pulled to make sure that the high tide won't wash them away; the canoe on the right photo which is half on the beach has just arrived and isn't stored away properly yet)



and heavier breakers at high tide which washed away parts of the sandy beach of Tauwema ...



What about the social and cultural impact of these changes?

The role of yams for the Trobriand Islanders:

Taytu, the staple food, is to the natives *kaulo*, 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.

(Malinowski 1935: 81)

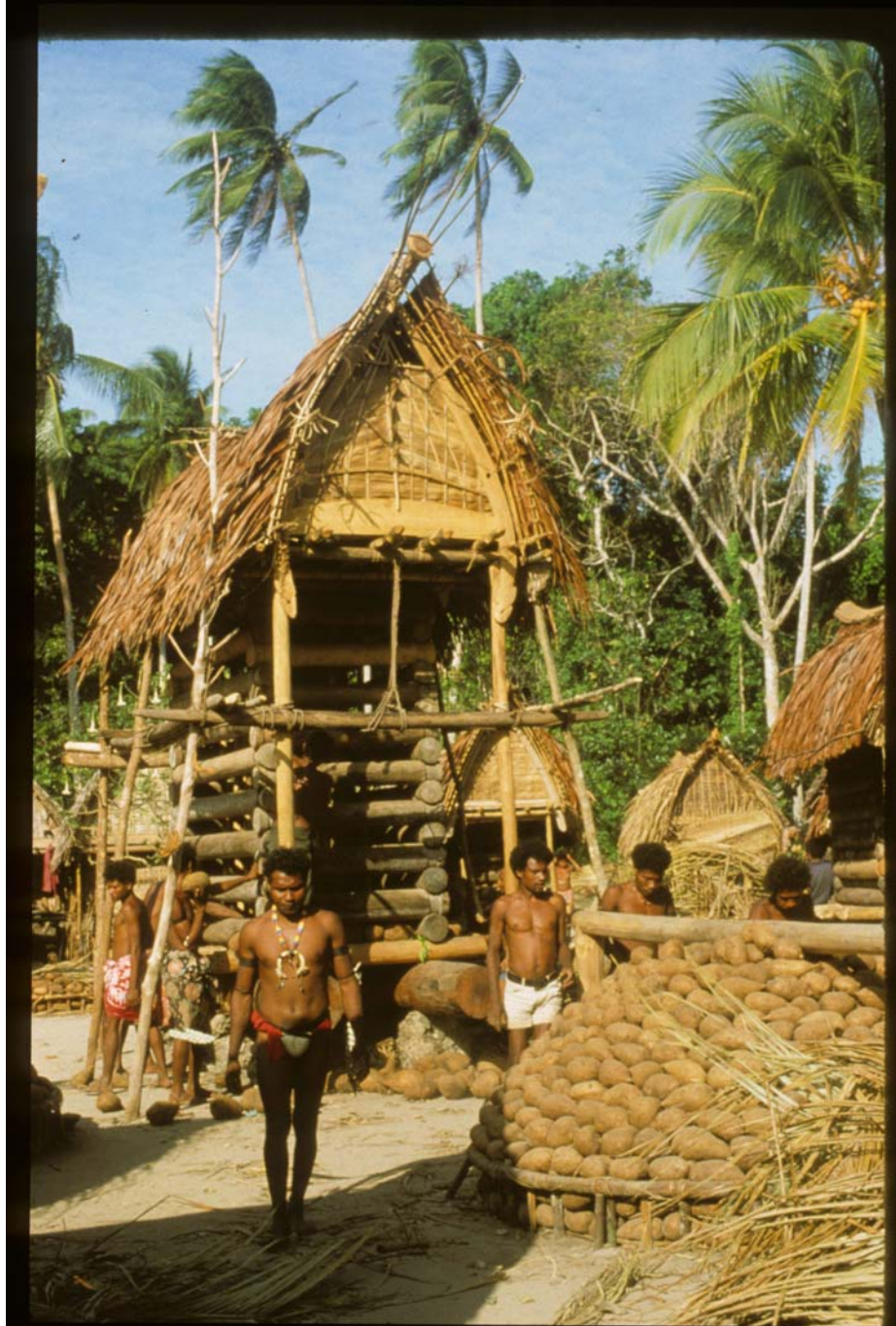
... the production of yams is firmly grounded in the male domain. The small *taytu* yam is both the basic subsistence food and the principal object of exchange. Yams in the latter category open the way to all other avenues of resource control. Kiriwina informants say, "If a man has yams, he can find anything else needed".

(Weiner 1976: 137)

Michelle MacCarthy – based on O’Sullivan (2008: 51 & 55) points out:

“On 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“ (MacCarthy 2012: 137).

MacCarthy did 18 months of fieldwork on Kiriwina in Yalumgwa, 2009-2010.



And another young colleague, Sergio Jarillo de la Torre, who recently (December 2008-June 2010) did field-research on Kiriwina (also in Yalumgwa) points out:

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).

(Jarillo de la Torre 2013: 159)



The actual fabric of the Trobriand Islanders' social construction of reality was YAMS.

It played the most prominent role in food exchange rituals, e.g., in mourning rituals or in communal meals initiated by chiefs or other men of rank as gifts for their fellow villagers as a payment for their support, e.g., in the construction of a new *kula* canoe.

These yams exchanges had an important bonding function not only for kinspeople, but also for fellow-villagers who were members of other clans.

Yams was the Trobriand valuta –

even the paramount chief had to pay with it for everything he wanted – like, e.g., a new yamshouse, a canoe, or a new village playground...



Communal meal after a mourning ritual (*sagali*)

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

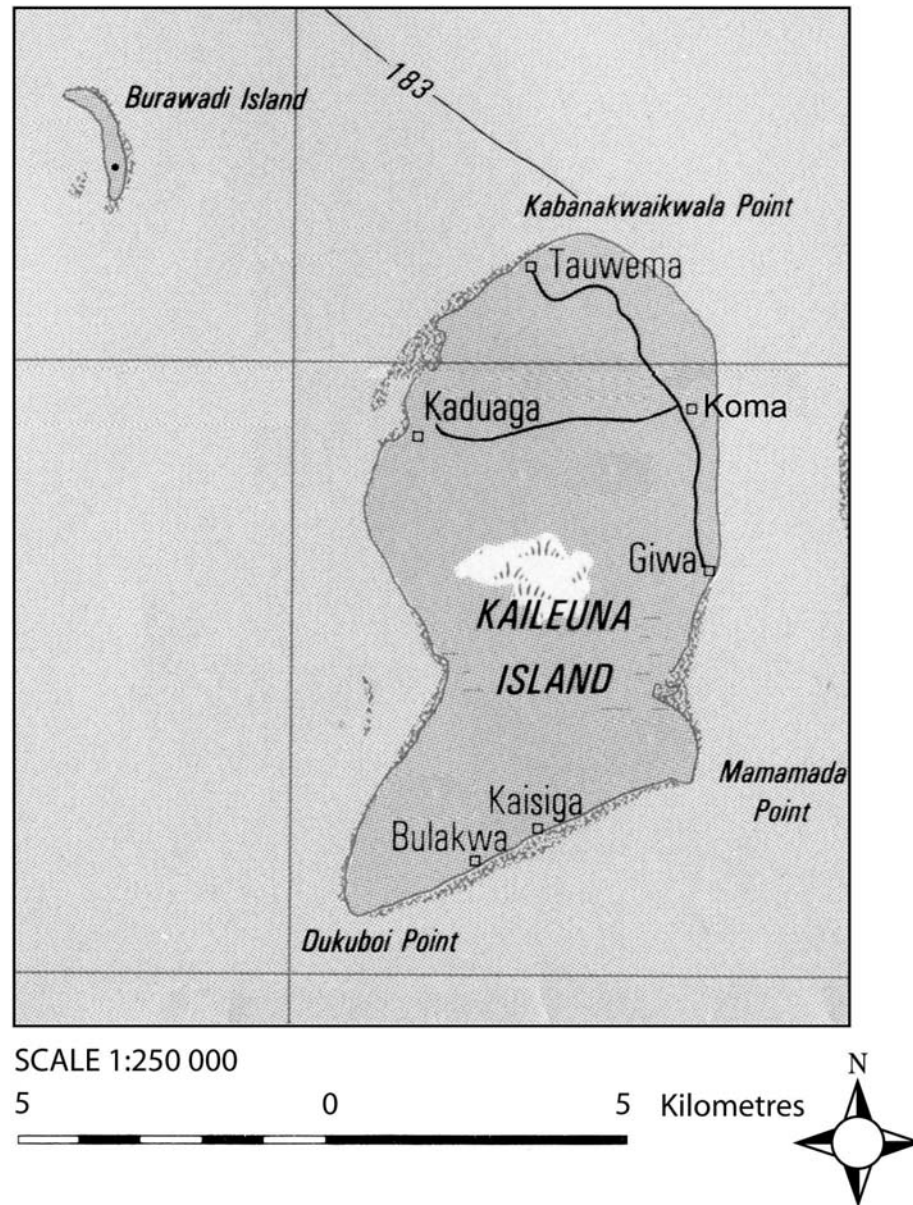


According to MacCarthy (2012), Jarillo de la Torre (2013: 17-23) and O'Sullivan (2008) the fact that yams on the Trobriands has been losing its cultural impact in the last years already had – and continues to have – severe consequences for the Trobriand Islanders' social construction of reality – at least on Kirwina 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 lack of available garden land and seeds as well as because of lack of trust in the government and in the chiefs,
- there is a growing reliance on food – especially on rice – that can be bought in the stores on the Trobriands, and
- the Trobrianders experience a dramatic and fatal loss of pride, self-respect and respect in their culture and tradition.

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 is "followed by only one-off distribution of food" instead by 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 Trobrianders' custom and culture

(as reported for Kiriwina Island by Michelle MacCarthy, Sergio Jarillo de la Torre and Jane Nancy O'Sullivan).

The evidence of the environmental and climate change I have presented here confirms this pessimism.

It seems that soon a full yams house will be a rather rare and quite amazing sight on the Trobriands ...



and MacCarthy's (2012:146) prediction that "the empty yam house" will be a common feature of the Trobriand landscape will come true...





Thank you!

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