

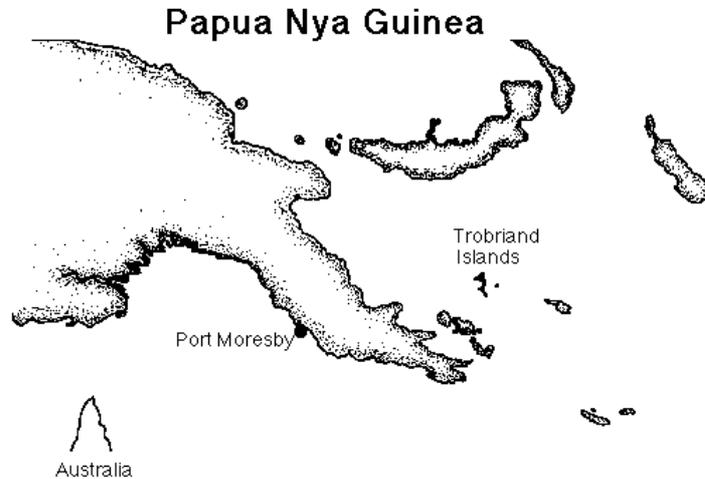
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## The Kitava Study

During an inventory in 1989, we found what appears to be one of the last populations on Earth with dietary habits matching what would have been the case for the population of *Homo sapiens* in their original habitats on the island of Kitava, one of the Trobriand Islands in Papua New Guinea's archipelago. The Trobriander people have been thoroughly studied by social anthropologists and human ethnologists such as Malinowski, Powell, Weiner and Schiefenhövel [1-20], but medical reports have been few [21, 22].

### No indications of coronary heart disease

We noted a lack of sudden cardiac death and exertion-related retrosternal chest pain among Kitava's 2,300 inhabitants (6% of which were 60-95 years old), as well as among the remaining 23,000 people on the Trobriand Islands [23, 24].



Despite a fair number of older residents, none of whom showed signs of dementia or poor memory, the only cases of sudden death the residents could recall were accidents such as drowning or falling from a coconut tree. Homicide also occurred, often during conflicts over land or mates. Infections (primarily malaria), accidents, pregnancy complications, and old age were the dominant causes of death, which is in agreement with findings among other similar populations. Child mortality from malaria and other infections was relatively high, and the average lifespan was around 45 years. The remaining life expectancy at 45 years of age is more difficult to determine, but may be similar to Swedish figures. The number of people examined with an EKG was too small ( $n = 171$ ) to be able to draw clear conclusions, but when combined with two similar studies of traditional Melanesian populations, the EKG findings provided additional support for the lack of ischaemic heart disease in the area [25, 26].

Our age estimates were based on known historical events: (1) The arrival of Cyril Cameron, a white man from Tasmania, who established a coconut farm in 1912 and remained on the island until his death, (2) American and Australian military occupation of the area during World War II from 1942-43, (3) The founding of an elementary school in 1962, and (4) Cameron's death and burial on the island in 1966. Everyone above 35 years of age could clearly remember one or more of these events, and their personal experience matched information from relatives and friends. The oldest living person during the survey was a 96 year-old woman, and during a previous visit a vital 100 year-old man was interviewed.

There is no evidence to suggest that the people who died before the age of 60 are the ones who would have otherwise suffered from cardiovascular disease. Although bacterial infections are discussed as possible (co)factors in atherosclerosis, infections which can be treated with antibiotics, the idea that present use of antibiotics in western societies would effectively prevent ischaemic heart disease before the age of 60 is not plausible considering the remarkably high prevalence of atherosclerosis in this part of the world (see Chapter 4.3). Furthermore, our findings cannot be explained by positing that the truth has not been exposed. The most serious diseases that actually did occur were described carefully and in an identical manner for each of the various villages. This afforded us some measure of quality control.

The elderly residents of Kitava generally remain quite active up until the very end, when they begin to suffer fatigue for a few days and then die from what appears to be an infection or some type of rapid degeneration. Although this is seen in western societies, it is relatively rare in elderly vital people. The quality of life among the oldest residents thus appeared to be good in the Trobriand Islands.

The main results of the Kitava study, that there is no ischaemic heart disease (and no stroke, see Chapter 4.2), are unanimously confirmed by medical experts with knowledge of the Trobriand Islands or other parts of Melanesia. Likewise, Jüptner noted no cases of angina pectoris, myocardial infarction or sudden death during his 5 years as a provincial doctor on the islands at the beginning of the 1960s, when the population was roughly 12,000. (Jüptner H, unpublished data). His experience is based partly on patients that visited him due to illness, and partly from systematic health examinations given in all the different villages at three separate times. The same observation was made by Schiefenhövel, physician and human ethnologist from the Max Planck Institute in Munich (Schiefenhövel W, unpublished data). He can speak the language of the Trobrianders, Kiriwina, and has his own hut on Kaileuna, one of the Trobriand Islands, where he examined close to 3,000 patients during his repeated visits over the course of close to 15 years. Like Jüptner, he is very familiar with the nature of cardiovascular disease and did not see any cases of the disease.

The residents of Kitava lived exclusively on root vegetables (yam, sweet potato, taro, tapioca), fruit (banana, papaya, pineapple, mango, guava, water melon, pumpkin), vegetables, fish and coconuts [27-29]. Less than 0.2% of the caloric intake came from Western food, such as edible fats, dairy products, sugar, cereals, and alcohol, compared with roughly 75% in Sweden [30]. The intake of vitamins, minerals and soluble fibre was therefore very high, while the total fat consumption was low, about 20 E% [28], as was the intake of salt (40-50 mmol Na/10 MJ compared with 100-250 in Sweden). Due to the high level of coconut consumption, saturated fat made up an equally large portion of the overall caloric intake as is the case in Sweden. However, lauric acid was the dominant dietary saturated fatty acid as opposed to palmitic acid in Sweden. Malnutrition and famine did not seem to occur.

#### Coming up:

No indications of stroke, diabetes, dementia or congestive heart failure  
 No overweight  
 Excellent blood pressure  
 No acne  
 And more

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