

## IV

## PHYSICAL ANTHROPOLOGY AND DEMOGRAPHY

IV.1. *Physical Anthropology*

As general introductions to subjects relating to the racial history of the Western Pacific and the Indonesian archipelago Jacob (1967) and Bullwood (1980) are recommended. An introduction to the anthropobiology of the Irian people is presented by Simmons et al. (1967, 1971) and Gajdušek et al. (1978). More specific anthropobiological research data from Irian may be found in Meyer (1875-78), Van der Sande (1907), Koch (1908), Van den Broek (1913, 1915a, 1915b, 1918), Pycraft (1916), Bijlmer (1922, 1928a, 1928b, 1935, 1939), Wirz (1923-25, 1924, 1926), Kleiweg de Zwaan (1928, 1932, 1933a, 1933b, 1935, 1942, 1956), Kleiweg de Zwaan and Van Bork-Felkamp (1938), Bos (1935), Brouwer (1939), Hambly (1940), Graydon et al. (1958), and Nijenhuis (1961).

IV.2. *Demography*

By far the best and most elaborate study on the demography of Irian is Groenewegen and Van de Kaa (1964-67). The report is based on three years' extensive field research in six different regions: Schouten Islands, Numfor, Lower Waropen, Nimboran, Fakfak, and Muyu, covering some 79,000 individuals. Research in two more areas had been planned but could not be conducted because of the Indonesian intervention in 1962. All the same, we are indebted to the team for a considerable amount of data, and to its leaders, the authors of the report, for a well considered analysis of the facts.

The first time Papuan demography received public attention was in 1919, when the R.C. missionary Vertenten was summoned to Batavia because of his alarming press reports claiming that the population of South New Guinea was dying out. This resulted in an anti-venereal granulome campaign in the area. The campaign was successful, but the demographic situation of the area ever afterwards continued to draw attention (Sitanela 1926, Van Baal 1934 and 1939, Boldingh 1951-52).

The scientific demographic study of Irian began with the research of the so-called 'Depopulation Team' into the causes of depopulation among the Marind-anim. On this project see Rapport Bevolkingsonderzoek (1958), Kooijman (1959), and McArthur (1968). Copies of the Rapport Bevolkingsonderzoek are rare but may be consulted at the Rijksmuseum voor Volkenkunde at Leiden, and at the SWO (Social Science Research) department of the Royal Tropical Institute at Amsterdam. The researches of the 'Depopulation Team' had a stimulating effect on the activities of some of the medical officers in the area, such as Van der Hoeven (1956a, 1956b, 1956c), and Voors and Metselaar (1958).

The interest in demographical problems culminated in the researches

of Groenewegen and Van de Kaa (1964-67). On this point see also: Zwart (1965) and Van de Kaa (1967, 1970). Since, a new census has been taken, namely in 1971 (Sensus penduduk 1971). Unfortunately the results of this census have not yet been analyzed.

Meanwhile, many of the old problems remain. One of these is the masculinization of the sex ratio in situations of population decline, first reported by Van Baal (1939) and since reconfirmed by Oosterwal (1959).

There are other problems besides, such as that of 11,000 years of human exploitation of the sub-alpine areas near the Jayawijaya Mountains discussed by Hope (1977). It forms but part of a more comprehensive problem, that of the high population density in the highlands and the low one in the lowlands, where endemic malaria has for generations caused a continuing decrease in numbers. We may take it for granted that for a long time the gaps were filled by migrants descending from the mountains, a movement that is still continuing today. Yet there are indications that since about the end of the 18th century this descent of mountain dwellers has slowed down significantly, with an increasing depopulation of part of the lowlands as a result. The Lake Plain, the Etna Bay hinterland and the southeastern lowlands are cases in point. Insufficient attention has been given to the obvious possibility that the halt in highland emigration may have been caused by the introduction of ipomoea batatas to the highlands. Batatas thrive at altitudes of up to 2,000 metres, a circumstance which opened a probably welcome opportunity of occupying more elevated highland regions where taro, the original food crop of the highlanders, does not grow.

IV.3. *Bibliography*

- Baal, J. van  
1934 Godsdienst en Samenleving in Nederlandsch-Zuid-Nieuw-Guinea, Amsterdam: Noord-Hollandsche, pp. 11-14.  
1939 'De bevolking van Zuid-Nieuw-Guinea onder Nederlandsch Bestuur, 36 Jaren', TBG 79:309-414 (pp. 351-69).
- Boldingh, L.G.  
1951-52 'Bevolkingcijfers van Zuid-Nieuw-Guinea', Indonesië 5:41-72, 167-85.
- Bos, H.C.  
1935 Bijdrage tot de anthropologie van de bevolking der Schouten-eilanden, Rotterdam: De Bont, 186 pp., Diss. Amsterdam.
- Broek, A. J.P. van den  
1913 'Ueber Pygmäen in Niederländisch-Süd-Neu-Guinea', ZfE 45: 23-49.  
1915a 'Untersuchungen an Schädeln aus Niederländisch-Süd-West-Neu-Guinea', in: Nova Guinea VII (1923), pp. 162-232, plates, tables.  
1915b 'Zur Anthropologie des Bergstammes Pesechem im Innern von Niederländisch-Neu-Guinea', in: Nova Guinea VII, (1923), pp. 233-76, plates, tables.  
1918 'Das Skelett eines Pesechem', in: Nova Guinea VII (1923), pp. 281-354. plates.

- Brouwer, D.  
1939 'Kort verslag van het medisch en anthropologisch werk in het Wissel-merengebied', TAG 56:785-91.
- Bullwood, P.S.  
1980 'The peopling of the Pacific', Scientific American 243:138-47.
- Bijlmer, H.J.T.  
1922 'Anthropological results of the Dutch Scientific Central New Guinea Expedition A<sup>0</sup> 1920, followed by an essay on the anthropology of the Papuans', in: Nova Guinea VII (1923), pp. 355-438, app., plates.
- 1928a 'The Papuan Race', Proceedings of the 3rd Pan-Pacific Science Congress 1926, Tokyo, pp. 2373-85.
- 1928b 'The Pygmy-question, more especially in relation to New Guinea and its environs', Proceedings of the 3rd Pan-Pacific Science Congress 1926, Tokyo, pp. 2390-96.
- 1935 'Bevolking van Nieuw-Guinea', in: Klein's Nieuw Guinee I, pp. 219-70.
- 1939 'Tapiro Pygmies and Pania Mountain-Papuans', Nova Guinea n.s. III:113-84.
- Gajdusek, D.C. et al.  
1978 'Genetic differentiation among populations in Western New Guinea', American Journal of Physical Anthropology 48-1:47-63.
- Graydon, J.J. et al.  
1958 'Bloodgroups in Pygmies of the Wissel-lakes in Neth. New Guinea', American Journal of Physical Anthropology n.s. 16: 149-70.
- Groenewegen, K. and D.J. van de Kaa  
1964-67 Resultaten van het demografisch onderzoek Westelijk Nieuw-Guinea (E.E.G.-Projekt 11.41.002), The Hague: Govt. Printing and Publishing Office, 6 vols, [each volume some 130 pp.].
- Hambly, W.D.  
1940 Craniometry of New Guinea, Chicago: Field Museum of Natural History, Anthropological Series 25, no. 3, 200 pp.
- Hoeven, J.A. van der  
1956a 'Possible causes of the high infant mortality in Netherlands New Guinea', DMGT 8:281-85.
- 1956b 'Some demographical data from Netherlands New Guinea', DMGT 8:303-8.
- 1956c 'Factors that might influence the unfavourable demographic situation in Netherlands New Guinea', DMGT 8:309-13.
- Hope, G.S.  
1977 'Observations on the history of human use of subalpine areas near Mt. Jaya', IBIJD 6-2:41-72.
- Jacob, T.  
1967 Some problems pertaining to the racial history of the Indonesian regions, Utrecht: Neerlandia, 162 pp., Diss. Utrecht.
- Kaa, D.J. van de  
1967 'Medical work and change in infant mortality in Western New Guinea', Papua and New Guinea Medical Journal 11-3:89-94.
- 1970 'Estimates of vital rates and future growth', New Guinea Research Bulletin 34:1-23.

- Kleiweg de Zwaan, J.P.  
1928 Schedels van Schouten-eiland, Amsterdam: Koloniaal Instituut, Mededeeling no. 9, afd. Volkenkunde no. 3.
- 1932 'Unterkiefer aus Niederländisch Neuguinea', Verslagen Koninklijke Nederlandse Akademie van Wetenschappen (Afd. Natuurkunde), 29-34.
- 1933a 'Das Tränenbein der Papua von Niederländisch Neuguinea', Verslagen Koninklijke Nederlandse Akademie van Wetenschappen 36.
- 1933b 'Das Jochbein der Papuas', Verslagen Koninklijke Nederlandse Akademie van Wetenschappen 36.
- 1935 'Das Verhältnis des Gesichtsschädels zu dem Hirnschädel sowie die Lage und Dimensionen des Schläfenbeins bei Papua- und Holländischen Schädeln', Verslagen Koninklijke Nederlandse Akademie van Wetenschappen (Afd. Natuurkunde) 34.
- 1942 De Dergvolken (anthropologisch beschouwd), Den Haag: Servire, 72 pp., Servire's encyclopaedie in monografieën no. 3.
- 1956 'The Papuans of Dutch New Guinea', Antiquity and Survival 5:321-43.
- Kleiweg de Zwaan, J.P. and A.J. van Bork-Felkamp  
1938 Enkele metingen en volumebepalingen aan Nederlandsche en Papoeasche schedels, Amsterdam: Koloniaal Instituut, 51 pp., Mededeeling no. 46, afd. Volkenkunde no. 12.
- Koch, J.W.R.  
1908 Bijdrage tot de anthropologie der bewoners van Zuidwest Nieuw-Guinea, Leiden: Brill, 46 pp., Diss. Amsterdam.
- Kooijman, S.  
1959 'Population Research Project among the Marind-anim and Jeeinan peoples in Netherlands South New Guinea; Summary of a report', NGS 3:9-34.
- McArthur, Norma  
1968 The populations of the Pacific Islands, 8: Netherlands New Guinea, Canberra: ANU Press, pp. 560-617.
- Meyer, A.B.  
1875-78 'Ueber 135 Papua-Schädeln aus Neu-Guinea und der Insel Mysore (Geelvinksbai)', Mitteilungen aus dem Kgl. Zoologischen Museum zu Dresden 1(1875):59-84; 2/4(1877):136-204; 8/10(1878):383-411.
- Nijenhuis, L.E.  
1961 Bloodgroup frequencies in the Netherlands, Curaçao, Surinam and New Guinea, Amsterdam: Amstelstad, 135 pp., app., Diss. Amsterdam, [contains a useful bibliography].
- Oosterwal, G.  
1959 'The position of the bachelor in the upper Tor territory', AA 61:829-39.
- Pycraft, W.P.  
1916 'Report on human crania collected by the British Ornithologists' Union Expedition and the Wollaston Expedition in Dutch New Guinea', in: Reports on the collections made by the British Ornithologists' Union Expedition and the Wollaston Expedition, London: Edwards, Vol. 1, 42 pp.

- Rapport Bevolkingsonderzoek  
 1958 Rapport van het Bevolkingsonderzoek onder de Marid-anim van Nederlands Zuid-Nieuw-Guinea; South Pacific Commission Population Studies, Proj. S 18, [mimeographed].
- Sande, G.A.J. van der  
 1907 Ethnography and Anthropology, Nova Guinea III, 390 pp., plates.
- Sensus penduduk  
 1971 Sensus penduduk di propinsi Irian Barat 1971, Jayapura: Kantor Sensus dan Statistik Propinsi Irian.
- Simmons, R.T. et al.  
 1971 A compendium of Melanesian genetic data, Victoria (Australia): Commonwealth Serum Laboratories, [mimeographed].
- Simmons, R.T., D.C. Gajdusek and M.K. Nicholson  
 1967 'Blood group genetic variations in inhabitants of West New Guinea', American Journal of Physical Anthropology 27-3: 277-98.
- Sitanala, J.B.  
 1926 In den Nederlandschen Staat een Volk in Stervensnood! Berichten over de Kaja-Kaja's, 's-Gravenhage: "Adi-Poestaka", 39 pp.
- Voors, A.W. and D. Metselaar  
 1958 'The reliability of dental age as a yardstick to assess the unknown calendar age', TGM 10:175-80.
- Wirz, P.  
 1923-25 'Zur Anthropologie der Biaker, Nuforesen und der Bewohner des Hinterlandes der Doreh-Bai', Archiv für Anthropologie 48:185-215.
- 1924 'Anthropologische und ethnologische Ergebnisse der Zentral-Neu-Guinea Expedition 1921-1922', in: Nova Guinea XVI(1934), pp.1-148.
- 1926 'Untersuchungen an Schädeln und Skeletteilen aus dem Gebiet der Humbolt-Bai und dem südlichen Küstengebiet von Holländisch Neu-Guinea', in: Nova Guinea XVI(1934), pp. 149-250.
- Zwart, F.H.A.G.  
 1965 'Population research in Western New Guinea', in: Proceedings 4th. New Zealand Geography Conference 1964, pp. 175-80.

## V

LINGUISTICS<sup>1</sup>

## V.1. Introduction

The present chapter has been devised as a practical guide to serve the needs of both the non-linguist field researcher in Irian and the linguist who is new to this area. Consequently, information that is too outdated or unimportant, or which lies buried in journals which are very difficult to find, has not been taken into consideration. Nevertheless, if the list of relevant works presented here looks to be short, this is not the result of this selective approach. It is simply a reflection of the deplorable fact that, in spite of considerable progress in recent years, only the first steps have been taken towards the description and classification of the multitudinous languages spoken in this vast area.

## V.2. General

A preliminary linguistic map of the area is found in Galis (1955). Better maps - though certainly not complete or without errors - are those in Salzner (1960). The best so far are those in Wurm and Shirô Hattori (1981). For a general survey of the languages of Irian mention may be made of Capell (1969). Check-lists of languages in this area are found in Voorhoeve (1975b) and Barr and Barr (1978). The history of linguistic research in the area is dealt with by Anceaux (1953b), Laycock and Voorhoeve (1971) and Laycock (1972). General introductions are found in a variety of works, such as Anceaux (1953a, 1965b, 1971), Boelaars (1953), Wurm (1971, 1975a, 1975b, 1982) and Hay (1980). A useful manual for beginning field workers is Cohen (1976). A variety of problems is discussed in Cowan (1953a, 1954-55a, 1954-55b, 1959a) and Drabbe (1955-56a, 1955-56b). A set of specific problems is that of the classification of the Austronesian (Malayo-Polynesian) languages of the area, of the boundary to be demarcated between these and the non-Austronesian languages, and the classification of the non-Austronesian languages. A prolific author on these three subjects is Cowan. On the classification of the non-Austronesian languages see more specifically Voorhoeve. Of interest in this context are Cowan (1949-50, 1951-52, 1953b, 1957a, 1957b, 1957-58, 1959b), Voorhoeve (1968, 1969, 1971, 1975a), McElhanon and Voorhoeve (1970), Wurm, Voorhoeve and McElhanon (1975), and Heesch (1977). For other works on Irian comparative linguistics see also Larson (1972 and 1977), Kafior and Suharno (1977), and Stokhof et al. (forthcoming).

<sup>1</sup> By Dr. J.C. Anceaux, professor of Indonesian and Oceanic Linguistics at Leiden University.